#  <br> Individual Sports 

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Archery

History

Archery is one of the oldest arts of ancient times still being practiced today. From its first development until the 1500 s, the bow was man's constant companion and has been the most widely used of all we apons in recorded fistory. The bowallowed the prefistoric fuman to become the most efficient funter on earth, providing fim safety, food and raw materials such as bone, sine wand fide. From that time on, archery has played an important role in many of the world's civilizations.

According to the Encyclopedia Britannica, archery's importance as a cultural advance ranks with the art of making fire. The use of the bow appears in folklore from over 3000 years ago, although its invention probably predates that era.

The development of archery followed a course of key innovations by many historicalcultures. About 3500 $\mathcal{B} . C .$, Egyptians were using bows as tall as themselves. Their arrowheads, originally constructed of flint, were later made of bronze. Almost 2000 years later, the Assyrians developed the shorter recurve bow, which provided more power and easier handling. In about 1200 B.C., the Hittites developed the skill of shooting from moving chariots, and around $500 \mathcal{A} . \mathcal{D}$., the Romans, formerly second-rate archers, Gegan to draw the arrow to the face rather than the chest, giving the shot more accuracy.
$S$ tarting with the reign of William the Conqueror, the bow was England's principal we apon of national defense for severalcenturies. Around the year 1200, Genghis Khan and his Mongol hordes conquered much of the known world employing short, powerful bows. For Native Americans, archery was the means of subsistence and existence during the days of English and later American colonization. Finally, after the Gow's replacement by firearms as a weapon of war, archery became a favored sport, thus securing its continuous practice throughout history.

There are many legendary stories and heroes which find their roots in archery. The ancient Olympic games, tradition holds, we re founded by an archer named Hercules. The Games featured archery with tethered doves as the targets. Target archery is also seen in the ballads of Robin Hood and William Tell, which show the respect that the English had for great archers. Archery tournaments, as we know them today, can also be traced back to England. Competitions were held as part of community festivals as early as the 17 th century.

The $\mathcal{N a t i o n a l} \mathfrak{A r c f e r y} \mathcal{A s s o c i a t i o n}(\mathcal{N}(\mathcal{A A})$ of the United $S$ tates had its origin in the Civil War. Confederate soldiers were not allowed to own firearms. Because of this, two brothers.. g. Maurice and William $\mathcal{H}$. Thompson.- learned to do their funting with the bow and arrow and became accomplished archers. They were both founding members of the $\mathcal{N A A}$ in 1879 at Crawfordsville, Ind.

Archery became an officialevent in the modern Olympic Games in 1900 and was also featured in 1904, 1908 and 1920. International rules had not yet beendeveloped, though, and each fost country used its own rules and format. The resulting confusion caused the sport to be eliminated from the Olympic program until 1972.
 Gody for the sport of archery. The organization implemented standardized rules for competition which allowed the first World Championship to be held that same year.

In 1972 , after enough countries had adopted $\mathcal{F I T} \mathcal{A}$ 's rules, archery was readmitted to the Olympic Games. Since that time, technology has greatly advanced the equipment, and some competitive formats have become obsolete, but the sport of archery has essentially remained the same.

> General Information

The $\mathcal{N a t i o n a l} \mathcal{A r c h e r y} \mathcal{A s s o c i a t i o n}(\mathcal{N} \mathcal{A A})$ of the United $S$ tates was formed in 1879 to foster and promote the sport of archery through tournaments, programs and publications. Today, the $\mathcal{N A} \mathcal{A}$ and its allied organizations have over 30,000 members. The $\mathfrak{N A} \mathcal{A}$ is the only organization recognized by the United States Olympic Committee for the purpose of selecting and training men's and women's archery teams to represent the U.S. in the Olympic Games and Pan American Games. The $\mathcal{N} \mathcal{A A}$ also selects teams for the World Championships and other international meets. The $\mathcal{N} \mathcal{A A} ' s \mathcal{N}$ National Office is located in the National Sports Building at the Olympic $\mathcal{T}$ raining Center in Colorado $\mathcal{S}$ prings, Colorado.

## Rules

## The Basics

$\mathcal{A r c h e r y}$ is a sport in which the participant uses a bow to shoot arrows at a target which has 10 concentric circles. The score of each arrow depends upon where it lands on the target. The fighest score, a 10, is achieved by shooting an arrow into the center, or bullseye. Scores go down from nine for the next circle out to one for the outermost circle. Missing the target results in a score of zero. $\mathcal{A}$ smaller, inner ten-ring is used in compound events.

## Outdoor Competitions

Most major outdoor target archery competitions in the U.S. follow the same format of a Federation Internationale de $\mathcal{T}$ ir a ${ }^{\prime} \mathfrak{A r c}(\mathcal{F} I \mathcal{T} \mathcal{A})$ Round followed by an Olympic Round.

The $\mathcal{F I T A}$ Round consists of 36 arrows shot at each of four distances $90,70,50$ and 30 meters for men; 70, 60,50, 30 meters for women) for a total of 144 arrows. Scores are then totaled to determine seedings into the Olympic Round. Arrows are generally shot ingroups (called ends) of six within a specified time period.

The Olympic Round is a direct elimination, head-to-head style of competition, all at 70 meters. The winner of each match advances until a gold medalist is determined. All matches are 18 arrows, except the quarterfinals, semifinals and finals, which are 12 -arrow matches.
 to determine seeding into the Olympic Round. The targets used at outdoor events have 122 cm diameter faces.

## Indoor Competitions

Indoor tournaments are held for the Olympic (recurve) and Compound Divisions. Olympic Division events are generally held at either 25 meters or 18 meters.

In a 25-Meter Indoor Round, archers shoot 60 arrows at a 60 cm diameter target face. In the 18 Meter Indoor Round, archers shoot 60 arrows at a 40 cm diameter target face.

Championship events employ a Grand Indoor Round which starts off with a Combined Indoor Round (6oth 25-Meter and 18-Meter rounds) followed by a direct elimination competition for the top 16 archers. These direct elimination matches are 15 -arrowmatches shot at a special 20 cm diameter target face.

For the compound division, a Combined Indoor Round includes 60 arrows sfot from 25 meters at 40 cm diameter target face. A Double Compound Indoor Round includes two successive Combined Indoor Rounds.

The Grand Indoor Round is used in championships. It consists of a Double Compound Indoor Round from which the top 16 archers go into a direct elimination with 15 -arrow matches from 25 meters at a special 20 cm diameter target face.

Arckery $\operatorname{Disc}$ iplines

Target - The most commonly practiced form of archery, target tournaments are feld both indoors and outdoors. The archers shoot from a line which runs parallel to and is a designated distance from the target faces. Targets are comprised of multi-colored concentric circles which each have point values. $\mathcal{A}$ shot in the innermost circle scores the fighest point value (usually 10), while a shot in the outermost circle scores the lowest (usually one). No points are awarded for a shot that misses the target. Target divisions include the recurve (Olympic) bow, compound Gow and Garebow. Events at the Olympic Games are in the target discipline, using the recurve (Olympic) bow only.
$\mathcal{F i e l d}$ - A challenging discipline in which the archer takes on the terrain along with the target, field archery has widespread participation. A course is set up with 24 targets which are marked with the distance to the shooting line. The distances to another 24 targets remain unmarked. Three arrows are shot on each target for a total of 144. The targets are placed with such difficulty that the shots do not resemble target archery. Many of the shots are made uphill or downfill and require consideration for obstacles. Field events are held for the recurve (Olympic) bow, compound bow and barebow divisions.
$\mathcal{F l i g h t}$ - Shooting for distance is the objective of $\mathcal{F l i g h t}$ archery. Two types of arrows, regular flight and broadkead flight (suitable for funting), are used and can be combined with many types of bows. The four types of bows used are compound, recurve (Olympic), longbow and primitive.
Records are kept for each possible combination of bow and arrow. In a flight tournament, each archer shoots four ends of six arrows. Eachend may be in a different class. A different bow can be used for each class or the archer may shoot the same bow for all four classes.
Clout - $\mathcal{A}$ rarely practiced discipline, most archers take part in clout archery only for fun. Basically, it is a test of trajectory skill, the same talent used in the lighting of the flame at the 1992 Summer Olympic Opening Ceremonies. In clout archery, the target ( 15 meters in diameter) consists of five concentric circular scoring zones on the ground, which are outlined on the ground. The innermost circle is worth five points, and scores decrease to one point in the outermost circle. Each archer sfoots 36 arrows at the target, 165 meters away for men and 125 for women.
Crossbow - Crossbowevents are held in target (indoor and outdoor) and clout. Outdoor target events are shot at a 60-cm, 10-ring multi-colored target face. Indoor rounds are shot at a $40-\mathrm{cm}$, 10 -ring target face. In the clout round, sixends of six arrows are shot from 165 meters at a $48-f$ diameter target on the group.
Ski- Archery ( $\mathcal{A}$. K. A.S Ki- Arc) - Arelatively newdiscipline, Ski-Archery combines archery with cross country skiing. It is performed much like the Olympic Biathlon, which features rifle shooting instead of archery. Bows are carried in a special backpack by the archers while they are skiing. The course is 12

Kilometers long for the men and eight for the women. One end of four arrows is shot every four Kilometers, and, in one of those ends, the archer shoots from a kne eling position.
Targets are 16 centimeters indiameter and are positioned 18 meters from the shooter. Each shot is either a fit or a miss. For every target missed, the archer must ski a 350 meter penalty circuit before le aving the target site. The first athle te to complete the course is the winner.
$\mathfrak{A r c a t h}$ - $\mathcal{A}$ summer arcatflonevent is a combination of target archery shooting and running, a challenging experience. The athlete is required to run a course and stop at prescribed points to shoot at fixed targets. The typicalcourse is between 5 and 12 km . Athletes make three shooting stops, shooting four arrows at each. The typicalevent consists of a one-mile runfollowed by four arrows shot from a standing position, then another one-mile run followed by four arrows shot from the kneeling position, then another one-mile run followed by four arrows shot from the standing position.
$\mathcal{B o w s}$ are normally stored at the shooting range, but competitors have the option of carrying them. Targets are 16 centimeters in diameter and are positioned 18 meters from the shooter. 3- D Archery-Targets in $3-\mathcal{D}$ events are life-size replicas of a variety of wildlife. These events combine the skills of determining distance to the target, determining what part of the target to fit and the actual shot. The majority of these events are outdoor, but several indoor tournaments exist. Most archers who compete in these events use a compound bow. Archers competing in the typical 3-D tournament walk a course and shoot 40 arrows at 40 different targets. The tournament is usually held over either one or two days.

## Equipment

Common Bows (Recurve): The only type of bowallowed in Olympic competition. Its limbs curve away from the archer.
Compound: This bow has pulleys and cables to make the holding we ight less than half of the draw weight.
Barebow: This is a recurve bow without a mechanical sight or stabilizers.
Crossbow: A short bow mounted horizontally at the end of a stock that is similar to a rifle stock.

Archery's Costs

Recurve .- Beginners' Level
Equipment can be rented for approximately $\$ 3$.
Ulsed beginners' equipment (bow, arrows), can be bought for less than $\$ 100$. Beginners' equipment (new) can be bought for approx. $\$ 100$. Basically, archery is like golf when it comes to equipment - if you want to go out and buy top of-the-Cine equipment at the start, you can spend up to $\$ 1,500$.
Competitive Level
Equipment (bow, arrow, sights and other accessories) can range from $\$ 800$ to $\$ 1,500$.
Glossary

Armguard: Protects the bow arm from abrasion by the string when the arrow is released.
End: $\mathcal{A}$ group of arrows, usually three or six, which are shot before going to the target to score and retrieve them.
$\mathcal{F i n g e r} \mathcal{T} a b: \mathcal{A}$ flat piece of le ather that is worn to protect the string fingers when the arrow is released. $\mathcal{F l e}$ tching: Feathers attached to an arrow which help stabilize the arrowduring flight.
$\mathcal{F I T A}:$ (1) Federation Internationale de $\mathcal{T i r}$ a ('Arc, archery's International Governing $\mathcal{B o d y}$. (2) A round of 144 total arrows shot at a target from four different distances. The most common round in target archery competition.
Group: (n) The pattern of arrows on the target. (v) To shoot three arrows on the target.
Limb: Part of the bow from the riser (handle) to the tip.
$\mathcal{N}$ ock: (n) The attachment on the rear end of an arrow which holds it in place on the bowstring. (v) To place the arrow on the string.
Quiver: $\mathcal{A}$ case for folding arrows. Usually, a long le ather container worn on a belt at the waist.
Release Aid: Mecfianicaldevice used to release the arrow, used by most compound shooters.
Riser: The handle of the bow. The side facing the target is called the back. The side near the string (closest to the archer) is called the belly.
Sight: A mechanical device placed on the bow with which the archer can aim directly at the target.
Stabilzer: $\mathcal{A}$ weight mounted on a bow, usually extending some distance from the fiandle, used to minimize undesirable torques of the bowstring upon release.
Robin Hood: An accomplishment named after the legendary character and the feat he performed in the famous archery contest. It occurs when an archer drives the tip of the shaft of one arrow deep into the end of another arrowalready in the target. Archers display the ir Robin Hoods as golfers display the ir hole. in-one balls. The arrows stuckend-to-end can be found fung with pride above mantles, next to funting trophies or in offices alongside letters and diplomas.

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$\mathcal{F}$ or more information contact: $\mathcal{N}$ (ational $\mathcal{A r c h e r y ~} \mathcal{A s s o c i a t i o n , ~ O n e ~ O f y m p i c ~ P l a z a , ~ C o l o r a d o ~ S p r i n g s , ~ C O ~}$ 80909; Phone 719-578-4576; Fax 719-632-4733; Internet www.USArchery.org; e-mail naa_ofc@ix.netcom.com

Badminton

## History

The sport of badminton evolved from the ancient game of battledore and shuttlecock, a game played by adults and children for at le ast 2000 years in ancient Greece, China, I apan and India. Peasants played it in Medieval England by the late 16 th century, where it fad become a popular children's game. By the 17 th century, Gattledore had become a pastime of the leisured classes in many European countries. The game simply involved two players using bats to fit a shuttlecock back and forth as many times as they could without letting it hit the ground. This European influence may be one explanation to fow battledore shuttlecockfound its way to colonial $\mathfrak{A m e r i c a}$.

Two colonial pieces of art give further evidence of the existence of battledore shuttlecockinearly $\mathfrak{A m e r i c a . O n e}$ is a painting by William Williams entitled Portrait of Master Stephen Crossfield. Comple ted in the early 18 th century, it shows a man folding a racquet and shuttlecock. The other piece is a late 18 th century fabric hanging in Williamsburg, Va., showing childfood diversions. Two young boys are de picted fitting a shuttlecock 6ack and forth.

When and where the game of battledore shuttlecockchanged to require court boundaries as it evolved into the sport of Gadminton is not known. We do know the sport takes its name from the $\mathcal{D} u k e$ of $\mathcal{B e}$ aufort's estate at Badminton in Gloucestershire, England where a new version of battledore had emerged by the end of the 1850 s. It is also Known a form of the game was being played by the British in India in the 1860 s and 1870 s, and that the first rules were compiled there.

The game of Gadminton appeared in the U.S. as a slow-paced New Yorksociety game in the 1870 s. A fast shuttle was used, which required little effort on the part of the players fitting it fromend to end. An hour-glass shaped court made less area for the players to cover, and a higher net made it ne ar impossible to smash. The formal suits and dresses worn by players also made it very difficult to run effectively.

The first badminton club in the United States, the Badminton Club of the City of New York, in 1878 . The club served basically as a socialgathering place for the elite with little emphasis on badminton. The games at the club in the early days were very similar to a carnival in nature, featuring multi-colored shuttlecocks, and colored pennants and badminton poles. While resting betweengames, players snacked tea, sandwiches and cakes.

As the 1900 s approached, the game of Gadminton became far more athletic in nature. Following a scandal where a man took off his tuxedo coat while playing, the men of the club decided tennis clothing would be more appropriate. The rules of the English $\mathcal{B a d m i n t o n} \mathcal{A s s o c i a t i o n ~ w e r e ~ a d o p t e d ~ i n ~ 1 9 0 5 , ~ a n d ~ p l a y e r s ~ s o o n ~}$ found themselves on a rectangular-shaped court, 44' $\chi 20^{\prime}$ for doubles, $44^{\prime} \chi 17$ 'for singles.

In 1908 , the Badminton $\mathcal{H e}$ alth Club in Boston was formed, and by 1925 included more than 300 members.

In the 1930 s the game's popularity grew throughout New England, New York, the Midwest and West Coast. Some of the more notable Hollywood personalities who played the sport included Sonja Henie, I ames Cagney, Pat O'Brien, Harold Lloyd, Bette Davis, Boris Karloff and Ginger Rodgers.

On Iuly 24, 1942, CBS broadcast 6adminton on national television, as the top 14 male and female players on the East Coast competed for the CBS Silver Bowl. Badminton also went to the silver screen in the Metro-Goldwy-Mayer movie Badminton (which was named "MGGM Movie Short of the Year" for 1945).

In the 1950 s , the game in the $\mathcal{H}$ nited $S$ tates reached such heights that athlete $g$ oe $\mathcal{A l s t o n}$ was featured on the cover of Sports Ilfustrated, the first and only time a badminton athlete has accomplished such a feat.

There were more changes to the sport in the 1960 s. The wood shot was once again deemed legal by the $I \mathcal{B F}$.

The 1970 s saw a decline in the number of clubs in the United $S$ tates, but an expansion in figh school and collegiate play, as well as the introduction of lighter metal rackets.

In 1987, the USOC officially recognized USBA $\mathcal{B A}$ the National Governing $\mathcal{B o d y}$ for the sport of badminton. In 1989, Gadminton made its USOCevent debut at the U.S. Olympic Festival in OKlahoma City, OKla.

At the 1992 Olympic Games in Barcelona, Gadminton made its first appearance as an Olympic event, with U.S. athletes advancing as far as the second round of the tournament. The sport first appeared on the Pan $\mathcal{A m e r i c a n ~ G a m e s ~ p r o g r a m ~ i n ~} 1995$ in Argentina.

## General Information

The United States $\mathcal{B a d m i n t o n}$ Association (US $\mathcal{B A}$ ), the recognized $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}$ for the sport of Gadminton in the United States, oversees all U.S. Badminton competition and prepares the best players in $\mathcal{A m e r i c a}$ for the Olympic Games.
$\mathcal{N e}$ arly 2,700 members belong to USBA. The USBA $\mathcal{B A}$ estimates there are thousands more recreational Gadminton players in the United $S$ tates.

The USS $\mathcal{B A}$ in 1991 moved its $\mathfrak{N a}$ ational Office from Papillion, Neb., to the $\mathcal{U l} . \mathcal{S}$. Olympic $\mathcal{T}$ raining Center in Colorado Springs, Colo. The USSA's mission is to serve as the National Governing $\mathcal{B o d}$ y of the sport, to increase participation in the sport, to provide the fighest possible quality of service to its members and to ackieve outstanding performance in international competition.

In accordance with this mission, the $\mathcal{U S} \mathcal{B A}$ sends players to the World Championships, $\mathcal{S}$ udirman Cup (world mixed team championship), Thomas Cup and Uber Cup (world men's and women's team championships, respective (y), World Iunior Championsfips and Pan American Games. Major U.S. competitions conducted by the USS BA include the annual U.S. National Championships, U.S.I Inior National Championships and U.S. Senior $\mathfrak{N}$ (ational Championships.
$\mathcal{A}$ a service to its members, the USBA publishes the quarterly $\mathcal{B a d m i n t o n} \mathcal{N}$ (ews magazine and a monthly ne wsletter. The USS BA also maintains a player ratings system and holds regular training camps and coaching clinics.

## Rules

Players - The game shall be played, in the case of doubles, by two players a side, or in the case of singles, by one player a side.

Scoring. The opposing sides shall play the best of three games unless otherwise arranged. It is permissible to play one game of 21 points by prior arrangement. Only the serving side can add points to its score. In doubles and men's singles a game is won by the first side to score 15 points ( 21 points in a match consisting of a single game to 21 points). In women's singles agame is won by the first side to score 11 points.

Change Of Ends - Players shall change ends:

At the end of the first game,
Prior to the beginning of the third game (if any) and
In the third game, or in a one game match, when the le ading score reaches 6 in agame of 11 points, $\mathcal{B}$ in a game of 15 points, or 11 in a game of 21 points.
$\mathcal{F a u l t s}$

It is a "fault":
If a service is not correct
If the server, in attempting to serve, misses the shuttle
If after passing over the net on service, the shuttle is caught in or on the net
If in play, the shuttle:
Lands outside the boundaries of the court
Passes through or under the net
Fails to pass the net
Touckes the roof, ceiling, or side walls
Touches the person or dress of a player
Touckes any other object or person outside the immediate surroundings of the court

## Shuttle $\mathcal{N}$ ot In Play

$\mathcal{A}$ shuttle is not in play when:
It strikes the net and remains attached there or suspended on top
It strikes the net or post and starts to fall towards the surface of the court on the striker's side of the net
It hits the surface of the court

## Equipment

Court - The court shall be a rectangle and laid out 44' $\times 20^{\prime}$, defined by lines 1.5 inches ( 40 mm ) wide. The lines shall be easily distinguishable and preferably be colored white or yellow.

Posts. The posts shall be $5^{\prime} 1^{\prime \prime}(1.55 \mathrm{~m})$ in height from the surface of the court. On a court marked for doubles, the posts or strips of material representing the posts shall be placed on the side lines for doubles, regardless of whether singles or doubles is being played.

Net - The net shall be made of fine cord of dark color and eventhickness with a mesh not less than 15 mm and not more than 20 mm . The net shall be $2^{\prime} 6^{\prime \prime}(760 \mathrm{~mm})$ in depth. The top of the net shall Ge edged with a 3" $(75 \mathrm{~mm})$ white tape doubled over a cord or cable running through the tape. This tape must rest upon the cord or cable. The top of the net from the surface of the court shall be 5' ( 1.524 m ) at the center of the court and 5' $\mathbf{1 ' \prime}^{\prime \prime}(1.55 \mathrm{~m})$ over the side lines for doubles. There shall be no gaps between the ends of the net and the posts. If necessary, the full depth of the net should be tied at the ends.

Shuttle

Principles.. The shuttle may be made from natural and/or synthetic materials. Whatever material the shuttle is made from, the flight characteristics, generally, should be similar to those produced by a natural feathered shuttle with a cork base covered by a thinlayer of leather.
$\mathcal{H a v i n g}$ regard to the Principles:

The shuttle shall have 16 feathers fixed in the base.
The feathers can have a variable length from $21 / 2^{\prime \prime}(64 \mathrm{~mm})$ to $23 / 4^{\prime \prime}(70 \mathrm{~mm})$, but in each shuttle they shall all be the same length when measured from the tip to the top of the base.
The tips of the feathers shall form a circle with a diameter from 21/4" (58 mm) to 2 5/8" (68 mm).
The feathers shall be fastened firmly with thread or other suitable material.
The base shall be:
$1^{\prime \prime}(25 \mathrm{~mm})$ to $11 / \mathrm{s}^{\prime \prime}(28 \mathrm{~mm})$ in diameter
Round on the bottom.
The shuttle shall weigh from 4.74 to 5.50 grams.
Racket - The fitting surface of the racket shall be flat and consist of a pattern of crossed strings connected to a frame and either alternately interlaced or bonded where they cross. The stringing pattern shall be generally uniform and, in particular, not less dense in the center than in any other area. The frame of the racket, including the fiandle, shall not exceed 2'- $23 / 4^{\prime \prime}(680 \mathrm{~mm})$ in overall length and 9" (230 mm) in overall width. The overall length of the head shall not exceed $113 / 8^{\prime \prime}(290 \mathrm{~mm})$. The strung surface shall not exceed $11^{\prime \prime}(280 \mathrm{~mm})$ in overall length and $85 / 8^{\prime \prime}(220 \mathrm{~mm})$ in overall width.

Approved Equipment - The International Badminton Federation shall rule on any question of whether any racket, shuttle or equipment or any prototype used in the playing of badminton complies with the specifications or is otherwise approved or not approved for play. Such ruling may be undertaken on the federation's initiative or upon application by any party with a bona fide interest therein including any player, equipment manufacturer or National Organization or member there of.
Glossary

Alley: Extension of the court by 11/2 feet on both sides for doubles play.
Backcourt: Back third of the court, in the area of the back boundary lines.
Carry: An illegal tactic, also called a sling or throw, in which the shuttle is caught and held on the racquet and then slung during the execution of a stroke.
Center or Base Position: Location in the center of the court to which a singles player tries to return after each sfot.
Clear: $\mathcal{A}$ shot hit deep to the opponent's back Goundaryline. The "high clear" is a defensive shot, while the flatter "attacking clear" is used offensively.
Drive: $\mathcal{A}$ fast and low shot that makes a horizontal flight over the net.
Drop: $\mathcal{A}$ shot hit softly and with finesse to fall rapidly and close to the net on the opponent's side.
$\mathcal{F a u l t}: \mathcal{A}$ violation of the playing rules; either in serving, receiving, or during play.
$\mathcal{F l i c k}$ : A quick wrist and forearm rotation that surprises an opponent by changing an apparently soft shot into a faster passing one; used primarily on the serve and at the net.
Forecourt: Front third of the court, between the net and the short service line.
$\mathcal{H a}$ irpin $\mathcal{N e}$ Shot: Shot made from below and very close to the net with the shuttle rising, just clearing the net, and thendropping sharply down the other side. The shuttle's flight approximates the shape of a Kairpin.
Zill: Fast, downward shot that cannot be returned; a "putaway."
Let: $\mathcal{A}$ legitimate cessation of play to allow a rally to be replayed.
Midcourt: The middle third of the court, halfway betwe en the net and the back boundary line.
Push Shot: Gentle shot played by pushing the shuttle with little wrist motion, usually from net or midcourt to the opponent's midcourt.
Rally: Exchange of shots while shuttle is in play.

Smash: Hard-hit overfand shot that forces the shuttle sharply downward. Badminton's primary attacking stroke.
Wood Shot: Shot that results when the base of the shuttle is hit by the frame of the racquet. Once illegal, the shot was legalized in 1963.

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For more information contact: USA $\mathcal{A}$ Badminton, One Olympic Plaza, Colorado Springs, CO 80909 ; Telephone 719-578-4808; Fax 719-578-4507; Internet www.usabadminton.org; e-mail info@usabadmointon.org

Base ball

History

From its fumble beginnings at the 1912 Olympics in $S$ weden, base ball and the Olympics fave endured a long and storied courtship. This lengthy association was consummated at the 1992 Olympics in Barcelona, when base ball made its de but as an official Olympic sport.

The Early Years (1912-1964): The 1992 Games in Barcelonamarked the end of an $8 \mathcal{B}$-year journey for Olympic baseball. While the first official exfibition base ballgame in the Olympic Games was a 1912 contest in Stockfolm, S weden, there have been reports that an unrecognized baseball game was played at the Olympics as early as the 1904 Games in $S$ t. Louis, Mo. A number of single game exfibitions were also played at the 1936, 1952, 1956 and 1964 OCympic Games.

1912 Stockfolm: Baseball was firstintroduced as part of the 1912 Olympic Games in Stockfolm, Sweden. The USS A was scheduled to play an amateur baseballclub formed in S wedencalled the Vesteras. After seeing the Americans warm-up, the Vesteras were convinced they could not compete with the $\mathcal{A m e r i c a n s}$ and asked the Americans to loan them a pitcher and catcher, which they did. Even so, the Ul.S. downed the Vesteras 13-3 and Olympic base ball was born.

1936 Berlin: After a 24-year fiatus, base ball reappeared as part of the 1936 Olympic Games in Berlin. Although other countries had planned to send teams for the tournament, none of them did. So, the $\mathcal{L} \mathcal{A} \mathcal{A}$ squad split into two teams and played a night game before a world-record crowd reported to be over 125,000. The World Amateurs defeated the USA O Cympics 6-5.

1940 Tokyo (Cancelled): With the success of the New York Yankees and Babe Ruth in the late $1930 s$, base ball's popularity had grown worldwide. So popular was the sport that it was scheduled to be an official Olympic sport at the 1940 Games in I apan. However, the outbreak of World War II led to a cancellation of the Games and the enthusiasm to add base ball waned.
$1952 \mathcal{H e}$ sinki: Base ball reappeared in the Olympics in 1952 in $\mathcal{H e}$ lsinki, Finland. This game matched Finland's champion team against a group of Americans from the Olympic Village, coached by the manager of the U.S. soccer team. Using borrowed equipment, the U.S. played and won a practice game against a team from Venezuela 14-6. Playing before only 4,000 fans, the Americans scored sevenfirst-inning runs and cruised to a 19-1 rout of the Finns.

1956 Melbourne: At the 1956 Olympics in Melbourne, Australia, a base ballgame was played matcfing a team of Americans primarily consisting of military personnelfrom the $\mathcal{U} . S$. Far East Command against a squad from Australia. The game began with only a few thousand fans; fowever, thanks to early arriving track and field fans, the crowd reached almost 100,000 and saw the U.S. post an 11-5 win.

1964 Tokyo: Legendary USS Coach Rod Dedeaux assembled a team to participate in the 1964 Olympic Games in Tokyo, gapan. This would be the last time Olympic base ball competition would be a one -game event. The 1964 U.S. team was the best organized at that point. Having toured gapan competing against a $\mathcal{F a r}$ East all-star team in preparation for the Olympics, the U.S. was in top form when it reached Tokyo and posted a 6-2 victory.
$1984 \operatorname{Los}$ Angeles: Head Coach Rod Dedeaux returned to the Olympics 20 years later in fis fome town of Los Angeles, Calif., for the 1984 Games. This event marked the first tournament format in Olympic baseball history, as more than 385,000 people watched the eight-team tournament.

With current major league stars like Will Clark, Barry Larkin and Mark $\mathcal{M c}$ Gwire on the roster, the US $\mathcal{A}$ team was considered to be the greatest amateur teamever put on the diamond by the United States. This talent-laden squad breezed through the round-robin portion of the schedule, ending the preliminary round with a 3-0 record.

In the semifinals, the USA easily downed Korea by a margin of 5-2, as Don $\mathcal{A u g u s t}$ pitched 4-1/3 scoreless innings and Oddibe $\mathcal{M c}$ Dowell added a two-run fomer, fis third of the tournament.

The unbeaten USA team looked to be the sure favorite for the gold, having won a pre-Olympic series of games against the gapanese 6-1. But in the Gold Medal Game, the gapane se pitchers combined to allow only three runs on seven fits. Katsumi Hirosawa fit a three-run homer in the top of the 8 th, putting gapan up 6 1. I apan went on to stun the heavily favored $\mathcal{A m e r i c a n s}$ by a score of $6-3$ and capture the gold medal.

1988 Seoul: The 1988 Olympics in Seoul, Korea, marked the seventh time that baseball was part of the Olympic Games. It was also to be the final time baseball would have demonstration sport status.

With 10 players returning from the 1987 Pan $\mathcal{A}$ merican Games team, this $\mathcal{U S} \mathcal{A}$ team headed to Seoul on a mission.-get the gold that eluded the 1984 team. In its first game, the U.S.team faced astern test, but downed host Korea 5-3. The team then went on to rout Australia by a 12-2 margin and clinched the top spot in its division. Although the team finished the preliminary round play by dropping an 8-7 verdict to Canada, it headed into a semifinal match-up with $\mathcal{P}$ uerto Rico focused on its goal.

With right-fander $\mathcal{B e n} \mathcal{M c} \mathcal{D o n a l d}$ furling fis second complete game, the $\mathcal{U S} \mathcal{A}$ easily downed Puerto Rico $7-2$, setting up a rematch of the 1984 finalgame against Iapan. This time, however, the outcome was different. $\mathcal{F}$ irst Gaseman $\mathcal{T}$ ino Martine $z$ belted two homers and drove in four runs and shortstop $\mathcal{D}$ ave $\operatorname{Silve} \operatorname{stri}$ added an $\mathcal{R B}$ I single to support the complete-game pitching of $\operatorname{Iim} \mathcal{A b b o t t}$, to le ad the $\mathcal{U S} \mathcal{A}$ to a 5-3 gold-medal victory.

1992 Barcelona: Many years of dedicated effort came to fruition on October 13, 1986, as the International Olympic Committee granted base ball official sport status, beginning with the 1992 Games in Barcelona.

To open the '92 Games, the Ul.S. team fared well in the round-robin portion of the tournament. Victories over Spain (4-1), Chinese Taipei (10-9), Italy (10-0), Puerto Rico (8-2) and the Dominican Republic (10-0) earned the team a berth in the medal round. However, opening round losses to Cuba (9-6) and I apan (7-1) were grim premonitions of what was to come.

USA A faced Cuba in the semifinalgame of the medal round, but the bigger, more experienced Cubans were too much for the young $\mathcal{A m e r i c a n s , ~ a s ~ t h e y ~ d o w n e d ~ t h e ~ U l . S . 4 - 1 . ~ P o w e r f u l c u b a n ~ c e n t e r f i e l d e r ~ V i c t o r ~ M e s a ~}$ propelled the Cubans by driving in all four runs, while the U.S. te am could only manage one.

The $\mathcal{A m e r i c a n s ~ s t i l l ~ h a d ~ a ~ c h a n c e ~ f o r ~ t h e ~ b r o n z e ~ m e d a l ~ v e r s u s ~ g a p a n , ~ w h o ~ h a d ~ l o s t ~ i n ~ t h e ~ s e m i f i n a l s ~ t o ~}$ Chinese Taipei 5-2. Without a day's rest, the USA $\mathcal{A}$ team gave up an early four-run lead to the gapanese team, who managed 14 hits on five UlS. pitchers. The USS A pulled to within $4-3$ in the fifth inning, but the bullpen went on to give up four runs in the sixth. I apan secured the bronze medal with a $8-3$ defeat of the $\mathcal{A}$ mericans. In the gold medalgame, Cuba routed Chinese Taipei 11-1, as pitcher George Diaz allowed only four hits en route to the complete game win. Diaz was helped out by three home runs, as the Cuban offense scored in seven of nine innings. The ove rpowering Cubans did not lose a single game in the Olympic tournament.

1996 Atlanta: The Americans pounded 32 homers and averaged more than 10 runs per game at the 1996 $\mathcal{A t l a n t a}$ Centennial Olympic Games. However, with what He ad Coach Skip Bertmancalled the best offensive team ever assembled by US A Baseball, America's vision of a gold medal was extinguished by gapan in the semifinal game on $\mathcal{A u g u s t} 1$.

The much-heralded and highly anticipated match-up between the USA And Cuba for the gold medal never occurred. Cuba held up its end of the deal by defeating $\mathcal{N}$ icaragua $\mathcal{B}$-1 in the semifinals, but the UlS $\mathcal{A}$ 's task was stymied by gapan. The gapanese played long-ball with the $\mathcal{A m e r i c a n s}$ by smashing five homers off the U.S. mound corps and shut down the USA offensive attack by limiting the $\mathcal{A} m e r i c a n s$ to just six fits, and posted an 11-2 victory.

In the gold medalgame, Cuba defeated Iapan 13-9 to retain its Olympic Champion title and reaffirm its status as ruler of the international base ball world.
$\mathcal{A l t h o u g h t h e ~ U S A ~ d i d n ' t ~ a c h i e v e ~ t h e ~ u l t i m a t e ~ g o a l ~ o f ~ a ~ f i r s t - p l a c e ~ f i n i s h , ~ t h e ~} \mathcal{A}$ mericans brought back the first official medal in US $\mathcal{A} \mathcal{B a s e}$ ball history by defeating Nicaragua 10-3 in the Bronze Medal Game.

> General Information

US $\mathcal{A} \mathcal{B a s e}$ ball is the $\mathfrak{N a t i o n a l}$ Governing $\mathcal{B o d y}$ for the sport and represents amate ur base 6 all in $\mathcal{A m e r i c} a$ as a member of the United States Olympic Committee (USOC) and the International Baseball $\mathcal{A s s o c i a t i o n ~ ( I B A ) . ~}$ Virtually every major national amateur baseball organization in $\mathcal{A}$ merica is a US $\mathcal{A} \mathcal{B a s e}$ ball $\mathcal{N}$ (ational Member. These constituencies account for USA Baseball's governance of more than 19 million amateur athle tes in this country.

US $\mathcal{A} \mathcal{B a s e}$ ball is the sole organization responsible for selecting, training and supporting the US $\mathcal{A}$ Base ball
 Team (16-under). These teams participate in international competitions such as the Olympic Games and World Championsfips. By recognizing our nation's top players at an early age, the US $\mathcal{A} \mathcal{B a s e}$ ball player development/identification system has produced positive results in internationalcompetition over the past severalyears.

US $\mathcal{A}$ Baseball is also responsible for promoting and developing the game of base ball both nationally and internationally. In fulfillment of this mission, USS $\mathcal{A} \mathcal{B a s e}$ ball strives to coordinate, not duplicate, the programs and endeavors of its various membersfip groups and to provide services unique and necessary to all base ball fans and players. In addition, via its sanctioning program, US $\mathcal{A} \mathcal{B a s e}$ ball protects the rights and status of amateur baseball players and provides the opportunity for athle tes to pursue excellence in international competition.
 by the USA Baseball Team's General Manager and its coaching staff, in conjunction with professional Gaseball scouting directors, cross-checkers and collegiate recruiters. National Team members fail from numerous colleges across the country, and US $\mathcal{A} \mathcal{B a}$ eball strives to develop team cohesiveness and consistency $6 y$ giving its players the opportunity to play together as often as possible. Due to the fact that most of the USA's international competitors are older and more experienced internationally, playing together and developing team unity is imperative to the US $\mathcal{A} \mathcal{B a s e}$ ball $\mathfrak{N a t i o n a l} \mathcal{T}^{(1)}$ am's success.
$\mathcal{U S} \mathcal{A} \mathcal{B a s e}$ ball uses its $\mathcal{N a t i o n a l} \mathcal{T e}$ am $\mathcal{T}$ rials, conducted each autumn/winter, as the initial step in the player evaluation process. The other evaluation phase is the US $\mathcal{A} \mathcal{B a s e}$ Gall $\mathcal{N}$ (ational $\mathcal{T}$ eam $\mathcal{T}$ raining Camp which immediately precedes the summer season of international competition.

Most of the players at this summer's training camp were identified ne ar the end of 1996 and participated
 Spring $\mathcal{T}$ raining $\mathcal{H}$ ome of the $\mathcal{N e w}$ York Yankees, in Tampa, Fla. Sixty-five of the top college players in the nation were invited to participate in an intensive four-day training program, wfich included testing, practice and game competition. The 1997 US $\mathcal{A} \mathcal{B a s e}$ ball $\mathcal{N}$ (ational $\mathcal{T e}$ am will be composed predominantly of the core group of players that were identified in Tampa.
$\mathcal{H}$ ad Coach $\mathcal{B o b}$ Milano (Univ. of California) will lead the 1997 US $\mathcal{A} \mathcal{B a s e b a l l} \mathcal{N}$ (ational $\mathcal{T}$ eam in pursuit of the gold medal at the International Baseball Association's XIII Intercontinental Cup in Barcelona, Spain, in e arly August. Milano will be assisted by Mike Gillespie (Univ. of Southern California), Larry Hays (Texas Tech Univ.) and Pat Mc Mafion (Mississippi State Univ.).

USA $\mathcal{A}$ Base ball I unior National Team: Composed of the nation's top players aged 18 years and younger, the USA $\mathcal{A}$ Baseball $\mathcal{I}$ unior National $\mathcal{T e}$ am is a perennial power on the international base ball scene at the World gunior Championships. In 1996, the USS $\mathcal{A} \mathcal{B a s e}$ ball Iunior National $\mathcal{T}$ eam captured the bronze medal in SanctiSpiritus, Cuba; the previous summer, the $\mathcal{I}$ uniors captured the gold medal at fistoric Fenway Park in Boston. In the tournament's 16 years, the $\mathcal{Z n}$ ited $S$ tates is the only nation to have captured a medal at each and every competition. The Ul.S. winnings include four gold medals, eight silver medals and four bronze medals (see listing below).

The 1997 US $\mathcal{A} \mathcal{B a s e}$ ball $\mathcal{I}$ unior $\mathcal{N a t i o n a l} \mathcal{T}$ eam will be led by $\mathcal{H}$ ad Coach $\mathcal{B i l l}$ O tson (Omafia, Neb.) who will guide the U.S.squad in its attempt to regain World Champion status at the World gunior Championships in $\mathfrak{M o n c t o n}, \mathcal{N e}$ Brunswick, Canada, from $\mathcal{A} u g u s t$ 8-16. (The United States qualified for this tournament by capturing the bronze medal at the Pan $\mathcal{A m e r i c} a n$ Championships conducted in Londrina, $\mathcal{B r a z i l}$, earlier this year.) O lson will be assisted by Ted Blake (Glendale, Ariz.) and Phil Clark (Germantown, Tenn.).

Prior to the World I unior Championsfips, the USA Baseball staff will invite 54 players to attend the $I$ unior $\mathcal{N}$ (ational $\mathcal{T}$ am $\mathcal{T}$ rials to be conducted in mid.guly at Missouri Southern State College in goplin, Missouri. The decisions on invitations are made in consultation with US $\mathcal{A} \mathcal{B a s e}$ ball Staff, college recruiters and coaches, professional scouts and high schoolcoaches. At the trials, players will be divided into three teams of 18 . The 10 -day training period will include testing, practice, and game competition. At the conclusion of the training camp, the coaching staff will select 18 players to comprise the $\mathcal{U S} \mathcal{A} \mathcal{B}$ ase 6 all $\mathcal{I}$ unior National Team. The team will then train for one week before traveling to the IBA $\mathcal{W}$ orld g unior $\mathcal{B}$ ase ball Championships.
 Special Project Manager, at (609) 586-2381, ext. 13.

USA Base ball Youth $\mathcal{N a t i o n a l} \mathcal{T e}$ am/USA $\mathcal{A}$ unior Olympic Base $\mathfrak{b l l}$ Championsfips: For the first time in the organization's fistory, USA Baseball will select and train an official national team in the 16-under age category for international competition this summer. The 1997 US $\mathcal{A} \mathcal{B a s e b a l l}$ Youth $\mathcal{N}$ (ational Team will
 Scheduled for Iuly 12-20, the tournament will feature 12 of the world's best teams, including Cuba, I apan, Korea, Chinese Taipei and the United States. Regional qualifier tournaments determine tournament participants.
"Over the years, US A Base ball has achieved tremendous success at both the senior-elite and junior levels," said $\mathcal{D a n} O^{\prime} \mathcal{B r i e n}, \mathcal{U S} \mathcal{A} \operatorname{Base}$ ball Executive Director/CEO. "We are confident that the newly designated
 at this age level internationally, US $\mathcal{A} \mathcal{B a s e}$ ball is making a strong commitment to sustained competitive
excellence. Via the youth program, USA $\mathcal{A}$ Base 6 all is now able to provide increased continuity to the Olympic identification and development program."
 be assisted by Mark Mc Kenzie (Minnetonka, Minn.) and Michaelspiers (Riverside, Calif.).

The USA $\mathcal{A}$ unior Olympic Base ball Championstips is a grassroots Olympic Development Program launched in 1996 by USA Baseball in cooperation with the UlS. Olympic Committee. The tournament serves as an open competition for teams of players aged 16 years and younger. After a successfulinaugural tournament in the summer of 1996, as many as 64 teams are expected to participate in this summer's contests.

For more information regarding the USA $\mathcal{A}$ unior Olympic Base ball Championsfips or the $\mathcal{C L S} \mathcal{A}$ Base ball Youth $\mathcal{N a t i o n a l} \mathcal{T e}$ am, please contact Wanda Rutledge, $\mathcal{U} \mathcal{A} \mathcal{A}$ Base ball $\mathcal{D e p u t y} \mathcal{D i r e c t o r , ~ a t ~ ( 6 0 9 ) ~ 5 8 6 - 2 3 8 1 , ~ e x t . ~} 17$.

## Rules

International Baseball .. Rule Differences

Are there any international rules that apply to O Cympic competition that $\mathcal{A}$ mericans may not be accustomed to seeing?

In international competition, players are allowed to use aluminum bats and the designated fitter rule is in effect, similar to U.S. collegiate Gase ball.
$\mathcal{A}$ run-difference rule is also used. If a team is losing by 10 or more runs after having batted in at le ast seven innings, the game is ended at that point.
$\mathcal{H e l m e t s}$ with double ear-flaps are mandatory for the fitter and base runners.

Speed-up rules are also used to limit the length of games. For example, pitchers must deliver each pitch within 20 seconds after the previous pitch or completion of the previous play, and fitters must remain in the Gatter's box unless a request for time out is made.

Equipment
$\mathcal{B a l l}: \mathcal{M e}$ asures about 9 inches (23cm) in circumference. Has a corkcenter wrapped in layers of rubber and string. Covered by pieces of leather which have been stitched together.
$\mathcal{B a t}$ : In international competition, players are allowed to use aluminum bats and the designated fitter rule is in effect, similar to U.S. collegiate Gaseball. Bat may be no more than 2.75 inches ( 6.9 cm ) in diameter and 42 inches ( 107 cm ) in length.

Glossary

Appeal: the act of a fielder in claiming violation of the rules by the offensive team.
Balk: an illegal act by the pitcher with a runner or runners on base, entitling all runners to advance one Gase.
Dead Ball: a ball out of play because of a legally created temporary suspension of play.
Forfeited Game: a game declared ended by the umpire in chief in favor of the offended team by the score of 9 to 0 , for violation of the rules.

I Clegal Pitch: (1) a pitch delivered to the batter when the pitcher does not have fis pivot foot in contact with the pitcher's plate; (2) a quickreturn pitch. An illegalpitch when runners are on base is abalk.

## Interference:

(a) offensive interference is an act by the team at bat which interferes with, obstructs, impedes, finders or confuses any fielder attempting to make a play. If the umpire declares the batter, batter runner, or a runner out for interference, all other runners shall return to the last base that was, in the judgment of the umpire, legally touched at the time of the interference, unless otherwise provided by these rules. In the event the batter runner has not reached first base, all runners shall return to the base last occupied at the time of the pitch.
(6) defensive interference is an act by a fielder which finders or prevents abatter from fitting a pitch.
(c) umpire's interference occurs (1) When an umpire finders, impedes or prevents a catcher's throw attempting to prevent a stolen base, or (2) When a fair ball touches an umpire on fair territory before passing a fielder.
(d) spectator interference occurs when a spectator reackes out of the stands, or goes on the playing field, and touches a live ball. On any interference the ball is dead.
Obstruction: the act of a fielder who, while not in possession of the ball and not in the act of fielding the ball, impedes the progress of any runner. If a fielder is about to receive a thrown ball and if the ball is in flight directly toward and near enough to the fielder so he must occupy fis position to receive the ball he may be considered "in the act of fielding a ball." It is entirely up to the judgment of the umpire as to whether a fielder is in the act of fielding a Gall. After a fielder has made an attempt to field a ball and missed, he can no longer be in the "act of fielding" the ball. For example: an infielder dives at aground ball and the ball passes fim and he continues to lie on the ground and delays the progress of the runner, he very likely has obstructed the runner.
Squeeze Play: term to designate a play when a team, with a runner on third base, attempts to score that runner by means of a bunt.
Strike Zone: that are a over home plate the upper limit of which is a forizontal line at the midpoint between the top of the shoulders and the top of the uniform pants, and the lower level is a line at the hallow beneath the knee cap. The Strike Zone shall be determine d from the Gatter's stance as the batter is prepared to swing at a pitched ball.
Triple Play: a play by the defense in which three offensive players are put out as a result of continuous action, providing there is no error between putouts.

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For more information contact: USA $\mathcal{A} \mathcal{B a s e}$ ball, $\mathcal{H}$ i Corbett Field, 3400 East Camino Campestre, $\mathcal{T} u c s o n, \mathcal{A} Z$ 85716; Telephone 520-327-9700; Fax 520-327-9221; Internet www.usabase6all.com


## History

$\mathfrak{A l t h o u g h ~} \mathcal{D r}$. Iames $\mathfrak{N a}$ aismith is recognized for inventing the game of basketball in December 1891, it wasn't until gune 18, 1932, in Geneva, S witzerland that an
International Federation concerned solely with basketball was formed.

Then, less than three years later on February 28, 1935, the International $\mathcal{B a s k e t b a l l} \mathfrak{F e d e r a t i o n ~ ( \mathcal { F I B B } ) \text { was }}$ officially recognized by the International Olympic Committee (IOC) fielping clear the way for men's Gasketball to become part of the 1936 Berlin Summer Olympic Games.

Actually, the first international body to claim jurisdiction over the sport of basketball was the
 Gall games played with the hands, such as field-handball, court-handball, volleyball and basketball.

Two years later during the Games of the IXth Olympiad held in Amsterdam, Netherlands, the IAAF invited representatives from various national associations to consider the formation of an independent body to govern all ball games played with hands. Representatives from 10 countries met in $\mathfrak{A m s t e r d a m}$ on $\mathcal{A}$ ugust 4, 1928 and decided to form the International $\mathcal{A m a t e}$ ur $\mathcal{H a n d}$ all $\mathcal{F e}$ deration (I $\mathcal{A H F})$.
$\mathfrak{A l t h o u g h ~ t h e ~} I \mathcal{A H F}$ Technical Commission for Basketball was created to direct and controlthe game of Gasketball, it never once met. Six, years after being formed, the I AHP Technical Commission for Basketball was dissolved and on September 1, 1934 the $I \mathcal{A H} \mathcal{H}$ officially renounced its international control over Gasketball to the International Basketball Federation ( $\mathcal{F} I \mathcal{B B}$ ).

The forefather of today's $\mathcal{F I B A}$, the establiskment and recognition of $\mathcal{F I B B}$ was no easy task. After severalfailed attempts to establish an inde pendent internationalfederation for basketball, the first International Basketball Conference was held I une 18, 1932. It was at this conference that $\mathcal{F I B B}$ was formed with eight national basketball associations among the originalfounders of $\mathcal{F I B B} \cdot \mathcal{A r g e n t i n a}$, Czechoslovakia, Greece, Italy, Latvia, Portugal, Romania and S witzerland.
$\mathcal{A}$ s the popularity of basketball grew, so did the number of $\mathcal{F} I \mathcal{B B}$ 's member nations. $\mathcal{B y}$ the end of 1934, $\mathcal{A} u s t r i a, \mathcal{B e}$ lgium, Egypt, Estonia, France, Germany, Poland, Spain and the United States fad joined, raising $\mathcal{F I B B}$ 's membersfip number to 17 nations. $\mathcal{B y}$ the time of the 1936 Olympic Games in $\mathcal{B e}$ rin, $\mathcal{F I B B}$ 's membership had expanded to include 32 nations, 23 of which sent basketball teams to the first Olympic Gasketball competition in Berlin.

While $\mathcal{F I B A}$ 's membership and its international rules have changed over the years, perfaps the biggest change within $\mathcal{F} \mathcal{B A}$ occurred $\mathcal{A p r i f}$, 1989. At an extraordinary $\mathcal{F}$ IBA World Congress in $\mathcal{M u n i c h}$, West Germany, $\mathcal{F I B A} \mathcal{B A}^{\prime}$ membership voted overwhelmingly in favor of eliminating the distinction between amateur and professionals, making all players eligigle for $\mathcal{F I B A}$ competitions.

Consequently, for the 1992 Summer Olympic Games in Barcelona, USA Basketball assembled a men's Olympic team of monumental abilities. Tagged the "Dream Team," the USA Olympic team consisted of 11 $\mathcal{N} \mathcal{B A}$ players and one collegian. The U.S. squad not only grabbed the world's attention, but the Olympic gold medal as well.

The abbreviation $\mathcal{F} I \mathcal{B A}$, was originally derived from the French term Federation Internationale de $\mathcal{B a s k e t b a l l ~} \mathcal{A m a t e} u r$. The word $\mathcal{A m a t e}$ ur was dropped in 1989 after the distinction between amateurs and
professionals was eliminated, $\mathcal{T}$ fe" $\mathcal{A}$ " in $\mathcal{F} I \mathcal{B A}$ was however left and $\mathcal{F} I \mathcal{B A}$ is now recognized as standing for International $\mathcal{B a s k e t b a l l} \mathcal{F}$ ederation.

The growth of international Gasketball has continued and in $1997 \mathcal{F I B A}$ Goasted of 201 member nations.

> General Information

About $\mathcal{U}$ A $\mathcal{A}$ Basketball
$\mathcal{B a s e d}$ in Colorado Springs, Colorado, USA Basketball is anon-profit organization and the $\mathcal{N}$ (ational Governing $\mathcal{B o d y}$ for men's and women's basketball in the United States. As the recognized governing body for Gasketball in the United States by the International Basketball Federation (more commonly known as $\mathcal{F} I \mathcal{B A}$ ) and the United States $O$ lympic Committee (USOC), USS $\mathcal{A} \mathcal{B a s k e t b a l l}$ is responsible for the selection,
 as well as for some national competitions.
$\mathcal{A c t u a l l y}$, USS $\mathcal{A} \mathcal{B a s k e t b a l l}$ is an organization made up of associations. Current $\mathcal{U S} \mathcal{A} \mathcal{B a s k e t b a l l}$ active members include the $\mathcal{A m a t e}$ ur $\mathcal{A t h l e t i c} \mathcal{U n i o n}(\mathcal{A A \mathcal { A }})$, US $\mathcal{A} \mathcal{D e}$ af Sports Federation, Continental $\mathcal{B a s k e t b a l l}$ $\mathcal{A s s o c i a t i o n}(\mathcal{C B A}), \mathcal{N a t i o n a l} \mathcal{A s s o c i a t i o n}$ of Basketball Coaches ( $\mathcal{N} \mathcal{A B C}$ ), $\mathfrak{N a t i o n a l} \mathfrak{A s s o c i a t i o n ~ o f ~}$


 Basketball $\mathcal{A s s o c i a t i o n}(\mathcal{N} \mathcal{W} \mathcal{B A})$, United States Armed Forces and the Women's Basketball Coaches
 committees and ultimately determine fow US $\mathcal{A} \mathcal{B}$ asketball operates.

USS $\mathcal{A} \mathcal{B a s k e t b a l l}$ was organized in 1974 and known as the $\mathcal{A m a t e}$ ur $\mathcal{B a s k e t b a l l} \mathfrak{A s s o c i a t i o n ~ o f ~ t h e ~ U n i t e d ~}$
 1989, shortly after the International Basketball $\mathcal{F e}$ deration ( $\mathcal{F} I \mathcal{B A}$ ) modified its rules to allow professional 6asketball players to participate in international competitions. US $\mathcal{A} \mathcal{B a s k e t b a l l}$ then admitted the $\mathcal{N} \mathcal{B A}$ as an active member and made the name change.

USA $\mathcal{A} \mathcal{B a s k e t b a l l ~ i s ~ g o v e r n e d ~ b y ~ i t s ~ E x e c u t i v e ~ C o m m i t t e e ~ a n d ~ B o a r d ~ o f ~ D i r e c t o r s ~ w h i c h ~ a r e ~ a p p o i n t e d ~ a n d ~}$ elected by active members. Russ Granik, Deputy Commissioner/Chief Operating Officer of the $\mathcal{N B A}$, serves as President of USA Basketball for the 1996-2000 term. The Vice President is Tom gernstedt, Deputy Executive Director/Chief Operating Officer of the $\mathcal{N}$ (CAA, Vice President For Men is 1976 Olympian Quinn $\mathcal{B u c k n e r}$ and the Vice President For Women Chris Plonsky, Associate Athletic Director for External
 the Women's $\mathfrak{N} \mathcal{B A}$, serve as $\mathcal{T r e a s u r e r}$ and Secretary, respectively, while three-time Olympian (1988, 1984 and 1980) Anne Donovan and 1987 World $\mathcal{L n}$ (versity Games team member Billy King, are the atflete representatives on the Executive Committee.

Serving since October 1992 as USA Basketball's Executive Director is Warren $\mathcal{S}$. Brown, a former administrator for 6oth the $\mathcal{N} \subset \mathcal{A} \mathcal{A}$ and the $\mathcal{N a}$ ational $\mathcal{F e d e r a t i o n}$ of $\mathcal{S}$ tate $\mathcal{H}$ igh $\mathcal{S c h o o l} \mathfrak{A s s o c i a t i o n s . ~}$

Between the 1992 and 1996 Olympic Games, over 450 men and women proudly represented US $\mathcal{A}$ Basketball at 23 international competitions, winning 21 medals .- including 12 gold, four silver and five bronze. Some of the competitions in which those teams competed, like the Olympics, are wellknown in the Ul.S. and around the world, while others like the World Championships, Goodwill Games, Pan American Games, World University Games, I unior World Championships and the Hoop Summit are not quite as familiar to the
average basketball fan. Although lesser known, these competitions are the foundation on which the TUS $\mathcal{A}^{\prime}$ s Olympic hoops success is built.

Last summer, USA Basketball fielded eight different men's and women's teams for various international competitions. Those teams featured player skill and experience levels that differed as much as the competitions. There were USA teams that featured promising figh school hoopsters, teams involving some of college basketball's best men and women stars, teams featuring some of women's basketball best postcollege players, and the gold medal winning 1996 men's and women's Olympic basketball teams, US $\mathcal{A}$ Olympic squads consisting of the world's best players.

1997 promises to be another busy summer for $\mathcal{U} \mathcal{A} \mathcal{A} \mathcal{B a s k e t b a l l}$. Currently at the beginning of another four. year cycle that culminates with the 2000 Olympics in Sydney, Australia, the summer of 1997 will see the USA $\mathcal{A}$ field three men's teams and four women's teams. US $\mathcal{A}$ Basketball in 1997 will be selecting and sending both men's and women's teams to the World University Games, a men's squad will also represent the United States at the $\mathcal{F I B A} 22$ And Under World Championship, a squad of top high school players will form the USA's men's Hoop Summit squad and women's teams will also compete for gold at the Women's World
 R. William Iones Cup in Taiwan.

In addition to the selection and training of men's and women's basketball teams that represent the US $\mathcal{A}$ in international and national competitions, US $\mathcal{A} \mathcal{B a s k e t b a l l ~ i s ~ a t s o ~ i n v o l v e d ~ i n ~ t h e ~ s a n c t i o n i n g ~ o f ~ U . S . ~ G a s k e t b a l l ~}$ team tours of foreign countries, foreign basketball teams tours of the U.S., as well as overseeing the certification of $\mathcal{F I B A}$ and $\mathcal{U S} \mathcal{A} \mathcal{B a s k e t b a l l}$ officials and the assignment of certified $\mathcal{F I \mathcal { B A }}$ and $\operatorname{US} \mathcal{A}$ Basketball officials to international competitions.

> Competitions

The various competitions in which $\mathcal{U S} \mathcal{A} \mathcal{B a s k e t 6 a l l}$ teams participate includes:

The Olympic Games: Men's and women's Olympic basketball competition is held every four years (2000, 2004, etc.). The USA men have captured the gold in 11 of the 13 Olympics they have participated in, while the USA women have earned the gold in three of the past four Olympics. Sydney, Australia, is the site of the 2000 Summer Olympics.

The $\mathcal{F I B A}$ World Championsfips: Men's and women's basketball competition is feld every four years at the $\mathcal{F I B A}$ World Championsfips (1998, 2002, etc.). Unlike the Olympics at which 12 team participate, 16 teams compete for the World crown and in Gasketball circles, the World Championsfip title is considered as prestigious as the Olympic title. The USA women captured the bronze medal at the 1994 World Championship, while the USA $\mathcal{A}$ men earned the gold medal at the 1994 World Championship. The next World Championship competition is scheduled for 1998 in Greece for the men and in Germany for the women.

The 22 And $\mathcal{A l d}$ er World Championsfip for $\mathcal{M e n}$ : Held every four years, 1997 marks the second $\mathcal{F I B A}$ 22 And Under World Championsfip for Men, scheduled to be held in Melbourne, Australia, August 1-10. The 1993 USA Men's 22 And Under Teamearned the inaugural 22 And Under World Championsfip gold medal and finished with an unblemished $8-0$ record in $S$ pain.

The Pan American Games: Started in 1951 for men and 1955 for women, the Pan $\mathcal{A m e r i c a n ~ G a m e s ~ a r e ~}$ field every four years (1999, 2003, etc.) in the year preceding the Olympics. Only countries from $\operatorname{COPABA}$ ( $\mathcal{N}$ orth, South and Central $\mathcal{A m e r i c a )}$ are eligible to compete. The US $\mathcal{A}$ teams have a distinguished record in the Pan American Games. The USA men have compiled an impressive 75-7 overall record, winning eight of a
possible 12 gold medals. The USA $\mathcal{A}$ women have won six of ten gold medals and rolled up a 58-7 record. The 1999 Pan American Games competition will take place in Winnipeg, Canada.

The World University Games: The World University Games (WUG) are held for men and women every two years, summer and winter, and only current university student-athletes or recent graduates are eligible. Basketball competition is part of the summer $\mathcal{W} \mathcal{U G}$. The next summer $\mathcal{W} \mathcal{L G G}$ is scheduled for I une 10 through $I$ uly 11 in Palma de Mallorca, Spain.
 and women 19-years-old or younger are eligible for $\operatorname{g}$ unior teams that compete in $\mathcal{F} I \mathcal{B A} g$ unior World Championships every four years and other events that emphasize player development.

The USA Basketball Select Teams: In an attempt to continually develop younger talent, US A Basketball sponsors men's and women's select teams that tour foreign countries and participate in international tournaments in the hope of gaining valuable foreign experience and cultural exposure.

|  |  | Rules |  |
| :---: | :---: | :---: | :---: |
| RULEE | $\mathcal{F} 1$ BA | $\mathcal{N} \mathcal{B A} / \mathcal{W} \mathcal{N} \mathcal{B A}$ | $\mathcal{N} \subset \mathcal{A} \mathcal{A}$ |
| Duration of Game (men) | Two, 20 minute halves | Four, 12 minute periods | Two, 20 minute fialves |
| Duration of Game (women) | Two, 20 minute halves | Two, 20 minute fialves | Two, 20 minute fralves |
| Overtime Duration | 5 minutes | 5 minutes | 5 minutes |
| Length Of Halftime | 10/15 minutes | 15 minutes | 15 minutes |
| Court Length | $91^{\prime} 10^{\prime \prime}$ x $49^{\prime} 2.5{ }^{\prime \prime}$ | $94^{\prime} \times 50^{\prime}$ | $94^{\prime} \times 50$ |
| Size of Lane (men) | $\begin{aligned} & 19 ' 8.2 " \times 19^{\prime} 0 . \\ & 3^{\prime \prime} \end{aligned}$ | $16^{\prime} \times 19^{\prime}$ | $12^{\prime} \times 19^{\prime}$ |
| Size of Lane (women) | $\begin{aligned} & 199^{\prime} 8.2^{\prime \prime} \times 19^{\prime} 0 . \\ & 3^{\prime \prime} \end{aligned}$ | $12^{\prime} \times 19^{\prime}$ | $12^{\prime} \times 19^{\prime}$ |
| Three-Point $\mathcal{F G}$ Distance (men) | $20^{\prime} 6.1^{\prime \prime}$ | $23^{\prime \prime}{ }^{\prime \prime}$ | 19'9" |
| Three-Point $\mathcal{F G}$ Distance (women) | 20'6.1" | $19^{\prime} 9$ " | 19'9" |
| Shot Clock (men) | 30 seconds | 24 seconds | 35 seconds |
| Shot Clock (women) | 30 seconds | $n / a$ | 30 seconds |
| Shot Clock Reset | $\begin{aligned} & \mathcal{F G} \text { atte mpt } \\ & \text { released } \end{aligned}$ | $\mathcal{F} G$ attempt fits <br> backboard/rim | $\mathcal{F} \mathcal{G}$ attempt fits rim |
| Player Foul Limit | 5 | 6 | 5 |
| I ump Ball (men) | Yes | Yes | Teams alternate possession |
| Iump Ball (women) | Yes | Teams alternate possession | Teams alternate possession |
| Touch Ball On/Above Cylinder | Yes | $\mathcal{N}$ | No |
| $\mathcal{N u m b e r}$ of Referees (men) | Two | Three | Three |

Number of Referees
(women) $\quad \mathcal{T}$ wo $\quad \mathcal{T B D} \quad$ Two

## Equipment

In international competition, the size of the Gasketball used for both men and women has a maximum circumference of $78 \mathrm{~cm}\left(30.7^{\prime \prime}\right)$, slightly larger than the $29^{\prime \prime}$ to $297 / 8^{\prime \prime}$ ball used in the $\mathcal{N}(\mathcal{B A}$.

Court Length
Size of Lane (men)
Size of Lane (women)
Three- Point $\mathcal{F G}$ Distance (men)
Three- Point $\mathcal{F G}$ Distance (women)
Size of Lane (men)
Size of Lane (women)
Three-Point $\mathcal{F G}$ Distance (women)

## $\mathcal{F I B A}$

$20^{\prime} 6.1^{\prime \prime}$
20'6.1"

20'6.1"
$91^{\prime} 10^{\prime \prime}$ x $49^{\prime} 2.5^{\prime \prime}$
19 '8.2"× 19'0.3"
19 ' $8.2^{\prime \prime} \times 19^{\prime} 0.3^{\prime \prime}$
$\mathcal{N} \mathcal{B A} / \mathcal{W} \mathcal{N} \mathcal{B A} \mathcal{N} C \mathcal{A} \mathcal{A}$
$94^{\prime} \times 50^{\prime} \quad 94^{\prime} \times 50^{\prime}$

| $94^{\prime} \times 50^{\prime}$ | $94^{\prime} \times 50^{\prime}$ |
| :--- | :--- |
| $16^{\prime} \times 19^{\prime}$ | $12^{\prime} \times 19^{\prime}$ |
| $12^{\prime} \times 19^{\prime}$ | $12^{\prime} \times 19^{\prime}$ |
| $23^{\prime} 9^{\prime \prime}$ | $19^{\prime} 9^{\prime \prime}$ |
| $19^{\prime} 9^{\prime \prime}$ |  |

Glossary

Basketball: Basketball is played by two teams of five players each. The purpose of each team is to score into the opponents' basket and to prevent the other team from securing the ball or scoring. The ball may be passed, thrown, tapped, rolled or dribbled in any direction, subject to the restrictions laid down in the rules of Gasketball.
In basketball, the Gall is played with the hands. It is a violation to run with the ball, kick it or strike it with the fist. Kicking the ball means striking it or blocking it with the knee, any part of the leg below the knee, or the foot. Such action is a violation only when it is done deliberately. To accidentally contact or touch the ball with the foot or leg is not a violation.
Blocking: Personalcontact which impedes the progress of an opponent.
Charging: Personalcontact, with or without the ball, by pushing or moving into an opponent's torso.
Dribble: $\mathcal{A}$ dribble $\mathcal{S T A R I S}$ when a player, having gaine d control of the ball, throws, taps or rolls it on the floor and touches it again before it touches another player. The dribble is $\operatorname{CO} \operatorname{MPLETED}$ the instant the player touches the ball simultaneously with both fands or permits the ball to come to rest in one or both hands. There is no limit to the number of steps a player may take when the ball is not in contact with fis/her hand.
$\mathcal{A}$ player shall not dribble a second time after her/his first drigble fas ended, unless it is after s/he fas lost control because of:
a. A shot for the goal,
6. A tap by an opponent, or:
c. A pass or fumble that has then touched or been touched by another player.

Guarding From The Rear: Personalcontact with an opponent by a defensive player from befind the opponent. The mere fact that the defensive player is attempting to play the ball does not justify fis/her making contact with an opponent.
$\mathcal{H a n d}$ hecking: The action by a defensive player in a guarding situation where the fand(s) are used to contact an opponent to either impede his progress or to assist the defensive player inguarding his/her opponent.
Holding: Personalcontact with an opponent that interferes with his freedom of movement. This contact (holding) can occur with any part of the body.
Illegal Ulse Of Hands: Occurs when a player contacts an opponent with his/her hand (s) in an attempt to play the ball. If such contact is only with the opponent's hand while it is on the ball, it shall be considered incidental.

Pivot: Takes place when a player who is holding a live ball steps once or more than once in any direction with the same foot, while the other foot, called the 'pivot' foot, is kept at its point of contact with the floor. Pushing: Personal contact with any part of the body that takes place when a player forcibly moves or attempts to move an opponent who has or does not have control of the ball.
Illegal Screening: An attempt to illegally delay or prevent an opponent who does not control the ball from reacking a desired position on the playing court.
$\mathcal{A}$ player shall not throw the ball against a backboard and touch it again before it touches another player unless, in the opinion of the Official, it was a shot.
Travel Rule: Traveling or progressing with the ball (inside the playing court), is the moving of one or both feet in any direction while folding the ball.

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For more information contact: USS $\mathcal{A}$ Basketball, 5465 Mark $\mathcal{D a b l i n g} \mathcal{B l v d}$., Colorado Springs, CO 80918 -
3842; Telephone 719-590-4800; Fax 719-590-4811; Internet www.usabasketball.com

Biathfon
$\mathcal{H}$ is tory

Like many of the modern sports, the biathlon has its origins in the distant past. Historians suggest that prefistoric funters were the first to use the combination of skiing and shooting, followed by warriors. The oldestrock-paintings found date back to the $\mathcal{N}$ (eolithic age (about 3000 $\mathcal{B} . C$.$) and show funters with bow and arrow moving on sliding timber. In \mathcal{N}$ (orthern Europe, funting on skis was well Known, as in $\mathcal{N}$ orthern $\mathcal{A s i a}$ and $\mathfrak{N}$ orth $\mathcal{A m e r i c a}$. In China, "winged horses" on the feet were employed to track wildlife in snow-covered regions. In the Middle $\mathcal{A g e s}$, the military aspect of shooting on skis came into the foreground, and the traditional patrol race came into being (preventing today's Biathlon from becoming a pure sporting event for quite some time). Since the end of the 19 th century, soldiers on skis were found in Scandinavia, Russia, Germany, $\mathcal{A}$ ustria and $S$ witzerland. In 1776 in $\mathcal{N}$ orway, the first biathlon competitions were organized; the competitors fired rifles while racing afead.

Such competitions were held at regular intervals betwen 1792 and 1818 . In Germany the first military patrol race was held in 1902 . In Norway the team competition was joined in 1912 by an individual race during which 10 rounds were fired in two shooting bouts. The 1st Olympic Winter Games in Chamonix, $\mathcal{F r a n c e}$ included a ski patrol race on its program. Tfis event was organized as a demonstration, and was repeated at the 1928, 1936 and 1948 Winter Games. It was not until the 44 th session of the International Olympic Committee, meeting in Rome in 1949, fowever, that $S$ weden's proposal to include a combination of cross-country skiing and shooting in the Olympic program as an individual competition open to civilian competitors was accepted. The official designation Biathlonfirst appears in the rules of 1955. The first Olympic competition was held in 1960 in Squaw Valley, Calif., after the Union International de Pentathlon Moderne (UIPM) had integrated Biathlon as a sport in 1957 . The development was rather quick, though the first World Championships in Salfelden in 1958 found only 25 athletes from sevencountries to start in the 20 km race. The sport's development was enhanced by the change from the large army rifle caliber to small bore rifle in the winter season of 1977/78. Modern technology changed the target systems, the skating step increased the speed of the race, and $\mathcal{T V}$ brought millions of enthusiastic spectators to the Sport of Biatfilon.

## General Information

The United States Biathfon Association (USBB) is a member of the United $S$ tates Olympic Committee, and is recognized as the $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}$ for the sport in the United States. Contact $\mathcal{U S} \mathcal{B A}$ for information on competitions, regionalclubs and scheduled events.

## Rules

Individual Competition: The sking course measures 20 Kilometers for men and 15 kilometers for women. $S$ kiers comple te five loops and shoot five shots at each of four stages. A one-minute penalty for every missed shot is added to the competitor's skitime.
Sprint Competition: The menskia total of 10 kilometers and the women ski 7.5 kilometers. The atfle tes start individually at one-minute intervals. The competitors ski a total of three loops. They shoot five rounds once in the prone position, and five rounds once in the standing position. The competitor must skia 150 meter penalty loop for each missed shot.
Relay Competition: Each team has four individual competitors. Each racer skis 7.5 Kilometers. The first leg of each team starts at the same time in a mass start, then continues to tag off to successive legs until the whole team has raced. Competitors have eight bulle ts to hit five targets at the prone and standing stages. If after shooting all eight rounds the competitors have not hit all five targets, they must ski a penalty loop
for each missed shot. There is a tag zone where each skier, upon completing fis or her segment of the relay, touches the next teammate who then starts his or her segment. The winner is the team whose last competitor crosses the finish line first.

## Equipment

The two main types of targets used for biathlon training are metal and paper. Only metaltargets are used for competition. Paper targets are used for zeroing of rifles prior to competition.

The skis used must be a minimum of 4 centimeters less than the height of the competitor. The skis must weigh less than 750 grams.
$\mathfrak{A}$ single loading 22 caliber rifle with non-optical sights is the official rifle for competition. The rifle may not be of automatic or semi-automatic design. The rifles are as lightweight as possible, but may not weigh less than 7.5 pounds.

## Glossary

Biathlon: A combination of cross-country sking and shooting introduced to the Olympic program in 1960. International Biathlon Union: Internationalgoverning body fir the sport of biathlon, located in Himmelreich, Austria.
Rifle: A single loading .22 caliber rifle with non-optical sights is the official rifle for international biathlon competition.

United State Biathon Association: $\mathcal{N}$ (ational governing body for the sport of biathlon in the $\mathcal{L n}$ ited States, headquartered in $\mathcal{B} u r l i n g t o n, \mathcal{V}$.

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For more information contact: U.S. Biathfon Association, P.O. Box 297 (29 Church St., Lower Level \# 5), Burlington, VI 05402-0297; Telepfone 802-862-0338; Fax 802-862-0443; e-mail US Biathlon@aol.com

Although the sled has been around for centuries as a mode of transportation, the sport of Gobsled racing didn't begin until the late 19 th century when the $S$ wiss attached a steering mechanism to a toboggan.

In 1897, Gobsled started in $\mathcal{A l b a n y}, \mathcal{N} \cdot \mathcal{Y}$. and was then introduced to Switzerland. This spurred the growth of the sport in winter resorts throughout Europe. By 1914, bobsled races were taking place on a wide variety of natural ice courses.

The first racing sleds were made of wood but were soon replaced by steelsleds that came to be known as Gobsleds, so named because of the way crews bobbed back and forth to increase the ir speed on the straightaways.

In 1923, the Federation Internationale de Bobsleigh et de $\mathcal{T o b o g g a n i n g}$ ( $\mathcal{F} I \mathcal{B C}$ ) was founded and the following year a four-man race tookplace at the first ever Winter Olympics in Chamonix, France. A two man event was added at the 1932 Olympics in Lake Placid, $\mathcal{N} \cdot \mathcal{Y}$., a format that has remained to the present.

Bobsled racing began largely as an activity for the rich and adventurous whogathered at alpine resorts for weekends of competition and partying.

There was no such thing as training. Competitors simply bought or rented a sled, started out as a rider and then took the wheelafter a fewruns.
$\mathcal{B y}$ the 1950 s, however, the sport as we know it today fad begun to take shape. As the critical importance of the start was recognized, strong, fast athletes in other sports were drawn to bobsledding. Track and field competitors, handballers, gymnasts and others who could deliver a vigorous push at the start were much sought after.

In 1952, a critical rule change limiting the total weight of crewand sled ended the era of the super heavyweight bobsledder and sealed the future of the sport as an athle tic contest of the fighest caliber.

More athletic crews went hand-in-hand with advances in sleds and tracks. Today, the world's top teams train year-round and compete mostly on artificial ice tracks in sleek high-tech sleds made of fiberglass and steel.

Until the advent of World Cup competition in the mid-1980s, Bobsled success was determined solely by performance at the Olympics, World and European Championsfips. Since its inception, however, the World Cup series has added an exciting new dimension to the sport where versatility on different tracks and season-long consistency are rewarded.

Apart from the $\mathcal{B r i t i s h}$ influence in the sport's infancy, a strong U.S. presence from 1928 to 1956, and recent advances by other countries, bobsledding has been dominated largely by Europe's alpine nations over the years.

By far the most successfulbobsledding nations have been Switzerland and Germany.

The S wiss have won more medals in Olympic, World and Europe an championships and World Cup competitions than any other nation.

East Germany emerged as the sport's major power in the mid 1970 s with its emphasis on sled design and construction. Since reunification, German bobsledders have remained a formidable group, winning numerous Olympic medals and world Championship titles since 1990.

Italy also has a long and successfultrackrecord in the sport, particularly from the mid 1950 s to late 1960 s, and Austria has had its sfining moments.

In World Cup competition the S wiss and Germans have won the most medals, followed closely by Canadian teams.

From the small core of alpine nations who originally embraced bobsledding, the sport fas since expanded around the world to include countries such as Iamaica, I apan, Australia and New Zealand.
$\mathcal{A l t h o u g h ~ t h e ~ t r a d i t i o n a l ~ b o b s l e d ~ p o w e r s ~ r e m a i n ~ s t r o n g , ~ o t h e r ~ n a t i o n s ~ f a v e ~ b e g u n ~ t o ~ s h o w ~ t h e i r ~ s t r e n g t h . ~}$ At the 1995 World Champion-ships in Winterberg, no fewer than eight nations placed in the top ten in the four-man event while seven nations were represented in the top ten of the two-man competition.

Another stage in the evolution of the sport came in the early 1990 s with the debut of women bobsledders at events in Europe and $\mathfrak{N}$ orth $\mathcal{A m e r i c a}$.

With new artificial tracks coming on stream for the 1998 Winter Olympics in $\mathcal{N}$ (agano, I apan and the 2002 Games in Salt Lake City, Ulaf, the sport of Gobsled candrawon arich fistory as it charts the course to a promising future.

Source: Corel Corporation and F.I.B.T.

General Information

The United States Bobsled and Skeleton Federation (USBS $\mathcal{F}$ ) is the national governing body for the sport of $\mathcal{B o b s l e d}$ ding. The USSBS $\mathcal{F}$ was formed to advance, encourage, improve and promote amateur bobsledding competition. It is a not-for-profit organization established in 1978 and governed by a volunteer Board of Directors. Its major responsibility is to field teams for international competitions and to nominate teams in bobsledding for the Winter Olympic Games.

The main office is located in Lake Placid, $\mathcal{N} \mathcal{N}$, with a program office in Park City, Ulah. The entertainment program is run out of the Park City office. On the bobrocket ride, people get the chance to go down the trackin a four-man sled with an experienced driver and brakeman. This ride is on wheels in the summer and on runners in the winter. On the bobraft, four people go down the trackin a self-piloted sled.

## Rules

## Olympic Winter Games

Only pilots who have taken part in at le ast 5 internationalcompetitions classified in articles 1.1.1, 1.1.2 or 1.1.3 of the International Rules and have effected all the competition runs on at le ast three different tracks distributed over two consecutive seasons between the last Olympic Winter Games and the forthcoming Olympic Games may take part in the Olympic Winter Games, on condition that they have scored at least 10 points in the World Cup or 20 points in the European Cup or 45 points in the America Cup of the current season or 50 points in the World Cup or 100 points in the European Cup or America Cup of the previous season.

Points scored in two-man bob entitle to participation in two-man bob events, points scored in four-man 6ob, in four-man bob events.
$\mathcal{A n}$ exception to ' $\mathcal{A}$ ' and ' $\mathcal{B}$ ' is made for pilots from countries which hold national championsfips every year with participation of at least 10 6obs.

Requests for this exception to be applied must be accompanied by documentation which, on request, must be exhibited to the $\mathcal{F I B I} \mathrm{I}$ ury.

In the Olympic Winter Games the following may also participate:

One pilot from the country organizing the Olympic Winter Games, if the country is not already represented by a pilot entitled to take part.

The best pilot from each continent if the continent is not already represented.

In both the above cases, pilots must nevertheless satisfy the conditions of art. 1.2.2.1

In the Olympic Winter Games each Member may enter a maximum of two teams in competition and up to three teams in the official training.

Amateur Rules

The I.O.C. Rules are applied.

Length of the track

Artificialcombined bob, luge and skeleton tracks sfould be 1,200-1,300 meters long, 1,200 meters of which shall be sloping downfill.

The last approx. 100 meters may consist, depending on speed, of an uphill stretch that must have bends. The maximum gradient of this stretch must not exceed $12 \%$. After time-keeping at the finish, the stopping stretch shall not have any further bends.

Track characteristics

The trackshall include elements of varying technical difficulty.

Particularly demanding elements in terms of driving technique shall be located in the first stretch which accounts for two thirds of the track.
$\mathcal{A}$ design level, it is to be foreseen to be able to reach a speed between 80 and $100 \mathrm{~km} / \mathrm{h}$ after the first 250 meters.

Bends, combinations of bends and straight stretches of a suitable length shall be inserted into the track.

Equipment
$\mathcal{B o b s}$ are sleds with 4 runners (1 pair of front runners, and a pair of rear runners), with which competitions are carried out on iced tracks. To drive the Gob, only the pusfing force of the team, when starting, and the force of gravity are admitted.

Two types of bobsleds are recognized:

The two-man bob: 2 bobsledders

The four-man bob: 4 bobsledders
$\mathcal{F}$ or bobsleds it is forbidden to use plexiglas, transparent material and any material which may splinter as a result of an impact. The rear part of the bobsleds must be open.

The bobs fave to be constructed under the responsibility of the bob producers so that the bobs stand the stress during the drive on the bob track.

Weights

Maximum weight of the bobs with team, including the equipment required is limited. The following is admitted:

The two-man 6ob:maximum we ight 390 kgs

The four-man bob: maximum weight 630 kgs

Maximum weight admitted may be achieved by means of ballasts. Ballasts must be fastened to the bob firmly, and it must be possible to plumb them.

Dimensions and Construction
$\mathcal{F o l l o w i n g ~ m a i n ~ d i m e n s i o n s ~ a n d ~ c o n s t r u c t i v e ~ e l e m e n t s ~ o f ~ t h e ~ b o b s ~ a r e ~ f i x e d ~ ( a l l ~ d i m e n s i o n s ~ r e f e r ~ t o ~ b o b ~}$ without any load on a flat surface, if not specified to the contrary):

Gauge (c/c of opposite runners): The gauge is the same for the front and rear runners. $67 \mathrm{~cm} \pm 0,1 \mathrm{~cm}$.

Distance from the front tip of the front runners to the rear tip of the rear runners:

The two-man 6ob: max. 270 cm

The four-man 6ob: max. 335 cm

Distance from the center of the front axle to the center of the rear axle (referred to the plane of symmetry of the 6obl:

The two-man 6ob: $169 \mathrm{~cm} \pm 3 \mathrm{~cm}$

The four-man 6ob: $213 \mathrm{~cm} \pm 3 \mathrm{~cm}$

Frame

The front portion of the bob must be provided with a continuous supporting frame made of steel.

Helme $t$

During training and races, all bobsledders must we ar a fully protective helmet, which fas to comply with the minimum EEC safety rules. It is forbidden to apply aerodynamic elements to helmets.

## Clotfing

Shorts and short sleeves are forbidden in all races.

It is forbidden to apply any extra aerodynamic element to the outside and/or beneath the competition clothing.

Shoes

The use of spikes on shoes worn by team members to push the bobs is allowed, provided that spikes are arranged like a brush.

The top of spikes may not be thicker than 1 mm ; spikes may not be longer than 4 mm and they may not be arranged further than 3 mm from each other.

Glossary

Articulation: $\mathcal{A}$ term meaning that the front of the sled can rotate independently from the rear. Bobsled: The two man sled weighs 860 pounds, while the four man sled has a maximum weight of 1388 pounds. The U.S.sleds are made of a kevlar/carbon composite we ave, aerodynamic shape wind tunnel tested and designed by Boeing engineers. The front of the sled can rotate independently from the rear of the sled (called articulation). The front axle pivots longitudinally. The shoes (which hold runners) can twist over Gumps while allowing small vertical movement. The bobsled is steered by two handles connected to steering system through bungee cord and cable network. The U.S. uses a sled designed by $\mathcal{N A S C A R}$ driver Geoff Bodine, called the Bo-Dyn Bobsled.
Driver: The driver is responsible for guiding the sled down the track. He pulls on two rings that are attacked to the front runners to turn the sled. Drivers try to keep the sleds from rocking side to side when exiting curves, maintaining the straightest possible line down the course.
$\mathcal{N}$ ational Team: Three teams of sleds travelaround the world during the year to compete at different $\mathcal{W o r l d}$ Cup events. These athletes are part of the $\mathcal{N}$ ational $\mathcal{T}$ am. From $\mathcal{N}$ ovember to $\mathcal{F e}$ bruary, these athletes travel to Canada, Germany, France, Italy, Austria, $S$ witzerland and I apan to compete against the best bobsledders in the world. The U.S. enters three sleds in each two-man and four-man event. Push Athle te: $\mathcal{A}$ push athlete's main job is to help push the sled at the start of the race. The start is the most critical time of the race. An explosive start can result in fast finish times. In a two-man sled, there is only one push athle te. He pushes from the back. In a four man sled, there are three push athle tes. Two athletes push on the side, and the brakeman, pushes from the back. The brakeman is also responsible for applying the brake at the end of a run, which forces a grooved piece of metalinto the ice to stop the sled. Push Bar: $\mathcal{A}$ push bar sticks off the side of a sled. The driver and side pushers each push abar at the start of the race. The force applied to the push bars by the athletes correlates with the speed of the sled at the start.
Runners: Runners are the four ice skates upon which the bobsled rides. Minute variations in forging, alloy composition and shape make for fuge performance differences and a mind-Goggling number of possible combinations. Each athlete on a four-man bobsled is responsible for preparing one of the four runners for race day, a process which can take three fours of sanding alone. An athle te starts sanding out the largest scratches with 50 grit. He moves to 100 grit to sand out all of the 50 grit marks and keeps progressing until he is working with 3000 grit, and finally, diamond paste. This large hunk of metal stores the heat of all the continuous rubbing. The challenge, then, is to cool the runner enough to where it is within set bounds of the legal temperature.
Skeleton: He ad first, face down and hands back, approaching speeds of 80 mph , a skeleton slider races down the icy Gobsled tracks of the world. Skeleton was organized in the late 1800's in St. Moritz,

Switzerland, and appeared in the 1928 and 1948 Winter Olympics. The sport faded from popularity until the late 1970 s when a resurgence started in Europe to bring the sport back to the public eye. Since then, over 20 nations have joined the ranks of skeleton sliding nations, with World Cup and World Championships held annually. The Skeleton sled itself measures three feet in length and 16 inches wide, we ighing from 70 115 pounds depending on the sliders body weight. The sleds are made of steeland fiberglass. The slider wears a helmet with a chinguard. A skintight rubber suit is used to increase aerodynamics, and sprinter's spikes are worn for the quick $50-m e t e r$ start.
USS BS F: The United States Bobsled and Skeleton Federation, the governing body for the sports of Bobsledding and SKeleton.

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For more information contact: U.S. Bobsled and Skeleton Federation, P.O. Box 828 , Lake Placid, NO 12946 . 0828; Telepfone 518-523-1842; Fax 518-523-9491; Internet www.usabobsled.org; email info@usabobsled.org

## $\mathcal{B o w l i n g}$

$\mathcal{H}$ istory
More than 60 million people in the United States bowleach year. Nearly 8 million compete regularly in league play sanctioned by either the $\mathcal{A m e r i c} a n \mathcal{B o w l i n g}$ Congress, the Women's International Bowling Congress or the Young American Bowling Alfiance.

Bowling fas been traced to articles found in the tomb of an Egyptian child buried in 5200 BC. The primitive implements included nine pieces of stone at which a stone "ball" was rolled, the ball having first to roll through an archway made of three pieces of marble.
$\mathcal{A n o t h e r}$ ancient discovery was the Polynesiangame of ula maika, which also used pins and balls of stone. The stones were to be rolled at targets 60 feet away, a distance which is still one of the basic regulations of tenpins.
$\mathcal{B o w l i n g}$ at tenpins probably originated in Germany, not as a sport but as areligious ceremony. Martin Luther is credited with settling on nine as the ide al number of pins.

Tracing fistory reveals the game moved through Europe, the $S$ candinavian countries and finally to the United States, where the earliest known reference to bowling at pins in $\mathcal{A m e r i c a}$ was made by author Wasfington Irving about 1818 in Rip Van Winkle.
$\mathcal{A l t h o u g h ~ t h e ~ g a m e ~ w a s ~ b e i n g ~ p l a y e d ~ t h r o u g h o u t ~ t h e ~ w o r l d , ~ r u l e s ~ w e r e ~ d i f f e r e n t ~ a l m o s t ~ e v e r y w h e r e , ~ a n d ~}$ even basic equipment was not the same. In fact, why and when the 10 th pin was added from the European game of ninepins to the Americangame of tenpins is still a mystery.

The game became so popular in the mid-19th century that indoor lanes were being built throughout Mankattan and the Bronx and on westward, in Syracuse, Buffalo, Cincinnati, Chicago, Milwaukee and other cities with large German populations.

In 1875 , delegates from nine bowling clubs in New York and $\mathcal{B r o o k l y n}$ met in Germania $\mathcal{H a l l}$ in the $\mathcal{B}$ owery and organized the $\mathcal{N a t i o n a l} \mathcal{B o w l i n g} \mathcal{A s s o c i a t i o n . ~ D i s a g r e e m e n t ~ r a g e d ~ b e t w e e n ~} \mathcal{E}$ ast and $\mathcal{W e s t}$, principally involving the $\mathcal{N e}$ w York S tate bowlers against everyone else to the west.

On September 9, 1895, the American Bowling Congress was organized in Beethoven $\mathcal{H}$ all in $\mathcal{N e}$ work city. The breach was healed, rules and equipment standards were developed and the game that was formally organized more than a century ago has remained basically unchanged.

In 1916, a group of 40 women, encouraged by proprietor $\mathcal{D e n n i s} \mathcal{I}$. S we eney of $\mathcal{S}$. Louis, met at $\mathcal{S}$ we eney's establishment and formed the Women's International Bowling Congress, which is today the oldest and Cargest women's sports organization in the world.

There have been numerous rules modifications over the years, but no significant alterations in equipment specifications other than those adopted to meet changes brought on by such technological advancements as automation and the invention of plastic, nylon and other synthetics.

> General Information
$\mathcal{F e}$ deration Internationale des Quilleurs was formed in 1951 to foster worldwide interest in amateur tenpin and nine pin bowling and international friendship through world and zone tournaments. The FIQ succeeded
the International Bowling Congress which had beenformed in 1947. FIQ's official languages are Spanish, German, French and English.

The first $\mathcal{F I Q} \mathcal{W}$ orld Championships attracted seven nations to $\mathcal{H}$ lsinki, Finland in 1954 where $S$ weden dominated the competition. That was not surprising because the $S$ wedes were given glowing reports of the $\mathcal{A m e r i c a n ~ t e n p i n ~ s p o r t ~ a s ~ e a r l y ~ a s ~} 1909$ when $\mathcal{B r}$ uno $\operatorname{Soderstrom}$ returned from the United $\mathcal{S}$ tates and interested friends in building the first tenpin bowling center in fis country.

The second $\mathcal{F I Q}$ world was conducted in 1955 in Essen, Germany, attracting 12 nations. The 1958 event in $S$ weden was the first to include non-European countries.
$\mathcal{A}$ sia's 6owling interest was piqued and a contingent from the Far East traveled to Malmo, S weden in 1961. International bowling also spread to the $\mathcal{A m e r i c a s}$ in the 1960 s. The $\mathcal{U n}$ ited $S$ tates joined $\mathcal{F} I Q$ in 1961 and the U.S. and other American Zone members competed in the $1963 \mathcal{F I Q} \mathcal{W}$ orld in Mexico City where 19 teams entered. The U.S. dominated the mend's and women's competition (it was the first tournament where women competed).
$\mathcal{B y}$ the time the U.S. hosted the $\mathcal{F} I Q$ World in Milwaukee in 1971, 32 nations sent 371 bowlers. Only nine nations were present at its organizationalmeeting in Hamburg, Germany, but $\mathcal{F I Q}$ today boasts 93 federation members with 100 million people involved in the sport.

Comprising $27 \mathcal{N}$ orth, Central and South $\mathcal{A m e r i c a n n a t i o n s , ~ t h e ~} \mathcal{F} \mathcal{A} \mathcal{A}$ merican Zone is one of three world. wide $\mathcal{F I Q}$ zones. The $\mathcal{A s i a n}$ and European Zones consist of 26 and 40 nations, respectively.

The $\mathcal{F}$ Q first applied for International Olympic Committee recognition in 1963 and was recognized in 1979. Its first request for Olympic medal status came on December 17, 1984. Bowling was an exfigition sport in the 1988 Summer Olympic Games in Seoul, Korea.
$\mathcal{F I Q}$, under the leadership of Gerald Koenig of the United States, fas blossomed to today's fighest membersfip level in fistory. $\mathcal{F I Q}$ is headquartered in Colorado Springs, Colo.

## Rules

Each player in the game receives 10 turns, called "frames."

In each frame, a player makes two attempts to knock down all 10 pins.
$\mathcal{A}$ "strike" is credited if all pins are knocked down on the first shot, and 10 points are added plus the score of that player's next two rolls.

If the player knocks down all 10 pins with two shots, a "spare" is credited, with 10 points added to the first ball rolled in the next frame.

The fighest score possible is 300 .

## Equipment

The bowling lane is 60' (18.2 meters) from the foul line to the head pin. The approach to the foul line is $15^{\prime}$ (4.6 meters). The bowling lane is $41^{\prime \prime}$ to $42^{\prime \prime}(104$ to 107 cm$)$ wide.

The pins are $15^{\prime \prime}(38.1 \mathrm{~cm})$ high and weigh at le ast 3 pounds ( 1.4 kg ).

The bowling ball cannot be more than $27^{\prime \prime}(68.6 \mathrm{~cm})$ around or we igh more than 16 pounds ( 7.3 kg ).

> Glossary
$\mathfrak{A B C}$ : $\mathcal{A m e r i c a n ~ B o w l i n g ~ C o n g r e s s , ~ t h e ~ w o r l d ' s ~ l a r g e s t ~ s p o r t s ~ m e m b e r s h i p ~ o r g a n i z a t i o n ~ a n d ~ t h e ~ o f f i c i a l ~ r u l e . ~}$ making body of tenpin bowling for its members in the United States, Canada, Puerto Rico and military bases world wide. Founded in 1895.
$\mathcal{A l l}$ Events: $\mathcal{A}$ combined total score of singles, doubles and team events.
Anchor: Last player in line up for team competition.
Approack: Portion of lane befind foulline used by bowlers to build momentum to delivery.
$\mathcal{B a} k e r$ System: A format which calls for different bowlers executing in different frames. Mainly used in five-person team competition where the $\mathcal{N}$ o. 1 Gowler throws in the first and sixth frames, the $\mathcal{N}$ o. 2 bowler in the second and seventh, etc.
Beer Frame: Used in team competition to determine who buys liquid refreskment, either when all but one player strikes or in a designated frame (usually the fifth) for the bowler with the fewest pins on the first ball.
$\mathcal{B r o o k l y n : ~ A ~ s t r i k e ~ w h e n ~ t h e ~ G a l l ~ g o e s ~ t o ~ t h e ~ o p p o s i t e ~ s i d e ~ i t ~ w a s ~ i n t e n d e d ~ t o ~ g o . ~ F o r ~ e x a m p l e , ~ a ~ r i g h t . ~}$
hander fitting the left side of the headpin.
Clean Game: A game with spares or strikes in every frame.
Dressing: The substance used to coat or dress the lanes, a necessity to protect the lane's surface. Usually has a mineral oil base.
$\mathcal{F I Q}: \mathcal{F e}$ deration International des Quilleurs, the international governing body for the sport of tenpins. $\mathcal{F I Q}$ fas 85 member nations.
Kegler: German word for bowler. The game was brought to the United States by Germans.
Match Play: Portion of tournament where bowlers are pitted against each other.
Open: A frame that does not produce a strike or a spare.
Reading the Lanes: Discovering whether a lane hooks or holds, and where the best place is to roll the ball to score figh.
Spare: Knocking down all 10 pins with two shots.
Split: $\mathcal{A}$ spare leave where the headpin is down and the remaining combination of pins have agap in them.
Strike: Knocking down all 10 pins on the first ball.
$\mathcal{T e}$ am USA: $\mathcal{A}$ team of six men and six women which represents the United $S$ tates in international competition.
USA $\mathcal{A}$ Bowling: Recognized by the United States Olympic Committee as the organization responsible for amateur competition in the United $S$ tates.
$\mathcal{W}^{\prime} \mathcal{B C}$ : Women's International Bowling Congress, the oldest and largest women's sports organization in the world. Founded in 1916.

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For more information contact: US A Bowling, 5301 south $76^{\text {th }}$ Street, Greendale, WI 53129-0500;
Telephone 414-421-9008; Fax 414-421-1194; Internet www.6owl.org

$\mathcal{B o x i n g}$ traces its origins to 688 B.C. and the Ancient Olympic Games in Greece. The sport was officially recognized in the United States in 1888 .

Boxing first appeared on the Modern Olympic program in 1904 in $\operatorname{St}$. Louis, Mo. Since that time, the United $S$ tates has captured 47 of the 191 gold medals available, more than twice the number won by the secondplace country, Cuba (23).
$\mathcal{F e}$ males are now allowed to register as athle te members of $\mathcal{U S} \mathcal{A} \mathcal{B}$ Boxing and are allowed to compete in sanctioned amateur competition within the United $S$ tates. US $\mathcal{A} \mathcal{B o x i n g}$ approved a female boxing program on Oct. 9, 1993, and the first women's bout took place in Lynnwood, Wask., on Oct. 30, 1993.

The alumni ranks of amateur boxing are replete with colorful personalities and remarkable athletes. George $\mathcal{F o r e m a n}$, Le on and Michael Spinks, Floyd Patterson, Muhammad $\mathcal{A l i}$ (as Cassius Clay) and Ray Leonard among others have won Olympic gold medals prior to winning the ir professional world titles. Riddick $\mathcal{B o w e}$, Michael Carbajal, Evander Holyfield, Roy gones, Pernell Whitaker and Oscar $\mathcal{D}$ La $\mathcal{L}$ Hoya are among the current standouts in professional boxing whogot their start through amateur boxing and competed for the United States in recent Olympic Games.

General Information

Olympic-style boxing is one of the most popular of the Olympic sports. The lights, the ring, the boxers, the action-packed excitement and the thrill of competition constitutes the mental picture the general public has of Olympic-style boxing.

Befind the scenes of competition is a large national network that administers, governs and regulates the sport of Olympic-style boxing in the United States. This conglomeration of athletes, officials, coaches, administrators, medical personneland enthusiasts is United $S$ tates $\mathcal{A m a t e}$ ur $\mathcal{B o x i n g}$, Inc.
$\mathcal{U} \mathcal{A} \mathcal{B}$ oxing, as the $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}$ for Olympic-style boxing, is the United $\mathcal{S}$ tates' member organization of the International $\mathcal{A m a t e}$ ur $\mathcal{B o x i n g} \mathcal{A s s o c i a t i o n}(\mathcal{A I B A})$. US $\mathcal{A} \mathcal{B o x i n g}$ is responsible for the administration, development and promotion of Olympic-style boxing in the United States.

With its headquarters in Colorado Springs, Colo., US $\mathcal{A} \mathcal{B o x i n g}$ sponsors a host of programs, from developing the sport and its athletes at the local, regional and national levels, to sponsoring national and international dual competitions and selecting teams for internationalevents, including the Olympic Games, World Championstips and Pan American Games.

USS $\mathcal{A} \mathcal{B o x i n g}$, formerly Known as the $\mathcal{U n i t e d} S$ tates $\mathcal{A m a t e}$ ur $\mathcal{B o x i n g} \mathcal{F}$ deration, has governed men's amateur Goxing in the United $S$ tates since 1888 . US $\mathcal{A} \mathcal{B o x i n g}$ sponsors not only national and international competitions, but also clinics and training camps to help athletes and coaches learn international techniques.

USA $\mathcal{A}$ Boxing comprises 56 Local Boxing Committees ( $\mathcal{L B C s}$ ), which are grouped into 14 geograpfical regions. These LBCs, along with the coaches, athletes and officials, form the backbone of $\mathcal{U S} \mathcal{A} \mathcal{B o x i n g}$ and Olympicstyle boxing in the Ulited $S$ tates.

ULS $\mathcal{A} \mathcal{B o x i n g ' s ~ P r o g r a m s ~}$

USS $\mathcal{A} \mathcal{B o x i n g}$ sponsors three national championsfips annually: the Ul.S. Championsfips, the $\mathcal{U} . \mathcal{S}$. I unior Championships and the U.S.I unior Olympic Championsfips, as well as numerous inter-nation and international competitions. US $\mathcal{A} \mathcal{B o x i n g}$ also sponsors training camps for the top boxers across the country so they may train and practice under the top coaches.

The training camps are frequently held at the U.S. Olympic Training Center in Colorado Springs, where US $\mathcal{A}$ Boxing maintains a permanent training facility.

To assist coaches and officials in learning the best and most up-to-date techniques, US $\mathcal{A}$ Boxing sponsors clinics staffed by outstanding coaches and officials not only from the United $S$ tates, 6 ut also from around the world. US $\mathcal{A}$ Boxing also hosts medicalclinics and seminars for physicians, athle tes, coackes and officials.
 Goxers ages eight to $16 . I$ unior Olympics features local, $\mathcal{L B C}$ and regionalchampionships, culminating with the U.S.I Inior Olympic Championships in Iune. The Iunior Olympics cultivates the reservoir of talent that supplies our Olympic gold medalists and national champions of tomorrow.

USA $\mathcal{A}$ Boxing's most innovative program is Operation Gold. Started in 1982, Operation Gold is designed not only to aid the country's best athle tes in developing the ir techniques and skills, but also to assist in the ir personalgrowth. Operation Gold enabled the United States to have teams in the past three Olympiads that competed equally with those from state-supported countries.

The top-ranked amateurs in the United $S$ tates are invited to participate in Operation Gold, funded by $\mathcal{U S} \mathcal{A}$ $\mathcal{B o x i n g}$, the U.S. Olympic Committee and private and corporate donations. The program provides participants with incentive to continue perfecting their 6oxing skills, while motivating others to improve their skills so that they can join the program.

USS $\mathcal{A} \mathcal{B o x i n g}$ also sponsors a scholarship fund for its registered athletes. Awarded annually, the scholarships are granted not for athletic ability, but on the basis of an athlete's academic record and ability to succeed at an institution of higher learning. The scholarships may be used for a college, university or vocational school.

## Rules

General Rules

Olympic-style boxing features 12 weight classes. To compete internationally, a boxer must be at least 17 years old and not more than 32 years old. In domestic competitions, an athle te must be at least eight years old to compete. The $I$ unior Olympic program is for athletes eight to 16 ; the junior program is for boxers 17-18; and the open program is for boxers 17-32 years of age. A master's division has been established for the locallevelonly and it is designed for boxers 33 and older. Beginning October 1993, US $\mathcal{A}$ Boxing allowed female competitors to boxagainst otherfemales in sanctioned competition. Rules governing female competition are the same as those for male competition, except women are required to wear breast protectors.

The following rules are for the openclass. The rules and weight categories for $\mathcal{I}$ unior Olympics are different, featuring shorter rounds, four age groups and more than 17 weight classes.

The Bout

Starting in 1997 all bouts will consists of five, two-minute rounds, with a one-minute interval between rounds.

The Referee

Referees are the sole authority in the ring, and they must maintain control of the match from start to finish, placing the foremost importance on the boxers' safety. Before the match begins, the referee checks each boxer's gloves and attire for suitability. The referee makes sure the bout is clean and fair; that the boxers are physically able to continue; and most importantly, that the match is not one-sided.

Referees are all-powerful in the ring. Yet, to maintain control, they need speak only three words: "stop" (6oxing), "box" (Gegin again) and "break" (step back...used to breakup clinches). Any boxer who does not obey immediately may be disqualified.

Using their best judgment, referees may stop a match any time they think it is too one-sided, the boxers are not in earnest or one of the boxers seems unable to continue due to injury. $\mathcal{A}$ t any point during the match, the referee may consult the ringside physician for advice .. the physician's recommendation is binding.

Referees may disqualify a boxer, with or without warning, whenever a boxer acts aggressively toward them or delays in obeying a command.

## Common Fouls

The following are some of the common fouls for which boxers will be cautioned: fitting below the belt; holding, kicking or striking the opponent with anything other than the gloved knuckles; lying against the ropes or using them unfairly; using offensive language; not breaking on command; and befaving aggressively towards the referee. Even no defense (passive defense) is unfair and a foul.

When a boxer commits a foul, the referee usually cautions the boxer and indicates the foul through fand motions. After three cautions for the same foul, the referee will warn the boxer, which results in the boxer losing a point. Upon the third warning for the same foul, the boxer is disqualified.

When issuing a warning, the referee is making a recommendation to the judges to penalize the offending boxer by deducting a point. The judges decide whether or not they agree with the referee and make that notation on the score card. Iudges may award a"g" to a boxer they think has fouled excessively, but the referee has not warned the boxer to the ir satisfaction.

I udging the Bout

Traditional scoring: Five judges are required and placed on different sides of the ring. In some international and domestic competitions, three judges may be used.

Each judge works alone. The judge assesses the scoring value of each blow as it occurs and mentally awards points to each boxer. The judge's yardstick is "three blows to a point," but not any one blow will count. A scoring blow must be clean, fair, unguarded and have the proper weight. Essentially, the white part of the glove, covering the Knuckles, must make contact to be a scoring blow. All legal blows are scored equally, regardless if they results in a knockdown or not.

When one boxer takes a definite point lead, a judge may use that score for tallying .- adding points as the boxer earns them and subtracting from the total as the opponent scores.
$\mathcal{D}$ uring each round, judges will add up the scoring blows delivered by each boxer, always awarding 20 points to the round's winner and some what less than 20 to the loser. For example, boxer " $\mathcal{A}$ " scored 12 legitimate scoring 6 lows and boxer "B" landed nine. Ulsing the guideline of three blows per point, this round would be scored 20-19.

I udges award points after each round. When the bout is over, the scores are added to determine the ove rall winner.

Tie scores, while quite rare, do occur. In this case, the boxer who showed more aggressiveness and better style wins. If it is still tied, the boxer with the better defense is awarded the decision.

Electronic scoring: For the first time in Olympic boxing competition, an electronic scoring system was used at the 1992 Olympic Games in Barcelona, Spain. Under electronic scoring, five working judges are positioned at ringside with a desk-mounted keypad at each judge's position.

The keypads, each of which are linked to the mainframe computer at the jury table, feature four buttons. - red and blue scoring and red and blue warning buttons.
$\mathcal{D}$ uring the course of the bout, judges record scoring blows for each competitor on the ir keypad. In order for a blow to be recorded by the computer as part of the official (or combined/accepted score), three of five judges must press the same colored button within a one-second interval. The one-second interval begins when the first judge records a blow.

Scores are reported in terms of number of 6lows recognized by a majority of judges over the course of the three rounds combined.

For example, a 32-27 winfor the Red Corner indicates that over the course of the three rounds Red was credited with 32 6lows by a majority of the judges while $\mathcal{B l u e}$ was credited with 27 6lows.

If a boxer receives a warning for a foul, the referee will stop action, mimic the foul and look to each judge to recommend a point deduction. If the judges agree with the warning, they will press the warning button corresponding to the fouling boxer's corner color. If the warning is recognized by a majority of the judges, the warning will result in the addition of two points ("blows") to the opponent's score.

It is important to note that electronic scoring is merely a different method of scoring a bout and the definitions of a scoring 6 low have remained unchanged. A scoring blowstill must be clean, fair, unguarded and have the proper weight of the body or shoulder befind it. All legal blows are scored equally, regardless if they result in a knockdown.

Winning the Bout
Winning on points: This is the most common type of win and is decided simply by consulting the judges' scores for each boxer. Again, if a judge has the boxers scored evenly, the judge must select a winner based on aggressiveness, better defense and best style (except under electronic scoring). Winning by retirement: $\mathcal{A}$ boxer (or coach) who voluntarily "throws in the towel" or one who is unfit to continue forfe its the match.

Winning when the referee stops the contest (RSC): If the referee thinks a boxer is totally outclassed, the bout will be stopped and the superior opponent wins. The bout also will be stopped if one of the boxers is injured or is unable to continue or if one of the boxers receives an eight-count three times in one round or four times in a bout.

Boxers are "down" if they touch the floor with anything other than their feet. They also are "down" if they are dangling on the ropes or are wholly or partially outside the ropes from a blow.
$\mathcal{A}$ boxer can be considered "down" while standing up. This state usually occurs after the boxer has received a blow or blows to the head and may be dazed.
"Out on the feet," a boxer is given a mandatory eight-count by the referee. The referee uses this time to evaluate the status of the boxer to determine if the bout can continue.

Even if boxers are able to box sooner, they must wait until the eight seconds are counted to continue. If they are not able to box by the count of eight, they lose the match.

If a bout is stopped, it may also be called an $\mathcal{R S C H}$. The " $\mathcal{H}$ " is used when the match was stopped due to head 6 lows.

The ringside physician has the option to stop a match, at fis or her discretion, at any point. The physician will examine the boxer and signal the match to continue or stop at that point. The physician's decision is always Ginding.

The "technicalknockout" (TXO) does not exist in Olympic-style boxing.

Winning by disqualification: If the referee disqualifies a boxer, the opponent wins the bout. If both boxers are disqualified, neither wins, and this result is announced.
$\mathcal{N}$ o contest: Sometimes, for reasons beyond anyone's control, a match must be called off. If the lights should fail or if the ring is damaged, the match's final determination is "no contest" and will go into the record books as such.

## Safety

The main objective of Olympic-style boxing's rules and the actions and decisions of the referee is the safety and protection of boxers.
$\mathcal{A s}$ safety measures, boxers are required to we ar a form-fitted mouthpiece, a foul-proof cup and a headguard. The headguard was made mandatory for all international events and major tournaments in 1984.

Internationally, gloves for the six lighter classes (106-139 pounds) are 8 ounces, while 10-ounce gloves are used for the heavier categories (147-over 201 pounds).

Pre-and post-bout medical examinations are required for all competitions.

Additional safety measures to limit athletes' and officials' exposure to bodily fluids include provisions that a referee may stop a bout when both boxers are bleeding.

Ringside physicians may stop a match at their discretion at any point during the bout.

The standing eight-count and medical advice concerning potential injuries are two additional ways the athlete is protected.

Referees may administer the standing eight whenever they think boxers are unable to defend themselves, are dazed, or have received too many 6 lows. The referee uses this time to evaluate the boxer's condition and ability to continue.

If a boxer has received a cut or other injury, the referee may consult the ringside physician, who fas the option to stop the bout or let it continue. A physician is required at ringside during all contests.

If a boxer's match is stopped because of head blows, the boxer is restricted from sparring or competition for a specified period. Before resuming after a restriction period, the boxer must be cleared by aphysician.

To compete, boxers must have an athlete's passbook, which is a record of their matches to date. This is to ensure the ir eligibility and record to box.

Differences $\mathcal{B e}$ tween $\mathcal{A m a t e u r} \mathcal{A}$ nd Professional Boxing

## 1. Organization

$\mathcal{A m a t e}$ ur: $\mathcal{A l l}$ amateur boxing comes under the jurisdiction of a single, unified $\mathcal{N}$ (ational Governing $\mathcal{B o d y}$
 amateur boxing in the U.S.
Professional: Many state-controlled commissions have different sets of rules. Therefore, no such single, unified body exists, nor is there one singular set of standards, rules and guidelines.
2. International
$\mathcal{A}$ mateur: $\mathcal{A}$ mate ur boxing uses the same set of rules worldwide. While $\mathcal{U S} \mathcal{A} \mathcal{B o x i n g}$ s rules conform completely with the internationalrules, US $\mathcal{A} \mathcal{B o x i n g}$ has more stringent rules in some areas for safety. Professional: $\mathcal{H a s}$ different sets of rules $-\mathcal{W} \mathcal{B} O, I \mathcal{B F}$, etc. and those set by state commissions.
3. Philosophy
$\mathcal{A m a t e}$ ur: The main objective is to score points. In amateur boxing, the force of a blow or its effect on the opponent does not count. Therefore, the knockout is a by-product in amateur boxing. A blow that knocks a boxer to the mat receives no more credit than a regular blow. A knockdown is scored as a single blow and does not necessarily make the boxer a winner of that round.
Professional: $\mathcal{A d d e d}$ we ight is given to a blow based on its impact and effect on one's opponent. Therefore, the knockdown and/or knockout is an objective in the pros. In rare cases, a boxer who scores a knockdown may lose the round.
4. Safety

Amateur: Form-fitted mouthpieces are required and must be worn at all times; if it falls out, it is replaced imme diately.
Professional: The rule applies to pro contests incertain states but is not uniform.
$\mathcal{A}$ mateur: $\mathcal{H e}$ adguards are mandatory in the Ul.S. and in major international competitions.
Professional: He adguards profibited.
$\mathcal{A m a t e}$ ur: Boxers receive standing eight-counts. This is a safety precaution that gives the referee eight seconds to evaluate the condition of the boxer. Based on his/her decision, the bout may continue or be stopped.
Professional: Certain pro world bodies have recently adopted the standing eight-count rule.
Amateur: Injury -- referee stops the action and takes the boxer to the corner for the doctor to examine the injury and get an opinion. Based on the physician's opinion, the bout will continue or be stopped. The physician may suspend the action, at his/her discretion, at any point during the match to examine aboxer.

The physician may also examine a boxer between rounds. The physician's decision to stop or continue a match is binding.
Professional: Under some rules, it is the same.
$\mathcal{A m a t e}$ ur: More control is exercised by the referee in the ring. Referees caution boxers to let them know that they are violating fundamentals and rules.
Professional: Boxer is only warned for a harm foul, blow-type infraction .. not for technique.
Amateur: Referee will stop the bout if a boxer is out-classed.
Professional: Referee is authorized to stop the bout but rarely does due to financial and $\mathcal{T V}$ arrangements.
Amateur: If a bout is stopped Gecause of blows to the head, the boxer is not allowed to compete or
workout in the gym for a specified period of time.
Professional: Is done, but not in all cases. Depends on the state.
$\mathcal{A m a t e}$ ur: $\mathcal{A l l}$ amateurs are registered with $\mathcal{U S} \mathcal{A} \mathcal{B o x i n g}$.
Professional: $\mathfrak{N}$ o single systemexists; is controlled by localgroups.
$\mathcal{A}$ mateur: The criteria for stopping bouts due to injury are stricter .. i.e. lacerations or swelling which
block vision will cause the bout to be stopped.
Professional: Rules are less strict on injuries that stop a bout - i.e. a boxer will continue to box if his eye is
swollen shut or if a cut around the eye, nose or mouth is badly bleeding.
Amateur: The use of the head (6utting) is strictly regulated .. boxers are cautioned but then may be
warned or lose points if they continue.
Professional: Laxly controlled.
$\mathcal{A m a t e} u r: \mathcal{A} 6$ low counts for scoring only if the Knuckle surface is used; slapping, etc., is not allowed nor does it count for points. Therefore, the striking area is limited to the knuckle of the fist and must hit the front and side of the body and head and above the waist.
Professional: $\mathfrak{N o t}$ as much attention is given to the placement of scoring blows.
Amateur: The bell cannot save a boxer from a stopped contest. The count continues to completion, regardless of when the bell rings (except in finals of a tournament, such as the Olympics, Pan Am Games or U.S. Championships).

Professional: $\mathcal{A}$ boxer can be saved from a knockout by the ringing of the bell, depending on state rules. $\mathcal{A m a t e u r}: \mathcal{T h}$ ree counts in one round or four in a match automatically stops a bout.
Professional: Is waived in some circumstances.

## Equipment

## $\mathcal{A}$ ttire

$\mathcal{A}$ boxer wears a top to aid in identification as well as to absorb sweat, dirt and keep gloves cleaner.
$\mathcal{N}$ ( foreign substances are permitted on the body, i.e., greasing up.
$\mathcal{A}$ boxer may not we ar a beard or goate ; a thin, pencil-line mustache is allowed. Hair may not impair vision.

Gloves

Internationally: use 8 -ounce gloves for 106 through 147 pounds; from 156 through 201+ pounds, use 10 ounce gloves. In U.S.competitions, use 10 -ounce gloves for 106 to 156 pounds and 12 -ounce for 165 to $201+$ pounds and must be thumb-attached or thumbless.

Attempt to designgloves to absorb shock.
Striking surface is indicated by a white area on the gloves to aid judges in scoring.
$\mathcal{H e} a d g e a r$ serves to absorb much of the force of headblows and protect the boxer from cuts. Headgears for all participants were made mandatory for the 1984 Olympic Games.

Moutfipiece

Form-fitted mouthpieces are required and must be worn at all times; if falls out, it is replaced immediately.

## Glossary

$\mathcal{A s s o c i a t i o n ~ I n t e r n a t i o n a l e s ~ d e ~ B o x e ~} \mathcal{A m a t e}$ ur ( $\mathcal{A} I \mathcal{B A}$ ): The International Federationgoverning the sport of Olympic-style boxing worldwide. Founded in 1946, $\operatorname{AIBA}$, with its current headquarters in $\mathcal{B e r l i n}$, Germany, currently boasts a membersfip of 178 member nations.
$\mathcal{B o x i n g}: \mathcal{A}$ sport that traces its origins to $688 \mathcal{B} . C$. and the Ancient Olympic Games in Greece. The sport was officially recognized in the United $S$ tates in 1888 .
Electronic Scoring: Made its debut in Olympic-style boxing at the 1989 World $\mathcal{B o x i n g}$ Championsfips in Moscow, USSR.Electronic scoring was first used in Olympic competition at the 1992 Olympic Games in Barcelona, Spain.
$\mathcal{F e}$ males: Females are nowallowed to register as athle te members of $\mathcal{U S} \mathcal{A} \mathcal{B o x i n g}$ and are allowed to compete in sanctioned amateur competition within the United $S$ tates. USA $\mathcal{A} \mathcal{B o x i n g}$ approved a female boxing program on Oct.9, 1993, and the first women's bout tookplace in Lynnwood, Wash., on Oct. 30, 1993.
Former Olympians: The alumniranks of amateur boxing are replete with colorful personalities and remarkable athletes. George Foreman, Leon and Michael Spinks, Floyd Patterson, Muhammad Ali (as Cassius Clay) and Ray Leonard among others have won Olympic gold medals prior to winning the ir professional world titles. Riddick Bowe, Michael Carbajal, Evander Holyfield, Roy gones, Pernell Whitaker and Oscar De La $\mathcal{H o y a}$ are among the current standouts in professional boxing whogot the ir start through amateur boxing and competed for the Ulited $S$ tates in recent Olympic Games.
$\mathcal{H e}$ adgear: Serves to absorb much of the force of headblows and protect the boxer from cuts. Headgear for all participants was made mandatory for the 1984 Olympic Games.
"Knockout": A term not used, or recognized, in Olympic-style boxing.
Olympics: The crown jewel of all amateur boxing competitions. Boxing first appeared on the Modern
Olympic program in 1904 in $S$ t. Louis, Mo. Since that time, the United States has captured 47 of the 191 gold medals available, more than twice the number won by the second-place country, Cuba (23)
Weight Class: There are 12 weight classes in Olympic competition. They are:

Light Flywe ight
$\mathcal{F l y}$ we ight
Bantamweight
Featherweight
Lightweight
Light Welterweight
Welterwe ight
Light Middle we ight
Middle we ight
Light He avyweight
$\mathcal{H e}$ avywe ight
Super $\mathcal{H}$ avyweight

106 pounds
112 pounds
119 pounds
125 pounds
132 pounds
139 pounds
147 pounds
156 pounds
165 pounds
178 pounds
201 pounds
201-plus pounds

Zero: the number of Modern Olympic Games in which a U.S. Boxing Team fas participated that it fas not won at least one medal.

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For more information contact: US $\mathcal{A} \mathcal{B o x i n g}$, O ne O Cympic Plaza, Colorado Springs, CO 80909; Telephone 719-578-4506; Fax 719-632-3426; email USSABoxing@aol.com

## $\mathcal{H i s t o r y}$

Since ancient times, cultures across the world have used the canoe for transportation and sport alike. In the $\mathcal{A m e r i c a n ~ P a c i f i c ~} \mathfrak{N}$ orthwest, native $\mathcal{A m e r i c a n t r i b e s m e n ~ c a r v e d ~}$ dugout canoes from whole trees large enough to carry as many as 50 people. Further north, Aleuts and other Arctic peoples built kayaks from a frame work of whale bone and driftwood, over which were stretched sealionskins treated with whale fat. The Goats were a crucial part of Eskimo survival, necessary for fisfing and hunting. Later, early European colonists in the New World 6uilt canoes of bark to navigate the wild rivers of $\mathfrak{N}$ orth $\mathfrak{A m e r i c a}$.

Canoeing got its start as a recreational sport in the 19 th century with an English barrister, Iofn MacGregor. MacGregor designed his own Eskimo-style Kayak in 1845, and spent much of the next quarter. century taking the boat on extended trips across the rivers and lakes of Europe. During this time, he wrote a popular series of books and delivered lectures describing fis canoeing experiences. Mac Gregor's adventures spawned many imitators, and in 1866 he founded the Royal Canoe Club to encourage further interest in the new sport. The club held its first regatta the following ye ar and by 18686 oasted 300 enthusiasts and a fully realized set of rules to govern competitive canoe racing. The sport's popularity spread through Europe and $\mathfrak{N o r t h} \mathcal{A m e r i c a}$, and the $\mathcal{N e w ~ Y o r k ~ C a n o e ~ C l u b ~ w a s ~ f o u n d e d ~ i n ~} 1871$.

The sport continued to drawnew participants and fans throughout the last decades of the 19 th century and the first years of the 20 th. In 1924, delegates from all the national associations which had sprung up in the preceding half-century met in Copenfagen to establish an international body, the Internationella Representantskapet for Kanotidrott (IRK) to formulate rules for competitive racing worldwide.

In the same year, canoe/Kayak made its first Olympic appearance with an exfibition regatta in Paris, as $\mathcal{A m e r i c a n s} \mathcal{H a r r y} \mathcal{T}$. Knight, Ir., Karl $\mathcal{M}$. Knight, Charles $\mathcal{W}$. Havens and Iofn $\mathcal{F}$. Larcombe swe pt the Kayak events and finisfed second befind the Canadian team in all four canoe events. After the success of the exhibition, the IRKlooked to get recognition for canoeing as a full medal sport, but the International Olympic Committee (IOC) rejected their proposalfor the 1928 Amsterdam Games and again in Los Angeles in 1932.

The association continued to petition the IOC to recognize canoeing, however, and it was added as a full medal sport for the 1936 Berlin Games. That year, 19 nations competed ineight events: the single and pairs Kayaks of 1000 and 10,000 meters, single and pairs folding canoes and single and pairs Canadian canoes. It was a less than auspicious debut for the American team, as only one member, Ernie Riedel, reached the medal stand. Riedel won Gronze in the 10,000 meter Kayak single-man race (since discontinued).

World War II caused considerable disruption in international canoeing. The IRKheadquarters in Munich had been destroyed by Allied bombing, and the organization itself was similarly in shambles. In 1946, the Gody was reorganized into the International Canoe Federation. When the Olympics returned in 1948 , only seventeen nations competed. The program was changed as well, with folding canoe events eliminated and a women's event, the 500-meter Kayaksingles, added. The Americans fared considerably better in the ir second taste of Olympic competition, winning a gold medal in the 10,000 meter canoe doubles as well as two silvers. Frank $\mathcal{H a v e n s}$ won one of the silvers in the 10,000 meter canoe singles, an event he would win four years later.

With each Olympiad, canoe/Kayak has drawn more competitors, and over the years the program has undergone further alterations as well. For the Rome Games in 1956 , the 10,000 meter races were
eliminated and a relay race ( $4 \times 500 \mathrm{~m}$ ) for Kayak singles was added. Eight years later in Tokyo, the relay race was replaced by a 1000 m event for four-mankayaks. In 1972 , the program saw its biggest change with the addition of canoe slalom. This event is Gased on "whitewater" canoeing, where the paddler must contend with torrential rivers coursing along in rapids and falls. Tayak single racers, and Canadian canoe singles and pairs, race down a course over turbulent water, navigating through gates similar to those found on a slalom skicourse.

The Centennial Olympic Games in Atlanta in 1996 proved to be the return of Dana Chladek, who had major shoulder surgery just 10 months prior to the Games. Chladekused a brilliant second run to win the silver medal.- the first white water slalom athle te in fistory to win medals in two Olympic Games. Chladek's second rundown the course could have been golden, but she inadvertently let her paddle touch one of the poles on the 24 th game adding a five second penalty to her score. Still, her run was good enough to tie for the gold medal, but tie breaking procedures factor in the lesser run of each athlete, giving Chladek the silver.

## General Information

U.S. Canoe and Kayak Te am (USS CXI) was established to recruit, train and support athletes to compe te in the Olympic Games in flatwater sprint and white water slalom canoe/Kayakracing. US CXI continues to advance the level of awareness of Olympic paddlesport through programs such as $\mathcal{T}$ eam $\mathcal{T}$ rials, National Championships and I unior Olympic programs to take advantage of the growing visibility for paddlesports.

USCKI provides a wide array of programs and services for athletes, coackes, officials and event organizers. Additionally USCXI produces 10-15 major national and internationalevents annually; provides information and services and works with the national media to promote the sport, athletes, events and programs; develops and maintains relationsfips with corporate partners and works closely with the U.S. Olympic Committee to maximize funding and support for US CXI programs.

Based in Indianapotis, USCXI maintains a professional staff and utilizes the services of fundreds of volunteers across the country to promote Olympic canoeing and Kayaking.

About The Athletes

Elite-levelcanoe and Kayak athletes embody the characteristics of the well-defined body builder, the powerfulweightlifter and the le an marathon runner. These athletes are fighly conditioned and intensely competitive. It takes years of training for a paddler to become internationally competitive. The ave rage age of the athletes at the elite levelis in the mid-20s, but, especially in whitewater slalom, athle tes can remain competitive on an international level into the ir mid- 30 s .

Canoe/Kayak Facts And Figures
Olympic Debut
Sprint 1936
Women added 1948
Slalom 1972
$\mathcal{F l a t w a t e r}$ sprint canoe/Kayak became a full-medal sport in 1936 at the Berlin, Germany Olympics... the same year basketball joined the program.

White water slalom canoe/Kayak has appeared on the Olympic program three times (1972, 1992 and 1996).

Most Olympic Gold Medals: USSR/TInified Team -- 29 of 112

## U.S. Gold Medats

| 1948 | Steve Lysak/Steve Macknowski | C-2 $10,000 \mathrm{~m}$ |
| :--- | :--- | :--- |
| 1952 | Frank Havens | C-1 10,000 |
| 1988 | Greg Barton | K-11,000m |
| 1988 | Greg Barton/Norm Bellingham | K-2 1,000m |
| 1992 | goegacobi/ScottStrausbaugh | C-2 slalom |
| Total | 5 |  |

## Rules

The canoe/kayak competition fad 16 medalevents on the 1996 Olympic program. The events were broken down into two categories, flatwater events and white water slalom events. The flatwater competitions awarded 12 medals and the white water awarded 4.

The paddler faces forward without the paddle being supported by a fulcrum on either side of the vessel, distinguis fing the sport from rowing. Canoes and Kayaks come in all different sizes, all kayaks are canoes Gut not all canoes are Kayaks. Kayakers sit down with their legs extended in front of them, and the vessel is covered or decked. Canoeists paddle from a kneeling position with a single bladed paddle in a relatively open vessel, while the Kayaker uses a double Gladed paddle.

Canoe/kayak is divided into two sections .- flatwater events and white water slalom events. The flatwater section will represent 12 of the 16 events in the program. Men and womencompete in the flatwater and white water competitions; the canoe competition is only for men. The designs of the boats are different for the two different venues: the flatwater competition dictates speed, while the white water competition calls for control. The canoes and Kayaks are built long and thin for flatwater competitions to entance full speed and reduce profile friction. The white water boat is built shorter for maximum maneuverability and with higher gunwales to prevent water intake.

The ICF maintains that flatwater competitors must stay in their lane (9 meter wide) and not breach the five meter rule with their neighbor. The result of breaking one of these rules is disqualification. The finalists are determined by heats, the top three finishers in the heats go to the semis while the rest of the competitors go to repechages .- second chance heats. The top three semifinalists move on to the finals where the medalists and the 4-6 places are determined.

The four white water events take place in rapidly moving water that can range in length from 400 to 1200 meters. The venue is man-made waterway a majority of the time, with intentions of simulating white water conditions found in wilderness. Placement in this race is determined by the elapsed time it takes the competitor to run the course, and correction for navigational errors. $\mathcal{A}$ two second penalty is added to a score if a competitor touches a gate and a 50 second penalty is added if agate is missed. The gates are either upstream or downstream, depending on the direction the competitor(s) must pass through them. Each competitor completes two runs. The scores from both runs are added together to determine the winner.

Difference Between Canoes and Kayaks
Canoes
Kayaks

```
single bladed paddle double bladed paddle
canoeistskneel Kayakers sit
sixmedalevents }10\mathrm{ medalevents
Difference Between Sprint and Slalom</\mathcal{TD}>
Sprint Slalom
flatwater white water
head-to-head individual
straight-line speed gate negotiation
timed timed and scored
1 2 \text { medalevents four medalevents}
Equipment
```

Sprint

Racing canoes are rudderless diamond-shaped open boats that are propelled by a single-6laded paddle. The canoeist is positioned in a "kigh-kneel" stance.

Olympic flatwater kayaks are narrowenclosed craft with room for one, two or four paddlers. The kayaker sits inside the craft and paddles with an unattached double-bladed paddle. The person seated in the bow of a team boat or a single kayaker uses a foot rudder to help steer the boat.

```
Sprint Canoe (C-1)
```

Length: 5.20 m (17 ft.)
Beam: 75 cm (29.53 in.)
Weight: 16 kg (35.2 (6s.)
Sprint Double Canoe (C-2)
Length: 6.50 m ( 21 ft .3 in .)
Beam: 75 cm (29.53)
Weight: 20 kg (44 (6s.)
Sprint Kayak (K. 1)
Lengtf: 5.20 m (17 ft.)
Beam: $51 \mathrm{~cm}(20.08)$
Weight: 12 kg (26.4)
Sprint Double Kayak (K-2)
Length: 6.50 m ( 21 ft .3 in .)
Beam: 55 cm (21.65)
Weight: 18 kg (39.6 (bs.)

```
Sprint Four Person Kayak (\mathcal{K 4)}
Length:11.0 m (36 ft.)
Beam:60 cm (23.62)
Weight:30 kg (66 [bs.)
```

Shatom

Kayaks are decked boats in which the competitors sit and propel with a double-bladed paddle. Canadian canoes are decked boats in which the athletes kneel and propel with a single-6laded paddle.

Rudders are profibited on all boats. Boats must be designed to and remain within the following required dimensions:

```
S lalom Kayak (K. 1)
Length:4.00 m(13 ft.1 in.) Width:0.60 m(23.6 in.)
Weight:9 kg (19.8 [bs.)
Slalom Canoe (C-1)
Lengtf:4.00 m(13 ft.1 in.) Width:0.70 m(27.5 in.)
Weight:10 kg (22 (fs.)
S lalom Double Canoe (C-2)
Length:4.58 m(15 ft.) Width:0.80 m(31.5 in.)
Weight: 15 kg (33 lfs.)
```

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Glossary
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" 5 ": A five-second penalty assessed against white water paddlers who touch one or both of the gate poles while attempting to pass through the gate.
" 50 ": A fifty-second penalty assessed against white water paddlers. Penalty is assessed if paddler fails to pass through the gate while underwater or in the wrong direction (i.e. moving through an upstream gate in a downstream direction) or intentionally move a gate pole to permit movement through the gate. Beam: The widest part of the canoe.
$\mathcal{B e n t}$-Shaft Paddle: Any canoe or Kayak paddle with a bend in the shaft, usually at the paddle's throat area. Effect is exponential increase in efficiency (power) with varying compromise in control, depending on degree of bend.
Blade: The wide part of the paddle that goes in the water.
Bow: The front end of the boat.
Broach: Occurs when a canoe or kayak becomes caught in the current against an obstruction and turns side ways. Considered very dangerous.
C-1: One-person canoe, usually decked over for whitewater river running. $\mathcal{A} C-2$ is a two-person canoe, also usually decked over. The paddler kneels in the boat and uses a single bladed paddle.
Canoe: An open craft with pointed ends that is propelled with a single bladed paddle. Also called an "open 6oat."
Chute: An area where a river's flow is suddenly constricted, compressing and amplifying the current's energy into a narrow tongue of water.
Class I-VI: An international standard classification system for rating the difficulty of fast-moving water. Deck: A closed-in area over the bowand/or stern of a canoe or Kayak. Skeds water and, on a canoe, adds strength to the gunwales.

Downstream Gate: A slalom gate which is negotiated in the same direction as the flow of the river. Distinguisfed from an upstream gate by its green and white stripes.
$\mathcal{D r a w}: \mathcal{A}$ stroke pulling in toward the paddler at 90 degrees to the direction of travel. When executed by the bowman of a two-man canoe, it will turn in the boat in the direction of the drawing side.
$\mathcal{E d d y}: \mathcal{A}$ pool of more calm water which is out of the main current of a stream. Located befind obstacles in the river or ne ar the shore, eddies are likely locations for upstream gates, since the paddlers would not have to battle the full force of the current to move through an upstream gate.
Eskimo Roll: $\mathcal{A}$ maneuver performed by a paddler whose boat has rolled, or tipped over. By using the paddle as a brace against the water, the paddler can right himself or herself and continue competing.
Fast and Clean: The goal of a whitewater paddler; to be fast (cover the course as quickly as possible) and clean (to not accumulate penalty points)
$\mathcal{F l a t w a t e r : ~ L a k e ~ w a t e r ~ o r ~ s l o w - m o v i n g ~ r i v e r ~ c u r r e n t ~ w i t h ~ n o ~ r a p i d s . ~ A l s o ~ a ~ s h o r t h a n d ~ t e r m ~ t o ~ r e f e r ~ t o ~ t h e ~}$ Olympic discipline of flatwater sprint racing.
Grip: The end of a canoe paddle opposite from the blade; should be shaped to fit comfortably into the paddler's fand.
Gunwale: (Pronounced "gunnels") The upper edge of the boat's side. Inside strips are "inwales;" outside strips are "outwales."
$\mathcal{H} u l l$ : The body of a canoe or Kayak; the are a that has the greatest impact on how the boat and water interact. A flatwater sprint boat's V-shaped full gives it better tracking, while a white water slalom boat's rounded full makes it more maneuve rable.
" I" S troke: A stroke that ends in a rudder, usually used by sprint canoe ists to avoid the need to move the paddle from one side of the boat to the other to maintain a straight line course.
K-1: One-person Kayak. For women's classes, a "W" is added (K-1W).
Kayak: Self-propelled watercraft in which paddler is fully enclosed and uses a double-6laded paddle from a sitting position.
Keel: The ridge running the length of the boat's bottom which prevents sideslipping in the wind or in a lake. $\mathcal{A l s o}$ adds rigidity or structural support to the full.
Line: The path a white water paddler chooses to take through the gates.
Paddle: The primary toolfor propelling canoes and kayaks.
Petit- Final: Literally "small final." Used to determine final placement of athle tes who do not earn a starting position in the finals of a sprint event.
Rapids: $\mathcal{A}$ section of a river where the current speeds and flows turbulently over and around boulders, drop-offs, ledges, etc. Also known as white water.
Repechage: French for "second chance." This stage of a sprint racing event permits athletes a second chance to earn a spot in the next round of competition (the semi-finals).
River Left: The left side of the river as it would appear to a paddler facing downstream.
River Right: The right side of the river as it would appear to a paddler facing downstream.
Rudder: $\mathcal{D r a g g i n g}$ the paddle to create resistance; whenexecuted by the sternsman of a two-mancanoe, the boat turns in the direction of the rudder side.
Shaft: The narrow part of the paddle which the paddler grips.
Slalom: A shortened term for the Olympic discipline of white water slalom racing.
Sprint: $\mathcal{A}$ shortened term for the $O$ lympic discipline of flatwater sprint racing.
Stern: The backend of the boat.
Swe ep: A stroke made in a broad curve. When executed, the boat turns in the direction opposite the swe e ping side.
Thwart: The supporting member extending across the canoe between the gunwales.
Upstream Gate: A slalom gate which must be negotiated against the flow of the river. Distinguished from a downstream gate by its red and white stripes.

White water: Turbulent, feavily aerated water caused by its flowing around or over obstacles in the current. Also a shorthand term referring to the Olympic discipline of white water slalom racing.

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For more information contact: U.S. Canoe and Kayak Team, PO Box 789, Lake Placid, NV 12946; Tele phone 518-523-1855; Fax 518-523-3767; Internet www.usacanoekayak.org; Email UIS CXI@aol.com

It is generally agreed that curling was developed in Scotland in the 16 th century. The climate in Scotand was colder then, and curling took place on the many marshes (since draine d).

Scottish farmers curled on the frozen marshes using "channelstones," which were naturally smoothed by the water's action. The principles of the game were similar to the moderngame, although there were many differences in rules and equipment.

The spirit of curling evolved in the early centuries in Scotland. It is this spirit of honorable competition followed by egalitarian sociality that made curling a specialgame in curlers'minds. An excerpt from The S pirit of Curling:

Curlers play to win but never to fumble their opponents. $\mathcal{A}$ true curler would prefer to lose rather than win unfairly ... while the main object of the game is to determine the relative skill of the players, the spirit of the game demands good sportsmanship, kindly feeling and honorable conduct.

Scotish immigrants brought the game with them to North $\mathcal{A m e r i c a}$, first to Canada around 1759, then to the United $S$ tates around 1832. Curling in the rest of Europe developed in the 20 th century.

Two developments ensured that the moderngame would be marked by a figh degree of physicalskill and mental toughiness:

1. The standardization of the stone
2. Indoor, refrigerated ice.

The modern stone is round, and about 42 pounds. Curling is played, for the most part, on indoor, refrigerated ice, which helps ensure a fast, consistent and predictable playing surface

## Olympic History

Curling was approved as an Olympic medal sport in $I$ uly 1992. The United States Curling Association was a United States Olympic Committee Affiliated Sports Organization member since 1986. The USCA became a $\mathfrak{N}$ (ational Governing $\mathcal{B o d y}$ in $\mathfrak{M a y} 1994$.

Curling has been an Olympic demonstration sport four times previously, in 1924 (Chamonix, France); 1932 (Lake Placid); 1988 (Calgary, Canada) and 1992 (Albertville, France).

> General Information

The United States Curling Association was founded in 1958. The USCA sanctions national events for men, women, couples and for juniors age 21 and under. The organization is one of 34 members of the World Curling Federation, which was founded in 1966. The WCF sanctions world championsfips for men (inaugurated in 1959 as the Scotch Cup), junior men (begun in 1975), women (1979) and junior women (1988). The Ul.S.men participated in their first world championship in 1961.

The USCA became a U.S. Olympic Committee Affiliated Sports Organization in 1986 and a National Governing Body in May 1994. Curling was approved as a medal sport in Iuly 1992. It fas been an Olympic
demonstration sport four times: in 1924 in Chamonix, France; 1932 in Lake Placid; 1988 in Calgary, Canada; and 1992 in Albertville, France.

Who Curls, And Where

Curling appeals to all age groups and both sexes. Twenty-four-pound "junior stones" are available for children under 10 years of age.

Curling has equal appeal as both a social outlet and a competitive sport. Curling competitions, called
" 6 onspiels," are organized for men, women, couples, seniors and juniors. Localclubs fiave regular leagues for these same constituencies. "Open" events feature curlers of all ages and both sexes competing in one competition.

Curlers come from all walks of life, and value the specialcamaraderie the game offers to all.

The United States

Curling is played in 27 states, mostly across the north. Curling is a winter sport, and is rarely played in warmer climates due to the lack of ice facilities.

There are approximately 15,000 curlers in the United $S$ tates. Wisconsin fas the largest concentration, with ne arly 4,000, and Minnesota has over 3,000 curlers.

The World

Curling is concentrated in countries with colder climates. Canada has the most curlers of all, with ne arly 1.5 million. The countries listed below have curling organizations that belong to the World Curling federation:

| Canada | $\mathcal{F}$ inland | Germany | Wales |
| :---: | :---: | :---: | :---: |
| United States | Swe den | $\mathcal{A}$ ustria | England |
| gapan | $\mathcal{N}$ orway | France | Luxembourg |
| $\mathcal{A}$ ustratia | Denmark | Italy | $S$ witze rland |
| $\mathcal{N e}$ w Zealand | Netherlands | $S \operatorname{cotland}$ | $\mathcal{H u n g a r y}$ |
| Russia | $\mathcal{B e}$ lgium | Czech Republic | Iceland |
| Liechtenstein | $\mathcal{A}$ dorra | Mexico | $\mathcal{B u}$ lgaria |
| Romania | U.S. Virgin Islands | Korea |  |

For more information, call the USCA at 1-88s-CURLERS.

Rules
$\mathcal{A}$ game is made up of 10 ends (Like innings). An end consists of each team member shooting (delivering) two rocks, or stones, alternately with the opponent's. When all 16 rocks have beendelivered, the score for that end is determined.
$\mathcal{A} 12$-foot circle (the "house") is the scoring area. For each stone closer to the center of the circles (the tee) than any of the opponent's, one point is scored. The team scoring shoots first in the next end, giving the opponent the "hammer," or last shot of that end. Teams will sometimes give up a point or two to secure the nextend's fammer.

The sheet of ice (playing surface) is $15^{\prime} 71 / 2$ " wide and 146 feet long, set up to accommodate play in both directions. Most curling takes place in curling clubs, which commonly fave two to six sheets of ice. Hockey arenas are also used as temporary curling rinks; they accommodate six sheets.
$\mathfrak{A l l}$ four players shoot two rocks, beginning with the player referred to as the "lead." The "second" shoots next, and then the "third," or "vice skip." The skip usually shoots the last rocks, and directs the play of the others.

The skip decides on shot selection, and "reads" the curlin the ice for the shooter. The shooter must be accurate in three functions:

Aim (at the Groom)
"Weight" (velocity imparted to the stone)

Imparting the correct "handle" (curl) to each sfot

Shots are called either to stop at a certain point on the sheet ("draws" or "guards") or to fave enough weight to strike another rock out of play ("take-outs" or "hit and rolls").

Each running stone curls, or curves, as it proceeds down the ice based on the twist given it during the delivery. The amount of curlvaries based on the ice surface and the speed of the rock. The curl allows for better control of the stone and also provides a means to shoot around guards.

S we e ping-with either a straw broom, fogs hair or forse fair brush, or synthetic brush adds the element of fitness to curling because, to be effective, swe eping must be very vigorous. Swe eping slightly melts the ice, which reduces the friction between the running stone and the ice. The result is that the stone will curlless, and slide further.

Swe eping is called for when the stone has not beendelivered firmly enough, and/or when the shot is aimed "narrow," or inside the broom target. S we eping can help a rockslide up to an additional 15 feet. Top teams control most shots by using aim and weight "within the swe eping zone."

Strategy is a major part of curling. Shots are played with an eye to the last rocks of each end, not simply placed at the center of the circles. The strategy can be rather complex. Innovations are constantly being made and adopted when the innovators win, similar to other sports where strategy and the game plan plays a major role.

It is commonforgames between national-class teams to be very close, with both skips jockeying for the last shot in the lastend. Here, the mental toughness factor is crucial to success.

The Curling Scoreboard

On a traditional curling scoreboard, the center line of numbers represents the score and the numbers fung above and below the scoring line pertain to the ends in which points were scored.

In the example above left, $\mathcal{T e}$ am $\mathcal{A}$ wins $5-4$ in an extra end. "A" scored one point in the $1 s t, 8$ th, and 11th ends, and two in the 5 thend. "B" scored one point in the $2 n d, 6 t h, 9 t h$ and 10 thends. The 3 rd, 4 th, and 7 th ends were "blanked" (no one scored).
$\mathcal{N o t e}:$ The teams flip a coin for "Last rock" advantage in the first end. Thereafter, last rock advantage goes to the team that did not score last. For example, " $\mathcal{A}$ " had the last rock in the $3 r d, 4 t h$ and 5 th ends, since " $\mathcal{B}^{\prime}$ scored in the 2 nd end.

## Equipment

Clothing: Loose fitting, severallayers, sweaters, slacks, caps. Matching uniforms for many competitions Shoes: Specialcurling shoes are common but not mandatory. Shoes should grip the ice well for walking. $S$ mooth soles are easy to clean to minimize dirt on the ice. For the delivery, extremely slippery surfaces such as $\mathcal{T}$ eflon are used on the sliding foot to generate along, smooth-sliding follow through. Some "sliders" are built into shoes, while others are strapped on over the sole.
$\mathcal{B r o o m} / \mathcal{B r u s h}$ : Commercially manufactured for curling. The straw brooms, synthetic brushes, and short bristled brushes are all effective.
Stones: Made of a rare, close and evenly grained granite quarried on Scotland's Ailsa Craig, with fandles attached. Stones are standardized, we ighing 42 pounds, and they are owned by the curling club.
Glossary

Bonspiels: Curling tournaments.
Curl: $\mathcal{A}$ twist of the stone's handle, upon release, which makes the stone curl, like a "hook" in bowling. The curl is the direction of the twist.
Curlers: $\mathcal{A l l}$ four members of the team sweep for the ir teammates' shots.
End: Similar to an inning in baseball. Agame is usually 10 ends, or more than two fiours. There are 16 stones per end. After each end, the score is determined.
$\mathcal{H a c k}$ : Starting line for throwing stones; also known as a foothold. It is about 125 feet from the scoring area.
$\mathcal{H}$ istory: Curling began in 16 th century Scotland. Brooms originally were used to clear snow from the paths of the stones, with the game debuting outdoors on frozen ponds and lochs. In the 18 th century, Scottish immigrants brought curling with them to $\mathcal{N}$ orth $\mathcal{A}$ merica, where it spread across the northern $\mathcal{Z} . S$. and Canada. By 1855, curling clubs flourished in $\mathcal{N}$ (ew York City, Detroit, Milwaukee and Portage, Wis. Curling season generally lasts from October through March.
$\mathcal{H o g}$ Lines: Located 21 feet fromeach tee.S tones must be delivered past the fog line, or it is removed from play.
House: The scoring area, 12 feet in diameter. Delivery of the stones is a fighly skilled art, with varying angles and strategies.
Ice Conditions: Vary and affect the amount of curland the delivery effort needed to get the stone to stop in, or in front of, the scoring area or remove an opponent's stone.
Rink: A team. Curling is played by two rinks, consisting of four players each. Players have specific jobs, and are known as the skip, the third (or vice skip), the second and the lead.
Scoring: The team with the stone closest to the center of the house scores one point, and one additional point for every stone nearer the center than the nearest opponent's stone. The team with the fighest score at game's end wins, with the maximum score in each end being eight points. Typically, one to three points are scored per end. Aneight-end is more rare than an ace in golf.

Second $\mathcal{A n d}$ Lead: Players who deliver two stones each per end, and who are the primary swe epers. Players are involved in every shot, with one shooting, one folding the broom and two swe eping.
Sheet Of Ice: The field of play. Its designallows play in 6 oth directions.
Shoes: Specially made and available, but not mandatory. Shoes should be flat-soled and cle an, and should grip the ice well for walking. In a typicalgame, a curler walks about two miles.
Shooting: The object is to get the stone to come to rest at a predetermined place (adraw or guard), or to move another stone (a takeout or raise). Players shoot alternately with their counterpart on the opposing team.
Shot Selection: $\mathcal{A}$ major part of the strategy. Basic shots are the draw (stone stops in the scoring area), the guard (stone stops in front of another already in scoring position) and the takeout (stone removes an opponent's stone from the field of play).
Slider: Worn on the sliding foot, in delivery of a stone. To allowfor long, smooth-sliding follow through. Skip: Player who holds the broom as a target for shots by the other three players. Skips are team strategists and team captains and must study the ice, judge the amount of ice curland speed and select the shots. Skips usually throw the last two stones of eachend. Strategy is a major factor in curling, even as important as shooting skill. Curling often is called "chess on ice." Top teams must develop considerable mental toughness.
Stones: Also known as rocks, made of dense, polished granite and quarried in Scotland. Each rock we ighs 42 pounds. The granite is rare. To score, each player delivers two stones, or rocks, down a sheet of ice 146 feet in length.
S we epers: Players swe ep to make the stone travelfarther and move straight (less curl). S we eping can increase the distance a stone travels by as much as 15 feet. The key is vigor. Two sweepers guide each shot.S we eping polishes the ice. Vigorous swe eping requires fitness. The brooms, or brushes, are specially made. Clubs often furnish Grooms for new curlers.
Tee: Center of the house.
Third: Player who holds broom for the skip, and who assists the skip with game strategy. Also known as a vice-skip. Shoots two stones per end.

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For more information contact: USA $\mathcal{A}$ Curling, PO $\mathcal{B o x}$ 866, Stevens Point, WI 54481-0866; Telephone 715 . 344-1199; Fax 715-344-2279; Internet www.usacurl.org; Email usacurl@coredcs.com

The Atlanta Olympics hosted the biggest, most exciting display of cycling in the 100 year fistory of the modern Games. For the first time, professional cyclists competed in a record 14 events (eight for men, six for women) including the inaugural mountain-bike cross country race.

It was a far cry from the Los $\mathcal{A n g e l e s}$ Games in 1984, when cyclists fad just eight events including the first-ever women's contest .- the road race. Still, that Olympiad proved to be a catalyst for $\mathcal{A m e r i c a n}$ cycling, giving the sport's followers added enthusiasm for its future after $\mathcal{A} t$ lanta.

Cycling fias been a part of the Olympics since the start of the modern movement, with five events contested in $\mathcal{A}$ thens a century ago. The United $S$ tates won its first medal at Paris in 1900, as gofn Henry Lake took the bronze medal in the sprint. Four years later, the U.S. team swept all the medals in seven events in the St. Louis Olympics. Eight years later, in Stockholm, the Uis. road team won two Gronze medals in what would be the final podium appearances for $\mathcal{A} m e$ ric ans until 1984.

But once again on fome soil, U.S. riders piled up nine medals in Los Angeles in 1984, including the first women's medal awarded, as Wisconsin's Connie Carpenter won the road race. Interest in the sport skyrocketed with the number of licensed racers jumping more than 5000 by the end of 1985. Today there are 63,600 riders licensed to race in the United $S$ tates, combining all disciplines.

Though cycling gained ne w prominence after the 1984 Games .. and received an added boost with Greg Le Mond's three victories in the $\mathcal{T}$ our de $\mathcal{F}$ rance .- the sport still battles to regain the lofty stature it enjoyed before basketball, baseball and football, when cyclists were the highest-paid and most envied athletes in the United States. Thousands of fans would show up for one-day races and flock to trackracing at velodromes around the nation.

Today, international events across the United States, like the Core States U.S. Professional Championsfip Race, lure hundreds of thousands of spectators.

> General Information

The company was organized in 1920 as the $\mathcal{A m a t e}$ ur $\mathcal{B i c y c l e}$ League of $\mathcal{A m e r i c a}$ and was incorporated in $\mathcal{N e} w$ York in 1921. In 1975, the name was changed to the United States Cycling Federation. In 1995, a ne w organization, USA Cycling, was incorporated in Colorado, and on Iuly 1, 1995, the two corporations merged, with $\mathcal{U S} \mathcal{A}$ Cycling being the umbrella corporation.

Since the creation of the modern bicycle, the United States fias been a dominant force in cycling competition. Before $\mathcal{W}$ orld $\mathcal{W}$ ar II, cycling was second only to base ball as a national sporting pastime. $\mathcal{F o l l o w i n g}$ a period of decline in the 1950 s and ' 60 s , cycling regained its popularity and today is the fastest. growing amateur participation and spectator sport. Studies show that more than 99 million $\mathfrak{A m e r i c a n s}$ are active in cycling. Research further indicates that these people spend more than $\$ 4$ billion annually to participate in the sport of cycling, and that these expenditures will likely double over the next several years.

Purpose

USA $\mathcal{A}$ Cycling is the officialcycling organization recognized by the USOC and is responsible for identifying, training and selecting cyclists to represent the United States in internationalcompetitions. US $\mathcal{A}$ Cycling, doing business as the USSF, $\mathcal{N} O \mathcal{R B A}$ and $\mathcal{U S} \mathcal{P R O}$, controls ne arly two dozen major events each ye ar and issues permits for up to 3,000 more.

The major activities of $\mathcal{U S} \mathcal{A}$ Cycling ensure the ongoing development and safe participation in the sport of cycling. Membership services and a full spectrum of other responsibilities account for the functions of US A Cycling.

Individual members elect a board of trustees that oversees their respective association, and that board elects two of its members to sit on the board of directors, which sets USA Cycling goals and policies. The members of each association also directly elect an active athle te to sit on the board. The corporation's business is conducted by a paid professional staff, which is overseen by the executive director. Staff members are responsible for administration, coaching and athlete services, Olympic preparation, tecfnical services, membership services, corporate development, sport science research, event planning, media coverage and public relations.

The $\mathcal{N}$ (ational Bicycle League: In the Beginning

It all started in the early 1970 s . Kids started imitating their motorcycle motocross feroes on the ir 20 inch Gicycles. They started building bicycle motocross tracks and holding informal races. A new sport was born! $\mathcal{B} y$ Kids and forkids, $\mathcal{B M X}$ was growing on a grass roots levelfrom New York to California and everywhere in Getwen. The first major milestone for $\mathcal{B M X}$ came with the debut of the movie, "On $\mathcal{A n y}$ S unday." From that point on $\mathcal{B M X}$ was on its way to becoming a nationally and internationally recognized sport.

From the very beginning parents of $\mathcal{B M X}$ ers recognized the positive aspects of the sport and began forming local and state organizations to promote it. These efforts resulted in the creation of the National $\mathcal{B i c y c l e} \operatorname{Le} a g u e$. The $\mathcal{N} \mathcal{B L}$ was formed in 1974 and is the first sanctioning organization to unify local and state $\mathcal{B M}$ X associations; taking the sport to the national and internationallevel of competition.

Today the $\mathcal{N} \mathcal{B L}$ sanctions over 3,000 races per year including $25 \mathcal{N}$ ational Events and 12 Regional Events. The recent merger with US $\mathcal{A}$ Cycling has thrust the $\mathcal{N} \mathcal{B L}$ into the $\mathcal{W}$ orld $\operatorname{Spotlight}$. The $\mathcal{N} \mathcal{B L}$ is the only $\mathcal{B M} X$ sanctioning body in the United $S$ tates recognized by the Union Cycliste Internationale (UCI). UCI is the recognized world sanctioning body for bicycle racing.

Male and female racers of all ages compete for state and national titles. To make the racing more competitive racers are pitted against other riders of the same age and skill level. Unlike other racing formats, each participant races at least three races per day and accumulates points for each race. At the end of the day points are totaled and awards are presented.

The $\mathcal{N} \mathcal{B L}$ is dedicated to promoting a healthy, fun environment where families can grow together. Although racing is a big part of the $\mathfrak{N} \mathcal{B L}$, the social aspects of the events cannot be understated. Kids and parents come together to enjoy the challenge of racing and to foster positive attributes which will contribute to everyone's future.
$\mathcal{N a t i o n a l}$ Off-Road Bicycle Association
$\mathcal{N a t i o n a l}$ Off-Road Bicycle ( $\mathcal{N}(O \mathcal{R B A}$ ) Mission Statement
$\mathcal{N} O \mathcal{R B A}$ 's mission is to guide, service and promote mountain biking as a competitive sport and outdoor activity.
$\mathcal{N O R B A}$ 's Purpose
$\mathcal{N} O \mathcal{R B A}$ guides competitive mountain biking to a position of prominence so that it is recognized as a major
 programs promote safe, responsible and environmentally sound mountain biking.
$\mathcal{B r i e f} \mathcal{H}$ istory
$\mathcal{N} O \mathcal{R B A}$ was established in 1983 to meet the needs of a growing sport and to work toward the preservation of open trails for mountain bike use. In 1989, $\mathfrak{N} O \mathcal{R} \mathcal{B A}$ was purchased by US $\mathcal{A}$ Cycling to further unify the sport of $\mathcal{A m e r i c a n c y c l i n g ~ a n d ~ e f f e c t i v e l y ~ r e p r e s e n t ~ t h e ~ s p o r t ~ t o ~ i t s ~ I n t e r n a t i o n a l ~ f e d e r a t i o n . ~} \mathcal{N} O \mathcal{R B A}$ fas grown by 1,000 percent since 1989, a growth rate unmatched in any sport today!
$\mathcal{N} O \mathcal{R B A}$ is governed by a board of trustees composed of members of its constituency, including athle tes, race organizers, industry representatives, land access representatives, sponsors and officials.
 organization for mountain bike racing by offering racing opportunities through nationwide competitive events, including:

- Cross-country
- Downfill time trials
- Dual slalom
- Hill climbs

Mountain bike racing, now an Olympic discipline, fas beendominated by U.S. riders like $\mathcal{I} u l i a n a \mathcal{F u r t a d o}$, Missy Giove and David "İinker" Iuarez. Furtado won every event she entered in 1993 and won the gold medal in the 1994 Grundig/World Cup. In the '94 Grundig/UCI World Championships, Missy Giove won a gold medal, Tinker I uarez brought home a sliver and Sara Ballantyne claimed a bronze. $\mathcal{N} O \mathcal{R B A}$ professional riders consistently place in the top 10 of World Cup and world championsfip competition.

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\mathfrak{N O R \mathcal { B A }} \text { s Programs }
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## $\mathcal{N}$ ational Championship Series

$\mathcal{N O R B A} \mathcal{N} \mathcal{N}$ ational Championship Series is recognized and respected worldwide as the premier mountain bike series for elite mountain bike racers. The series attracts an average of 1,900 competitors for each event and is fully televised on $\mathcal{E S} \mathcal{P N}$ and $\mathcal{E S} \mathcal{P N}(2$. In all, $\mathcal{N} O \mathcal{R B A}$ produces more than 15 shows for tele vision. Each state offers a regional series for beginners and sport-levelcompetitors that serves as a stepping stone to nationalevents. $\mathcal{N} O \mathcal{R} \mathcal{B}$ A fosted the 1994 World Championsfips in Vail, Colorado, for elite mountain bikers from more than 50 nations. These championships were featured in two segments of $\mathfrak{A B C}$ 's Wide World of Sports. Internationally, $\mathcal{N} O \mathcal{R B A}$ was instrumental in the formation of an eight-country World Cup that Gegan in 1991 and had five stops in the United States during 1995. The $\mathcal{N}(O \mathcal{R B A} \mathcal{N}$ (ational Series is supported by strong retail promotions through $\mathcal{N}$ abisco, geep, Coca-Cola and other sponsors. The events also feature a nationalconsumer trade show.

Youth Programs
$\mathcal{N}(O \mathcal{R B A}$ is actively involved in youth mountain bike racing so that young riders and the ir families are able to le arn and understand the sport of cycling in a friendly, fun and safe environment. $\mathfrak{N O R B A}$ 's youth events, as products of the $\mathcal{N}(O \mathcal{R} \mathcal{B A}$ youth series that formally began in 1993, are designed to be exciting for all participants .- riders, spectators and parents .- and to involve everyone as winners. Because $\mathcal{N} O \mathcal{R} \mathcal{B A}$ is constantly striving to upgrade its events at both grassroots and national levels, the association encourages promoters to host youth events at $\mathcal{N a}$ ational Championship Series and localevents so that everyone who attends a mountain bike event can be a winner and have fun.

American Mountain Bike Challenge ( $\mathcal{A M B C}$ )
$\mathcal{N O R \mathcal { B A }}$ has introduced the $\mathcal{A m e r i c a n ~ M o u n t a i n ~ B i k e ~ C h a l l e n g e , ~ a ~ c o o p e r a t i v e ~ m a r k e t i n g ~ e f f o r t ~ b e t w e e n ~ t h e ~}$ largest regional events in the country and $\mathcal{N}(O \mathcal{R B A}$, that markets cycling to the $\mathcal{A m e r i c a n ~ p u b l i c ~ i n t e r e s t e d ~}$ in outdoor recreation and competition. The $\mathcal{A m e r i c} a n \operatorname{Mountain} \mathcal{B i k e}$ Challenge reaches 20 markets and is geared toward sport-level riders. $\mathcal{N} O \mathcal{R} \mathcal{B A}$ also works with sponsor like $\mathcal{B} u d$ Light to support localgrassroots events and state series with financial and marketing support.
$\mathcal{N a t i o n a l}$ Mountain Bike Patrol
$\mathcal{N}(\mathcal{R B A}$ has developed a core group of volunteer ambassadors for the $\mathcal{N}$ (ational Mountain $\mathcal{B i K e} \operatorname{Patrol}$ $(\mathcal{N} \mathcal{M B} \mathcal{P})$. The $\mathcal{N} \mathcal{M} \mathcal{B} P$ ambassadors help educate visitors to resorts, communities and area parks about mountain biking, and they also assist visitors who are unfamiliar with the area or who need medical ass istance. Through the $\mathcal{N} \mathcal{M B} \mathcal{P}, \mathcal{N}(O \mathcal{R} \mathcal{B A}$ also recognizes established patrolfing units, clubs and organizations that have a basic knowledge of mountain bike patrolfing.
$\mathcal{N O R B A}$ Regional Ranking
$\mathcal{N} O \mathcal{R B} \mathcal{A}$ ranks every member who competes in any sanctioned event. In a given region, members can compare their ranking against their peers. The rankings also help professional teams identify new talent.

United States Cycling Federation

The Ulnited States Cycling Federation (USCF) was organized in 1920 as the $\mathcal{A m a t e}$ ur Bicycle League of $\mathcal{A} m e r i c a$ and was incorporated into the State of New York in 1921. The current name was adopted in 1975. In 1995, the USSCF reorganized as a Colorado not-for-profit corporation, US $\mathcal{A}$ Cycling, Inc. The USCF is now an Association of USS A Cycling.

USCF Mission Statement

The USCF's mission is to advance and service cycling through education, widespread participation and excellence in competition.

USCF's Purpose

The purpose of the USSCF is to foster a dynamic and pervasive culture of cycling in the United States to the following ends:

Excellence incycling competition, with emphasis in elite juniors and seniors

Widespread participation in fair and safe cycling activities for all ages, genders and skill leve fs

Widespread good public image of cycling

Widespread understanding of cycling information
$\mathcal{N e w}$ Knowle dge of cycling science and sports medicine
International and national decisions that benefit cycling.

Clubs form the foundation of the USCF. They promote activities for beginners, such as training rides, clinics, races and social activities, whichintroduce riders to other competitors and proper cycling techniques. Clubs also promote USCF-sanctioned events in the United States. They secure race permits, solicit prize lists, support sponsorship, distribute entry forms and oversee advertising.

The USCF has a pool of 32 district representatives who serve as liaisons to riders and clubs and who administer and promote the sport locally. District representatives upgrade riders, approve club membersfips and race permits and appoint officials as chief referees for events in their district.

## Olympic Preparation

The Olympic Preparation division's success is measured by the performance of the U.S. Cycling Team athletes. In general, the performance of the U.S. Cycling Team is the yardstick by which the success of the entire corporation is measured. By that measure, the USCF fas been avery successfulorganization in the last 10 years. Our international and Olympic achievements are remarkable when compared with the previous 30 to 40 years of cycling fistory. Nearly every Americancycling champion of the last decade was prepared by the Olympic Prep division of the USSCF.

Outstanding accomplishments by U.S.cyclists during the past decade include three Tour de France victories by Greg Le Mond; 12 medals in the last three Olympiads; and 15 world championsfips won collectively by Le Mond, Lance $\mathcal{A r m s t r o n g}$, Rebecca $\operatorname{T}$ wigg, Connie Young, Mike McCarthy, Marty Nothstein, Erin $\mathcal{H}$ artwell, Ieanne Golay, Laura Charameda, Karen Kurreck, Ianie Quigley and women's $\mathcal{T e}$ am $\mathcal{T}$ ime $\mathcal{T}$ rial squad, (I an Bolland, Bunki Bankaitis-Davis, Ie anne Golay and Eve S tephenson.)
$\mathcal{A}$ the 1995 Pan American Games, the USCF won an unprecedented 14 medals. The 1994 World Championships were also the most successfulever for the U.S. Cycling Team, winning eight medals (three gold, two si(ver, three bronze). This was an increase from their previous best of winning seven medals in 1993. Marty $\mathcal{N}$ othstein became the first $\mathcal{L} . S$. man to win two world championships in a single year (Match Sprint and Kierin), and the men's Team Pursuit shocked the world by beating Australia, the defending world champion, by 0.027 of a second for a silver medal. The U.S. women continued a tradition of outstanding performance by winning five medals in 1993 and four medals in 1994. Rebecca $\mathcal{T}$ wigg won her fifth world championship and set a world record in the women's Individual Pursuit in 1993. Karen Kurreck won the 1994 World Championship in the women's Individual $\mathcal{T}$ ime $\mathcal{T}$ rial, the inauguralyear for the event. In the past decade, the OCympic Preparation division has consistently produced winners in almost all cycling disciplines.

Athlete Coacfing and Development Programs

## EDS Scouting Program

Employing CompuTrainers in a manner similar to the U.S. Cycling Team, this program has gone nationwide to seeknew and greater talent for $\mathcal{Z} . \mathcal{S}$. cycling. With corporate sponsorskip support, this high profile "simulated race series" covers many of the big spectator and participant events in the United States. The public is invited to experience a computer-simulated race at events such as the Tour duPont and Olympic Trials. The results provide localclubs with a resource for identifying and developing ne w talent. This
program is coordinated between the USCF Athlete and Coaching Department and localclubs throughout the country.

## YMCA/USCF Youth Cycling Program

This program will bring the training methods of the U.S. Cycling $\mathcal{T e}$ am to $\mathcal{M M C A}$ s and localclubs around the country. Each year, УMCA program directors will come to Colorado Springs for instruction on USCF coaching instruments such as the CompuTrainer and $\mathcal{U S C F} C l u 6$ programs. YMCA personnel will then return to their local $y^{\prime}$ s and contact areacycling club members, who will help establish a training center for local cyclists and people interested in cycling programs. This program is an exciting merger of USCF coaching methods with USA Cycling clubs and the numerous yMCA members.

## Lance Armstrong Iunior Olympic Race Program

This fighly successful program was designed to provide selection venues for junior regional teams, an incentive for more race directors to incorporate separate junior races in the ir events, more racing opportunities for junior riders, more exposure for junior racing and more organized junior scouting opportunities for USCF regional coackes. In 1995 , the program consisted of 24 races .- four in each USCF region.- that qualified more than 200 juniors for the 1995 junior regional team selection camps (junior national team riders were excluded from this program). The female and male athletes who were named to the junior regional teams then competed in the 1995 U.S. Olympic Festival in Colorado.

Iunior Regional Team Selection Camps

In 1995, the top finishers (240 total) in the 30 junior Olympic races attended ajunior regional team selection camp in their respective regions. These camps were organized, staffed and run by USCF regional coaches who selected teams of 12 riders. Each team comprised of male and female riders ages 14 to 18. From these regional teams the coaches selected top riders to attend the 1995 gunior World Road Team Selection Camp in Colorado Springs and a fewriders to attend the gunior World Track Team Selection Camp in Indianapolis.

Those 72 regional team members who were not selected to the world team went on to compete at the 1995 U.S. Olympic Festival. One female rider and one male rider were selected from the festival to the 1996
 not only in selecting the very best riders fromeach region, but also in educating all participating riders and USCF coackes about team selection protocol and other cycling and team procedures. We expect this program to grow over the next fewyears and to include alarger number of juniors.

## I unior Regional Championsfips

The finalevent in the Lance Armstrong I unior Olympic Race series provided the opportunity for 10 - to 18 . year-olds to race for the regional championsfips title and a spot on the 1996 I unior Regional Team.

Masters Clinics

Regional coaches conduct three Master's Clinics throughout their respective regions. Each clinic helps masters test and evaluate the ir fitness levels. This program provides masters with information on how to improve and enhance their physical abifities. Using the same testing and evaluation techniques as the U.S. Cycling Team coackes, the regional coaches have the opportunity to learn high-performance coaching techniques while introducing masters to figh-tech coaching principles.

Masters-age cyclists participate in ranking and recognition programs throughout the racing season. These programs include the $\mathcal{N a t i o n a l ~ R o a d ~ a n d ~} \mathcal{T r a c K}$ Championsfip, Best-All-Round ( $\mathcal{B A R}$ ) Rider awards, regional $\mathcal{B A R}$ ranking competitions, sectional championships and the Masters $\mathcal{A l l}-\mathcal{A} m e r i c a n C y c l i n g ~ \mathcal{T e a m}$. Masters programs provide lifelong competition opportunities for cyclists who are 30 years of age and over.

## $\mathcal{N a t i o n a l}$ Events

The USCF national championships are the premier cycling events for athletes of all age groups in the United States. Each season, ne arly 5,000 cyclists prepare for their opportunity to challenge for a national tile. For many cyclists, the national championships are the culmination of fundreds of training hours.

The nationalchampionships provide opportunities for USCF-licensed riders to compete on a national level, whether in elite, junior or masters events. Because the spotlight of being a nationalchampion shines just as brightly on a 12 -year-old as it does on an elite or master rider, every year the ULSCF focuses on conducting the best nationalchampionship possible for eachage group. In 1995, the elite nationalchampionships were showe ased in a television special aired by $\mathcal{N} \mathcal{B C}$ sports.

The USCF also promotes an annual Points Series, which bean in 1993. The series is the primary focus for athletes aspiring to the U.S. Cycling Team. Its primary purpose is the identification and selection of talented athletes and to provide ongoing national exposure for bicycle racing. The 1995 series was sponsored by Fresca.
$\mathcal{N}$ ational Collegiate Cycling Association ( $\mathfrak{N C C A}$ )

The $\mathcal{N C C A}$, under the USCF, administers, develops and promotes all disciplines of collegiate cycling. Under the auspices of a school's recreation sports or club department, teams may be organized at junior or four. year colleges or universities. There are approximately $200 \mathfrak{N C C A}$ clubs, close to 2,500 collegiate riders and 10 collegiate cycling conferences throughout the nation. Each club belongs to a particular conference, depending on the school's location. At the conclusion of the season, conference championships are held, after which teams and individual riders are ranked to identify the nationalchampionship qualifiers. There are three national championship events: National Collegiate Road Championships, National Collegiate $\mathcal{T}$ rack Championships and $\mathcal{N a}$ ational Collegiate $\mathcal{M}$ ountain $\mathcal{B}$ ike Championships.

Disabled Program

In 1995, the USCF, in conjunction with its nationalchampionsfip program, feld nationalchampionships for three of seven USOC-recognized disabled sports organizations: Disabled Sports US $\mathcal{A}$, United $\mathcal{S}$ tates
 resource for the disabled cycling community by identifying active organizations whose sole purpose is to serve athletes with disabilities.

## Women's Programs

The USCF fas focused on identifying opportunities for women in cycling, in addition to recognizing women at regional and national levels. Based on a financial grant and sponsorsfip from Fresca, a women's point series has been created. The USCF has taken this opportunity for women and built upon it by organizing a Kighly successfullecture series titled "Connie Carpenter Phinney's Trade Secrets." Additionally, the USCF fias assumed responsibility for publicizing updates to this series as well as point rankings.
U.S. Professional Racing Organizations

Ul.S. Professional Racing Organizations (ULS PRO) serves as the governing body for professionalcycling and is another affiliate of USA Cycling. US PRO members such as Greg Le Mond and 1993 World Champion Lance Armstrong have elevated professional racing to newheights.Successful sponsorships with a number of well-Known corporations have proven that investing in professional teams or events is an effective marketing tool.

The addition of USS PRO into the Corporation completes $\mathcal{T} \mathcal{A} \mathcal{A}$ Cycling's program range from grassroots through professional. USPRO Cycling offers the high-profile image that cycling needs in order to be on par with other professional league sports in the United States. USPRO events such as the Tour Dupont, Corestates $\mathcal{P R O}$ Championships and Thrift Drug Classic Gring professionalcycling to alarge tele vision audience and to the broad base of fans necessary to attract corporate interest. Interest in professional teams and events will continue to grow. While the tradition of cycling in Europe remains strong, US PRO is working to create a niche for the sport in this country with leadership from heroes such as Lance
Armstrong.

## Rules

Within the track, road and mountain biking disciplines there were 15 medalevents at the 1996 Olympic Games.

Bicycle Design
Form follows function in the design of the bikes used for eachevent, but none of them can exceed two meters in length or 50 centimeters in width in order to meet internationalrules.

Tipping the scales at just 15 pounds, track bikes sport only the bare essentials for competition .. a single speed ( $a$ "fixed" gear, so athletes must always pedal while they're moving), and no brakes. Road bikes are outfitted with derailleurs to provide up to 16 gears, and weigh approximately 18 pounds. And for the rugged mountain-bike course, riders will use bicycles with 21 gear options to match the terrain, and the frames will be outfitted with motorcycle-style front suspension. These dirt bikes, with front suspension, will weigh about 20 pounds.

The other rules on bicycle design contend with aerodynamics. Protective windscreens, fairings or "other additions to the bicycle for the purpose of decreasing forward air resistance or to artificially increase acceleration or propulsion" are profibited. Another restriction is the use of triathlon-style aerodynamic handle bars. These aero bars can be used on the trackfor pursuit and kilome ter time trial events, and on the road for time trial events; they're illegal in all mass-start races.

The Olympic events are as follows:

Track Events

Kilometer $\mathcal{T}$ ime $\mathcal{T}$ rial
$\mathcal{A l m o s t}$ as specialized as sprinting, and oftencontested by the same athletes, the one-kilometer time trial requires a rider to perfect a rapid acceleration from a standing start, and then sustain a speed of 60 Kph for about a minute. This is a pure speed event, with the winner determined by fastest time. The rules previously allowed only one rider on the track at a time, but now the kilo is contested by two athle tes at a time, starting on opposite sides of the track.

## Match Sprint

Track sprinting is the most specialized of the cycling disciplines, with the emphasis on perfecting one, short, powerful burst of speed.- perkaps lasting no more than 15 seconds. A sprint race is typically one-onone, with preliminary rounds of a competition le ading to a two-personfinal, which is decided by the first rider to win two of three matches. Each match is three laps, with a slow, two-lap tactical build-up toward a flat-out sprint over the final 200 meters.

In a mix of psychologicalgamesmanship and physical prowess, riders start together, and may play a cat. and-mouse game for position on the track. For the first lap, the le ad rider (who has drawn lots for that position) must proceed at a minimum of a walking pace. In an effort to gain the prime position, riders may come to a complete stop (a"trackstand") during the second lap in an attempt to get the ir opponent to take the lead. Remember, the rider in front has to do extra work to push through the wind, while the second rider can expend less energy as they sit in the slipstream. Some riders, however, are confident in the ir sprint and feel they can win from the front position.

Pursuit

The pursuit is essentially a short time trial, contested by two riders who start on opposite sides of the track. If one rider catches the other, he or she wins; otherwise, their separate times decide who is the winner. This event is best suited to athletes who also perform well in road races, which gives them the stamina to sustain a speed of more than 50 Kph for up to six minutes. The men's race is run over 4000 meters, while women compete over 3000 meters.

Team Pursuit

This is a combination of a team time trial and a pursuit, with four-person teams racing against each other. Teammates ride in a single file, front wheels positioned an inch or two from the wheelof the rider ahead of them, making communication and coordination crucial to the event. Each rider takes turns working in the lead position, while the others sit in the slipstream. The team's time is clocked off of the front wheel of the squad's third rider across the line.

## Points Race

$\mathcal{A}$ n event available to both short-distance racers and road specialists, the points race is contested over distances from 20 km to 50 km , with riders sprinting for points every fifthlap. The winner is determined by points unless that rider has managed to lap the pack. The pack.. 30 strong for the men, about 20 for the women -. makes for a beefive of activity on the track. Though exciting to watch, it can be confusing too, because the person at the front of the field may not actually be the leader in the points standings.

Road Events

Road Race

Road races feature a mass start, and depending on the tactics and terrain the riders encounter, the finish can be a sprint betwen 50 riders, or come down to a solo rider rolling across the line. Although the first rider across the line wins, team tactics are crucial to help the winner get to the podium. Teammates can help their designated leader by chasing down attacks, stopping if the leader fas a flat tire and giving fim or her their own wheel, or by the simple act of delivering a bottle of water up to the leader. This leaves the leader fresh to launch an attack or accelerate fard for the final sprint.

Time $\mathcal{T}$ rial

The time trial is cycling's "Race of Truth," because the outcome depends solely on the rider's physical and mental strength, and ability to maintain an aerodynamic position with an efficient pedaling technique. Riders are started at 60-second intervals, and the fastest time over the course wins. Drafting is not legal, so if a stronger rider approackes a slower rider, the faster rider must move to the side so they don't benefit from the slower rider's slipstream.

## Mountain Events

Cross-Country
$\mathcal{T h}$ is is the basic off-road event: $\mathcal{A}$ mass-start race held on a point-to-point or circuit course of forest roads, single-track trails and dirt tracks. It requires all-around fitness and ability, with emphasis on stamina, climbing strength and descending skills. Unlike track or road events, mountain bike competitors must handle their own repairs. Assistance or equipment given by spectators or other riders is grounds for disqualification.

## Equipment

Road racing bikes have lightweight frames built from steel, aluminum, titanium or carbonfiber. They are equipped with downward curving handle bars, thin high-pressure tires, narrowsaddes, brakes and as many as 16 different gear combinations. Weight is $18-23$ pounds ( 8 to kg ).

Track bikes are similar to road racing bikes in appearance and construction but have no brakes and weigh $15-20$ pounds (7 to 9 kg ).

Mountain bikes are built to withstand the rough pounding off-road racing provides. Their frames are commonly constructed of the same materials as other racing bikes, 6ut are sturdier. Mountain bikes are equipped with straight handlebars; wide, low-pressure, knobby tires; powerfulbrakes and up to 24 gears.
$\mathcal{H e l m e t s}$ are essentialfor safety and usually required in races. Racers also use padded gloves and shorts, stiff-soled shoes and eye protection.

## Glossary

$\mathcal{A t t a c k}: \mathcal{A}$ sudden acceleration to elude another rider or group of riders.
$\mathcal{B l o c k i n g}$ : When one rider or a group of riders disrupts a chase by slowing down a paceline.
Bonk: Totalexhaustion caused by lack of sufficient food during along race or ride.

$\mathcal{B r i d g e}: ~ T o ~ l e a v e ~ o n e ~ g r o u p ~ o f ~ r i d e r s ~ a n d ~ j o i n ~ a n o t h e r ~ g r o u p ~ t h a t ~ i s ~ f a r t h e r ~ a h e a d . ~$
Bunny-hop: To jump the bike, without dismounting, over alog or a big rockon a mountain bike, or over a pothole or a curb on the road.
Chainsuck: When the chain becomes caught between the chainstay and the rear wheel, whether due to mud Guildup or poor frame design.
Chasers: Riders who are trying to catch a breakaway group.
Circuit Race: $\mathcal{A}$ multi-lap event on a course usually two miles or more in length.
Criterium: A multi-lap event on a course usually a mile or less in length.
Cross-Country: $\mathcal{A}$ mountain bike race, either point-to-point or over a long circuit, contested over trails, jeeproads, single-track, etc.

Derailleur: The mechanism which moves the chain from one chainring or sprocket to another.
Domestique: $\mathcal{A}$ team rider who will sacrifice individual performance to workfor a designated teammate.
Drafting: Riding closely befind another rider to save energy by using that racer as a windbreak.
Echelon: A staggered line of riders, each downwind of the rider immediately afead. Can move considerably faster than a solo rider or small group of riders.
$\mathcal{F e}$ eding: $\mathcal{A}$ member of the team's support crewin a designated area on the course hands up a small bag containing liquid and food to riders during the race.
Field: The main group of riders. Also known as the "pack," "bunch," or "peloton."
$\mathcal{F i}(d) S$ print: $\mathcal{A}$ sprint at the finish among the main group of riders.
Force (the pace): When one rider increases the tempo to cause the group to go harder.
$\mathcal{F l y e r}$ : $\mathcal{A}$ surprise attack, usually done alone.
Gap: The distance (usually measured in time) Getween individuals or groups. Gaps are "opened" and "closed."
Granny Gear: The third and smallest chainring on a mountain bike, combined with the biggest sprocket. This is the lowest gear, used for extremely steep climbs. Alsocalled "pixie gear" or "weenie gear."
Hammer: Riding fard, going all out.
$\mathcal{H a m m e r e d}$ : Exhausted, beaten to a pulp, wiped out.
$\mathcal{H a n g i n g}$ on: Barely maintaining contact at the back of the pack.
Hook: To suddenly move one's back wheel to the side, forcing the following rider to slowdown to avoid running into the front rider's bike.
IMBA: International Mountain Bicycle Association, the Colorado-based advocacy organization that monitors and mediates trail access issues.
J ump: A quick acceleration usually developing into a sprint.
Kick: $\mathcal{A}$ final burst of speed which provides acceleration for the sprint.
Lead-out: An intentional sacrificing tactic whereby one rider races at figh speed to give a head start to the rider on his wheel. That rider comes around the le ader at an even faster speed for a finisfing sprint. Mass $S$ tart: Any race in which all the racers start at the same time.
Mechanical: Slang for a mechanical problem with the bicycle.
Mountain Bike, Moto, Clunker, Cruiser, Beater, Bomber, Fat $\mathcal{T}$ ire $\mathcal{F l y e r}$ : Your bike.
$\mathcal{N}$ (eutral Support: If a rider craskes or has a flat tire during a road race or time trial, a mechanic riding in a follow ve ficle will provide a new wheelor do other adjustments to get the rider quickly back into the race. During mountain bike races, riders are responsible for doing their own repairs, and receiving assistance from another person results in disqualification.
 this country; it functions under the umbrella of US A Cycling.
Paceline: $\mathcal{A}$ string of riders that moves at high speed byeach individual taking turns setting the pace, and riding in the draft of the others the rest of the time.
Pole Line: The innermost line on the velodrome surface. This line is used to measure the length of the track.
Pretzel or Taco: To wreck a wheel.
Pull: To take a turn at the front of the group, maintaining the same speed of the group.
Push Climb or Hike-a-bike: A section of trail with inadequate traction, or too-steep pitch, that forces cyclists to dismount and push or carry the ir bikes up the grade.
Rainbow gersey: The coveted rainbow-striped jersey awarded to world champions in each of cycling's disciplines.
Repechage: Usually used in sprint competitions, this term describes a round of the competition in which losers of previous heats are matched against each other. The winner of the repechage gains re-entry in to the main competition.
Single-track: A path or trail wide enough for only one rider at a time.
Sitting in: Drafting, or sitting closely befind the rider immediately in front.

Slipstream: The are a of le ast wind resistance befind a rider.
Snakebite: Most common type of flat tire. Caused by fitting an obstacle so fiard that the innertube is pinched against the rim. Results in a double puncture that resembles two fan holes. Also called a "pinch flat."
Suspension: A system designed to absorb shock on a mountain bike; mountain bikes can fave motorcyclelike front forks, or "full suspension" with shocks front and rear. Front suspension has also been used by some road racers who must tackle severe cobblestone-paved courses in Europe.
S witchback: $\mathcal{A}$ tight, zigzag turn on the face of a mountain. Can be negotiated either uphill or downfill. Take a flyer: To ride off the front suddenly.
Technical: $\mathcal{A}$ section of trailfraught with obstacles that test a rider's bike-handling skill, balance, finesse. Time $\mathcal{T}$ rial: $\mathcal{A}$ race in which riders or teams start individually and race against the clock. The winner is the individual or team covering the course in the fastest time.
Track $\mathcal{B i k e}: \mathcal{A}$ bike with a "fixed" single-speed gear and no brakes.
Track $S$ tand: $\mathcal{A}$ sprint mane uver in which neither rider wiskes to lead, resulting in both remaining motionless and balancing on the track.
UCI: Union Cycliste Internationale, the International Governing Body of cycling.
USA Cycling: America's National Governing Body for cycling, which is responsible for establisfing the selection criteria for the U.S. Olympic Cycling Team. ULS A Cycling supervises the activities of the USSCF, $\mathcal{N O R B A}$ and $\mathcal{U S} P \mathcal{R} O$.
USCF: U.S. Cycling Federation. The organization responsible for amateur road and track racing in $\mathcal{A m e r i c a}$; it functions under the umbrella of US $\mathcal{A}$ Cycling.
ULSPRO: U.S. Professional Cycling. The organization responsible for professional road and track racing in $\mathcal{A}$ merica; it functions under the umbrella of US $\mathcal{A}$ Cycling.
Velodrome: $\mathcal{A}$ bicycle racing track with Ganked turns and flat straightaways.
Waterbar: A sharp-sided trench that criss-crosses a descent.
Wind-out: $\mathcal{A}$ sprint that develops from a gradual acceleration. Ulsually initiated with more than alap to go.

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For more information contact: USS A Cycling, Inc., One Olympic Plaza, Colorado Springs, CO 80909;
Telephone 719-578-4581; Fax 719-578-4596; Internet www.usacycling.org

Diving
$\mathcal{H}$ istory

Fancy diving had its origin as far back as the 17 th century in connection with the great gymnastic movement in Germany and $S$ weden. In the summertime, gymnasts moved the ir equipment to the beaches, and acrobatics over the water became a part of their activities. Diving, then, is more related to gymnastics than to swimming. However, since swimming and diving both use a water medium, they are naturally linked.

Platform diving (33 feet high) achieved international notice in the 1904 Olympic Games in St. Louis when it was included as an event on the men's swimming program. Springboard diving was added for the 1908 Games in London. Women's diving was slower in being accepted. It was not until 1912 that plain figh diving was included in the Olympics, and 1920 that the first women's springboard contest was conducted. Fancy figh diving for women came into being in 1928 internationally.

As could be expected, Germany and $S$ weden dominated the early competition. It wasn't until 1920 that the United States reached worldwide prominence in diving by winning three of the gold medals in the Olympics (men's and women's springboard and men's platform events). From that time through 1992, the United States has been the world leader in diving. The totalcount is 46 of 75 Olympic gold medals for the United States.

Two men have been most important in the development of UlS. diving supremacy. Ernst Bransten, who is called the "father of diving in the United States," came to this country from S we den shortly before the 1920 s . Bransten brought with him a thorough knowledge of the fundamentals of the sport and some revolutionary ide as for developing divers. Among fis many contributions was the construction of a "sand pit" - a diving board mounted over sand. This apparatus allows the diver to practice many of the movement patterns of diving, especially the approach and take off, more efficiently.

Mike Peppe, the swimming and diving coach at Ofio State University from 1931 to 1963, did more to promote and develop diving in this country than any other man. $\mathcal{B y}$ maintaining a strong squad of divers on his collegiate swimming teams and treating diving and swimming with equal importance, Peppe encouraged other schools to emphasize diving in order to compete with his teams evenly. Peppe's influence on college programs fas resulted in improved facilities for diving, more practice time being made available, greater respect for the sport and the birth of a new type of coach $\cdot$ the diving coach. It is for this reason that he might be designated "the father of collegiate diving in the United States."

Since 1904, diving fas changed in leaps and bounds and is still progressing rapidly. In the early days there were 14 platform and 20 springboard dives. Today there are 63 dives on 1 -meter springboard, 67 dives on 3 -meter springboard and 85 dives on platform. Difficulty has changed from the point where a double somersault from the platform was dangerous in 1904, to flawless performance of the reverse three and a half somersaults today. It could be said we have just about reached a peak as far as the difficulty of the dives performed is concerned. However, since that statement was made by many people 25 years ago, it may be best to bide our time and see what the future brings to the sport.

Olympic Record

Since diving was introduced to the Olympic Games, the United $S$ tates fias won 46 out of 75 gold medals and 125 of 225 total medals. This includes: 15 of 19 gold medals in men's 3 -meter springboard and 11 of 17 in women's 3 -meter springboard, 12 of 21 gold medals in men's platform and eight of 18 in women's platform.

The only divers to sweepgold medals at consecutive Olympics were U.S. divers: Greg Louganis (1984, 1988) and Pat McCormick $(1952,1956)$.

Based on a recent study of medals available versus medals won in all sports, the United $S$ tates fias enjoyed its greatest Olympic success in diving.

- by Ron $O^{\prime}$ Brien, Ph. $\mathcal{D}$.

Eight-time UlS. OCympic team coach

## General Information

About United States Diving, Inc.

Ulnited $S$ tates $\operatorname{Diving}$, Inc., is a not-for-profit organization recognized by the $\mathcal{U} . S$. Olympic Committee as the sport's $\mathcal{N}$ (ational Governing $\mathcal{B o d y}(\mathcal{N} G \mathcal{B})$. In short, it is a network of people working together to conduct, promote and participate in one of $\mathcal{A m e r i c a ' s ~ m o s t ~ s u c c e s s f u l ~ O l y m p i c ~ s p o r t s . ~}$

It consists of athletes, coaches, officials and volunteers who strive to make diving in the United $S$ tates the best it can be. With its national office in Indianapolis, U.S. Diving offers diversified programs designed to appeal to broad numbers of diving enthusiasts .- from the beginner to the Olympic champion!

Our Objective

Becoming a good diver takes years of practice and dedication, along with plenty of support from coaches, family and friends. That's why United $S$ tates $\mathcal{D i v i n g}$ was formed $\cdot$ to provide the incentive and services that help turn athle tes'goals into realities.

Who Belongs
U.S. Diving is open to anyone with an interest in the sport of diving and/or the desire to support America's Olympic movement. Membersfip includes athletes, coaches and officials who form the sport's competitive backbone. Other members have never set foot on a diving board.. they simply enjoy the grace and beauty inkerent in diving. Some serve active roles in administering beginning through advanced diving programs nationwide. Others provide much needed financial support by becoming annual or life members.

Registered athletes of all ages and experience levels compete in local and regionalmeets. For some, these competitions are "springboards" to nationalchampionships and, ultimately, the Olympic Games. For others, they are a way of having fun and meeting new friends.

All U.S. Diving programs emphasize safety, physical fitness and recreation.
Membersfip Program
Member benefits include: a subscription to Inside USA Diving magazine, official rule book annual directory, membership card, Gumper sticker, free admission to nationalchampionships and liability insurance for coaches, officials, individual and family members.

For more information or to contact the registration chairman in your area, write to: Ul.S. Diving, Pan $\mathcal{A m e r i c}$ an Plaza, 201 S . Capitol $\mathcal{A}$ venue, $S$ uite 430, Indianapolis, Indiana 46225.Or, call (1-800) 237-DIVE. $\mathcal{A n}$ answering service will record your name and address, and you will be provided with the name and phone number of a local Ul.S. Diving representative.
U.S. Diving Competitive Programs

I unior Program

UlS. Diving's Iunior Program is designed for divers 18 and under who desire to improve the ir skills. The program is conducted within 41 localdiving associations across $\mathcal{A m e r i c a}$.

For the Geginning diver: complete "learn to dive" instruction emphasizing fundamentals, technique and physicalfitness.

For the intermediate diver: graduated levels of instruction with opportunities to compete in local, regional and zone meets.

For the advanced diver: competition at national and internationallevels for those who have the ability and desire to excel.

Senior Program
U.S. Diving's Senior Program identifies and develops top national and international-caliber divers for figh profile events such as the Olympic Games, Goodwill Games and World Aquatic Championsfips. Qualified divers annually compete in: United $S$ tates $S$ pring and $S$ ummer Championsfips, plus numerous international competitions.

## Masters $\operatorname{Program}$

U.S. Diving's Masters Program is designed for divers 21 and over who no longer compete in the Senior Program, 6ut wish to remain active. The Masters Program offers the following competitions: Local and invitational meets throughout the United States, annual Indoor and Outdoor $\mathcal{N}$ (ational Championsfips, World Championships every two years and Grand Masters events for Olympians, national masters champions and senior national medalists.

## Diving "Fun Facts"

There are five diving events for men and women: one-meter springboard, three-meter springboard, 10 meter platform, 3-meter springboard synchronized and 10 -meter platform synchronized.
$\mathcal{A}$ background in gymnastics, trampoline and/or dance can be beneficialfor aspiring divers.
$\mathcal{D i v e r s}$ choose from six groups of dives .- forward, 6ack, reverse, inward, twisting and armstand. Armstand dives are only used in platform competition.

The official dive chart lists 63 basic dives for 1 -meter springboard, 67 for 3 -meter springboard and 84 for platform. With body positions of straight, pike, tuck or free for the three events, 345 dive variations exist.

The degree of difficulty (DD) of those 345 dives range from 1.2 to 3.6.

The standard number of judges for major national and international meets is seven.

Iudges' scores range from 0 to 10 and are awarded only in full or falf-point increments.
$\mathcal{A}$ point total for a dive is derived as follows: The high and lowjudges scores are thrown out. The sum of the remaining five scores is multiplied by the $\mathcal{D D}$ and then again 6y 3/5 (.6).

Common Questions
How much practice time is involved?
Beginners practice between one and one and a falf hours, three times a week. Iunior divers practice from 10 to 15 hours per week.

What are the costs involved in lessons and training?
The average cost of lessons is $\$ 40-\$ 60$ per month for three to four months. If after lessons you choose to join a team, beginning training costs about $\$ 50-\$ 75$ per month. Top competitive athletes pay coaching fees of approximately $\$ 150$ per month. Current annual membersfip fees, which include athlete accident insurance, are $\$ 15$ for novices and $\$ 30$ for all other athle te members.

Are there college scholarsfips available for diving?
Yes. Most $\mathfrak{N C A A} \mathcal{D i v i s i o n ~ I ~ a n d ~ I I ~ s w i m m i n g ~ p r o g r a m s ~ i n c l u d e ~ d i v i n g . ~ C o n t a c t ~ t h e ~ s c h o o l s ~ y o u ~ a r e ~ i n t e r e s t e d ~}$ in attending for scholarsfip information.

What are the chances of my becoming an Olympian? U.S. Diving will provide opportunities for you to excel in the sport of diving. If you possess the talent and determination, U.S. Diving has a "feeder system"that promotes divers from localmeets to regional, national, international and ultimately Olympic competitions. The system is based on place finishes in established events. The figher you finish in national and international meets, the more training assistance (both monetary and scientific) is available to you.

In terms of numbers, U.S. Diving currently has 10,000 registered athletes, yet only eight make the U.S. Olympic Diving Team every four years. However, the U.S. National $\mathcal{T}$ eam, which competes throughout the world, is comprised of approximately 50 divers. About 200 divers qualify for the U.S.I Inior Championsfips and roughly 150 compete in the U.S. Senior $\mathfrak{N a t i o n a l s , ~ h e l d ~ t w i c e ~ a ~ y e a r . ~}$

Future Champions Program

Ul.S. Diving's Future Champions Program is designed to identify youngsters, ages seven to 14 , who have a good chance to be successful in the sport of diving. The program, which is presented by coaches of local diving programs, was developed by the U.S. Diving Talent Identification Research Committee.

Phase I of the program includes a series of test battery items used to measure the physical attributes related to diving. Children selected for the program will be offered up to eight free lessons with a UlS. Diving program in their area. Phase II, entitled "Champions Challenge,"features additionaldiving-specific tests that will further trace and predict the progress of the divers who have been targeted.
$\mathcal{F u n d i n g}$
$\mathcal{A}$ s a not-for-profit organization, U.S. Diving relies on outside sources of funding. These sources include: Corporate sponsors and suppliers, the U.S. Olympic Committee, private donations and UlS. Diving's membership program
$\mathcal{H}$ istory of $\mathcal{U} . \mathrm{S}$. $\mathcal{D i v i n g , ~ I n c . ~}$

By Barbara Mc Laughlin
Former U.S. Diving assistant executive director

In Ianuary 1981 , the $\mathcal{U} . \mathcal{S}$. Olympic Committee recognized United States $\mathcal{D i v i n g}$, Inc., as the National Governing $\mathcal{B o d y}$ for the sport of diving. That event was the culmination of a challenging and of ten confusing transition process that began several years earlier.

Appropriately, U.S. amateur sports' quest for independence started in 1976 during the $\mathcal{U} . \mathcal{S}$. Bicentennial. That year, the USOC adopted the position that each sport could best serve its participants by forming self-sustaining, not-for-profit organizations. This represented a major change as many sports were under a large umbrella organization known as the $\mathcal{A m a t e}$ ur $\mathcal{A}$ thle tic $\mathcal{L n}$ ion. Under the $\mathcal{A A H}$, diving had little to say about how its affairs and finances were managed.

Former U.S. Diving President Micki King served on the USOC Board of Directors from 1968-72 and was part of President Ford's commission to study Olympic sports. The commission's findings resulted in the adoption of legislation that led to each sport's independence. The commission's report, completed in 1977 , provided the impetus for the $\mathcal{A m a t e} u r \operatorname{Sports} \mathcal{A c t}$ of 1978 mandating each sport, as recognized by its International Federation, be autonomous and self-governing. In essence, the Sports Act did away with the $\mathfrak{A A U '}$ authority as the $\mathcal{N}$ (ational Governing $\mathcal{B o d y}$ for multiple sports.

Diving and other sports were now free to emerge from under the $\mathcal{A A H}$ 's umbrella to manage the ir own finances and make the ir own rules. They could use the services of the $\mathcal{A A H}$, but they had no further obligation. Diving and the other aquatic sports (synchronized swimming, water polo, swimming) wasted no time in moving toward autonomy. However, since all four sports are governed by one International $\mathcal{F e}$ deration, $\mathcal{F I} \mathcal{N} \mathcal{A}$, it was necessary to form one aquatics organization to comply with the Sports $\mathfrak{A c t}$. With the help of Cincinnati attorney Ross Wales, United $S$ tates $\mathcal{A q u a t i c} S$ ports was incorporated. Though US $\mathcal{A S}$ 's primary purpose is to comply with the $\operatorname{Sports} \mathfrak{A c t}$, it also coordinates participation in world championships.

As early as 1977, the AAU Diving Committee met to discuss the legalsteps necessary to form an inde pendent organization. Wales, an Olympic swimming bronze medalist and eventual president of U.S. $S$ wimming and USAS, helped diving and the other aquatic sports begin the task of incorporating, setting up boards, adopting bylaws, applying for service marks and securing tax exempt status from the U.S. government. The entire process tooknearly five years to complete.

The diving organization first became known as the Competitive Diving Committee of the $\mathcal{A A U}$ in ganuary 1979. Several significant events took place that year. Dr. Aaron $\mathcal{S}$. Weinstein, who fad beenchairman of
 of directors was named, and the $\mathcal{A A Z}$ authorized the transfer of all of diving's money into a separate account. Raymond $\mathcal{F}$. Hain, M.D., CDC treasurer, made sure diving received all the money it was due from the $\mathfrak{A A U}$.
$\mathcal{H a i n}$ made several trips to Indianapolis to meet with Ollan Cassell, then AAA executive director. Cassell's cooperation was crucial, since diving, while still with the $\mathcal{A A U}$, had received a substantialgift of stockfrom a diving parent, Richard Lindner, in 1978 . The gift, Known as the Helen Gill Lindner Memorial Fund, provided annual dividends of $\$ 10,000$ for 10 years and is still the largest single donation to the sport. The fund still helps fund special projects for U.S. Diving.

One of the first decisions the board made was to arrange for the $\mathcal{A A C l}$ to fandle insurance and athlete registrations. The CDC/AAM fired $\mathcal{B i l l} \mathcal{F l e s h e r}$ as its first diving administrator and rented office space at the $\mathcal{A A Z} \mathcal{H}$ ouse. Weinstein and the board started a sustaining membersfip program and were successful in convincing the Pfillips Petroleum Company, which fad sponsored aquatics at the $\mathcal{A A M}$, to donate $\$ 45,000$ per year beginning in 1979.
$\mathcal{A s}$ it became evident that diving wanted to and could disassociate with the $\mathcal{A A C l}$ the group redefined some of its objectives and asked $\mathcal{H a i n}$ to head up the search for a national sponsor. He visited a number of foundations, including the Phillips Petroleum Foundation. Other diving people called on the ir contacts at various corporations. In addition to helping Hain secure both Pfillips and Arena, US $\mathcal{A}$, Inc., as national sponsors, Weinstein established the Mike Peppe $\mathcal{A}$ ward for outstanding coaches, and was personally involved in persuading other diving families to buy into the newly-created sustaining membersfip program. $\mathcal{B y}$ March 1979, more than $\$ 12,000$ had beengenerated, and the CDC/AACH had 700 card-holding members and 17 charter life members.

Also in 1979, the board held a logo contest to establish the sport's identity. R. Iackson $\mathcal{S}$ mith, aboard member and architect from Old Greenwich, Conn., designed the winning logo that was used until 1996 when the current U.S. Diving logo was unveiled.

The move toward autonomy continued in 1980. The title of the $\mathcal{A A}$ Sou newsletter, published by the $\mathcal{C D C} / \mathcal{A A U}$, was changed to USA $\mathcal{A}$ iving and the Official Diving Rules handbook was printed for the first time. The AAU Championships became the Phillips 66/UlS. Diving Championsfips, and U.S. Diving's application for tax exempt status was filed.

When rumors surfaced about a possible Olympic boycott, Weinstein flew to Washington, D.C., to meet with the U.S.secretary of defense and the president's counsel. Sports were told competing in Moscow's 1980 Olympic Games would endanger national security, so the government wanted to find a suitable replacement to honor Olympians. Diving chose to hold the Olympic trials as originally planned, and scheduled an Olympic team tour of gapan and China, whose governments also boycotted the Olympics. Through the efforts of the Goard, and particularly Tom Gompf-then chairman of the Olympic International Committee, the team enjoyed a successful international tour. The trip to China felped foster goodwill and was instrumental in laying the groundworkfor the fighly competitive United States/China exchanges that continue today. $\mathcal{W e}$ instein was a representative at the $\mathcal{F I} \mathcal{N} \mathcal{A}$ congress held in Moscowduring the 1980 Olympics. As diving's rules chairman, he incorporated the rules passed by $\mathcal{F} \mathcal{N} \mathcal{A}$ into U.S. Diving's 1981 rule book.

In September 1980, the first $\mathcal{U S} \mathcal{A S}$ convention was held in $S$ nowbird, Ultah. Diving, synchronized swimming and swimming assembled in the same location, addressed common concerns and held individual meetings. The initial effort was a success, and the three sports continue to combine efforts each fall (water polo does not participate due to conflicting competition schedules).

Diving's elections were held that fall, and Hain was elected as the first president of Ul.S. Diving. He served until 1982, then stepped down thinking it would be better for the sport to have 1976 Olympic springboard gold medatist Pfil Boggs as president during the 1984 Olympic Games. Boggs, who passed away in 1990, served as president until 1986.

With the transfer of the $\mathcal{F I N} \mathcal{A}$ franchise from the $\mathcal{A A} \mathcal{A}$ to $\mathcal{U S} \mathcal{A S}$, diving's board approved the name change from the CDC/AAU to United States Diving, effective $\mathcal{D e c}$. 30, 1980. The momentum continued in 1981. With the USOC's official recognition of U.S. Diving, the board of directors accepted an invitation from the Indiana Sports Corporation to establish its headquarters at the I $\mathcal{U} \mathcal{N}$ (atatorium in Indianapolis.

The move would take place in late 1982 after the facility fad been completed for the $\mathcal{N}$ (ational Sports $\mathcal{F e}$ stival. In the interim, U.S. Diving le ased office space in the Merchants Plaza in downtown Indianapolis.

In 1982, U.S. Diving signed Speedo America as its national supplier for four years, and Pfillips rene wed its commitment through 1984. Speedo remains as the national team supplier today, while the Phillips sponsorsfip continued until 1996. In addition, a U.S. Diving directory was publisfed for the first time, and local diving as sociations were ne wly defined.
$\mathcal{A}$ the 1981 USAS convention, also in Snowbird, $\mathcal{A} . S$. Diving held its first Sports Science Seminar that was sponsored by the Lindner Memorial Fund and coordinated by Sports Science Chairman Dennis Golden. The seminar's proceedings were published and received international acclaim. Since then, more Sports Science Seminars have been held, and the concept was expanded with U.S. Diving's firing of ganet Gabriel as director of safety and education in 1987.

With the 1981 departure of $\mathcal{F l e s h e r , ~ w h o ~ a c c e p t e d ~ a ~ p o s i t i o n ~ w i t h ~ P f i l l i p s , ~ U . S . ~ D i v i n g ~ f i r e d ~} \mathcal{T}$ odd $S$ mith, the $1972 \mathcal{N} C A A 1$-meter springboard champion at Ofio State University and then University of Tennessee diving coach, as its first executive director in $\mathcal{N}$ ovember 1981. Smith, who has alaw degree, received the 1990 Phil Boggs $\mathfrak{A l w a r d}$ for outstanding dedication to the sport.

Then, Ul.S. Diving received its tax exempt status on Oct. 29, 1982. Contributions to Ul.S. Diving were now tax-deductible, which helped fundraising efforts considerably. With most of U.S. Diving's initial administrative and legal tasks finally accomplished, the organization began to focus its energy on building and maintaining financial security.
$\mathcal{A}$ nother change took place in late 1987 when $\mathcal{U l} . S$. Diving moved its permanent headquarters to the Pan $\mathcal{A}$ me ric an Plaza, also in downtown Indianapolis. Following Boggs, Gompf, King and now $\mathcal{S}$ teve $\mathcal{M c} \mathcal{F}$ arland have served as U.S. Diving presidents. The national staff has grown from three in 1981 to a total of seven today.

More than 15 years since its incorporation, U.S. Diving remains committed to its objective of providing the incentive and support to help turn $\mathcal{A m e r i c a n d i v e r s ' g o a l s ~ i n t o ~ r e a l i t i e s . ~ U . S . ~ D i v i n g ~ c o n t i n u e s ~ t o ~ s e l e c t ~ a n d ~}$ prepare the best possible teams to represent the Ulnited $S$ tates in internationalcompetition, as well as providing programs and educational services for divers of all ages and skill levels.

## Rules

As a spectator of the sport of diving, your appreciation is greater if youknow what to watch for in the competition, if youknow what makes a great dive great.

Dives

There are six groups of dives. The first four involve rotating in directions relative to the board and starting position. The fifth includes any dive with a twist. The finalgroup, used in platform diving, begins with an armstand.

Forward: The diver faces the front of the board and rotates toward the water. Dives in this group vary from the simple front dive to the difficult forward three and one half somersault.
$\mathcal{B a c k w a r d}$ : All dives in the Gackward group begin with the diver on the end of the board with back to the water. The direction of rotation is away from the board.
Reverse: Formerly called "gainers," these dives begin with the diver facing the front of the board (a forward approach) and rotating toward the board.

Inward: The diver stands on the end of the board, back to the water and rotates toward the board (opposite of the backward group's movement). An earlier term for these dives were "cutaways."
Twisting: $\mathcal{A n y}$ dive with a twist is included in this group. There are four types of twisting dives: forward, Gackward, reverse and inward. Because of the many possible combinations, this group includes more dives than any other.
$\mathcal{A r m s t a n d}$ : Here the diver assumes a handstand position on the edge of the platform before executing the dive.

Body Positions
Wheneach type of dive is performed, the diver utilizes one or more of the four different types of body positions:

Straight: This position requires no bend at the waist or knees. Depending on the dive, however, there may Ge an arch in the back. Arm placement is the diver's choice or defined by the dive performed.
Pike: The legs are straight with the body bent at the waist. Like the straight position, arm placement is dictated by the particular dive or diver's choice.
Tuck: The body is bent at the waist and knees, with the thighs drawn to the chest and heels kept close to the buttocks.
Free: This is not an actual body position, but a diver's option to use any of the three positions, or combinations thereof, when performing a twisting dive. $\mathcal{A}$ combination of straight and pike is common, while the tuck position is rarely used.

## I udging

$\mathcal{A}$ s you watch more diving, especially by talented performers, you will observe that although several divers may do exactly the same dive, it never looks quite the same. This is because each individual has unique mannerisms, characteristics of movement, strengths and timing .. all adding up to an abstract but observable phenomenon called "style."

Style is difficult to assess by any standard, except whether or not youlike it. This is why judging is difficult. Even though there are criteria of execution all divers must meet, evaluation is subjective. No matter how well a dive is performed, artistic likes and dislikes of the judges play a large part in the outcome of any contest, and for this reason there are usually differences of opinion among coaches, divers, judges and spectators about the accuracy of results.
$\mathcal{A}$ dive is scored between zero and 10 points in full or falf point increments byeach judge. A list of the scores and the basis by which they are awarded follows:

- 0 - completely failed
- 1/2-2 - unsatisfactory
- 21/2-4 1/2-deficient
- 5-6 - satisfactory
- $61 / 2-8 \cdot \operatorname{good}$
- s 1/2-10 - very good.

In classifying a dive into one of the judging categories, certain parts of each dive must be analyzed and evaluated, and an ove rall award obtained. The parts of a dive are:

Approach: Should be smooth but forceful, showing good form.

Take off: Must show control and balance, plus the proper angle of landing and leaving for the particular dive being attempted.
Elevation: The amount of lift a diver receives from the take off greatly affects the appearance of the dive. Since more height means more time, a higher dive generally affords greater accuracy and smoothness of movement.
Execution: This is most important, for this is the dive. $\mathcal{A} j u d g e$ watches for proper mechanical performance, technique, form and grace.
Entry: The entry into the water is very significant because it is the last thing the judge sees and the part probably remembered best. The two criteria to be evaluated are the angle of entry, which should be near vertical, and the amount of splash, which should be as little as possible.

## Scoring

Seven judges are used in national and international competitions. When the judges' awards are given, the high and low scores are eliminated and the remaining five scores are totaled.

The number will be multiplied by the degree of difficulty rating assigned to the dive. The $\mathcal{D D}$ is predetermined with a table range from 1.2 to 3.6 in one-tenth increments. This figure is then multiplied by 3/5 or .6, following the tradition that a diver's score come from only three judges. A scoring example is shown below:
$\mathcal{A}$ wards: 6-5-5-5-5-5-4; Total: $25 ; \mathcal{D D}: 2.0 ;$ Score: $50 \chi .6=30$ points.

In synchronized diving events, two judges rate one individual diver, two other judges rate the second individual diver and three judges rate the pair's synchronization. The high and low individual scores will be thrown out, placing an emphasis on the three scores from the synchronized judges. The final score is then determined in the same manner.

Competition Rules

There are specific requirements divers must meet in the springboard, platform and synchronized diving events. Remember, only the 3-meter springboard and platform are Olympic events.

Women's $1 \mathcal{M}$ Springboard: Each diver must perform five optional dives fromeach group without limit in the quarterfinal, semifinals and final.
Women's $3 \mathcal{M}$ Springboard: Each diver must perform five optional dives fromeach group without limit in the quarterfinal; five voluntary dives with limit fromeach group with a total $\mathcal{D D}$ not to exceed 9.5 in the semifinal; and five optional dives from each group without limit in the final.
Men's $1 \mathcal{M}$ Springboard: Each diver must perform six optional dives without limit, at least one fromeach of the five group, in the quarterfinal, semifinals and final.
$\mathcal{M e n}$ 's $3 \mathcal{M}$ Springboard: Each diver must perform six optional dives without limit, at least one fromeach group, in the quarterfinal; five voluntary dives with limit from each group with a total $\mathcal{D D}$ not to exceed 9.5 in the semifinal; and six optional dives without limit, at le ast one from each group, in the final.
Women's Platform: Each diver must perform five optional dives without limit from five of the six groups in the quarterfinal; four voluntary dives with limit from four of the six groups with a total $\mathcal{D D}$ not to exceed 7.6 in the semifinal; and five optional dives without limit from five of the six groups in the final.

Men's Platform: Each diver must perform six optional dives without limit from each group in the quarterfinal; four voluntary dives with limit from four of the six groups with totala $\mathcal{D} \mathcal{D}$ not to exceed 7.6 in the semifinal; and six optional dives without limit from each group in the final.

Men's and Women's Synchro $3 \mathcal{M} /$ Platform: Each pair must perform two voluntary dives with an assigned $\mathcal{D D}$ of 2.0 , followed by three dives without $\mathcal{D D}$ limit. In the five rounds of dives, diver's perform at least one dive with a forward take off by both divers, at le ast one dive with a backward facing take off by both divers and at le ast one dive with a combination forward and backward facing take off.

## Equipment

$\mathcal{A}$ diver needs a swimsuit, towel, athle tic Gag, warm-up, T-shirt, sforts and a chamois (a small cloth to dry the skin between dives).

Most diving facilities are equipped with two 1-meter (3'3"above water surface) and two 3-meter (9'9" above water surface) springboards mounted on concrete shortstands, and a tower containing 1-, 3-, 5-, 7.5 . and 10 -meter platform levels. Pooldepth is generally 16 to 20 feet. Springboards are 20 inches wide and 16 feetlong, and are covered with a nonskid material. The front edge of each board projects five to six feet from the edge of the pool. Platforms are 20 feet long and six and a half feet wide, and are covered by a nonskid surface material. Water surface agitation is necessary for visual perception of the pool.

## Glossary

Approach: Three or more steps forward to the end of the board before furdle and takeoff.
$\mathfrak{A r m s t a n d} \mathcal{D i v e}: \mathcal{A}$ dive executed from an armstand. The armstand take off represents a sixth group of dives used only in platform diving.
$\mathcal{B a c k w a r d} \mathcal{D i v e}: \mathcal{T} a k e$ off from the end of the Goard with Gack toward the water. Direction of rotation is away from the board.
$\mathcal{B a}$ lk: $\mathcal{A n}$ illegal movement: (1) a false start in which a diver makes an obvious attempt to start the approach but does not comple te the dive; (2) take off for the hurdle fromboth feet; (3) loss of balance on an armstand dive causing feet to touch the platform.
$\mathcal{D e}$ gree of $\mathcal{D i f f i c u l t y : ~ A ~ r a t i n g , ~ r a n g i n g ~ f r o m ~} 1.2$ to 3.6 , for executing a specific dive. The $\mathcal{D D}$ is multiplied by the sum of the judges scores in figuring the total score for a dive.
Draw: The random selection of a diving order or of the judges for a particular event.
Ele vation: The amount of spring or lift a diver receives from the take off.
Entry: The conclusion of a dive as a diver makes contact with the water. Upon entry, body should be ne ar vertical with toes pointed. In a headfirst entry, arms should be stretched above fead in line with body and hands close together. Feet-first, arms should be close to body without bending elbows.
Execution: Performance of the dive. Includes mechanics, technique, form and grace.
Finalist: $\mathcal{A}$ diver who competes in the finals of an event.
Finals: The third and finalsession in a contest that determines the final standings. Dives performed in the finals are optionals only.
Forward Dive: $\mathcal{T}$ ake off from a standing or running approach, facing the water and rotating forward toward the water.
Free Position: A combination of straight, pike or tuck positions. To be used in twisting dives only as listed in the $\mathcal{D D}$ tables.
Hurdle: The final segment of a diver's approach to take off. Consists of a spring to the end of the board, taking off from one foot and landing on two feet at the end of the board.
Inward Dive: Take off from a standing position at the end of the board with back to the water. Direction of rotation is toward the board.
Iudge: A diving official who scores each dive on a scale of 0 (lowest) to 10 (fighest). Sevenjudges
officiate major national and international events.

List: $\mathcal{A}$ list of dives. $\mathcal{A}$ "full list" includes both required and optional dives. In some events, divers may perform an optionals only list.
Optional Dives: Dives of the diver's choosing having no maximum degree of difficulty limit. Performed after the required dives in a full list.
Pike: $\mathcal{A}$ dive position in which the body is bent at hips, legs straight at knees and toes pointed.
Platform: A stationary, non-bending diving platform is at least 20 feet long and six and a half feet wide. The platform levelused in Olympic competition is 10 meters high (approximately 33 feet).
Preliminaries: The first session of a contest used for advancing divers to the semifinals. Using the ne w competition format introduced in 1995, optional dives are performed in the prelims.
Referee: $\mathcal{A n}$ official who manages the competition and ensures all regulations are observed. Not a judge.
Required $\mathcal{D i v e s : ~ D i v e s ~ s p e c i f i c a l l y ~ i n d i c a t e d ~ o n ~ a ~ l i s t ~ o f ~ d i v e s ~ h a v i n g ~ a ~ m a x i m u m ~ d e g r e e ~ o f ~ d i f f i c u l t y ~ l i m i t . ~}$ Performed before optional dives in a full list. Also called compulsory dives.
Reverse Dive: $\mathcal{A}$ take off from either a standing or running approach facing the water, then reversing in the air to enter the water facing the Goard; i.e., a back dive performed from a forward take off.
Scratch: Withdrawal from competition.
Semifinals: The second session of a contest that determines the divers who advance to the final. Required dives are performed in the semifinals.
Somersault: $\mathcal{A}$ movement in which a diver rotates the body on an imaginary forizontal axis through the fips. $\mathcal{A}$ dive that can be performed in a variety of combinations.
Springboard: An adjustable diving board that regulates "springiness." Either 1-meter (3'3") or 3-meters ( $9^{\prime} 9^{\prime \prime}$ ) above the water. Projects at least five feet beyond the edge of the pool.
Straight: A dive position in which body is straight without bending at knees or hips, feet together and toes pointed. Formerly called the "layout" position.
Take off: $\mathcal{A}$ diver's lift from the board prior to execution of the dive. May be done from a forward (running or standing) or backward approach, or from an armstand position.
Tower: The entire diving platform structure.
Tuck: $\mathcal{A}$ dive position in which the body is bent at the waist and knees, with thighs drawn to the chest and heels kept close to the buttocks.
Twisting $\mathcal{D i v e}: \mathcal{A n y}$ dive with a twist. There are four types of twisting dives: forward, 6ackward, reverse and inward.
Unattached: $\mathcal{A}$ diver who competes in a U.S. Diving-sponsored event but does not represent a U.S. Diving с ヶи́.

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For more information contact: United States $\mathcal{D i v i n g}$, Inc., Pan American Plaza, Suite 430, 201 South Capitol $\mathcal{A v e}$., Indianapolis, IN 46225 ; Telepfone 317-237-5252; Fax 317-237-5257; Internet www.usdiving.org; e. mail usdiving@aol.com


Equestrian

History
1912 Stockfolm Olympics: Tfree Day Eventing ...Team.. Bronze Medal, Lt. Benjamin Lear/Poppy,
Lt. Iofin Montgomery/Deceive, Capt. Guy Henry/Chiswell, Lt. Ephram Grafam/Connie

## 1920 Antwerp Olympics: No Medals

1924 Paris Olympics: Three Day Eventing .. Individual.. Bronze Medal, Major Sloan $\mathcal{D}$ oak/Pathfinder 1928 Amsterdam Olympics: $\mathcal{N o}$ Medals
1932 Los Angeles Olympics: Show Jumping ... Individual...Silver Medal, Major Harry Chamberlin/Show Girl; Dressage .- Individual .- Bronze Medal, Captain Hiram $\mathcal{T} u t$ le/Olympic; Dressage... Team .. Bronze $\mathcal{M e d a l}$, Captain Hiram Tuttle/Olympic, Captain Isaac Zitts/American Lady, Captain Alvin Moore/Water Pat; Three Day Eventing - Individual.-S ifver Medal, Lt. Earl Tfomson/Ienny Camp; Three Day Eventing ..
 Argo/Honolulu Tomboy
1936 Berlin Olympics: Tfree Day Eventing - Individual .. Silver Medal, Captain Earl Tfomson/Ienny Camp 1948 London Olympics: Dressage.. Team Silver-Medal, Lit. Robert Borg/Xlingsor, Col. Earl
 $\mathcal{F r a n k} \mathcal{H}$ enry/S wing Low; Three $\mathcal{D a y}$ Eventing $\mathcal{T}$ eam Gold $\mathcal{M e d a l}, \mathcal{L}$. Col. Frank $\mathcal{H}$ enry/S wing Low, Lt. Col. Charles Anderson/Reno Palisades, Col. Earl Thomson/Reno Rhythm
$1952 \mathcal{H e l s i n k i}$ Olympics: Show Jumping .. Team.. Bronze Medal, William Steinkraus/Hollandia Artfur McCasfin/Miss Budwe iser, Iofn $\mathcal{W}$. Russell/Democrat; Tfree Day Eventing .. Team.. Bronze $\mathcal{M e d a l}$, Charles Hough/Cassavellanus, Walter Staley/Craigwood, Iofin E.B. Wofford/Benny Grimes 1956 Stockfolm Olympics: $\mathcal{N}$ o Medals
1960 Rome Olympics: Show Iumping .- Team..S ilver Medal, George Morris/Sinjon, Frank Chapot/Trail Guide, William S teinkraus/Ksard'Esprit
1964 Tokyo Olympics: Three Day Eventing .. Team...Siver Medal, Michael Page/Grasfopper, Kevin Freeman/Gallopade, Michael Plumb/Bold Minstrel, Lana $\mathcal{D}$ LPont/ Mr. Wister
$1968 \mathcal{M e x i c o ~ C i t y ~ O l y m p i c s : ~ S h o w ~ I u m p i n g ~ . . ~ I n d i v i d u a l … g o l d ~ M e d a l , ~ W i l l i a m ~ S t e i n k r a u s / S n o w b o u n d ; ~}$ Three Day Eventing .- Individual.- Bronze Medal, Michael Page/Foster;Three Day Eventing ... Team.. Silver Medal, Michael Page/Foster, James Wofford/Kilkenny, Michael Plumb/Plain Sailing, Kevin Freeman/Chalan
1972 Munic $\mathcal{1}$ Olympics: Show Iumping .. Individual... Bronze Medal, $\mathcal{N e}$ al Shapiro/Sloopy; Show I umping … Team.-S ilver $\mathcal{M e}$ dal, William Steinkraus/Main Spring, $\mathcal{N e}$ alS fapiro/S loopy, Frank Chapot/White Lightning, Kathy Kusner/Fle et Apple; Three Day Eventing .. Team .-Silver Medal, Kevin Freeman/ Daflwitz Bruce Davids on/Plain Sailing, Michael Plumb/Free and Easy, I ames Wofford/Kilkenny
1976 Montreal Olympics: Three Day Event ... Individual .. Gold Medal, Tad Coffin/Bally Cor; Three Day Event .- Individual.-Silver Medal, Michael Plumb/Better and Better; Three Day Eventing ... Te am ... Gold $\mathcal{M e d a l}, \mathcal{T}$ ad Coffin/Bally Cor, Michael Plumb/Better and Better, Bruce Davidson/Irisf Cap, Mary Anne Tauskey/Marcus Aurelius; Dressage Team...Bronze-Medal, Dorotfy Morkis/Monaco, Hilda Gurney/Ke en, Edith Masters/Daflwitz
1984 Los Angeles Olympics: Show Jumping .. Individual…Gold Medal, Ioe Fargis/Touchof Class; Show I umping .- Individual .- Silver Medal, Conrad Homfeld/Abdullaf; S fow Iumping .. Team .. Gold Medal Ioe Fargis/Touch of Class, Conrad Homfeld/Abdullaf, Leslie Burr/Albany, Melanie Smith/Calypso; Three Day Eventing .- Individual.. Silver Medal, Karen Stives/Ben Artfur; Three Day Eventing ... Team... Gold $\mathcal{M e d a l}$, Karen Stives/Ben Arthur, Torrance $\mathcal{W}$ atkins/Finvarra, Michael Plumb/Blue Stone, Bruce Davidson/g.I. Babu

1988 Seoul Olympics: Showgumping .. Individual.. Sifver Medal, Greg Best/Gem Twist; Show Iumping .. $\mathcal{T e}$ am .-S Silver Medal, Greg Best/Gem Twist, Lis a Iacquin/For The Moment, Anne Kursinski/Starman, Ioe $\mathcal{F a r g i s / M i l l}$ Pe arl $^{\text {a }}$
1992 Barcelona Olympics: Show Iumping .. Individual.. Bronze Medal, $\mathcal{N}$ (orman $\operatorname{Dellogoio/Irisf;~Dressage~}$ -. Team -- Bronze Medal, Robert Dover/Lectron, Charlotte Bredafl/Monsieur, Carol Lavell/Gifted, Michael Poulin/Graf George
1996 Atlanta Olympics:Showgumping .. Team .- Siviver Medal, Anne Kursinski/Eros, Leslie $\mathcal{B} u r r$.
$\mathcal{H o w a r d / E x t r e m e , ~ M i c h a e l ~ M a t z / R h u m I V , ~ P e t e r ~ L e o n e / L e g a t o ; ~ D r e s s a g e . . T e a m . . . ~ B r o n z e ~ M e d a l , ~ G u e n t e r ~}$ Seidel/Graf George, Michelle Gibson/Peron, Steffen Peters/Udon, Robert Dover/Metallic; Three Day
Eventing .. Individual .. Bronze $\operatorname{Med}$ al, Kerry Millikin/Out And About; Three $\mathcal{D a y}$ Eventing ... Team .. Silver


General Information
The United States Equestrian $\mathcal{T e a m}$, Inc.(US $\mathcal{E T})$ is anon-profit organization which represents the United States in international equestrian sports. For the past four decades, the USS $\mathcal{E T}$ has carried the responsibility for selecting, training, equipping and financing teams of the highest possible standard to represent the United States in Pan Americ an and Olympic Games, World Championsfips and other international competitions.
$\mathcal{A}$ thletes representing the $\mathcal{U S}$ ET have achieved outstanding success over the last four decades. By winning World Championships in Show Iumping, Three-Day Eventing, Endurance Riding and Combined Driving, the USET has positioned itself among the world's elite equestrian powers. An impressive 27 Olympic and 54 Pan $\mathcal{A m e r i c a n ~ G a m e s ~ M e d a l s ~ i n ~ D r e s s a g e , ~ S ~ f o w ~} \mathcal{I}$ umping and Three-Day Eventing give $\mathcal{U} . \mathcal{S}$. equestrians a record of which the entire country can be proud.

Overall, USET riders have won 27 Olympic medals since 1952, including six Gold and 12 Silver. Gold Medals have been won in Show I umping by Bill Steinkraus (1968) and goe Fargis (1984) in addition to one team Gold in 1984. In Three-Day Eventing, Tad Coffin won the individual Gold Medal in 1976 to go with team Gold Medals in 1976 and 1984.
$\mathcal{A}$ World Championships, USET S how $\mathcal{J}$ umpers won te am and individual Bronze Me dals in 1978 , followed by a team Gold and individual Siver Medal in 1986. In addition, US $\mathcal{E T}$ riders have won seven $\mathcal{F}$.E.I. S how I umping World Cup Finals, the world's premier annual competition for individual Show Iumping riders.

USS ET Three-Day squads have won team and individual Gold Medals at the World Championships in 1974, team $\mathcal{B r o n z e}$ and individual Gold in 1978 , team and individual $\mathcal{B r o n z e} \operatorname{Medals}$ in 1982, an individual Bronze Medal in 1990 and the individual Silver Medal in 1994.

The USET first sent a team to compete at a World Driving Championsfip in 1980, and has competed at every World Championship since. The USET reached newheights in driving in 1991 when it won the Pairs World Championsfip in Zwettl, Austria. That win was a Key factor in the naming of Gladstone, New gersey, as the host of the 1993 Pairs World Championsfip. Adding to the driving 6oom were victories in 1989 and 1992, when Ul.S.drivers won the Masters Trophy at the Royal Windsor Horse Show in England.

The USSI fas also been successful indressage, with its most significant achievements being team Bronze Medals at the 1976, 1992 and 1996 OCympic Games, and at the 1994 World Championsfip. Additionally, the USS ET won the team Sifver Medal at the 1987 Pan American Games, plus team $\mathcal{B r o n z e}$ and individual Silver


Games. Two USET riders, Robert Dover and Carol Lavell, have placed as high as fourth at the Dressage World Cup Finals.

In 1992, the USET added Endurance Riding to its roster, bringing its number of equestrian disciplines for which it oversees international competition to five. U.S. Endurance riders have had tremendous success, led by Becky Hart's three World Championsfips in 1988, 1990 and 1992. The U.S. also won the team Gold Medal in 1988 and individual Gold Medats in 1986 (Cassandra Schuler) and 1994 (Vaterie Kanavy) and 1996 (Danie lle Kanavy) and also won the team Gold Medal in 1988 and 1996.
$\mathcal{W}$ file many riders and drivers train primarily at the ir own stables, the USS $\mathcal{E T}$ maintains a facility at which final preparations and training are conducted prior to Olympic and Pan American Games, and other international competitions. The re are programs to develop young riders and drive rs, including the Rolex Talent Search program, as well as programs to train and prepare forses, loaned or donated by supporters. The Team training center is used to fill these vital needs.

The USET is wholly financed through contributions made by individual, corporate and organizational supporters.S upport received in the form of allocations from the U.S. Olympic Committee amounts to only about one-tenth of the average annual budget. All contributions are tax-deductible. Helping to provide the U.S. with winning teams through $\mathcal{U S}$ ET membership and donations is an important way to contribute to the growth and recognition of horse sports. It is primarily through the support of Ul.S. individuals that the USET is able to maintain its outstanding record.

## Rules

## Dressage

Dressage horses can be of any breed, sex, age, color or size. Exceptional basic paces .. walk, trot and canter $\cdot$ - together with a good temperament and sound conformation are what riders lookfor in a dressage forse.
Competitive dressage takes place in a $20 \chi 60$ meter arena, with 12 lettered markers placed at specific points along the rail. Here, horse and rider perform a designated test, a series of movements for which the arena markers serve as reference points.
One to five judges, positioned at specific locations around the arena, evaluate the performance from the ir different perspectives. Scores are awarded on a scale of zero (notexecuted) to 10 (excellent) for each movement, with some particularly difficult movements earning scores which are multiplied by two.

## S fow I umping

Rider and horse must jump a course of approximately 15 obstacles up to five feet in height and six feet in width with no penalties. Penalties or faults are incurred if a horse knocks down, refuses to jump or falls at an obstacle or jump. Each course has a "time allowed." Penalties can be accumulated for not completing the course in the time allowed.
Rider and horses must negotiate the course at the correct angle, height and speed to clear the fences without incurring faults. Riders must also be mindful of the clock. The rider who races too fast may grow careless and knock down a fence; an overly cautious rider may incur time faults. The starting order is determined by draw. Riders near the end of the starting order have the advantage of seeing how the first riders complete the course.
In order to compete in international competition a rider must have reached his or her 18 th birthday and the forse must be at least 7 years old.

Three-Day Eventing

The Three-Day Event is a test of horse and rider's skill and all-around ability $\cdot$ the ultimate test of teamwork between horse and rider. This equestrian triathlon was patterned after the demands of training and testing of military chargers, processes that evaluated precision, elegance and obedience; stamina, versatility and courage; jumping ability and endurance; and finally, the forse's fitness to remain in service. There are four levels of competition in Three-Day Eventing, designated by stars (one-star through fourstar, with four-star having the highest degree of difficulty). Horse and riders must earn the right to compete at these levels. At each successive level, a horse has to jump higher, runfarther and faster, trust its rider more. The degree of difficulty for gymnastic exercises - Goth on the flat in the dressage phase and over the fences during the cross-country test - increase progressively.
Indressage, each forse/rider combination is required to perform a prescribed set of movements within a confined area. Three independent judges award marks for each movement, ranging from 0 to 10 .
The speed and endurance test is the most exciting and challenging part of a Three-Day Event. It is made up of four parts: two sessions of Roads \& Tracks; a Steeplechase; and a Cross-Country test, consisting of as many as 30 obstacles set in varied terrain, which must be jumped boldly and at speed. Some obstacles include four or five separate jumping efforts.

## Equipment

$\mathcal{B r e e c h e s}$ and boots, a ratcatcher, funt coat and hunt cap are considered acceptable apparelfor riders. $\mathcal{B r e e c h e s}$ are tight-fitting pants worn under leather boots. A ratcatcher is the shirt worn under the funt coat or jacket. Grandprix riders often wear a scarlet coat, while a blue collar indicates the rider has competed with the USET. Other funt coat colors are blue, darkgreen or 6lack. The funt cap is a type of hard helmet. A rider may also elect to we ar spurs or to carry a crop or stick to encourage the horse over the fence.
The equipment worn by the horse depends on the specific needs of the animal. A saddle and bridle are staples. Optionalequipment includes a martingale, which attaches to the saddle and bridle to keep the horse's head from raising too high. Horse may also we ar boots or bandages on the ir legs for support or protection. Manes and tails are braided to enfance appearance. In damp weather conditions, tails are of ten braided and then turned up (called a "mud tail").

## Glossary

Clean Round: When the rider and horse comple te all the obstacles on the designated course without accruing a single fault or penalty.
Combination: Sometimes called a double, triple or an in-and-out, a combination jump is a series of fences set within a stride or two of each other.
Cooler: $\mathcal{A}$ blanket used to cover a horse that is heated or sweating after a competition. $A$ cooler, often made of wool or a mesh material, aids the forse in cooling off without getting a draft.
Faults: Penalty points added to a forse and rider's score.
First disobedience .. 3 faults
Second disobedience - 6 faults
Third disobedience .. elimination
Obstacle knocked down... 4 faults
One or bothfeet in the water.. 4 faults
$\mathcal{F a l l}$ of the forse or rider ... elimination
$\mathcal{F e d e r a t i o n}$ Equestre Internationale $(\mathcal{F E I})$ : The world governing body of equestrian events, headquartered in $\mathcal{B e}$ rne, $S$ witzerland.
Gaits: The different paces at which a horse travels (e.g., walk, trot, canter, gallop).
Live rpool: $\mathcal{A}$ water jump with a pole over or beyond it.
Oxer: A fence composed of two or more verticaljumps placed severalfeet apart.

Rail: The wooden bar used as an obstacle. Rails must be a minimum of four inches in diameter and six feet long, and usually measure about 14 feet.
Refusal: When the horse and rider fail to jump a fence because the horse stops before the fence or runs out to the side of the fence to avoid the obstacle. A refusal is scored as a "disobedience."
Schooling: Practicing or training before a competition.
$\mathcal{T}$ ime $\mathcal{F a u l t}: \mathcal{A}$ penalty for exceeding the designated time limit. A rider is penalized $1 / 4$ fault for each second over the allotted time.
Vertical: An obstacle consisting of two standards or wings folding rails. The vertical tests a forse's ability to jump fieight.
Walking the Course: Checking the fences and distances by pacing off strides. Because riders and forses may not practice on a jumper course before the competition, riders are permitted to walk the course to decide the proper number of strides betwenfences, assuring a smoother ride and fewer faults.

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$\mathcal{F o r}$ more information contact: U.S. Equestrian $\mathcal{T e}$ am, Pottersville Road, Gladstone, $\mathcal{N J} 07934 ;$ Phone 908 . 234-1251; Fax 908-234-9417; internet www.uset.com

## Fencing

$\mathcal{H}$ istory

1190 B.C.: The earliest relief carving of a fencing match (using blunted swords and we aring face masks with referees and an audience) is drawn in Egypt.
1400s: The combination of the newinfluence of firearms in warfare and the development of harder metals results in less armour and lighter swords. Bullets (from single-shotguns) can penetrate armor, so mobility becomes more important.
1500s: The rapier, a narrow and lightweight sword becomes popular. (Today's epee is the descendant.) Because men use a sword and buckler, or shield (hence, swashbuckler), long-bladed rapiers are developed to enable fighters to stab from a distance. Writings on fencing first appear. The earliest was the Spanish Francisco Roman's treatise in 1532. Agrippa first numbered the parries (from 1-5) in 1568.
1600s: Non-military gentlemen begin using a single, lightweight sword, held in one fand. This results in the development of the small sword (a defensive we apon), which becomes popular with French nobility. 1754: The first record of a fencing teacher in his own store front in the colonies (UUS $\mathcal{A}$ )... Iohn Rievers opens a physicaleducation club at the corner of Whitehall \& Stone in $\mathcal{N}$ (ew York City.
1859: The New York $\operatorname{Ath}$ 位tic Club is established. By the 1880 s it is deeply involved in fencing.
1883: The Fencers Club, the oldest continuous running fencing club, is founded in New York City. The first U.S.club devoted exclusively to fencing was the New Orle ans Fencing Club: date of establishment is not known.

1888: The $\mathcal{A m a t e}$ ur $\mathfrak{A}$ thletic Union holds its first fencing championships. Professor $\mathcal{I}$. $\mathcal{H}$ artlof Vienna tours $\mathcal{A m e r i c a}$ with a women's fencing demonstration. As a result, women's fencing classes begin.
$\mathcal{N}$ ewspapers begin following these students, so the women begin fencing at private clubs.
1891: The Amateur Fencers League of America (Cater USS $\mathcal{F A}$ ) is founded by a group of New Yorkers who dislike the $\mathcal{A A U}$ 's choice of direct elimination for its nationalchampionships. This group wants a tournament composed strictly of pool play.
1892: The first $\mathcal{A F} \mathcal{F A} \mathcal{N}$ ational Championships are held in $\mathcal{N e w}$ York City. Foil, dueling swords (epee) and sabre events are held for men.
1894: The Intercollegiate Fencing Association (IFA) is founded by Columbia, Harvard and Yale. Annual championships are held.
1896: Fencing is included in the first Olympic Games in $\mathcal{A}$ thens. Baron Pierre de Coubertin, the father of the modern Olympic Games, was a fencer. Men's foil and sabre events are held. Fencing is one of only four sports to have been included in every Games since.
1900: Men's epee is added to the events at the Olympic Games.
1904: The first and only Olympic gold medalby an American fencer is won by Albertson Van Zo Post, on loan to Cuba for the Games, in the single sticks and team foil events.
1912: The first women's foil $\mathcal{N a t i o n a l}$ Championship is won by Adelaide $\mathcal{B a y l i s . I t}$ appears fencers earned subjective "form" points from the late 1800 s until approximately 1912. This practice was discontinued after the U.S. team returned from the Olympic Games, because no other countries scored this way.
1913: The $\mathcal{F e}$ deration Internationale d'Escrime is founded in Paris for the purpose of unifying the sport's rules. Prior to this, Olympic competitions were riddled with controversy when countries couldn't agree on rules.
1919: The first time that hits received (called "indicators") fas an impact on final placement at the
$\mathcal{N}$ ational Championships, eliminating ties and fence-offs.
1920s: The U.S.experiences a large influx of Europe an fencing masters, including Hungarians goseph Vince and George Santelfi, who would have a dramatic effect on UlS . performance internationally.
1920: Belgianfencer Victor Boin becomes the first athlete ever to take the Olympic Oath on behalf of all athletes at the' 20 Games.

1921: The European Championships are held in Paris, with men's epee the only event.
1922: Men's foil and men's sabre are added to the program of the European Championsfips, held in Paris.
1924: Women's foil is added to the events at the Olympic Games, with bouts to five touches (same as men) but with a smaller target area (the groin was not a valid target area).
 York University and the University of Pennsylvania. Women's foil is held at the European Championships, in $\mathcal{N}$ aples, Italy, for the first time.
1932: George Calnan, a bronze medalist in epee at the'28 Olympics, has the fonor of taking the Olympic Oath in Los Angeles.
1935: The Riposte magazine, a UlS. publication devoted to fencing, is established by Iose R. de Capriles. 1936: FIE changes women's Olympic Gouts from five to four touches. (Remains the rule until 1976.)
1937: The first World Championships is held in Paris. Epee is electric at the $\mathcal{A} \mathcal{F} \mathcal{A} \mathcal{N} \mathfrak{N}$ ational Championships for the first time.
1939: The $\mathcal{A F} \mathcal{F} \mathcal{A} \mathcal{N}$ ational Championships are held in $S$ an $\mathcal{F r a n c}$ isco, the first time they are held away from the New York City metro area.
1941: The $\mathfrak{N C A A}$ conducts its first fencing championsfips at $\mathfrak{N}$ orthwestern University.

 in $\mathfrak{N}$ ovember.
1950: The $\mathcal{F I E}$ folds the first World Under-20 Championships, with men's foil the only event. Men's sabre is added in'52, women's foil in'55, men's epee in'56 and women's epee in'89. The last men's threewe apon $\mathfrak{N}$ ational Championship is won by $\mathcal{T}$ ib or $\mathcal{N}$ (yilas.
1951: The $\mathcal{N C A A}$ championsfip results are used to select an $\mathcal{A l l}-\mathcal{A m e r i c}$ an team. Awards are made retroactive to 1941.
1956: Norman C. Armitage carries the U.S. flag into the Opening Ceremonies of the Olympic Games for the second time (also '52). He is the second, and most recent, athle te to carry the U.S. flag at two Olympic Games.
1957: Electric foil is used for the first time at the National Championships. Its continuous problems plague the events to the point that the men's foil finals are conducted "dry."
1960: Dr. Miguel $\mathcal{A}$. de Capriles of the U.S. Gecomes the first non-European president of the $\mathcal{F I E}$. USS $\mathcal{A}$ 's $\mathcal{A l b i e} \mathcal{A x e l r o d}$ wins a bronze medal in foil at the Olympics, placing befind two Soviets and above every European competitor.
1968: Ianice Lee York Romary, on fer sixth Ofympic Team, becomes the first woman to carry the U.S.flag into the Opening Ceremonies in Mexico City.
1981: Women's epee is first held at the Division I $\mathfrak{N a t i o n a l}$ Championsfips, won by $\mathcal{S}$ ue $\mathcal{B a d d e r s}$.
1989: Women's epee is held at the World Championsfips (in Denver, Colo.) for the first time. Donna Stone in women's epee and Peter Westbrook in men's sabre make the finals.
1996: Women's epee is added to the events at the Olympic Games. The U.S. fields a team at the Paralympic Games for the first time.

General Information

About the United States Fencing Association

The Amateur Sports $\mathfrak{A c t}$ of 1978 specifically named the United States Olympic Committee (USOC) as the coordinating body for amateur athletic activity in the U.S. directly relating to international Olympic
 sports on the programs of the Olympic and Pan AmericanGames.

The United States Fencing Association (US $\mathcal{F A}$ ) is the recognized $\mathcal{N} G \mathcal{B}$ for the sport of fencing in the United States. The USSF $\mathcal{F A}$ was founded in 1891 as the $\mathcal{A m a t e}$ ur $\mathcal{F e n c e r s} \operatorname{Le}$ ague of $\mathcal{A m e r i c a}$ ( $\mathcal{A F L A}$ ) by a group of $\mathfrak{N e w ~ Y o r k f e n c e r s ~ s e e k i n g ~ i n d e p e n d e n c e ~ f r o m ~ t h e ~} \mathcal{A m a t e}$ ur $\mathcal{A t h l e t i c} \mathcal{U n i o n}$. The $\mathcal{A} \mathcal{F} \mathcal{A}$ changed its name to the United States Fencing Association in 1981.
$\mathcal{T h e}$ US $\mathcal{F A}$ is affiliated with the $\mathcal{F e d e r a t i o n ~ I n t e r n a t i o n a l e ~ d ' E s c r i m e ~ ( ~} \mathcal{F I} \mathcal{E}$ ), the International Federation for fencing founded in Paris in 1913.

The USFA was incorporated as a non-profit corporation in Pennsylvania in 1964 in compliance with the $\mathcal{A}$ mateur Sports $\mathcal{A c t}$ and opened its national office at the Olympic $\mathcal{T}$ raining Center in Colorado Springs, Colo. in $\mathcal{A} u g u s t$ of 1982. Carla-Mae Richards was hired as the $\mathcal{U S} \mathcal{F A O}$ 's first full-time Executive Director in 1983 and served in that capacity until 1994. The $\mathcal{U S} \mathcal{F A}$ is now incorporated in Colorado. $\mathcal{A} S$ trategic Planning Commission met in 1992 to charter a course for the $\mathcal{U S} \mathcal{F A O}$ 's future. $\mathcal{A}$ planning group then met in 1995 and re-examined he organization's mission and goals.

Mission: The mission of the USSA is to develop fencers to achieve international success and to administer and promote the sport in the U.S.

Goals:
earn international medals
expand membersfip
increase the number and quality of coackes and integrate them into the $\mathcal{U S} \mathcal{F A}$
increase public interest in fencing
make the USS $\mathcal{F A}$ an effective and efficient organization.

US $\mathcal{F A}$ Programs

Team Selection
In keeping with its mission, the $\mathcal{U S} \mathcal{F A}$ sends teams to the World Championships, the World $\mathcal{L I n d e r - 2 0}$ Championships, the World Under-17 Championships, the Pan American Senior Championships and the Pan $\mathcal{A m e r i c a n ~} \mathcal{I}$ unior Championships. In addition, the US $\mathcal{F A}$ develops programs to assist its top athletes towards achieving international results. The USS $\mathcal{F A}$ selects teams to represent the U.S. at the Olympic Games, Pan American Games and World University Games.

## I unior O Cympics

USFA grassroots success in attracting young people is evident at the annual gunior Olympic Fencing Championships (gos). The event started in 1972 with 100 fencers in four events. In 1996, the event attracted 1,240 fencers in 26 events spread over five age categories: Under-20, Ulnder-17, Under-15, Under-13 and Under-11. The event has become so large that it has been restructured for 1997 and beyond. Under-15, Under-13 and Under-11 events will be held at the newly created Summer Nationals.
$\mathcal{N a t i o n a l}$ Championsfips
The US $\mathcal{F A}$ also conducts annual $\mathcal{N a t i o n a l}$ Championsfips. In recent years this event, like the IOs, fas attracted more than 900 fencers. The Nationals began in 1892 and were held in New York City until 1939, when they were held in $S$ an Francisco and began moving to other cities. Today, they are held in locations across the Ul.S.
For 1997 the $\mathcal{D i v i s i o n ~ I ~ e v e n t s ~ w e r e ~ f e l d ~ i n ~} \mathcal{A p r i l}$ at the Olympic $\mathcal{T r a i n i n g}$ Center in Colorado Springs to allow an earlier World Championsfip team selection. In 1997 an expanded Summer $\mathcal{N}$ (ational Championsfips
was held in early guly to eliminate conflicts with the end of the schoolyear. In 1998 the $\mathcal{D}$ ivision I events will combine with $\mathcal{D i v i s}$ ion $I \mathcal{A}(1997$ on(y) at the $\operatorname{Summer} \mathfrak{N}$ (ational Championsfips.
$\mathcal{N}$ ational Championship Events
Division I, Under-16, Ulnder-14, Under-12, Under-10: Men's Foil, Epee, Sabre \&Women's Foil, Epee Division IA, II \&III, Under-19: Men's Foil, Epee, Sabre \& Women's Foil, Epee, Sabre Team (Open \& Under-19): Men's Foil, Epee, Sabre שWomen's Foil, Epee, Sabre
Veterans (40 Gover): Events are field in various age categories for Men's Foil, Epee, Sabre G Women's Foil, Epee, Sabre
Wheelchair: Men's Foil, Epee, Sabre שWomen's Foil, Epee

Classific ations
The US $\mathcal{F A}$ issues classifications of $\mathcal{A}, \mathcal{B}, \mathcal{C}, \mathcal{D}$ and $\mathcal{E}$ to its competitive fencers, with $\mathcal{A}$ being the fighest level. Fencers may earn classifications through improved performance at high-levelevents. Division II nationalevents are for fencers classified " $C$ " and below, while Division III events are for " $\mathcal{D}$ " and below.
$\mathcal{N}$ North American Cups
The $\mathcal{N}$ (orth $\mathcal{A}$ merican Cups ( $\mathcal{N} \mathcal{A C S}$ ) are the $\mathcal{Z S S} \mathcal{F A O}$ 's Key national-levelcompetitions throughout the competitive season. Four are held for the Open category, while there are two ach season for the Under20, Under-17, Under-15, Under-13 and Under-11 age groups.
Fencers are not restricted to one age category - they may compete above their age category. The USS $\mathcal{F A}$ started a Division II and Division III $\mathcal{N A C}$ in 1995. This is intended to be a developmentalevent, not just for fencers 6ut also for referees, armorers and other official personnel.

Point $S$ tandings
The USF FA compiles point standings, or national rankings, throughout the season for the Open, Ulnder-20, Under-17, Under-15, Under-13 and Under-11 categories. Fencers earn points based on placement at national events and certain international events. These standings are used to select U.S.teams.
$\mathcal{N a t i o n a l} \mathcal{T}$ eam
The US FA began naming a National Team in 1989. Each year, the country's top fencers earn spots on the team, based on the national point standings.

## Training Centers

The US $\mathcal{F A}$ has begun to designate $\mathcal{N a t i o n a l} \mathcal{T r a i n i n g ~ C e n t e r s ~ f o r ~ e a c h ~ o f ~ t h e ~ f i v e ~ O l y m p i c ~ e v e n t s . ~ T h e ~}$ Rochester Fencing Centre in Rochester, N. $\mathcal{Y}^{\prime}$, run by $\mathcal{N}$ (ational Women's Foil Coach $\mathcal{B u c k i e ~ L e a c h , ~ i s ~ t h e ~}$ training center for women's foil. Five regional training centers have been named for men's epee. National Training Centers will be named for men's foil, women's epee and men's sabre at alater date.

## Coaches College

The annual Coaches College is conducted in August at the Olympic Training Center in Colorado Springs. The Coaches College began in 1983 as part of the US $\mathcal{F A O}$ 's coaching development program and has become the most prestigious fencing coach education program in the U.S. Coach participants in this program generally become the US $\mathcal{F A}$ 's nationwide leading developmental coaches. The Coaches College programexpanded its progressive classification system in 1996 to five levels. Levels One and Two encompass all three we apons, while Levels $\mathcal{T h}$ fee, Four and Five specialize in one we apon and encompass a figher levelof training and more complex instructional materials. Coaches receive a certificate uponcompletion when they pass the appropriate written and practicalexaminations.

## Veterans

Events for Veterans (fencers 40 and over) are becoming more common at both the national and internationallevels. In 1995, the U.S. hosted an international Veterans event in $\mathcal{F l o r i d a .}$

## Wheelchair Fencing

Since 1994, the USS FA fas actively developed and nurtured a world-class national wheelchair fencing program. This program allowed the US $\mathcal{F A}$ to field the first US $\mathcal{A}$ fencing team at the Paralympic Games in 1996. The program was rewarded with a fourth-place finish by TerriCecil-Ramsey of Louisville, Ky. in women's epee. LeszekStawicki of the Louisville Fencing Center is the USS FA's first-ever Wheelchair $\mathcal{N a t i o n a l}$ Coach. Additionally, a number of internationally-rated wheelchair officials have been trained by the USS $\mathcal{F A}$ and a section of Coaches College is now devoted exclusively to wheelchair teaching principles.

## Women's Sabre

This event is fairly new on the national scene. $\mathcal{A} \mathcal{D i v i s i o n}$ II event began at the $\mathcal{N}$ (ational Championsfips in 1991 with 32 competitors. In 1995 women's sabre was added to the $\mathcal{N} \mathcal{A C}$ program.

## Rules

The sport of fencing is fast and athletic, a far cry from the choreographed bouts you see on film or on the stage. Instead of swinging from a chandelier or leaping from balconies, you will see two fencers performing an intense dance on a six-feet-by-40-feet strip. The movement is so fast the touches are scored electronically - a lot more like Star Wars than Errol Flynn.

## The We apons

$\mathcal{F o i l}$, epee and sabre are the three we apons used in the sport of fencing. While it is not unusual for fencers to compete in all three events, they generally choose to develop their skills in one we apon. Until recently, women were permitted to compete only in foil, 6 ut now the $\mathcal{U S} \mathcal{F A}$ and $\mathcal{F I E}$ offer national competitions for women in epee and sabre. Women's epee was added to the World Championships in 1989 and was held for the first time at the Ofympic Games in 1996.
$\mathcal{F o i l}$ and epee are thrusting we apons. Sabre is a thrusting and cutting we apon. The target areas differ for the three we apons, though all three are scored electronically.
$\mathcal{F}$ oil
The foil has a flexible rectangular blade, approximately 35 inches in length, weighing less than one pound. Points are scored with the tip of the blade and must land within the torso of the body.
The valid target area in foil is the torso, from the shoulders to the groin, front and back. It does not include the arms, neck, head and legs. The foilfencer's uniform includes a metallic vest (called a lam) which covers the valid target area, so that a valid touch will register on the scoring machine. A small, spring. loaded tip is attached to the point of the foil and is connected to a wire inside the blade. The fencer wears a body cord inside fis uniform which connects the foil to a reelwire, connected to the scoring macfine.
There are two scoring lights on the machine. One shows a greenlight when a fencer is fit, and one shows a red light when her opponent is hit. A touch landing outside the valid target area (that which is not covered by the (am) is indicated by a white light. These "off target" fits do not count in the scoring, but they do stop the fencing action temporarily.

Epee
The epee (pronounced"EPP-pay"), the descendant of the dueling sword, is similar in length to the foil, but is heavier, weighing approximately 27 ounces, with a larger guard (to protect the fiand from a valid fit) and a much stiffer blade. Touches are scored only with the point of the blade. The entire body is the valid target
area. The blade is wired with a spring-loaded tip at the end that completes anelectricalcircuit when it is depressed beyond a pressure of 750 grams . This causes the colored bulb on the scoring machine to light. Because the entire body is a valid target area, the epee fencer's uniform does not include alam. Off. target fits do not register on the machine.

## Sabre

The sabre is the modern version of the slashing cavalry sword, and is similar in length and weight to the foil. The major difference is that the sabre is a thrusting we apon as well as a cutting we apon (use of the 6 (ade). The target area is from the bend of the hips (both front and back), to the top of the head, simulating the cavalry rider on a horse. The sabre fencer's uniform includes a metallic jacket (lam), which covers the target area to register a valid touch on the scoring machine. The mask is different from foil and epee, with a metalfic covering since the head is valid target area. A colored light goes off when a fencer scores a valid hit. Off-target fits do not register on the machine.

Object
The main object of a fencing bout (what an individual "game" is called) is to effectively score 15 points (in direct elimination play) or five points (in preliminary pool play) on your opponent before fe scores that number on you. Each time a fencer scores a touch, she receives a point. Direct efimination matches consist of three three-minute periods.

Right-Of-Way
One of the most difficult concepts to visuatize in foil and sabre fencing is the rule of right-of-way. This rule was establisfied to eliminate apparently simultaneous attacks by two fencers.
In essence, right-of-way is the differentiation of offense and defense, made by the referee. The difference is important only when both the red and green lights go on at the same time in foil and sabre. When this happens, the winner of the point is the one who the referee determined was on offense at the time the lights went on.
Epee does not use the right-of-way in keeping with its dueling origin... he who first gains the touch earns the point. Or, if both fencers hit within $1 / 25$ th of a second of eachother, both earn a point. However, it is equally important to have a sound defense for epee, since the entire body must be protected from a touch.

## Equipment

Foil: The foil has a flexible rectangular 6lade, approximately 35 inches in length, weighing less than one pound.
Epee:The epee (pronounced "EPP-pay"), the descendant of the dueling sword, is similar in length to the foil, but is heavier, weighing approximately 27 ounces, with alarger guard (to protect the fand from a valid hit) and a much stiffer blade.
Sabre: The sabre is the modern version of the slashing cavalry sword, and is similar in length and weight to the foil. The major difference is that the sabre is a thrusting we apon as well as a cutting we apon (use of the blade).

## Glossary

$\mathcal{A d v a n c e}: \mathcal{T o}$ ste $p$ forward.
$\mathcal{A t t a c k}$ : $\mathcal{A}$ movement or series of movements by which a fencer tries to score a point against fis opponent. Beat: $\mathcal{A}$ sharp tap on the opponent's blade to initiate attack or threat of attack.
$\mathcal{B l a d e}: \mathcal{A}$ part of the we apon which extends from the guard.

Counter-Parry: $\mathcal{A}$ defensive movement by which the fencer goes around the opponent's blade and moves the opponent's blade away.
Disengage: A break of contact betweenfencers' blades; movement made by passing the blade under the opponent's blade.
Engagement: A contact of 6lades.
En Garde: $\mathcal{A}$ position taken before a bout begins.
$\mathcal{F}$ int: $\mathcal{A}$ false attackintended to get a reaction from the opposing fencer which will open her up to a genuine attack.
$\mathcal{F l e c h e}: \mathcal{A}$ running attack.
Guard: A part of the we apon between the Glade and handle which protects the hand.
Lunge: The most common attack in which the fencer closes the distance by moving the front leg forward while the backleg remains stationary and straightens out.
Parry: $\mathcal{A}$ defensive action in which a fencer 6 locks her opponent's blade.
Piste: $\mathcal{A}$ French term for the fencing strip.
Recover: To return to the engarde position after lunging.
Remise: Attacking again immediately after the opponent's parry of an initial attack.
Riposte: $\mathcal{A}$ defender's counterattack after parrying an attack.
Strip: The fencing area, 14 meters long by two meters wide.

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For more information contact:

US Fencing Association
One Olympic Plaza
Colorado Springs, CO 80909
Phone: 719-578-4511
Fax: 719-632-5737
Internet: www.usfa.org
Email: US Fencing@aol.com

## History

Field Hockey is one of the fewe arly sports where women we re allowed to engage in strenuous activity and actually compete fervently in a team atfle tic situation. $\mathcal{A l t h o u g h}$ field hockey began as an activity for primitive man, modern woman has definitely made her mark on the sport.

The origins of hockey go backfurther than the ancient Greeks, but there is no conclusive evidence of exactly how and where the game began. The earliest tangible record of field hockey (thenknown only as hockey) is a drawing done in 2050 B.C. on a tomb at Beni-Hasan in the Nile Valley in Egypt.
On the wall of one tomb, six drawings of athletic activities were sketched. One illustration depicted two men holding sticks with curved ends. Between the sticks is a round object, possibly a hoop or a ball. Because of this evidence, historians believe field hockey is the patriarch of all sports played with such implements. From pre-Christian times to Roman prominence and through the Middle Ages, the game of hockey … or a similar activity .. was enjoyed by people in many lands. Rules have differed and playing surfaces have changed, but the concept of a two team stick-and-ball game remains the same.

It was not until the first half of the 19 th century, however, that field hockey became firmly established. The first club was $\mathcal{B l a c k h e}$ ath, headquartered in southeast London prior to 1861 . The club played on a large piece of openground with crudely designed sticks. The ball was a solid cube of 6 lackrubber. There were few offensive or defensive tactics to the game.

Field hockey's role as a liberator also took hold at this time. For some time in the second half of the 19 th century, it was considered the only proper team sport for women. A women's club was started in $S$ urrey, England in 1887 and the first national association...the Irish Ladies Hockey Union... emerged in $\mathcal{D} u b l i n$ seven years later.
$\mathcal{B} y$ the end of the 19 th century, women's hockey fad spread to New Zealand, South Africa, The $\mathcal{N e}$ (herlands, Germany, S witzerland and elsewhere. In 1927, the International $\mathcal{F e}$ deration of Women's Hockey Associations (I $\mathcal{F W H} \mathcal{H})$ was formed.

The women played according to the men's rules, but were obstructed by their clothing. Their cumbersome skirts fung nearly to the ground to cover every inch of their legs. The extremely heavy petticoats, corsets, long sleeves and high, stiff collars impeded movement. Despite such handicaps, the women persisted, and international matches were soon underway.
$\mathcal{A}$ the onset of the 20 th century, the game was introduced to women in the United $S$ tate by Constance $\mathcal{M}$.K. Apple bee. The British physical education teacher presented a hockey exfibition at Harvard Ulniversity in the summer of 1901 . During the next two years, she taught the game to women at such prestigious institutions as Smith, Wellesley and Mt. Holyoke, as well as other colleges in the Northe ast and Mid. $\mathfrak{A t l a n t i c}$ states. This part of the country remains a hotbed of field hockey.
$\mathcal{A}$ a time when"socially accepted" croquet and lawn tennis were the most arduous activities in which young women were allowed to participate outdoors, field hockey created quite a stir. The women were no longer restricted and took on the athleticism and intensity of the game as a great challenge. In fact, the first U.S. women's team to travel abroad for the purposes of a single athle tic competition sailed to England in

1920 to play in a hockey tournament. Shortly after, in 1922, the $\mathcal{Z} . S$. Field Hockey Association, the National Governing Body for field hockey in the United States, was established.

Today, more than 11,000 athletes are USSHA members. The long-standing tradition of the game serves as a gentle reminder of the hard work and dedication put forth by thousands of men and women who strive to perpetuate the sport for future generations.

General Information

The Ulited States Field Hockey Association (US $\mathcal{F H} \mathcal{H}$ ) is the $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}$ for field hockey in the United $S$ tates and is a member of the United $S$ tates $O$ Cympic Committee (USOC), the Federation Internationale de $\mathcal{H}$ ckkey $(\mathcal{F} I \mathcal{H})$ and the Pan $\mathcal{A}$ merican $\mathcal{H}$ ockey $\mathcal{F e d e r a t i o n}(\mathcal{P A} \mathcal{H} \mathcal{F})$.

The mission of the USS $\mathcal{F H}$ A to:
Foster and develop the amateur sport of field hockey.
Provide participation and development opportunities for players, coaches, officials and administrators. Prepare teams to participate in the Olympic Games, Pan American Games and other USOC-sponsored events, as well as international competition sponsored by the $\mathcal{F I} \mathcal{H}$ and other national governing bodies. Represent the United States internationally and domestic ally by serving as ambassadors of goodwill and setting a standard of excellence in playing, coaching, officiating and administrating.

US $\mathcal{F H A}$ has over 11,000 members, including universities, colleges and high schools. US $\mathcal{F H A}$ has programs designed to educate and promote the sport of field hockey. US $\mathcal{F H} \mathcal{H}$ operates development camps at several locations across the country for various skill levels. The association has established a Development Grant Program to promote and expand field hockey in the United $S$ tates. USS $\mathcal{F H} \mathcal{A}$ provides educational materials and loans equipment to elementary and junior high school age students across the country. In conjunction with competition, USS $\mathcal{F H} \mathcal{A}$ conducts umpiring and coaching clinics to entance their technicalskills. US $\mathcal{F H} \mathcal{H}$ established a Disabled Sports Committee to address the needs of the physically challenged and introduce the sport to them. The Sports Science Committee is dedicated to research and research opportunities.

## US $\mathcal{F H} \mathcal{H}$ History

In 1997, the $\mathcal{U n}$ nited States $\mathcal{F i e l d} \mathcal{H}$ ockey $\mathcal{A s s o c i a t i o n ~ i s ~ e n j o y i n g ~ i t s ~} 75$ th year of constitutional history. The organization was founded in 1922, 21 years after the sport was brought to U.S.shores by Constance M.K. Apple bee. From one small preparatory school in Connecticut, the US FHA has grown to include fundreds of clubs/colleges and more than 11,000 members. The growth of the sport and the organization has been impressive; the scores of dedicated field hockey enthusiasts who have developed the association have proven invaluable. The naturalgrowth has happened through the combined efforts of all involved. In 1901 , Apple bee introduced the game to women in the United States. Three years after "The Apple" brought field hockey to America, she became director of physicaleducation at $\mathcal{B r y n} \mathfrak{M a w r}$ College in $\mathcal{B r y n}$ $\mathfrak{M a w r}, \mathcal{P a}$. For the next 20 years, the $\mathcal{A m e r i c} a n \mathcal{F i e l d} \mathcal{H}$ ockey $\mathcal{A s s o c i a t i o n ( p r e d e c e s s o r ~ o f ~ t h e ~} \mathcal{U S} \mathcal{F H} \mathcal{H}$ ) was formed and guided by Miss Applebee. The organization existed primarily to publish official playing rules. By 1920, Apple bee decided the "All-Philadelphia Team" could compete favorably with the English teams. $\mathcal{F o l l o w i n g ~ e x t e n s i v e ~ c o r r e s p o n d e n c e s , ~ a ~ p i o n e e r ~ g r o u p ~ o f ~} 15$ women set sailfor Great Britain on Oct. 21, 1920. The team returned with a $2-8$ record, which, one team member said, "could have been worse." The tour was proof U.S. hockey enthusiasts had their work cut out for them, but they were determined to work together to create a solid standing for the sport in this country. In 1921 in $\mathcal{W}$ ellsley, Mass., a small group was named to draw up plans for a national organization. After several months of study, a meeting was
called in Philadelpfia in ganuary 1922. The USS $\mathcal{F H A}$ was officially formed and a constitution unanimously accepted.
$\mathcal{N e}$ arly 100 women from 15 states .. including California... attended the fistoric meeting. Today, USS $\mathcal{F H} \mathcal{A}$ members come from all 50 states.
$\mathcal{A s}$ we look akead to the 21st century, the $\mathcal{U S} \mathcal{F H} \mathcal{H}$ remains dedicated to keeping the sport alive and thriving. The US $\mathcal{F H}$ A first applied to the United States Olympic Committee for the single $\mathcal{N}$ (ational Governing $\mathcal{B o d y}$ franchise in October 1992. Originally, a merger between $\mathcal{U S} \mathcal{F H A}$ and $\mathcal{F H A A}$ was proposed. $\mathcal{H o w e v e r , ~ a ~ n u m b e r ~ o f ~ a l t e r n a t i v e s ~ f o r ~ t h e ~ c o n s o l i d a t i o n ~ w a s ~ c o n s i d e r e d ~ a n d ~ r e j e c t e d ~ b y ~ b o t h ~ U l S ~} \mathcal{F H A}$ and $\mathcal{F H} \mathcal{A} \mathcal{A}$ representatives. The $\mathcal{F H} \mathcal{H A}$ then also filed an application for $\mathcal{U S}$ OC membership. Following discussion Getween the two groups... with support from the USOC Membership and Credentials Committee .. the two organizations reacked an agreement on various issues. As a result of the agreement, the $\mathcal{F H} \mathcal{A A}$ withdrew its application. The $\mathcal{U S} \mathcal{F H} \mathcal{H}$ application was revie wed at a public hearing Ian. 29, 1993.

Following the review, the Membersfip and Credentials Committee determined the US $\mathcal{F H} \mathcal{A}$ should be recognized by the USOC as the sole $\mathcal{N G B}$ for the sport of field hockey. At its $\mathfrak{F e}$ 6. 13-14, 1993 Board of Directors meeting in Phoenix, Ariz., the USOC's membership voted to recognize just one $\mathcal{N} \mathcal{G} \mathcal{B}$ for the sport of field hockey. The 99-member board approved a resolution submitted by the Membership and Credentials Committee to recognize the US $\mathcal{F H} \mathcal{H}$ as the sole $\mathcal{N G B}$, bringing field hockey into compliance with the $\mathcal{A m a t e u r}$ Sports $\mathcal{A c t}$ of 1978 .

On April 1, 1993, the United States Field Hockey Association was recognized by the United States Olympic Committee as the sole $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}$ to oversee the sport of field hockey in the United $S$ tates. Since the inception of the Field Hockey Association of $\mathcal{A m e r i c a}$ in 1932 .. formerly the governing body for the men's game in the United States.. they had worked independently from the US FFHA. In 1993, the two became one association, dedicated to the development and promotion of the sport in the United States. "I am pleased the $\mathcal{F H} \mathcal{H A}$ fias officially joined us," USS $\mathcal{F H} \mathcal{A}$ Pre sident gene pher Price Shilfingford said. "We are supporting two elite teams .- one for women and one for men... and are pursuing the growth and development of the game together. Now that the $\mathcal{F H} \mathcal{A A}$ and the $\mathcal{U S} \mathcal{F H A}$ fiave come together under the Ganner of the United States Field Hockey Association, we are dedicated to supporting the two national teams, creating opportunities for the development of field hockey and using everyone in the organization to showcase the sport in the best possible way."

## Rules

$\mathcal{A}$ field hockey match consists of two halves, usually 35 minutes each, and begins with a pass back (a nondefended pass from one teammate to another at mid-fie (d). There are 11 players to a side, one of whom is a goalkeeper. The object of the game is to score more goals than the opposition. Goals are scored when the ball .- made of solid plastic, weighing between $51 / 2$ ounces and $53 / 4$ ounces with a circumference of 8 13/16 inches to $91 / 4$ inches .- crosses the goal line between the goal posts after being touched by the stick of an attacker within the circle. Each goal is worth one point. The ball can only be touched with the flat side of the curved, hardwood stick.

The playing field is 100 yards by 60 yards, divided by a center line and a 25 -yard line of each half of the field. The striking circle is a semi-circle measured out 16 yards fromeach goal post. The goalcages are each sevenfeet high and 12 feet wide. All international matches are played on watered down artificial turf.

Unique to field hockey is the obstruction rule. In virtually every other sport, shielding the ball with one's body is an integral part of game strategy. However, this is not allowed in field hockey. All players have an equalchance to gain control of the ball as it is dribbled or passed down the field.

Other infractions include advancing (other than the goalkeeper, no player may play the ball with any part of the body), dangerous use of the stick and fitting the Gall in a manner which could le ad to dangerous play. $\mathcal{F o r}$ a breach of rules, an umpire may award a free fit, penalty corner or penalty stroke. $\mathcal{A}$ majority of scoring opportunities in each match comes from penalty corners.
$\mathcal{A}$ penalty corner is a free fit by an offensive player from a point on the goal line at least 10 yards from the goal. All attackers must be outside the circle before the hit is taken. A maximum of five defenders may be befind the goal line while the remaining defenders must be positioned beyond the center line.
$\mathcal{A}$ penalty corner is awarded for:
Any breach of the rule by a defender within the circle that would have resulted in a free fit to the attacking team if the breach had occurred outside the circle;
$\mathfrak{A} n y$ breach of the rule by the defenders outside the circle 6ut within the 25-yard line;
$\mathcal{A n}$ intentional fit over the goal line by a defender from any part of the field. A penalty stroke is one-onone, offensive player seven yards in front of the goal vs. goalke eper on the goalline, with all other players beyond the 25 yard line.
$A$ penalty stroke is awarded for any intentional breach by the defenders in the circle or for an unintentional breach by the defenders which prevents a sure goal.

## Equipment

Ball: Solid plastic, weighing between 51/2 ounces and 53/4 ounces with a circumference of 8 13/16 inches to 9 1/4 inches
Goal Cages: The goalcages are each sevenfeet high and 12 feet wide.
Playing Field: 100 yards by 60 yards, divided by a center line and a 25-yard line of each half of the field. The striking circle is a semi-circle measured out 16 yards from each goal post $\mathcal{A l l}$ international matches are played on watered down artificial turf.
Stick: Curved toe, hardwood. The ball can only be touched with the flat side of the stick.

## Glossary

Artificial $\mathcal{T}$ urf: First used at the 1976 Summer Olympic Games in Montreal, all international matches are now played on this surface.
$\mathcal{B a l f}$ : Made of solid plastic, weighing between 5 $1 / 2$ ounces and $53 / 4$ ounces with a circumference of 8 13/16 inches to $91 / 4$ inches.
Obstruction Rule: In virtually every other sport, shielding the ball with one's body is an integral part of game strategy. However, this is not allowed in field hockey. All players have an equalchance to gain control of the Gall as it is dribbled or passed down the field.
Penalty Corner: $\mathcal{A}$ free fit $6 y$ an offensive player from a point on the goal line at least 10 yards from the goal. All attackers must be outside the circle before the hit is taken. A maximum of five defenders may be befind the goal line while the remaining defenders must be positioned beyond the center line.
Playing Field: 100 yards by 60 yards, divided by a center line and a 25-yard line of each half of the field. Striking Circle: A semi-circle measured out 16 yards fromeach goal post. All goals must be struckfrom within this circle.

Watered- Down: The artificial surface in all international matches is watered down for two reasons; a wet turf "holds" the ball the ground better thandry turf and it is better for the health of the athle tes.

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For more information contact:
U.S. Field Hockey Association

One Olympic Plaza
Colorado Springs, CO 80909
Phone: 719-578.4567
Fax: 719-632.0979
Internet: www.usfieldhockey.com
Email: usfha@usfieldfockey.com

Although skating was born in Europe, figure skating, as we know it today, traces its origins directly Gack to an American gackson Haines.
$\mathcal{H a i n e s}$ was born in $\mathcal{N e w}$ York in 1840 and died in 1875 in Finland after catching pne umonia while traveling by sled from $S$ t. Petersburg to $S$ tockholm.
$J$ ust before the civil war a skating craze (accompanied by a dancing craze) swe pt America. It was during this time that gackson $\mathcal{H a i n e s}$ le apt into the limelight with his mastery of skating and dance. He was a true innovator in a country where figure skating had laboriously developed a stiff and rigid style. The free and expressive movements of his performances were condemned by many Americans. In 1863 and 1864 he won the Championships of America (now Known as the United States Figure Skating Championsfips) but he continued to receive cool receptions from his fellow countrymen. His lack of popularity in $\mathcal{A} m e r i c a f i n a l l y$ prompted fim to go to Europe, where he was an immediate success. He was especially popular in Vienna where he gave birth to the so-called "International Style of Figure Skating."
$\mathcal{W}$ file $\mathcal{H}$ aines gave $\mathcal{A m e r i c a}$ its first taste of the international style of figure skating, it was not until the turn of the century that this influence finally Gegan to secure its place in the American figure skating community. This event came about thanks to the efforts of Haines and three other figure skating pione ers: Louis Rubenstein, George $\mathcal{H}$. Browne and Irving Brokaw.

Louis Rubenstein, of Montreal, Canada, was one of the first individuals who recognized the merits of the international style and the need for organization in a sport which had largely existed as an informal collection of skating clubs. It was through his efforts that the first attempts to form a National governing Body began.

In the late 1880 s, Rubenstein was the force befind the formation of the $\mathcal{A m a t e}$ ur $S$ Kating $\mathcal{A s s o c i a t i o n}$ of Canada now known as the Canadian Figure Skating Association, as well as the $\mathcal{N}$ (ational $\mathfrak{A m a t e}$ ur $S$ Kating $\mathcal{A s s o c i a t i o n}$ of the United $S$ tates and the International $S$ kating Union of $\mathcal{A m e r i c a}$, both of which were forerunners to the United $S$ tates $\mathcal{F i g u r e}$ SKating Association.

While Rubenstein laid the groundworkfor uniform competitions and tests, and a future governing body, it was George $\mathcal{H}$. Browne and Irving Brokaw of Cambridge, Mass., who put that work into action by means of the first"International Figure SKating Championships of America," considered to be the first Championship of the United States in the new international style.
$\mathcal{B r o w n e}$, who had studied with the leading European skaters of the day while in $\mathcal{D a v o s}, S$ witzerland, was a staunch supporter of the international style of figure skating, authoring several books and even developing a new type of skate in order to promote this new method of skating.

Much of the success accomplished by Browne was augmented by Irving Brokaw. Brokaw, who fad been influenced by the skating of Iackson Haines, collaborated with Browne throughout much of the early 1900 s, demonstrating the international style throughout the country.
$\mathcal{B r o k a w}$ was part of the first formal demonstration of the international style in 1908, and was the first $\mathfrak{A m e r i c a n ~ t o ~ p a r t i c i p a t e ~ i n ~ i n t e r n a t i o n a l c o m p e t i t i o n , ~ p l a c i n g ~ s i x t h ~ a t ~ t h e ~} 1908$ Olympic Games in London.

In 1914, Browne organized the first "International Figure $S$ kating Championsfips of $\mathcal{A m e r i c a " ~ u n d e r ~ t h e ~}$ auspices of the International $\mathcal{S}$ kating Union of $\mathcal{A m e r i c a ( I . S . U . ~ o f ~} \mathcal{A}$ ), the governing body for both speed and figure skating during the early 1900 s .

The competition was created in order to promote the international style and also in an attempt to streamline figure skating in the United $S$ tates.
$\mathcal{A}$ s a result of the direction brought by the I.S.U. of $\mathcal{A}$, and $\mathcal{B r o w n e}$ 's efforts to create uniform standards for skating, the United States Figure Skating Association (ULS $\mathcal{F S} \mathcal{A}$ ) was formed in 1921 to govern the sport and promote its growth on a nationwide 6 as is.

The USSFA today is comprised of member clubs, individual members and associate members. When the $\mathcal{A s s o c i a t i o n}$ was first formed and became a member of the International Skating Union (I.S.U.), there were seven charter members of the USSSA. Currently, there are more than 450 member clubs across the country, and 127,000 athletes and supporters. Membersfip in the US FSA carries certain privileges and entitles figure skaters to participate in tests, competitions and shows sponsored by the Association.

Until the early 1920 s, there were no set standards of proficiency in the sport of figure skating; if a skater felt qualified to compete, he did so. Today, skaters must pass a series of progressively more difficult proficiency tests. The highest test levelin singles skating is the US FSA gold (or eighth) test. In 1938 formalice dancing tests were established, and in the late 1950 s pair tests were established.

Competitions on every levelare a principal incentive for figure skaters to train, develop and improve the ir skills. By ascending the competition ladder, competitors registered with the USS $\mathcal{F S} \mathcal{A}$ gain entry into international figure skating events including the Olympic Winter Games and the World Championships. All major qualifying competitions such as the regional, sectional and the U.S. Championships are sanctioned by the USSFSA and conducted by US FSA member clubs.

Carnivals or ice shows provide experience and exposure for many young up-and-coming $\mathcal{U S} \mathcal{F S} \mathcal{A}$ figure skaters. US FSA member clubs are eligible to hold carnivals and shows with sanctions from the US FS A. Ice shows, as we know them today, actually originated from US FS $\mathcal{A}$ sanctioned carnivals. In the 1920 s and 1930 s there was no such thing as a commercialice show. At that time, a few US $\mathcal{F S} \mathcal{A}$ member clubs fosted annual amateur ice carnivals which showcased the top national and international skaters. Only later, after champions such as Sonja Henie had gained their reputations through these carnivals, did they turn professional and inaugurate the professional ice shows and extibitions.
$\mathcal{A}$ very important function of the US $\mathcal{F S} \mathcal{A}$ fas Geen the organization's development of the Memorial Fund. The $\mathcal{F}$ und was instituted following the tragic 1961 plane crash which killed the entire U.S. World $\mathcal{T}$ eam, as well as officials, coaches and friends. The Memorial $\mathcal{F}$ und was created to give continuing support and assistance to up-and-coming young skaters. In addition, the USS $\mathcal{F S} \mathcal{A}$ publishes a monthly magazine, Skating, which provides information on the world of skating for USS $\mathcal{F} \mathcal{A}$ and the sport's enthusiasts.

In the December 1923, debut issue of Skating magazine, $\mathcal{A}$. Winsor Weld, the first President of the Association, stated that the "Prospects for figure skating never seemed brighter, and, although it is too soon to say just what the future holds, we can lookforward with confidence."

While this statement was made almost 75 years ago, it still rings true today. Figure skating fas come along way since the time $I$ ackson $\mathcal{H}$ aines took to the ice, and its continued growth will be assured through the support and guidance of the USSSA. I Lookforward with confidence."

General Information

The United States Figure $\mathcal{S}$ Kating $\mathcal{A s s o c i a t i o n}(\mathcal{U S} \mathcal{F S} \mathcal{A})$ is the $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}$ for the sport of figure skating in the United $S$ tates. It is a member of the International Skating Union (I.S.U.), the International Federation for the sport of figure skating and is a member organization of the United $S$ tates Olympic Committe e (USOC).

The USSSA's charter member clubs numbered seven in 1921 when the $\mathcal{H} \mathcal{F} \mathcal{F} \mathcal{A}$ was formed and became a member of the I.S.U. Today, 75 years later, the association's 450 member clubs cover the country from coast-to-coast and from Gorder-to-border, with $\mathcal{U S} \mathcal{F S} \mathcal{A}$ totalmembership surpassing 127,000.

The United States PostalService/USFSASKate With UlS. Gasic skills program was designed to bring figure skating, one of the most njoyable year-round sports, to the largest possible number of people. The Skate With UlS . program provides for the first tentative steps that skaters take and leads naturally into the official US FSA testing structure. The Skate With U.S. program has enrolled more than 350,000 people since it Gegan in 1985 and has attracted figure skaters betwen the ages of 1 and 94.

Competitions at every level are a principal incentive for figure skaters to train, develop and improve the ir proficiency. By ascending the competition ladder, competitors qualify to compete at international figure skating events, including the Olympic Winter Games and the World Figure SKating Championships.
U.S. figure skaters have won more Olympic medals (38) than any other country in fistory. Additionally, the U.S. fas won at least one medal in 13 consecutive Olympic Winter Games.

Figure skaters representing the United States fave won 153 World Championship medals and 45 World titles, again more than any other country.

The U.S. Figure Skating Association sanctions more than 1,250 figure skating events, performances and competitions each year.

Precision Team Skating has been an emerging discipline within the U.S. and internationalskating communities throughout the past decade. In the United States alone, precisionskating has attracted thousands of skaters, and USHSA's membership records reflect it is the fastest-growing of the five disciplines as more than 300 teams are registered with the US $\mathcal{F S} \mathcal{A}$.
$\mathcal{A d u l t}$ figure skating has shown tremendous growth in the past severalyears. The US $\mathcal{F S} \mathcal{A}$ sanctioned the third U.S. Adult Championships in 1997 and almost 900 entrants competed. Skating magazine, the official publication of the USSFSA, is a great source of information for all figure skating enthusiasts. It is published 10 times per year and is a four-color, newstand-quality publication available to all $\mathcal{U S} \mathcal{F S} \mathcal{A}$ members and subscribers.Skating magazine features results and reports on national and international competitions, athle te interviews and profiles, upcoming events and many more exciting and informative articles.

Skating magazine subscriptions are handled through the US $\mathcal{F S} \mathcal{A}$ 's national headquarters, which are located in Colorado Springs, Colo., and house the World Figure Skating Museum and $\mathcal{H} a l l$ of $\mathcal{F a m e}$. The national office is staffed with more than 30 professionals who are charged with managing the membership and basic skills programs, competitions and events, public relations and marketing, sponsorship and fundraising, and atfile te programs and services.

## Rules

There are five separate disciplines, or divisions, in competitive figure skating: men's singles, ladies' singles, pairs, ice dancing and precision team skating (which is not a part of the Olympic program).
Within singles, pairs and dance there are five different competitive skill levels that are based on US $\mathcal{F S} \mathcal{A}$ proficiency tests: juvenile, intermediate, novice, junior and senior. Each leveldraws on similar techniques but adheres to increasingly more difficult skills as well as different rules and guidelines.
The following information pertains to skaters competing at the senior test or championship competitive level the fighest level within the US $\mathcal{F S} \mathcal{A}$ competition structure.

## Singles SKating

Form, style, tecfinique, concentration and the ability to perform under great pressure are the key requirements in men's and ladies' singles events. The rules are similar for both men's and ladies' divisions. Each competition is composed of two separate parts: the short program is skated first, followed by the free skating program. The short program counts for 33.3 percent of a skater's total score for the competition. It consists of eight required moves or elements: three jumps, three spins and two fast step sequences or footwork. The required elements for the 1997-1998 season are as follows:
Men:
Double Axel
Triple I ump
I ump Combination:* double jump and a triple jump, or two triple jumps
$\mathcal{F}$ lying $S$ pin
Came $[S$ pin or $S$ it $S$ pin with one change of foot
Spin Combination with only one change of foot and at le ast two changes of position
and $8 . \operatorname{T}$ wo step sequences of a different nature (straight line, circular or serpentine)
Ladies:
Double Axel
Double I ump or Iriple I ump
Jump Combination:* double jump and a triple jump or two triple jumps
$\mathcal{F}$ lying $S$ pin
Layback or Side ways Leaning Spin
$S$ pin Combination with only one change of foot and at le ast two changes of position
and 8 . One spiral step sequence and one step sequence of a different nature
*I ump combination: two jumps without a step in between

The moves may be done in any sequence within a two-minute, 40 -second time limit, to music selected by the skater. The judges award two marks, one for required elements .. how welleach element is performed.. and a second for presentation, which evaluates the overall program.
The free skating program is worth 66.7 percent of a skater's total score for the competition. The free skate has no required elements, and has a length limitation of four minutes, 30 seconds for men and four minutes for Cadies. Here skaters select their own music and theme, and choreograph the many difficult jumps, spins, footwork and interpretive moves to best display their technical and artistic skills. Change of pace, creativity and innovative moves are encouraged. Technical and artistic perfection are paramount to the skater and to the judges. Iudges consider the difficulty of the moves and jumps and how well they are executed, as well as the overall presentation. As in the short program, two marks are given: the first for technical merit, the second for presentation.

Pair Skating
Pair skating is essentially free skating performed in unison by partners, with the addition of daring, and oftendangerous, overthead lifts, throwjumps and spins. The key to pair skating is exact timing and unison. Whether the partners are together or apart, their move ments should be synchronized with matching body lines, gestures and footwork. The pair competition, like singles, has a short program that counts for 33.3 percent of a team's total score and a free skating program that counts for 66.7 percent of the total score. The judges award two sets of marks for each portion as done during singles events: required elements and presentation marks following the short program, and a technical merit markand a presentation markfor the free skate.

The pairs short program consists of eight required elements which include overhead lifts, side-by-side solo jumps and solo spins done in unison, footwork, pair spins and a death spiral, all performed to music of the skaters' choice. The short program is two minutes, 40 -seconds in length and the eight required elements for the 1997-1998 season are as follows:
Pairs:
Hand-to-hand lift take-off
T wist Lift (double)
Solo I ump (double or triple)
Solo $S$ pin with only one change of foot and at le ast one change of position
Pair Spin combination with at least one change of foot and at le ast one change of position
Death Spiral backward or forward outside
and 8. One spiral step sequence and one step sequence (straight line, circular or serpentine)
The free skating program consists of tecfinical and artistic moves choreographed to best display the skaters' individual strengths, skills and ability to perform as a team throughout the four minute, 30 second program. Difficult double and triple solo and throw jumps will be seen, along with unique lifts and spins, and variations on standard moves as well as original moves. Shadowskating, in which partners perform identical maneuvers some distance apart, and mirror skating, where the pair's moves are in opposite directions and mirror each other, are challenging aspects of pair skating.

## Ice Dancing

Ice dancing, the newest Olympic figure skating event (introduced in 1976), was first seen at the World Championships in 1952, despite having been a popular recreational sport since the turn of the century. Unlike pair skating which features overfead lifts and jumps, ice dancing, as its name implies, is based on the different aspects of dance. The emphasis in ice dancing is on rhythm, interpretation of the music and precise steps. Its beautylies in its limitless creativity, choreograpfy, and its theatrical and innovative aspects.
$\mathcal{A n}$ ice dancing competition is made up of three parts: two compulsory dances, a two-minute original dance and a four-minute free dance. In the two compulsory dances (each worth 10 percent of the total score), all skaters perform the same two selected dances that have prescribed rhythms and specific steps that must be done in an exact manner with exact placement on the ice. The skaters receive one technique mark and one timing/expression markfor each dance. For the 1997-98 season two dances will be drawn from the following:
Golden Waltz
Quickstep
Silver Samba
Argentine $\operatorname{Tango}$
For the original dance, which counts for 30 percent of a dance team's totalscore, skaters are given a prescribed rfythm (such as a paso doble or rfumba) with a defined temporange and must create a completely original version of the dance. Teams choose their own music and choreography, but it must conform to the specified rhythm and tempo. The originaldance must have the character of ballroom dancing translated to the ice by flow and use of edges. It is a set pattern dance of two dance sequences and vocalmusic is permitted. Iudges lookfor creativity, good interpretation of the music and rfythm, originality and utilization of the full ice surface. Two marks are given for the original dance: one for composition, which includes originality and difficulty of steps, and one for presentation, which reflects interpretation and artistic impression.

The original dance for the 1997-98 season is the give. As the give falls within the general term of "S wing," music and movements from the Lindy, Lindy $\mathcal{H}$ op, Double and $\mathcal{T}$ riple $S$ wing, Boogie $\mathcal{W}$ oogie, $\mathcal{I}$ itterbug, Rock 'n Roll and $\mathcal{T}$ wist may also be skated.

The free dance, which reflects 50 percent of the finalscore, allows skaters four minutes to display the ir full range of technical skills, interpretation and inventiveness to music and choreography of the ir own choice. Teams will use changes of position, intricate and varied dance holds, small lifts and jumps and difficult footwork to present the ir best ice dancing skills. Five separations for a maximum of five seconds are permitted to execute intricate footwork, and at least one skate of each partner must remain on the ice at all times except during the permitted jumps and lifts. However, typical pair skating positions such as hand-in-hand positions, skating one after the other, or mirror skating must be avoided. Any tempo or mood can be used as long as it is danceable. Two sets of marks are given, one for technicalmerit and one for presentation.

## Figures

Figures demonstrate a skater's skill in mastering total control of motion, speed, balance, precise move ment and skating edges. Each figure consists of two or three circles forming a variation of the figure " 8 ." There are a total of 41 figures plus the Waltz Eight that skaters learn. The I.S.U. voted to eliminate figures from all international competitions and I.S.U. Championships beginning with the 1991-92 competitive season. Since that date, figures have been skated as a separate medalevent in some competitions, such as the U.S. Championstips and the Iunior Olympics.

In these events, a group of three figures is drawn from four predesignated groups. Each skater traces each figure twice on each foot. The two or three circles that make up the figure should be perfectly shaped and of the same size.

Different from singles, pairs and dance, I udges only give one markfor each figure skated. However, the same scoring system using ordinals and placements is followed. The skater with the most first place ordinals after all three figures are skated receives first place. Ties are not broken.

Programs $\mathcal{A t} \mathcal{A}$ Glance

| Discipline/Event | $\begin{aligned} & \text { Iudges' First } \\ & \text { Mark } \end{aligned}$ | $\begin{aligned} & \text { Iudges' Second } \\ & \text { Mark } \end{aligned}$ | Time Lengtf |
| :---: | :---: | :---: | :---: |
| Singles/Pairs - Short Program | Required Element | Presentation | 2:40 |
| Singles/Pairs - Free Skate | Tectinical Merit | Presentation | 4:00 (ladies)/4:30 (men, pairs) |
| Dance - Compulsory Dances | Technique | Timing/Expression | Varies |
| Dance - Original Dance | Composition | Presentation | 2:00 |
| Dance - Free Skate | Tecfinical Merit | Presentation | 4:00 |

Music
Except for the compulsory dances, music is chosen by the competitors for each portion of competition. No vocal music is permitted.

Venue Specifications
For the World Championships and Olympic Winter Games there must be two covered and closed ice sheets. For the U.S. Championships there must be three covered and closed ice sheets for competitions and practices. The ice needs to be rectangular and measure $85^{\prime} \chi 200^{\prime}$ and the main competition arena needs a minimum seating capacity of 15,000 .

The arena must fiave at least one Zambonibut preferably two.

## Blades

Figure skating blades used during competitions and tests must be sharpened to produce a flat-to-concave cross section without change to the width of the blade as measured between the two edges. However, a slight tapering or narrowing of the cross section of the blade is permitted.

## Clothing

Clothing of the competitors must be modest, dignified and appropriate for athletic competition... not garish or theatrical in design. Clothes may, however, reflect the character of the music. Ladies must we ar a skirt. Men must we ar full length trousers; no tights are permitted and the clothing must not be sle eveless.
Accessories and props are not permitted.

## Equipment

Basics

Skating boots and 6lades, a skating outfit, a boot bag, music tapes and a scribe (used to trace the ice if and when practicing figures).

Music
Except for the compulsory dances, music is chosen by the competitors for each portion of competition. No vocalmusic is permitted.

Venue Specifications
For the World Championships and Olympic Winter Games there must be two covered and closed ice sheets. For the U.S. Championships there must be three covered and closed ice sheets for competitions and practices. The ice needs to be rectangular and measure 85' $\chi 200^{\prime}$ and the main competition arena needs a minimum seating capacity of 15,000 .
The arena must have at least one Zamboni but preferably two.

## Blades

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Glossary
$\mathcal{A c c o u n t a n t : ~ A n ~ o f f i c i a l ~ a t ~ a ~ f i g u r e ~ s k a t i n g ~ c o m p e t i t i o n ~ w h o ~ c o m p i l e s ~ a n d ~ c o m p u t e s ~ m a r k s ~ a w a r d e d ~ b y ~}$ judges to determine the placement of competitors.
Axel $\operatorname{I} u m p$ : One of the most difficult jumps which takes off from the forward outside edge and is landed on the back outside edge of the opposite foot. A single axelconsists of $1-1 / 2$ revolutions, adouble is $2-1 / 2$
revolutions, and a triple is 3-1/2 revolutions. Named for its inventor $\mathcal{A x e l}$ Paulsen, it is easily recognizable as it is the only jump that takes off from a forward position.
Camel $S$ pin: $A$ spin which is done on one leg with the non-skating leg, or free leg, extended in the air in a position parallel to the ice. The body remains in this "spiral" position while spinning.
Combination Spin: The combination of several spins where the skater changes feet and positions while maintaining speed throughout the entire spin.
Crossovers: A method of gaining speed and turning corners in which skaters cross one foot over the other. There are both forward and backward crossovers.
Draw: The process to determine the starting or skating order for each event. The referee conducts the process in the presence of other judges (closed draw) or in an open setting where the athletes participate and actually draw a number from a pouch (opendraw).
Edges: The two sides of the skate blade on either side of the grooved center. There is an inside edge... the edge on the inner side of the leg and an outside edge ... that on the outer side of the leg. There is a forward and backward for eachedge, equaling a total of four different edges.
Edge $I$ ump: $\mathcal{A}$ jump where the skater takes off from the entry edge of the skating foot, without bringing the free foot in contact with the ice to assist the take off. The axel, loop and salchoware common edge jumps.
Flip Jump: A toe pick assisted jump, taken off from the backinside edge of one foot, and landed on the 6ackoutside edge of the opposite foot.
Footwork: A sequence of step maneuvers carrying the skater across the ice in patterns, generally straight, circular or serpentine. Intended to show the precision and dexterity of the skater's movements.
Layback Spin: Generally performed by women, the laybackspin involves an upright spin position where the head and shoulders are dropped backwards and the backarches.
Loop Iump: Anedge jump, taken off from a backoutside edge and landed on the same back outside edge. Lutz Iump: A toe pickassisted jump, taken off from a back outside edge and landed on the back outside edge of the opposite foot. The skater glides backward on a wide curve, taps his toe pickinto the ice and rotates in the opposite direction of the curve. The jump is named for its inventor $\mathcal{A l o i s}$ Lutz.
Referee: The official at a competition who has full authority over all aspects of the event and is the chairperson for the panel of judges. It is the referee's responsibility to ensure that all US $\mathcal{F S} \mathcal{A}$ and international rules are observed, that a high standard of judging is maintained and that all technical aspects of the competition are satisfactory.
Salchow: Another edge jump, taken off from the backinside edge of one foot and landed on the back outside edge of the opposite foot. Created by Ulrich Salchow.
$S$ it $S$ pin: $\mathcal{A}$ spin which is done in a "sitting" position. The body is low to the ice with the skating (spinning) Knee bent and the non-skating or "free" leg extended beside it.
Spiral: $\mathcal{A}$ move in which a skater demonstrates flexibility and a fluid line by extending their non-skating leg Gefind them into the air during a long glide.
Spiral Sequence: $\mathcal{A}$ sequence of steps which incorporates various spirals in a pattern across the ice. Spirals in a spiral sequence may be done going forward, 6ackwards, in a straight line or on a curve, or on an inside or an outside edge.
Starting Order: The result of the draw which lists the order the athletes will compete and the group each athle te will warm up in prior to competition.
Step Sequence: A sequence of steps that immediately follow one another, executed in time to the music and are choreographically related to each other.
Stroking: Fluid movement used to gain speed in which a skater pushes off back and forth from the inside edge of one skate to the inside edge of the other skate.
Toe Loop: $\mathcal{A}$ toe pick-assisted jump that takes off and lands on the same back outside edge.
Toe Picks: The teeth at the front of the blade, used primarily for jumping and spinning.

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For more information contact:

US Figure Skating Association
20 First Street
Colorado Springs, CO 80906
Phone: 719-635-5200
Fax: 719-635-9548
Internet: www.usfsa.org
Email: USS FSA1@aol.com

## $\mathcal{H}$ istory

Gymnastics, as an activity, fas existed for over 2,000 years, but its development as a competitive sport beganjust alitte more than 100 years ago. During the 1800 s, mass and individual exfibitions were conducted by various schoolchbs, athletic clubs and ethnic organizations sucf as the Turnvereins and Sokots.

Although slow to catch on in the schools, gymnastics did flourish in the Turnvereins and $S$ okols. It was introduced to the United $S$ tates and its school systems in the $1830 s$ by suchimmigrants as Charles $\mathcal{B e}$ ck, Charles Follen and Francis Lieber.

The International Gymnastics Federation $(\mathcal{F} I \mathcal{G})$ was formed in 1881, thencalled the Bureau of the European Gymnastics Federation, opening the way for internationalcompetition. In the United $\mathcal{S}$ tates, the $\mathcal{A m a t e}$ ur $\mathfrak{A t h l e t i c}$ Union (AAA) assumed controlofgymnastics, along with most other amateur sports, in 1883 . Prior to this time gymnastics "championsfips" were feld by various clubs and organizations.

The first large-scale meeting of gymnasts was the 1896 Olympics, where Germany virtually swept the medal parade. Gymnasts from five countries competed in events whichincluded men's forizontal bar, parallel bars, pommelforse, rings and vault.

The first internationalgymnastics competition outside of the Olympics was field in 1903 in $\mathcal{A n t w e r p}$, $\mathcal{B e l g i u m}$, and gymnasts from $\mathcal{B e}$ lgium, France, Luxembourg and the $\mathcal{N e}$ therlands competed in what is now considered the first World Championsfips. At $S$ t. Louis in 1904 , the men's team combined competition was added to the Olympic program.

At the nintf World Championships in 1930 at Luxembourg, the competition included the pole vault, broad jump, shot put, rope climb and a 100 -meter sprint. Track and field did not fully disappear from the $\mathcal{W}$ orld Gymnastics Championsfips circuit until the 1954 competition.

At the 1924 Games in Paris, the basis of modern Olympic gymnastics competition was firmly established. The atfletes (men) began to compete for individual Olympic titles on each apparatus, as well as in combined individual and team exercises. The 1928 Games witnessed the debut of the first women's event, the team combined exercise, won by the $\mathcal{N e}$ therlands. The $\mathcal{U} . \mathcal{S}$. womenfirst competed in the 1936 Olympic Games in Berlin, Germany.

The United States Gymnastics Federation, now known as $\mathcal{U S} \mathcal{A}$ Gymnastics, became the $\mathcal{N}$ Gtional Governing Body of the sport in the United $S$ tates in 1970 and remains as sucf today.

Rhytfimic Gymnastics $\mathcal{H}$ istory

In 1962 , the International Gymnastics Federation ( $\mathcal{F} I \mathcal{G}$ ) officially recognized rfytfmic gymnastics as a sport. The first Rhythmic World Championsfips took place in 1963 in Budapest, Hungary, where 28 atfletes from 10 European countries competed. The United States sent their first delegation to the Rfythmic World Championships in 1973. The rfythmic individual all-around competition was added to the Olympic Games in 1984. In 1996, the rfythmic group event was a medal-sport at the Olympic Games for the first time.

General Information
$\mathcal{U S} \mathcal{A}$ Gymnastics is the sole $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}(\mathcal{N} \mathcal{G} \mathcal{B})$ for the sport of gymnastics in the United States. It gets this designation from the International Olympic Committee and the International

Gymnastics $\mathcal{F e}$ deration. US $\mathcal{A}$ Gymnastics sets the rules and policies that governgymnastics in this country. Training and selecting the U.S. Gymnastics $\mathcal{T}$ eams for the Olympics and World Championships are just two of the many responsibilities of $\mathcal{U} \mathcal{A}$ Gymnastics.

The not-for-profit organization was establisfed in Tucson, Ariz., in 1963. During the mid-1960s the UlS. had scarcely 7,000 athletes competing alimited schedule. The only major international events for gymnasts were the Olympic Games and the Pan $\mathcal{A m e r i c} a n$ Games.

Today, more than 65,000 athletes are registered in competitive programs through US $\mathcal{A}$ Gymnastics. US $\mathcal{A}$ Gymnastics has more than 11,000 professional and instructor members. Approximately 3,000 competitions and events throughout the U.S. are sanctioned annually. US $\mathcal{A}$ Gymnastics is headquartered in Indianapolis, Ind., with several other sports' $\mathcal{N G B}$ s and has expanded very quickly in its $30-\mathrm{plus}$ years. The original staff of three fias nowgrown to approximately 40 employees, who maintain the following areas:

## Programs

This department consists of men's, women's and rhythmic programs. They are responsible for all aspects of athlete, coach and official selection and development. This includes conducting clinics, training camps and competitions; coordinating gymnastics delegations to national and international competitions; and providing support for the athletes and coaches who represent the United $S$ tates here and abroad.
Many different gymnastics plans are developed for all ages and skill levels, from grassroots to advanced. The programs generate compulsory exercises for developing gymnasts and rule books for registered athletes, coaches and clubs.

## Membership

This department offers a variety of membership programs to all corners of the gymnastics community including gymnasts (both competitive and recreational), coaches, judges, instructors, parents and fans. Currently, ne arly 100,000 individuals are USA Gymnastics members. For more information about each program's benefits and how to apply, visit our we 6 site at $\mathfrak{h t t p}: / /$ www.usa-gymnastics.org or call Member Services at 1-800-345-4719.

## Public ations

This department produces two magazines: US $\mathcal{A}$ Gymnastics, a bi-monthfy, four color publicationgeared toward the athlete, coach and gymnastics enthusiast, and Tecfnique magazine, a technical publication designed for professional members of the sport. Technique, a 6 lack and white publication, is published 10 times per year. To order either publication, contact the Member Services department at 1-800-345-4719. In addition, the publications department produces media guides, newsletters, event programs, reports and other promotional items used to generate exposure for the sport.

## Events and Promotions

This department annually conducts and produces five to six nationally televised events including national championships and international invitationals. This includes all aspects of the event from site selection to venue staging and production of the entire competition. Also, this department arranges delegation travel and housing and tends to the needs of USA Gymnastics' national and internationalguests.

Education and Safety
This department administers USA Gymnastics Safety Certification Program, the Kinder Accreditation for Teachers ( $\mathcal{A} \mathcal{A})$ Program, the Professional Development Program (PDP), Athlete $\mathcal{W}$ llness Program ( $\mathcal{A} \mathcal{W} \mathcal{P}$ ) and develops various educational materials such as books and pamphlets. In addition, the safety department provides various educational opportunities such as clinics, workshops and the annual US $\mathcal{A}$ Gymnastics
$\mathcal{N}$ (ational Congress for its members. The department maintains $\mathcal{T} \mathcal{A}$ Gymnastics Online (USS $\mathcal{A G O}$ ), the official we 6 site for USA $\mathcal{A}$ Gymnastics at: fttp://www.usa-gymnastics.org

## Marketing

The marketing department encompasses the areas of communications, corporate sponsorsfips and television sales. The department's goal is to generate exposure for gymnastics to the public and recognition for US $\mathcal{A}$ Gymnastics ' corporate partners.

## Public Relations

Through the media and public relations efforts, this department strives to increase the public's awareness of $\mathcal{U} \mathcal{A}$ Gymnastics and its athletes, coaches, events and programs.
$\mathcal{N}$ (ational Gymnastics Foundation
The $\mathcal{N a t i o n a l ~ G y m n a s t i c s ~ F o u n d a t i o n ~ w a s ~ c r e a t e d ~ f r o m ~ t h e ~ e n e r g y ~ a n d ~ e x c i t e m e n t ~ g e n e r a t e d ~ b y ~ t h e ~ G o l d ~}$ Medal Olympic effort of the 1984 Los Angeles Games. Proceeds totaling $\$ 1.4$ million from the 1984 Olympics were used to establish the Foundation, a 501 (c) (3) charitable organization. Since that time, more than $\$ 250,000$ has been granted to USA $\mathcal{A}$ Gymnastics to assist in achieving its mission to encourage participation and the pursuit of excellence in the sport. Today, the Foundation's assets total over $\$ 2$ million. In 1996, the Foundation launched new efforts to raise additional funds from individuals, corporations and foundations to meet the emerging needs of the sport. These partnersfips with the Foundation will help secure the long-term future of gymnastics and its participants, including: the development of programs to assist with scholarships; athle te wellness; inner-city programs; and international education and training. To make a contribution, discuss a planned gift, or to learn more about the Foundation, call 317-237-5050, ext. 253.

## U.S. National Gymnastics $\mathcal{T e}$ am

The ultimate achievement for athletes involved in US $\mathcal{A}$ Gymnastics' national programs is winning a place on the $\mathcal{N a t i o n a l} \mathcal{T}$ eam while working towards competing at the Olympic Games. Each National $\mathcal{T}$ am Member works his/her way through a structured system of competition. U.S. men's team members are mostly products of private clubs or collegiate gymnastics programs while most of the UlS. women's and rfythmic team members come from private clubs and organizations.
Every potential Olympian must win a place on the National Team through a selection process. This process is supervised by USA Gymnastics, the umbrella organization composed of 22 Constituent Organizations (listed below) which are the back-bone of gymnastics in the U.S., and helps participants advance from the grassroots to the Olympic level.

USA Gymnastics Constituent Organizations

## $\mathcal{A m a t e}$ ur $\mathfrak{A t h}$ letic Union

American Sokol Organization
American Turners
College Gymnastics Association-M
gewish Community Centers
$\mathcal{N a t i o n a l}$ Association of Collegiate Gymnastics Coaches/Women
$\mathcal{N}$ ational $\mathcal{A}$ ssociation for $\mathcal{G}$ irls and $\mathcal{W}$ omen in $S$ port
$\mathcal{N}$ ational Association of Women's Gymnastics Iudges
$\mathcal{N a t i o n a l}$ Collegiate $\mathcal{A t h l e}$ tic Association
$\mathcal{N a t i o n a l} \mathcal{F e d}$ eration of State $\mathcal{H}$ hgh School $\operatorname{Associations~}$
$\mathcal{N a t i o n a l}$ Gymnastics $\mathcal{I} u d g e s$ Association (M)
$\mathcal{N}$ (ational High School Gymnastics Coaches Association
Special Olympics, Inc.
United States $\mathcal{A l s}$ sociation of Inde pendent Gymnastics Clubs
United States Competitive Sports Aerobics Federation
United States Elite Coaches Association for Men
United States Elite Coaches Association for Women
United States Men's Gymnastics Coaches Association
United States Rhythmic Coaches Association
United States Sports Acrobatics $\mathcal{F e d e r a t i o n}$
$\mathcal{U S} \mathcal{A}$ Trampoline and $\mathcal{T} u m b$ ling $\mathcal{A s s o c i a t i o n}$
Young Men's Christian Association of the U.S.A.

Rules

Rules that governgymnastics scoring are made by the International Gymnastics Federation (FIG). At major competitions, four to six judges sit at each piece of apparatus. Each of the judges arrives at a score independently.

The high and lowscores are discarded while the remaining scores are averaged.

## I udging Criteria

$\mathcal{F o r}$ each routine, the gymnast begins with less than a perfect score. For women, the competitor starts with a 9.0 while men start with an 8.6.Iudges make deductions for flaws in execution and for any missing requirements in the composition of the exercise.
The judge may award bonus points, up to 1.0 for women and 1.4 for men. Thus, the perfect routine, including bonus points added, is awarded a score of 10.00 .
Gymnastics skills are divided into five levels of difficulty. Levels range from " $\mathcal{A}$ ", which is the easiest, to "E", the most difficult. Each routine must have a minimum number of parts dependent upon the level of competition.

Olympic Competition Order
The internationalcompetition order is decided by the $\mathcal{F I} \mathcal{G}$. Olympic order for women is vault, uneven bars, balance beam and floor exercise. Men compete in the following order: floor exercise, pommelforse, still rings, vault, parallel bars and horizontal bar.

Women's Events
Vault
Vaults in women's gymnastics are grouped into four categories, with the various body positions and movements performed defining each category. Depending on the type of vault selected by the gymnast, she must meet the requirements specified in the Code of Points, the official text giving the relevant value of each skill performed.
A successfulvault begins with a strong, accelerated run. The best vaulters explode off the board, raising their feet up over their head with tremendous quickness during the preflight phase of the vault from the springboard to contact with the horse. During the support phase (when the gymnast pushes off the horse) the judges are looking for proper body, shoulder and fand position and an instantaneous repulsion.

The second flight phase and the landing are critical areas. Watch for the height and distance traveled, as well as the number of saltos and twists. In addition, gymnasts must"stick" their landing, by taking no extra steps. Ulsually the more saltos and twists, the higher the difficulty value of the vault.

The Uneven Bars
The most spectacular of the women's events, the uneven bars, demands strength as well as concentration, courage, coordination, precision and split-second timing. Watch for the big swings that begin in handstands on the figh bar, incorporating multiple hand changes, pirouettes and release elements.
The routine must move from the low bar to the figh bar, incorporating many grip changes, releases and regrasps, flight elements, changes of direction, saltos and circle swings through the fandstand position. The low bar can be adjusted to between 140-160 cm tall while the figh bar must be between 235-240 cm tall. At the Gase of the Gars, they are 100 cm apart, and the Gars can be adjusted to a maximum of 143.5 cm apart from each other.

The entire routine should flowfrom one movement to the next without pauses, extra swings or additional supports. Each routine must have two release elements.

## Balance Beam

The beam routine must last between 70 and 90 seconds and cover the entire length of the beam. The gymnast must use acrobatic, gymnastics and dance movements to create figh points, or peaks in the exercise, consisting of two or more elements performed in a series. Anexample of an acrobatic series is a cartwheelinto a back fandspring into a backsalto. A gymnastics series might consist of a body wave into a turn, followed by a split jump.

There are a fewspecial requirements on the balance beam: one acrobatic series including at le ast two flight elements; a turn on one leg of at least 360 degrees; a gymnastics le ap or jump with great amplitude; one gymnastics/acrobatics series; one gymnastics series; and an element close to the beam.
The overall execution should give the impression that the gymnast is performing on a floor, not on a strip four inches wide. Watch for variations in rhythm, changes in levelfrom sitting on the beam to sailing figh above it) and the harmonious blend of gymnastics and acrobatic elements.

## $\mathcal{F}$ loor Exercises

The floor routine must be choreographed to music, lasting between 70 and 90 seconds and covering the entire floor area. The gymnast must use acrobatic and gymnastics elements to create figh points in the exercise. These include two acrobatic series, one with at le ast two or more saltos; an acrobatic-gymnastics series; and agymastics series. Throughout, the gymnast must harmoniously blend these elements while making versatile use of floor space changing both the direction and level of movement.
The quality of grace maybe disguised by movements of playfultheatrics, but lookfor adancer-like command of music, rhythm and space. The gymnastics elements should flowfreely into each other while the Leaps cover impressive distances and the pirouettes and turns add excitement to the music.

Men's Events
$\mathcal{F}$ loor Exercise
The entire floor are must be used during the exercise, which consists primarily of three to five tumbling passes performed indifferent directions. Acrobatic (tumbling) series must be performed including at least one forward and one backward. There must also be a balance element on one leg or one arm. Transitional skills, gymnastics movements performed in between tumbling and acrobatic passes, should be executed with proper riythm and harmony. The exercise must last 50 to 70 seconds.

Today's floor exercise routines consist of dynamic tumbling skills that only a few years ago were performed solely on the trampoline. The best gymnasts will incorporate three to five tumbling passes of substantial difficulty, performing twisting double saltos on the second or third passes.

## Pommel Horse

The gymnast must cover all three areas of the horse, the middle and both ends, while performing continuous circular movements interrupted only by the required scissors elements. The only part of the body which should touch the apparatus is the fiands. The entire exercise should flow with a ste ady, controlled rfythm. Considered by many to be the most difficult of all men's gymnastics events, the pommel horse is also the most subtle. Each move is defined by complex fand placements and body positions. The difficulty stems from two factors. First, the gymnast is performing moves that are dominantly done in a circular movement in a forizontal plane. Second, he spends most of each routine on only one arm, as the free hand reaches for another part of the forse to begin the next skill.
Lookfor along series of moves with the fands reaching befind the back. The fiand placements sfould be quick, quiet and rfythmic.
$S$ till Rings
The still rings routine must include at le ast two fiandstands $\cdots$ one arrived through strength, the other through swing. At le ast one element of strength must be field for two seconds.
Examples of strength elements include across, an inverted cross or a planche. A cross is performed in a straight body position with the body perpendicular to the floor and arms stre tched perpendicular to the body while an inverted cross is an inverted fiandstand position with arms stretched perpendicular to the body. A planche is a straight body position parallel to the floor above the rings. The rings must remain still throughout the routine. Deductions will be taken for unnecessary swings and instability of all positions. The rings are the least stable of the men's apparatus. Stillness is paramount, and those with the best command of the event will display extraordinary skill in arriving at all holds with absolute precision. The rings should be absolutely still and in controlat the end of each skill. The body shouldn't sag or twist, and the arms shouldn't waver or shake.
Lookfor confidence in the strengthelements. The gymnast should move into fis cross or planche quickly, stop securely for a clear two seconds and then move easily into the next part. During the swinging elements, watch for stretched body positions and straight fandstands.

## Vault

Each individual vault is categorized in the Code of Points, the official text giving the relevant value of each skill performed, and the gymnast is required to pass througf certain minimum fieight and distance requirements on every vault. During the pre-flight from the springboard to the forse, the body must rise quickly to the proper angle of contact by the time the hands reach the forse. During the second flight, from the horse to the landing, the gymnast's body must rise at le ast one meter above the fight of the horse and travel at least two and one-half meters from the end of the horse before contacting the mat. The landing should be firm, without extra steps, and in line with the forse, springboard and runway. $\mathcal{A}$ good vault is sometimes described as a"big"vault. The height, the distance of travel, the overall acceleration into the vault and the sudden impact of a no-step, "stuck" landing all create agood impression for the judges.

Paralle 1 Bars
$\mathcal{A}$ paralle $[$ bars routine consists of swinging, flight and fold elements, but swinging and flight elements are most common. Strength parts may be used, although they are not required. The gymnast is required to execute two swinging elements, one in support and one from a fang. The gymnast is also required to perform a skill in which both hands release and regrasp the bars, commonly referred to as a rele ase move.
$\mathcal{A}$ lthough not a requirement, some of the better gymnasts move outside the two rails, performing findstands and kips on only one Gar. When well executed, these movements mark agood performance. The most difficult skills require the gymnast to lose sight of the bars for a moment, as in front and back saltos. The more of these skills performed in succession, the more challenging the routine.

## Horizontal Bar

The routine on horizontal bar consists exclusively of swinging parts without stops. The parts are generally called giant swings, with more specific terms applying to changes in grip, direction and body position. The gymnast is required to execute at le ast one move in which he releases and regrasps the bar (release move), and to perform at least one giant with either his 6ack to the Gar (a dorsal fang position used in inverted and Germangiant swings) or with an "eagle" grip in which the wrists are rolled outward until the thumbs are on the outside of the grip, pointing away from each other.
The gymnast is also required to perform an "in- bar" skill like a stalder circle. The higher levelroutine will have multiple release moves. Gymnasts receive bonus points for connecting higher leveldifficulty skills. Lookfor high flying dismounts with multiple somersaults and twists.

Rhythmic Gymnastics Rules
The Federation Internationale de Gymnastique (FIG) Code of Points governs all competitions in regard to floor area, time limit, musical accompaniment, attire of the gymnast and the judges, listed elements of difficulties and deductions for poor execution or imperfect composition.

## The Apparatus

Rhythmic gymnastics involves body movements and dance of varying type and difficulty combined with the handling of small equipment. Certain pre-acrobatic elements, such as rolls, are permitted, providing the gymnast shows no flight. Not more than three pre-acrobatic elements are permitted per routine. $\mathcal{H a n d s p r i n g s}$ and ae rials are not permitted.

The apparatus-rope, hoop, ball, clubs and ribbon-are governed by rules regarding the size, weight, color and material. Each gymnast's equipment is measured and approved before competition. Pre sently, national and international competition involves individual routines and group routines. In the group exercise, there is a required minimum number of exchanges and formations.
The equipment must be handled harmoniously with the body and music throughout. The exercise is done with music, and the time limit for individual exercises is 60 to 90 seconds and for group exercise, two to two-and-a-falf minutes. Rhythmic gymnasts must demonstrate the coordination and control of a welltrained dancer, and they must convey a farmony or movement with the music. The competition area is a carpet, 41 X 41 feet in size.

Because each piece of apparatus is so different in its composition, the athlete must coordinate very difficult body movements with the apparatus elements. The gymnast also needs to make many physical adjustments between eachevent.

## Rope

Lookfor swings, circles, wraps, unwraps, mills (figure-eight-type circling movement), tosses and catches of the rope. Gymnasts also le ap and jump through the open or folded rope.

## Hoop

Common movements with the hoop include swings, rolls, tosses and catches, spins, passes through and over the foop, rotations of the hoop on the floor and rotations of the hoop around the fiand and other parts of the body.

Most impressive here are the high tosses and complex techniques for catching the hoop in a different fasfion each time.

Ball
Waves, circles, tosses and catches, movement with the ball balanced on the fand, bouncing and rolfing the ball on the floor and along parts of the body are all key movements.

Clubs
$S$ wings, large circles, smallcircles, mills, tosses and catches, rolls along the body and riythmical tapping are common tricks.

## Rib6 on

Ribbon routines are comprised of snakes, spiral, swings, circles, tosses and catches, and figure-eight movements. The ribbon must remain constantly in motion.

## Group

In the group event five athletes work together as one cohesive unit. Group is judged on the ability of the athletes to demonstrate mastery of Gody and apparatus skills in synchronized, farmonious manner. A group exercise must include difficulties from the same body movement categories that apply to individual competition and characteristic movements for the apparatus. In addition, the group athletes must execute elements involving both large and small exchanges of equipment. The more interaction between the gymnasts, the better the exercise.

Each group must compete with two different routines. The apparatus used in Group competition is selected by the $\mathcal{F I G}$. One of the routines is performed with five of the same pieces of apparatus, the other routine is choreographed with mixed equipment. The two events for the 1996 Olympic Games will be five hoops and a combination of three balls and two ribbons.
Group athletes are trained to work as a team. The close interaction of five atfletes within a $13 \times 13$ meter area and the many apparatus exchanges that occur during a routine force each athle te to be extremely sensitive to the movements and actions of her teammates. Many routines have been saved by the quick thinking and action of a team member.

Spectators are entfralled and amazed by the beauty, excitement and risk of a group routine.

## Rfythmic Gymnastics Iudging

Each routine must contain a minimum of four elements of "B" difficulty and four elements of " $\mathcal{A}$ " difficulty. In the finals competition, an additional " $C$ " and " $\mathcal{D}$ " element are required. In the hoop, ball and ribbon events, one of these difficulties must be performed with the lefthand. The choreography must cover the entire floor and contain a balanced choice of the groups of elements including jumps, le aps, pivots, balances and flexibility movements.
There are two panels of judges for each routine. One paneljudges the composition, or what the gymnast does, and the other paneljudges the execution, or how the gymnast performs the routine.

Rhythmic Gymnastics Scoring
The base score of an individual exercise is 9.60 points. For exceptional performances, it is possible to award bonus points up to a total of 0.40 points for seniors and 0.20 points for juniors. Thus, senior competitors can receive a maximum of 10.00 points while juniors can receive a maximum of 9.80 . The base score of a group exercise is 19.20, and the maximum score, including bonus points, is 20.00.

Rhytfmic Gymnastics Olympic Competition Order
The international competition order is decided by the $\mathcal{F I G}$. For rfythmic gymnastics it is rope, foop, 6all, clubs and rib6on. For the 1996 Olympic Games, the four events for the individual competition, prescribed by the $\mathcal{F I} \mathcal{G}$, were rope, ball, clubs and ribbon.

## Equipment

## Women's Apparatus

Vault: The vaulting horse stands 120 cm tall and is 35 cm wide $6 y 160 \mathrm{~cm}$ long. The runway is 1 m wide and a maximum of 25 mlong . All mats surrounding the women's apparatus are 12 cm thick.
Uneven Bars: The low bar can be adjusted to between 140-160 cm tall while the figh bar must be between $235-240 \mathrm{~cm}$ tall. At the base of the bars, they are 100 cm apart, and the bars can be adjusted to a maximum of 143.5 cm apart from each other.
$\mathcal{B a l a n c e} \mathcal{B e} a m$ : The Galance Geam stands 120 cm figh. It is 10 cm wide and 500 cm long.
$\mathcal{F l o o r}$ Exercise: The area of the floor exercise is 40 feet $6 y 40$ feet.

## Men's Apparatus

$\mathcal{F l o o r ~ E x e r c i s e : ~ T h e ~ a r e a ~ o f ~ t h e ~ f l o o r ~ e x e r c i s e ~ m a t ~ i s ~} 40$ feet by 40 feet.
Pommel Horse: The pommelfiorse stands 115 cm tall, and the horse itself is 35 cm wide $6 y 160 \mathrm{~cm}$ long. The pommels must be between 40 to 45 cm apart. The mat around the pommelforse is 10 cm thick.
Still Rings: The ring tower on which the rings are supported stands 575 cm tall. The cable and straps to which the rings are attached are 300 cm long and 50 cm apart. The mats around the still rings, vault and horizontal bar are 18 to 20 cm thick.
Vault: The men's vault stands 135 cm tall. It is 35 cm wide $6 y 160 \mathrm{~cm}$ long. The runway is 1 m wide and a maximum of 25 mlong .
Parallel Bars: The parallel bars stand 195 cm figh. Each bar is 350 cm long, and the two bars can be adjusted to between 42 and 52 cm apart.
$\mathcal{H}$ orizontal $\mathcal{B a r}: S$ tanding 275 cm tall, the forizontal 6 ar is 240 cm long and 2.8 cm in diameter. The horizontal bar is commonly referred to as the figh bar.

Rhythmic Gymnastics
$\mathcal{B e}$ cause each piece of apparatus is so different in its composition, the athle te must coordinate very difficult body movements with the apparatus elements. The gymnast also needs to make many physical adjustments between each event.
Rope: made of hemp or synthetic material; proportionate to the size of the gymnast; knotted at each end. $\mathcal{H o o p}:$ made of wood or plastic; interior diameter is $80-90 \mathrm{~cm}$ (31.2-35.1 inches); minimum we ight is 300 grams ( 10.5 ounces).
$\mathcal{B a l l}$ : made of rubber or synthetic material; diameter is $18-20 \mathrm{~cm}(7-7.8$ inches); minimum weight is 400 grams (14 ounces).
Clubs: made of wood or synthetic material; length is 40-50 cm (15.6-19.5 inches); we ight is 150 grams each ( 5.25 ounces); maximum 3 cm (1.2 inches) for head of club.
Rib6on: stick is made of wood or synthetic material; maximum stick diameter is 1 cm ( 0.39 inches); stick length is 50-60 cm (19.5-23.4 inches); rib6on is made of satin or similar non-starched material; rib6on width is $4-6 \mathrm{~cm}$ (1.56-2.34 inches); minimum rib6onlength is 6 m ( 6.54 yards); minimum ribbon weight is 35 g (1.225 ounces).

Aerial: $\mathcal{A}$ stunt in which the gymnast turns completely over in the air without touching the apparatus with his or her hands.
Amplitude: The height, or degree of execution of a movement. In general, the figher the salto or the more Greathtaking the movement, the better the amplitude and the score.
Apparatus: One of the various pieces of equipment used ingymnastics competitions.
Arch Position: The body is curved backwards.
Back-in, Full-out: A double salto with a full twist (the complete twist performed during the second salto).
Compulsories: Pre-designed routines which contain specific movements required of all gymnasts.
Composition: The structure of agymnastics routine. Each individual movement or skill is a building 6lock; how they are arranged into an exercise is called the composition of the routine.
Dismount: $\mathcal{T}$ ole ave an apparatus at the end of a routine; usually done with a difficult twist or salto.
Execution: The performance of a routine. Form, style and the technique used to complete the skills constitute the levelof execution of an exercise. Bent knees, poor toe point and an arched or loosely-held body position are all examples of poor execution.
$\mathcal{F l i c}$ - Flac: Also Known as a flip-flop or back handspring. Take off one or two feet,jump backwards onto hands and land on feet. This element is used in a majority of tumbling passes on the floor exercise. It's also used a great deal on the balance beam.
$\mathcal{F u l l}$-in, Back-out: $\mathcal{A}$ double salto with a full twist (the comple te twist performed during the first salto).
Gaylord on figh bar: Front giant into a one-and-one-half front salto over the bar to regrasp. First done by U.S. Gymnast Mitch Gaylord.

Giant: $\mathcal{A}$ swing in which the body is fully extended and moving through a 360 degree rotation around the bar.
$\mathcal{H a l f}$-in, $\mathcal{H a l f}$-out: $\mathcal{A}$ double salto with a half twist on the first salto and a falf twist on the second salto. Handspring: Springing off the hands by putting the weight on the arms and using a strong push from the shoulders; can be done either forward or backward; usually a linking move ment.
Kip: Movement from a position below the equipment to a position above.
Layout Position: Straight or slightly arched body position, may be seenduring a movement or a still position.
Optionals: Personally-designed routines which show the gymnast to the best advantage.
Pike Position: Body bent forward more than 90 degrees at the fips while the legs are kept straight.
Pirouettes: Changing direction by twisting in the fandstand position.
Release: Leaving the bar to perform a move before regrasping it.
Routine: $\mathcal{A}$ combination of stunts displaying a full range of skills on one apparatus.
Salto: Flip or somersault, with the feet coming up over the head and the body rotating around the axis of the waist.

Tuck: A position in which the knees and hips are bent and drawn into the chest; the body is folded at the waist.
T wist: Not to be confused with a salto, a twist occurs when the gymnast rotates around the body's longitudinal axis, defined by the spine.
Virtuosity: The artistry, or the degree of rhythm and harmony, displayed while a movement is executed. In general, the more flowing and seamless a series of skills appears to be, the greater the virtuosity and the figher the score.
Yurchenko Vault: Round-off entry onto the Goard, flic-flac onto the horse and one of the following off the horse: layout, full twist, one-and-a-half twist or double twist.

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For more information contact:

USS A Gymnastics
Pan American Plaza, Suite 300
201 South Capit ol Ave.
Indianapolis, IN 46225
Pfone: 719-635-5200
Fax: 719-635-9548
Internet: www.usa-gymnastics.org

## Ice $\mathcal{H}$ ockey

## History

Although Canadian fockey teams traveled to the United States to play exfibition games in the late 1800 s, the $\mathcal{U} . S$. did not compete against teams from outside of $\mathfrak{N}$ orth $\mathcal{A m e r i c a}$ until 1920. That year, the Americans made their debut at the Antwerp Olympics. Led by hockey Hall of Famer Francis"Moose" Goheen, Team USA $\mathcal{A}$ won the sifver medal, its lone loss coming against Canada. In 1924, the Americans repeated as silver medalists at the Chamonix OCympics.
 Boston $\operatorname{Bruins}$.

Until the creation of the United $S$ tates $\mathcal{A m a t e}$ ur Hockey $\mathcal{A s s o c i a t i o n}$ in 1920, amateur fockey fad been controlled by the International S Kating Union. The USS AHA dis banded at the end of the 1925-26 season and left amateur hockey in the United $S$ tates without a governing body until 1930 when the $\operatorname{Amate}$ ur $\mathcal{A}$ thle tic Union tookover. During that period of instability, the U.S. missed the 1928 Olympics and 1930 World Championsfip.

The U.S. rebounded at the 1932 Olympic Winter Games, which were held in Lake Placid, $\mathcal{N} . \mathcal{Y} .$, to win another silver medal.

The growth of the game in the 1930 s was sporadic, but the development of $\mathcal{A m e r i c}$ an players became a priority after the $\mathcal{A m a t e}$ ur Hockey Association of the United States ( $\mathcal{A H A} \mathcal{H}$ S) was formed in 1936.

The U.S. won back-to-back silver medals at the 1952 and 1956 Winter Olympics, and it was at the 1960 Games in Squaw Valley, Calif., that the U.S. at last reached the pinnacle of amateur hockey. Led by goaltender Iack McCartan, the Americans defeated Canad and the Soviet $\mathcal{I}$ nion en route to the gold medal.

The triumph in Squaw valley resulted in a tremendous growth of the sport in the U.S. as high school programs began feeding increasingly skilled players into the college fockey system.

The U.S. won a silver medal at the 1972 Olympic Winter Games, and eight years later all $\mathcal{A m e r i c a n s}$ shared in the "Miracle on Ice" as the U.S. battled its way to a gold medal at the 1980 Olympics in Lake Placid. It was a scene that will forever represent the game for Americans.

Women's hockey, which has been played as far 6ack as 1916, joined its male counterpart on the international scene in 1990 with the advent of the first-ever II HF $\mathcal{W}$ omen's World Championship. The U.S. women won the silver medal in 1990, and have brought home silver in the two World Championships (1992 and 1994) and two Pacific Women's Championships (1995 and 1996) since then. Women's ice hockey will debut as a fully contested medal sport at the 1998 Olympic Winter Games in Nagano, I apan.

Team USA's recent victory against Canada in the 1996 World Cup of $\mathcal{H}$ ockey brought backmany memories of the 1980 victory, and the men and women of USA $\mathcal{A}$ Hockey lookforward to similar triumphs in the future.

## Progressing to the Top

Thousands of boys and girls throughout the United States participate in the sport of ice hockey. Of those thousands, many dream of some day being a part of a U.S. National or Olympic $\mathcal{T}$ eam. Earning a spot among the United States' national-levelfockey players is along process that begins very early in a player's career. Membership in $\mathcal{U S} \mathcal{A} \mathcal{H o c k e y}$ and participation in the programs offered by US $\mathcal{A} \mathcal{H o c k e y}$ provides an early start to young players who hope to one day represent the U.S. in internationalcompetition.

For young men, the initial step usually begins at the locallevel within TLS $\mathcal{A} \mathcal{H}$ ockey's 11 districts. Players are identified through district tryouts as candidates for $\mathcal{U S} \mathcal{A} \mathcal{H}$ ockey's $\mathcal{N a t i o n a l} 16$ Camp. Players from that camp are chosen to participate in the Select 16 Camp, and from there, the U.S.Select $16 \mathcal{T} e$ am is formed. The process is the same with the 17 -year-old age group.

Many of the players who participate on the Select 16 and Select 17 Teams advance to the next step: junior evaluation camps. However, players who stand out at the high school, prep school or junior hockeyleve ls but have not been involved with US $\mathcal{A} \mathcal{H}$ ockey's development program to that point may still earn a spot in a junior evaluation camp. US $\mathcal{A} \mathcal{H}$ ockey utilizes extensive scouting efforts to identify those players who will contribute and develop within the system.

Most candidates for the U.S. National I unior Te am are either playing junior hockey or playing at the collegiate level as freshmen or sophomores. These players, under the age of 20, represent the United $S$ tates at the II HFF World Iunior Hockey Championship each winter.

The U.S. $\mathcal{N a t i o n a l} \mathcal{T e}$ am is comprised primarily of professional players, either from the $\mathcal{N} \mathcal{H L}$ or the minorle ague levels, along with standouts from the college and junior hockey ranks. The se players, typically age 20 and older, represent the U.S. at the II $\mathcal{H F}$ World Championship each spring.

The U.S. Olympic Ice $\mathcal{H}$ ockey $\mathcal{T e}$ am is traditionally selected at an invitation-only tryout camp feld in the fall prior to each Olympic Winter Games. From that tryout, players are invited to participate in a variety of pre-Olympic training camps and competitions. For the first time ever, beginning in 1998, National Hockey League players will be allowed to participate in the Olympic Winter Games.

Women and girls aiming for a spot on $\mathfrak{N}$ National or Olympic Team should first become involved at the local level before advancing to the collegiate or senior levels. Open tryouts are held at four regional sites for women age 18 and older to identify candidates for the national player development pool, which is comprised of 40 players. These players participate in camps conducted by USA Hockey, from which the U.S. Women's $\mathcal{N a t i o n a l} \mathcal{T e}$ am is determined. Additionally, national tryouts are conducted for women under the age of 18 to identify players who will participate in national junior development camps. Women's ice hockey will soon make its debut as a medalsport in the 1998 OCympic Winter Games in Nagano, Iapan. Players for the U.S. Women's Olympic Ice Hockey Team will be selected through an invitation-only tryout camp in 1997.

Women's Ice $\mathcal{H}$ ockey
Most people are surprised to learn that women's ice hockey has a fistory that dates back to 1892, when the very first organized and recorded all-female ice hockey game was played in Ontario, Canada. Over the span of more than a century, girls and women have pursued the ir interest in the sport, and today that sector continues to be one of the fastest growing among US $\mathcal{A} \mathcal{H}$ ockey membersfip registration. A look back at the last severalyears reveals greater changes and growth in ice hockey, with the best yet to come for women and $g$ irls involved in the sport.

During the 1990-91 season, 5,533 femate ice fockey players registered with US $\mathcal{A} \mathcal{H}$ ockey. Since then, that number has increased ne arly four-fold with more than 20,555 registered girls and women playing ice fockey across the United States. While the number of girls'/women's teams fas grown from 149 in 1990-91 to 710 in 1995-96, the majority of females continue to play on mixed-gender teams. Approximately falf of all females registered with USA Hockey currently play on boys' or men's teams. In 1993, a survey was conducted by the Minnesota State High School League in an effort to gain an accurate assessment of those sports holding the most interest for the female population. More than 8,000 females expressed interest in ice hockey, and on March 21, 1994, the Minnesota State High School League sanctioned girls' ice hockey as a varsity sport, making Minnesota the first state to do so.

In its inaugural season in 1994-95, 24 schools formed girls'varsity teams, and on March 25, 1995, Apple Valley earned the distinction of becoming the first Minnesotagirls' state figh school champion by
defeating the South St. Paul Packers, 2-0. The league grew to 47 teams in its second season, and 67 teams registered for the 1996-97 season.

With the support of the National Collegiate Athletic Association, which has designated women's ice fockey as an emerging sport, the Eastern College Athletic Conference now sponsors two leagues for women.. the ECAC Women's Hockey League, a Division I-style le ague comprised strictly of varsity-levelteams, and the ECAC Women's Hockey Alfiance, a Division III-style league comprised of both varsity and club teams.

The state of Minnesota continues to lead a Midwesternsurge in women's ice fockey. In 1995, Augsburg College became the first college in the state to fully fund the budget for a women's varsity ice hockey program, and the University of Minnesota quickly followed suit with the decision to upgrade its club team to varsity status Geginning in 1997.

On the East Coast, considered the hotbed of women's college hockey, more and more colleges and universities are looking to women's ice hockey as a solution to meeting Title IX requirements. Beginning in 1996-97, Hamilton (N.N.) College upgraded its women's ice hockey program to varsity status after 21 years of existence as a club team.
$\mathcal{A s}$ far 6ack as 1916, women's ice hockey teams from Canada and the $\mathcal{L n}$ ited $S$ tates competed against each other. The 1980s, however, propelled women's ice hockey into the future. In April 1987, the Ontario Women's Hockey Association hosted the first World Invitational Tournament, which proved to be a resounding success. During that tournament, representatives from participating nations met to discuss the future of women's ice hockey and to establish a strategy to lobby the International Ice Hockey Federation for the creation of a Women's World Championship.

Those discussions led to the first-ever II HF Women's World Championship, which was held in March 1990 in Ottawa, Ontario. Canada won the gold medal at that fistoric event and repeated as champion at the next two II HF Women's World Championships (1992 in Tampere, Finland and 1994 in Lake Placid, $\mathcal{N} . \mathcal{Y}$.$) , with the$ United $S$ tates taking the silver medal and Finland the bronze in each of those years.

Women's ice fockey received its most prestigious acknowledgment in 1992 when the International Olympic Committee (IOC) voted to include it as a full-medal Olympic sport beginning in 2002. The IOC gave the organizers of the 1994 Games in Lillefammer, Norway, and the 1998 Games in $\mathcal{N a g a n o}$, Iapan, the option of including women's ice fockey on their programs, and while Norway declined, I apan accepted and showcased the sport in its debut at the 1998 Olympic Winter Games, where the Ul.S . team won the gold.
$\mathcal{A p r i l} 1995$ saw the formation of the first-ever II HF Pacific Women's Hockey Championskip, with teams from the UlS., Canada, China and I apan competing in San gose Calif. Vancouver, British Columbia served as the site for the 1996 IIHFP Pacific Women's Hockey Championship, where Canada, the U.S., and China repeated as gold, silver and bronze medalists from the previous year.

In April of 1997, Kitchener, Ontario, served as the fost for the 1997 II $\mathcal{H} \mathcal{F} \mathcal{W}$ omen's World Championsfip. $\mathcal{N a t i o n a l}$ teams from Canada, Cfina, Finland, Norway, Russia, $\mathcal{S}$ weden, $S$ witzerland and the Ulnited $S$ tates participated in the international tournament.

General Information

US $\mathcal{A}$ Hockey, Inc, is the $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}(\mathcal{N} G \mathcal{B})$ for the sport of ice fockey in the United $S$ tates. $\mathfrak{A s}$ such, its mission is to promote the growth of ice hockey in $\mathcal{A m e r i c a}$ and to provide the best possible experience for all participants by encouraging, developing, advancing and administering the sport.
$\mathcal{H e}$ adquartered in Colorado Springs, Colo., US $\mathcal{A} \mathcal{H}$ ockey is the official representative to the United States Olympic Committee ( USOC) and the International Ice Hockey Federation (IIHF). In this role, US $\mathcal{A} \mathcal{H}$ ockey is responsigle for organizing and training teams for international tournaments that include the II $\mathcal{H} \mathcal{F}$ World

Championships and the Olympic Winter Games. TUS $\mathcal{A}$ Hockey also coordinates activities with other national ice hockey federations around the world and, closer to home, works with the $\mathfrak{N}$ (ational Hockey League ( $\mathcal{N} \mathcal{H} L$ )


USS $\mathcal{A}$ Hockey is divided into 11 districts throughout the United $S$ tates. Each district has a registrar to register teams, a referee-in-chief to register officials and organize clinics, a coach-in-chief to administer educational programs for coaches, a riskmanager to oversee liability and safety programs and an initiation program administrator to facilitate learn-to-play programs for youth players and the ir parents.

For the player, USA $\mathcal{A}$ Hockey annually conducts regional and national championsfip tournaments in various age classifications, sponsors regional and national player identification and development camps at the United States OCympic Training Centers and other facilities, studies and makes recommendations for protective equipment, distributes Hat Trick, Playmaker and Zero Club awards and provides an insurance plan.

For coackes and officials, USA Hockey conducts clinics and produces training manuals and videos through the Coaching Education Program and the Officiating Education Program. These programs enrich the Knowledge of coaches and officials through carefulstudy, training and examination. US $\mathcal{A} \mathcal{H}$ ockey also promotes uniformity in playing rules and the interpretations of those rules.

USA $\mathcal{A}$ Hockey fas not forgotten parents, supplying this vital segment of the hockey family with a "Parent's Introduction To Youth Hockey" brockure, which includes tips on buying equipment, rules of the game and the role of parents in youth sports.

US $\mathcal{A} \mathcal{H}$ ockey also publishes $\mathcal{A m e r i c a n ~} \mathcal{H}$ ockey Magazine, the main communication veficle for the organization which is sent to the housefiold of every registered member as a benefit of membersfip.

In 1994, USA $\mathcal{H}$ Hockey introduced its ne west program, US $\mathcal{A} \mathcal{H}$ ockey InLine, to provide structure and support for the growth of in-line fockey across America. Through valuable membersfip packages, which include an annual subscription to USA $\mathcal{A}$ Hockey InLine Magazine, competitive playing opportunities and a variety of educational programs, USS $\mathcal{A} \mathcal{H}$ ckey InLine is dedicated to providing a positive experience for all participants.

USA $\mathcal{A}$ Hockey serves as a clearinghouse for information to assist localorganizations in finding solutions to problems at the grassroots level and annually publishes an "Official Guide" of the US $\mathcal{A} \mathcal{H}$ fockey by-laws, rules and regulations, officers, board of directors, affiliate associations and national staff.
During the 1996-97 playing season, USA Hockey will commemorate the 60th anniversary of its founding with a year-long celebration fighlighting the organization's rich history and its promise for tomorrow. A variety of specialevents and activities have Geen planned in conjunction with US $\mathcal{A} \mathcal{H}$ ockey's 60 th annive rsary, including:
Local Association Recognition Program
$\mathcal{N}$ ational $\mathcal{F} u n d-$ Raising Campaign
$\mathcal{H}$ ockey $\mathcal{H a l l s}$ of $\mathfrak{F a m e}$ Dis plays
Celebrity Golf Tournaments
Cele brity Hockey Games
National Youth Hockey Week
$\mathcal{N}$ (ational Education $\mathcal{A n d} \mathcal{A}$ wareness Campaign
US $\mathcal{A}$ Hockey Players Of The Decade Program
Commemorative $\mathcal{B o o k}$ Chronicling The History Of Hockey In $\mathcal{A m e r i c a}$
Custom Merchandise $\mathcal{A n d}$ Apparel
Special Edition Trading Card Sub-Set

## Rules

The Playing Surface
The game is played on a sheet of ice (the rink), which usually measures 100 feet wide by 200 feet long. The ice is enclosed by a wall (the boards) and is divided in two halves by a red line across the center of the ice. $\mathcal{A d} d i t i o n a l l y$, the rink is divided into two thirds by blue lines, forming two end zones and one ne utral zone. In eachend zone, there is a goalcage and a red goal line, which runs the width of the rink. There are also nine face-off spots, four in each half of the rink and one in the middle.

## The Players

Each team may have six players on the ice at one time .. three forwards, two defensemen and one goaltender. In addition to the players on the ice, each team keeps extra players on the bench to use as substitutes when on-ice players get tired, penalized or injured.

The Gear
$\mathcal{A l l}$ youth players we ar protective helmets with face shields (made of Plexiglas or reinforced wire), gloves and plenty of padding to help protect their shoulders, ribs, chest, hips, groin and lower back. The goalie's padding is heavier than that of other players and includes extra-thickstin pads. The goalie also we ars a face guard that is attached to his or her helmet and has a catching glove and a blocker for use in handling and deflecting the puck.

## Deflecting the Puck

Many people think that deflections are mere luck. Actually, players practice deflections by standing off to the side or infront of the net and deflecting shots from that position to another area of the goal. Seldom does a goaltender have sufficient time to react to a deflection since the puck suddenly changes direction off an opposing player's stick.

## Kicking the Puck

A puck cannot intentionally be kicked in and still count as a goal. However, a puck can be deflected off a skate or a player's body and still count as a goal if no attempt was made to deliberately throw or kick it in.

Offside and Offside Passes
$\mathcal{A}$ team is offside when any attacking player crosses the blue line before the puck. The puckmust always cross the blue line before an attacking player may legally enter the offensive zone. All players from the attacking team must have skate contact with the neutral zone at the instant the puck crosses the blue line. $\mathcal{A} n$ offside pass occurs when a member of the attacking team passes the puckfrom befind his or her own 6 lue line to a teammate who is beyond or across the center red line.

## Icing

Icing occurs when a player shoots the puckfrom within fis or her own zone across the opponent's goal line. Icing is nullified if: (1) the team shooting the puck is shorthanded; (2) a player from the defending team could have played the puck Gefore it crossed the goal line; or (3) a player from the icing team plays the puck before it crosses the goal line.

Equipment

Selection of hockey equipment is a key issuefor coackes, players and parents. When purchasing and fitting hockey equipment, remember two important factors:
make certain the player is adequately protected and
be sure the fitting allows freedom of movement so the player can properly perform the necessary skills. By carefully considering these two factors, a child will be more comfortable and will better enjoy the game. $\mathcal{A}$ complete set of hockey equipment can be purchased for a relatively reasonable cost. Shop around for the best values and remember that you need not buy the most expensive equipment. Inquire about local equipment swaps and team discounts, but keep in mind the equipment must fit properly to provide maximum protection.

Skates: Purchase skates that will fit a child today, with no more than $1 / 2$ "allowed for growth. Seek adequate protection in the ankle, toe and instep areas. Improperly fitted skates will hamper your child's ability to skate.
$\mathcal{H e l m e t : ~} \mathcal{M u s t}$ be of a design and construction approved by the Hockey Equipment Certification Council ( $\mathcal{H E C C}$ ). Must be sized at the time of purchase to fit properly. The chin strap must always be fastened. Facemask: Must also be of a design and construction approved by the Hockey Equipment Certification Council ( $\mathcal{H E C C}$ ).
Mouthpiece: Required for players in 14 -or-under through junior age classifications. US $\mathcal{A} \mathcal{H}$ ockey encourages players of all ages and ability to use a mouthpiece.
Puck: The puck is made of vulcanized rubber, is three inches in diameter, one inch thick and weighs about six ounces. Some professional players can shoot the puck between 90-100 miles per four. Speeds of up to 120 miles per hour have actually been recorded by some of the hardest shooters in hockey.
Stick: Length should generally extend from the ice to the player's chin (with skates on). Quality and price differ greatly, so the choice is yours.
Shin Pads: Checkfor proper length so they protect the knee and sfin completely.
Supporter and Cup: Essential protective equipment.
Gloves: Checkfor proper fit, with good finger and hand mobility.
Shoulder Pads: Adjust to fit the individual at the time of purchase. A fiber cap is extremely important in preventing shoulder separations and should extend to the tip of the shoulder.
Pants: Held in proper position by suspenders. Provide protection for the lower spine, fips and thighs.
Elbow Pads: Properly fitted so that they do not slide.

For goaltenders, specialequipment is necessary, such as:gloves (catching and stick), chest and stomach protector, goalie skates (with protective shell), leg pads, shoulder and arm protectors. The goaltender's equipment is especially important, so seek advice from a Knowledge able source.

## Glossary

$\mathcal{A s s i s t}$ : Point awarded to a player or players for felping set up a goal; usually the last two players to fandle the puck prior to a goal being scored receive credit for assists.
Boards: The wooden and glass walls that surround the rink.
Body Check: Uling the fip and shoulder to slow or stop an opponent who has the puck (legal).
$\mathcal{B r e a k a w a y : ~} \mathcal{A}$ scoring opportunity that occurs when there are no defending players between the puck
carrier and the opposing goaltender.
Changing On The Fly: The substitution of players while the clock is running.
Charging: Taking two or more strides before checking an opponent (illegal).
Crease: The area in front of the goal marked off by a thin red line.
Cross Checking: Hitting an opponent with both hands on the stick while no part of the stick is on the ice (illegal).
Drop Pass: When the puck carrier leaves the puck befind for a trailing teammate to pick up.
Face-Off: To start play at any time, the puck is dropped between two opposing players facing each other. Forechecking: Pressuring the opponent when they control the puck in the neutral or defensive zone.

Freezing The Puck: Catching or falling on the puck to create a stoppage of play. The goaltender is the only player who can legally freeze the puck.
$\mathcal{H a t}$ Trick: Three goals scored by one player in a single game.
Interference: Hindering or restraining a player not immediately involved in playing the puck (illegal).
Neutral Zone: Center ice between attacking and defending are as (between the blue lines).
Point: $\mathcal{A}$ position just inside the opposition's blue line and close to the boards. Attacking defensemen usually take these positions when their team is in control of the puckin the opposition's zone.
Poke Check: S tabbing at the puck with the blade of the stick to take it away from the puck carrier (legal). Power Play: When a team has more players on the ice because of a penalty (or penalties) called against the opposing team.
Pull The Goalie: In an attempt to tie the score, a team trailing by one or two goals may take its goalie off the ice and send on an extra skater. This usually occurs in the closing minute (s) of a game.
Shorthanded: When a team is forced to play with fewer than six players because one (or more) fas been sent to the penalty box.
Slap Shot: Bringing the stick back and then quickly forward, firing the puck toward the opposing goaltender.
Stick- Handling: Ulsing the stick to advance the puck along the ice.
$\mathcal{W}$ rist Shot: A flicking motion of the wrist used to propel the puck off the blade of the stick.

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For more information contact:

US A Hockey, Inc.
1775 Bob gofnson $\operatorname{Dr}$ ive
Colorado Springs, CO 80906
Pfone: 719-576-8424
Fax: 719-538-1160
Internet: www.usafockey.com
Email: usah@usahockey.org


I udo

## History

The sport of judo traces back to the brutal hand-to-fand combat of the ancient gapanese samurai warriors. Literally meaning "soft way," judo was developed by $\mathcal{D r}$.
gigoro Kano in the early 1880 s as a gentler alternative to the more dangerous martial arts.
The sport preaches strict training to produce a mind and body in a state of farmony and balance. In Iudo, the competitors or "judokas" employ specialized principles of movement, balance and leverage to:

Throw the opponent to the mat on his/her back
Immobilize or control an opponent on any part of his/her back
Apply arm Gars, keeping in mind that joint locks other than the elbow constitute a serious rules violation Choke the opponent while avoiding any action which might injure the neck or the spine of the opponent Incoming force is often used by the defender to defeat an opponent. A perfect, full-point throwresults in the end of the match. This perfect move is scored as an "ippon." Other incremental or lesser scores, such as waza-ari, yuko and koka, can be awarded.

In its original version, breakdowns by weightclass played no part in the sport. The early theory claimed that the size of the competitor was irrelevant, since the key ingredients of judo are leverage and timing. Therefore, proponents of the sport believe that a small but skilled athlete could defeat alarger fighter. This theory changed in 1961 when the $61 / 2$-foot, 253-pound $\mathcal{D}$ utchman named $\mathfrak{A n t o n i u s}$ Geesink won the world championships by crushing three gapanese fighters in consecutive rounds.

Today judo competition takes place in seven men's and seven women's weight classes. Men's judo first appeared in the Olympic Games in 1964. After spending 1968 off the Olympic program, it has appeared in every Games since 1972 . Women's judo, after a stint as a demonstration sport in 1988, was first added as a full-medal discipline in 1992.
$\mathcal{N}$ o U.S. judoka fias ever won an Olympic gold medal. However, seven $\mathcal{A m e r i c a n s}$ have won medals, including 1996 team member Iason Morris of Scotia, $\mathcal{N} \cdot \mathscr{S}^{\prime}$, who won a silver in the half middle weight class in Barcelona.

## General Information

United States Iudo, Inc. (USII) is a member of the United $S$ tates Olympic Committee, the Pan American $\mathcal{I} u d o$ Union, and the International $\mathcal{I} u d o \mathcal{F e}$ deration and is the $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}(\mathcal{N} G \mathcal{B})$ for $I$ udo in the United States. It has overall authority to govern all aspects of amateur $\mathcal{I}$ udo in the United $S$ tates. The United States Congress passed The Amateur Sports Act of 1978 , which provided the authority for each sport to have its own governing body, independent from the Amateur $\mathcal{A}$ thle tic Union. Ul.S.I UlDO was organized shortly thereafter.
U.S.I UDO organizes and sanctions $\mathcal{N}$ (ational Championships, and other $\mathcal{N}$ (ational and International $\mathcal{I}$ udo events which are used as partialcriteriafor selection of teams which represent the United States in events like the Senior and Iunior World Championships, the Pan American Games, and the Olympic Games. State Governing Bodies ( $\mathcal{S G B}$ ) are $\mathcal{Z} . S . I \mathcal{U D O}$ 's affiliates and govern Iudo on the State levelunder USII's guidance. Ul.S.I UDO has many other programs, the details of which are listed else where on this we bsite.
U.S. Iudo Members

## Individual Members:

Everyone who wishes to participate in the affairs of U.S.I UDO must be a member. Individual members of U.S. I UDO are automatically a member of the State through which they are registered and are entitled to participate in the $g$ udo government of that state, according to that state's by-laws. Individual members may participate in U.S.I UDD affairs, by serving on National Committees. However, they do not necessarily have a vote at National U.S.I UDO meetings; explained beloware the ways in which individuals may become a voting representative on the Board of Directors.

## U.S. Iudo Governing

U.S.I UDO is governed by a Board of Directors which meets twice a year. The board consists of voting delegates representing a number of different membership "Groups" as described below:
Executive Committee:
The Executive Committee is composed of ten (10) individuals, elected by the Board of Directors, every four years. They are the four officers, four Program Directors, and two Athlete Representatives. Each member of the Executive Committee fas one vote.
Group $\mathcal{A}$ :
Amateur Iudo Sports Organizations. The USI $\mathcal{F}$ and USI $\mathcal{A}$ were "charter members" of U.S.I UDO. Group $\mathcal{A}$ members are entitled to 5 delegates and 5 votes.
Group $\mathcal{B}$ :
These are the State Governing Bodies (SGB) for $\mathcal{I}$ udo in each $S$ tate and the $\mathcal{D}$ istrict of Columbia. Most states have an active Group $\mathcal{B}$ organization. Group $\mathcal{B}$ members are entitled to one (1) vote plus one (1) additional vote for every 200 members. Thus, a state greater having between 200 to 399 U.S.I UlDO members will have 2 votes; one having between 400 and 599 members will fave 3 votes, etc. S tates appoint and/or elect their voting representatives from their individual members.
Group C:
Organizations which conduct $\mathcal{N}$ (ational Sports Programs. Each Group $\mathcal{C}$ member is entitled to one delegate and one vote. Examples: National Collegiate $\mathcal{J} u d o \mathcal{A s s o c i a t i o n , ~ M a r i n e ~ I u d o ~} \mathcal{A s s o c i a t i o n .}$
Group $\mathcal{D}$ :
Delegates at Large: Five (5) Delegates at Large are elected every four years based on past service, expertise, and contributions to the sport. Each $\mathcal{D e l e g a t e}$ at Large is entitled to 1 vote.
Atfile te Representatives:
In addition to the representatives above, twenty percent ( $20 \%$ ) of the voting representatives at the Board of Directors meetings are selected from active athletes.

Rules
Classes
Olympic competition is held in seven men's and seven women's weight classes. The classes are:

| Class | Men | Women |
| :---: | :---: | :---: |
| Extralightweight | $60 \mathrm{~kg} \mathrm{(132} \mathrm{1/4} \mathrm{(6s)}$. | 48 kg (105 3/4 (6s.) |
| $\mathcal{H a l f ~ l i g h t w e ~ i g h t ~}$ | 65 kg (143 1/4 (6s.) | $52 \mathrm{~kg} \mathrm{(114} \mathrm{1/2} \mathrm{(6s)}$. |
| Lightwe ight | 71 kg (156 1/2 (6s.) | $56 \mathrm{~kg} \mathrm{(123} \mathrm{1/4} \mathrm{(6s)}$. |
| $\mathcal{H a l f}$ middle we ight | 78 kg (1713/4 (6s.) | $61 \mathrm{~kg} \mathrm{(134} \mathrm{1/4} \mathrm{(6s)}$. |
| Middle we ight | 86 kg (189 1/2 (6s.) | 66 kg (145 1/2 (6s.) |
| $\mathcal{H a l f}$ heavywe ight | 95 kg (209 1/4 (6s.) | 72 kg (158 1/2 (6s.) |
| He avywe ight | $95+\mathrm{kg}(2091 / 4+$ chs.) | $72+\mathrm{kg}(1581 / 2+(6 s)$. |

## Rules

I udokas stand facing each other on the contest area at the assigned red or white tape that corresponds to the sash they are wearing. After the contestants bow to each other, the referee signals the start of the match. Men's matches last a maximum of five minutes, while women's matches can last up to four minutes. There are six ways to end the match before time expires.
They are:
Throwing the opponent to his 6ackfor an "ippon," or full point.
$S$ coring two "waza-aris," or almost ippons. $\mathcal{A}$ waza-aricounts as half an ippon, so two of them end the match.
Immobilizing an opponent with a hold for 30 seconds. When the hold starts, the referee starts a clock to time it.
Strangling the opponent into submission or unconsciousness.
Forcing the opponent into submission with an "armlock." The judoka submits by "tapping out," or tapping the arm, mat, self or opponent repeatedly.
Winning by "hansuko make," or disqualification of the opponent.
If the match lasts the full time allotted, it is decided on the Gasis of which judoka has accumulated the most scoring advantages and/or fewest violations. If the point totals are the same, the referee calls for the two judges to declare a winner. If the two judges disagree, the referee casts the deciding vote.

## Equipment

Iudogi: The judoka's uniform. Consists of a baggy white/off-white jacket and loose-fitting trousers. The jacket is tied together with an "obi."
Tatami: The rectangular competition area. Tatamis are usually made of pressed foam, and are usually 16 square meters in area.

## Glossary

## Scoring

Ippon: $\mathcal{A}$ full win (ends match).
Waza-Ari:A half win (two ends match as ippon) or compound win.
$\mathscr{Y} k \kappa: \mathcal{A}$ ne ar waza-ari. No amount of yukos can make a higher score such as waza-arior ippon. $\mathcal{A}$ scoring point only.
Koka: A ne ar yuko. No amount of kokas can make a figher score.
$\mathcal{N}$ (egative Scores
$\mathcal{H a n s o k u} \mathcal{M a t e}: \mathcal{A}$ very grave infringement of the rules equal to an ippon for the opponent. Ends the match. Equivalent to a negative ippon.
Keikoku: $\mathcal{A}$ grave infringement equal to a waza-arifor the opponent. Any other penalty of any kind given to a player with a keikoku causes a hansoku mate and ends the match.
Chui: A serious infringement equal to a yuko for the opponent. Any equivalent or lower penalty given to a player that has a chui, increases the chui to Keikoku.
$S$ fido: $\mathcal{A}$ slight infringe ment equal to a koka for the opponent. Any player receiving any other equivalent penalty increased the sfido to chui.

Decisions
Ippon: $\mathcal{A}$ full win.
$\mathcal{W a z a} \mathcal{A r i}$ Awasete Ippon:When one contestant scores two waza aris.

Sogo Gachi: $\mathcal{A}$ compound win. This happens when one player has gained a waza ari and the opponent is, or has been, penalized with a keikoku.
Yusei Gacki:A win by superiority.
Kiken Gachi: A win by opponent's withdrawal during a match.
Fusen Gacki: $\mathcal{A}$ win by default; contestant does not appear.
Hiki Wake: $\mathcal{A}$ draw.

Other
I udoka: $\mathcal{A}$ judo contestant.
Iudogi: The judoka's uniform. Consists of baggy white/off-white jacket and loose-fitting trousers. The jacket is tied together with an "obi."
Tatami: The rectangular competition area. Tatamis are usually made of pressed foam, and are usually 16 square meters in area.

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For more information contact:

US A I udo
One Olympic Plaza
Colorado Springs, CO 80909
Phone: 719-578-4730
Fax: 719-578-4733
Internet: www.usjudo.org

Karate

## $\mathcal{H}$ istory

Karate originated more than 1000 years ago in eastern $\mathcal{A s i a}$, first as monastic training and later as a defense method for Chinese peasants. During the 17 th century it Gecame developed as an art in OKinawa, I apan.

Karate was introduced to the gapanese public in 1922 by Funakosfi Gichin, and the art today is chiefly associated with Iapan. It was introduced to the United States after World War II. Many types of karate, including Korean (Tae Kwondo) and Chinese styles, are taught in the United States. The three elements of speed, strength and technique are vital to Karate. Lethalkicks and punches are taught, rather than wrestling and throwing maneuvers as in judo and jujitsu.

General Information

Karate is a gapanese word meaning "empty hand." It is the martial art of unarmed self-defense in which focused blows of the feet and hands are dealt from poised positions. Often, these blows are accompanied by sfouts.

Karate emphasizes self-discipline, positive attitude and high moral purpose. It is taught professionally at different levels, and under different $\mathcal{A} \operatorname{sian}$ names, as a self-defense skill, a competitive sport and a free. style exercise.

Karate will make its debut as a medalsport at the 1999 Pan $\mathcal{A m e r i c a n ~ G a m e s ~ i n ~ W i n n i p e g , ~ C a n a d a . ~}$

## Rules

## Competition Area

The competition area must be a matted square, with sides of 8 meters (measured from the outside). The area may be elevated to a height of up to 1 meter above floor level. The elevated platform should measure at le ast 10 meters a side, in order to include both the competition and the safety area.
Two parallellines, each 1 meter long and at right angles to the Referee's line, must be drawn at a distance of 1.5 meters from the center of the competition area for positioning the competitors.
The arbitrator shall be seated between the scorekeeper and timekeeper.

Duration of Bout
Three minutes for senior male (6oth teams and individuals) and two minutes for women's and junior bouts.

## Scoring

The first contestant to receive three full points (IPPONS) is declared the winner. Half-points (WAZA. $\mathcal{A R I )}$ can also be credited. An IPPO $\mathfrak{N}$ is worth two $\mathcal{W} \mathcal{A Z A}-\mathcal{A R I}$.

Though two Waza-Aris equal one Ippon in scoring value, in tecfnical terms, a Waza-Ari is equal to $90 \%$ of an Ippon.
$\mathcal{A n}$ Ippon is awarded on the 6asis of the following:
$\mathcal{A}$ scoring technique counts as an Ippon when it is performed according to the following criteria to a scoring area; good form, correct attitude, vigorous application, zansfin (perfect finish), proper timing, correct distance.

Ippon may also be awarded for techniques deficient in one of the above criteria but which conform to the following schedule:

Iodankicks or other technically difficult techniques.
Deflecting an attack and scoring to the unguarded back of the opponent.
$S$ we eping or throwing followed by a scoring technique.
Delive ring a combination technique, the individual components of whicheach score in the ir own right.
Successfully scoring at the precise moment the opponent attacks.
$\mathcal{A} \mathcal{W a z a}-\mathcal{A r i}$ is awarded for a technique almost comparable to that needed to score Ippon. The refereeing panelmust lookfor Ippons in the first instance and only award a Waza-Ari in the second instance.
 shoulders), Side.

Decisions
A score of three Ippons achieved either directly or cumulatively determines the bout. Therefore if a contestant has already scored five Waza-Aris and goes on to score a further Ippon, his maximum score will not exceed the three Ipponceifing. This very basic rule is sometimes overlooked when scoring a team event that has tied on bout victories.

In the absence of a clear winner, a decision is taken on the basis of the following considerations:
Whether there have been any Ippons or Waza-Ariawarded.
The attitude, fighting spirit and strength demonstrated by the contestants.
The superiority of tactics and techniques.
In individual category where there is no score superiority, then the following procedure will be followed: If, at the end of a bout, the two contestants have no score, the winning decision shall be given by $\mathcal{H} a n t e i$.

If, at the end of a bout, the two contestants have scored equally, the decision for victory shall be given by Hante $i$.

If, at the end of a bout, neither contestant has established a superiority, then the decision for that bout shall be a draw ("Hikiwake") and Encho-Sen should be announced.
$\mathcal{A}$ penalty or warning incurred in the bout will be carried forward to the Encho-Sen, or extended play.
In team competition the winning team is the one with the most bout victories. If two teams have the same number of victories, the winner is the one whose contestants have scored the most points, taking both winning and losing fights into account.

If two teams have the same number of victories and scores, a deciding bout must be held between representatives of the two teams. In the event of a continuing tie, there is an extension ("Encho-Sen"). The first contestant to score Ippon or Waza-Ari is declared the winner.

If there is no decision after a bout of an individual match, an extension ("Enchosen") will be fought. In the event of a tied Encho-Sen, the majority decision of the panel will be announced by the Referee.

## Explanation

When deciding the outcome of a bout by Hantei, the Referee shall step outside of the ring and call "Hantei " followed by a two-tone blast on his whistle. The gudges will indicate their opinions by means of the ir
flags, the Referee should acknowledge the gudges decision by a one-tone blast of his whistle, then move forward to fis original position and announce the majority decision.

The Encho-Sen is anextension of a bout; it is not a separate bout. Penalties awarded in the bout proper will therefore carry over into the Encho-Sen. There must be a decision after an Encho-Sen, taking performance in the whole bout into consideration.

## Equipment

Contestants must we ar a white unmarked Karate Gi without stripes or piping. Only the nationalemblem or flag of the country may be worn. In addition, an identifying number issued by the Organizing Committee may be worn on the back. One contestant must we ar a red belt and the other a white belt. The white and red belts must be around 5 centimeters wide and of alength sufficient to allow 15 centimeters free on each side of the Knot.

The jacket, when tightened around the waist with the belt, must be of minimum length that covers the fips, but no longer than mid thigh. In the case of women, a plain white T-shirt may be worn beneath the Karate jacket.

The maximum length of the jacket sleeves must be no longer than the bend of the wrist and no shorter than fialf way down the forearm. I acket sleeves may not be rolled up.

The trousers must be long enough to cover at le ast two thirds of the shin and may not be rolled up.
Mitts and gum shields are compulsory. Boxes and soft shin pads are allowed. Shin/instep protectors are forbidden. Glasses are forbidden (soft contact lenses can be worn at the contestant's own responsibility). If a fighter comes into the area inappropriately dressed, he or she will not be immediately disqualified; instead the fighter will be given a minute to remedy matters.

> Glossary

Encho-Sen: $\mathcal{A n}$ extension in play to determine a tied match.
$\mathcal{H a n t e} i: \mathcal{A} j u d g e ' s$ decision declaring the winner of a tied match.
$\mathcal{H}$ ikiwake: $\mathcal{A}$ match which concludes in a draw. (Followed by the EN(CHO-S EN.)
Ippon: Unit of scoring. One (1) point.
Waza-Ari: Unit of scoring. One-falf (1/2) point.

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For more information contact:

PO Box 77083
Seattle, WA 98177
Pfone: 206-440-8386
Fax: 206-367-7557
Internet: www.usankforg


## Luge

## $\mathcal{H}$ istory

Although the sport of luge is sometimes thought of as being relatively new, sled racing is actually one of the oldest of all winter sports. The word"luge" comes from the French word for "sled." In Germany it is Known as "rodel," and it is in the alpine countries of Europe that the sport began.

References to sled racing first appeared in chronicles from $\mathcal{N}$ (orway in 1480 and the Erz Mountain area in 1552. The first internationalluge race took place in 1883 with 21 competitors representing 7 nations, including the United $S$ tates. The race was organized by hotels in the $S$ wiss resort of $\mathcal{D}$ avos and took $p l a c e$ over the 4 Kilometer ( 2.5 mile) road from $\mathcal{S}$. Wolfgang to Klosters.

At the turn of the century, luge was actually governed by the International Bobsled Federation which administered all the ice-trackracking sports. In 1953, the sport gained its own International Governing $\mathcal{B o d y}$ with the formation of the Federation Internationale de Luge de course (FIL), and in 1964 it was inaugurated as an Olympic sport at the IX Winter Olympic Games in Innsbruck, Austria.
$\mathcal{H a v i n g}$ no formalluge program at the time, the United States'first Olympic Luge Team consisted mainly of American soldiers who were stationed in Europe at the time of the Games. Backinthe US, luge attracted a $s$ mall number of atfletes who were relegated to training on the 1932 Olympic Bobsled run in Lake Placid, $\mathcal{N} \cdot \mathcal{Y} . W^{2} \boldsymbol{H}$ no formal national organization to support, develop and promote luge, American sliders remained in relative obscurity over the next couple decades.

With the arrival of the XIII Olympic Winter Games in Lake Placid came the construction of the nation's only refrigerated luge run in 1979 . In the same year, the U.S. Luge Association (ULS LA) was formed as the sport's $\mathcal{N}$ ational Governing $\mathcal{B o d y}$.

Since its inception, the US $\mathcal{L A}$ fas overseenthe selection and preparation on the U.S. $\mathcal{N}$ ational and Olympic Luge Teams. In addition, a nationalnetwork of luge clubs as well as a comprefinsive recruitment program has also been developed, giving the U.S. Luge Program tremendous depth at every level of participation.

> General Information

The $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}$ for the $O$ lympic Sport of Luge, the $\mathcal{L} . S$. Luge Association (UlS $\mathcal{L A}$ ) is an "Olympic" class member of the United States Olympic Committee, and the official American representative of the International Luge Federation (FIL) based in $\mathcal{B e r c h t e s g a d e n , ~ G e r m a n y . ~ A ~ n o t - f o r - p r o f i t ~ o r g a n i z a t i o n ~}$ with its headquarters in Lake Placid, N(ew York, the USLA was chartered in 1979 as a direct result of the Congressional Amateur Sports Act of 1978 . It is the duty of the ULS LA to prepare, train, and equip the United $S$ tates $\mathcal{N}$ ational Luge $\mathcal{T}$ eams for international and Olympic competition as well as promote the growth of the sport of luge nationwide.

Coaching, technical, marketing and administrative support are all provided through the US LA's offices in Lake Placid, $\mathcal{N} . \mathcal{Y}$. Annually, a number of important competitions are field at the $\mathcal{M t}$. Van $\mathcal{H}$ oevenberg Luge Run. The run fas also been fost to important international competitions such as the World Championsfips, World Cups and the first and tenth I unior World Championsfips. The track was also fost to the luge competition during the 1980 Winter Olympic Games.

## Rules

The following number of people and disciplines may race in the Olympic Games per nation:

Women Singles: 3
Men Singles: 3
Doubles (any combination of men or women): 2 teams of two people

Competition Runs
Singles (men and women): 4 runs
Doubles: 2 runs
$\mathcal{A}$ new luge course requires an international test race at least one year prior to the Olympic Games. Between 50-70 officials are required for Olympic Luge Competition.
$\mathcal{A n}$ Olympic competitor may not have been a professional athle te in any sport.

Rules Governing Race Procedures
At the start of the race the following equipment checks are made:
Temperature of the runners
At the finish the following equipment checks may be made:
Weight of the sled
Weight of the athlete
At the start, a steelrunner shall be in place, sheltered from the sun, to be used as a basis for temperature measurement. The temperature of the blade on each competitor's sled may not be greater than 5 degrees centigrade above the control temperature. After the control temperatures have been taken of a competitor's steels, the sled may not be removed from the designated start areanor the sled exchanged or the blades warmed.
$\mathcal{A} n$ athle te must leave the start handles within 30 seconds after they receive the "track is clear" command, (45 seconds for doubles), or the athlete is disqualified.
Competitions may be held in extreme weather conditions with a temperature as low as -25 degrees centigrade.
The competitor must cross the finish line in contact with his/her sled.

Construction of the Tracks
Men 1300 m maximum, 1000 m minimum
Women/Doubles 1050 m maximum, 800 m minimum

## Equipment

Face Shield: Attached to the front of the helmet is a form-fitting face shield. It is constructed of a polycarbonate material and is virtually shatter-proof. The face shield serves two functions, the first one Geing safety. In the event of a crash, the athlete's entire face is protected from possible contact with the sled or ice, reducing the risk of injury. Secondly, the shield provides a certain degree of aerodynamic advantage in that it allows a smooth surface to be exposed to the air.
$\mathcal{H e l m e t : ~ T h e ~ o n l y ~ p i e c e ~ o f ~ s a f e t y ~ e q u i p m e n t ~ e v e r y ~ l u g e ~ r a c e r ~ i s ~ r e q u i r e d ~ t o ~ w e a r ~ i s ~ a ~ h e l m e t . ~ H e l m e t s ~ a r e ~}$ required to meet certain tests safety standards in order to be eligible for use. In $\mathcal{F I L}$-sanctioned competitions, all competitors are required to we ar the same brand and modelluge helmet which is made out of a combination of fiberglass and kevlar and is extremely lightweight. The weight of the helmet is critical as there is no headrest on the back of the sled.
$\mathcal{N e c k} S$ trap: Speeds sometimes exceed 80 miles an four and Gforces can reach 4-5. As aresult, eventhe strongest athletes require some assistance to keep their heads up. To assist in this, a neckstrap is worn under the speedsuit. The neckstrap has two loops which go around each thigh and fit securely in the crotch area. $\mathcal{A}$ single piece of strap attaches the two loops together and runs from the crotch up to just under the neck where it is fed through a small hole in the suit. $\mathcal{A}$ clip is attached to this end of the strap, which is
then connected to the neckstrap of the helmet. When in the racing position, and under a force load, the head gets pulled down toward the ice, which in turn pulls the neckstrap against the thighs and prevents the head from being pulled further to the ice.
Racing Shoes: The luge racing shoe, or "bootie," is alight-weight, aerodynamic piece of equipment worn by all competitive sliders. Weighing just 3.9 ounces each, they have a smooth outer sole and no tread on the Gottom. The light weight of the bootie makes it easier for the athlete to hold his/her feet up on the front of the sled as they resist the 3-4 G forces attained in some curves.
Racing Suit: Racing suits are constructed of alycra-type, stretch textile material base. Each suit is custom-sized to the individual athlete. Built strictly for speed and aerodynamics, the racing suit provides little in the way of comfort and warmth.
Sled: The primary components of the racing sled are
2 runners
2 blades
$\mathcal{A}$ sling seat or pod seat
2 undivided Gridges
The luge sled must have 2 separate runners
Mechanical breaking devices are profibited
Maximum weight for a sled is 23 kg for a singles sled and 27 kg for a doubles sled.
The maximum width of a singles sled is 550 mm .
The racing pod may not exceed a thickness of 120 mm
In the rear of the sled the pod must not extend past the shoulders of the athlete and in the front must not extend forward of the knees.
Spikes: When an athle te departs the handles after performing a start, they typically do 3-4 "paddles" in the ice to help accelerate the sled before lying down into the racing position. Spikes may be worn on the gloves to help maximize grip on the ice during these paddles. Spikes may be a maximum of 4 mm long and are attacked to the glove either on the finger tips or the knuckles.

## Glossary

$\mathcal{A r t i f i c i a l} \mathcal{T r a c k}: \mathcal{A}$ refrigerated track, or a natural track with banked curves similar to an artificialtrack. (afso Known as a "Kunstbafn" in German)
$\mathcal{B l o c k}$ : The part of the start motion when an athlete puts the sled into a forward rockjust prior to the compression phase.
Bootie: The luge racing shoe.
Bow: The shape built into the kufen and steel runner. This slight "Ul" shape allows the sled to steer. When pressure is placed on the front or the back of the sled, the point where the steeltouches the ice and rolls forward and backward as well.
Box: The hollowed out portion of the kufens into which the gummie and bridge legs fit.
Bridge: The part of the sled that connects the two runners together and from which the aerodynamic racing shell is suspended. Made of steel, there are 2 on each sled, front and rear.
Compression: The phase of the start motion when the athlete puts the sled into a rearward motion immediately prior to the forward pull. In this phase the athlete's knees spread apart and the head goes between the legs.
Control: $\mathcal{A}$ thletes selected by order of finish and at random for the purpose of checking body and additional weight and sled dimensions.
Eighty One: $\mathcal{A}$ term used at the Lake Placid luge course to signify a crash.
Face Shield: The clear visor placed on the front of the helmet for safety and aerodynamic purposes.
$\mathcal{F I L}$ : The Federation Internationale de Luge. The International Governing Body for the sport of luge.

Gummie: The rubber cylindrical pieces that fit into the boxes in the kufens. The bridge legs slide inside the gummie, which ultimately allow the sled to be flexible and the kufens to move up and down. There are four gummies on a sled.
I unior: $\mathcal{T}$ o qualify as a junior competitor, an athlete must not reach their 20 th birthday during the sports year (guly 1-I une 30).
Tre isel: German for a child's toy top. A turn on a luge course that curves backunder itself is called this.
Kufen: The German word for the fiberglass or wood runner.
Kunstbafn: (German) An artificially refrigerated luge track.
Labyrinth: A series of 3 or more curves placed together with no straight-aways in betweenthem.
Line: The trajectory a sled takes down the track.
Lose Your Head: When an athlete cannot Keep his head up in a figh G-force turn. Sometimes the head may go all the way down to the ice.
Luge: The French word for "Sled."
Paddle: The act of pusfing the sled forward using spiked gloves on the ice surface.
Pod: The aerodynamic shell attached to the bottom of the racing sled. Also acts as the seat for the athlete. Also known as the shell.
Pull: The part of the start motion when the athlete starts the forward movement of the actual pull.
Push: The phase of the start motion immediately prior to release of the handles. Exemplified by a push off the start handles using the triceps causing extension of the arms.
Push: The phenomenon of acceleration an athlete feels when exiting alarge or tight turn. The G forces act on a sled in a curve by trying to pull the sled up the curve. The athlete fights this by steering the sled low in the curve. When this steer is released at the exit, the G forces that wanted to pull the sled up, now push the sled out of the curve.
Rodel: The German word for "sled."
Slider: $\mathcal{A}$ luge athlete.
Spike: Placed on the finger tips or knuckles and a maximum of 4 mm long. Spikes aid in the acceleration of the sled after departing the start handles.
Steels: The steelrunners which are attached to the kufens. This is the only part of the sled which actually touches the ice.
Sturz: German word for "crash."

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For more information contact:

US Luge Association
35 Church Street
Lake Placid, $\mathfrak{N O} 12943$
Phone: 518-523-2071
Fax: 518-523-4106
Internet: www.usaluge.org
Email: usaluge@usaluge.org

Modern Pentatfilon

## $\mathcal{H i s t o r y}$

Pentathlon was introduced into Olympic competition at the 18 th Olympic Games in $708 \mathcal{B C}$ as a result of complaints by the war-like Spartans who felt previous Olympic competitions were all slanted toward civilian competition with nothing included that would be of interest or felp to warriors.

The Pentathlon was, therefore, designed for the soldier athlete and originally included discus, spear or javelin throwing, Groad jumping, running and wresting. Unlike Modern Pentathlon, in which every man competes to the end, the original Pentathlon was an elimination contest, with eachelement of the competition used to eliminate participants until the final wrestling bout between the two best was used to establish the Olympic Champion.
Baron Pierre de Coubertin, the Frenchman who revived the modern-day Olympics, was personally responsible for the return of the $\mathcal{P e n t a t h}$ lon in 1912 . He felt it would stimulate world relations, and insure peace, if soldiers of the world's armies could find a mutual interest in friendly competition.
When de Coubertin modernized the Pentathlon at the turn of the century, he drew upon fis own image of what an all-around warrior should be. He came up with the notion of a Napole anic liais on officer who is called upon to deliver an important message. The officer is first required to mount any horse drawn from the line and ride it over rough terrain and obstacles. Riding in enemy territory, the officer fends off foes, first with his pistol, then with his sword. When the officer's horse is brought down, he is forced to swim across a raging river and then runthrough a thickly wooded forest in order to finally deliver the urgent message on foot.
Baron de Coubertin's Gackground is reflected in the pistol and sword elements, both based on the gentleman's duelfor honor. The pistolcompetition involves a target set at dueling distance (10 meters). In the epee fencing competition, the bout ends as soon as one touch is scored, which is in keeping with the tradition of first blood drawn. It was de Coubertin's belief that the Modern Pentathlon would be the one Olympic event that would "test a man's moral qualities as much as his physical resources and skills, producing thereby the ideal complete athlete."

## General Information

The United States Modern Pentathlon Association (US $\mathcal{M P A}$ ) is a dynamic group devoted to the proud tradition of Modern Pentat爪fon. Establisfed in 1971 as a corporate entity, the $\mathcal{U S} \mathcal{M P A}$ administers and promotes the sport of Modern Pentathlon in the United $\mathcal{S}$ tates. It operates a National Training Center and its national headquarters in $S$ an $\mathcal{A n t o n i o , ~ T e x a s , ~ w h e r e ~ q u a l i f i e d ~ j u n i o r ~ a n d ~ s e n i o r ~ a t h l e ~ t e s ~ p r e p a r e ~ f o r ~}$ national and international competition. Its coaching staff and consultants are among the best in the world, and training facilities are specifically designed for the development of world-class athletes. The United States' participation in the sport of Modern Pentathlon Gegan in 1912 when the sport was introduced into the Olympic Games in Stockholm, S weden. Because the Modern Pentathlon was originated and formatted to be a soldier's sport, the U.S. Army became the organizing body for the USA $\mathcal{A}$ effort, starting a military tradition that continued for 73 years.

From 1912 to 1954, the U.S. Military Academy at West Point served to firmly establish the sport within the $\mathcal{U n}$ ited $S$ tates, providing almost all of the participants for seven Olympic Games and numerous international competitions. The first $\mathcal{A m e r i c}$ an $\mathcal{M o d e r n} \mathcal{P}$ entathlon Olympic medalist was $\mathcal{A r m y}$ Captain Richard $\mathcal{W}$. Mayo. He won a bronze medal in 1932. In 1936, Charles $\mathcal{F}$. Le onard won the silver medal and produced the first perfect score in the shooting event. Leonard's feat was not equaled in Olympic competition until 1980 by George Horvath of $S$ weden.

Annual World Championships we re inaugurated in the early 1950 sfollowing the formation of the International Union of Modern Pentathlon and Biathlon (UIPPMB). The UIPPMB serves as the sport's worldwide governing body and provides tecknical supervision for Olympic and World competitions. In 1956, an open trails competition was conducted at Fort Sam Houston, Texas, through which the team was selected for that year's Olympic Games. For the next 29 years, the Modern Pentathlon Training Center was administered at the fistoric $\mathcal{A r m y}$ Post in $\operatorname{S}$ an $\mathcal{A n t o n i o , ~ p r o d u c i n g ~ v i r t u a l l y ~ e v e r y ~} \mathcal{U S} \mathcal{A}$ team member for World, Olympic, Pan Americ an and internationalcompetition, and encouraging the participation of civilian athletes.
U.S. Army operation of the Modern Pentathlon Training Center came to an end in 1985, following the US $\mathfrak{A}$ 's silver medal at the Los Angeles Olympic Games. Facilities at Fort Sam Houston continue to fouse various training activities.
The first major step toward developing the sport nationwide was taken in 1961 with the establishment of the $\mathcal{I}$ unior O Cympic $\mathcal{D}$ evelopment Clinic, a training camp for novice pentathletes that continues today. Many of the pentathletes who have represented the USA internationally began their training in the Development Clinic.
Biathfon, a Winter Olympic sport consisting of cross-country sking and rifle shooting, became a separate association following the Amateur Sports Act of 1978 .

## Rules

The Modern Pentathlon is a combination of five totally different sports all working toward a common point total. The order of events fias changed over the years to accommodate athletes and spectators. Shooting and fencing are now first and second, followed by swimming and horsebackriding. The compe tition ends with a cross country run.
Scoring in Modern Pentatficon is based on a standard 1,000 points for a good, or "par," performance. Excellent, or "above par" performances earn bonus points, and sub-standard, or "below-par," performances incur penalty points. The athlete who accumulates the most points over the course of the competition is the champion.
Shooting
Pistol shooting requires skills completely opposite from those of the other Modern Pentathlon sports. With a.177-caliber air pistol, over a 10 -meter course, the athle te must suppress fis natural tension and nervousness as he fires 20 shots at a stationary target. Only twice in Olympic fistory has a 200 point perfect score been achieved.
In 1993, the introduction of a new Slowfire target with reduced bullseye, makes the perfect score that much more of an outstanding achievement. A target score of 172 will earn an athlete 1,000 pentathlon points, and each target point is worth a plus or minus 12 scoring points. The athle te has 40 seconds to fire each of the 20 shots.
Fencing
Fencing is the only sport of the five in which the athletes meet in head-to-head competition. Because of this, and depending on the number of athletes in the competition, it can make for a very strenuous event. Uling the epee, or dueling sword, the pentathle te engages in one-hit "suddendeath" bouts, each having a time limit of one minute. The entire body of the opponent is the target area, and agood number of "touckes" will be on the wrist and toes, as well as the upper body.
Points are awarded on the basis of total victories earned during the competition, and an athlete winning $70 \%$ of his bouts will receive 1,000 points. Each victory is worth a set number of points, pre-determined by a formula based on the number of participants.
Following the action may seem difficult because of the quickness of the fencers, but watching only one of the two competitors can make it easier. Because it is only a one-touch bout, the fencers will appear tentative in the early moments as they attempt to figure out a way to attack. There will be many "fake
attacks" made with both the Glade and footwork, the intent being to induce the opponent into committing fimself. Both fencers will be in constant motion, bouncing all over the strip and attempting to "sforten the distance" between them.
$S$ wimming
The swimming event is one of the most grueling of the five sports. Competitors are required to swim 200 meters against the clock. Points are awarded on the standard "par" Gasis with the men earning 1,000 points for a swim of 2 minutes, 30 seconds. Each second under or over this standard is worth a plus or minus 10 points.

## Riding

The fourth event of the Modern Pentathlon is the ride, which tests the ability of the pentathlete to guide an unfamiliar horse over a 350-450 meter course. Originally a cross-country course of several thousand meters, today's courses consist of 12 obstacles set within the confines of a riding area. On this 12 obstacle course, one obstacle consists of a double jump and one consists of a triple jump. Each athlete will select a horse through a random drawheld just prior to the event, and will then have just 20 minutes of practice time to become familiar with his mount.
$\mathcal{A}$ rider enters a ring with 1,100 points and will have points deducted for knockdowns, refusals, falls and riding too slowly. The amount of time allowed for the ride is based upon the course length and usually between 60 and 77 seconds. $\mathcal{A}$ "clean" ride will earn the atflete the maximum 1,100 points.
$\mathcal{H o r s e s}$ are provided by the competition's organizing committee and trained over the course so that they are as nearly equal in ability as possible. This makes the event a test of skill for the athle te as he follows the pre-determined course. Each competitor will have studied the course and formulate his own plan for approaching each jump and making each turn. Keeping the horse under control is of primary concern.

## Running

As the final event of the competition, the run provides the last chance for the athlete to utilize fis strength to build his point total. The cross-country run is 3,000 meters. Competition organizers start the runners onto the course one at a time, in a staggered start based on their ranking in the competition. The event leader starts first.
The additional runners follow based on their point standings. Each starting time is adjusted by the number of points the athlete is Gefind the leader. Points are awarded for performance, with a running time of 10 minutes being worth the standard 1,000 points and each second under worth four points. The first athlete to cross the finish line is the winner of the Modern Pentathlon, which should provide for an exciting finish to a grueling day of competition.

## Equipment

## Shooting



- Irousers … Long (National Federation training suit)
- Shoes (the ankle joint should not be tight)

Fencing

- $\mathcal{F I E}$ jacket.- Requirements for strength of material - 800
- $\mathcal{F I E}$ trousers .- Requirements for the strength of material - 800 $\mathcal{N}$
- Protecting Greast plate
- FIE mask(with a collar that has to hold an impact of $1600 \mathcal{N}$
- White shoes
- White socks up to the knee
- Armlet in the national colors or national emblem
- Competitor's name and national code letters, cle arly and professionally printed, on the back in 6lack or dark 6 lue, at a minimum height of 6 cm
$S$ wimming
- Swimsuit (women) and or trunks (men) made of non-transparent material (no special requirements for model or color).
- Recommendation .. swim cap with $\mathcal{N}$ (ational $\mathcal{F e d e r a t i o n ~ e m b l e m ~ a n d ~ s w i m m e r ' s ~ n a m e . ~}$

Riding

- Suit (protective headgear with chin strap).
- Breecfies
- $\mathcal{T} i e$ (for women, bodice front also possible)
- High boots
- Armlet in the national colors put over the leftarm of nationalemblem on the suit.

Running

- Sforts
- T-sfirt/vest with $\mathcal{N a t i o n a l} \mathcal{F e d e r a t i o n}$ mark. $\mathcal{N}$ o requirements for the model and color of the clothing.

$$
\begin{aligned}
& \text { Glossary } \\
& \text { Shooting }
\end{aligned}
$$

$\mathcal{A}$ ir Pistol: $\mathcal{A} 4.5 \mathrm{~mm}$ (.177) caliber pistol that uses compressed air or CO2 for power.
$\mathfrak{A l i b i}: \mathcal{A}$ substitute firing of rounds by a shooter experiencing pistolmalfunction.
Center $\mathcal{T}$ en: Inner ten, 5.0 mm in diameter.
Dry Fire: Shooting (or release of the trigger mechanism) without the discharge of any air or gas.
Firing Line: Shooters line 10 meters from the target.
Firing Point: The position at the firing line at which an athle te is assigned to compete
Live Fire: Shooting with air or gas.
Pelle ts: Ammunition used in air pistolshooting, us ually le ad
Target Points: The score earned by adding the value of all 20 shots; highest possible total is 200 .
Warm Up: Two series of 2.5 minutes during which an athle te may shoot an unfimited number of shots.
Fencing

Allez: The command to start fencing.
Bell Guard: The circular metal "cup" of the blade which protects the arm; also called the "guard"
Body Cord: The coated wire, which carries the electricalcurrent from the epee to the reellocated befind the fencer and registers a fit to the scoring machine; also called a body "wire."
$\mathcal{B}$ out: $\mathcal{A}$ match between two fencers which lasts one minute; in the Olympic Games, each competitor will have 31 bouts.
Corps a Corps: Fencers make bodily contact during a bout.
Double Defeat: The time limit of the fencing bout expires, and both fencers record a defeat.
Epee: $\mathcal{A}$ dueling sword, used in the pentathlon fencing event. The target area is the entire body.
$\mathcal{F l e c h e}: \mathcal{A}$ running attack.
Parry: $\mathcal{A}$ move to deflect an opponent's attack.
Salle: The room where fencing takes place.
$S$ wimming

Freestyle: Pentathlon swimming stroke.
Long Course: S wimming pool 50 meters in length.
Short Course: S wimming pool 25 meters in length.

## Riding

Circle, Cross Path: Horse and rider fail to jump an obstacle according to pre-determined course path, and approach it a second time.
Disobedience: Penalized errors in the riding event.
Double Combination: T wo riding obstacles placed 7-12 meters apart; also called an "in and out" 1100 Point Ride: The score earned by a rider when no jumping or time penalties are incurred.
Oxer: $\mathcal{A}$ single jump that has depth as well as height; a type of "spread" obstacle.
Time Faults: Penalty points incurred for completing the riding event above the time allowed (3 points per second).

## Running

$\mathcal{H a n d i c} a p p e d S$ tart: The starting system for the running event in which the runners start the course according to the ir point margin with the overall leader.
Other
$\mathcal{U I P M B}$ : International Union of Modern Pentathlon and Biathlon, the International Federation of the sport. $\mathcal{U S} \mathcal{M P A}$ : United States $\mathcal{M o d e r n}$ Pentathlon $\mathcal{A s s o c i a t i o n , ~ t h e ~} \mathcal{N}$ ational Governing $\mathcal{B o d y}$ of the sport.

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For more information contact:
US Modern Pentathlon Association
7330 San Pedro, Box 10
San Antonio, $\mathcal{T X} 78216$
Phone: 210-528-2999
Fax: 210-528-2992
Internet: www.uspentatflon.org
Email: usmpa@texas.net

## $\mathcal{H}$ istory

Racquetball was invented by I oe Sobek in 1949 on a Connecticut fandball court. Seeking a game with fast pace that was easy to learn, Sobek designed the first short strung paddle, devised rules combining the basics of handball and squash, and named his modification "paddle rackets." His experiment was an overnight success, the sport caught on quickly and has since evolved into racquetball as we know it today.

By the early 70's, court clubs could be found in every state and the sport enjoyed a rapid and steady rise in popularity. $\mathcal{A s} \mathcal{A}$ mericans sought new and challenging athle tic activities, the timing was perfect for racquetball.- courts were accessible nationwide and the sport was fun and easy to learn. The late 70 s and early 80 s saw racquetball become one of the fastest growing sports in $\mathcal{A m e r i c a}$ as thousands of new racquetball courts were built to satisfy the demand.
$\mathcal{B} u t$ the sport saturated the market and reached its peak in the mid 80 s , when many clubs either closed their doors or began converting courts to other uses. But by 1987 the decline leveled off and racque tball regained a steady, manageable growth rate.
$\mathcal{F r o m}$ an original core group of loyalenthusiasts, participation fas grown to some 7.7 million $\mathcal{A m e r i c a n}$ players who enjoy the sport each year.

Internationally, the sport has also attained great feights in its short history - with World Championships held bi-annually since 1981 , the addition of five International Olympic Committee-approved events and its debut as a Pan American Games Sport in 1995.
$\mathcal{N}$ Now as we approach a new century, times are exciting for the sport of racquetball. With increasing exposure to a growing market of recreational and competitive players ...combined with the sport's proven trackrecord of steady annualgrowth and the promise of achieving the "Olympic Dream," racquetball is well positioned for the future.

## General Information

 development of competitive and recreational racquetball in the United States. The association offers member institutions and individuals an opportunity to participate and contribute to the development and growth of the sport.

## Rules

Scoring

Scoring is done the same way as in volleyball. Only the server can score points. The server scores one point for winning a rally. The receiver gets a "sideout" for winning a rally and serves the next rally. The first person to 15 points wins the game (no need to win by two). A match is the best two games out of three, and the third game (if necessary) is played to 11.

The server must begin the service motion in the service zone. The server drops the ball, allows it to bounce on the ground once, and hits it towards the front wall. The serve must fit the front wall, $\mathcal{M A} \mathcal{A}$ fit one side wall, and must land on the ground between the service zone and the back wall.
Any of the following will result in a "double fault" or loss of serve:
The server swings and misses the ball.
The served ball does not hit the front wall first.
The served ball hits the server on the way back.
Two consecutive single faults.
$\mathfrak{A n y}$ of the following will result in a "single fault":
The served ball hits the front wall and then the ceiling.
The served ball hits the front wall and then the back wall before the ground. (long serve)
The served ball hits the front wall and then the ground before passing the service zone. (short serve)
The served ball fits the front wall and then two side walls before the ground. (3 wall serve)
The served ball passes so close to the server that the receiver could not see it on the way back. (screen serve)

## Rallying

Players alternate fits. The player who is fitting the ball must hit the ball before it bounces twice on the ground. The ball may be into any wall and/or the ceiling, as long as the ball reaches the front wall before hitting the ground. If a player fits the other player with the ball, the rally is replayed. If a player touches the ball while it is the other player's turn to hit, the first player loses the rally.
Safety
$\mathcal{A l w a y s}$ we ar racquetball goggles when playing. If youdecide to get serious about the game, you'll find that all tournaments require them, so you may as wellget used to them now. Also, if you feelyou may fit your opponent with your racquet or the ball, please stop your swing!

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## Equipment

The standard racquetball court is 20 feet wide, 40 feet long and 20 feet high, with a back wall at le ast 12 feet figh.

The standard racquetball is $21 / 4$ inches in diameter, weighs approximately 1.4 ounces, fas a fardness of 55-60 durometer and bounces 68-72 inches from a 100-inch drop at a temperature of 70-74 degrees Fafirentieit.

The racquet, including bumper guard and all solid parts of the handle, may not exceed 22 inches in length. The clothing may be of any color.

## Glossary

" $A^{\prime \prime}$ Player: Some one who plays regularly; a top player in the club.
"B" Player: Someone who plays regularly and finds time to practice on their own to perfect their shots. "C" Player: Someone who fas played over six months; plays frequently, and is developing strengths in the 6asics listed for a $\mathcal{D}$ player.
" $D^{\prime \prime}$ Player: Some one who is just beginning to receive instruction, 6ut lacks playing experience.
Dead-ball serve: Results in no penalty and the server is given another serve (like a wet spot or broken ball.)
Eyeguard: Protective glasses that are required to protect the players'eyes.
Fault Serve: Caused by a foot fault, short serve, long serve, screen, serve that fits three walls, etc.
Handout: When the first server loses the serve in doubles.
Hinder: There are two types of hinders, including 1) a dead-ball finder which is replayed without penalty
(court finders, body contact, safety holdup, screens, etc.); and 2) an avoidable finder which result in the loss of rally by the offender.
Open: Classified as the highest level of amateur player.
Out serve: Double fault, server hits self, etc., results in a sideout.
Point: Only scored by the serving side.
Pro: Highest level of player who has generally accepted prize money regardless of the amount.
Ratings: Reflect players'skill levels, such as $\mathcal{A}, \mathcal{B}, \mathcal{C}, \mathcal{D}$, Open or Pro.
Sideout: Losing the serve in singles or when the second server loses the serve in doubles.

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For more information contact:
United States Racquetball Association
1685 West Uintaf
Colorado Springs, CO 80904
Phone: 719-635-5396
Fax: 719-635-0685
Internet: www.usra.org


## History

$\mathcal{N}$ o one is really sure when the first roller skates were used. It is likely that the first roller skates were an adaptation of ice skates and were used for transportation rather than sport.

The first recognized inventor of roller skates was a Belgian manufacturer named goseph Merlin. He produced the first roller skates with metal wheels in 1760 . He presented fis invention in London at a formal ball and rolled across the floor playing an expensive violin. The story is told that because his skates were unable to be turned or stopped, he glided gracefully into a fuge mirror and suffered serious injuries.

The first time roller skates were "successfully" seen in public was in 1849, when Frenchman Louis Legrange used roller skates to simulate ice skating in the play Le Prophete. He created fis skates by mounting tiny rollers down the center of ice skates.

In the mid 1800 s , a number of other inventors took up the call and many different types of skates were produced. All, however, suffered the same problems Merlin's skates had: the inability to be effectively controlled or stopped.
$\mathcal{N e w ~ Y o r k e r ~ I a m e s ~ P l i m p t o n ~ s o l v e d ~ t h e ~ p r o b l e m ~ o f ~ c o n t r o l l i n g ~ s k a t e s ~ i n ~ 1 8 6 3 . ~ P l i m p t o n ' s ~ s k a t e s ~ u s e d ~ a ~}$ rubber cushion to anchor the axles. This cushion would compress when the body was le aned, enabling the wheels of the skate to turn slightly when the skater shifted his or her weight. Plimpton's design is considered the Gasis for the modern roller skate.

Plimpton opened a number of rinks across America and Europe. He envisioned roller skating as a pastime for the rich alone, Gut soon after his patents expired, cheaper imitations flooded the market and skating became popular with all classes.

Organized roller skating sports developed as the popularity of roller skates increased in the late 19 th and early 20 th centuries. Roller hockey teams were playing throughout Europe as early as 1901.
$\mathcal{A l t h o u g h t h e ~ s p o r t ~ w a s ~ d i s r u p t e d ~ d u r i n g ~ W o r l d ~ W a r ~ I , ~ i t ~ q u i c k l y ~ r e g a i n e d ~ i t s ~ m o m e n t u m ~ a n d ~ t h e ~ f i r s t ~}$ World Championships in roller hockey were held in 1936 in Stuttgart, Germany. The first World Speed Championships occurred one year later in Monza, Italy.

Competition were also held in artistic skating, thoughthe first World Championships were not held until 1947 in Was hington, D.C.

The first U.S. Roller Skating Championsfips were feld in Detroit in 1937.
Today, roller hockey enjoys wide popularity abroad but is just now coming into its own in the United $S$ tates. In some countries, most notably Spain, Portugal, Italy and throughout South America, roller fockey is second in popularity only to soccer.

Roller hockey was played as a demonstration sport at the 1992 Summer Olympic Games in Barcelona, Spain. All aspects of roller skating .- roller hockey, speed skating and artistic skating - are included in the Pan American Games.

General Information

The amateur competitive roller skating programs of the US $\mathcal{A}$ Roller $S$ kating (US $\mathcal{A C} / \mathcal{R S}$ ) have been in place since 1937, training talented skaters into the best in the world. Today US $\mathcal{A}$ Roller Skating (US AC/RS) membersfip exceeds 32,000 skaters in the three branches of the sport .- speed skating, artistic skating
and roller hockey. These members, in turn, belong to more than 1,100 amateur skating clubs across the United $S$ tates.

In addition to promoting roller sports nationwide, US $\mathcal{A}$ Roller $\mathcal{S}$ Kating ( $\mathcal{U S} \mathcal{A C} / \mathcal{R S}$ ) organizes and facilitates opportunities for competitive roller skating by:

- registering and educating skaters and clubs, and certifying judges and officials;
- providing insurance for competing skaters, coackes, and for sanctioned competitions;
- developing program and competition rules;
- conducting seminars for skaters and coaches;
- approving requests for amateur roller sports competitions;
- Kosting regional and national championship competitions;
- selecting and training USA $\mathcal{A}$ katers for international competitions.

When deciding whether to become a USA Roller Skating (USAC/RS) skater, there are many things to consider. You want to be sure that you are entering a program that can provide you optimaleducation, competition, safety and fun. USA Roller Skating (USSAC/RS) meets all of these needs, through:

- participation in competitive authorized events, including exfibitions and roller skating shows, which could le ad to national and world titles;
- certified coaches that are, without question, the best in the world;
- secondary insurance protection: $\$ 25,000$ medical and $\$ 1,000$ dentalcoverage.
- local and national sport development seminars;
- opportunities to develop friendships across the country and around the world;
- guidelines on how meets are to be run, including certified officials to help assure safe meet conditions and fair competition;
- published rules and regulations so that everyone has a fair chance;
- two free issues of U.S. Roller Skating magazine, containing official notice of US $\mathfrak{A}$ Roller Skating (US AC/RS) board actions and rule changes;
- opportunities to hold office with USA Roller Skating (USAC/RS) and localclubs, and to become a commis sioned official.

To take advantage of these benefits and become registered members, skaters may join independently through a club in their area. $\mathcal{A} \$ 25$ membersfip fee permits participation in any sanctioned meet, regional or national championships for the competitive season from September 1st through $\mathcal{A u g u s t} 31$ st.
goining a Club

In order to give athletes the best opportunities for participation in artistic skating, roller hockey or speed skating at the skate center and in competition with other clubs, find out if your local rink has an official US A Roller Skating (US $\mathcal{A C} / \mathcal{R S}$ ) club charter. It's US $\mathcal{A}$ Roller $S$ kating (US $\mathcal{A C} / \mathcal{R S}$ ) that gives a club written, official permission to compete with other clubs and protects skaters from unsafe competition.

Each chartered club becomes part of one of nine US $\mathcal{A}$ Roller $S$ kating (US AC/RS) Regional Associations. Clubs have a vote in US $\mathcal{A}$ Roller Skating (US $\mathcal{A C} / \mathcal{R S}$ ) regionalconcerns, and club members have a direct, individual voice in discussions about competitive skating through their regional association. The US A Roller Skating (US $\mathcal{A C} / \mathcal{R S}$ ) Regional Association approves the officials selected for the regionalchampionsfips and accepts bids for hosting this prestigious competition. Skaters who succeed at any of these nine regional championsfips advance to the national championships.
$\mathcal{A}$ USA Roller Skating (US $\mathcal{A C} / \mathcal{R S}$ ) club is eligible for membersfip in regional and/or state associations well as more localized leagues. Through these affiliates, your club is entitled to participate and vote on issues on a local and nationallevel. Within the region, inter-club and invitational meets can also be organized, eventually paving the road to possigle leagues of teams who host regular competitions. Many of the regions
also offer the opportunity for additional recognition through awards banquets held at the conclusion of each season. These localcompetitions culminate in a regionalchampionshipeachyear, from which skaters progress to the national level and possibly on to the international level.

Your club will also receive a monthly issue (except $\mathcal{A}$ ugust) of $\mathcal{U l} . S$. Roller Skating, the official magazine of USA $\mathcal{A}$ Roller $\mathcal{S}$ Kating (US $\mathcal{A C} / \mathcal{R S}$ ). This magazine contains timely and informative ne ws on roller skating such as a calendar of events, competitive results, sports medicine articles, judges information, competitive requirements, officialnotices and feature stories. Individual skaters are invited to subscribe at a cost of $\$ 12$ per year.

In addition, roller fockey clubs will receive the monthly newsletter, Powerplay. Filled with up-to-date tips, competition results, informative articles and up-coming events, it folds the bond of communication between other USA Roller Skating (USAC/RS) hockey clubs across the country.

Many communities can take advantage of $\mathcal{U S} \mathcal{A} \operatorname{Roller} \operatorname{Skating}$ (USAC/RS) clubs in the areaby targeting other programs that have already attracted people of all ages. Opportunities include a cooperative arrangement with a localschool's physicaleducation class, or helping a youth group find alternative activities for its members. Local parks and recreation departments often will offer to promote the program as well as handle registration.

Sanctions: In order to hold an official meet with clubs outside of the host facility a club needs formal written permission from US $\mathcal{A}$ Roller $S$ Kating (US $\mathcal{A C} / \mathcal{R S}$ ), or, in other words, a sanction. When USA Roller $S$ Kating (USAC/RS) issues this permission, it means the competition will be conducted fairly, safely, and in compliance with US $\mathcal{A}$ Roller $\mathcal{S}$ Kating (US $\mathcal{A C} / \mathcal{R S}$ ) rules of the sport. For their own protection, skaters should never compete in meets that are not sanctioned. Specific guidelines concerning sanctions are outlined in the General Rules manual.

Coaching Program
Coaches are encouraged to join the USA Roller Skating (USAC/RS) Coaching Program, a service that involves a variety of education and certification levels. Coaches benefits from knowing that they have the resources to be the best in their field. Skaters are certain to receive the very best training, while rink operators enjoy the benefits from faving a fully-qualified professional taking charge of the compe titive program and possibly send skaters on to regional and national championsfips.

Benefits of the program include training programs and continuing coach's education, \$25,000 accident/injury insurance while coaching in a registered US $\mathcal{A}$ Roller Skating (US AC/RS) club facility or a sanctioned competition; and free liability insurance while coaching in a registered seminars. It also gives the privilege of coaching recognition by the U.S. Olympic Committee, eligibility for commission as an official without additionalfees, and eligibility to be a club officer in any discipline.

Registered $\mathcal{U S} \mathcal{A}$ Roller SKating (US $\mathcal{A C} / \mathcal{R S}$ ) coaches are also provide free of charge $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}$ technical manuals, distribution of General Rules and appropriate discipline teaching manuals, recognition pins for championsfip achievement, and a subscription to the official US $\mathcal{A}$ Roller $\operatorname{Skating}$ (US AC/RS) magazine U.S. Roller Skating, and the monthly coaching newsletter Roller Skating Coach.

When a club receives permission to host a contest, it must entist qualified officials for the event. Officials, including a meet director, must also be members of USA Roller Skating (USS $\mathcal{A C} / \mathcal{R S}$ ), and the ir qualifications can be determined by the commissions they hold. The level of commission is determined by training, testing and experience of the judge, referee and/or tabulators. Meet directors are certified by attending a meet directors certification program sponsored and conducted by USA Roller Skating (USAC/RS).

USA Roller Skating (USAC/RS), a non-profit corporation under Section 501 (c)(3) of the Internal Revenue Code, is the $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}(\mathcal{N} G \mathcal{B})$ for amateur roller skating in the United $S$ kates under the
$\mathfrak{A m a t e}$ ur Sports act of 1978 . US $\mathcal{A}$ Roller $S$ kating ( $\mathcal{U S} \mathcal{A C} / \mathcal{R S}$ ) is a member of the United $S$ tates Olympic Committee(USOC), the Federation Internationale de Roller Skating (FIRS), and the Pan $\mathcal{A m e r i c}$ an Sports Organization (PASO).

## Rules

Roller Hockey
All players may we ar in-line roller skates and the game will be played with a puck. For championship play the following rules will apply:

- The game will be played in two periods of 20 minutes each with a five-minute rest at half time. Each team is granted one time-out of one-minute duration per period.
- $\mathcal{A}$ "round robin" tournament shall be used, with the marking of points as follows:

2 points to the winner
1 point for a tie game
0 points to the loser
If addition of points bring two teams to an equal amount of points, and they are in a placement or move-up position, the team's position is determined as follows:

- A ten minute playoff game will be played with the victor being awarded a higher placement. If there is no victor after ten minutes, a three minute break shall be taken followed by a ten minute sudden death period. This process shall continue until there is a victor. After each period the teams shall switchends with no breaks between sudden death periods.
- 6) If three or more teams are tied and they are in a placement or move-up (to another division) position the teams position shall be de termined as follows:
- Team captains will draw to determine playoff schedules.
- Ulsing the game format in $2 a$ above a round robin playoff shall be played. shall be awarded as in point 2 above and the team with the most points shall be awarded the highest placement, the team with the next highest points awarded the next highest position and so on down the line.
- If two or more teams are still tied and they are in a placement or move-up position then the following shall take place to decide team positions
- The victor of the head to head competition in the playoff round shall be awarded higher placement position.
- If a tie still results from a) above then the next highest total of goals for minus goals against for the entire playoff round shall be used to determine position for tying teams.
- If any teams are still tied after a) and 6) above then a shootout will take place using four shooters fromeach team.


## Equipment

Roller SKates For Competitions
Roller skates as they are used for competitions today have the roller mechanism screwed to a special boot. This is necessary because other connections (such as straps and brackets) would not withstand the stresses of the competition and would not give the necessary stability. The proper fitting of the skates to the foot gives the skater sufficient safety and makes the performance of difficult skating figures possible. The better models of today are made of light metals to save on weight, the wheels consists of synthetics the hardness of which depends on the condition of the skating area to be used.

Roller In- Line Hockey

- Sticks: The sticks shall be ice hockey-style made of wood or other ice hockey approved material and must not have any projections. White adhesive tape may be wrapped around the blade for the purpose of reinforcement or to improve control of the puck.
- No stick shallexceed $1.5 \mathrm{~m}\left(60^{\prime \prime}\right)$ in length from the heel to the end of the shaft nor more than 32 cm from the heel to the end of the blade. The curvature of the blade of the stick shall not be restricted. The blade of the floor players'stickmust be a minimum of 5 cm and may not exceed 9 cm in width at any point.
- The blade of the goalkeeper's stick may not exceed 13 cm in width at any point except at the heel where it must not exceed 14 cm in width; nor shall the goalkeeper's stickexceed 39 cm in length from the heel to the end of the Glade.
- The widened portion of the goalkeeper's stickextending up the shaft of the Glade shall not extend more than 61 cm from the heel and shall not exceed 13 cm in width.
- A minor penalty shall be assessed any player, including the goalkeeper, for using a stick which does not conform to the provisions of this rule. Any illegalstick is to be kept by the referee until the tournament is over. Skates: Skates to be used will be in-line skates only and may consist of either three or four wheels. If skates are manufactured for four wheels, all four wheels must be in place. All wheel bolts and axles must be covered with protective materialso as not to injure other players or mar the skating surface. No quad or conventional skates will be permitted in World Championship play, although individual federations may allow the use of quad or conventional skates for domestic play.
- Skate brakes are optional on either the front or back of the skate.
- Any player found on the floor breaking any of the above rules will receive a minor penalty and may not return to play until the fault is corrected.
Goalkeeper's Equipment
- With the exception of skates and sticks, all equipment worn by the goalkeeper must be constructed solely for the protection of the head or body, and must not include any garment or contrivance which would give the goalkeeper undue assistance in kee ping goal.
- Note: The lacing or webbing or other material joining the thumb and index finger of the goalkeeper's glove or any cage, pocket or pouch created by this material, must not exceed the minimum amount of material necessary to fill the gap between the thumb and the index finger when they are fully extended and spread.
- Protective padding attached to the back of, or forming part of, the goalkeeper's gloves shall not exceed 20 cm in width nor 40 cm in length.
- Abdominal aprons extending down the thighs or the outside of the pants are profibited.
- Goalkeeper's pads when new shall not exceed 25 cm in extreme width as measured on the goalkeeper, and shall not be altered in any way. No more than 5 cm of expansion due to wear, shall be permitted.
- A minor penalty shall be assessed agoalkeeper guilty of using or we aring illegal equipment.
- Allgoalkeepers will be required to we ar approved face masks.

Protective Equipment

- All protective equipment except gloves, head gear or goal-keeper leg pad, must be entirely under the uniform. Leather elbow patches on the outside of the jersey are profibited. After one warning by the Referee, a minor penalty shall be imposed on the offending player for violation of this rule.
- All players must we ar $\mathcal{H E C C}$-approved helmets, with a chin strap properly fastened.
- It is compulsory for allgoalkeepers to we ar approved face masks.
- All players must we ar approved ice hockey, Gall hockey or LaCrosse gloves.
- All players must wear shinguards. Male players must we ar protective cup at all times during the game.
- A mouthpiece and face mask are optional, but recommended.
- Eyeglass wearers must have plastic, not glass, lenses in their eyewear.
- $\mathcal{A}$ minor penalty may be awarded for a violation of protective equipment.


## Glossary

## Roller Hockey

$\mathcal{B a r r i e r}$ : The railing, walls or boundary markers identifying the outer edge of the playing area.
Cage: (Also referred to as Goal Cage.) The net enclosed framework at each end of the playing area, into which the puckmust pass in order to score a point.
Center S pot: The exact center from either end and sides of the playing area. (See diagram.)
Chief Referee: Shall be in complete charge of game, players, all other officials, spectators and premises, responsible only to the jurisdictional authority of the $\mathcal{F I R S}$ Commission, and whose decisions shall be final. $\mathcal{F a c e}-O f f: \mathcal{T}$ wo players, each standing on the ir own defensive side of the center line at the center spot, with their own sticks held on the floor at least nine inches directly befind the puck and on the ir own side of the center line. All players shall stay on the ir defensive side of the center line until the referee blows his whistle. the sound of the referee's whistle, the puck is in play for all players.
Foul: Any personal or technical infraction of any rule as decided by the referee.
Goalie: The player equipped and assigned the position of defending one's own from goals.
Goal Iudge: S hall call only goals and carry out any other duties as assigned by the Chief Referee. This official is optional and use shall be determined by the Commission.
Penalty Time-Keeper: Keeps time penalties and monitors the penalty 6ox.
Referee: $\mathcal{A}$ commissioned referee appointed to assist the game referee.
Scorekeeper: Shall keep record of all scores, fouls and any other information required by the Commission on each player and team participating.
Skating Or Playing Area: The area betwen the end barriers and the side barriers of the area within the boundary markers as established by the referee prior to the start of the game. Dimensions of the rink surface may vary between 20 and 30 meters in width ( 65 to 100 feet) and 40 and 60 meters in length ( 130 to 200 feet) as long as the 1:2 ratio is observed.
Time- Keeper: Shall time all playing periods as instructed by the referee.

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For more information contact:
US A Roller Skating
PO Box 6579
Lincoln, $\mathcal{N} \mathcal{E} 68506$
Phone: 402-483-7551
Fax: 402-483-1465
Internet: www.usacrs.com


Rowing

## $\mathcal{H}$ istory

From the development of the concept of an oar working against a fulcrum (sometime after 1000 B.C.) until the present, rowing has Geen an efficient means of transportation. In the past 500 years whate boats, captains' gigs, surf rescue boats, ferrymen, fishermen and many others have turned to oar-propelled boats. And from the beginning, any time there were two or more Goats, sooner or later there was a race, whether for business, for honor, or purely for the sport of it.

Rowing began to develop as a sport in the early 19 th century. In England, boys at Eton were racing in eights by 18 11, and the first Boat Race between Oxford and Cambridge was held in 1829. In the United States, the first boat club appeared in $\mathcal{N e w ~ Y o r k f i r b o r ~ i n ~ 1 8 3 4 , ~ w h i l e ~ a ~ Y a t e ~ s t u d e n t ~ b e g a n ~ i n t r a m u r a l c o l l e g e ~}$ rowing with the purchase of a second-hand White hall boat for $\$ 29.50$ in 1843 . Soon rowing had spread across the country. The Detroit Boat Club (founded in 1839) has the fonor of being the oldest club in the country still active in the sport. The Schuylkill Navy was organized in 1858 by the Philadelphia boat clubs, and is the oldest sporting organization still in existence.
$\mathcal{A s}$ the country's population began to move to the cities following the Civil War, they soon seized upon sports and outdoor activities to fill their free time. Leading the way were horse racing and boat racing, the latter involving amateurs, professionals and college students. Regattas increased from 10 or 12 before the Civil War to over 150 in 1872, and were held from Savannah to Sacramento and Maine to Milwaukee. By 1873 , there were 289 rowing clubs, 74 in New York, 12 in Georgia, 14 in Michigan, 5 in Iowa and 14 in California.

Professional rowing was enormously popular in the second half of the 19 th century, 6ut 6y 1900 had virtually disappeared. Prizes varied from $\$ 25$ for beginners to $\$ 6,000$ or more for the famous Canadian, $\mathcal{N e}$ Hanlan. The professional scullers became popular as colorful personalities, while the regattas themselves became exciting events with crowds, food, drink, entertainment, and gambling. It was the gamblers who hastened the end of professional rowing, with rigged races and such dirty tricks as boats sawed in falf.

Both the amateurs and college athletes wanted to distance themselves from the professionals. The $\mathcal{N}$ (ational Association of $\mathcal{A m a t e}$ ur Oarsmen (renamed the United States Rowing Association in 1982) was established in 1872 . It was the first national sports governing body in the country, and also the first to establish a definition of an amateur. This early schism between amateurs and professionals is unique to the sport of rowing, and has continued to this day.

The popularity of amateur rowing clubs waned some what in the early part of the 20 th century, but the stronger clubs survived. One of the strengths of the clubs fas beentheir emphasis on small boats, which de mand greater skill yet also allow working adults more flexibility.

Early college racing was in sixes, with no coxswains. Due to the endless fouls and accidents, they gradually switched to eights with coxswains. The first intercollegiate race was in 1852 on Lake Winnipesaukee, New $\mathcal{H a m p s}$ fire, Getwe en Harvard and Yale. What soon became an annual race between the two schools changed locations several times before settling in $\mathcal{N e w}$ London, $\mathcal{C T}$, in 1878 . Other colleges were soon rowing and, in
 $\mathcal{W i l l i a m s}, \mathcal{B o w d o i n}, \mathcal{H a m i l t o n}, \mathcal{Z}$ nion and Princeton) raced Gefore 25,000 people at Saratoga, $\mathfrak{N} \mathfrak{V}$.

Various match races and at least one collegiate association came and went, until the ancestor of the present-day Intercollegiate Rowing Association was established in 1895 at Poughkeepsie. Initially made up of easterncolleges, Wisconsin (1897), Stanford (1912), Washington (1913) and California (1921) soon joined.

In 1929, the $\mathcal{N A A O}$ voted to accept college members, but the clubs and colleges remained se parate, with few college oarsmen continuing to row in the clubs following graduation.

The distinction was clear in Olympic rowing. Beginning with $\mathcal{N a v y}$ in 1920, $\mathfrak{A m e r i c}$ an college eights won eight successive Olympic Gold medals. The small boats were filled by club oarsmen, who usually gained 3 or 4 medals in each Olympiad. Americandomination of the Olympic eight event ended in Rome in 1960. Changes in style, training methods, and rigging led to the emergence of first the West Germans and then other countries as major world rowing powers. The biggest changes have been in training: speed, endurance and strength can be improved much more effectively and efficiently today.

Two other changes have also affected American rowing in the past 25 years. The first is the appearance of women. Although women were rowing at Wellesley College in 1877 , and soon after in a few other isolated clubs and schools around the country, the activity was strictly intramural, and intended to be primarily "healthful and recreational". A few women were rowing, but women were not a part of rowing.

That Gegan to change in the early 1960 s. The National Women's Rowing Association was founded in 1962. $\mathcal{F o u r}$ years later, the first $\mathfrak{N} \mathcal{W} \mathcal{R A} \mathcal{N a t i o n a l s}$ was held in Seattle, with fewer than 100 competitors. Today, $\mathcal{A m e r i c a n}$ women rowers are among the best in the world, they are a part of the US RA governing structure, they row at ne arly every college and club at which men row.

The other major change fias been the development of the "recreational" shells. Less expensive than a racing single, the recreational single fas an even more important feature: a comple te novice canget into one and start rowing immediately. $\mathcal{A}$ racing single is of ten only 12 inches wide, and le arning to row us ually involves a fair amount of swimming. The extra stability of the recreational singles and doubles allows the Geginner to enjoy the sport from the start. It also lets the more experienced row in the rougher water of bays, ocean coasts, and large lakes and rivers, where a racing single would swamp. The recreational single fas been a major factor in popularizing the sport.

Today the United States Rowing Association has a diverse membership of 16,000 and is growing with every year. In 1999, almost 750 clubs, colleges, and high schools from around the country were member organizations .- the fighest total in association history. The sport is quietly becoming a phenomenon. Olympic athletes, fomemakers, business people, youth, senior citizens, disabled individuals, athletes from other sports and those discovering the sport for the first time, those who wish to race and those who row for fitness are finding that rowing can meet almost any need and interest. If rowing is, indeed, the sport of the '90s, it is certainly easy to see why.

## General Information

$\mathcal{A s}$ a membersfip organization, the United States Rowing $\mathcal{A s s o c i a t i o n ( U S R o w i n g ) ~ e x i s t s ~ t o ~ s e r v e ~ i t s ~}$ members, providing leadersfip and opportunities for all people to experience rowing from recreation to Olympic victory. Olympic hopefuls are members of USR Rowing, 6ut so are men and women of all ages who row for fitness, competition and fun. Rowers across the country are members USS Rowing.

US Rowing, which was established in 1872, is the oldest National Governing $\mathcal{B o d y}$ for amateur sport in the United $S$ tates.US Rowing is recognized by the United $S$ tates $O$ Cympic Committee as the National Governing $\mathcal{B o d y}$ for the sport. The Association is responsible for the selection, training, and management of the US Rowing $\mathcal{N}$ (ational $\mathcal{T}$ eam that represents the $\mathcal{L l n i t e d} S$ tates in internationalcompetition, including the Olympics and World Championships. US Rowing is the U.S.representative of the $\mathcal{F e}$ deration Internationale des Societes d'Aviron ( $\mathcal{F} I \mathcal{S} \mathcal{A}$ ), the International Governing $\mathcal{B o d y}$ of rowing.

## Rules

Each crew is allowed one false start; two means disqualification. If, within 100 meters, there is legitimate equipment breakage, there will be a restart.

Crews may move anywhere within the course during the race as long as they do not impede another crew. If a crewstarts in lane 1 and is in lane 3 by the 500 meter mark, continues heading out and ends up crossing the finish line in lane 5 without interfering with the progress of any other boat, the race is fair.

Beginning in 1995, FIS $\mathcal{A}$ upped the minimum weight for coxswains; men must now weigh at le ast 121.2 pounds ( 55 kg ) and women cannot weigh less than 50 kg (110 pounds). Coxswains who weigh less than the minimum are forced to carry additional weight. In international competitions, coxswains must be the same gender as the crew.

There is an international rule requiring all members of the crew to wear the same headgear and uniform.
$\mathcal{F l a g s}$ are the referees' way to signalcrews. Red means stop and is used to start the race. White flags signal a fair race and direct a crew headed for trouble.

Lightweight events indicate the weight of the rower, not the boat. Lightweight women average 57 kg (125 pounds) with no individual over $59 \mathrm{~kg}(130$ pounds). Lightweight men average 70 kg ( 155 pounds) while the maximum for any individual is 72.5 kg ( 160 pounds). All rowers weigh in each day they race. The window of opportunity for weigh ins is not more than two hours and not less than one hour before their first race of the day.
$\mathcal{F} \mathcal{S} \mathcal{A}$ allows only amateur rowers to compete in its events. Only one sponsor name is allowed on the shaft of an oar; one on the clothing ( $50 \mathrm{sq} . \mathrm{cm}$ ) and no more than one company repeated four times on each side of an eight; twice on a four or quad and once on each side of a pair, double or single skull.

Substitutions in crews are allowed up to one hour before the first heat. However, no more than 50 percent of the crew can be changed from the officialentry. If someone becomes injured or ill, he or she can be replaced, yet can return to the crewlater at a world championship.

Crews must be ready at the start two minutes prior to race time. Late arrivals may be assessed a false start.

Use of electronic devices to coach from shore are not allowed.

## Equipment

Rowing boats are called shells. All sculls are shells, but not vice versa. Boats with each person having two oars are called sculls and rowers who use two oars are called scullers. Some rowers use one oar and they are called swe ep rowers.

Originally made of wood, the ne wer competition boats are made of carbon fiber or honeycombed fiberglass. Singles are 27 feet long and may weigh as little as 14 l6. Competitive singles are as narrow as 10 inches across and the oars are thinner and lighter than sweep oars.

The single scull is known as the single. It is one person with two oars. An Olympic single sculler is capable of rowing approximately 10.6 mph .

Of the 14 events in the Olympic Games, eight are in the sweep rowing discipline. S weep rowing differs from sculling because the swe p rowers use only one oar. Generally, rowers sit in configurations that have the oars on alternating, port and starboard, sides along the boat. Occasionally, a coach may rig a boat so that
two consecutive rowers are on the same side in order to accommodate crews and equalize the athle tes' power.

The oars used by the swe ep rowers are similar in shape to those the scullers use; however, swe ep rowers' oars are longer (12-13 fee) than scullers'oars (91/2-10 feet). The standard oar de sign was symmetrical in shape, but a newoar was developed a fewyears ago which is exclusively used at the international level. It is the big blade commonly called the "hatchet") and it differs from the traditional oar in that it is shaped asymmetrically with a greater surface area and shorter length. The thought is that with a greater surface area and shorter span, the forces working to move the boat will be more efficient.
$S$ weeps rowers come in pairs, fours and eights, and may or may not carry along a coxswain (pronounced cox$n$ ), who is the on-the-water coach and navigator. In the boats without coxswains, also known as "straight" boats, one of the four rowers works the rudder with his foot while rowing.

## Glossary

Bow: Forward section of the boat. End of the boat which crosses the finish line first (crewalways faces the stern).

Bowman: The person in the seat closest to the bow, who crosses the finish line first.
Coxswain: The person who steers the shell and is the on-the-water coach for the crew. Must weigh at least 110 pounds.
Deck: The part of the shell at the bow and stern that are covered with fiberglass cloth or thin plastic. Ergometer: Rowers call it an "erg." It's a rowing machine that closely approximates the actual rowing motion.
$\mathcal{F I S} \mathcal{A}: \mathcal{F e}$ deration Internationale des Societes d'Aviron, International Governing $\mathcal{B o d y}$ for rowing, established in 1892.
"I caught a crab": Rower saying meaning the blade entered the water at an angle, instead of perpendicularly. As a result, it caught under the surface of the water. Most likely to occur in choppy water and poor conditions.
Oar: Uled to drive boat forward; rowers do not use paddles.
Port: Left side of the boat.
Power 10: $\mathcal{A}$ callfor rowers to do 10 of their best, most powerful strokes.
Repechage: Second round of competition whichensures that everyone fas two chances to advance from preliminary races since there is no seeding in heats.
Run (or Spacing): The distance the shell moves during one stroke. Good spacing means the crew is making the boat work while they are preparing for the next stroke.
$S$ lide: The set of runners for the wheels for each seat in the boat.
Starboard: The right side of the boat.
Stern: The rear of the boat; the direction the rowers are facing.
Stretcher or $\mathcal{F}$ oot Stretcher: Where the rower's feet go. The stretcher consists of two inclined foot rests which hold the rowers shoes. The rowers shoes are bolted into the foot rests.
Stroke: The rower who sits closest to the stern. The stroke sets the rhythm for the boat; others befind fim must follow fis cadence.

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For more information contact: United States Rowing Association, Pan American Plaza, Suite 400,201 South Capitol Ave., Indianapolis, IN 46225, Phone: 317-237-5656; Fax: 317-237-5646, Internet: www.us rowing.org, Email: usrowing@aol.com

## Saifing

## $\mathcal{H i s t o r y}$

The Olympic Yachting event debuted at the 1896 Games in Greece.
The U.S.competed in the first Olympic Yachting events feld in 1900, 6ut not again until 1928. A Yachting Team has been sent to every Olympic Games thereafter, with the exception of 1980 when no U.S. Teams attended the boycotted Games in Russia.

The U.S. won its first Olympic Yachting medals at the 1932 Games in Los $\mathcal{A n g e l e s}$, taking gold in the $S$ tar and 8 Meter classes, and silver in the 6 Meter class.

The U.S. is the undisputed leader in Olympic Yachting, with a totalmedal record of 58. 23 of the Ul.S. medals have been won over the last four Olympiads.

In 1948 Hilary and Paul Smart were the first father and son in the same sport to win Olympic gold.
In 1984 Bill and Carl Buchan (father and son) were gold medal winners in different classes (Star and $\mathcal{F l y i n g}$ Dutchman).

In 1984 Bill $\mathcal{B u c h a n}$, at age 49, was the oldest member of the U.S. Olympic Team.
In 1988 the first women's event was raced in the doublefanded division. (The Ul.S. won Olympic gold in the event which was sailed in 470 s .) In 1992, two additional women's divisions .. singlefranded and windsurfer... were added.

At the Summer Games in Barcelona, the 1992 U.S.Sailing $\mathcal{T e}$ am won more Olympic medals ... one gold, six silver, and two bronze .. than any other country.
$\mathfrak{A m o n g}$ all 1992 U.S. Olympic sports teams, only $\mathcal{A}$ thletics and $S$ wimming fiad a better medal count.
1992 marked the first-ever Olympic match racing event. Soling sailors progressed from fleet racing among 24 nations to match racing among the top sixfleet finishers to determine the medal winners. (The U.S. won OCympic silver in the event.)

Sailing ranks 44 th in the number of participants out of the 53 sports recognized by the $\mathcal{N a t i o n a l} \operatorname{Sporting}$ Goods Association.

Approximately 4.1 milfion $\mathcal{A m e r i c a n s ~ p a r t i c i p a t e ~ i n ~ r e c r e a t i o n a l ~ s a i l i n g . ~}$
Sailing is the 17 th fastest-growing sport in the USS $\mathcal{A}$.
Approximately $40 \%$ of sailors are 25 to 44 years old, $17 \%$ are aged 7-17.
$\mathcal{N e}$ arly $60 \%$ of sailors live in the coastal states of the East and South and $45 \%$ have incomes ranging from $\$ 35,000$ to $\$ 75,000$.

Private sailing schools teach 100,000 people a year, while community programs take in 300,000 more.
The Olympic Classes/Events
For 2000, eight one-design class boats have been chosenfor the 10 Olympic events:

Europe Women's Singlefanded Dinghy
Finn Men's Singlefranded Dinghy
470 Women's Two-Person Dinghy
$470 \quad$ Men's $\mathcal{T}$ wo-Person Dinghy
49er High-Performance Open Dinghy
Laser OpenCenterboard Dinghy
Mistral IMCO Women's Windsurfer
Mistral IMCO Men's Windsurfer
Soling Open Keelboat/Match Racing
Tornado Open $\mathcal{T}$ wo-Person Multifull

The Meaning of One-Design
$\mathcal{A l l}$ eight classes are International Yacht Racing Union (IYRU)-approved for Olympic competition; have international organizations and controlled racing rules; and represent the best competition in the sport.
The term"one-design" refers to a class Goats' strict standards for materials and methods used in construction. Ultimately, each Olympic boat .. Guilt only by IVRUlicensed boat builders to precise size and weight specifications .- is identical to another in its class. The purpose of one-design class racing is to allow the best sailor .- not the best boat .- to win.

Class descriptions
Europe (Women): Designed in Belgium by Alois Roland in 1960, the Europe is often called the small Finn because of the Goats' similarity of design… Goth one-man centerboards with many controls. Though tecfnically open to any sailor, because it's ide alfor sailors weighing 100 to 170 lbs , the Europe has attracted international women's competition since it was first marketed.

Boat handling is the key attraction of the Europe with its slick trimming design, which allows a wide range of ballast, mast and sail adjustments tailored to the sailor's height, weight and experience. The mast and sail, as well as a variety of other controls, are selected and adjusted to the sailor's height, we ight and experience. The 99-lb. Europe's $16^{\prime} 6^{\prime \prime}$ mast supports 76 square feet of sail. The Goat's small light frame makes it easily transportable, another reason why more than 20,000 Europe sailors compete in local, regional, national and world cup competition. Finn (Men): Designed by S wedish sailor Richard Sarby in 1949, this high-performance, refined sailboat ranks as one of the world's great boats. Winner of a design competition to provide the best possible singlefanded boat for the 1952 Olympics, the new Finn challenged the sailor to the maximum, which immediately attracted many competitors.

Sailing the Finn is perfiaps the purestathletic experience in world class sailing today. Because the 115. square-foot sail is fully adjustable with its shape bearing directly on performance and boat speed, the Finn is extremely responsive and mastery of the craft is rarely fully achieved. Finn sailors may fave sailed the craft for years, yet find some small nuance of tactics, weight or other adjustment yielding a greater result and luring them to a lifelong love of the boat.
$\mathcal{A}$ one-man centerboard dinghy, the Finn requires tremendous physical exertion and mental concentration. Finn sailors average more than $6^{\prime}$ in height, and generally weigh in at $175+l 6 s$. Yet, even at this size, they often carry extra weight in water jackets for racing in heavy wind. Finn sailors train fard for competition and are known as well-rounded athletes with proven general sailing skills. This combination of excellent craft with sophisticated competitor makes Finn racing unique. The Finn remains today as the oldest continuous class in Olympic sailing. 470 (Men and Women): The everyman boat of competitive racing, this two-handed centerboard boat was designed in 1963 by French architect $\mathcal{A n d r e}$ Cornu as a modern figh performance fiberglass planing dinghy which could be sailed by anyone. The craft so influenced Europe an
sailing that the 470 is directly credited with encouraging new sailors to the sport during the 1960 s and $1970 s$.
$\mathcal{A} n$ Olympic class boat since 1976, 470s are today sailed worldwide for both family recreation and superior competition. The 470 is so popular that its annual World Cup event is considered one of sailing's major international regattas, and is attended by many sailors and spectators from around the world.
$\mathcal{A}$ light and narrow boat, the 470 responds easily and immediately to body movement. Thus, sailors' teamwork and tactics complement one another. The skipper is smaller and lighter ( $5^{\prime} 5^{\prime \prime}$ to $5^{\prime} 10^{\prime \prime}$ and 125 . 140 (6s.), and the crew is long and le an ( $5^{\prime} 10^{\prime \prime}$ to 6'2"yet only 135-150 (6s.). The crew's build le ts fim or fer fing far out on the trapeze to keep the boat level in all conditions.

In 1988, women officially entered Olympic sailing competition with the first-ever Women's 470 class. This boat is especially well-suited to women's competition because of its light weight, mane uverability and light crew weight requirement. The United States won the first 470 Women's gold medal. Laser (Open): Designed by Bruce Kirby in 1969 and first produced in 1970, the Laser caught on during a boom period for recreational sailing. Called the world's premier one-man racing sailboat, the Laser motivated more sailors.. from juniors to masters - to excel in the sport than any design in the history of sailing. It's fast, responsive, lightweight (can be transported on a car top), and virtually maintenance free. The Laser's accessibility and modest price make it an Olympic sailor's dream. An added bonus are the numerous worldwide regattas held each year by the Laser Class Association.

Though the Laser is offered with three different rig sizes for different weights and skill levels, it is the International Laser that has been selected for the Olympics. With 76 sq.ft. of sail and a hull that measures $13^{\prime} 11^{\prime \prime}$, the International Laser is ide alfor the singlehanded sailor of 150 pounds and over.

The Laser's design has proven its ability to survive, reaching its current levelof popularity with minimal backpedaling over the years. Perfaps it because every sailor seems to come in contact with the Laser at least once in fis or fier sailing career, and the boat is so endearing that many cannot continue racing without getting back to their Laser roots at least once in a while. Mistral (Men and Women): Windsurfers are the fastest monohull sailing crafts in the world today. It is believed that there are more windsurfers worldwide today than all other sailboats combined. The popularity of boardsailing is due to the craft's small size, low cost, portability and the excitement of "flying" over the water-a sensation of speed further entranced by the sailor's close proximity to the water.

In 1984, the Windglider Grand windsurfer was first entered in Olympic competition. In the 1988 and 1992 Olympics, the Lechner II was used. A first-time women's division was added in 1992. The Mistral, which replaced the Lecfner in 1996, will again be used in Sydney for the Men's and Women's divisions. Me as uring in at $12^{\prime} 2^{\prime \prime}$, this popular fiberglass windsurfer is topped by a 7.4 square-meter sail. The IMCO
(International Mistral Class Organization) is the largest one-design windsurfing class in the world, making the Mistral a very practicalchoice for the Olympics in terms of accessibility.

Physically, the best boardsailors sailors are tall, le an and agile. Standing while sailing, these athle tes utilize tremendous upper body strength to support and control their rigs. As the wind increases, the sailors' strength often governs. Yet, it is common to see a 105 -l6. woman complete a race in the same time as a 150 [6. man, thereby proving that balance and sensitivity to the board are equally critical. Soling (Open): The longest and heaviest of the classes, the Soling keelboat is the only three-handed sailboat in Olympic competition. Designed in 1964 by $\mathcal{I}$ an $\mathcal{H e r m a n}$ Linge of Norway, the Solings raced worldwide today are built from I IRRL-measured plugs which must be approved before le aving Norway where they are manufactured.

In 1992 match racing was introduced as part of the Olympic Soling event. After a fleet race, the top six Goats advance to the round-robin of match racing to determine the three Olympic medalists. Match racing
in the Soling class aggressively challenges the sailors and is more exciting for both spectators and tele vision vie wers.

Soling sailors are big, averaging 190 to 210 lbs. Because sail trimming and tactics are shared, Soling athletes are fine sailors and strategists. Often considered the senior of Olympic classes, to which sailors graduate in their second or third Olympic campaigns, a Soling demands racing in order to achieve maximum competence even though many Solings are owned purely for family recreation. Tornado (Open): Designed in 1966 in England by Reg White, the Tornado catamaran entered Olympic competition in 1972 . The fastest OCympic class boat with 15-20 knots average speed, at maximum, Tornados reach 30 knots.

The simplicity of the Tornado design alfied to its excellent performance fias produced a boat that delivers exciting competition and challenge, the sailing ultimate.

The clean, stiletto-shaped $20^{\prime}$ 'long full and large sail to low weight ratio explain Tornados' aerodynamics. 272 square feet of sail area over the catamaran's 9'11" beam give incredible acceleration. Five seconds before the gun and motionless at 50'from the start, Tornados will cross the line at the gun at top speed! Familiar with aerodynamics in order to control the Goat's quick response to wind and waves, Tornado sailors are oftencalled"daredevils". Because of the incredible boat speed and dangerous ease of capsizing, Tornado crews are tall and lean in order to hang far out on the trapeze.

## General Information

U.S.Sailing was founded as the North American Yacht Racing Union, in October 1897, to promote yacht racing and unify the racing and rating rules in the United $S$ tates and Canada and throughout the yachting world.

In I anuary 1975, along with a name change to the United $S$ tates Yacht Racing $\mathcal{Z n}$ ion, the organization was
 formed the ir own saifing federation in 1931.) A second name change to the United $S$ tates $S$ ailing Association, to be known as U.S. Sailing, tookplace in October, 1991. This newname more accurately describes the broader activity of the non-profit organization and clarifies the administration's intention to fulfill all the responsibilities of an $\mathcal{N G \mathcal { B }}$ under the auspices of the $\mathfrak{A m a t e}$ ur $\mathcal{S}$ ports $\mathfrak{A c t}$ of 1978 .
U.S.Sailing's mission is to govern, promote and represent sailboat racing and to promote the sport of sailing through the efforts of volunteers and member organizations at all levels of the sport in the United States.

The geographic jurisdiction of $\mathcal{U} . S$.S aifing is divided into 10 "Areas" composed of $\mathcal{S}$ ailing $\mathcal{A s s o c i a t i o n s}$ and Yacht Racing Associations. A primary function of this system is representative, with each are a having an "Area Director" on the Board of Directors. The delineations serve many functions such as the administration of educational programs and nationalchampionships, certification of officials, and much more. Divisional Committees, composed of volunteers, direct these activities, programs and services. The Olympic Yachting Committee is charged with recruiting and developing athletes for Olympic competition.

## The Olympic Sailing Committee

The Olympic Sailing Committee is one of the standing committees of U.S.Sailing, and is responsible for the selection and training of the U.S.Sailing Team. The members of the OSC include the chairman, representatives from each of the Olympic class organizations, former Olympians, coaches and others appointed for their specific expertise (e.g., public relations, sports medicine, tecfnology).

Although the U.S. first competed in the Yachting Olympics in 1900, medalsuccess in the sailing events was not achieved until 1932. Prior to 1960, there was no formal Olympic program. Every four years, the U.S. organizations representing the Olympic classes .- designated for Olympic competition by the International

Sailing $\mathcal{F e}$ deration (IS $\mathcal{A F}$.. formerly the International Yacht Racing $\mathcal{Z n}$ nion) ... held trials, with the winners going to the Games. Established to organize and supervise the Olympic effort, the OYC's ability to create an effective program initially was encumbered by a meager $\$ 25,000 /$ year 6 udget, inexperience and few role models.

In 1977, Sam Merrick, a life-long racing sailor ne aring the end of a 40 -year career in public service, was asked to consider active involvement in the OYC. Told that his participation would involve a time commitment of perfips one afternooneach week, Merricksoon found it necessary to retire and devote fimself full-time as OYC Director. In 1980, after the boycotted Olympic Games in the Soviet Union, Merrick added the OYC Chairmansfip to his job as OYC Director. In the aftermath of the boycott, Ul.S. Olympic sailing was in disarray. Sailors were disillusioned and dis appointed, and many had either left, or were considering le aving, Olympic competition.

It was Merrick, along with severalother prominent sailors, who toured the nation giving clinics and speeches to promote Olympic sailing. At the same time, the OYC established its organizational structure, developed a coacking program and began a grants program for competition abroad.

In essence, Merrick's directionguided the Olympic Yachting Committee to become what had been intended from the start. The budget increased to more than $\$ 200,000$ in 1980 and exceeded $\$ 750,000$ in 1984, all under Merrick's firm administration.

In 1984, for the first time in U.S. Olympic sailing, a required post-Trials/pre-Games training camp was run in Long Beach, California, venue of both the Trials and the Games. Tuning partners for each competitor; daily team meetings; on-the-water coacking with photographic analysis; and other training techniques were instituted. Through the four-we ek camp, a group of top-notch individuals became a cofesive team, all le arning, training and sharing their expertise.

The efforts paid off with a U.S.swe ep of the Yachting event-seven medals in seven events (three gold and four si(ver) -. the best record of any Ul.S. team competing at the' 84 Games.

In writing proposals for critical USOC funding, it became apparent that sailing did not have a focused and marketable program. The U.S.Sailing Team was created as an umbrella for the Olympic and Pan $\mathcal{A m e r i c a n}$ teams, plus those sailors named annually to the Team who we re ranked top five in each Olympic discipline. USOC and corporate funding increased, as did awareness of the $\mathcal{T e}$ am within the sailing community. Being named to the $\mathcal{T e}$ am has become an important goal for sailors with Olympic campaigns. Today team members receive clothing, a membersfip card and certificate, fundraising assistance, and travelgrants for overse as competition.

## Rules

Sailing Basics
Speed, Strength, and $S$ marts are three essential keys to unlocking success in any sport, and sailing is no different. A speedy sailor may not have the physical or mental endurance required to give it his or her all to the end of the race. A strong sailor may lack the savvy needed to make the best use of wind, current, and position relative to other boats. A smart racer may lack the speed or strength necessary to burst afead of the pack. The best sailors develop all three aspects of their racing to their fullest potential, creating a complex sport which takes years to master.

Racing Strategy
The basic principles of sailboat racing are get ahead and stay ahead. Sailors learn to analyze weather patterns and read the wind on the water so they can predict where to go on the race course. They use specific plays and moves to pass competitors and position themselves advantageously. Once ahe ad, a good
sailor keeps aclose eye on competitors, preventing them fromgaining the upper hand. Sailors often 6 lock competitors from passing them by staying between them and the finish line .. a tactic called "covering."

Types Of Racing
There are two major types of racing: one-design and fandicapped. One-design racing is used for the Olympic Regatta. In one-design racing, the first boat to cross the finish line wins the race. In fandicapped racing, boats with different ratings compete against the clock and win by having the fastest corrected time.

Courses
There are two major types of race courses:closed-course and long-distance. A closed-course has been used for the Olympic Regatta. Also Known as "round-the-buoys" racing, closed-course racing is staged on a course delineated by "marks".- Guoys which competitors must turn around or pass on a specified side. The course is usually much shorter than in long-distance racing, lasting anywhere from 15 minutes to four hours in length, and multiple races are held during the course of a regatta.

Rules
Sailboat racing world-wide is governed by the International Yacht Racing Rules. The rules dictate which Goat has the right of way when two or more boats converge; what constitutes safe and fair sailing; the racing format; and the scoring system. Competitors are expected to enforce the rules themselves, but when a discrepancy occurs, the rules infraction is taken before a "jury" during a "protest hearing" after racing where the boat in the wrong will be disqualified from the race. A boat that admits fault during the race may accept an alternative penalty, specified by the rules, and still keep its score in the race. Iudges may also file their own protest if they observe an infraction that is not protested by any skipper and may either decide a penalty immediately on the water or later in the jury room.

## Scoring

The Low-Point Scoring System, the most common form of scoring, will be used with one point awarded for first place, two points awarded for second place, three points awarded for third, etc. $\mathcal{A}$ boat's overall score will be equal to the sum of its race finishes and the competitor with the lowest point total wins. A
 Compete ( $\mathcal{D N}(C)$ or Retirement ( $\mathcal{R E T}$ ), receives a score equal to the number of competitors entered in the regatta plus one point. Often, in a long series where several races are scheduled, competitors will be allowed to discard the ir worst score or scores from the ir overall point total. The excluded finish is called a "throw-out" or "drop race." Scores are not final until the "protest period" after each day's racing has ended and all protests are decided.

## Equipment

There are eight one-design class boats that were chosenfor the 1996 Olympic Games:

- Europe: Women's singlefanded dinghy. Often called the small Finn. It is idealfor sailors weighing 100 to 170 pounds. The Europe has slicktrimming design. It weighs 99 pounds and its $16^{\prime} 6^{\prime \prime}$ mast supports 76 square feet of sail.
- Finn: Men's singlefanded dinghy. The Finn has a 115-square foot sail. Finn sailors average more than $6^{\prime}$ in height, and generally weight in a $175+$ pounds. It is the oldest continuous class in Olympic sailing.
- 470: Women's two-person dinghy and men's two-person dinghy. This is a two-fanded centerboat and used today for both family recreation and superior competition. It is a light and narrow boat and the skipper is smaller and lighter ( $5^{\prime} 5^{\prime \prime}$ to $5^{\prime} 10^{\prime \prime}$ and $125-140$ pounds), and the crew is long and le an ( $5^{\prime} 10^{\prime \prime}$ to 6'2" yet only 135-150 pounds) It is especially well-suited to women's competition because of its light weight, maneuverability and light crew weight require ment.
- Laser: Open centerboard dinghy. It is a fast, light and responsive boat. It is offered in three different rig sizes for different weights and skill levels. It made its Olympic debut in 1996. With 76 square feet
of sail and a full that is $13^{\prime} 11^{\prime \prime}$, the International Laser is ide alfor the singlefanded sailor of 150 pounds and over.
- Mistral IMCO: Men's and women's windsurfer. Windsurfers are the fastest monofull sailing crafts in the world. Me as uring in at $12^{\prime} 2^{\prime \prime}$ this popular fiberglass windsurfer is topped by a 7.4 square-meter sail. Standing while sailing, the best boardsailors are tall, le an and agile.
- Soling: Openkelboat/match racing. The longest and heaviest of the classes, the Soling keelboat is the only three-fanded sailboat in Olympic competition. Soling sailors are big, averaging 190 to 210 pounds.
- Star: Open two-person Keelboat. The Star is a two-handed Keelboat, with a sleekfiberglass full and aluminum spars. It has a 285-square foot sail are $a$, long 600 m and narrow waterline. The skipper and crew must be very big, averaging a combined weight of 420 pounds.
- Tornado: Open two-person multifull. The Tornado is a catamaran and is the fastest Olympic-class boat with 15-20 knots average speed. It has a stiletto-shaped 20'-footlong hull and 272 square feet of sail over the catamaran's 9'11" beam.


## Glossary

- Abeam (Onthe Beam): Adirection off the side of a boat.
- Aft: Towards, near, or at the backend of a boat.
- Apparent Wind: The wind that flows over a moving boat, which is the result of the "true wind" affected by the movement of the boat.
- Bailers: Openings in the bottom or transom of a boat to drain water when sailing.
- Batten: $\mathcal{A}$ thin wooden or plastic strip inserted into a pocket on the back part (Leech) of a sail.
- Beam Reach: Sailing at approximately 90 degrees to the wind source with the wind coming from abe am and the sails let out about half way.
- Bear Away/Bear Off: See Head Down.
- Beating (Close Hauled, On the Wind): Sailing toward the wind source, or against the wind, with the sails pulled in all the way, tacking as you go, to reach a destination upwind.
- Block: The nauticalterm for a pulley.
- Boom: A spar used to hold out or anchor the bottom of a sail.
- Bow: The forward end of a boat.
- Broad Reach: Sailing with the wind coming over the rear corner of the boat, or with the bow approximately 135 degrees to the wind source and the sails let out ne arly all the way.
- By the Lee:Sailing downwind with the wind blowing over the lee ward side of the boat, increasing the possibility of an unexpected jibe.
- Centerboard: A pivoting plate of wood, fiberglass, or metal, projecting below the bottom of a sailboat to help prevent the boat from sliding sideways.
- Clew: The lower back corner of a mainsail or jib.
- Close Reach: Sailing with the wind just forward of abeam, or with the bow approximately 70 degrees to the wind source and the sails pulled in ne arly all the way.
- Close-Hauled: See Beating
- Cockpit: The open well in a boat where the helmsman and/or crewsit or put their feet.
- Cunningham: $\mathcal{A}$ controlline that tensions the forward edge (fuff) of a sail.
- Daggerboard: Similar to the centerboard, except it is raised and lowered vertically rather than pivoted.
- Downhaul: $\mathcal{A}$ control line that adjusts and tensions the luff of a sail.
- Downwind: (Run, With the Wind) Sailing away from the wind source with the sails let out all the way.
- Fairlead: A fitting, such as a ring, eye, block or loop which guides a rope in the direction required.
- Fall Off: See Head Down.
- Feathering: Sailing upwind so close to the wind that the forward edge of the sail is stalling or luffing, reducing the power generated by the sail and the angle of heel.
- Foot: The bottom edge of a sail.
- Forestay: $\mathcal{A}$ support wire connecting the mast to the bow.
- Gooseneck: The joint fitting that connects the boom to the mast.
- Halyard: $\mathcal{A}$ line used to raise or lower a sail.
- He ad Down (Fall Off): To turn the Goat away from the wind.
- Header: $\mathcal{A}$ change in wind direction which lets the boat head down.
- Head-to-Wind: When the bow of a boat is pointing directly into the wind.
- Hiking: When a sailor leans over the side of a boat to counteract heel.
- I ib: The smaller triangular sail in front of the mast.
- Jibe (Gybe): Changing from one tack to the other when sailing downwind.
- Keel: The fixed underwater fin on the full which helps provide stability and prevents the boat from slipping side ways.
- Zhot: One nautical mile per hour; 1 knot equals 1.2 miles per hour.
- Leech: The backedge of a sail (between the head and clew) where the battens are located.
- Leeward: In the opposite direction from the wind source, or where the wind is blowing to.
- Lift: $\mathcal{A}$ change in wind direction which lets the boat head up.
- Line: A rope used for a function on boat, such as a sheet halyard, cunningham or painter.
- Luff: The forward edge of a sail. To stall or flap the sail at its forward edge, or over the entire sail.
- Mainsail (Main): The sail which is attached to the mast and 6oom.
- Mast: $\mathcal{A}$ spar placed vertically in a boat to hold up the sails.
- Nautical Mile: Measure of length at sea (2025 yards). 1 mile $=1,760$ yards.
- Off the Wind: Any of the points of sail, except sailing upwind.
- Outhaul: $\mathcal{A}$ controlline that adjusts tension along the bottom (foot) of the sail.
- Pinching: See Feathering.
- Points of Sail: The headings of a sailboat in relation to the wind, i.e., upwind, close reach, reach, broad reach, downwind.
- Port: The left side of a boat (when looking forward).
- Reach: Sailing with the wind coming over the side, or abeam.
- Reef:To reduce the area of a sail.
- Right-of-Way: $\mathcal{A}$ right-of-way boat has precedence over others on conflicting courses and has the rigft to maintain its course.
- Run (Downwind, With the Wind): Sailing away from the wind source with the sails let out all the way.
- Running Rigging: The lines and associated fittings used to adjust and trim the sails, such as halyards, sheets, outhaul, downhaul, cunningham or 6oom vang.
- Sail Trim (Set): The positioning and shape of the sails to the wind.
- Shackle: A Ul-shaped fitting closed with a pin and used to secure sails to lines or fittings, and lines to fittings.
- Sheet: The rope which pulls in or lets out a sail. To adjust a sail by using the sheet.
- Shrouds: Wires which support the mast on either side.
- Spar: $\mathcal{A}$ wooden or metal pole used to support a sail, such as a mast or 6oom.
- Spinnaker: $\mathcal{A}$ lightweight, three-cornered balloon type sail used when sailing downwind.
- Standing Rigging: The fixed wires and associated fittings used to support the mast.
- Starboard: The right side of a boat (when looking forward).
- Stern: The backend of a boat.
- Tack: To turn the bow of a sailboat through the wind, so that the sails fill on the opposite side.
- Tellales: Short pieces of yarn, ribbon, thread, or tape attached to the sail which are used to show the air flow over the sail; or when attached to the shroud indic ate apparent wind direction.
- Tiller: The stickor tube attached to the top of a rudder and used to turn it.
- Transom: The backend of a boat which is vertical to the water.
- Traveler: $\mathcal{A}$ track or bridle that controls side ways movement of the boom.
- Trim (Sheet): To adjust a sail by using the sheet.
- True Wind: The actual speed and direction of the wind felt when standing still.
- Turnbuckle: A fitting used to adjust the length and tension of a shroud or forestay.
- Turtling: $\mathcal{A}$ capsize position with the Goat turned upside down with the mast pointing down to the seabottom.
- Vang: $\mathcal{A}$ controlline, usually a multi-purchase tackle, secured to the boom to prevent it from lifting.
- Weather Helm: The natural tendency of a sailboat to turn toward the wind, which the helmsman feels as the tiller tries to turn to leeward.
- Wing and Wing: Sailing directly downwind with the jib and mainsailset on opposite sides of the boat to capture more wind.

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For more information contact:
United $S$ tates Sailing Association
PO Box 1260
Portsmouth, RI 02871-1260
Phone: 401-863-0800
Fax: 401-683-0840
Internet: www.ussailing.org


## $\mathcal{H}$ istory

## History of Shooting

$\mathcal{H a v e}$ you ever tried to fit anything from 50 meters ... or about 165 feet ... away, with a fraction of an inch meaning the difference between victory and defeat? This isn't easy. It's nerve-wracking.

The 1996 Olympic Shooting Competition was held at Atlanta's Wolf Creek shooting complex, and consisted of 15 medalevents in four disciplines .. pistol, rifle, running target and shotgun. U.S. shooters have won a total of 89 Olympic medals, which places them sixth among all sports in the U.S. medalcount. Carl Osfurn, who competed in the 1912, 1920 and 1924 Olympic Games, won 11 medals, tying fim with swimmers Matt Biondi and Mark Spitz atop the all-time individual U.S. medal list.

Shooting fas a long fistory that traces back to man's earliestorigins, when spear and projectile throwing contests were used to improve funting skills. By the 10 th century, marksmanship evolved into a social and recreational sport. The first shooting clubs were formed by German-speaking people in the 13 th and 14 th centuries. Membership was limited to men only. At first, bows and whe l-lock muskets were shot from the standing position, 6ut by the 16 th century, firearms with rifled barrels were used in public matches.

Early club competitions were festive one-shot matches fired at elaborately painted wooden targets. Matches and shooting festivals for one or more clubs were routinely held on $\mathcal{N}$ (ew Year's Day, religious holidays, and other special occasions. Prizes of gold and money were frequently awarded.

The first forms of competition in this country were "rifle frolics" or "turkey shoots," with prizes of beef, turkey, or other food items. Matches were usually one-shot affairs fired from a distance of 250-330 feet from either the standing or rest shooting positions. Between 1790 and 1800 , the first match rifles were developed, featuring 38 to $40-\mathrm{inch}$ barrels, double-set triggers and target sights similar to those used on European target arms.

Target gun accuracy improved when riflemakers began using new percussion caps in 1825. Formalmatch shooting began shortly thereafter, and competitions in all parts of the country were well-attended by shooters and spectators. A match in Glendale Park, N $\mathcal{N}$. ., in the 1880 's attracted more than 600 shooters and 30,000 spectators in one day alone. An 1898 shooting festival at that same location offered $\$ 25,000$ in cash prizes.

Trap shooting with live pigeons began in the U.S. around 1825, with the first recorded match held in Cincinnati, Ofio, six years later. Americans led the way in developing artificialtargets for trap competition--first glass balls containing feathers, then clay targets. Among the greatest of the 19 th century trapshooters were $\mathcal{A d a m} \mathcal{B o g a r d u s , ~ I r a ~ P a i n e , ~ a n d ~ A n n i e ~ O a k l e y . ~ I n ~ a ~ o n e - d a y ~ e x f i b i t i o n , ~ B o g a r d u s ~ b r o k e ~}$ 5,681glass balls before missing, while Oakley once shot 4,772 of 5,000 glass balls released from 15-yard traps.

The first recorded pistol match was a duelin 1860 between two men shooting nine-inch china plates from 100 feet. The winner broke 11 out of 15 . In $1865, \mathcal{W} . \mathcal{F}$. "Buffalo Bill" Cody began shooting pistolexhibitions, which did much to promote the sport.

Skeet shooting originated between 1910 and 1915 as an attempt to simulate upland game shooting. At first, competitors fired "around the clock"using a complete circle of shooting stations. This format was later modified to the present day falf-circle, with targets thrown from high and lowhouses on either side of the field.

The first World Shooting Championships were fired in 1897 in Lyon, France, when the local shooting club organized an international $300-m e t e r$ rifle match to celebrate its 25 th anniversary. Women's events first appeared at the 1958 Championships. Today world championships for men and women in all disciplines are fired every four years.

In 1896, French nobleman Baron Pierre de Coubertin orchestrated the first modern Olympic Games with nine sports in $\mathcal{A t h e n s , ~ G r e e c e . ~ A ~ f o r m e r ~ F r e n c h ~ p i s t o l c h a m p i o n , ~ d e ~ C o u b e r t i n ~ s u p p o r t e d ~ t h e ~ i n c l u s i o n ~ o f ~}$ four pistol and two high-power rifle events on the Olympic program.

Shooting events have been a part of all but the 1904 Games in $\mathcal{S}$. Louis and the 1928 Games in Amsterdam. Individual and team events were fired until 1948, when team contests were efiminated by the Union Internationale $\mathcal{T}$ iro (UIT).

The number of Olympic shooting events has ranged from a low of two at the 1932 Los $\mathcal{A n g e l e s}$ Games, to a high of 21 events in $\mathcal{A n t w e r p}$ in 1920. Fifteen rifle, pistol, running target, and shotgun matches were contested at the 1996 Games in $\mathcal{A}$ tlanta. Participation has grown steadily through the years. While only four nations competed in shooting events in 1896, 83 countries met on the firing lines in $\mathcal{B a r c e l o n a ~ i n ~} 1992$ and over 100 in Atlanta in 1996 . Only 13 shooters in fistory have won two gold medals in individual Olympic competition, and four of them are Americans: Gary Anderson (1964, 1968), Morris Fisher (1920, 1924), Alfred Lane (1912), and Lones Wigger Ir. (1964, 1972).

Women in Olympic Shooting
Margaret Murdock's silver three-position rifle victory at the' 76 Games made her the first markswoman in history to win an Olympic medal. The event was open, with men and women competing against each other.

Murdock's success predated the institution of three separate women's events at the 1984 Games in Los Angeles: women's air rifle, women's three-position rifle, and sport pistol. With her standout performance in women's air rifle that year, American Pat Spurgin became the first markswoman in fistory to capture an Olympic gold. Ruby Fox (pistol) and Wand g gewell (rifle) also won medals for the U.S. in 1984.

Separate men's and women's air pistolevents were added to the Games in 1988. The first women's shotgun event, double trap, debuted at the' 96 Olympics and women will compete in their own trap and skeet events for the first time in 2000 in Sydney giving the sport a total of 17 Olympic events.

General Information

- That 1996 marked the first time electronic targets were used for the entire match during the pistol, rifle and running target Olympic events?
- That USA Shooting earned all but one of the 32 quota slots allowed each country in the Olympic shooting events?
- That Ul.S. shooters have earned 44 gold, 25 silver and 20 bronze Olympic medals since 1896 ?
- That Los Angeles fosted the largest and smallest Olympic shoots in fistory; a record 459 shooters from 68 nations at the 1984 Olympic Games but only 41 shooters from 10 nations at the 1932 Games?
- That fifty-one percent of all U.S. OCympic shooters have been affiliated with the U.S. Armed Forces?
- That the first woman to win an Olympic shooting medal was U.S. shooter Margaret Thompson Murdock, who claimed silver honors in the 1976 Olympic three-position match in Montreal?
- That two shooters co-hold the U.S.record for the most medals won in single Olympics with swimmer MarkS pitz? Willis Lee and Lloyd Spooner earned seven medals each in rifle competition at the 1920 Olympics.
- That only 13 shooters have won two gold medals in individual Olympic competition, and four of them are $\mathcal{A}$ mericans: rifle shooter Gary $\mathcal{A n d e r s o n}(1964,68)$; rifle shooter Morris Fisher (1920, 24); pistolshooter Alfred Lane (1912); and rifle shooter Lones Wigger (1964, 72)?
- That USA's greatest Olympic shooting successes have come in men's free rifle prone and free pistol? Four Americans have claimed Olympic prone titles: Ed Etzel(1984), Art Cook(1948), Lawrence $\mathcal{N}$ uesslein (1920), and Frederick $\mathcal{H}$ ird (1912). Our OCympic free pistolchampions include: I oe Benner (1952), Carl Frederick(1920), Alfred Lane (1912) and Sumner Paine (1896).
- That Carl Osburn has won more Olympic medals than any other U.S. shooter in fistory, collecting 10 individual and team fonors in three Olympics (1912, 20, 24)? Osburn also folds the UlS. record for the most medals won in individual competition, having earned two silvers in 1912, a gold in 1920, and another silver in 1924.


## Rules

Pistol Events // Air Pistol

- With separate events formen and women, air pistolshooting joined the Olympic program in 1988. Competitors use 177 caliber pistols to fire le ad pellets at targets 10 meters away. The 10 -ring is . 45 inches.
- Guns: World-class air pistols are compressed air or gas-powered guns. Trigger weight can be no lighter than 500 grams ; the width of the grip and length of the Garrel are also limited.
- Course of Fire: Men take 60 shots in one hour and 45 minutes, while women fave one hour and 15 minutes for 40 sfots.
- Perfect Matcf Score: For men, 600 is perfect and 585 is world-class. For women, 400 is perfect and 385 is world-class.
- Finals: The top eight competitors advance to a $10-$ shot final round, with 75 seconds allotted for each shot. The final is scored in tenths of a point and added to the match score to determine medalists. $\mathcal{A}$ perfect final score is 109.
- Perfect Aggregate (Match + Final) Score: 709 for men, 509 for women.

Pistol Events // Free Pistol

- Free pistol, a precision men's event, has Geen part of the Olympics since 1896. Competitors shoot . 22 caliber pistols from 50 meters at bullseye targets with an approximate two-inch center.
- Guns: $\mathcal{A}$ free pistol is easily identified by its grip, which completely envelopes and stabilizes the shooter's hand. Regulations require only that it fires .22 caliber cartridges and has metalfic sights. The gun's barrel is longer than that of other pistols, providing greater accuracy at this longer shooting distance.
- Course of Fire: Competitors fire 60 shots in two fiours.
- Perfect Match Score: 600 is a perfect score, and 565 is world-class.
- Finals: The top eight competitors advance to a $10-$ shot final round, with 75 seconds allotted for each shot. The final is scored in tenths of a point and added to the match score to determine winners. $A$ perfect final score is 109.
- Perfect Aggregate (Match + Final) Score: 709 points.

Pistol Events // Rapid Fire Pistol

- Rapid-fire pistol has been an Olympic event since the first modern Games in 1896. Shot with a. 22 caliber pistolfrom 25 meters, men have eight, six, or four seconds to fire one shot at each of five adjacent targets. As an added difficulty, pistols must be held downward at a 45-degree angle until a green light flashes on. The 10 -ring on this target is four inches wide.
- Guns: Rapid-fire pistols shoot. 22 caliber short cartridges (ammunition) from a five-sfot magazine. Ported barrels reduce recoil, and the gun's grip completely envelopes the shooter's fiand for additional stability.
- Course of Fire: Two five-shot series in eight seconds, two series in six seconds and two series in four seconds comprise a half course, fired in one day. The following day, the same course is repeated.
- Perfect Match Score: 600 is a perfect score, with 597 being world-class.
- Finals: After 60 shots, the top eight shooters fire a finalconsisting of two five-shot series at four seconds. The final is scored in tenths of a point and added to the match score to determine medal winners. A perfect final score is 109.
- Perfect Aggregate (Match + Final) Score: 709 points.

Pistol Events // Sport Pistol

- Sport pistolfias been a women's Olympic event since 1984. Athletes use . 22 caliber standard pistols to shoot precision and rapid-fire competition from a distance of 25 meters. The precision target has a two-inch 10-ring, while the rapid-fire target has a four-inch center.
- Guns: Sport pistols shoot. 22 caliber ammunition from a five-shot magazine without the advantage of ported barrels or wrap-around grips, as in rapid-fire.
- Course of Fire: The 60-shot match is divided into 30 shots precision and 30 shots rapid-fire. The precision, or slow-fire stage, is fired in six series of five shots, and competitors have six minutes per series. In the 30-shot rapid-fire stage, competitors shoot strings of five shots. Three seconds are allotted for each shot, followed by seven seconds of rest.
- Perfect Match Score: 600 is a perfect score, with 594 being world-class.
- Finals: The top eight competitors advance to a final, which consists of 10 shots fired one a time in a time limit of 75 seconds. Targets are scored in 10 ths after each shot and added to the match score to determine medalists. A perfect final score is 109.
- Perfect Aggregate (Match + Final) Score: 709 points.

Rifle Events // Air Rifle

- With separate events for men and women, air rifle shooting joined the Olympic program in 1984. Competitors stand and shoot le ad pellets from. 177 caliber guns at targets 10 meters away. The Gullseye, or 10-ring, is one-half millimeter wide, the size of the period at the end of this sentence.
- Guns: Air rifles can be either air or gas-powered and weigh up to 12 pounds by international regulation.
- Course of Fire: Men take 60 shots in one hour and 45 minutes, while women have one hour and 15 minutes for 40 sfots.
- Perfect Match Score: For men, 600 is perfect and 592 is world-class. For women, 400 is perfect and 395 is world-class.
- Finals: The top eight competitors advance to a $10-$ shot final round, with 75 seconds allowed per shot. The final is calculated in tenths of a point and added to the match score to determine winners. A perfect final score is 109.
- Perfect Aggregate (Match + Final) Score: 709 for men, 509 for women.

Rifle Events // Free Rifle Prone

- This men's event has been on the Olympic program since 1908 . Athletes lie on the ir stomachs and shoot 22 caliber rifles at bullseye targets 50 meters downrange. The target's center is 10.4 millimeters wide, smaller than a dime.
- Guns: Athletes use free rifles, which have metalfic sights and can be customized with special accessories and/or alterations that fit the shooter's needs and comforts.
- Course of Fire: 60 shots in one hour and 30 minutes.
- Perfect Match Score: 600 is a perfect score, 597 is world-class.
- Finals: The top eight shooters advance to a 10-shot final, with a 45-second time limit per shot. The final is scored in tenths of a point and added to the match score to determine winners. A perfect final score is 109.
- Perfect Aggregate (Match + Final) Score: 709 points.

Rifle Events // Three-Position Rifle

- In three-position, atfletes fire 22 caliber smallbore rifles from the prone, standing, and kneeling positions at targets 50 meters downrange. The bullseye is 10.4 milfimeters in diameter, smaller than a dime. Though today there are separate events for men and women, from 1952-80 three-position was an open Olympic event, meaning that men and women competed head-to-head.
- Guns: Men and women use different types of smallgore rifles. Women fire standard rifles, which weigh up to 12 pounds and cannot be modified in any way. Men shoot free rifles (up to 17.6 pounds), which can be customized with special accessories and/or alterations that fit the shooter's needs and comforts. Both men's and women's guns have metallic sights.
- Course of Fire: Menfire 40 rounds per position for a total of 120 shots. Time limits for men are one hour for prone, one four and 30 minutes for standing, and one hour and 15 minutes for kneeling. Women shoot 20 rounds per position for a total of 60 shots. They have a total of two and one-half hours for all three positions.
- Perfect Match Score: Formen, 1200 is perfect and 1165 is world-class. For women, 600 is perfect and 580 is world-class.
- Finals: For men and women, the top eight performers advance to a 10 -shot final round, fired entirely from the standing position with 75 seconds allotted per shot. The final is calculated in tenths of a point and added to the match point total to determine winners. A perfect final score is 109.
- Perfect Aggregate Score: 1309 for men, 709 for women.

Rifle Events // Running Target .- 1 Event

- There is just one Olympic running target event. Athletes stand and shoot. 177 caliber air rifles with telescopic sights (not exceeding four-power) at paper targets moving across a track 10 meters away. The target has two bullseyes spaced roughly six inches apart; an aiming dot placed between them aids the shooter in tracking. The 10 -ring on each bullseye is five millimeters wide, about the size of a pencileraser. Only menfire this event at world cups and the Olympics. Competition is open to men and women at U.S., continental, and world championsfips. Running deer and running game target, 100-and 50-meter versions of this sport, were part of the Olympics at different times between 1900-88. Today's 10-meter event replaced running game target on the Olympic program in 1992.
- Guns: Shooters fire .177 caliber rifles that use air or gas to propellead pellets downrange. This is the only shooting event in which competitors are permitted to use telescopic sights-4x magnification or less.
- Course of Fire: The match consists of 60 shots divided into 30 slowruns and 30 fast runs. In slow run, athletes have five seconds to track, aim, and fire at the moving target. In fast run, the target is exposed for 2.5 seconds. Shooters start with their rifles at hiplevel and can only mount the ir guns once the target is exposed.
- Perfect Match Score: 600 is perfect, 575 is world-class.
- Finals: The top six competitors advance to a 10-shot fast-runfinal. Finals are scored in tenths of a point and added to match scores to determine winners. A perfect final score is 109 .
- Perfect Aggregate Score: 709 points.

Shotgun Events // Trap

- In trap, competitors move through a series of five adjacent shooting stations. At each station, competitors mount the ir $12-$ gauge shotguns, call for the target, and fire up to two shots per target. The targets, four-inch clay disks, are thrown from an under-ground bunker a minimum distance of 70 meters and at speeds of up to 65 miles per hour. Trap has been a men's Olympic event since 1900 , with the exception of two Games $(1988,92)$ during which it was open to both men and women competing against each other. Women will have their own separate trap event in the Sydney 2000 Olympic Games.
- Guns: Trap is shot over longer distances than the other Olympic shotgunevents. Consequently, a trap gun's barrel is longer (30-32 inches), producing greater accuracy for the distance. Trap guns also have a tighter "choke," meaning the Garrelnarrows at the muzzle end to prevent shot pellets from scattering before they're within striking distance of the target.
- Course of Fire: The match consists of 125 targets, shot in five rounds of 25 over two days. Three rounds are fired on day one; two rounds plus the final are shot on day two.
- Perfect Match Score: 125 is perfect, 121 is world-class.
- Finals: After the 125-target match, the top six competitors advance to a 25-target final round. Medals are awarded based on aggregate (match plus final) scores.
- Perfect Aggregate Score: 150 targets.

Shotgun Events // Skeet

- In skeet, men move through a semi-circular range featuring eight shooting stations. At each station, single and/or double clay targets are thrown at least 65 meters from the figh ( 10 feet) or low (three feet) house on either side of the range. The four-inch clay disks travelat up to 55 miles per
 fip leveluntil the target appears, which can be anywhere from $0-3$ seconds after the ir call. Skeet fas been a men's Olympic event since 1968, with the exception of two Games (1988, 92) during which it was open to both men and women. Women will have their own separate skeet event in the 2000 Sydney Olympic Games.
- Guns: Skeetguns have openchokes, which spread shot pellets at a wider radius. The barrels measure 26-28 inches in length.
- Course of Fire: The match consists of 125 targets, shot in five rounds of 25 over two days. Three rounds are fired on day one; two rounds plus the final are shot on day two.
- Perfect Match Score: 125 is perfect, 121 is world-class.
- Finals: After the 125-target match, the top six competitors advance to a 25-target final round. Medals are awarded based on aggregate (match plus final) scores.
- Perfect Aggregate Score: 150 targets.

Shotgun Events // Double Trap

- The men's and women's double trap events will be first-time additions to the Olympic program in 1996. Competitors fire 12-gauge shotguns fromeach of five adjacent shooting stations. At each station, four-inch clay targets are thrown two at a time from an underground bunker at speeds up to 50 miles per fiour. Competitors get one shot per target.
- Guns: World-class double trapguns (e.g., Beretta 682, Perazzi).
- Course of Fire: Menfire three rounds of 50 for a total of 150 targets. Women shoot three rounds of 40 for a 120-target total.
- Perfect Match Score: For men, 150 is perfect and 135 is world-class. For women, 120 is perfect and 100 is world-class.
- Finals: In both events, the top six competitors advance to a final-50 targets for men, 40 for women. Medals are awarded based on aggregate (match plus final) scores.
- Perfect Aggregate Score: 200 for men, 160 for women.


## Equipment

Pistol

Pistol shooters compete without the benefit of specialclothing, gloves or boots. Most athle tes we ar flatsoled shoes for increased stability, but footwe ar must not extend above the shooter's ankle. Competitors frequently wear Glinders over their "non-shooting" eye to prevent squinting. Spotting scopes allow athletes
to view the ir targets in 25-and 50-meter competition. In all events, specialcaps designed to limit the athlete's field of vision are common; ear and eye protection are a given.

## Rifle

All rifle clothing and accessories are governed by strict rules for thickness and stiffness. Shooters start with sweatshirts and tights, then put on jackets and pants made of leather or canvas. This ensemble improves physical stability and helps muffle the pulse during these lengthy contests. Flat-soled leather Goots aid the rifle shooter's stability from the standing and kneeling positions. Le ather gloves with rubber. padded palms helps minimize the discomfort of the heavy rifle and leather shoulder sling. Athle tes use a Le ather sling (extending from the triceps to the front of the rifle stock) and a floor mat for support when shooting from the prone or kneeling positions. In the standing portion of the men's three-position match, athletes may use palm rests for extracomfort and gun elevation. Between shots, competitors rest their rifles on a shooting stand and use spoting scopes to view their targets. Shooting glasses, ear and eye protection are other important accessories.

## Running Target

Competitors wear leather or canvas jackets that are tighter than those worn by rifle shooters. The jackets infibit upper body movement, forcing more lower body movement in tracking targets. Flat-soled shooting boots are commonly worn for balance and stability.

> Shotgun

Shotgun shooters typically we ar vests with ammunition pouches and extra padding where the gun is shouldered. Most competitors have vests for cold and warm weather. Glasses are used for safety and to enhance target-tracking ability. Competitors have various colored lenses for different we ather conditions. $\mathcal{F o r}$ example, a bronze lens is appropriate for sunny we ather, while a yellow or light orange lens would be best for overcast skies. Some competitors affix blinders to the sides of their shooting glasses to keep wind out of their eyes and prevent distraction from side motion.

## Glossary

- Airgun: $\mathcal{A g}$ gn (rifle or pistol) that uses compressed air or carbondioxide to discharge lead pellets.
- Bore: The interior diameter of a gun barrel; caliber or gauge.
- Bull: The central blackened portion of atarget that appears as a dot to the shooter taking aim.
- Bunker: In trap, the underground "dugout" in front of the firing line from which machines throw clay targets.
- Caliber: The interior diameter of a rifle or pistol barrel.
- Cartridge: The complete unit of ammunition, including the projectile, case, powder and primer.
- Challenge: $A$ shooter's petition that a target be rescored.
- Chamber: The rear portion of the gun barrelinto which a cartridge is inserted for firing.
- Crossfire: A sfot accidentally fired on a target assigned to another competitor.
- Firing line: The line from which competitors position themselves to shoot their targets.
- Free pistol: $\mathcal{A} .22$ caliber pistol relatively "free" of restrictions.
- Malfunction: $\mathcal{A}$ gun or ammunition's failure to perform; not firing when the trigger is released.
- Metallic sight: Non-magnifying devices on the front and rear ends of a firearm used to assist aim.
- Offfind: Another term for the standard shooting position.
- Pits: In 22 caliber shooting, the area downrange where targets are placed for use.
- Sighters: Practice shots fired at the beginning of a match to check sight adjustments; sighters do not count in the match score.
- String: $\mathcal{A}$ series of shots, normally five or 10 .
- Stock: The wooden, metal, plastic or fiberglass portion of a rifle or shotgun, to which the barrel, action, trigger action, etc., are attached.
- Ten-ring: The innermost ring of the 6lacksection of the target.

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For more information contact:
US A S footing
One Olympic Plaza
Colorado Springs, CO 80909
Phone: 719-578-4670
Fax: 719-635-7989
Internet: www.usashooting.org


Skiing

## $\mathcal{H}$ istory

SKiing
The use of some kind of equipment for travelover snow is ancient. Greek historians mention skins, sliders, or shoes used for this purpose, and similar references occur in Norse myths. The earliest skis of which any record exists were found in bogs in $S$ weden and Finland. They are thought to be between 4000 and 5000 years old and consist of elongated curved frames covered with leather.

Modern sports sking began in the middle of the 19 th century in Norway and soon spread throughout Scandinavia. In the 1880 s and 1890 s , sking began to gain popularity in other countries of Europe.

World War I (1914-1918) served as an impetus for the development of skiing, because the training and use of specialskitroops spread a Knowledge of techniques. The Federation Internationale de Ski, with headquarters in Stockholm, $S$ weden, was formed in 1924, and Nordic skiing became part of the Olympic Games in that year.

In the United States, sking developed first in Minnesota, with its large Scandinavian population, about the middle of the 19 th century; as a result of its popularity across the Gorder in Canada. Sking then spread to the Rocky Mountain states. From the 1920 s on, sking Gegan to enjoy continuous popularity, developing in areas of California and the Pacific Northwest, as well as the Northeast. The development of ski schools where competent instruction could be obtained, the accessibility of skiing areas to the automobile, the introduction of the skilift in the 1930 s , and the development of skiresorts (such as Aspen, Colorado; Sun Valley, Idaho; and Lake Placid, New York) made the sport more available. After World War II ended in 1945 the sport expanded enormously, no longer limited to a small, affluent minority.

Today, sking competition has gained a much larger following because of television, which has brought isolated sites with limited spectator facilities into popular consciousness. Nordic skiing dominated international competition until 1936, when alpine sking was included in the Winter Olympics. In 1967 the World Cup (Alpine) competition was introduced. In the 1970 s and 1980 s World Cup circuits were developed in freestyle, cross-country, skijumping, and Nordic combined. The alpine events in the Winter Olympics include the downfill, slatom, giant slatom, super giant slalom, and combined (slalom and downfill) races; aerial and mogul competitions; skijumping (for men only); and the Nordic combined. The cross-country events include individual and team races for both men and women.

Source: Encarta Encyclopedia

## Snowboarding

The worldwide growth of snowboarding in the Nineties compelled the International Olympic Committee (IOC), in December 1994, to make snowboarding the newest Olympic sport. A year later, in December 1995, $\mathcal{N a g a n o}$ Olympic organizers elected to hold the inaugural events in 1998. Nagano will feature two of snowboard's competitive events: the giant slalom, comparable to its alpine sister, and halfpipe or freestyle, the trademarkevent in the sport.
U.S. riders have been among the most dominant in recent years: At the $1997 \mathcal{F I S}$ World Snowboard Championsfips in $S$ an Candido, Italy, three $\mathcal{A m e r i c a n ~ r i d e r s ~ w o n g o l d ~ m e d a l s ~ . . ~ M i k e ~ g a c o b y ~ ( H o o d ~ R i v e r , ~}$ Ore.) in paralle Lslalom; Anton Pogue (also Hood River) in slalom; and Sondra Van Ert (Ketchum, Idaho) in women's GS.
$\mathcal{A}$ the 1996 World Championships in Lienz, Austria, Van Ert was the lone woman rider to win two medals, gacoby took the GS silver medal be find gold-medal teammate geff Greenwood (Granby, Ct.), and Ross Powers (S.Londonderry, V).) Led a 1-2-3 medals swe ep by Americ an snowboarders.

In women's halfpipe, Annemarie Uliasz (Huntington Beach, Calif.) and Cammy Potter (Park City, Ultah) won silver and bronze.

Final Ul.S. criteria for selection of'98 U.S. Olympic riders will be announced early this summer, but akey component will be the Bud Light U.S.S nowboard Grand Prix. Halfpipe and GS competitions ‥ to mirror the only Olympic events .- will be held at three U.S. sites in December and ganuary with riders qualifying for the U.S. Olympic Team announced Feb. 2.

Competition will be tough for the maximum 14 spots on the first Ul.S. Olympic Snowboard Team. The 1997 season saw a strong mix of competitors from a variety of circuits including the $\mathcal{F I S}$ World Cup, the International S nowboard Federation's World Cup, and USSA's Bud Light U.S.Snowboard Grand Prix and $\mathcal{B u d}$ Light $\mathcal{A}$ meric an $S$ nowboard $\mathcal{T}$ our ... all of which were open to all riders.
"Iraditionally, American riders have been outstanding in international snowboarding. We want the best $\mathcal{A m e r i c a n ~ r i d e r s ~ p o s s i b l e ~ t o ~ b e ~ c o m p e t i n g ~ i n ~} \mathcal{N} \mathfrak{N g} a n o$, so when the Olympic $\mathcal{T} e$ am is announced, it will reflect not only those riders who are hot and riding well at that time," said U.S. Head Coach Peter Foley, "but it will reflect riders who have proven their skills in international competition."
$I O C$ quotas for snowboarding are a total 35 men and 30 women from all nations for $\mathcal{G S}$ with 35 men and 20 women for half pipe. The men's giant slalom will be Feb. \& at Mt. Yake bitai in Yamanouchi (S figakogen area), about 30 miles northeast of $\mathcal{N a g a n o}$, with women's $\mathcal{G S} \mathcal{F}$ eb. 9 ; halfpipe for men and women will be $\mathcal{F e} 6.12$ at the Kanbayashi Snowboard Park in Yamanouchi, about 20 miles northeast of $\mathcal{N a g a n o}$.

## General Information

The $\mathcal{N}$ (ational Governing $\mathcal{B o d y}(\mathcal{N} G \mathcal{B})$ for Olympic skiing and snowboarding fas been reorganized and reinvigorated under the newname of the United $S$ tates $S$ ki and Snowboard $\mathcal{A s s o c i a t i o n}$ (USS A). The vision of USSA is to make the U.S. the best in world in sking and snowboarding. The USS $\mathcal{A}$ mission is to make the vision a reality by fielding and maintaining a winning team of world-class ski and snowboard atfletes.

UUSSA is the designated representative for sking and snowboarding in the US $\mathcal{A}$ by the International $\mathcal{S k i}$ $\mathcal{F e}$ deration. And USSA is formally recognized by the U.S. Olympic Committee as the representative for skiing and snowboarding in the Olympics.

Millions of $\mathcal{A m e r i c a n s}$ are familiar with the U.S.SKi $\mathcal{T e}$ am and U.S.Snowboard $\mathcal{T}$ eam ... world-class athle tes who have achieved the highest success! Americans have cheered champions like World Champions Hilary Lind h, Picabo Street, Donna Weinbrecht, Trace Wortfington and Nikki Stone, as well as past heroes Pfil Makre, $\mathcal{B i l l}$ Koch, Cindy $\mathcal{N e}$ lson and more .- plus new snowboard heroes including Mike Iacoby, Ieff Greenwood, Ross Powers and Sondra Van Ert.
$\mathcal{B}$ ut the story befind $\operatorname{USS} \mathcal{A}$ is not just one of international success and Olympic glory. It's the long road up a development pipeline for tens of thousands of young $\mathcal{A m e r i c a n ~ m e n ~ a n d ~ w o m e n . ~}$
$\mathcal{A}$ s the $\mathcal{N G G}$ for $O$ Cympic sking and snowboarding, USS $\mathcal{A}$ is responsible for providing a smooth pathway for aspiring young athletes through a ladder of competitions and programs which leads them to the opportunity for athletic success.
$\mathcal{A}$ s a company, USSA's management and staff coordinate a nationwide program in six distinctly different disciplines .- alpine skiing, cross country, disabled alpine and cross country, freestyle, skijumping and nordic combined and snowboard.

USS A's six different sport programs, with a total of 14 different men's and women's national teams, make it the most diverse of the more than 40 U.S. Olympic sports organizations. In all, $50 \%$ of the Olympic Winter Games events fall under USS $\mathcal{A}$ ! No other Olympic program, summer or winter, comes close.

Over 100,000 athlete members, parents, coaches, volunteers, officials and supporters help to create a positive environment for athletic success. The implementation of this program is through anetwork of fundreds of USS A member clubs around the USS $\mathcal{A}$.

USSA is governed by a 21-person board of directors, including technical and athletic representatives from each discipline.

## Rules

SKiing // Alpine SKi Racing
$\mathcal{A}$ \{pine skiracing is pretty basic: $\mathcal{A}$ skier goes down a snowy mountainside from Point $\mathcal{A}$ to Point $\mathcal{B}$ and the fastest time wins. No judging, just go! Races are timed in fundredths of a second.
There are four types of races: slalom, giant slalom, super $\mathcal{G}$ and downhill. Downhill is the figh-speed attention-getter with racers rocketing along at speeds of up to 80 miles per four in some stretches, while slalom has a zig-zag, staccato tempo. In betwe en are giant slalom and super $\mathcal{G}$. Downfill and super $\mathcal{G}$ are one-run races, while slalom and giant slalom are two-run events.

Skiing // Cross Country
Cross country is a rugged mix of speed and endurance. Races are held at a variety of distances; on the World Cup tour, races range from $5-\mathrm{km}$ to $30-\mathrm{km}$ for women and $10-\mathrm{km}$ to $50-\mathrm{km}$ for men, but there are non-World Cup events that are $100-\mathrm{km}$ events. Ideally, races are held on courses one-third rolling "undulating" country-side, one-third uphill and one-third downhill.

Skiing // Disabled Ski Team
Disabled sking involves persons with mobility impairments, including amputees paraplegics, post-polio, or prenatal German Measles, plus persons with visual impairments .. even total blindness.

Skiing // Freestyle
Freestyle sking is a three-event sport, mixing the gracefultwists and twirls of acro-sking with the pulsating speed and excitement of racing through the snowy bumps in moguls, and then pertaps the biggest adrenaline "rush," aerials.

Skiing // Acro-skiing
$\mathfrak{A c r o}$ sking is the more subtle contrast to the electrifying and slam-bang of aerials and moguls. Highly athletic in its own way, acro (formerly known as ballet skiing) has been likened to the beauty and skill of figure skating on skis.

Skiing // Aerials
In ae rials a skier is launched from a specially-designed jump and goes 50 or more feet above the snowy landing fill. In the air, they perform twists and flips before trying to land upright; skiers may not attempt inverted aerials (i.e., their feet go above their head) until they've beencertified by their coaches after hours of performing in a swimming pool. The skier basically calls the trick, and there are no compulsories.

S Kiing // Moguls
In moguls skiers are judged by how well they ski a line (route) down the course and how well they perform "air" i.e., maneuvers off two midcourse jumps. A panelof judges sits at the bottom of the run with specific scores for technique and skier's two airs. There is also a factor of howfast the course is skied.

Skiing // Ski Iumping
Athletes soar through the air going more than the length of a football field before landing on a snowy fillside. World Cup jumps are divided into three categories: normal fill, large fill and flying hill. The normal hill is now referred to as a 90-meter fill because that's about howfar a skier jumps from the take off to the spot midway between the two skis on landing. The large fill is usually known as a 115-meter or a 120 -
meter. The flying fill is the biggest of all, and range from 160 meters to 185 . Points for a jumper are decided by a formula for the distance plus "style" points, which are awarded by five judges on the side of the fill who look at form in the air and landing. The high and low scores are thrown out and the remaining three scores are tallied.

## $\mathcal{N}$ (ordic Combined

$\mathcal{N}$ Nordic combined, as the name implies, combines the two elements of Nordic skiing: cross country and jumping. It's a 90-meter jumping competition followed by a $15-\mathrm{k}$ skirace.

S nowboarding //
S nowboarding will make its Olympic debut in 1998. Two events are scheduled for men and women riders: giant slalom (with the men's race on the first day of competition) and half pipe.
Competition will be tough for the maximum 14 spots on the first U.S. Olympic Snowboard $\mathcal{T}$ eam. IOC quotas for snowboarding are a total 35 men and 30 women from all nations for $\mathcal{G S}$ with 35 men and 20 women for half pipe.
Snowboarding, like cross country skiing (with classical or freestyle technique), has two distinct elements: alpine and freestyle. And, like cross country's "mixed" relay format with classic and freestyle techniques, snowboarding has boardercross which mixes alpine and freestyle in a follow-the-leader, beat-the-leader slice of downtill pande monium.
One maindifference betweensking and snowboarding is the start. Although skiers and riders break a wand to start their clockrunning, snowboarders use posts driven into the snow to push off.

S nowboarding // Alpine
Like the competitive sking it's derived from, alpine snowboarding has "technical" (gate-running) events and "speed" (downhill/super G) racing. Allfeature a beat-the-clockformat. Snowboarding also has a parallel slalom race with riders competing on side-by-side courses. World Cup sking included parallel(ane-word event which normally is an exhibition) in its World cup schedule for this season, but it seldom is included at the World Cup level.
Paralle $\mathcal{S} \mathcal{L}$ in snowboarding uses a knockout format to determine the winner. Riders are timed in a qualifying run; based on their time, the men's field is cut to 16 and women's field reduced to eight. At that point, it's total time from one run on a blue course and one run on a red course to decide who moves to the next round.

S nowboarding // Freestyle
In freestyle snowboarding, riders perform in a halfpipe, a giant snow trough, with competitors performing various tricks while three or five judges grade their acrobatic maneuvers (rotations, standard mane uvers, landings, technical merit and amplitude). In all freestyle events this season, the halfpipe has become a Knockout format with the slowest riders dropped at the end of early rounds before the knockout format.. one rider competing ( 6 ut not simultaneous (y) against another $\cdot$ is used in the final round.

Snowboarding // Boardercross
$\mathcal{B}$ oardercross (or "snowboardcross" or $\mathcal{S} \mathcal{B X}$ ) was added to the $\mathcal{F I S}$ World Cup schedule for the 1997 season. Depending on the number of participants in a race, four or six riders are at the starting line together and simultaneously ride down a slope studded with various obstacles (i.e., moguls, steeps, jumps, waves). The first two (or three if it's a six-racer field) across the finish line qualify for the next round of competition in this elimination format event.

## Equipment

## Skiing

The basic equipment, although it varies somewhat, is essentially similar for all types of sking. Skis are made of strips of shaped wood, metal, or synthetic material that can be attached to a specially designed ski boot; the hard resistant surface of the skis, maintained by application of specialski waxes, produces high speed in moving over packed snow. Skis vary in length according to the skier's height and can reach 1.8 to
$2.1 \mathrm{~m}(6$ to 7 ft$)$ long. Skiwidth also varies, from 7 to 10 cm ( 3 to 4 in ) in the front, tapering slightly inward in the middle and widening at the rear; the front tip of the skicurves upward. Downhill skis are shorter and wider than cross-country skis.

Flat-soled, generally ankle-figh boots are an important item of equipment; rigid leather and plastic boots are used for downhill skiing and lighter, more flexible boots, with nylon or leather uppers, for cross. country. The downfill boot is attached to the skiby a binding that clips at the heel and toe and affords flexibility and safety in the event of a fall. The cross-country boot attackes to the skiby a toe binding, leaving the heelfree to flex up and down for the kickoff step. Skipoles, commonly 1.2 to 1.5 m (4 to 5 ft ) in length, are used for balance and to facilitate movement; they are made of light metal tubing, with handgrips and straps and a small disk at the bottom that allows a firm hold in the snow.
Source: Encarta Encyclopedia

## S nowb oarding

S nowboards have continuous steeledges, polyethylene bases and laminated wood cores, as do most skis. S nowboards fall into three categories: free riding, freestyle and alpine.
$\mathcal{F}$ ree riding is the most popular type of snowboard since it's the most all-around board and can be used in powder, for carving and aerial tricks. The binding inserts are set back toward the tail about 2 cm to improve powder performance and carving ability. Free ride boards are stiffer in the tail than in the nose to Goost their carving capabilities.
$\mathcal{F r e e s t y l e}$ snowboards have a symmetricalflex pattern and smaller amount of sidecut than the free rides. They can be ridden equally well backwards and forward, which helps for tricks. These boards have a centered binding insert pattern and a relatively low tip/tail heights which cancreate problems in deeper powder.
$\mathcal{A l p i n e}$ boards are racing boards. They are designed for speed with a flat tail and lower shovelthan most freestyle models. These boards are stiff with pronounced side-cuts and a narrow overall shape. When placed on edge they can carve tracks.
$\mathcal{B o o t s}$ are either soft or hard. Most recreational snowboarders use soft boots. They feature foot and angle supports. Hard boots look similar to alpine ski boots as they have a plastic outer shell and most have an overlapping center tongue.

Most hard snowboarding boots have very extensive calf supports as half of the turns that racers make will require ale an backward. The average $\mathcal{A l p i n e}$ skier tries to avoid routinelyleaning backward, fence ski boots provide limited calf support.

> Glossary

## $S$ Kiing

- Acro-skiing: formerly known as ballet skiing, is like figure skating on skis.
- Aerials: skier is launched from a specially-designed jump and go 50 or more feet above the snowy landing fill, while twisting, turning and flipping.
- Cross country: type of sking where racer likely uses a "skating" tecknique to move across the snow. Fastest to the finish line wins.
- Downfill: a figh-speed race with racers reaching speeds up to 80 miles per four in some stretches. Fastest to the Gottom wins.
- Moguls: ungroomed bumps on a skirun.
- Nordic Combined: combines a 90-meter jumping followed by a 15-kskirace.
- Run: a determined path down the mountain that a skier skis.
- Rush: what happens to your head in doing most of these events.
- Slalom/Giant S lalom: a two-run race of varying length of races with racers zig-zagging through gates all the way down the fill. Fastest to the bottom wins.
- Super G: a one-run race with racers zig-zagging through gates all the way down the fill. Fastest to the bottom wins. S nowb oarding
- Air-to-Fakie: $\mathcal{A}$ trick in which the rider approaches the wall riding forwards, no rotation is made, and the snowboarder lands riding Gackwards.
- Backside: The backside of the snowboard is the side where the heels rest; and the backside of the snowboarder is the side to which his/her backfaces.
- Backside $\mathfrak{A i r}: \mathcal{A n y}$ trickperformed on the Gackside wall of the halfpipe.
- Bail: $\mathcal{A}$ term used to describe crashing or falling.
- Banked Slalom: A slalom race course in which the turns around the gates are set up on snow banks.
- Chatter: When the snowboard vibrates unnecessarily. Ulsually this happens at higher speeds and through turns. Racers try to reduce chatter in their boards so they can stay in control.
- Corkscrew: $\mathcal{A}$ term used to describe a very fast and tightly performed rotation.
- Crater: $\mathcal{A}$ term used to describe a crash or fall.
- Double Handed Grab: Simultane ously grabbing the snowboard with both fands while in the air.
- Fakie: $\mathcal{A}$ term for riding backwards.
- Flat Bottom: The area in a halfpipe between the two opposing transitional walls.
- Freestyle Snowboarding: The kind of snowboarding which is mostly associated with riding the halfpipe, but which may also be used to describe any type of snowboarding which includes tricks and mane uvers.
- Front Foot: The foot mounted closest to the nose of the board
- Goofy Footed: Riding on a snowboard with the right foot in the forward position.
- Halfpipe: $\mathcal{A}$ snow structure Guilt for freestyle snowboarding. Snowboarders utilize the halfpipe to catch air and perform tricks by traveling back and forth from wall to wall while moving down the fall line.
- Leash: $\mathcal{A}$ retention device used to attach the snowboard to the front foot so that the board doesn't slide away.
- Lip: The top edge portion of the halfpipe wall.
- Method Air: The front hand grabs the heeledge, both knees are bent, and the board is pulled to level of the head.
- Nose: The front tip of the snowboard.
- Nose Bonk: To fit an object with the nose of the snowboard.
- Regular Footed: Riding on a snowboard with the left foot in the forward position. The left foot is closest to the nose, furthest from the tail, and in between the right foot and the nose.
- Session: $\mathcal{A}$ name for acertain interval in which one snowboards.
- Stalled: When a maneuver is performed such that the point of emphasis in the maneuver is held or "stalled" for an extended period of time.
- Tail: The rear tip of the snowboard.
- Tail Bonk: To fit an object with the tail of the snowboard.
- Toe Edge: A snowboard has two different edges. The toe edge is the one at which the toes rest.


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For more information contact: USS Skiand Snowboard Association, PO Box 100, Park City, UT 84060 ; Pfione: 435-649-9090; Fax: 435-649-3613; Internet: www.usskite am.com


Soccer

## $\mathcal{H}$ istory

1620: American folklore asserts Pilgrim Fathers, upon settling at Plymouth Rock, found $\mathcal{A}$ merican Indians along the Massachusetts coast playing a form of soccer. The Indians called it "Pasuckquakkofowog," which means "they gather to play football."

1820: Many American colleges played soccer, but there was no intercollegiate competition. Rules were casual and changed of ten.

1862: The Oneidas of Boston, the first organized soccer club in America, was formed. A monument now stands in Boston Common, where the Oneidas played the ir fome matches.

1865-1876: Soccer was initiated as an organized college sport in the USA $\mathfrak{A}$ in the years following the Civil $\mathcal{W a r}$. Princeton and Rutgers Universities engaged in the first intercollegiate match $\mathcal{N}$ Nov. 8,1876 , in $\mathcal{N}$ (ew $\mathcal{B r} u n s$ wick, $\mathcal{N} . \operatorname{I}$. Rutgers won 6-4. The game was more similar to both rugby and soccer than gridiron foot 6 all.

1876-1880: Thousands of immigrants arrived in the metropolitan areas for the East, Midwest and Pacific Coast. These communities also had soccer teams along with its immigrant population, a pattern occurring all over the world during the Industrial Revolution.

1884: The $\mathcal{A m e r i c a n ~} \mathcal{F o o t b a l l} \mathfrak{A s s o c i a t i o n}$ was organized in $\mathcal{N e w a r k} \mathcal{N} \mathcal{I}$., uniting the numerous metropolitan area enclaves of the East to maintain uniformity in the interpretation of rules and provide an orderly and stable growth of soccer in $\mathcal{A m e r i c a}$.

1885-1886: The U.S. and Canada played agame a year against eachother, representing the first "international" soccer games to take place outside the British Isles.
 included $\mathcal{F}$ rance, $\mathcal{B e}$ Lgium, $\mathcal{D e n m a r k , ~ t h e ~} \mathcal{N e}$ therlands, $\mathcal{S}$ pain, $S$ weden and $S$ witzerland. The international Board, the authority over the rules and their interpretation continued under the jurisdiction of England, Scotland, Ireland and Wales, even though they were not affiliated with FIFA. The Olympic Games of 1904 in $S$ t. Louis included soccer as an official Olympic sport where club teams competed under the national team banner. FIFA did not become active in OCympic soccer until 1908.

1914: The USS $\mathcal{F A}$ was incorporated and granted full membership by $\mathcal{F I F A}$.
1916: The US $\mathcal{F A} \mathcal{A l l}-\mathcal{A m e r i c}$ an $\mathcal{T e}$ am traveled to $\mathcal{N}$ orway and $S$ weden and became the first $\mathcal{A} m e r i c a n$ team to play in Europe. The team played six matches, finisfing 3-1-2.

1923: The world's first indoor soccer league with 11-a-side teams on a full-sized field opened the winter season in Boston.

1930: The $\mathcal{U S} \mathcal{A}$ is one of 13 nations to compete in the first $\mathcal{F I} \mathcal{F A}$ World Cup competition in Montevideo, Uruguay.

1932: At the 10 th Olympiad in Los Angeles, soccer was eliminated due to a controversy betwe en $\mathcal{F}$ If $\mathcal{F}$ and the International Olympic Committee over the definition of an amateur and the reluctance of most of the strong soccer countries to travel to California because of the expense.

1933: The $\mathcal{N a t i o n a l}$ Collegiate $\mathcal{A t h}$ tetic Association ( $\mathcal{N C A A}$ ) rele ased the ir official rule book covering all intercollegiate soccer in the United $S$ tates.

1945: The USSF changed its name to the U.S.Soccer Federation (UUSS $\mathcal{F A}$ ).
1950: The biggest upset in international soccer history-goe Gaetjens scores to lift the USA Aver England 1-0 at the World Cup in $\mathcal{B r a z i l}$.

1958: The first $\mathfrak{N C A A}$ Championsfip Tournament was held in $S$ torrs, Conn. St. Louis defeated Bridge port University 5-2. The first $\mathfrak{N a t i o n a l} \mathcal{A s s o c i a t i o n ~ o f ~ I n t e r c o l l e g i a t e ~} \mathfrak{A t h}$ letics college championship was held in Slippery Rock, Pa. Pratt Institute defeated Elizabethtown College 4-3.

1961: The Confederation of $\mathcal{N}$ (orth, Central $\mathcal{A m e r i c} a$ and Caribbe an $\mathcal{A s s o c i a t i o n ~ F o o t b a l l ~ ( C O N ( C A C A \mathcal { F } ) ~ w a s ~}$ recognized by $\mathcal{F I F} \mathcal{F A}$.

1967: T wo new professional soccer leagues made their debut in the United States, the United Soccer $\mathfrak{A s s o c i a t i o n}$ and the $\mathcal{N a t i o n a l}$ Professional Soccer League. By the end of the year, the leagues merged at the request of $\mathcal{F I F A}$ and the $\mathcal{N}$ orth $\mathcal{A m e r i c a n}$ Soccer League ( $\mathcal{N} \mathcal{A S}$ L) was established.

1971: Pele retired from international competition after Brazil tied Yugoslavia 2-2 Gefore 150,000 at Rio de Janiero's Maracana Stadium.

1973: Kyle Rote, Ir., Gecame the first rookie and first American to win the $\mathcal{N} \mathcal{A S} \mathcal{L}$ scoring title with 30 points.

1974: The USSSFA changed its name to the United States Soccer Federation (USS $\mathcal{F}$ ).
1975: The New York Cosmos signed Pele for $\$ 4.5$ million.
1978: The Chicago Sting played the Cuban $\mathcal{N}$ (ational $\mathcal{T}$ eam in an exfibition in $\mathcal{H} a v a n a$, the first time since 1959 an American professional sports team fad visited Cuba. The Major Indoor Soccer League (MIS L) debuted with six franchises.

1986: After bidding for but failing to host the 1986 World Cup, $\mathcal{F}$ If $\mathcal{A}$ officials suggest the USA should bid for the ' 94 World Cup.

1988: The United States is awarded the 1994 World Cup during the $\mathcal{F I} \mathcal{F A}$ Congress in Zurich.
1989: Paul Caligiuri's 35-yard dipping shot found the net in a 1-0 victory over $\mathcal{T}$ rinidad étobago, clinc fing the USA's first appearance in the World Cup since 1950.

1991: The Ul.S. Women's $\mathfrak{N}$ ational $\mathcal{T}$ eam captured the first-ever $\mathcal{F I} \mathcal{F A} \mathcal{W}$ omen's World Championskip in China with a 2-1 win over $\mathcal{N}$ orway.
1993: U.S. Cup'93 was used as a dress rehearsalfor World Cup organizers, officials, volunteers and the U.S. National Team. Attendance and media interest were figh, with 286,761 people attending the tournament's six games, and $\mathfrak{A B C}-\mathcal{T V}$ broadcasting the UlS.-Germany match.

1994: More than 3.5 million people attended World Cup matches in the United States. The Uu.S. team advanced past the first round for the first time in 64 years. The team was eliminated in the round of 16 by eventual-champion Brazil.

1995: The U.S.men advanced to the semi-finals of Copa America, one of the world's most prestigious tournaments. The women's national team moved into full-time residency in Orlando, $\mathcal{F l a}$.

1996: The U.S. Women earn the gold medal at the Summer Olympic Games in $\mathcal{A} t$ lanta.
1999: The U.S. Womenearn the World Cup.

The Ulited States Soccer $\mathcal{F e d e r a t i o n}$, or $\mathcal{Z} . S$. Soccer, is the $\mathcal{N}$ ational Governing $\mathcal{B o d y}$ for the sport of soccer in the United States. With headquarters in Chicago, Ul.S.Soccer served as host federationfor World Cup USA 1994, the most successfulevent in Federation Internationale de Football Association ( $\mathcal{F I F} \mathcal{F})$ fistory.
U.S. Soccer was one of the world's first organizations to be affiliated with the $\mathcal{F I} \mathcal{F A}$, soccer's world governing body, beginning in 1913. U.S. Soccer has continued to grow and now has the second-largest membersfip among U.S. Olympic Committee $\mathcal{N}$ (ational Governing $\mathcal{B o d i e s . ~}$

Approximately 50 full-time U.S. Soccer employees work to administer and serve a membership located in all 50 states. Known originally as the U.S. Football $\mathfrak{A s s o c i a t i o n , ~ U L S . S o c c e r ' s ~ n a m e ~ w a s ~ c h a n g e d ~ t o ~ t h e ~ U n i t e d ~}$ States Soccer Football Association in 1945 and then to its present name in 1974. U.S.Soccer, is a nonprofit, largely volunteer organization with much of its business administered by national council of elected officials representing three administrative arms .- approximately 3 million youth players 19 years of age and under; 300,000 senior players over the age of 19; and the professional division.
U.S.Soccer manages seven full $\mathcal{N}$ ational $\mathcal{T}$ eams. Men's programs include a National $\mathcal{T} e$ am, Under- 23 (OCympic), Ulnder-20, Ulnder-17, and Five-A-Side (Futsal). Women's teams include the $\mathcal{N}$ (ational and Under20 teams. Three developmentalnational team programs include Under-18 and Under-16 Boys and Under-16 Girls.

The Women's $\mathfrak{N a t i o n a l} \mathcal{T}$ eam has produced the most significant achievements in $\mathcal{U}$.S.S $\operatorname{Soccer}$ fistory, winning the first-ever $\mathcal{F I} \mathcal{F A} \mathcal{W o m e n}^{\prime}$ ' World Cup Championship in China in 1991 and the gold medal at the 1996 Summer Olympic Games in Atlanta.

The Men's $\mathfrak{N}$ (ational $\mathcal{T e}$ am won the $\mathcal{U} . \mathcal{S}$. Cup'95 title and advanced to the semi-finals of Copa $\mathfrak{A m e r i c a}$ Gefore bowing out to eventual-Champion $\mathcal{B r a z i l} 1-0$. The Men's National $\mathcal{T e}$ am advanced to the second round of World Cup play in 1994 for the first time in 64 years.

Coaching schools are regularly held throughout the United $S$ tates where interested persons may gain certification at six progressive levels. U.S.Soccer has more than 72,000 certified coaches. The referee program makes up an integral part of the United $S$ tates soccer scene, with approximately 74,000 referees currently registered.

## Rules

Soccer is played by two teams of 11 players each. The object of the game is to kick or head the ball into the opponent's goal. The goalkeeper is the only player on the field allowed to touch the ball with his hands. The size of the playing field may vary, with a length between 100 and 130 yards ( 90 to 120 meters) and a width between 50 and 100 yards ( 45 to 90 meters). The length of the field must always be greater than the width.

At eachend of the field is a goal consisting of two upright posts 8 feet high ( 2.44 meters) and 8 yards (7.32 meters) apart spanned by a crossbar.
$\mathcal{A}$ referee on the field supervises the game, assisted by two linesmen.
Games consist of two 45-minute falves. If the game ends in a tie, suddendeath overtime is played. If still tied, often the match is decided by a penaltykickshoot-out in which players fromeach team alternate taking shots from 12 yards (11 meters) at a goaldefended by the opposing keeper.

## Equipment

The soccer ball is an inflated sphere with an outer covering usually made of leather. It is 27 to 28 inches ( 68 to 71 cm ) in circumference and weighs 14 to 16 ounces ( 396 to 453 grams ).

Players uniforms consist of shirts, shorts and socks in team colors. Goalkeepers we ar jerseys indifferent colors from teammates and often wear specialgloves to assist in handing the ball. Soccer shoes may have studs or cleats across the sole.

The rules state that nothing shall be worn that may be dangerous to other players. Shinguards are compulsory, but no other protective equipment is permitted.

## Glossary

- Advantage: Rule that le ts play continue after a foul, if stopping the action immediately would be dis advantageous to the team that was fouled.
- Back Pass: $\mathcal{A}$ pass made to a trailing player.
- Bicycle Kick: Overfead kick, atso called a scissors kick.
- Chip: A high pass over a defender's fead to a teammate, or a shot ongoal from close range away from the goalie's reach.
- Corner Kick: Method of restarting play after the defending team fas cleared the ball over its own goal line. The ball is placed at the point where the sideline and goal line intersect, with the attacking team awarded a free kick that may be shot directly into the goal.
- Dangerous Play: An action that could cause injury in the opinion of the referee. The offending team loses possession of the ball and the opponent is awarded a free kickfrom the point of the infraction.
- $\mathcal{D}$ irect $\mathcal{F}$ ree Kick: $\mathcal{A}$ free Kickthat can result in a goal.
- Dribble: To control the ball on the ground with the feet.
- End Line: Boundary lines marking the ends of the field.
- Far Post: Goalpost farthest from the ball.
- Field: Regulation Soccer field.
- Formations:4-3-3, for example, refers to four defenders, three midfielders and three forwards. Formations are listed from the defense out.
- Give-and-go: $\mathcal{A}$ player making a short pass to a teammate and then receiving the return pass. (Also referred to as the "Wall Pass" or the "Double Pass".)
- Heading: Ulsing one's head to score, pass or control the ball.
- Header: The act of heading a ball.
- Indirect Free Kick: Free kickthat can't result in a goal unless it touckes another playerfirst.
- Injury $\mathcal{T}$ ime: Time added to the end of each half to compensate for stoppages due to injuries, the scoring of a goal or time-wasting.
- Midfielder: Player who functions primarily in the middle of the field, linking play between forwards and defenders.
- Near Post: Goal post nearest to the ball.
- Obstruction: Illegally preventing an opponent from playing the ball by blocking the ir path to the ball. Results in an indirect free kick.
- Offside: Infraction in which an offensive player does not have at least two defensive players between his or herself and the goal line when the ball is last played forward by a member of the attacking team.
- Penalty Area:44-yard by 18-yard area in front of the goal in which the goalkeeper may use the ir hands.
- Penalty Kick: Direct free kickfrom 12 yards in front of the goal.
- Pitch: British term for the playing field.
- Red Card: Card held aloft by the referee to signify that a player is being ejected from the match.
- Screening (or shielding): Whendribbling, staying between the ball and the opponent to protect the ball.
- Slide Tackle: S tripping the ball from a dribbler by making contact with the ball while sliding on the turf.
- Striker: Player whose main responsibility is scoring.
- S we eper: A roving defender who plays between the fullbacks and the goaltender.
- Tackle: To take the ball away from an opponent by using the feet.
- Through-pass (or ball): A pass that splits a group of defenders.
- Throw-in: Method of returning the ball to play after it has gone over the sideline and was last touched by an opponent.
- Touchiline (or sideline): Line marking the side of the field.
- Trap: To bring the ball under control with any part of the body.
- Volley: Kicking the ball in or out of mid-air.
- Wall: Group of defenders standing shoulder-to-shoulder to defend a free kick usually near the goal.
- Yellow card: Card held aloft by the referee to warn a player that any further misconduct will cause their ejection from the game.

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For more information contact:
US Soccer Federation
1801-1811 South Prairie $\mathcal{A}$ ve.
Chicago, IL 60616
Phone: 312-808-1300
Fax: 312-808-1301
Internet: www.us-soccer.com
Email: socfed@aol.com
"Be patient," urged then-Olympic Committee President Avery $\mathcal{B r}$ undage to the $\mathcal{A m a t e}$ ur Softball $\mathfrak{A s s o c i a t i o n}(\mathcal{A S} \mathcal{A})$. "Your sport's time will come." Well, it may have taken ne arly three decades, but Softball's long journey to Olympic recognition finally ended during the summer of 1996 on the gritty ballfields of Columbus, Georgia.

The Olympic dream began back in 1968 when representatives from Canada, I apan, $\mathcal{A} u s t r a t i a$ and the United States met in Stratford, Connecticut to pledge their support in creating a strong international presence for women's fast pitch softball. Before long, teams from New Ze aland and New Guine a joined the others for the first Women's world championship in Australia. The wheels were in motion.

Over the next 28 years, Softball spread from $\mathcal{A m e r i c a}$ 's parks to the playing fields of almost every country in the world. With the tremendous growth of international and regional competitions, including the $\mathcal{P a n} \mathcal{A}$ merican, $\mathcal{A}$ sian, South Pacific, Southeast $\mathcal{A}$ sia, Central $\mathcal{A m e r i c a n - C a r i b b e a n ~ a n d ~ t h e ~ C e n t r a l ~} \mathcal{A} m e r i c$ an Games, the sport flourished, building a solid foundation for the growing interest of a new generation of athletes and fans.
"We've been the best-Kept secret in athletic fistory," said Team USA shortstop Dot Richardson. "I fope we don't stay a secret forever. It's time for everyone to realize and enjoy the talent that softhall has to offer."

On Iune 13, 1991 the secret was revealed when the International Olympic Committee (IOC) finally approved the recommendations of the IOC Program Commission and its Executive Board during the ir generalsession in Birmingham, England. Sof tball would be the world's ne west Olympic sport.
"This is a very historic day for us in the sport of softball," said Don Porter, executive director of TUS $\mathcal{A}$ Softball."We had to have perseverance, we had to have dedication and some patience to enable us to have a dream, that was shared by many, become a reality."

For $\mathcal{A m e r i c a ' s ~ b a l l ~ p l a y e r s , ~ a n o t h e r ~ l o n g ~ s t r u g g l e ~ w a s ~ j u s t ~ b e g i n n i n g . ~ I n ~ a n ~ u n p r e c e d e n t e d ~ g r a s s r o o t s ~ t r y o u t ~}$ program, the $\mathcal{A S} \mathcal{A}$ set out on a grueling three year search in the fopes of fielding the best possible team to represent the USA. Thousands of $\mathcal{A m e r i c a}$. most talented athletes stepped onto the field, vying to become one of the first Olympians in their sport.

Over severalintense months of competition, including the Pan $\mathcal{A m}$ Games, $\mathcal{S}$ uperball Classic ' 95 and the 1995 Olympic $\mathcal{F e}$ stival, a select fewbatted their way down to an elite list of finalists. This final field of 67 met in OKlafoma City over Labor Day we ekend, as a seven member national selection committee judged their every play. In the end only 15 would go on to the Olympic Games. The rest would go fome.
"The selection of this team was among the most difficult decisions this sporthas ever had to make. The US $\mathcal{A}$ is blessed with an abundance of talented players." $\mathcal{A S} \mathcal{A}^{\prime}$ s $\mathcal{D}$ on Porter said.

On September 4, 1995, Team USA was finally introduced at a press conference in OKlafoma City. For 15 U.S. Gallplayers, their ultimate dreams fad come true.
"This is probably the happiest day of my life, and yet we feelfor those teammates who weren't here today," said Lisa Fernandez, one of five U.S. pitchers. "We will never be satisfied until we come home with the gold."

For 34-year-old softball veteran Dot Richardson, it took alot of patience to get to this figh point of the game. Richardson, who has been competing internationally since 1979, delayed her finalyear of residency as an orthopedic surge on to compete with the team. "We're on the brink of becoming part of history. It's
been a dream of all of us since we were little girls to play in the Olympics for the U.S.," Richardson said. "This is a dream. We are living our dreams."

While USA S oftball marched ahead to the Olympics, decades of history and emotion came rushing back to a field of athletes and supporters who played so fiard to get to this point.
"As we look back at the accomplishment, we can't help but remember the countless individuals who played a role in the realization of this dream. Like the sport itself, nothing is accomplished without teamwork. Certainly, some received more playing time than others, but each contributed when it was needed.. whether it be time, energy or finances," Porter said.

The U.S. Team practiced for four months together in Columbus, $\mathcal{G A}$ to prepare for the Olympic Games. $\mathcal{A}$ stretch that took them all the way to the gold medal stand.
"All the players who competed for these spots over the last $21 / 2$ years and all of those who went before and prepared the way, remain a part of this team. Without the ir contributions to the sport and to myself as a player, the sport would not have fad the opportunity to play in the Olympics, and as a player I would not be standing here today," noted team veteran Dot Richardson. "We'll remember all of you. Ple ase remember that just as you were there for us, we will be there to represent you also."

General Information

The $\mathcal{A m a t e}$ ur Softball $\mathfrak{A s s o c i a t i o n}(\mathcal{A S} \mathcal{A})$ has many important responsibilities as the $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}$ of amateur softball in the United States, including regulating competition to assure fairness and equal opportunity to the thousands of teams, umpires and sponsors who play the sport.
$\mathcal{A S} \mathcal{A}$ Distinctions Include:

- The National Governing Body Of Softball
- Member Of The United States Olympic Committee (USOC)
- More Than 260,000 Teams Registered Nationally
- More Than 73,500 Iunior Olympic (Youth) Teams
- $64 \mathcal{N}$ (ational Championships
- More Than 56,000 Trained And Registered 2 Impires


## The Beginning

When the $\mathcal{A S A}$ entered the softball picture in 1933, the sport was in a state of confusion, with no formal set of playing rules and no $\mathfrak{N}$ ational Governing $\mathcal{B o d y}$ to provide guidance and stability.
$\mathcal{F r o m}$ this beginning, the $\mathcal{A S} \mathcal{A}$ has become one of the nation's largest and fastest growing amateur sports organizations. It nowsanctions play in every state through a network of 100 state $/ m e t r o$ organizations in 15 regions. The organization annually registers over 260,000 teams combining to form a membership of more than 4.5 million.

In 1991 women's fast pitch softball was added to the program of the 1996 Olympic Games in $\mathcal{A t l a n t a}$, Ga.
Working in conjunction with the $\mathcal{U S} O C$, it is the $\mathcal{A S} \mathcal{A}$ 's responsibility to insure that our national team has the best possible chance of winning. That includes providing young athle tes from across the country the opportunity to make the national team, then preparing them through international competition and exfibition play.

## I unior Olympic Program

The $\mathcal{A S} \mathcal{A}$ has made an investment in the future of softball with its ever-growing $\mathcal{I}$ unior Olympic program. Each year, more than one million boys and girls across the country play $\mathcal{A S} \mathcal{A} \operatorname{g}$ unior Olympic softball.

This program is helping to develop the interest, skills and desire of a newgeneration of softball players.. skills necessary for these young people to excelindividually and ultimately insure the continued growth of the sport. The $\mathcal{I}$ unior Olympic program emphasizes fun and provides for agreat exchange of fellowship and sportsmansfip, and an all-important feeling of belonging and being a part of something worthwhile.

Play is divided into four divisions: 18, 16, 14 and 12 -under, with fast and slow pitch offered for both boys and girls.

## Volunteer Improvement Program

The $\mathcal{A S} \mathcal{A}$ 's Vofunteer Improvement $\operatorname{Program}(\mathcal{V I} \mathcal{P})$ is helping to insure the nation's finest instruction for tomorrow's softball $\mathfrak{A l l}-\mathcal{A m e r i c a n s . ~ T h e ~ V I P ~ p r o g r a m ~ i s ~ d e s i g n e d ~ t o ~ h e l p ~ c o a c h e s ~ p r o g r e s s ~ t h r o u g h ~ t h e ~ i r ~}$ coaching careers. They are recognized by the program at bronze, sifver and gold levels as they increase the ir knowle dge of softball.

Recognizing the need to improve the quality of amateur coaching in $\operatorname{I}$ unior Olympic softball, the $\mathcal{A S} \mathcal{A}$ started the VIP program to offer those "grass roots" volunteer coackes .- who spend countless fours and effort each summer coacking youth .. the materials, information and methods required to improve the ir coacking techniques.

Ulmpire $\operatorname{Program}$
Each year, more than 56,000 ASA umpires officiate games organized and promoted by the $\mathcal{A S} \mathcal{A}$ 's associations.
$\mathcal{A S} \mathcal{A}$ umpires are recognized as the world's finest largely because of the training, information and study aids available to them. Formal training includes $\mathcal{N}$ (ational Umpire Schools and local, state and regional rules clinics and mechanics schools held at locations across the country.

The $\mathcal{A S A}$ also provides a full-service umpire merchandise program through the national office in which umpires may order official $\mathcal{A S} \mathcal{A}$ we aring apparel and equipment.
$\mathcal{T}$ he $\mathcal{N}$ ational Indicator $\mathcal{F}$ raternity is an honor group open to umpires who have been affiliated with the $\mathcal{A S} \mathcal{A}$ for seven years, umpired in three national championships and are recommended by their commissioner and regional umpire-in-chief (UIC).

Certification as an International Softball Federation (IS F) umpire is the ultimate fonor to be achieved by an $\mathcal{A S} \mathcal{A}$ umpire. Certification on this levelallows the umpire to represent the $\mathcal{U S} \mathcal{A}$ as an umpire in IS $\mathcal{F}$ sanctioned World Championsfips, the Pan American Games and the Olympics.

## Rules

- $\mathcal{A}$ team consists of nine players.
- A Designated $\mathcal{H}$ itter ( $\mathcal{D H}$ ) may be used for any player as long as the player's name is included in the officialline-up sheet. If a $\mathcal{D H}$ is replaced by a pinch-fitter or pinch-runner, the $\mathcal{D H}$ may not return to the game. The defensive player for whom the $\mathcal{D H}$ is batting cannot play offense during the game, and a $\mathcal{D H}$ may not play defense.
- All starting players (except the $\mathcal{D H}$ ) are allowed to re-enter the game one time if they have been substituted for, but the re-entry must be in their original batting order.
- Play shall consist of 7 innings. If the seventh inning ends in a tie, play will continue for an 8 th and 9 th inning.
- Starting in the top of the 10 th inning (and for each half inning thereafter), the offensive team shall begin its turn at Gat with the player scheduled to Gat 9 th in that respective inning placed on second base.
- The distances betwe en base paths is 60 ft . This is a major distinction since the short base paths require infielders to react much more quickly than in baseball where the infielders have 90 ft. to work with.
- The pitching distance from pitching rubber to fome plate is 40 ft .
- Softball pitchers workfrom a pitching circle with an 8 ft. radius from the pitching rubber. The ground within the circle is not elevated. Pitches delivered ne ar 70 mph will reach a batter equivalent to a Gaseball pitcher throwing 100 mph from $60^{\prime} 6^{\prime \prime}$.
- Pitchers must begin their delivery with both feet in contact with the pitching rubber with the ball held in both fands in front of their body. The pitch begins when one hand is taken off the ball or the pitcher makes any motion that is part of the wind-up.
- The pivot foot may remain in contact with the rubber or may push off or drag away prior to the front foot touching the ground as long as the pivot foot remains in contact with the ground.
- Outfield fences are set at a radius of 200 ft . from home plate.


## Equipment

Softball Bats: Must be made of hardwood, metal, 6amboo, plastic, grapfite, carbon, magnesium, fiber-glass, ceramic or other composite materials approved by the IS $\mathcal{F}$. However, Gats normally used in softball are of aluminum alloy. Bats can be no longer than 34 inches and must not weigh more than 38 ounces. Due to the short base distances and the closeness of the infielders, a safety grip is required on all bats.

Official Softballs: Olympic softballs must be 12 "in circumference and weigh between $61 / 4$ and 7 ounces. The ball shall be of flat seam style with no less than 88 stitches in each cover. Balls are white with white stitches.

Other Equipment Requirements: All catchers must we ar masks, throat protector, helmet, body protectors and shinguards. All offensive players must we ar helmets while batting and baserunning. Shoes may feature metal, soft or hard rubber cleats. Spikes on the sole or heel plates must not exceed 3/4".

Glossary

- ASA: Amateur Softball Association. National Governing $\mathcal{B o d y}$ for the sport of softball in the United States. Founded in 1933.
- Designated $\mathcal{H}$ itter: $\mathcal{A} \mathcal{D e}$ signated $\mathcal{H}$ itter may be used for any player as long as the player's name is included in the official line-up sheet. If a $\mathcal{D H}$ is replaced by a pinch-fitter or pinch-runner, the $\mathcal{D H}$ may not return to the game. The $\mathcal{D H}$ may not play defense.
- IS F: International Softball Federation. International Governing $\mathcal{B o d y}$ for the sport of softball.
- Volunteer Improvement Program: Coaching Program created by $\mathcal{A S} \mathcal{A}$ to ensure continuity of instruction among players.

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For more information contact:
$\mathcal{A m a t e}$ ur Softball Association, $2801 \mathfrak{N} \mathcal{E} 50^{\text {th }}$ Street, OKlafoma City, OK 73111-7203
Phone: 405-424-5266
Fax: 405-424-3855
Internet: www.s of thall.org
Email: info@softball.org

Speed Skating

## $\mathcal{H}$ istory

$\mathcal{N}$ o one knows for certain where the first man le arned to skate. We do know that the skate found its origins in the ski, or snow shoe, which was used by the Vikings to mane uver across snow-covered ground. The skate was fence alogicaldevelopment, allowing the Viking to cross frozen lakes. In fact, archeologists have found Viking-made skates in many regions of Europe known to Ge seats of Viking power, including England, Germany, S witzerland and other nations.

The sport of speedskating itself is one of many that derived its recreational nature from its practical value. Like cycling, running and sailing, laborers and children"speedskated"every day as a part of their work or transportation regimen. In Scandinavia, primitive funters used crude skates made from animal bones to funt wild animals across the fjords and icy terrain. Skates shaped from bones of elk, forse and reindeer have been found by archaeologists in the are a of $\mathcal{B j} o k o, S$ weden. The bone skate was fastened with straps to a boot made from animal skins. In the fourteenth century, highly waxed wood replaced bone as the material of choice for skate blades. However, neither bone nor wood provided any edge for the 6 lade, and so a long pole was required to direct the skater across the ice.

References to skating can also be found in ancient literature. The Finns and Laplanders known for their tecfnique of sliding with snowshoes or runners were called "S Krid Finnai" or "S liding Finns," a common name for most of the ancient inhabitants of $S$ weden in the "Norsk $S$ aga." Contemporary children's fiction often stereotypes the $\mathcal{D u t c h}$ as canalgliders. The first mention of a metalrunner on a skate may be traced to the year 1400 . Originating in Holland, this development would improve skating as the traditional means of transport for the Dutch people. The Amsterdam market in winter was supplied with goods moved over frozen canals, including eggs carried in baskets on the heads of women. The functionality of the skate, and the development of its recreational usage, would intensify the love affair between the Dutch people and the ir national past time, speedskating. The later development of the first all-iron skates took place in $S$ cotland in 1572, moving speedskating into the realm of an organized sport.
$\mathfrak{A n d}$ so, the evolution of speedskating into a "sport" was a progression. And once it had developed as such, speedskating rapidly became a favorite among Europeans, particularly the $\mathcal{D} u t c h$. The first of the three forms of skating (speedskating, figure skating and kockey) to develop into a sport, speedskating advanced so quickly in $\mathcal{H}$ lland that its current form is very much like that in which the $\mathcal{D} u t c h$ participated in the 1500 s . Very little has changed.
$\mathcal{B}$ y the eighteenth century, the popularity of speedskating had spread across northern Europe. The first Known speedskating club was the SKating Club of Edinburgh, in Scotland. The first speedskating competition is thought to be a 15 -mile race feld on the $\mathcal{F e n s}$ in England, February 4, 1763. S fortly thereafter, competitions sprang up across the northern part of the continent, with the skaters, comprised of the laborers, being judged by the aristocrats, who themselves preferred the sport of figure skating.

The first speedskating club was established in Philadelphia in 1849, with skaters using the Schuylkill River. The sport was adopted in $\mathcal{N}$ ew York and Washington shortly thereafter. In $1850, \mathcal{E} . \mathcal{W}$. Bushnell of Philadelphia made the first all-steelskate, which were light and strong, and did not require the frequent sharpening that the iron runners had. With this development, Bushnell virtually revolutionized both the skate and the sport of speedskating, raising the levelof interest in the sport from recreational to passionate.

The first official speedskating events were in 1863 in Oslo. In 1889, the first World Championships was hosted by the Netherlands, bringing together the $\mathcal{D} u t c h$, Russian, American and Englisf champions. The
$\mathcal{D} u t c h$ were first to propose the competition format similar to what is used today in long track. The $\mathcal{D} u t c h$ created the double trackconcept, racing in pairs and competitions conducted over a variety of distances.

The first Winter Olympic gold medalist from the U.S. was Charles gewtraw of Lake Placid, N. . . ge wtraw won the gold in the 500 on ganuary 26, 1924 in Chamonix, France. Known for his explosive first 100 yards, gewtraw's best 100 yards was 9.4 seconds, still remarkable by today's standards.

Speedskating has produced more U.S. Olympic medals than any other sport, as well as several of the greatest feats in Winter Olympic history. Among them are the five gold medals won by 21-ye ar old Eric Heiden of Madison, Wisc., at the 1980 Lake Placid Olympics, and the capture of the first Olympic medalfor short trackspeedskating by Cathy Turner in 1992. She followed that up four years later with another gold in the 500 meters. And of course, there is Bonnie Blair, the skater from Champaign, Ill., who won more medals (six) than any other Ul.S.woman, in summer or winter competition.

## General Information

U.S.Speedskating is the National Governing Body of Olympic-style speedskating. It was founded in 1966 when a small group of speedskating enthusiasts broke away from the $\mathcal{A m a t e}$ ur $\mathcal{S}$ kating $\mathcal{Z l n i o n}$ ( $\mathcal{A S}$ U) to form the United States International Speedskating $\mathcal{A s s o c}$ iation (USIS $\mathcal{A}$ ), an organization whose primary responsibility, at that time, was world teams. The USISA adopted the name U.S.Speedskating for public relations and marketing purposes in November of 1993. U.S.Speedskating is a member of the U.S. Olympic Committee and International Skating Ulion.

In addition to selecting and preparing teams to represent the United States in internationalcompetition, U.S.Speedskating is also a membership organization with more than 2,000 registered skaters. The organization also manages four national teams, the $\mathcal{U l} . \mathcal{S}$. National Sprint $\mathcal{T e}$ am, $\mathfrak{A l f r o u n d} \mathcal{T} e a m, I$ unior Long Track $\mathcal{T e}$ am, and the $\mathcal{U} . S$. National Short $\mathcal{T r a c k} \mathcal{T}$ eam. The official training site for the sprint, allround and junior long track teams is the Pettit National Ice Center, in Milwaukee, Wis. The short track team is Cocated at $\mathfrak{N}$ orthern Michigan Ulniversity in Marquette, Mic $\mathfrak{K}$.
U.S.Speedskating has worked closely with the $\mathcal{A m a t e}$ ur Skating Union (AS U) in the grassroots development of speedskating. Among those $\mathcal{A S} \mathcal{C l}$ programs which are supported by Ul.S. Speedskating is the pioneering program, whereby a representative travels to new areas in an effort to teach interested parties how to form an organization, fold a meet, etc. Ul.S. Speedskating also provides grants for skaters' travel to the $\mathcal{N}$ (orth $\mathcal{A}$ merican Championsfips, provides funding for the production of promotional speedskating materials, including training tapes and development materials, and supports joint camps in the summertime.
To further encourage participation in speedskating, U.S.Speedskating has also held "inline-to-ice"camps, encouraging inline skaters to cross-over to the ice for a weekend and try their luck on speedskates.

## Rules

Short Track// Basics

- Short track made its official Olympic debut at the 1992 Winter Games, after having been a demonstration sport in 1988 . It is contested in indoor rinks on a 111 overall meter track...an international size hockey rink ( $30 \times 60$ meters) .
- Short trackraces are fast and thrilling. A pack of four to six skaters race against each other, rather than the clock. Times are kept in short trackracing only for the purpose of establishing local, national
and world records. Spectators relish the compressed action of a fast-moving pack on a small track, anticipating spills and occasional contact between competitors.
- The ability to read a race and its competition is vital to getting positioned for the win. A typical strategy might involve one competitor taking the le ad quickly and setting a fast pace in an effort to "burn out" the other skaters. Or a slow pace is set with skaters jockeying for position in anticipation of a sprint for the finish line during the last three or four laps.


## Short Track// The Rules

- Ulsually, competitors skate a series of heats or elimination rounds for the individual events. Heats have up to six skaters, with the top two finishers fromeach heat advancing to the next round.
- Each skater is allowed one false start and is disqualified after the second. The start is crucial to the skater, especially in the shorter distances, since the start is not staggered and a skater can move to the inside immediately. Skaters must skate outside the blocks during the entire race, although a finger can skim the surface of the ice inside the blocks as long as the skater rounds the blocks.
Short Track // Passing
- Passing must be done cleanly and without body contact. Passing is tricky, and skaters take advantage of Key areas to pass. If the lead skater strays too far from the track markers, he or she can be passed on the inside by an alert competitor.
- If the track is skated tightly by the pack, passing must then be done on the outside. The rules on passing other skaters are strict. One infraction and a skater is out. The lead skater has the right of way and the passing skater must assume responsibility for avoiding body contact. The most frequent passing occurs when a skater passes on the inside ne ar the first or second block of the corner.
- Intentionally pusfing, obstructing or colliding with another racer calls for the offender's disqualification and a chance for advancement to the next round by the victim of the offense. Improperly crossing the course ("cross-tracking") is also profinited, as is Kicking your skate across the finish line. A bell warns the skaters when they are one lap from the finish.

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Short Track // Falls
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- Given the frequent contact between skaters in short track racing, falls are not uncommon. Although a competitor is not disqualified for a fall, to come from befind and win after a fall in any individual event is ne arly impossible. Skaters may still do well in the final classification of the competition by recording strong finishes in the other individual events.
Short Track // Scoring - U.S. and World Championsfips
- Winners are determined by order of finish, not by time.
- Skaters can earn points according to their order of finish: five points for first place, three for second, two for third and one for fourth. Points earned in all rounds le ading up to the final are called performance points. Points earned in final competition are called final points, and have preference over performance points. The overall winner of an event is the skater with the greatest number of final points. If a skater qualifies for a final but does not score points, he or she will be ranked ahead of any skater not competing in a final. This instance is designated on the result sheet by zerofinal points next to the skater's name. This system is not used in Olympic competition.
Short Track// Distances
Meters $=$ Laps
$500=4.5$
$1000=9$
$1500=13.5$

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3000=27
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$5000=45$

> Olympic Competition // Individual Events

- The 500 meter and 1000 meter events are held at the Olympic Games, with medals awarded for each. The heats usually have four skaters, with two skaters from each heat advancing to the next round. The semifinal and finals also usually have four competitors in each race.

Olympic Competition // Relay Competition

- For the women's 3000 meter relay, eight pre-qualified teams compete, including the fost country. Two heats are skated with the top two finishers from each advancing to the final.
- For the men's 5000 meter relay, eight pre-qualified teams compete, including the fost country. Two heats are skated with the top two finishers from each advancing to the final.
- Each team has four skaters on the ice and each must skate at least one exchange. The relay fas a mass start with each team's first skater. Each team determines how many laps its skaters will skate. The skaters can exchange as often as decided by their team, provided the exchange to the last skater is started prior to the last two full laps. Normally teams skate one, one and a fialf or two laps per turn.
- Relay exchanges are performed at high speeds and are usually done with a firm push. The relay exchange can be done in any area of the track; however, the last exchange must start prior to the center line (finisf line) with two laps remaining in a race. A gun shot warns the skaters that the last exchange is coming $u p$.

> Long Track // Basics

- As an Olympic event for men since 1924, and women since 1960, long trackspeedskating features two skaters competing on a 400-meter track.

Long Track// The Rules

- Skaters compete in separate lanes and all events must be run in a counterclockwise direction. Each lane is divided by snow or markers and the inside lane is shorter than the outside lane. In order for each racer to skate the same distance, they must change lanes during each lap at the crossover point in the backstretch. The skater crossing the outer lane to the inner lane has the right of way, since he would have opened alarge lead to arrive at the cross-over earlier than fis opponent in the shorter inner curve.
- Any collision with or obstruction of an opponent during the cross-over can result in a disqualification of the offender and a chance to re-skate by the injured party. Whenentering a curve, the skater may not cross the lane markers, though referees usually permit the skater to nick the lane markers with his or her left foot.
- Skaters compete in severalheats called pairs. Winning the pair does not mean winning the event. The winner of the event is the fastest competitor of the day. Skaters prefer to skate in the fastest pair possigle, thus improving their chances for a faster time.
- Pairs and lane assignments are determined by a drawing conducted before the event. Names are drawn two at a time from each seeding pool, forming a pair. Each pair skates in the order in which it was drawn.

> Long Track// The Start

- Skaters start either side-by-side or staggered, depending on the distance of the race. The skater starting in the inner track wears a white armband; the skater starting in the outer lane wears a red one. When the starter orders "go to the start," both skaters move to area between the pre-starting line and the starting line. At the word "ready", both skaters assume their exact starting positions,
holding them until the starter fires the gun. Each skater is allowed one warning for a false start before disqualification. Only the first skater to breakfrom the start position before the gun will be considered at fault. If one skater is disqualified for a false start, the remaining skater of the pair skates alone.

> Long Track// The Finish

- A skater has completed the distance when he or she has touched or reached the finish line with fis or her skates, as recorded by an electric eye beam. The winner for each event is the skater with the lowest time, measured to $1 / 100$ th of a second, after all the pairs have raced. If two skaters tie, they shall be judged as tied. No deciding heats or tie-breakers are allowed.

Long Track// Disqualification

- A skater can be disqualified for:
- Failure to appear promptly at the start.
- Two false starts.
- Crossing lane markers while in the curves. Subject to ruling from the judge.
- Failure to change lanes in the crossing area
- Interfering with an opponent when changing lanes. Subject to ruling from the judges.

Long Track// Falls

- Skaters who fall during the course of a race are allowed to get up and continue. For distances less than 10,000 or 5000 meters, there is generally no chance of making up lost time. If a skater falls before the finish line, the time is taken when the skater's skate crosses the finish line, even if the skater is out of his or her lane.

Long Track// Scoring

- Scores in long track are tabulated using samalog points. Keeping in mind that time equals points, samalog scoring is based on time from the 500 mevent. Scores are computed by the following formula:
500 m time $=$ points
1000 m time divided by $2=$ points
1500 m time divided by $3=$ points
3000 m time divided by $6=$ points
5000 m time divided by $10=$ points
$10,000 \mathrm{~m}$ time divided by $20=$ points
- Samalog point system is used at the World Championsfips and National Championships

The Distances // Men's/Women's 500 m
Start: Even, located at the beginning of the finish straight section of the track.
Distance: One and one-fourth laps.
The Distances // Men's/Women's 1000 m
Start: Staggered, located in the middle of the backstretch (cross-over straight section of the track.)
Distance: Two and one-half laps, finishing the middle of the final straight. This is the only distance which finishes in the middle of the straight; all other finish at the end of the finish straight.
The Distances // Men's/Women's 1500 m
Start: Staggered, located at the beginning of the backstretch (cross-over straight section of the track.)
Distance: Three and three-quarters laps, finisfing at the end of the finish straight.
The Distances // Women's 3000 m

Start: Staggered, located at the end of the backstretch (cross-over straight section of the track.) Distance: Seven and one-half laps, finisfing at the end of the finish straight.
The Distances // Men's/Women's 5000 m
Start: Staggered, located at the end of the backstretch (cross-over straight section of the track.) Distance: 12 and one-half laps, finishing at the end of the finish straight.
The Distances // Men's $10,000 \mathrm{~m}$
Start: Same as the finish, located at the end of the start/finish straight $\mathcal{D i s t a n c e}: 25$ laps.
The Entries // Olympic Games

- A country may qualify for the Olympic Games only skaters who have ackieved qualifying times set by the International $S$ kating Union (IS U) for the respective distances. Times will be recognized only if skated during the season concerned at the following competitions: IS ULChampionships, Speedskating World Cup competition, international competitions open to all IS U members, country matches and national championsfips.
- The total number of competitors from any country may not exceed 10 women and 10 men. For the 500 , 1000 and 1500-meters, a country may enter a maximum of four competitors for each event. The 3000 and 5000-meters for women, and the 5000 and $10,000-m e t e r s$ for men, a country may enter a maximum of three competitors in eachevent. If the totalnumber of skaters for the men's 5000 and the women's 3000 exceeds 32, the IS U may cut lower-ranked skaters at the Olympics. The maximum number of skaters for the women's 5000 and the men's 10,000 -meters is 16 , based on the individual skater's finish in the 3000 (women)/5000 (men) at the Olympics and their current world Cup ranking for these distances.


## Equipment

Because of the small track and sharp turns, the walls of the rink are padded to minimize injuries. Short trackskates, unlike long trackskates, are molded to the foot and reinforced in the ankles to counteract the centrifugal force of the sharp turns. Blades are offset to provide greater lean...the blade on the left boot is set on the outside of the boot and blade on the right boot is set on the inside of the boot. Skaters wear protective equipment such as hard shellhelmets, gloves, knee pads, neckguards and shin guards.
Glossary

- Armband: used to determine one skater from the other. The skater starting in the inner track wears a white armband; the skater starting in the outer lane wears a red one.
- Blocks: Garriers on the track that skaters must stay on the outside.
- Burn Out: setting a fast pace to tire other skaters.
- Cross-Iracking: improperly crossing the course.
- False Start: starting before the gun sounds to start the race. Each skater is allowed one false start and is disqualified after the second.
- Heats: an elimination round in individualevents to narrow the field of skaters. Heats have up to six skaters, with the top two finishers from each heat advancing to the next round.
- Long Track: features two skaters competing on a 400-meter track.
- Pairs: heats for long trackspeedskating. Winning the pair does not mean winning the event. The winner of the event is the fastest competitor of the day.
- Protective Clothing: skaters we ar hard shellhelmets, gloves, knee pads, neckguards and shinguards.
- Samalog: method of scoring where time equals points. Samalog scoring is based on time from the 500 m event and used at the World Championsfips and $\mathcal{N a t i o n a l}$ Championships. Scores are computed by the following formula:
- 500 m time $=$ points
- $\quad 1000 \mathrm{~m}$ time divided by $2=$ points
- 1500 m time divided by $3=$ points
- 3000 m time divided by 6 = points
- 5000 m time divided by $10=$ points
- $10,000 \mathrm{~m}$ time divided by $20=$ points
- Short Track: contested in indoor rinks on a 111 overall meter track-an international size fockey rink ( $30 \times 60$ meters).
- Right of Way: the lead skater has the right of way and the passing skater must assume responsibility for avoiding body contact.

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For more information contact:
US Speed Skating, PO Box 450639, Westlake, OH 44145, Phone: 440-899-0128; Fax: 440-899-0109 Internet: www.usspeedskating.org

For over 1000 years man has invented and enjoyed a variety of games played by fitting a ball with either a closed fist...as in "fives" or "bunch of fingers".. or with some form of bat or racket. Around the year 1148 the French played "Le Paume," meaning "the palm of the fiand," which developed into Ieu de Paume, Real Tennis, Royal Tennis or, if you play the sport, simply Tennis. At sometime in the early 19 th century this obsession with rackets and balls spawned another variety of the sport in the unlikely birthplace of the $\mathcal{F l e}$ et $\mathcal{P r}^{\prime}$ ison in London. The prisoners in "The Fleet," mainly debtors, took their exercise by fitting a ball against walls, of which there were many, with rackets and so started the game of "Rackets." Rackets progressed, by some strange route, to Harrow and other select English schools about 1820 and it was from this source that our own sport of Squash, or Squash Rackets, developed.

Squash was invented in Harrow school around 1830, when the pupils discovered that a punctured Rackets Gall, which "squashed" on impact with the wall, produced a game with a greater varie ty of shots and required much more effort on the part of the players, who could not simply wait for the ball to bounce back to them as with Rackets. The variant proved popular and in 1864 the first four $S$ quash courts were constructed at the school and $S$ quash was officially founded as a sport in its own right.

In those early days $S$ quash, as with all other sports, was without any form of international standardization and it was inevitable that slight variations in the way it was played, and the equipment used, would occur. Luckily only two main streams of activity followed, one in England with its 21 feet wide courts and "soft" Gall and the other in $\mathcal{N}$ (orth $\mathcal{A}$ merica, with its 18.5 feet wide courts and "hard" ball and with both courts having the same length of 32 feet the universality of $S$ quash was not seriously challenged. We will look at these two Granches separately and also at the way in which $S$ quash spread to almost every nation in the world.

## Early Days in England

The first recorded reference to "Squash," other than in Harrowschool, appeared in 1890 in the English Gook The Badminton Library of Sports and Pastimes written by the Duke of Beaufort. Eustace Miles, a world champion at both $\mathcal{T}$ ennis and Rackets, wrote the first 6ook on Squash in 1901; stating that the sport was enjoyed $6 y$ thousands of players in various parts of the world. By that time there were courts in schools and universities in England and some also in private houses. The first professional $S$ quash Championstip was held in 1920 in England, when C.R. Read (Quens Club) beat A.W.B. Iofnson (RAC Club).

In $1923 \mathcal{H} . \mathcal{A} . L . \operatorname{Rud}$, writing in $\mathcal{B a i l y}$ 's Magazine, forecast that Rackets would lose many players to Squash with the arrival of the first English Amateur Championships. He was concerned at this prospect as he considered Rackets to be a"manlier"game; Squash afforded a good"sweat" but did not demand the same skill as Rackets, in his opinion. Rudd's forecast proved to be only too correct as Squash grew rapidly and soon left its parent sport far befind in popularity.
$\mathcal{A} s$ quask play developed so did its administrative structure. The first discrete national associations to be formed were the United States Squash Racquets Association in 1907 and the Canadian $S$ quash Racquets Association in 19 11. In England the game was regulated by a $S$ quash sub committee of the Tennis and Rackets Association from 1908 until it gaine d full status as the Squash Rackets Association in 1928.
$\mathcal{A}$ court built at the Bath Club in London at the beginning of the 20 th century was chosen as the modelfor the standard size of a Squash court, 32 feet $6 y 21$ feet or 9.75 meters by 6.4 meters, much smaller that the court for Rackets which measures 60 feet by 30 feet ( 18.3 meters by 9.1 meters). The British dimensions were proposed in 1911, Gut not ratified until 1923. The point-a-rally scoring system to 15 was
used universally in Squash until 1926 when the current fand-in, fiand-out system to 9 points was introduced outside north $\mathcal{A m e r i c a}$. The $\mathcal{A m e r i c a n}$ fardballgame, fowever, continued to be played to 15 points and this system was also adopted for the men's professionalcircuit in 1991 in an effort to shorten the matches.

In 1933 the great Egyptian player $\mathcal{F} . \mathcal{D}$. $\mathcal{A m r} \operatorname{Bey}$, won the first of his five British Open Championsfips, then seen as the World Championships. He was followed in his achievement 6y M. A. Karim of Egypt who won the title four times from 1947 to 1950 and then the dominating Xhandynasty from Pakistan; Hasfim (19511958), Roskan (1957), Azam (1959-1962), MoЋíullaЋ (1963), Iafangir (1982-1992) and Iansher (1993. 1994).

The Women's British Open commenced evenearlier than the Men's; with Miss I.I. Cave winning the title in 1922. Until 1960 the title belonged solely to English players, with gane $\operatorname{Morgan}$ (later Shardlow) winning 10 times betwen 1950 and 1958. She was followed by the most famous woman Squash player ever, the $\mathcal{A}$ ustralian Heather Mc Kay, who dominated the sport from 1966 to 1977 and remained undefeated throughout her playing career. Her successor was the $\mathcal{N e w}$ Zealander, Susan $\mathcal{D e}$ voy, who won the title 8 times between 1984 and 1992.

Perfaps the players who had the most impact on the development of the sport were gonaf Barrington (Ireland) and Geoff Hunt (Australia). They dominated Squash betwen the late 1960 s and early 1980 s , capturing the imagination of sportsmen and women everywhere and starting a 6oom in the sport which raised the number of courts to 46000 worldwide and the number of players to over 15 million by 1994.

## Squask in $\mathcal{A m e r i c a}$

Squash was certainly being played in Canada before 1882, as it was then that Iames $P$ Conover, the $\mathcal{H e}$ admaster of $\mathcal{S} t . P a u l ' s \operatorname{School}$ in Concord, $\mathcal{N e}$ w $\mathcal{H a m p s}$ fire, $\mathcal{U S} \mathcal{A}$, saw it being played in Montreal. He thought it would be a perfect sport for his boys and wrote in the November 1882 edition of the school magazine "It is the universalexperience, that for health and for the fighest perfection in the game, the average boy or man should play but one rubber a day." He went on to describe the ne w $\mathcal{S}$ quas $\mathfrak{h}$ complex and its 21 feet wide courts and compare the game favorably with Rackets.
"This building will cover an area of fifty feet by sixty, and will have a height of about seventy feet from the ground to the eaves. The ball used in such courts is about the size of a walnut, of rubber, and hollow, with a hole in it to prevent breaking. The so-called'squash-ball court' recommended itself to the club for many reasons; such courts are largely used in English public schools; cost of construction is much less; fewer racquet bats are broken and fewer balls destroyed; fewer heads are cracked and fewer knees and elbows barked; the danger from being fit by the ball (quite an item among young players) is canceled; and for all intents and purposes the game is the same and produces just as good players."
$\mathfrak{A l t h o u g h}$ the International, or "soft," Gall was harder and bouncier than it is now it was not ideally suited to the cold courts in Concord where the temperature was of ten belowfreezing point during play. A harder rubber ball was developed and found to be more suited to slightly narrower courts, le ading to the 18.5 feet court, 19 feet court and other experimental widths. It was not until 1924 that the court specifications were codified, at which time it was decided to standardize on the 18.5 feet width and a 17 inch' tin' rather than the 19 inch variety used for the soft Gall. By 1929 officialcourt plans were being sold by the USSRA and the hardball game was brought into controlled growth.

The United States Squash Racquets Association (USSRA) was founded in 1907 and it was in that year also that the first recognized $\mathcal{N}$ ational Championship for Squash in any country was held with gofn $\mathcal{A}$ Miskey of Philadelphia winning the American title, a feat he repeated in 1908 and 1910 . After Miskey the National title was won six times by Stanley $\mathcal{W}$ Pe arson, also from Philadelpfia, between 1915 and 1923, with fis son $S$ tanley $\mathcal{I}$ unior continuing the tradition by taking it in 1948 . Other great national players from Philadelpfia included Charles $\mathcal{M} \mathcal{P}$ Brinton (1941/42/46/47) and $\mathcal{G} \mathcal{D i e f l} \mathcal{M}$ Mateer Ir (1954/56/61) with Henri R. Salaun
from Boston winning four times betwen 1995 and 1961 . Victor $\mathcal{N}$ iederfoffer ( $\mathcal{N}$ (ew York) dominated the 1970 s with 5 victories, Kentongernigan (Newport, Rhode Island) recorded three titles in the 1980 s and Mexican Hector Barragan won five consecutive titles from 1990 to 1994.

In the early days most of the Women's $\mathfrak{N a t i o n a l}$ titles were won by players from $\mathcal{B}$ oston, Pfiladelpfia or Wilmington, interspersed by the occasional English tourist winner, such as Susan $\mathcal{N o e l}(1933)$, Margot Lumb (1935) and the great Janet Morgan (1949 \& 1955). Margaret Howe of Boston won three times between 1929 and 1934, while two Philadelphians, Anne Page and Cecile Bowes wonfour times each betwen 1936 and 1948. Thereafter one player or another dominated the scene for severalyears; Betty (Howe) Constable from Pfiladelpfia winning four titles (1956-1959), Margaret Varner (Wilmington) four (1960-1963), Gretcken Spruance (Wilmington) five (1973-1978) with the 1980s totally dominated by Alicia Mc Connell (Brooklyn) with seven titles (1982-1988) and $\mathcal{D e m e r} \mathcal{H}$ (lleran from $\mathcal{H a n o v e r} \mathcal{N} \mathcal{H}$ taking over in 1989 to remain undefeated for seven years until 1995.

With the establishment of a Professional Tour, to which clubs were encouraged to send their teaching pro, a list of world famous names acquired U.S. titles from the mid-fifties - Hashim Khan (4 wins), Mahmoud


Squask played with a hard ball on an 18.5 feet wide court was the only form of the sport played in the USA until the mid-1980s, but then growing exposure to the "International" game resulted in some 21 feet wide courts being built and the international, "soft," ball being used on both the wide and narrow courts. $\mathcal{A d d i t i o n a l l y , ~ t h e ~ U S S R A ~ r e c o g n i z e d ~ a ~} 20$ feet width as being acceptable for International play, this width Geing derived from the increasing trend to convert Racquetball courts to $S$ quash use. In an incredibly short period of time in the early 1990 s $S$ quash in the US $\mathcal{A}$ changed from being overwhelmingly "hardball" to predominantly "softball," with the only available monitor of the trend, ball sales, indicating that by 1996 around $80 \%$ of all play was International. Quite why this change happened, and why so quickly, is still being debated but there is little doubt that a newgeneration of players is nowexperiencing the love affair with international squash which happened in all other nations and finding it preferable to the figher racket skills demanded by the fiardball game.

The $\mathfrak{N o r t h} \mathcal{A m e r i c a n ~ p l a y e r ~ w a s ~ a l s o ~ t h e ~ f i r s t ~ t o ~ a p p r e c i a t e ~ t h e ~ v i r t u e s ~ o f ~} \mathcal{D}$ oubles $\mathcal{S}$ quash, with the hardball being used on a court measuring 45 feet long by 25 feet wide. The first $\mathcal{N}$ (ational $\operatorname{Doubles}$ Championships were held in 1933 and hardball Doubles continues to thrive even though the singles version now holds only a minority of play.

Australia, Germany and 123 Other $\mathcal{N}$ (ations
$S$ quash spread rapidly in its early days and the major growth areas where wherever $\mathcal{B r i t i s h}$ forces were stationed. South Africa, India, Pakistan, Egypt, Australia, New Ze aland and many other countries learned the ir Squash from the military and soon adopted it as their own. Probably the most successful Squash nation of all time, $\mathcal{A} u s t r a l i a, ~ h a d ~ i t s ~ S q u a s h ~ s e e d ~ p l a n t e d ~ t h r o u g h ~ c o n t a c t ~ w i t h ~ t h e ~ m i l i t a r y . ~$
$\mathcal{A l t h o u g h t h e ~ f i r s t ~ S q u a s h ~ c o u r t s ~ i n ~ A u s t r a l i a ~ w e r e ~ e s t a b l i s h e d ~ i n ~ 1 9 1 3 , ~ a t ~ t h e ~ M e l b o u r n e ~ C l u b ~ i n ~ V i c t o r i a , ~}$ there was no official Squash association until 1934 although top players had been engaged in ad hoc club tournaments since 1927. During 1934 a group of players decided that local administrative pressure and the need to liaise with interstate and overseas organizations demanded an official body and the Squash Rackets $\mathfrak{A s s o c i a t i o n}$ of $\mathcal{A} u s t r a l i a(S \mathcal{R A} \mathcal{A})$ was founded, although its main tasks remained locally orientated in the $\mathcal{M e l f o u r n e}$ area. Even when the first $\mathcal{A}$ ustralian Championships were held, for men in 1931 and women in 1932, they were, in reality, State Championships for Victoria. The SRA of Victoria was formed in 1937.
 uncle of the former Queensland Premier, Sir goe Bjelke-Petersen. The NewSouth Wales SRA was formed in 1937 and the first pennant competition in $S$ ydney commenced in $I$ uly 1939.
$\mathcal{B}$ ut it was in the 1960 s that Squash started to really take off in $\mathcal{A}$ ustralia. Greater commercial development came into the sport and public Squash centers were built all over the country, bringing the game to a much wider audience. This growth Grought amazing international success with many of the world's best players coming from the $\mathcal{A u s t r a l i a n ~ S q u a s h ~ s c e n e . ~ H e a t h e r ~} \mathcal{M c} \mathcal{K a y , ~ K e n ~} \mathcal{H}$ iscoe, Ge off $\mathcal{H} u n t$, Vicki Cardwell, S teve Bowditch, Rhond $\operatorname{Thorne}$ and, more recently, Michelle and Rodney Martin all become World Squasf Champions at senior level and Peter $\mathcal{N}$ (ance, Cfris Robertson, Robyn Lambourne, Saraf Fitz. Gerald and Rachael Grinfam achieved the same distinction at junior level. Hunt was World Champion seven times and woneight British Opentitles while Heather Mc Kay was the most successful Squash player of all time, being undefeated in international competition for an astounding 19 years.

In 1976 the headquarters of the $S \mathbb{R} \mathcal{A} \mathcal{A}$ were transferred to Queensland and merged with the $\mathcal{A} u s t r a l i a n$ Women's SRA to form the ASRA in 1986, its name being changed to Squash $\mathcal{A} u$ stralia in 1990.

In Germany Squash was born twice! Its first cradle was in $\mathcal{B e}$ rlin in 1930 when the first four courts were Guilt by $\operatorname{Dr}$. Ernst von Siemens, head of the technology department of the electronics company which bore fis name, and he started regular company staff activities and even foreign competitions on the "wall-playhalls." Other courts followed, but during wartime they were all used for a variety of other purposes and it was not until 1978 that the Siemens courts were again used by the "Berlin Wallball game Club."

The initiative for the rebirth came from Christhof Viscount Vitzthum who had discovered the sport in
 backinto use. But an evenearlier start had been made in $\mathcal{H a m b u r g}$ by a merchant, Henning Harders, who erected three courts following an infection by the S quash 6 ug in $\mathcal{A} u s t r a l i a$ and it was a group of $\mathcal{H a m b u r g}$ players who founded the German SRA in 1973 and sent a team to the European $\mathcal{T}$ am Championsfips in Stockholm during 1974.
$\mathcal{T}$ wo years after the German SRA was founded the first $\mathcal{N}$ ational Championships were held and within a few years there were over 6000 courts and two million players in the nation . . the most spectacular growth of Squash anywhere in the world.

Germany will be celebrating the ir twenty-fifth anniversary in 1998 by bringing the $\mathcal{W}^{\text {Women's }} \mathfrak{W}$ orld Championsfips to Stuttgart.

Many other nations experienced tremendous growth in Squash, starting slowly at the beginning of the century and then gaining momentum over the past thirty years. In each country the basic story is the same. $\mathcal{A}$ group of enthusiasts start to play and promote the game which, because of its inherent qualities of intense exercise coupled with all-absorbing competition., grows rapidly and becomes a major sport in the Cand. The formula which made $S$ quash grow in its traditional homelands is now being seen again in gapan, $\mathcal{B r a z i l}, \mathcal{A r g e n t i n a , ~ C o l o m b i a , ~ K o r e ~ a ~ a n d ~ m a n y ~ n e w ~} \mathcal{S}$ quash nations, worldwide.

> The World Scene

In its early days international $\mathcal{S}$ quash was controlled by the $S$ quash Rackets $\mathcal{A s s o c i a t i o n ~ o f ~ E n g l a n d ~ a n d ~ t h e ~}$ United States Squash Rackets Association, but in 1966 representatives of the sport from $\mathcal{A} u s t r a l i a$, Great $\mathcal{B r i t a i n}, ~ I n d i a, \mathcal{N e w}$ Zealand, Pakistan, South Africa, USA, Canada and the United Arab Republic met in London and agreed to form the International Squash Rackets Association (ISRF), the first meeting of which was held on 5 ganuary 1967.

The ISRF continued to thrive and was amalgamated with the Women's International Squash Federation in 1985. In 1992 the name of the $\mathcal{F e}$ deration was changed to the World Squash Federation (WS $\mathcal{F}$ ), finally recognizing that the sport had been universally referred to simply as "Squash," rather than "Squash Rackets," for most of its existence.

The $\mathcal{W}$ orld $\mathcal{S}$ quash $\mathcal{F}$ ederation now has 109 Squash playing $\mathcal{N}$ (ational $\mathcal{A s s o c i a t i o n s ~ i n ~ m e m b e r s h i p . ~ I t ~ i s ~ t h e ~}$ sole International $\mathcal{F e}$ deration for the sport, as recognized by the International Olympic Committee (IOC), and maintains responsibility for the rules of the Game, Court and Equipment Specifications, Refereeing and Coaching. The WS $\mathcal{F}$ maintains a World Calendar of events and organizes and promotes World Championships for Men, Women, Iunior Men, Iunior women and Master age groups in both singles and doubles Squash. The $\mathcal{F e}$ deration leads its Member Nations in programs for the development of the sport and is currently working with the IOC towards the target of having Squash included as a sport on the program of the Olympic Games in the year 2000 .
$S$ quash has been played for over 130 years, grown sensationally in the last thirty and is now poised to become one of the largest and best loved of all sports.

## General Information

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$S$ quash played with a hard ball on an 18.5 feet wide court was the only form of the sport played in the US $\mathcal{A}$ until the mid-1980s, 6ut then growing exposure to the "International" game resulted in some 21 feet wide courts being built and the international, "soft," ball being used on both the wide and narrow courts. $\mathcal{A d d i t i o n a l l y , ~ t h e ~ U S S R A ~ r e c o g n i z e d ~ a ~} 20$ feet width as being acceptable for International play, this width being derived from the increasing trend to convert Racquetball courts to $S$ quash use. In an incredibly sfort period of time in the early 1990 s $\mathcal{S}$ quash in the $\mathcal{U S} \mathcal{A}$ changed from being overwhelmingly "fard predominantly "softball," with the only available monitor of the trend, ball sales, indicating that by 1996 around $80 \%$ of all play was International. Quite why this change happened, and why so quickly, is still being debated but there is little doubt that a newgeneration of players is nowexperiencing the love affair with international squash which fappened in all other nations and finding it preferable to the figher racket skills demanded by the fiardball game.

The $\mathcal{N}$ orth $\mathcal{A m e r i c a n}$ player was also the first to appreciate the virtues of $\mathcal{D}$ oubles $\operatorname{Squask}$, with the hardball being used on a court measuring 45 feet long by 25 feet wide. The first $\mathcal{N}$ (ational Doubles
Championships were held in 1933 and hardball Doubles continues to thrive even though the singles version now holds only a minority of play.

## Rules

## 1. The Game

The game of Squash is played between two players, each using a racket, with a ball, and in a court, all three of which meet $\mathcal{W S} \mathcal{F}$ specifications.
2. The Score
$\mathcal{A}$ match shall consist of the best of three or five games at the option of the organizers of the competition. Each game is to nine points, in that the player who scores nine points wins the game, except that, on the score being called eight-allfor the first time, the receiver shall choose before the next service is delivered to continue that game either to nine points (known as "Set one") or to ten points (known as "Set two") in which (atter case the player who scores two more points wins the game. The receiver shall in either case clearly indicate this choice to the Marker, Referee and the opponent.
The Marker shall call "Set one" or "Set two" as applicable before play continues.
The Marker shall call "Game ball" to indicate that the server requires one point to win the game in progress or "Match Gall" to indicate that the server requires one point to win the match.
3. Points

Points can be scored only by the server. The server, upon winning a stroke, scores a point; the receiver, upon winning a stroke, becomes the server.
4. The Service
4.1 Play commences with a service and the right to serve first is decided by the spin of a racket. Thereafter, the server continues to serve untillosing a stroke, whereupon the opponent becomes the server, and this procedure continues throughout the match. At the commencement of the second and each subsequent game the winner of the previous game serves first.
4.2 At the beginning of each game and each hand the server has the choice of serving from either box and thereafter shall serve from alternate boxes while remaining the server. However, if a rally ends in a let, the server shall serve again from the same box.
4.3 When serving, a player shall drop or throw the ball from either a find or the racket before striking it. Should the player, having dropped or thrown the ball, make no attempt to strike it, the Gall shall be dropped or thrown again for that service.
4.4 $\mathcal{A}$ service is good when it does not result in the server serving the hand out. The server serves the find out and loses the stroke if:
4.4.1 The ball, after being dropped or thrown for service, touches a wall, the floor, ceiling or any object(s) suspended from the walls or ceiling before being served. - Called "Fault". 4.4.2 $\mathcal{A}$ t the time of striking the ball the server fails to have part of one foot in contact with the floor within the service box without any part of that foot touching the service box line (part of that foot may project over this line provided that it does not touch the line). . Called "Foot fault".
4.4.3 The server makes one or more attempts to strike the ball, but fails to do so. - Called "Not up".
4.4.4 The ball is not struck correctly. - Called "Not up".
4.4.5 The ball is served out. - Called "Out".
4.4.6 The ball is served against any wall of the court before the front wall. - Calle d "Fault".
4.4.7 The Gall is served onto the floor or onto or below the service line. - Called "Fault" if above the board and "Down" if on the floor or on or below the board.
4.4.8 The first bounce of the ball, unless volleyed by the receiver, is on the floor on or outside the short or half court lines of the quarter court opposite to the server's box. Called "Fault".
4.5 The server must not serve until the Marker fas completed calling the score.
5. The Play
$\mathcal{A f t e r}$ a good service has been delivered the players return the ball alternately until one fails to make a good return, the ball otherwise ceases to be in play in accordance with the rules, on an appeal by a player, or on a call by the Marker or Referee.
6. Good Return
6.1 $\mathcal{A}$ return is good if the ball, Gefore it has bounced more than once upon the floor, is returned correctly by the striker onto the front wall above the board, either directly or via side wall(s) and/or 6ack wall, without first touching the floor or any part of the striker's body or clothing, or the opponent's racket, body or clothing, provided the ball is not fit out.
6.2 It shall not be considered a good return if the ball touches the board before or after it hits the front wall and before it bounces on the floor, or if the racket is not in the player's fand at the time the ball is struck.
7. Continuity of Play

After the first service is delivered play shall be continuous so far as is practical provided that:
7.1 $\mathcal{A}$ t any time play may be suspended, owing to bad light or other circumstances beyond the control of the players, for such period as the Referee shall decide. The score shall stand. If another court is available when the court originally in use remains unsuitable, the match may be transferred to it if both players agree or as directed by the Referee. In the event of play being suspended for the day the score shall stand unless both players agree to start the match again. $7.2 \mathcal{A n}$ interval of ninety seconds shall be permitted between the end of the warm up and commencement of the first game and also between all games. Players may leave the court during such intervals but must be ready to play prior to the expiration of the nine ty-second time interval. $\mathcal{B y}$ mutual consent of the players play may commence or resume prior to the expiration of the nine ty-second time interval.
7.3 (G1) Provided a player satisfies the Referee that a change of equipment, clothing or footwe ar is necessary, the player may leave the court, but is required to effect the change as quickly as possible, and shall be allowed a period not exceeding ninety seconds for this purpose.
7.4 When fifteen seconds of a permitted ninety-second time intervalremain the Referee shall call "Fifteen seconds" to advise the players to be ready to resume play. At the end of this interval the Referee shall call "ITime". The calls should be made in aloud voice. It is the responsibility of the players to be in a position to hear the calls of "Fifteen seconds" and "Time".
7.5 (G2) A player suffering illness or disability fias the choice of continuing or resuming play without delay, conceding the game in progress, or conceding the match. If conceding the game the player shall retain any points already scored and at the conclusion of the nine ty-second interval betweengames shall either resume play or concede the match. However, if the illness or disability involves visible blood flow, a continuation or resumption of play is not permitted. The player shall leave the court but is not required at that time to concede the game in progress. If the player wishes to resume play the illness or disability shall be dealt with by the Referee as a self-inflicted injury and the provisions of Rule 16.2 shall apply.
7.6 In the event of an injury to a player the Referee shall refer to the provisions of Rule 16.
7.7 (G3) The Referee shall apply the provisions of Rule 17 to a player who in the opinion of the Referee, delays play unreasonably. Such delay may be caused by:
7.7.1 Ulnduly slow preparation to serve or to receive service.
7.7.2 Prolonged discussion with the Referee.
7.7.3 Delay in returning to the court, having left under the terms of Rule 7.2, 7.3 or 15.1.
7.8 (G4) If an object, other than a player's racket, falls to the floor of the court while a rally is in progress the requirements are:
7.8.1 The Referee, on becoming aware of a fallen object, shall stop play immediately.
$7.8 .2 \mathcal{A}$ player becoming aware of a fallen object may stop play and appealfor alet.
7.8.3 If the object falls from a player then that player shall lose the stroke unless Rule
7.8 .5 applies or unless the cause is a colfision with the opponent. In the latter case a let shall be allowed except that if an appealfor interference is made the Referee shall apply the provisions of Rule 12.
7.8.4 If the object falls from a source other than a player a let shall be allowed unless Rule 7.8 .5 applies.
7.8.5 If a player has already made a clear winning return when the object falls to the floor of the court then that player shall win the stroke.
7.9 If a player drops a racket the Referee shall allow the rally to continue unless Rule 12, 13.1.1, 13.1.3 or 17 applies.
8. Strokes

A player wins a stroke:
8.1 Under Rule 4.4 when the player is the receiver.
8.2 If the opponent fails to make a good return of the ball when the opponent is the striker, unless a let is allowed or a stroke is awarded to the opponent.
8.3 (G5) If the Gall touches the opponent (including anything worn or carried), without interference, when the opponent is the non-striker, except as is otherwise provided for in Rules 9 and 10 . If interference occurs then the provisions of Rule 12 apply. In all cases the Referee shall rule accordingly.
8.4 If a stroke is awarded to the player by the Referee as provided for in the rules.

## 9. Hitting $\mathcal{A n}$ Opponent With The Ball

If the ball, Gefore reaching the front wall, fits the striker's opponent (including anything worn or carrie d), the ball shall cease to be in play and:
9.1 Unless Rule 9.2 applies, the striker shall win the stroke if the return would have been good and the ball would have struck the front wall without first touching any other wall.
9.2 (G6) If the return would have been good but the striker has either followed the ball round and turned or the ball fias passed around the striker who, in either case, strikes the ball to the right of the body after the ball has passed to the left (or vice versa) then a let shall be allowed in all cases. 9.3 If the Gall either had struck or would have struck any other wall and the return would have been good, a let shall be allowed unless, in the opinion of the Referee, a winning return has been prevented, in which case the striker shall win the stroke.
9.4 If the return would not have been good, the striker shall lose the stroke.
10. Further Attempts $\mathcal{T}$ o $\mathcal{H}$ it $\mathcal{T h e} \mathcal{B a l l}$

If the striker strikes at and misses the ball, further attempts to strike it may be made. If, after being missed, the ball touches the opponent (including anything worn or carried) then, in the opinion of the Referee:
10.1 If the striker could otherwise have made a good return a le $t$ shall be allowed, or
10.2 If the striker could not have made a good return the striker shall lose the stroke.

If any such further attempt is successfulbut results in a good return being prevented from reacking the front wall by fitting the striker's opponent (including anything worn or carried), a let shall be allowed in all circumstances. If any such further attempt would not have resulted in a good return, the striker shall lose the stroke.
11. Appeals

The loser of a rally may appeal against any decision of the Marker affecting that rally. An appeal to the Referee under Rule 11 should be prefaced with the words "Appeal please". Play shall then cease until the Referee has given the decision.
If an appeal under Rule 11 is disallowed the Marker's decision shall stand. If the Referee is uncertain alet shall be allowed except where provided for in the $\mathcal{N}$ ote $\mathcal{T}$ o Referees after Rule 11.2.1 and Notes $\mathcal{T}$ o Referees $\mathcal{C}$ and $\mathcal{D}$ after Rule 11.2.2.
Appeals upheld or Referee intervention under Rule 20.4 are dealt with in each specific situation below.
11.1 Appeals on Service.
11.1.1 If the Marker calls "Fault", "Foot fault", "Not up", "Down" or "Out" to the service the server may appeal. If the appeal is upheld a let shall be allowed.
11.1.2 If the Marker fails to call "Fault", "Foot fault", " $\mathcal{N}$ ot up", "Down" or "Out' to the service the receiver may appeal, either immediately or at the end of the rally if the receiver has played or attempted to play the ball. If in the opinion of the Referee, the service was not good, the Referee shall stop play immediately and award the stroke to the receiver.
11.2 Appeals on Play other than Service.
11.2.1 If the Marker calls "Not up", "Down" or "Out" following a player's return, the player may appeal. If the appeal is upheld the Referee shall allow aletexcept that if, in the opinion of the Referee:

- The Marker's call has interrupted that player's winning return, the Referee shall award the stroke to the player.
- The Marker's call has interrupted or prevented a winning return by the opponent, the Referee shall award the stroke to the opponent.
11.2.2 If the Marker fails to call "Not up", "Down" or "O ut" following a player's return the opponent may appeal either immediately or at the end of the rally if the opponent has played or attempted to play the Gall. If, in the opinion of the Referee, the return was not good, the Referee shall stop play immediately and award the stroke to the opponent.


## 12. Interference

12.1 The player whose turn it is to play the ball is entitled to freedom from interference by the opponent.
12.2 To avoid interference the opponent must make every effort to provide the player with:
12.2.1 Unobstructed direct access to the ball.
12.2.2 $\mathcal{A}$ fair view of the 6 all.
12.2.3 Freedom to fit the ball.
12.2.4 Freedom to play the ball directly to any part of the front wall.
12.3 Interference occurs if the opponent fails to fulfill any of the requirements of Rule 12.2, irrespective of whether the opponent makes every effort to fulfill those requirements.
$12.4 \mathcal{A}$ player encountering possible interference has the choice of continuing with play or of stopping and appealing to the Referee.
12.4.1(G9) The correct method of appeal, whether alet or a stroke is sought by the player, is with the words "Let please".
12.4.2 (G10) An appeal may be made only by the player (the person whose turn it is to play the ball). The appeal must be made either immediately the interference occurs or, where the player clearly does not continue with play beyond the point of interference, without undue delay.
12.5 The Referee shall decide on the appeal and shall announce the decision with the words "No let", "Yes let" or "Stroke to...(name of appropriate player)". In assessing the situation the only relevant opinion is that of the Referee and the decision of the Referee shall be final.
12.6 The Referee shall not allow a let and the player shall lose the rally if:
12.6.1 There has been no interference.
12.6.2 Interference fas occurred but either the player would not have made a good return or the player has not made every effort to get to the ball.
12.6.3 The player has clearly accepted the interference and played on.
12.6.4 (G11) The player fas created the interference in moving to the ball.
12.7 The Referee shall allow a let if there has been interference which the opponent has made every effort to avoid and the player would have made a good return.
12.8 The Referee shall award a stroke to the player if:
12.8.1 There has been interference which the opponent has not made every effort to avoid and the player would have made a good return.
12.8.2 There has been interference which the opponent has made every effort to avoid and the player would have made a winning return.
12.8.3 The player fias refrained from fitting the ball which, if hit, would cle arly have struck the opponent going directly to the front wall; or to a side wall but in the latter case would have been a winning return (unless in either case turning, ball passing around player, or further attempt applies).
12.9 The Referee is also empowered to allow alet under Rule 12.7 or to award a stroke under Rule 12.8 without an appeal having been made, if necessary stopping play to do so.
12.10 The provisions of Rule 17. Conduct On Court, may be applied in interference situations. The Referee shall, stopping play if it fas not already stopped, apply an appropriate penalty if: 12.10.1 (G12) The player has made unnecessary physicalcontact with the opponent or vice ve rsa.
12.10.2 The player has endangered the opponent with an excessive racket swing.
13. Lets

In addition to lets allowed under other rules, lets may or shall be allowed in certain other cases. Any request for a let should be prefaced by the words "Let please".
$13.1 \mathcal{A}$ let may be allowed:
13.1.1 If the ball in play touches any article lying on the floor.
13.1.2 (G13) If the striker refrains from fitting the ball owing to a reasonable fear of injuring the opponent.
13.1.3 If, in the opinion of the Referee, either player is distracted by an occurrence on or off the court.
13.1.4 If, in the opinion of the Referee, a change in court conditions fas affected the result of the rally.
13.2 A le $t$ shall be allowed:
13.2.1 If the receiver is not ready and does not attempt to return the service.
13.2.2 If the ball breaks during play.
13.2.3 If the Referee is asked to decide an appeal and is unable to do so.
13.2.4 If an otherwise good return has been made but either the ball lodges in any part of
the playing surface of the court preventing it from bouncing more than once upon the floor,
or the ballgoes out on its first bounce.
14. The Ball
14.1 At any time, when the ball is not in actual play, another ball may be substituted by mutual consent of the players, or on appeal by either player at the discretion of the Referee.
14.2 If a ball breaks during play, it shall be replaced promptly by another ball.
14.3 If a ball has broken during play but this has not been established, a let for the rally in which the ball broke shall be allowed if the server appeals prior to the next service or if the receiver appeals prior to attempting to return that service.
14.4 The provisions of Rule 14.3 do not apply to the final rally of agame. An appeal in this case must be immediately after the rally.
14.5 If a player stops during a rally to appeal that the ball is broken only to find subsequently that the Gall is not broken, then that player shall lose the stroke.
14.6 Betweengames the ball shall remain within the court unless removal is permitted by the Referee.

Equipment

Singles Court
Description: $\mathcal{A}$ Squash Court is a rectangular box with four vertical walls of varying height; being the front $\mathcal{W a l l}$, Side Walls and Back Wall. It has a levelfloor and a cle ar height above the court area.
Dimensions:

- Length of court between playing surfaces 9750 mm
- Width of court between playing surfaces 6400 mm
- Diagonal 11665 mm
- Height above floor to lower edge of Front Wall Line 4570 mm
- Height above floor to lower edge of Back Wall Line 2130 mm
- Height above floor to lower edge of Service Line on Front Wall 1780 mm
- Height above floor to upper edge of Board 480 mm
- Distance to nearest edge of Short Line from Back Wall 4260 mm
- Internal dimensions of Service Boxes 1600 mm
- Widtr of all lines and the Board 50 mm
- Minimum clear height above the floor of the court 5640 mm

Notes:

- The Side Wall is angled between the Front Wall Line and the Back Wall Line.
- The Service Box is a square formed by the Short Line, the Side Wall and two other lines marked on the floor.
- The length, width and diagonal of the court are measured at a fieight of 1000 mm above the floor.
- It is recommended that the Front Wall Line, Side Wall Line, Back Wall Line and Board are shaped so as to deflect any ball that strikes them.
- The Board shall not project from the Front Wall by more than 45 mm .
- It is recommended that the door to the court is in the center of the Back Wall.
- The generalconfiguration of a $S$ quash Court, its dimensions and its markings are illustrated on the diagram.
Construction: $\mathcal{A} S$ quasf Court may be constructed from a number of materials providing they fave suitable Gall rebound characteristics and are safe for play; however, the WS $\mathcal{F}$ publishes a Squash Court
Specification which contains recommended standards. The standards must be met for competitive play as required by the appropriate $\mathcal{N}$ (ational Governing $\mathcal{B o d} y$ of $\mathcal{S}$ quas $\kappa$.

Doubles Court
Dimensions: The description, dimensions and notes and construction shall be the same as for the World
Singles Court except for:
Width of court between playing surfaces 7620 mm
Specifications of a Standard yellow Dot Squash $\mathfrak{B a l l}$
The following specification is the standard for a yellow dot ball to be used under the Rules of $S$ quash.

- Diameter (milfimeters) $40.0+$ or - 0.5
- Weight (grams) $24.0+$ or - 1.0
- Stiffness ( $\mathcal{N} / m m$ ) @ 23 degrees C. $3.2+$ or - 0.4
- Seam Strength $(\mathcal{N} / \mathrm{mm}) 6.0$ minimum
- Rebound Resilience - from 100 inches/254centimeters@ 23 degrees C. $12 \%$ minimum@ 45 degreesC. $26 \%$ - $33 \%$

Squash Racket
Dimensions:

- Maximum lengtf - 686 mm
- Maximum width, measured at right angles to the shaft - 215 mm
- Maximum length of strings - 390 mm
- Maximum strung area - 500 sq.cms
- Minimum width of any frame or any structural member (measured in plane of strings) - 7 mm
- Maximum depth of any frame or other structuralmember (measured at right angles to plane of strings) - 26 mm
- Minimum radius of outside curvature of frame at any point -50 mm
- Minimum radius of curvature of any edge of frame or other structuralmember-2mm

Weight: Maximum weight -255 gm
Construction:

- The head of the racket is defined as that part of the racket containing or surrounding the strung area.
- Strings and string ends must be recessed within the racket fead or, in cases where such recessing is impractical because of racket material, or design, must be protected by a securely attached bumper strip.
- The bumper strip must be made of a flexible material which cannot crease into sharpedges following abrasive contact with the floor or walls.
- The bumper strip shall be of a white, colorless or unpigmented material. Where for cosmetic reasons a manufacturer chooses to use a colored bumper strip, then the manufacturer shall demonstrate to the satisfaction of the $\mathcal{W S} \mathcal{F}$ that this does not le ave a colored deposit on the walls or floor of the court after contact.
- The frame of the racket shall be of a color and/or material which will not mark the walls or floor following an impact in normal play.
- Strings sfiall be gut, nylon or a substitute material, provided metal is not used.
- Only two layers of strings shall be allowed and the se shall be alternately interlaced or bonded where they cross, and the string pattern shall be generally uniform and form a single plane over the racket head.
- Any grommets, string spacers or other devices attached to any part of the racket shall be used solely to limit or prevent we ar and tear or vibration, and be reasonable in size and placement for such purpose. They shall not be attached to any part of the strings within the fitting area (defined as the area formed by overlapping strings).
- There shall be no unstrung areas within the racket construction such that will allow the passage of a sphere greater than 50 mm in diameter.
- The total racket construction including the head shall be symmetrical about the center of the racket in a line drawn vertically through the head and shaft and when vie wed face on.
- Allchanges to the racket specification will be subject to a notice period of two years before coming into force.


## Players' Clotfing

Organizers may specify regulations concerning players' clothing which must be complied with in the ir particular tournament or tournaments.

Protective Eye we ar
$\mathcal{A l t h o u g h}$ the risk of injury in $S$ quash is very low it is recommended that, when the avoidance of eye injury is of particular importance to a player, protective eye guards manufactured to an appropriate National Standard are worn properly over the eyes at all times during play. It is the responsibility of the player to ensure that the quality of the product worn is satisfactory for the purpose.

## Glossary

Singles

- Appeal: A player's request to the Referee to consider an on or off court situation. "Appeal" is used throughout the rules in two contexts:
- Where the player requests the Referee to consider varying a Marker's decision.
- Where the player requests the Referee to allowalet, or to consider the award of a stroke.
- The correct form of appeal by a player is "Appeal please" or "Let please." Play ceases when a player appeals.
- Attempt: An attempt to play the ball is made when in the opinion of the Referee, the striker has moved the racket towards the ball from the backswing position. The Referee shall decide what is an attempt.
- Board: The lowest horizontal marking on the front wall, with the tin bene ath it covering the full width of the court.
- Box (Service): A square area in each quarter court bounded by part of the short line, part of the side wall and by two other lines, and from within which the server serves.
- Competition: $\mathcal{A}$ championship tournament, league or other competitive match.
- Correctly: The ball being hit by the racket (held in the fiand), not more than once or not with prolonged contact on the racket.
- Down: The expression used to indicate that an otherwise good service or return has struck the floor before reacking the front wall, or has struck the board or tin. ("Down" is also used as a Marker's call).
- Game: Part of a match, commencing with a service and concluding when one player fas scored or been awarded nine or ten points (in accordance with the rules).
- Game Ball: The state of the score when the server requires one point to win the game in progress. ("Game 6all" is also used as a Marker's call).
- Half-Court Line: $\mathcal{A}$ line set on the floor parallel to the side walls, dividing that part of the court between the short line and the Gack wall into two equal parts and meeting the short line at its midpoint to form the "T."
- Half Time: The midpoint of the warm up ("Half time" is also used as a Referee's call).
- Hand: The period from the time a player becomes server until becoming receiver.
- Hand-Out: Condition when a change of server occurs. ("Hand-out" is also used as a Marker's call to indicate that a change of server has occurred).
- Let: $\mathcal{A n}$ undecided rally. No stroke is won for the rally in respect of which a let is allowed, and the server is required to serve again from the same box.
- Match: The complete contest between two players, commencing with the warm up and concluding when both players have left the court at the end of the final rally.
- Match $\mathcal{B a l l}$ : The state of the score when the server requires one point to win the match. ("Match Gall" is also used as a Marker's call).
- Not Up: The expression used to indicate that the ball has not beenstruckin accordance with the rules. "Not up" applies when 1) the ball is not struckcorrectly by the server or striker, 2) the ball bounces more than once upon the floor before being struck by the striker, 3) the ball touches the striker or anything worn or carried other than the racket, 4) the server makes one or more attempts to strike the ball but fails to do so. ("Not up" is also used as a Marker's call).
- Officials: The Marker and the Referee.
- Out: The expression used to indicate that 1) the ball fas struck the out line, or a wall above the out line, or the ceifing, or any fitting attached to the ceifing and/or wall above the out line or, 2) the ball has passed through any fitting attached to the ceiling and/or wall above the out line or, 3) in addition to 1) and 2) on courts which are not fully enclosed, the ball has passed over the out line and out of the court without touching any wall or, if no out line is provided, passed over any wall and out of the court. ("Out" is also used as a Marker's call).
- Out Line: $\mathcal{A}$ continuous line comprising the front wall line, both side wall lines and the back wall line and marking the top boundaries of the court.
- Note: When a court is constructed without provision of such a line, i.e. the walls comprise only the are a used for play, or without part of such a line (e.g. a glass back wall) and the ball in play strikes part of the horizontal top surface of such a wall and deflects backinto court, the ball is out. The decision should be made in the normal manner by the Marker, subject to appeal to the Referee.
- Point: A unit of the scoring system. One point is added to a player's score when that player is the server and wins a stroke.
- Quarter Court: One half of that part of the court betwe en the short line and the Gack wall which has been divided into two equal parts by the half-court line.
- Rally: $\mathcal{A}$ service only, or a service and any number of returns of the ball, ending when the ball ceases to be in play.
- Reasonable Backswing: The initial action used by a player in moving the racket away from the body as preparation prior to racket movement towards the ball for contact. $\mathcal{A}$ backswing is reasonable if it is not excessive. An excessive backswing is one in which the player's racket arm is extended towards a straight arm position and/or the racket is extended with the shaft approximately forizontal. The Referee's decision on what constitutes a reasonable as distinct from an excessive backswing is final.
- Reasonable Follow Through: The action used by a player in continuing the movement of the racket after it has - contacted the ball. A follow-through is reasonable if it is not excessive. An excessive follow-through is one in which the player's racket arm is extended towards a straight arm position with the racket also extended with the shaft horizontal particularly when the extended position is maintained for other than momentary period of time. Anexcessive follow-through is also one in
which the arm extended towards a straight position takes a wider arc than the continued line of flight of the ball. The Referee's decision on what constitutes a reasonable as distinct from anexcessive follow-through is final.
- Service: The method by which the ball is put into play by the server to commence a rally.
- Service Line: $\mathcal{A}$ line upon the front wall, extending the full width of the court. A service is not good if the ball is served onto or below this line.
- Short Line: A line upon the floor, extending the full width of the court. A service is not good if the first bounce of the ball on the floor on service delivery is on or in front of this line.
- Specified: The descriptiongiven to balls, rackets and courts that meet existing WS $\mathcal{F}$ specifications.
- Striker: The player whose turn it is to hit the ball after it has rebounded from the front wall, or who is in the process of fitting the Gall, or who - up to the point of the return reaching the front wall. has just hit the ball.
- Stroke: The gain achieved by the player who wins a rally, either in the course of play or on award by the Referee, and which results in either the scoring of a point or change of server.
- Tin: The area below the board, covering the full width of the court, which should be constructed of a material that makes a distinctive sound when struck by the ball
- Tournament/Championship Referee: The person given overall responsibility for all marking and refereeing matters throughout the tournament, including the appointment and replacement of Officials to matches.
- Doubles
- All Definitions are the same as for Singles, except for:
- Game: Part of a match, commencing with a service and concluding when one side has scored or been awarded fifteen or seventeen points (in accordance with the rules).
- Game Ball: The state of the score when either side requires one point to win the game in progress. ("Game ball" is also used as a Marker's call).
- Hand: The period from the time a player becomes server untillosing the right to serve.
- Hand-Out: Condition when the first server of side-in has served and side-in loses the stroke. ("Handout" is also used as a Marker's call).
- Match: The complete contest between two sides, commencing with the warm up and concluding when all players have left the court at the end of the final rally.
- Match Ball: The state of the score when either side requires one point to win the match. ("Match ball" is atso used as a Marker's call).
- Match Ball, Game Ball: Condition when one side requires one point to win the match and the opponents require one point to win the game in progress.
- Point: A unit of the scoring system. One point is added to a side's score when it wins a stroke.
- Side-In: The side which serves is called side-in.
- Side-Out: Condition when the serving side becomes the receiving side, also the name of the receiving side ("S ide-out" is also used as a Marker's call).
- Striker: A partner of the striking side who attempts to fit the ball or who does fit the ball.
- Striking Side: The side whose turn it is to fit the ball after it has rebounded from the front wall, or which has one partner in the process of hitting the Gall, or which, up to the point of the return reaching the front wall, has just had one partner fit the ball.
- Stroke: The gain achieved by a side which wins a rally, either in the course of play or on award by the Referee, and which results in the scoring of a point.

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For more information contact: USS Squasf Racquets Association, PO Box 1216, Bala Cynwyd, PA 19004; Phone: 610-667-4006; Fax: 610-667-6539, Internet: www.us-squasf.org/squash; email: office@ussquasforg


## $S$ wimming

## $\mathcal{H}$ istory

When Flying Gull winged past Tobacco, swimming the length of a 130 -foot poolin thirty seconds, Londoners were flabbergasted. The year was 1844, and swimming was already established as a popular competitive sport in England. But Britisf athletes generally relied on the sedate breaststroke for traveling in the water, and were rather shocked at the exfibition staged by this group of $\mathcal{N}$ orth American Indians that had been invited to London by the Swimming Socie ty in England.

One observer found their swimming "totally un-European," declaring that the Indians "thrashed the water violently with the ir arms, like sails of a windmill, and beat downward with their feet, blowing with force and forming grotesque antics." Even though the style of $\mathcal{F l y}$ ing Gull and $\mathcal{T}$ obacco was considerably faster, it was not copied, and Britisf swimmers continued paddling along in their accustomed manner. It was not until some forty years later that the Indians' "totally un-European" style was reintroduced as the crawl: a stroke so rapid that it revolutionized competitive swimming.

Yet this revolutionary advancement was really centuries old. The original infabitants of the $\mathcal{A m e r i c a s , ~ W e s t ~}$ $\mathcal{A f r i c a}$ and some Pacific islands had been using the crawlforgenerations, while Europeans fad limited their swimming to the breast and side strokes, essentially modifications of what must have been man's first method of keeping his head above water: the "dog stroke" learned from animals. Although this four-legged paddling style came naturally to many animals, it was at best for man a churning, thrasfing and tiring means of getting from one bank of a river to the other.
$\mathcal{M o s a i c s}$ and drawings from early Middle Eastern civilizations depict men swimming with the dog stroke, as do mosaics at Pompeii. Although swimming was not included in the ancient Olympic Games, the Greeks practiced the sport, folding it in figh regard, as they did all athletic endeavors. In fact, one of the most biting insults one Greek could unleashon another was to discuss fim as a man who "neitherknew fow to run nor swim."

Plato considered a man who didn't know how to swim uneducated.
There are frequent representations of swimmers in the Vatican, Borgian and Bourboncodices, and the murals of the $\mathcal{T}$ epantitla House at Teotifuacan (near Mexico City) showed men splasfing about the waters of "Tlalocan," paradise of Tlaloc, the god of water. Both gulius Caes ar and Charlemagne were known as great swimmers, and Louis $X$ I frequently tookswims in the Seine.
$\mathcal{B y} 1837$ regular swimming competitions were being feld in London, organized by the National S wimming Society in England, and there were about six artificial pools in the city. As the sport grewin popularity many more pools were built, and when a new governing body, the Amateur S wimming Association of Great $\mathcal{B r i t a i n}$, was organized in 1880 , it numbered more than 300 member clubs. Despite any impression $\mathcal{F l y}$ ing Gull and Tobacco may have made with the ir "windmill thrasfing," the Englisf continued to use the breaststroke. They swam it in the traditional manner, with the arms underwater, pulling out and back from the chest, coordinated with a frog kicking motion.

In a time when endurance exploits were prized figher than races against time, the supreme test was the Englisf Channel - the Channel was considered impossible to swim. On August 24, 1875, Captain Matthew We 66 slipped into the water at Dover, England, and 21 fours and 45 minutes later toucfied land at Cape $\mathcal{G r i s} \mathcal{N e} z, \mathcal{F r a n c e}$, becoming the first man to conquer the Englisf Channel. Relying mainly on the Greaststroke, he swam some 38 miles in covering a straightine distance of about 20 miles.

It wasn't an uneventfultrip. Along the way, Captain We 66 sang , sipped coffee and beer, ate ste aks, was stung by a jellyfish and had to fight his way through a nasty storm.

It was 31 years before another successfulcrossing by Burgess.Sullivan was the first $\mathcal{A m e r i c}$ an. The present record for the swim is 10 hours 50 minutes, set in 1950 by an Egyptian, Hassan $\mathfrak{A b d e l}$ Refim. While $\mathcal{F}$ Fying Gull and Tobacco failed to make English swimmers speed conscious, some South $\mathcal{A m e r i c a n ~ I n d i a n s . . . ~}$ indirectly - succeeded. During a trip to South America, I. Arthur Trudgen noticed that the Indians generated much more speed in the water with their overfand stroke than he had produced with the Greaststroke as an amateur swimmer in England. But he apparently failed to note that this overfand stroke was coupled with a distinctive up-and-down kicking motion. Historians dispute the time of $\mathcal{T}$ rudgen's trip, dating it anywhere from the 1870 s to the $1890 s$. But most importantly, upon fis return to England, Trudgen began teaching others the newarm movement. Even though swimmers continued using the frog kick of the Greaststroke, the overfind arm action gave them significantly more speed and power. Ulsing the Trudgen stroke.. as it came to be called .. swimmers whittled the record for the 100 yards down from about 70 seconds to 60 seconds.

Trudgen's teachings turned the swimming empfasis from endurance to speed, but the revolution was only half complete. The leader in the rest of the battle was another Englishman, Frederick Cavill. Ulsing the traditional breaststroke, Cavill became a well-known swimmer in England, and in 1878 emigrated to Australia, where he built pools and taught swimming. I ust before the turn of the century, Cavill and his family .- which included six sons .- made a trip to some of the islands of the South Seas. Like Trudgen, he noticed that the natives used an overfand stroke. But Cavill was more observant; he realized that the ir Kicking action was also different, and he closely studied it. Returning to Australia, Cavill taught his sons the new stroke, and they soon were splasking past all existing records. One of the sons, Richard, went to England in 1902 and swam the 100 yards in 58.8, a time fis competition, using the less powerful Trudgen stroke, couldn't approach.
$\mathfrak{A s k e d}$ to describe the revolutionary style, one of the Cavills said it was "like crawling through the water." Gradually it Gecame known as the crawl, and only some what modified is the freestyle stroke used today, the Gasis of swimming competitions.

Cavill's sons were efficient evangelists, and their stroke soon became widely adopted. One son, Sidney, went to $S$ an $\mathcal{F r a n c}$ isco, California, in 1903 to coach at the Olympic Club. Anearly pupil, g. Scott Leary, became the first $\mathcal{A m e r i c a n ~ t o ~ s w i m ~} 100$ yards in 80 seconds, and won 17 consecutive races. Charles $\mathcal{M}$. Daniels, who Gefore Leary's debut had been the U.S.'s le ading swimmer, studied the new stroke and eventually came up with fis "American" crawl. Daniels went on to win four gold medals in the Olympic Games and shaved the world record for the 100 yards to 54.8 seconds in 1910. A fewyears later, when $\mathcal{D} u k e$ Kahanamoku of Hawaii Gegan out-swimming all international competition, someone asked who had taught fim the crawl stroke. Kahanamoku, winner of the Olympic 100 -meter race in 1912 and 1920, replied, "No one." $\mathcal{H}$ had learned the crawl as a child by watching how the older natives of his home island swam, where, he said, the stroke fad been used for "many, many generations." Kahanamoku set fis records using a six-beat cycle, which is now considered the classicalfreestyle form. Each complete cycle of his arms ...entering the water, pulling and recovering .. was accompanied by six flutter kicks.

At the 1924 Paris Games, agangly, 20-year-old American named gofnny Weissmuller pounded past Kahanamoku with this same six-beat cycle, winning the 100 meters in the Olympic record time of 59 seconds flat. We issmuller picked up two more gold medals at the same Games, and won two at the 1928 $\mathcal{A m s t e r d a m}$ Olympics. The 1920 s was the Golden $\mathcal{A g}$ e of Sports and Weissmuller was its golden swimmer. $\mathcal{H e}$ set world records in 67 different events, from 50 yards to 880 yards, before trading swimming for swinging through trees and evengreater fame as Hollywood's most durable $\mathcal{T}$ arzan. The basic, six-beat. cycle crawl of Kahanamoku's and We issmuller's day fas changed little; Don Schollander of the United States was using it when he splasked to four gold medals at the 1964 Tokyo Olympics.

At the first modem Olympic Games in 1896 only the freestyle events were held, with the competitors relying on various interpretations of the breast or $\mathcal{T}$ rudgen stroke. In 1900 a backstroke event was added, and with the crawl becoming the dominant freestyle form, the breast stroke was made a separate competition in 1904 . Women's freestyle races were first included in the 1912 Games, and eventually the ir events grew to include all the regular competition strokes. The breaststroke was done in the traditional manner until the early 1930 s, when some swimmers discovered that they could get an extraboost going into the turns by digging into the water with a double overkead arm stroke. The coach at Iowa University of the United States, Dave Armbruster, and one of his swimmers, I ackSeig, toyed with this "butterfly" arm action and developed a newkick to go with it called the "dolphin" .. a sort of undulating motion from fips to the toes.

Originally, the butterfly was a novelty, as it was considered too tiring to swim for any distance. But it proved to be considerably faster than the conventional breaststroke, and by 1938 swimmers using the butterfly arm action, oftencombined with the usualfrog kick, were dominating breaststroke races. Eventually, in 1953, they were made into se parate competitions; the breaststroke became known as the "silent stroke," for swimmers found that they could make much better time underwater than on top. It was faster, 6ut fard on the lungs.
$\mathcal{B r e a s t s t r o k e r s ~ s t a y e d ~ u n d e r w a t e r ~ a s ~ l o n g ~ a s ~ p o s s i b l e , ~ a n d ~ s o m e ~ e i t h e r ~ p a s s e d ~ o u t ~ o r ~ f i n i s h e d ~ r a c e s ~ r a t h e r ~}$ 6lue in the face. A fewyears later, the rules were againchanged, so that the breaststroke fiad to be swum with the head out of the water. The butterfly was first raced as a separate Olympic competition at the 1956 Melbourne Games, and today is usually swum using the dolphinkick. Since its first appearance at the 1900 Olympic Games, the backstroke has changed little. It is the only swimming competition that starts with a push off the wall of the poolinstead of a dive. Its leg action is essentially an upside-down variation of the crawl's flutter kick, with the arms reaching up and out of the water. Adolph Kiefer, who dominated Gackstroke swimming from 1935 to 1945 , got his thrust by pulfing with his arms held straight in the water. $\mathcal{B}$ ut recently Australian backstrokers discovered that they could get more horizontal thrust by slightly bending the arm as it came around underwater, and their style fas beengenerally adopted by other swimmers.
$\mathcal{N e}$ w training methods have helped track and field athletes reach astonishing levels of performance in recent years, and many of the same techniques have made modern swimming records fragile as soap Gubbles. "Tarzan" gofnny Weissmuller, conqueror of elephants, apes and numerous swimming marks, today could be beaten at any distance over 100 meters by a 13 -year-old California schoolgirl, $S$ ue Pederson. The women's record in the 1,500 meters freestyle is nowless than the men's mark of fifteen years ago. Records and the ages of leading swimmers seem to be shrinking at an equally heady pace.
(Reprinted with permission by the International S wimming Hall of Fame from"We issmuller to Spitz: The $\mathcal{H}$ istory of S wimming," which was edited from The World of Sports, Mexico XIX, O (ympiad 8)

General Information

USA $\mathcal{A}$ wimming is the $\mathcal{N}$ ational Governing $\mathcal{B o d y}$ for competitive swimming in the United $\mathcal{S}$ tates. USS $\mathcal{A}$ $S$ wimming was conceived in 1978 with the passage of the Amateur Sports Act which specified that all Olympic sports would be administered inde pendently.

Prior to this act, USA S wimming was the Competitive Swimming Committee of the $\mathcal{A m a t e}$ ur $\mathcal{A}$ thle tic Union (AAZ) located in Indianapotis, Ind. US $\mathcal{A} S$ wimming's $\mathcal{H e}$ adquarters office was established in Colorado Springs, Colo., in 1981 and is located at the Olympic Training Center.
$\mathcal{A}$ s the $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}$ for the sport, $\mathcal{U} \mathcal{A} \mathcal{S}$ wimming is responsible for the conduct and administration of swimming in the United $\operatorname{S}$ tates. In this capacity, USA $\mathcal{A}$ Swimming formulates the rules,
implements policies and procedures, conducts the nationalchampionships, disseminates safety and sports medicine information and selects the athletes to represent the United States in international competition.
$\mathcal{H}$ ow is US $\mathcal{A}$ S wimming Organized?
International: The international federation for the aquatic sports is the Federation Internationale de $\mathcal{N}$ (atation $\mathcal{A}$ mate ur ( $\mathcal{F} I \mathcal{N} \mathcal{A})$. US $\mathcal{A} S$ wimming is affiliated with $\mathcal{F} \mathcal{N} \mathcal{A}$ through United $\mathcal{S}$ tates $\mathcal{A q u a t i c} S$ ports ( $\mathcal{U S} \mathcal{A S}$ ), which is made up of the four aquatic sports: swimming, synchronized swimming, diving and water polo.
 voting representation in the USOC House of $\mathcal{D e}$ legates.

Local: Within the United $S$ tates, USS $\mathcal{A}$ Swimming is divided into 59 Local Swimming Committees (LSCs); each one responsible for administering $\mathcal{U S S}$ activities in a defined geograpficalarea. Each LSC has its own set of by-laws under which it operates.
$\mathcal{A} \mathcal{H o u s e}$ of $\mathcal{D e l e g a t e s}$ with representation of athletes, coaches, members of the Board of $\operatorname{Directors}$ and clubs is responsible for managing the business affairs of each LSC.

US $\mathcal{A} S$ wimming is a non-profit organization made up of very dedicated volunteers. Interested individuals donate their time, energy and expertise at everylevelfrom the national Board of Directors to the local swimming clubs. All policy decisions are made through a chain of committees reporting to elected vice presidents.

The USA $\mathcal{A}$ wimming $\mathcal{H}$ ouse of $\operatorname{Delegates}$ meets once a year at the annual USAS Convention and determines the rules and regulations for swimming for the following year. Betwe en yearly meetings of the House of $\mathcal{D e l e g a t e s}$, an elected USS Board of Directors is charged with the responsibility of making decisions for the Corporation.

What Services and Programs are Offered?
The USA $\mathcal{S}$ wimming $\mathcal{H e}$ adquarters provides a variety of services and programs for its membership. Among the many services are publications, educational programs, fund-raising activities, sports medicine programs, video resources and general information about swimming related activities. The US $\mathcal{A} S$ wimming staff is available to assist you in answering questions or providing additional information about US $\mathcal{A} S$ wimming (see contact information be (ow).

Vision $S$ tatement: To inspire and enable our members to achieve excellence in the sport of swimming and in life.

Mission $\operatorname{S}$ tatement: USA $\mathcal{S}$ wimming is the national governing body for the sport of swimming. We administer competitive swimming in accordance with the $\mathcal{A m a t e}$ ur $\operatorname{S}$ ports $\mathcal{A c t}$. We provide programs and services for our members, supporters, affiliates and the interested public. We value these members of the swimming community and the staff and volunteers who serve them. We are committed to excellence and the improvement of our sport.

Core Objectives:

- Build the base
- Promote the sport
- Acfieve competitive success

The $\mathcal{N a m e}$ : Beginning in 1998, the official name for the national governing body for the sport of swimming was changed from United $S$ tates $S$ wimming (USS) to US $\mathcal{A} S$ wimming. The reasons for this change are: (a) the new name is consistent with our name identification in our corporate logo; (b) the newname is
consistent with how most other national Olympic governing bodies are recognizing themselves; and (c) the use of USA $\mathcal{A}$ is consistent with how our athletes and teams are recognized in international competitions.

The Web Site: USS $\mathcal{A} S$ wimming's official Web site can be found at: www.usa-swimming.org. The We 6 site is packed full of information and funfeatures, like our Guest We bmaster program where stars answer questions from our we bsite audience. The website is updated with newinformation every weekday and also includes extensive meet coverage with features such as audio and video clips and befind the scenes $S$ wimCam photos.

Splash: Splash, the officialmagazine of US $\mathcal{A} S$ wimming, features people, programs, services and events of US A $S$ wimming, including spotlights on superstars, alumni, $S$ wim Kids and more. $S$ plas fras a circulation of 185,000.
$\mathcal{F u n d i n g}$ and Sponsorsfip: $\mathcal{A}$ s the nationalgoverning body for the sport, USS $\mathcal{A} S$ wimming receives funding from a variety of sources. Crucial dollars come from corporate sponsorships, the Ul.S. Olympic Committee, membership fees, $\mathcal{T V}$ rights and the sale of merchandise and educational materials.
$\mathcal{A}$ major sponsor of USA $\mathcal{S}$ wimming is the Pfillips Petroleum Company of Bartlesville, OKla. The giant energy firm Gegan its sponsorship of swimming in 1973 and has 6acked the sportever since. Phillips now holds the record for being the longest continuing sponsor of any Olympic sport in the world.

Speedo is also a long-time sponsor of USA S wimming as the official supplier of deck apparel to our national teams.

This year, USAS wimming announced an exciting seven-year sponsorsfip with General Motors and recently welcomed another ne w sponsor in gohnson fofnson's Vaseline Intensive Care. United Airlines and $S$ wimmers Solution both continue to be key sponsors.

## Rules

The Racing Course

The length of a long course racing pool is 50 meters. World records may only be set in $50-\mathrm{me}$ ter (long course) or 25-meter pools. $\mathcal{F} \mathcal{N} \mathcal{A}(\mathcal{A}$ ( deration Internationale $\mathcal{D e} \mathcal{N}$ (atation $\mathcal{A} m a t e u r)$ added the 25-meter world record at the $1991 \mathcal{F} I \mathcal{N} \mathcal{A}$ Congress in Perth, $\mathcal{A} u s t r a l i a$. The competitive pool has a minimum of eight lanes, each lane anywhere from seven to nine feet wide. The racing course must be at le ast four feet deep and is frequently deeper. The top pools in the U.S. are six to nine feet deep. The water temperature must be between 78 and 80 degrees $\mathcal{F a h r e n h e}$. The front edge of the starting 6 locks are 30 inches above the surface of the water.

## The Meet

There are 14 individual events and three relays for men and women in a swimming meet. In the Olympic Games there are only 13 individual events and three relays for men and women. In the Olympics, men do not swim an 800 meter freestyle and the women do not swim a 1500 meter freestyle. Women began swimming the $4 \times 200 \mathrm{~m}$ free relay in 1996.
Strokes // Backstroke

In the backstroke the swimmer must stay on his or her back, except during the turns. The stroke is an alternating motion of the arms .. much like the crawl stroke ... with a flutter kick. Since April of 1991, a swimmer is no longer required to touch the wall with fis or her fiand before executing the turn maneuver. The key to proper interpretation of the backstroke rule is the phrase "continuous turning action," i.e., a uniform, unbroken motion with no pauses. In a more tecknical interpretation, after the shoulder rotates
beyond the vertical toward the breast, a continuous simultaneous double arm pull may be used to initiate the turn. There shall be no kick, arm pull, or floatation that is independent of the turn. The position of the head is not relevant. In all U.S. S wimming and $\mathcal{F I} \mathcal{N} \mathcal{A}$ competition, each swimmer's head must surface within 15 meters of the start of the race. This is a change from the $1988 \mathcal{F} I \mathcal{N} \mathcal{A}$ rule change which stated that a swimmer must surface within 10 meters of the start of a race. The rule was passed after $\mathcal{A m e r i c a}$ 's David $\mathcal{B e}$ rkoff set a world record in Seoul using a 35-meter underwater start, nicknamed the "Berkoff Blastoff" by $\mathcal{N} \mathcal{B C}$ swimming commentator Iofn $\mathcal{N a b e r}$. Backstroke races are swum in 100 and 200 meter distances.

Strokes // Breaststroke
Perfaps one of the most difficult strokes to master, the breaststroke requires simultaneous move ments of the arms on the same horizontal plane. The hands are pushed forward from the breast on or under the surface of the water and brought backward in the propulsive stage of the stroke simultaneously. The kick is a simultaneous thrust of the legs called a "frog" or breaststroke kick. No flutter or dolphin kicking is allowed. S wimmers must touch the wall with both fands at the same time before executing the ir turn. Breaststroke race distances are 100 and 200 meters.
Strokes // Butterfly

The most physically demanding stroke, the butterfly features the simultaneous overthead stroke of the arms combined with the dolphinkick. The dolphinkickfeatures both legs moving up and down together. No flutter kicking is allowed. As in the breaststroke, swimmers must touch the wall with both hands before turning. The butterfly was "born" in the early 1950 s as a loophole in the breaststroke rules and in 1956 Gecame an Olympic event in Melbourne, Australia. Butterfly races are swum in 100 and 200 meter distances.

## Freestyle Events

In the freestyle, the competitor may swim any stroke he or she wishes. The usual stroke used is the $\mathcal{A}$ ustratian Crawl. This stroke is characterized by the alternate overfind motion of the arms and a flutter Kick which can be either a six beat or two beat per stroke cycle rhythm. The slower two beat kickis used in the distance races, while the faster, six-beat Kick is used in the sprint events and at the very end of the distance races. The freestyle is swum in $50,100,200,400,800$ and 1500 meter distances at the Olympic Games. Women's events do not include the 1500-meter freestyle, while the men's schedule of events does not include the 800-meter freestyle.

Individual Medley

The individual medley, commonly referred to as the "I.M.," features all four competitive strokes. In the I.M. a swimmer begins with the butterfly, changes to the backstroke after one-fourth of the race, then the Greaststroke for another quarter and finally finishes with the freestyle. The "no-touch" Gackstroke rule comes into play in the individualmedley events in that the new turn may be used in the 400 -meter I M $(100$ meters of each stroke) only in the middle of the backstroke leg. The new turn may not be used in the backstroke to breaststroke turn, however, and is therefore not allowed in a long course 200-meter individual medley race. The $I M$ is swum in 200 and 400 meter distances.

Medley Relay

In the medley relay all four strokes are swum by four different swimmers. No swimmer may swim more than one leg of the relay, which is swum in backstroke, breaststroke, butterfly and freestyle order. $\mathcal{A d d i t i o n a l l y ~ i t ~ i s ~ p o s s i b l e ~ t o ~ s e e ~ a ~ w o r l d ~ r e c o r d ~ i n ~ t h e ~} 100$-meter backstroke (the first leg) in this race. geff Rouse, the current men's world record holder in the 100 -meter Gackstroke, set that markswimming the lead-offleg for the 1991 U.S. team at the Pan Pacific Championships in Edmonton, Alberta, Canada and again on the ' 92 Olympic team in Barcelona. The medley relay is 400 meters $\cdots$ or $4 \times 100$ meters.

## Freestyle Relays

There are two freestyle relays -400 and 800 meters. In the freestyle relays four swimmers swim one fourth of the proscribed distance. As in the medley relay, no individual may swim more than one leg of the relay.

Starts And Turns

Many races are lost in poor starts and turns. In the start, the swimmer is called to starting position by the starter who visually checks that all swimmers are in the down positions and still. Then, once the starter is satisfied, the race is started by either agun or electronic tone. If the starter feets that one of the swimmers has jumped early, the race will be recalled and the offending swimmer disqualified.
Quick turns are essential to a good race. In all events the swimmer must touch the wall, but in the freestyle and as of April'91, the backstroke, the swimmer may somersault as he or she reaches the wall, touching only with the feet. In the other two competitive strokes, the swimmer must touch the wall with one or both hands before executing the turn.

> Strategies

The sprint races (50 and 100 meters) are an all-out scramble from start to finish. The slightest mistake can cost precious hundredths of seconds .. and the race. The 200 meter events require the swimmer to have a sense of pace as well as the ability to swim a controlled sprint. This distance is considered by many swimmers to be the most difficult to master. The 400,800 and 1500 meter freestyles require the swimmer to constantly be aware of where they are in the water and the fatigue of the ir muscles. S wimming the first portion of the race too fast can sap a swimmer's strength and cause a poor finish. S wimming the first portion of the race too slowly can separate the swimmer from the pack and make catching up impossible. Swimmers may elect to swim the race evenly (folding the same pace throughout the race) or they may "negative split" the race. A negative split occurs when the swimmer covers the second falf of a race faster than the first half. In the late 1970 s and early ' 80 s "negative splitting" was considered the way to win a distance race. World records have been set by ganet Evans and gorg Hoffman using "even pace" strategies as well.

## Equipment

- Cap: A latex or lycraswim cap used during a race or workout to protect a swimmer's fair from the effects of chlorine in the water as well as help cut down water resistance from the swimmer's hair.
- Drag $S$ uit: $\mathcal{A}$ second loose fitting swim suit worn by swimmers in workout and warm-up to add acertain amount of weight and resistance to the flow of the water around the swimmer. The concept is similar to a batter swinging two or three bats while on deckin a baseball game.
- Goggles: Eyewe ar worn by swimmers in the pool to protect the swimmers'eyes from the effects of chorine in the water.
- Skinsuit: A slang term for a swimsuit designed to have minimum drag in the water. While many swimmers use the traditionalknitted lycra, the newest suit is woven lycra, called a "paper" suit because of its texture. There are continually new styles and fabrics put out on the market.

> Glossary

- Block: the starting 6lock.
- Cap: a latex or lycra swim cap used during a race or workout to protect a swimmer's fiair from the effects of chlorine in the water as well as help cut down water resistance from the swimmer's fair.
- Drag suit: a second loose fitting swim suit worn by swimmers in workout and warm-up to add a certain amount of weight and resistance to the flow of the water around the swimmer. The concept is similar to a batter swinging two or three bats while on deckin a baseball game.
- False start: occurs when a swimmer leaves the starting block, or is moving on the block, before the starter officially starts the race.
- $\mathcal{F I} \mathcal{N} \mathcal{A}: \mathcal{F e}$ deration Internationale de $\mathcal{N a t a t i o n d e ~ A m a t e u r , ~ t h e ~ i n t e r n a t i o n a l g o v e r n i n g ~ b o d y ~ o f ~}$ competitive swimming, diving, water polo and synchronized swimming.
- Final: the championship final of an event in which the fastest eight swimmers from the morning's preliminaries compete.
- Goggles: eyewear worn by swimmers in the pool to protect the swimmers; eyes from the effects of chlorine in the water.
- Gravity wave: wave action caused by the swimmers' bodies moving through the water. Gravity wave move down and forward from the swimmer, bounce off the bottom of the pool and return to the surface in the form of turbulence.
- Gutter: the area at the edges of the poolin which water overflows during a race and is recirculated into the pool. Deepgutters catch surface wave and don't allow them to wash back into the pool and affect the race.
- IM : slang for individual medley, an event in which the swimmer uses all four competitive strokes in the following order: Gutterfly, backstroke, breaststroke and freestyle.
- Lanelines: the dividers used to delineate the individual lanes. These are made of individual finned disks strung on a cable which rotate on the cable when hit by a wave. The rotating disks reduce waves in a competitive pool.
- Long Course: a pool configured for swimming with a 50 meter long racing course. World records may be set in long and short course competition. The Olympic Games, as well as most major swimming competitions, are conducted long course.
- Negative split: a race strategy in the distance freestyle events in which a swimmer covers the second half of the race faster than the first half.
- Official: a judge on the deck of the pool. Various judges watch the swimmer's strokes, turns and finishes or are timers.
- Prelim: short for preliminary, also called heats. Those races in which swimmers qualify for the championship and consolation finals (and semifinals when used) in the events.
- Referee: the chief official at a competition.
- Relay exchange: the exchange between the swimmer in the water and the next swimmer on the relay team. A perfect exchange will simultaneously have the finishing swimmer's fiand on the touch pad and the starting swimmer's feet just touching the starting block with the rest of the starting swimmer's Gody extended over the water.
- Roll: to move on the starting blocks prior to the starting signal. $\mathcal{A}$ roll is usually caught by the starter and called a false start, but swimmers will often try to guess the starter's cadence and get a good start. Similar to illegal procedure in football.
- Shave: prior to a major competition, a swimmer will shave fis or her entire body. The removal of the hair provides less resistance between skin and water and heightens a swimmer's sensations in the water.
- Short Course: a poolconfigured in 25-yard or 25-meter lengths. Most high school and collegiate competitions in the U.S. are conducted in short course yards. Most of the world swims short course meters in the winter season. The fastest times swum in a 25-yard poolmay only gain U.S. Open, $\mathfrak{A m e r i c}$ an or $\mathcal{N}(\mathcal{A A}$ record status.
- Skinsuit: a slang term for a swimsuit designed to have minimum drag in the water. While many swimmers use the traditional Knitted Cycra, the ne west suit is woven lycra, called a "paper" suit because of its texture. There are continually newstyles and fabrics put out on the market.
- Split: a swimmer's intermediate time in a race. Splits are registered every 25 or 50 meters (depending on the pool and the equipment on hand) and are used to determine if a swimmer is on record pace.
- Sports Science: a comprefiensive use of science and technology to develop better training methods for athletes. In USA $\mathcal{A}$ wimming, the sports medicine and science program deals with everything from blood and respiratory condition to the biomechanics of the swimmer to proper nutrition.
- Taper: the resting process in training for swimming competition. During the middle of the swimming season, a swimmer may work out 12 to 18 thousand meters each day. As major competition draws near, the swimmer will "taper" off the distances swumeach day. A perfectly designed taper will enable the swimmer to compete at his or her peakcapability and is one of the most difficult aspects of swim coacking.
- Touch: the finish of a race.
- Touchpad: the area at the end of each lane in the pool where a swimmer's time is registered and sent electronically to the timing system and the scoreboard.
- Trainer: in the U.S .: an atfletic trainer; in Europe: a coach.
- Turnover: The number of times a swimmer's arms turnover (cycle) in agiven distance or time during a race.
- Warm down: used by the swimmer to rid the body of excess lactic acid generated during a race.
- Warm-up: used by the swimmer before the race to get their muscles loose and ready to race.

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For more information contact:
US $\mathcal{A} S$ wimming
One Olympic Plaza
Colorado Springs, CO 80909
Phone: 719-578-4578
Fax: 719-578-4669
Internet: www.usa-swimming.org

## $\mathcal{H}$ istory

- 1907-Annette Kellermanattracted national attention at the New York Hippodrome as the first underwater ballerina by performing water ballet.
- 1916 - Kay Curtis instituted synchronized swimming as an integral part of the Ulniversity of Wisconsin's physicaleducation program.
- 1939-The first known synchronized swimming competition in the United States was a dual meet between Wright Iunior College and the Chicago Teacher's College held May 27, 1939 at Wright gunior College in Iowa. Ele anor $\mathcal{H}$ lm, 1936 Olympian, performed at the World's Fair in $\mathcal{N}$ (ew York, popularizing synchronized swimming nationwide.
- 1940 - Esther Williams, ULS. 100 meter freestyle champion and Olympic contender, was credited for popularizing synchronized swimming in the United States through her performances at the World's Fair in $\operatorname{San} \mathcal{F}$ rancisco and subsequent $\mathcal{M} G \mathcal{M}$ movies.
- 1941- The Amateur $\mathcal{A}$ thletic Union (AAU) adopted synchronized swimming as an official competitive sport for duet and team events. The first Synchronized S wimming Championship was held March 1, 1940 in Wilmette, Ill. Because of World War II, no national events were feld again until 1946.
- 1946 - The first $\mathcal{A A Z}$ Senior $\mathfrak{N a t i o n a l}$ Synchronized S wimming Championship was held $\mathcal{A u g u s t}$ 11, 1946 in Chicago, Ill., with only the team event. The duet event was held September 8, 1946 in Hinsdale, Ill.
- 1950-The solo event was added to the program of events in 1950 .I une Taylor of Ontario, Canada won the Indoor solo title while Beulah Gundling of Cedar Rapids, Iowa won the Outdoor Solo title.
- 1951-U.S.Solo and Duet champions, Beulah Gunding, Connie Todoroff and Shirley Simpson, demonstrated synchronized swimming at the first Pan $\mathcal{A m e r i c a n}$ Games in $\mathcal{B} u$ enos $\operatorname{Aires}$, $\operatorname{Argentina}$.
- 1952 - Beulaf Gunding demonstrated solo and the Detroit Synchronized Swimmers demonstrated the duet and team events at the Olympic Games in Helsinki, Finland.
- $1954-\mathcal{F I} \mathcal{N} \mathcal{A}(\mathcal{F e}$ deration Internationale $\mathcal{D e} \mathcal{N}$ atation $\mathcal{A} m a t e u r)$ made synchronized swimming a competitive division of $\mathcal{A q u a t i c s}$.
- 1955 - The Pan $\mathcal{A m e r i c a n ~ G a m e s ~ i n ~ M e x i c o ~ C i t y , ~ M e x i c o ~ i n c l u d e d ~ s y n c h r o n i z e d ~ s w i m m i n g ~ a s ~ a n ~ o f f i c i a l ~}$ event for the first time. The U.S. won all three events in its first official international competition.
- 1956 - The $\mathcal{U}$ A $\mathcal{A}$ established the first $\mathcal{A g e}$ Group rules and competition. Synchronized swimmers from

- 1959 - The first $I$ unior Olympic rules and program Gegan. Annette Kellerman and Kay Curtis were honored in the U.S.Synchronized Swimming Hall of $\mathcal{F a m e}$.
- 1967- Pam Morris was the first synchronized swimmer accepted into the International Swimming $\mathcal{H a l l}$ of Fame.
- 1971. The first Nationalgunior Olympic Championship was held in Norfolk, Va.
- 1973-The first World Synchronized S wimming Conference was held in Ottawa, Canada. American Kathy Kretschmer won the World Solo Invitational competition held in conjunction with the seminar.
- 1974 - The first World Aquatic Championship was held in Belgrade, Yugoslavia. Led by Teresa Anderson, who won four gold medals, the Ul.S. team swe pt all events and the ir gold medals pushed the U.S. Aquatic team (swimming, diving, water polo and synchronized swimming) to the overall victory at the Championsfips.
- 1975 - The first Masters $\mathcal{N a t i o n a l}$ Championsfip was held in Reading, Pa.
- 1977. The Association of Intercollegiate $\mathcal{A t h}$ letics for $\mathcal{W}$ omen ( $\mathcal{A} I \mathcal{A} \mathcal{W}$ ) Intercollegiate $\mathcal{N}$ (ational Championships were held for the first time in Lansing, Mich.
- 1978 - The first $\mathcal{N}$ ational Sports $\mathcal{F e}$ stival, organized by the USOC, was held in $\mathcal{P}_{\text {ue }} 6$ lo, Colo. Synchronized swimming selected 10 swimmers fromeach zone for the East, West, North and South teams.S wimmers were selected from the figures results of the previous $\mathfrak{N}$ (ational Championships.

Congress passed the $\mathcal{A m a t e}$ ur Sports $\mathfrak{A c t}$, which mandated a newindependent structure for amateur sport in the United $S$ tates.

- 1979-Synchronized swimming incorporated as the $\mathcal{N}$ ational Governing $\mathcal{B o d y}$ for the sport of synchronized swimming, Known as United States Synchronized Swimming, Inc. Based on the success of the previous year's Sports Festival, the United States established its first $\mathcal{N}$ (ational $\mathcal{T}$ eam.
- 1980 - The first $\mathcal{A m e r i c}$ an Cup was held in Concord, Calif. The U.S. team won all events. The IOC accepted the duet event for the 1984 Olympic Games.
- 1981 - United States Synchronized $S$ wimming, Inc., established its $\mathcal{N}$ (ational He adquarters at the U.S. Olympic Headquarters in Colorado Springs, Colo. Paula Oyer was fired as its first executive director. The first International Age Group $\mathcal{T}$ rials we re held in Santa Clara, Calif.
- 1983-USA and Canadian $\mathcal{N}$ ational Teams performed before the International Olympic Committee (IOC) and $\mathfrak{N}$ ational Olympic Committee representatives at the IOC meeting in Los Angeles, Calif.... Ul.S.Synchronized $S$ wimming, Inc. relocated its national headquarters to Indianapolis to launch a nationwide grassroots development program funded by the Lilly Endowment.
- 1984-International Olympic Committee officially accepted the solo event into the 1984 OCympic Games two months Gefore the Games begun. Synchronized swimming premiered at the XXIII Olympiad in Los Angeles, Calif. Tracie Ruiz and Candy Costie won the first Olympic medals in the duet event. Ruiz captured an additionalgold medal a day later in the solo event. Saraf gosephson, alternate, was sixth in figures. The three athletes were coached by Charlotte Davis. Olympic Manager was Gail Emery. Ruiz and Costie attained their first "perfect" International Routine score at the Rome Open II in Rome. USSS adopted a Coaches Certification Program and fired a full-time nationalcoach to oversee National Team programs.
- 1985-II $\mathcal{F I} \mathcal{N} \mathcal{A}$ World Cup is held in $\mathcal{A m e r i c}$ a for the first time.
- 1987. The United States captured allevents at the 1987 Pan American Games and the team title at the II I $\mathcal{F}$ IN $\mathcal{N}$ World Cup.
- 1988-At the XXIVOlympiad in Seoul, Korea, U.S. Team members, Tracie Ruiz-Conforto and Karen and Saraf gosepfson, won silver medals in the solo and duet competitions.
- 1989. The United States, for the first time since 1975, swept all events at the IV $\mathcal{F I N} \mathcal{N} \mathfrak{A}$ World Cup in $\mathcal{P a r i s}$. The first $\mathcal{F} I \mathcal{N} \mathcal{A} \mathcal{I}$ unior $\mathcal{W}$ orld Championship was held in Cali, Columbia with the U.S. Te am swe e ping all events.
- 1990 - The United States wins the Solo and $\mathcal{D}$ uet title at the sport's Goodwill Games debut.
- 1991-At the XI World Aquatic Championsfips in Perth Australia, the U.S. Team captures the World Team title. Karen and Sarah gosephson win their first World $\mathcal{D}$ uet title. Based on their performances, the USA $\mathcal{A}$ is now ranked number one in the world. The IOC votes to replace the solo and duet events with the team competition starting at the 1996 OCympic Games. The U.S. Team sweeps allevents at the XI Pan $\mathcal{A m e r i c a n ~ G a m e s ~ i n ~ H a v a n a , ~ C u b a . ~ I t ~ i s ~ t h e ~ s i x t h ~ t i m e ~ t h a t ~ t h e ~} \mathcal{L n}$ ited $S$ tates fas done this. At the $\mathcal{V} \mathcal{F} I \mathcal{N} \mathcal{A}$ World Cup, the U.S. Team captures the gold medal. Karen and Sarah gosephson with the ir first $\mathcal{F} I \mathcal{N} \mathcal{A}$ World Cup title.
- 1992 - At the XXV Olympiad in Barcelona, Spain, the U.S. team swe eps gold medals in both events. Kristen Babb-S prague is crowned solo champion. Karen and Saraf gosepfsondominate the duet competition to win their first-ever Olympic gold medal.
- 1993-The United States wins all events at the VI Synchronized Swimming World Cup. America's Becky Dyroen-Lancer has her second grand slam performance of the year winning gold medals in solo, duet, team and figures.
- 1994 - Team USA $\mathcal{A}$ swe eps all events at the VII World Aquatic Championsfips in Rome. Once again,
 more gold medals than any other $\mathcal{A m e r i c a n}$ at the Games which includes swimming, diving, and water polo.
- 1995-For the second consecutive time, Team USS $\mathcal{A}$, led by Becky $\operatorname{Dyroen-Lancer,~swe~eps~the~}$ $\mathcal{N}$ (ationsBank Synchronized $S$ wimming $\mathcal{W}$ orld Cup in $\mathcal{A}$ llanta. Dyroen-Lancer records her ninth consecutive grand slam. At the Olympic Qualifying event held at the conclusion of the World Cup, the United $S$ tates sets a new record by receiving a perfect score of ten 10 s . It is the first time this fias ever beendone in a major international competition. UlS.S Snchronized Swimming selects its first-ever 10-member Olympic team for the 1996 Games.
- 1996 - In the teamevent's premier at the 1996 Olympic Games, the USA $\mathfrak{A}$ performs flawlessly. After winning the tecfnical routine portion, the $\mathcal{U S} \mathcal{A}^{\prime}$ s free routine, "Fantasia on an Orcfestra" captivates the audience and judges. The USA receives a perfect score of 100 in the free routine to earn the first Olympic gold medal in team competition.
- 1997-Francois Carrard, director general of the International Olympic Committee, announced on May 20 that duets will be re-introduced to the Olympic program for the Games of the XXVII Olympiad in Sydney, Australia.


## General Information

Since synchronized swimming began in the early 1900 s, spectators have been awed by the grace and power of this exciting sport which requires a unique combination of ove rall body strength and agility, grace and Geauty, split-second timing, musical interpretation and dramatic flair. The inaugural synchronized swimming U.S. National Championships were held in 1946, just one year after the Amateur $\mathfrak{A t h}$ fetic Union (AAM) first recognized the sport. A few years later, the 1955 Pan American Games included synchronized swimming events, and the World Aquatic Championships soon followed. After almost 40 years of concerted effort, synchronized swimming was at lastincluded in the Olympic Games in 1984, with the United States winning the first solo and duet Olympic gold medals.

Three events are currently recognized internationally in synchronized swimming: solo, duet and team (eight swimmers). The competitive rules and manner of judging are similar to such sports as figure skating and gymnastics. In the 1996 Olympics, the team event replaced solo and duet competition, which had been a part of the Olympic program since 1984. However, duets will be re-introduced for the 2000 Olympic Games. Synchronized swimming has captured the attention of sports spectators worldwide, and today it ranks among the most popular of amateur sporting events. In the last 10 years, the sport fas experienced unparalleled growth to include more than 5,000 athletes, coaches and officials, participating in more than 200 clubs across the country. More than 50 nations compete in synchro on six continents.
U.S.Synchronized Swimming, atso known as Synchro S wimming US $\mathcal{A}$, was established as a nonprofit organization in 1977, and is the United States $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}$ for the sport, recognized by the International Olympic Committee, the United States Olympic Committee and $\mathcal{F} I \mathcal{N} \mathcal{A}$ (Federation Internationale de $\mathcal{N}(a t a t i o n ~ \mathcal{A m a t e} u r)$ - the international governing federation.

The organization's mission statement includes three main goals:

- To provide le adersfip and resources for the promotion and growth of synchronized swimming;
- To achieve competitive excellence at all levels; and
- To develop broad-based participation.

USSS's duties include:

- Developing and administering programs and competitions throughout the synchronized swimming associations nationwide;
- Selecting and training teams to represent the United States in international competition, including the Pan $\mathcal{A m e r i c}$ an and Olympic Games;
- Sanctioning all levels of competition in the United States;
- Providing financial assistance to potential Olympians who would not otherwise be able to maintain the training program required for successful international competition;
- Establisfing the curricula to train and certify coaches, officials, and athle tes.

To maintain a winning tradition, U.S.Synchronized $S$ wimming organizes, participates in, and promotes a variety of competitive events each year. These events begin at the localleveland continue in the following categories: Age Group, Iunior and Senior.

Major International Events

- Olympic Games
- World Aquatic Championsfips
- fiNf $\mathfrak{A}$ world Cup
- Pan American Games

Major National Events
Olympic Trials: Members of the U.S. National Team, team trials finalists and other qualified athle tes compete in the sport's most prestigious event. Held prior to the Olympic Games, these top swimmers compete for coveted positions on the U.S. Olympic Team.
U.S. National $\mathcal{T e}$ am $\mathcal{T}$ rials: $\mathcal{H e l d}$ annually, the nations top swimmers vie for spots on one of three U.S. $\mathcal{N a}$ ional $\mathcal{T}$ eams that represent the United $S$ tates in major internationalcompetitions, including the Pan $\mathcal{A}$ merican Games and World Championsfips.

Iantzen $\mathcal{N}$ (ational Championships: The most important event of the ye ar for the elite synchro swimmer, this competition serves as the launching pad for athletes to pursue competitive opportunities in the international arena, and to become eligible to compete in the $\mathcal{U} . \mathcal{S}$. National $\mathcal{T}$ eam $\mathcal{T}$ rials.
U.S.I unior Championships: This annualevent attracts a blend of elite and promising young athle tes. The high caliber competition is open to junior athletes only (aged 14 to 17 years). Competitors in this event become eligible to compete in the U.S. National Team Trials.
U.S. Collegiate Championships: This crucial meet provides opportunities for athletes to pursue their interest in synchronized swimming while completing a higher education, and to become eligible to compete in the U.S. $\mathcal{N a t i o n a l} \mathcal{T e}$ am Trials.
U.S. Open: This open summer competition allows top-levelswimmers to compete for national titles, and qualify for the U.S. National Team Trials.
$\mathcal{B a q u a c i l}$ U.S. Age Group Championships: This competition is an important link to the overallgrowth of synchronized swimming by providing many young swimmers with their first exposure to national competition. Competitors from ages 12 to 19 vie for national titles, and become eligible to compete in the U.S. National I unior $\mathcal{T e}$ am Trials.
U.S. Iunior Olympic Championship: The Championship closes out the seasonformany swimmers ages 14 to 19 years. It provides a nationalcompetition for the sports developing swimmers within the ir age group categories.
U.S. Masters Championsfips: This annual fallevent provides an opportunity for mature athle tes to enjoy the competitive spirit of the sport. Ages of the competitors range from 20 to 85 years.
$\mathcal{F}$ unding
U.S.Synchronized S wimming's funding comes from a variety of sources including: membersfip fees, USS OC funding, special fund raising events, corporate sponsorsfip and corporate, private, and public donations. $\mathcal{A}$ side from basic operating and promotional expenses, funds received by USSS go to support synchronized
swimming' Olympic hopefuls, to offset their training and travel expenses, and to other synchronized swimming programs.
$\mathcal{A l l}$ members of the Board of Directors and officials at USSS sanctioned events volunteer the ir time and personal resources.

## Rules

$\mathcal{T h e} \mathcal{F} \mathcal{N} \mathcal{A}(\mathcal{F}$ deration Internationale $\mathcal{D e} \mathcal{N}$ atation $\mathcal{A m}$ mateur) format consists of two routine events... tecfinical routine and free routine.

Three events are currently recognized internationally in synchronized swimming: solo, duet and team (eight swimmers). The competitive rules and manner of judging are similar to such sports as figure skating and gymnastics. In the 1996 Olympics, the teamevent replaced solo and duet competition, which had been a part of the Olympic program since 1984. However, duets will be re-introduced for the 2000 Olympic Games.

## Technical Routine

The technical routine has required elements that must be performed in a series. Teams canchoose their own music and add additionalchoreography but cannot perform elements out of order. Time length is 2:50.

Free Routine
In the free routine, there are no restrictions on music and choreography. The routine can be no longer than five minutes, plus or minus 15 seconds. The deckwork time limit is 10 seconds.
gudging
$\mathcal{A}$ panel of 10 judges award points from 0 to 10 in one-tenth point increments. Five judges award points for technical merit and five judges evaluate artistic impression.

Tecfnical Merit
The Technical Merit score has three major components:

- Execution: The perfection of swimming strokes, propulsion techniques, figures and transitions, and the precision of patterns.
- Synchronization: The ability to match one with the other and to move with the music.
- Difficulty: The amount of airborne weight extended above the surface of the water, the complexity and multiplicity of the movements, the strength required, the length of time movements require (particularly underwater time), their placement in the routine and the complexity of patternchanges and synchronization.
Artistic Impression
The $\mathcal{A r t i s t i c}$ Impression score also has three components:
Choreography: The variety and creativity of movements, transitions, fluidity, patterns, and pool usage. Music Interpretation: The use of movement to interpret the mood and feeling of the music, its dynamics and rhythms. Manner of Presentation: The poise and confidence with which the routine is presented, the ability to communicate through the choreography, and the seeming effortlessness of the performance.

The fighest and lowest of the scores awarded in each category are canceled and the remaining scores averaged. The Tecfnical Merit total is multiplied by six (6) and the Artistic Impression score by four (4). The total of these two equals the final routine score.

Penalties

Penalties between one and two points, although rarely assessed, may be administered by the Referee for infractions.

One Point Penalty $\mathcal{D e}$ ductions:

- Deviating from the specified time limit.
- Exceeding the time limit of 10 seconds for deckmovements.
$\mathcal{T}$ wo $P_{\text {oint }}$ Penalty $\mathcal{D e}$ ductions:
- A swimmer making deliberate use of the poolbottom during a routine.
- A swimmer making deliberate use of the pool bottom to assist another swimmer(s).
$\mathcal{H a l f}$ Point Penalty $\mathcal{D e}$ ductions:
- $\mathcal{A}$ required element is omited from a Tecfinical Routine.

Order of $S$ wim
The order of swim for the technical routine is selected by a random computer draw at least 24 fours Gefore the competition. For the free routine, teams that finish fifth through eighth in the technical routine draw to swim first through fourth in the free routine. Teams that finish first through fourth draw to swim fifth through eighth.

## Final Placement

To determine overall placement, the technical routine and free routine scores are weighted to 35 and 65 percent, then added together.

## Equipment

The equipment necessary for synchronized swimming is very simple, yet very necessary.
$\mathcal{N}$ ose clip: The most important piece of equipment for synchronized swimmers is the nose clip. Although it may seem unusual, the nose clip is vital because it prevents water fromentering the nasalcavity during the upside down movements. Most synchro swimmers carry an extranose clip in their suit in case the one they are we aring gets knocked off during a routine.

Gel: Waterproof hair gel and hair spray are necessary to keep swimmers' fiair out of their eyes while they are swimming. Wearing the gelalso gives teammates a unified hair style instead of varying hair lengths and colors that would distract from a routine. The gel is often more favorable to the athletes than the alternative, which would be designer swim caps or net hair restraints.

S wimsuit: All suits designed for the U.S.Synchronized Swimming $\mathcal{N}$ (ational $\mathcal{T}$ eams by $\mathcal{I}$ antzen are specially fitted to allow for a maximum of support and range of motion. Workout suits often are more constricting in order to give atfletes a sense of the strength and stamina needed to perform certain movements, while competition suits are more elaborate and decorative depending on the theme of the routine.

Underwater Speakers: The final piece of equipment unique to synchronized swimming is the underwater sound system. While most kids would enjoy such a system in their backyard pool, for synchronized swimmers, a clear, sharp underwater speaker system is absolutely necessary. The underwater beat allows athletes to listen to the music they would normally hear above the water's surface to maintain the ir precise rfythm and movement counts.

Goggles: Hours and hours in the pool ( 8 per day, to be exact) can severely damage your eyes, thus synchronized swimmers must we ar goggles during training.
$S$ wim Cap: The long process of gelling one's hair is reserved for competitions. During training, athle tes normally resort to the traditional latex swim cap to keep their hair out of their eyes.

- Artistic Impression: Artistic impression represents a category and set of guidelines by which athle tes are judged. The category includes:
- Choreograpfy: the variety and creativity of movements, transitions, fluidity, patterns, and pool usage;
- Music interpretation: the use of movement to interpret the mood and feeling of the music, its dynamics and rhythms; and manner of presentation: The poise and confidence with which the routine is presented, the ability to communicate through the choreography, and the seeming effortlessness of the performance.
- Deckwork: Deckworkrefers to all movements taking place out of the pool before the athletes enter the water, but as part of a routine. Deckwork is judged in internationalcompetition, and is limited to 10 seconds.
- Figures: Figures is a unique area of competition that requires atfletes to demonstrate proficient and exact knowledge of a series of highly technical movements. Athletes are judged based on their ability to execute the figures.
- Free Routine: In the free routine, there are no restrictions on music and choreography. The routine can be no longer than five minutes, plus or minus 15 seconds. The deckwork time limit is 10 seconds.
- Gel: Waterproof hair gel and hair spray are necessary to Keep swimmers' hair out of their eyes while they are swimming. Wearing the gelalso gives teammates a unified hair style instead of varying hair lengths and colors that would distract from a routine. The gel is made much like traditional Knox gel used in g ell- O .
- Grand S lam: Winning first place in every event at a major meet. Most often, a grand slam includes the solo, duet and team competition. Some international competitions also fave figures and trio events.
- Nose clip: The most important piece of equipment for synchronized swimmers is the nose clip. $\mathfrak{A l t h o u g h ~ i t ~ m a y ~ s e e m ~ u n u s u a l , ~ t h e ~ n o s e ~ c l i p ~ i s ~ v i t a l ~ b e c a u s e ~ i t ~ p r e v e n t s ~ w a t e r ~ f r o m e n t e r i n g ~ t h e ~ n a s a l ~}$ cavity during the upside down movements. Most synchronized swimmers carry an extranose clip in their suit in case the one they are we aring gets knocked off during a routine.
- Team: $\mathcal{A}$ synchronized swimming team is made up of 10 athletes; fowever, only eight swim at a single time. $\mathcal{A}$ coach chooses eight athle tes to swim based on the ir various strengths and weaknesses for a particular routine. $\mathcal{A}$ different combination of eight athletes may swim in the technical and free routine portions of a meet.
- Tecfnical Merit: Technical Merit represents the scoring category that judges an athle te's ability to sucessfully and precisely execute certain movements. Tecfinical merit includes:
- Execution: the perfection of swimming strokes, propulsion techniques, figures and transitions, and the precision of patterns;
- Synchronization: the ability to match one with the other and to move with the music;
- Difficulty: the amount of airborne weight extended above the surface of the water, the complexity and multiplicity of the movements, the strength required, the length of time movements require (particularly underwater time), their placement in the routine and the complexity of pattern changes and synchronization.
- Technical Routine: The technical routine has required elements that must be performed in a series. Teams canchose their own music and add additionalchoreography but cannot performelements out of order. The technical routine lasts for two minutes, fifty seconds.

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$\mathcal{F o r}$ more information contact: US Synchronized Swimming, Inc., Pan American Plaza, Suite $901,201 \mathrm{~S}$.
Capitol Ave., Indianapolis, IN 46225; Phone: 317-237-5700; Fax: 317-237-5705; Internet:
www.usasynchro.org; Email: we 6master@usasynchro.org


## $\mathcal{H}$ istory

## $\mathcal{H}$ istory Of Table Tennis

Table tennis, formerly known as Gossima, Flim-Flam, Whif-Whaf and Ping-Pong, fias a mysterious history. $\mathcal{N}$ o one can pinpoint the exact date the sport began or who the founding fathers were.

Books and historical documents often have some of the same information, but most do not agree on the timeline. One constant, fowever, is that table tennis began as an after-dinner amusement in England in the late 19 th century.

Played in an easy and genteelmanner, table tennis became a more competitive sport in the early 1900 as its popularity reached newheigfts.

The game, with only minor rule changes since the early days, is becoming faster and more demanding every year. Today, the sport attracts more than 40 million competitive players worldwide and unknown numbers of those who play for fun.

An Olympic sport since 1988 , the future of table tennis looks bright.

## Chronology of Table Tennis

- 18 10: A color lithograpf sfows young boys playing a table tennis-like game.
- 18 8 1: Englisf Army officers play a game with carved champagne corks ( 6 alls), books (net) and cigar lids (racquets) at officers' clubs and posts in South Afric a and India.
- 1900: Englishman James Gibb, after a trip to America, brings back celluloid balls which are the style used today. He is credited with coining the phrase "ping"for the sound the ball made on the racquet and "pong" for it fitting the table.
- 1901 : Iofn I acques, an Englisf sports manufacturer, registers the name "Ping-Pong" in America and sells the American rigfts to Parker Brothers.
- 1902 : E.C. Goode, taking a break at a London tournament, buys a studded rubber coin mat at a drug store. On a whim, he covers fis racquet with it, adding spin to the ball.
- 1904-1921: The sport vanishes from America and Europe. Parker Brothers and Iacques'monopoly of the sport's rules and equipment are possible culprits.
- 1921 : Rebirth of the sport begins in selected Europeancountries under the name "table tennis" so not to infringe on the Parker $\mathcal{B r o t h e r s}$ trademark.
- 1926 : The International $\mathcal{T} a b l e \mathcal{T e n n i s} \mathcal{F e d e r a t i o n ~}(I \mathcal{T} \mathcal{T} \mathcal{F})$ is formed in $\mathcal{B e r l i n}$.
- 1930-1951: The Hungarians dominate the sport.
- 1933: The United States Table Tennis Association (UUSTTA) is founded.
- 1937: The U.S. becomes the first country to win the men's (S waythling Cup) and women's (Marcel Corbillon Cup) team championships in the same year.
- 1951-1979: Asian countries dominate the sport. Iapan is the first power, followed by China in the 1960 s and more recently, by Korea.
- 1952: Foam rubber racquets are introduced by Japan's Horoi Satof, bringing more speed, spin and silence to the game.
- 1955: U.S.pros such as Schiff/Fields, Aarons/Glanczand Price/Clark tour the country and the world giving exfibitions.
- 1980: Fourteen tournaments are tele vised by $\mathcal{E S} P \mathcal{N}$ and PBS .
- 1983: Table tennis becomes a fullmedal sport in the Pan American Games (Caracas, Venezuela). The Ul.S . takes five gold medals and one bronze in seven events.
- 1987: The U.S . again dominates the Pan Am Games winning three gold medals and three silver.
- 1988: Table tennis becomes a full medal sport at the Olympic Games (Seoul, South Korea).
- 1997: Today, more than 40 million players annually participate in sanctioned tournaments worldwide.

General Information
 United States. The goal of the association is to promote table tennis, the world's most popular racquet sport, in America and to provide all participants, recreational and professional, the best possible experience by advancing and administering the sport in a variety of ways.

To these ends, USATI is responsible for organizing and training teams for national and internationale vents including $\mathcal{N a t i o n a l}$ and $\mathcal{W}$ orld Championships, Pan $\mathcal{A m e r i c}$ an Games and the Olympics. It also works closely with over 150 international table tennis associations and approximately 215 table tennis clubs in the U.S.
$\mathcal{U S} \mathcal{A T}$ is similarly connected with many national organizations that promote the sport including the
 $\mathfrak{A s s o c i a t i o n ~ o f ~ C o l l e g e ~ U n i o n s ~ I n t e r n a t i o n a l ~ a n d ~ i n d i v i d u a l ~ s t a t e ~ g a m e s . ~}$

Through its network of affiliated clubs, US ATC has ne arly 300 sanctioned tournaments each year in addition to league play, coaching programs, exhibitions and other promotional, recreational and educational activities. It also sanctions regional and nationalchampionsfips, conducts local and national player development clinics, approves equipment and supports national te am members. USS $\mathcal{A T C}$ also provides a computerized national atflete rating system.

Finally, USSATI provides information and assistance for conducting tournaments and directs $\mathcal{A m e r i c a}$ 's most prestigious table tennis events, the U.S. Open Championships and the US $\mathcal{A} \mathcal{T}$ able $\mathcal{T}$ ennis National Champions hips.
$\mathcal{U}$ A $\mathcal{A}$ Table $\mathcal{T e n n i s}$ was formed with the aid of table tennis associations from around the country. TUS $\mathcal{A T C}$ was an outgrowth of the American Ping Pong Association (created in 1930), the U.S. Amateur Table Tennis $\mathcal{A s s o c i a t i o n}$ and the $\mathcal{N a t i o n a l} \mathcal{T a b l e} \mathcal{T}$ ennis Association, which was formed in 1932. The unifying of these three groups helped sidestep certain complications created by Parker Brothers'acquisition of the patented name "Ping-Pong," the game they marketed nationally.
 severalcities including Doylestown, Pennsylvania; Orange, Connecticut; and $\mathcal{S} t$. Louis, Missouri. It moved to Colorado in 1979 when it became a Group A member of the United States Olympic Committee (USOC).

The association's magazine was first published in October, 1933. Consisting of four pages, its first press run was 3,000. It has been called Table Tennis Topics, Spin and Table Tennis Today before the recent name change to US $\mathcal{A} \mathcal{T} a b l e \mathcal{T}^{2} n n i s ~ M a g a z i n e . ~$

## Rules

- Each game is played to 21 points, and a player must win by 2 points. Matches are best 2 out of 3 or 3 out of 5 games .
- decide the first serve, players should flip a coin. They should not "ping" for serve. The players takes turns serving 5 balls at a time until the end of the game or until the score reaches 20-20. At 20-20 (deuce), players should change serves for every point until one player is 2 points afiead.
- To serve, toss the ball up at least 6 inches vertically and strike the ball as it descends. The Gall and racquet must be befind the endfine and above the table level while serving. The serve must bounce first on the server's side, cross over the net without touching it and land anywhere on the other side
of the table. If the serve hits the net and lands on the opposite side (a net serve), serve over until a good serve is made. There is no limit on the number of net serves.
- A point Gegins as soon as the server tosses up the ball.
- A return (not a serve) touching the net and striking the other side of the table is good.
- A player loses a point if he/she touches the table with the free fiand, moves the table or touches the net or the net posts during a point.
- S witchends of the table after each game and at 10 in the deciding game of a match.
- The player who received first in a game serves first in the next game of a match.
- Call a "Le t" and play the point over if 6oth players cannot agree on a call.


## Equipment

- Ball: Made of celfuloid or similar plastic material, it is 38 mm in diameter and 2.5 gm in weight. It must be white, yellow or orange and matte in color.
- Blade: A paddle or racquet without any covering. Only blades made of wood are legalfor competitive play.
- Blade Covering: The materialused to create a playing surface on one or both sides of the blade. Wood, sandpaper, cork and sponge, although common, are not legal surfaces.
- Court: The area where the table is set up for play. Alegalcourt is 20 feet wide by 40 feet long.
- Net: Six inches figh and stretches the width of the table.
- Pips In: A smooth rubber surface.
- Pips Out: A rubber surface covered with bumps or dimples.
- Racquet: May be of any size, shape or weight. Its surface must be darkcolored and matte and the Glade made of $85 \%$ wood. The Glade may be covered with natural or synthetic dimpled rubber no more than 2 mm total thickness or a single layer of celfular "sandwich" rubber no more than 4 mm total thickness.
- Rubber: The generic term for the material used as a racquet covering. The three basic types are 1.) plain or fiard; 2.) short or long pips; 3.) inverted or "pips in."
- Table: Nine feet in length and five feet in width. It is supported so that the upper surface, termed the playing surface, is lying on a horizontal plane two feet, six inches above the floor.
- In contrast to many sports, table tennis is relatively inexpensive to play. $\mathcal{A}$ six-pack of balls from $\mathcal{N}$ ittaku, the official $\mathcal{U S} \mathcal{A} \mathcal{T}$ able $\mathcal{T}$ ennis ball sponsor, cost only $\$ 1.50-\$ 2.50$, and a racquet, while it can be expensive, generally sells anywhere from $\$ 2.00$ to $\$ 50.00$. The table is the biggest cost, and at a low-end \$100.00 table, even that doesn't break the bank.

> Glossary

- Anti-Spin: A rubber sheet having a very lowfriction coefficient, thus being ne arly unaffected by a spinning ball.
- Attacker: A type of player who attempts to kill as many balls as possible, overpowering fis opponent. Even though some shots will miss, more than 50 percent will actually hit the table.
- Ball: Made of celluloid or similar plastic material, it is 38 mm in diameter and 2.5 gm in weight. It must be white, yellow or orange and matte in color.
- Blade: A paddle or racquet without any covering. Only blades made of wood are legalfor competitive play.
- Blade Covering: The material used to create a playing surface on one or both sides of the blade. Wood, sandpaper, cork and sponge, although common, are not legal surfaces.
- Block: Ulsed to return a shot or when a player is out of position. The racquet is held in front of the ball with little movement at the point of contact.
- Chop: Ulsed to force a player to hit the ball into the net.
- Court: The area where the table is set up for play. Alegalcourt is 20 feet wide by 40 feet long.
- Default: Being disqualified from a game or match.
- Defender: This player pushes, chops, blocks and tries to force fis/her opponent to make a mistake. Defenders rely on their ability to return every ball and will we ar down their opponent. Defenders never fit hard, they simply make sure the Gall is fit back onto the table.
- Doubles: A match or game consisting of a paired team competing against another paired team.
- Five-Ball $\mathcal{A t t a c k}$ : Begins with a serve, a return, a loop of strategically placed drive, a return and kill.
- Game: Groups of three or five make up a match. Each game is a win at 21 points (if ahead by two).
- Hit: $\mathcal{A}$ slower version of the kill shot. Also called a counterdrive.
- ITTAF: International $\mathcal{T} a b l e \mathcal{T}$ ennis $\mathcal{F}$ ederation.
- Iunk Rubber: Using a rubber sheeting on one or both sides of a Glade that has long pips, offset pips or a smooth anti-spin surface. Players using this equipment can put unusual, unexpected or no spin on the Gall. Opponents of this style suggest a player is relying more on mechanical advantages than the ir own skill.
- Zill: The fastest shot in table tennis and almost impossible to return. Averaging 60 mph , they can reach 100 mph .
- Let: $\mathcal{A}$ rally where the result is not scored.
- Loaded: $\mathcal{A}$ ball upon which agreat deal of spinhas beenimparted.
- Loop: $\mathcal{A}$ long swe ping upward motion that just grazes the ball and puts tremendous spin on it. $\mathfrak{A}$ good loop goes straight up if it strikes a vertical paddle and is used as a setup for a kill shot.
- Looper: This is the offensive counterpart to the pick fitter. They use the loop until the ball pops up enough to kill.
- Matches: $\mathcal{T}$ wo out of three or three out of five games played against the same opponent. The winner of the match is the player who wins the most games.
- Mental Tactics: Ulsed often in table tennis. Watch for players toweling themselves off, tying the ir shoes or attempting to change the pace of the game.
- Mixed Doubles: $\mathcal{A}$ match or game consisting of a paired male/female team competing against the same.
- Net Serve: When the serve fits the net and lands on the opposite side. Players serve again, with no fimit on amount.
- Net: Six inches figh and stretches the width of the table.
- Pentiold: This gripgives a player the best forehand but a much we aker backhand. Popular in $\mathcal{A}$ sia, the racquet is held as if you were holding a pen, with the racquet tip pointing downward.
- Pick Hitter: This player is a defender except when there is an opening. Then, they will pick a ball and fit it past their opponent. Hard to play because of their unpredictability.
- Ping-Pong:
- Generally refers to a recreation whereas table tennis is a sport.
- $\mathcal{B r a n d}$ name registered by Parker Bros.
- Pips In: A smooth rubber surface.
- Pips Out: A rubber surface covered with bumps or dimples.
- Points: Games are to 21 points and must be won by two points.
- Racquet: May be of any size, shape or weight. Its surface must be dark colored and matte and the Glade made of $85 \%$ wood. The Glade may be covered with natural or synthetic dimpled rubber no more than 2 mm total thickness or a single layer of celfular "sandwich" rubber no more than 4 mm total thickness.
- Rally: When the ball is in play.
- Rubber: The generic term for the material used as a racquet covering. The three basic types are:
- plain or hard;
- sfiort or long pips;
- inverted or "pips in."
- Scoring, Games: Reported from the perspective of the match winner and lists only the losing points. Example: "-18, 6, 10"ilfustrates an athlete wholost the first game 21 to 18, won the second 21 to 6 and won the third 21 to 10.
- Scoring, Matches: Ulsually listed with the winning team first. Example: "3-2" illustrates an athle te who won three games and lost two.
- Seemiller: $\mathcal{A n}$ unorthodox grip proven successful by five-time U.S. National Champion Dan Seemiller. It is a version of the shakefiands grip, with the racquet rotated so the forefiand side can be used on the backhand. This grip enables players to use both surfaces of the blade on any given shot and also aids in an excellent 6ackfand 6lock.
- Serve: Uled to put the ball into play. Each player alternately serves five points until the end of the game or until the score reaches 20-20 (deuce). At deuce, the serve changes with every point until one player is two points afead.
- Shakefiands: The most popular grip in the world, it is held by "shaking hands" with the racquet. This grip gives a player the best balance of forefiand and backhand shots.
- Short: $\mathcal{A}$ ball landing near the net is said to be "short."
- Singles: $A$ match or game consisting of individual players competing against each other.
- Skunk: There is no skunkrule (a7-0 score).
- Speed Glue: Ulsed to glue the blade covering onto the blade for the purpose of increasing the performance of the rubber.
- Sponge: A figh-density cellular rubber material used as an under-layer base for rubber sheets.
- Table: Nine feet in length and five feet in width. It is supported so that the upper surface, termed the playing surface, is lying on a horizontal plane two feet, six inches above the floor.
- Team: A team usually consists of two or three members where each player competes against every other player on an opposing team. A combination of singles and doubles play is used.
- Three-Ball $\mathfrak{A t t a c k}$ : The server attempts to kill the serve return.
- ULS ATT : USA $\mathcal{A}$ Table Tennis.
- Volley: When a player hits the ball before it has hit his/her side of the table. This player in turn loses the point.
- Walkover: Occurs if your opponent defaults fis/her match.

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For more information contact:
ULS $\mathcal{A} \mathcal{T}$ able $\mathcal{T}$ ennis
One Olympic Plaza
Colorado Springs, CO 80909
Phone: 719-578-4583
Fax: 719-635-6071
Internet: www.usatt.org
Email: usatt@iex.net

## Tae Kwondo

## History

$\mathcal{A l t h o u g h}$ Taekwondo was first developed over 20 centuries ago in Korea, it was not officially recognized as a system of self-defense until the 1950 s when a group of leading Korean martial artists came together and unified their various art forms under a single style of hand and feet fighting. They named this martial art Taekwondo, and in the last 30 years have developed it into one of the mosteffective styles of unarmed self-defense in the world.

Taekwondo is a free-fighting combat sport is which an individual uses bare fands and feet to repel an opponent. Taekwondo literally means the "way of Kicking and punching." It consists of sharp, strong angular move ments with free flowing circular movements to produce a balance of beauty and power. With the addition of Taekwondo's trademark kicking teckniques it is a comple te system of self-defense and personal improvement. All of its activities are based on the defensive attitude that originally developed for protection against enemy attacks.

The most important fact about Taekwondo is that it is both a superior art of self-defense and a technique of mentaldiscipline. It gives its practitioners self-confidence that provides an advantage over a we aker opponent. This mentalcharacteristic along with the physical ability is beneficial to the mental life of individuals as well as to their families and friends. With its practicalmeans of self defense, its comple te regimen of physical conditioning, and its aid to improved concentration and mental performances, Taekwondo offers a totalfitness program integrating mind, 6 ody and spirit.

Today, Taekwondo is the most recognized Korean Martial $\mathfrak{A r t}$, and a popular internationalsport. It was a demonstration sport at the 1988 and 1992 Summer Olympic Games, and will be a medal sport at the 2000 Olympic Games in Sydney, Australia.

## General Information

Taekwondo was first introduced into the U.S. in the 1950 s . From this time until 1973 there was a broad diversity of teaching methodologies and styles, which were brought from the six major Kwan (schools) of Taekwondo in Korea. With unification initiated by the World $\mathcal{T}$ aekwondo $\mathcal{F}$ ederation ( $\mathcal{W} \mathcal{T} \mathcal{F}$ ) under the leadership of $\mathcal{D r}$. Un Yong Kim, instructors in the Ul.S. organized and made possible the admission of Taekwondo into the $\mathcal{A m a t e}$ ur $\mathfrak{A t h}$ tetic $\mathcal{U n i o n}(\mathcal{A A U})$ in 1974 . Under this organization, all ne wly established technical standards, sanctioned by the $\mathcal{W T} \mathcal{F}$, were adopted into this officialform of $\mathcal{T}$ aekwondo in the
 April 7, 1984, during the House of Delegates Meeting of the U.S. Olympic Committee, the U.S. Taekwondo Union was unanimously approved as a "Group $\mathcal{A}^{\prime \prime}$ member of the U.S. Olympic Committee.
U.S. Taekwondo $\mathcal{T l n i o n}$ is a non-profit amateur sports organization that exists to develop $\mathcal{T}$ aekwondo in the U.S. It is the $\mathfrak{N}$ (ational Governing $\mathcal{B o d y}$ for $\mathcal{T}$ aekwondo, as well as the sole representative of the $\mathcal{W} \mathcal{T} \mathcal{F}$ in the United States. The U.S. Taekwondo Union is responsible for development and competitive programs. It sanctions U.S. tournaments and meets, administers nationalchampionsfips and reports to the World $\mathcal{T} a e k w o n d o \mathcal{F e}$ deration and the U.S. O Cympic Committee as a National Governing Body for $\mathcal{T}$ aekwondo in the U.S. Because of its leadership, it is fast becoming one of the largest athletic associations in the U.S. Its success is evident in the growing popularity Taekwondo has experienced in the past severalyears. The 1991 U.S.I Inior Olympic Taekwondo Championsfips in Cincinnatiattracted a crowd of over 10,000 people.

With the support of the U.S. Taekwondo Union, Taekwondo has become alicensed Iunior Olympics program, under the U.S. Olympic Committee, which attracts over 3,000 competitors at the nationallevelfrom 50
state qualifiers. Taekwondo has also become an official Pan $\mathcal{A m e r i c}$ an sport (since 1983) and an Olympic demonstration sport in 1988 and 1992 . The sport has attained medal status for the 2000 Summer Olympic Games in Sydney, Australia. This increase in international and national competitions fas pushed the interest level in Taekwondo to an amazing 5 milfion practitioners in the U.S.

## Rules

Competition is conducted in 3 rounds of three minutes each with a one minute recess betwe en rounds. The games are played within an 8 meter $x \delta$ meter contest area enclosed by a 12 meter $x 12$ meter competition are a line.

The winner is determined by superior point totals of successfulfits (solid contact) using hands and feet.
One referee, four corner judges, and two juries make the decision and control the competition. The four judges keep the score and the jury decides the winner after confirmation of the referee's declaration of warnings, deduction of points and the referee's and judges' score cards. Valid scores are the scored points recognized by the majority of the judges. In the case of a tie, the referee decides the winner. The jury publicizes valid scores, superiority, deduction of points and warnings of each round. The jury's decisions are posted on the electronic scoreboard after each round.

Kyonggo List (1/2 point penalty)
Grabbing the opponent Pusfing the opponent with the shoulder, Gody, fands or arms Holding the opponent with hands or arms Intentionally crossing the alert line Evading by turning the back of the opponent Intentionally falling down Pretending injury $\mathcal{A}$ ttacking with the knee $\mathcal{A}$ ttacking the groin intentionally Intentionally stomping or kicking any part of the leg or foot Hitting the opponent's face with the hand or fist $\mathcal{L l t t e r i n g}$ undesirable remarks or any misconduct on the part of the contestant or coach.

Gamjeom List (1 point penalty)
$\mathcal{A}$ tacking the fallen opponent Intentional attackafter the Referee's declaration of Kalyeo (break) Attacking the back and the back of the head intentionally $\mathcal{A}$ ttacking the opponent's face severely with the hand or fist Butting Crossing the Goundary line Throwing the opponent Violent or extreme remarks or beflavior on the part of the contestant or coach

Weight Categories For The 2000 Summer Olympic Games
 kg and above)
Women - Flyweight (under 49 kg ) Bantamweight (49.56 kg) Welterweight (57-66 kg) Heavywe ight $(66 \mathrm{~kg}$ and above)

## Equipment

- A contestant must wear an official $\mathcal{V}$-neck $\mathcal{U S} \mathcal{T} \mathcal{U} / \mathcal{W} \mathcal{T} \mathcal{F}$ dobokingood condition for all UST TU events. The uniform must be plain white in color.
- The male contestant shall we ar an approved trunk protector, head protector (white only), groinguard, forearm protector (white on(y), shin-instep protector (white on(y) and mouth protector before entering the contest area. Mouth and instep protector are required except for international competitions. The groin, forearm and shin-instep protectors must be worn INS I $\mathcal{D E}$ the $\mathcal{T}$ aekwondo uniform.
- The female contestant shall we ar an approved trunk protector, fead protector (wfite only), women's groinguard, women's breast guard, forearm protector (white only), sfin-instep protector (white only) and mouth protector before entering the contest area. Mouth and instep protectors are required
except for international competitions. The women's groinguard, the women's breast guard, forearm protector and shin-instep protectors must be worn I $\mathcal{N} S I \mathcal{D E}$ the $\mathcal{T} a e^{k}$ wondo uniform.
- A maximum of two (2) layers of tape are allowed exceptin the case of an injury. For an injury, the minimum amount of tape that will protect the area should be used. If there is a question, the Referee should have the wrapping examined and approved by the Tournament Physician. Under no circumstances will a fiard splint or cast, no matter how small, be allowed.


## Glossary

- Afp Cfa-Gi: Front Kíck
- Cha-gi: Kick
- Counting:

One - Hana
Two - Dul
Tfree-Set
Four - Net
Five - Dasnot
Six - Yas ot
Seven - Elgub
Eight - Yodol
$\mathcal{N}$ ine - Ahob
Ten-Yol

- Dobok: Taekwondo uniform
- Dojang: Gym for practice
- Dolryo Cha-Gi: Round kick
- Gyoroogi: Sparring
- Ie on: $\mathcal{A}$ Round of competition
- Si- Hop: Yell of power
- Kwan: School where taekwondo is taught
- $\operatorname{Magg}$ i: $\mathcal{B}$ lock
- Momtong Maggi: Middle 6lock
- Palkoop Chi-Gi: Elfow punch
- Pyong-HiSogi: Ready stance
- Sob-Nal Chi-Gi: Knife-fiand puncfi
- Son- $\mathfrak{N a l} \operatorname{Dung}$ Cfi-Gi: Spear fingers punch
- Son- $\mathfrak{N a l} \operatorname{Maggi}$ : Knife-fand $\mathcal{B l o c k}$

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For more information contact:
US Taekwondo Ulnion
One Olympic Plaza
Colorado Springs, CO 80909
Pfone: 719-578-4632
Fax: 719-578-4642
Internet: www.ustu.com/taekwondo

## History

Although its popularity spans the globe, the Olympic sport of team fand emerging in the United $S$ tates and often suffers an identity crisis. Most of the world calfs the game "handball," but in the U.S. there is already another game with that name. Most Americans who hear of team handball envision participants on something like a racquetball court smacking alittle black Gall with the ir hands. This vision is not correct - without a doubt, team handball is not off the wall.

Team handball is a dynamic court game that is fun to play and exciting to watch. First-time spectators describe team handball as soccer with your hands, but they also notice elements that remind them of Gasketball, water polo and ice hockey. Participants and spectators alike enjoy the fast continuous play, the body contact and the goalie saves as both teams .- each of which are composed of 6 court players and a goalie .- use the ir natural athletic skills of running, jumping, throwing and catching.

Team handball had its origins in Europe in the late 1920 s, about the same time basketball was developing in the United States, and today enjoys great popularity throughout the world. The International Handball $\mathcal{F e d e r a t i o n}(I \mathcal{H F})$ consists of 136 member nations and 12 million registered players. $\mathcal{A}$ men's handball competition was included on the Olympic calendar at the Munich Games in 1972, after a 34 year absence, followed by the inclusion of women's competition in the 1976 Games in Montreal. During this past quadrennial, the U.S. Women won the Pan American Games and finished 8 th in the Olympic Games in $\mathcal{A t l a n t a}$. The U.S.menfinished 4 th in the Pan American Games and avery respectable 9 th versus an excellent field in Atlanta.

## General Information

 handball in this country. The USTHF became a member of the United States Olympic Committee in 1968 and is recognized by the $I \mathcal{H F}$ as the national governing body in the Ul.S.conducting national and
 each May in $\mathcal{A t}$ lanta. Two other $\mathcal{U S} \mathcal{T H F}$ members, the $\mathcal{N}$ (ative American Sports Council and the U.S. Armed Forces Sports Council are prominent promoters of team handball.

In 1995/96 USA $\mathcal{A}$ Team Handball and Cumberland Mall of $\mathcal{A t l a n t a}$ formed a partnersfip and developed a Team $\mathcal{H a n d}$ all Youth $\mathcal{D e v e l o p m e n t ~ P r o g r a m . ~ T h e ~ p r o g r a m ~ t a r g e t e d ~} 18$ Cob6 County middle schools and focused on education, participation and competition. Over a nine month period, 20,000 students were introduced to team fandball and participated in their school intramuralleagues. The program capped off with two major competitions. In May, 700 students participated in the Cumberland Cup, the largest youth tournament in the Ul.S. In Iuly, Cobb Country boy's all-star team played in the Patille Cup in Goteborg, $S$ weden, the largest youth handball tournament in the world. The team finished 16 th out of 64 teams in their age group. The results of the Cumberland Mall-US $\mathcal{A}$ Team $\mathcal{H}$ andball Youth $\mathcal{D e v e l o p m e n t ~ P r o g r a m ~ a r e ~}$ encouraging for the future of team handball in the $\mathcal{A t l a n t a}$ are a and will serve as a modelfor youth development nationwide.

## Rules

## The Basics

- The Playing Court: The court measures 20 meters ( $65^{\prime} 7^{\prime \prime}$ ) by 40 meters ( $131^{\prime} 3^{\prime \prime}$ ). The court is larger than a basketball court, but the length may be shortened when space is limited. The goal arealine, or 6 meter line ( $19^{\prime} \mathbf{8}^{\prime \prime}$ ), is the most important line. No one except the goalie is allowed to stand in the goal area. The goal opening is 2 meters by 3 meters. Players may jump into the area if the ball is released before landing in the area.
- The Ball: Team handball is played with a 32-panelleather ball. For women, the ball is 54 to 56 centimeters and 325 to 400 grams . For men, it is 58 to 60 centimeters and 425 to 475 grams .
- Number of Players: There are seven players on each team (six court players and one goalie). A maximum of 12 players may dress and participate in a game for each team. Substitutes may enter the game at any time through own substitution are a as long as the player they are replacing fias left the court.
- Uniform of the Players: Player numbers are 1 to 20. Uniform shirts and shorts are the same color. The goalkeeper must we ar a different color shirt from teammates and opponents. No je welry is allowed.
- Referees: There are two referees, a court referee and a goalline referee. Referees have complete authority: Their decisions are final. The referees are assisted by a timer and a scorer.
- Duration of the Game: For players 18 years and over, the game consists of 2, 30-minute halves with 10 minute falf-time. For tournament and youth games 2, 15-minute or 2, 20-minute falves. This is running time except for injury or one team time-out per half. The teams change benches at falf-time. The game ends in a tie unless the game demands a winner. (Tournament rules dictate that a winner must be determined.) Overtime consists of 2, 5-minute periods).
- Passive Play: It is illegal to Keep the Gall in a team's possession without making a recognizable attempt to attack and to try to score. In other words, a team cannot stall (free-throwawarded to the other team).
- Throw-Off: $\mathcal{A}$ throw-off is taken by the team that wins the coin toss and chooses to start the game with the Gall. Each team must be in its own half of the court with the defense 3 meters away from the 6all. Following a whistle, the ball is passed from center court to a teammate and play begins. Throw-off is repeated after every goal scored and after half-time.
- Scoring: $\mathcal{A}$ goal is scored when the entire ball crosses the goal line inside the goal. $\mathfrak{A}$ goal may be scored from any throw (free-throw, throw-in, throw-off, goal-throw).

Playing The Ball

- A player is alfowed...
- To run with the ball for 3 steps
- To hold the ball for 3 seconds
- Unlimited dribble with 3 steps allowed before and after dribbling (no double-dribble).
- $\mathcal{A}$ player is $\mathfrak{N} O T$ allowed . . .
- To endanger an opponent with the ball.
- To pull, fit or punch the ball out of the fands of an opponent.
- To contact the Gall below the knee.
- To dive on the floor for a rolling or stationary ball.
- Defending the Opponent: A player is allowed to use the torso of the body to obstruct an opponent with or without the ball. However, using the outstretched arms or legs to obstruct, push, hold, trip or fit is $\mathcal{N O T}$ allowed. The attacking player is not allowed to charge into a defensive player.
- Throw-In: A throw-in is awarded when ball goes out of bounds on the sideline or when the ball is last touched by a defensive player (excluding the goalie) and goes out of bounds over the endline. The
throw-in is taken from the spot where the ball crossed the sideline, or if it crossed the endline, from the nearest corner. The thrower must place one foot on the sideline to execute the throw. All opposing players must stay 3 meters away from the ball.
- Referee Throw: A referee throw is awarded when... The ball touches anything above the court after a simultaneous infringement of the rules after simultaneous possession of the ball.
- The Referee throws the Gall vertically between two opposing players. The jumping players may grab the ball or tap it to a teammate. All other players must be 3 meters away from the throw. The referee throw is always taken at center court.
- Free-Throw: For a minor foul or violation, a free-throw is awarded to the opponent at the exact spot it took place. If the foul or violation occurs between the goal are a line and the 9-meter line, the throw is taken from the nearest post outside the 9-meter line. The thrower must keep one foot in contact with the floor, then pass or shoot.
- 7-Meter Throw: The 7-meter throw is awarded when...
- A fouldestroys a clear chance to score
- The goatie carries the ball back into fis or her own goal area
- A court player intentionally plays the ball to fis or her own goalie in the goal area and the goalie touches the ball
- A defensive player enters fis or hergoal area to gain an advantage over an attacking player in possession of the ball.
- All players must be outside the free-throwline when the throw is taken. The player taking the throw has 3 seconds to shoot after referee's whistle. Any player may take the 7 -meter throw.
- Goal-Ifrow: A goal-throw is awarded when...The ball rebounds off the goalkeeper over the endline The ball is thrown over the endline by the attacking team.
- The goalie takes the throwinside the goal area and is not restricted by the 3-step/3-second rule.
- Progressive Punishments
- Progressive Punishments: Pertain to fouls that require more punishment thanjust afree-throw. "Actions" directed mainly at the opponent and not the ball (such as reaching around, folding, pusfing, fitting, tripping and jumping into an opponent) are to be punished progressive (y.
- Warnings (yellow card): The referee gives only one warning to a player for rule violations and a total of three to a team. Exceeding these limits results in 2 -minute suspensions thereafter. Warnings are not required prior to giving out a 2 -minute suspension. 2-minute suspensions awarded for ...
- Serious or repeated rules violations
- Unsportsmanlike conduct
- Illegal substitution.
- The suspended player's team plays sfort for 2 minutes.
- Disqualification and Exclusion (red card): $\mathcal{A}$ disqualification is the equivalent of three, 2-minute suspensions. $\mathcal{A}$ disqualified player must leave court and bench, but the team can replace player after the 2 -minute suspension expires. An exclusion is given for assault. The excluded player's team continues short one player for the rest of the game.


## Equipment

- The Playing Court: 20 meters ( $65^{\prime} 7^{\prime \prime \prime}$ ) 6y 40 meters ( $131^{\prime} 3^{\prime \prime \prime}$ ).
- Ball: The ball used in men's team fandball competitions is 60 centimeters (23.6") in circumference. The ball used in women's team handball competitions is 56 ( $22^{\prime \prime}$ ) centimeters. It is covered in leather.
- Goal: The goal is two meters (6.6') figh by three meters (9.8') wide. The net is 1 meter ( $3.3^{\prime}$ ) deep at the goal base.
- Passive Play: It is illegal to keep the ball in a team's possession without making a recognizable attempt to attack and to try to score. In other words, a team cannot stall (free-throwawarded to the other team).
- Throw-Off: Taken by the team that wins the coin toss and chooses to start the game with the Gall. Each team must be in its own half of the court with the defense 3 meters away from the ball. $\mathcal{F o l l o w i n g ~ a ~ w h i s t l e , ~ t h e ~ b a l l ~ i s ~ p a s s e d ~ f r o m ~ c e n t e r ~ c o u r t ~ t o ~ a ~ t e a m m a t e ~ a n d ~ p l a y ~ b e g i n s . ~ T h r o w - o f f ~ i s ~}$ repeated after every goalscored and after fialf-time.
- Throw-In: Awarded when ball goes out of bounds on the sideline or when the ball is last touched by a defensive player (excluding the goalie) and goes out of bounds over the endline. The throw-in is taken from the spot where the ball crossed the sideline, or if crossed the endine, from the nearest corner. The thrower must place one foot on the sideline to execute the throw. All opposing players must stay 3 meters away from the ball.
- Referee Throw: Awarded when the ball touches anything above the court; after a simultane ous infringement of the rules; or after simultaneous possession of the ball. The referee throws the ball vertically betwen two opposing players, who may grab the ball or tap it to a teammate. All other players must be 3 meters away from the throw. The referee throw is always taken at center court.
- Free-Throw: For a minor foul or violation, a free-throw is awarded to the opponent at the exact spot it took place. If the foul or violation occurs between the goal arealine and the 9-meter line, the throw is taken from the nearest post outside the 9-meter line. The thrower must keep one foot in contact with the floor, then pass or shoot.
- 7-Meter Throw: Awarded when a fouldestroys a clear chance to score; the goalie carries the ball back into fis or her own goal area; a court player intentionally plays the ball to fis or her own goalie in the goal area and the goalie touches the ball; or a defensive player enters his or her goal area to gain an advantage over an attacking player in possession of the ball. All players must be outside the free. throw line when the throw is taken. Player taking throw has 3 seconds to shoot after referee's whistle. Any player may take the 7-meter throw.
- Goal-Throw: Awarded when the ball rebounds off the goalke eper over the endine or the ball is thrown over the endline by the attacking team. The goalie takes the throwinside the goal area and is not restricted by the 3-step/3-second rule.

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For more information contact:
USS Team $\mathcal{H}$ and ball $\mathcal{F e}$ deration
1903 Powers Ferry Road, Suite 230
Atlanta, GA 30339
Phone: 770-956-7660
Fax: 770-956-7976
Internet: www.usateamfandball.org
Email: info@usateamhandball.org

Tennis

## History

Truly international in participation and popularity, tennis is a game with roots in prefistoric times and drama and excitement which has appealed to fans in many different eras and cultures.
$\mathcal{H}$ istorians speculate that the origins of tennis date 6 ack to the $S$ tone $\mathcal{A g}$, when humans first used clubs to hit rocks back and forth over Garricades of dirt and stone. They next trace the development of tennis to the variant of handball played in Greece, Rome, Egypt and elsewhere throughout the ancient world. But it was the $\mathcal{F}$ rench who first gave the game its modern shape, as well as its name: the word "tennis" derives from the French tenez, meaning "take it" or "play." According to legend, a wandering minstrel introduced the game to the royalcourt in France around the 10 th century. By the 11th century, the game was played in monastic cloisters, either indoors, where a rope chord was stretched across a room to serve as the ne $t$, or outside, where a mound of dirt served to divide the playing court.

Despite the efforts of elites such as Louis IV of $\mathcal{F}$ rance and various ecclesiastical authorities to ban the game, tennis had spread to the British Isles by the 14 th century and within a fundred years was establisfed as a royalgame in England. Henry VII and Henry VIII were both enthusiasts, and sponsored the building of courts throughout the country. By 1500 or so, the tennis racket had evolved from the earlier all-wood model to a ne wer version with wooden handle and head strung with sheepgut. During the following century, tennis became the nationalgame in France as Paris alone came to boast over 1,000 courts for play.

For reasons that remain unclear, the popularity of tennis dipped dramatically during the late Renaissance and Enlightenment, Gut the sportre-emerged in England in the mid-19th century. In 1858, Major $\mathcal{T}$. $\mathcal{H}$. Gem and g.B. Perara marked out a court in Birmingham and Gegan to adapt the game to open-air play ongrass. Fifteen years later, in 1873, Major Walter Wingfield created a variant of tennis in which only the server could score, among other rules changes. The All-England Croquet Club soon took an interest in the sport, and in 1877 the first Wimbledon lawn tennis championships we re held to raise money for the club, as three members drew up newrules yet again.

After being introduced by a returning traveler in 1874, tennis quickly gained popularity in the United $S$ tates and the U.S. Lawn Tennis Association was formed in 1881. International competition soon followed, with the International Lawn Tennis Challenge Trophy (later the Davis Cup) first contested in 1900 and the Wightman Cup, for competition between $\mathcal{B r i t i s h}$ and $\mathcal{A m e r i c}$ an women's teams, in 1923. Men's singles and doubles play was included on the program for the first modern Olympic Games in 1896. A mixed event and women's singles play were added for 1900, but removed four years later. After the 1924 Paris Games, tennis disappeared from the Olympic menu due to the ongoing dilemma of determining what divided amateur and professional play. Tennis reappeared as a demonstration sport at the Mexico City Games in 1968 and again in Los Angeles in 1984, and was at lastrestored to full medal status for the Seoul Games in 1988 . $\mathfrak{A n d r e} \mathcal{A g a s s i}$, Steffi Graf, Gabriella Sabatini, Lindsey Davenport and Iim Courier are just three of the professional tennis stars who have ackieved Olympic excellence in recent years.

## General Information

Founded in 1881, The United States Tennis Association is anot-for-profit, volunteer based organization which serves as the $\mathfrak{N a t i o n a l}$ Governing $\mathcal{B o d y}(\mathcal{N} \mathcal{G B})$ for tennis in $\mathfrak{A}$ merica.

The USTA has grown, and is now the second largest $\mathcal{N} G \mathcal{B}$ in the $\mathcal{U} . S$. with close to 500,000 individual members and over 6,300 organizational members. Its mission is to promote the development of tennis as a means of healthfulrecreation, establish and maintain rules of play, and foster national and international amateur and professional tournaments.
$\mathcal{A l t h o u g h}$, the USSA's "crown jewel" is the U.S. Open, which it owns and manages, the USTA is committed to the development of the game at the grassroots levelthrough adult and junior programs, initiatives and tournaments. The USTA also selects the national tennis teams for $\mathcal{D a v i s}$ Cup, $\mathcal{F e}$ Cup and the Olympic Games. In addition to its premier tennis events which attract the world's top professional players, the USTA creates thousands of amateur events and a complete series of challenger and satellite tournaments, the introductory stages of U.S. Professional tennis.

While the USTA's base of operation is in White Plains, New York, it maintains a presence in Key Biscayne, $\mathcal{F l o r i d a}$, fome to USTA Player $\mathcal{D e}$ velopment and Sports Science programs, and in $\mathcal{F l u s f i n g}, \mathcal{N e}$ ソ York, at the USS $\mathcal{A} \mathcal{N}$ ational $\mathcal{T}$ ennis Center.

## Rules

## Serving

- The server delivers the Gall from Gefind the baseline. Two tries are permitted for each service. If the ball strikes any part of the opponent's court except the service box, a "fault" is called. A fault is also called if the ball is served into the net, or if it strikes the net Gefore fitting the opponent's court outside the service box.
- After a successfulserve the ball is hit back and forth until one player or side fails to return the ball successfully. A shot is unsuccessful when a player le ts the ball bounce twice, fits it into the net, or fits it beyond the boundaries of the opposite side of the court.

> Scoring

- Scoring is identical in singles and doubles games. $\mathcal{A}$ game is played to four points, designated as 15,30 , 40 and Game. $\mathcal{A}$ tie at 40 is called "deuce." A game must be won by two points.
- A player must win six games to win a set, but he must win by at least two games. A tiebreaker is often used is set is tied 6-6. Tiebreakers are generally played to 7 points, and the winner must win the tie breaker by at le ast two points.
- Tennis matches are usually two sets out of three or three sets out of five.

Equipment

- The tennis court is 78' (23.8 meters) long, divided into two equal sides by a net standing 3' (0.9 meters) high at the center of the court. For singles, the court is 27' (8.2 meters) wide. For doubles the width is increased to 36' (11 meters). Courts may be made of asphalt, clay or grass.
- A tennis ball is hollow and composed of inflated rubber covered with a fabric. It is between $21 / 2^{\prime \prime}$ and $25 / 8^{\prime \prime}(6.35$ and 6.67 cm$)$ in diameter and weighs between 2 and $21 / 16$ ounces ( 57.7 and 58.5 grams ). Yellow and white balls are used in competition.
- In tournament play, the maximum racket length is $32^{\prime \prime}\left(81.3^{c m}\right)$. The maximum width is $12.5^{\prime \prime}$ ( $31.8^{\mathrm{cm}} \mathrm{cm}$ ). The head of the racket may not exceed $15.5^{\prime \prime}(39.4 \mathrm{~cm})$ long and $11.5^{\prime \prime}(29.2 \mathrm{~cm})$ wide. There are no weight restrictions, and the racket is usually strung with resilient gut or nylon.
- The racket fiandle is usually covered with a rubber or leather grip.
- Players usually wear lightweight clothing, traditionally white, and shoes with nonskid rubber soles.
- Ace: $\mathcal{A}$ valid serve that is not reached by the opponent.
- Backhand: Player turns so that the shoulder of the racket-bearing arm faces the net before bringing the racket forward and across the body to meet the ball.
- Baseline: The lines on either end of the court representing the outer limits of the length of the court.
- Court: $\mathcal{A} 78 \mathrm{ft}(23.8 \mathrm{~m})$ long area, divided into two equal sides by a net standing $3 \mathrm{ft}(0.9 \mathrm{~m})$ high at the center of the court. For singles the court is $27 \mathrm{ft}(8.2 \mathrm{~m})$ wide. For doubles the addition of alleys 4.5 ft $(1.4 \mathrm{~m})$ wide along the two longer sides increases the width to $36 \mathrm{ft}(11 \mathrm{~m})$. Courts may be of grass, clay, asphalt, concrete, wood, artificialgrass, or other synthetic materials.
- Deuce: $\mathcal{A}$ tie at 40 is called deuce. Because agame must be won by two points, play continues from deuce until one player leads by a margin of two points.
- Double Fault: If both serve attempts fail. The opponent wins the point.
- Drop Shot: A lightly fit, spinning return that drops softly over the net, forcing the opponent to approach the net.
- Fault: Called if the ball is served into the net, or if it strikes the net before fitting the opponent's court outside the service box or before exiting the court altogether.
- Foot Fault: If the server's foot enters the court before service is completed.
- Forehand: Player pivots the body so that the shoulder of the nonracket-bearing arm faces the net. The player then swings the racket forward to meet the ball.
- Let: If the ball touches the net and then falls into the diagonally opposite service box, a le $t$ is called, and the server is permitted to serve again.
- Lob: A high, soft return befind an opponent who has approached the net. It is frequently used to force the opponent to retreat to the back of the court to play the ball. The lob can also be used as a defensive stroke, providing time for the fitter to regain court position.
- Love: Term meaning zero points.
- Overhead Smash: Powerful shot often used to return a lob that has not been fit high or deep enough. The shot is fit in a similar manner to the serve.
- Receiver: The player who receives the ballfrom the server.
- Serve: Begins every point of a tennis match. The player who initiates the point.
- Tiebreaker: Employed if a set becomes tied at 6-6. A tiebreaker is generally played to 7 points, but because it too must be won by at least two points, it may be extended.
- Topspin: When a player strikes the ball so that it spins from low to figh as it travels forward. Topspin enables a player to strike the ball with more power, because the added spin helps to bring the ball down and keep it in play.
- Underspin: Occurs when a player strikes the ball so that it spins from high to low as it travels forward. This shot is called a slice. Underspin causes the ball to lose speed and to bounce lower.
- Volley: Occurs when a player strikes the ball before it bounces. The volley is most often mployed when a player is playing close to the net. The half volley is alowreturn of the ball just after it has bounced.


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For more information contact:
US Tennis Association, 70 West Red Oak Lane, White Plains, $\mathcal{N V}$ 10604-3602
Pfone: 914-696-7000; Fax: 914-696-7167; Internet: www.usta.com

## $\mathcal{H}$ istory

For many people, track and field defines the Olympic Games. From the lightning-quick feartbeat of the 100 meter dash that will determine the "world's fastest human" to the decathlon, 10 events which test an athlete's endurance and will declare the winner the "world's greatest athle te."

Twenty-four disciplines for men, 20 for women. Requiring far ranging and incredibly diverse pfysicalskills, track and field has something for everyone. The strength needed for the hammer throw. The stalking grace of the furdles. The straining upward velocity of the pole vault. The mental tenacity demanded by the 50 Km. The eclectic diversity of the steeplechase. Individually, eachevent demands attention; collectively, they cannot be overlooked.

But perfaps nothing defines an Olympics quite like the marathon. Said to fave its origins in 490 B.C., it can Ge traced to the Ancient Olympic Games in Greece, which Gegan in 776 B.C. Fitting then that the modern evolution of this most grueling race was first won by a Greek peasant in 1896. Also of note in that remarkable year was the first race ever to be held in the modern Games, the 100 meters, eventually won by Thomas $\mathcal{B}$ urke, an $\mathcal{A}$ merican.

Many years fiave passed since that day, and many personal and public triumphs fave been documented. A few, however, have stood the test of time.

The greatest female athle te of her era, Babe Didrikson, conquered not only her competition in 1932, 6ut also the stereotypes as well. She crushed her opponents in three Olympic events, only the Olympic rules Kept her from winning more.

In 1936 gesse Owens taught the world what quiet dignity and respect could do for a man, and single handedly silenced Hitler's hate fille d propaganda by winning four gold medals from the unbeatable Aryan race.
$\mathcal{A b e b e} \mathcal{B i k i l a , ~ t h e ~ G a r e f o o t e d ~ E t h i o p i a n , ~ s u r p r i s e d ~ t r a c k ~ a n d ~ f i e l d ~ g u r u s ~ b y ~ w i n n i n g ~ t h e ~ m a r a t h o n ~ i n ~ t h e ~}$ 1960 Rome Olympics, then repeated this effort in Tokyo, this time in shoes.

Wilma Rudolph overcame childhood diseases to win three gold medals in 1960. Another Tennessee State phenom, Wyomia Tyus, was named the fastest woman in the world in 1964 and again in Mexico four years later.

One of the greatest year athletics ever had was 1968. Ten world records were set, and 26 out of a possible 30 Olympic records were shattered. Two college students, Tommie Smith and Iofn Carlos, won the gold and the Gronze, respectively, in the 200 meters. But their individual accomplishments on the track may forever be overlooked by their black power salute on the medal stand. Dick Fosbury, creator of the "Fosbury Flop," revolutionized the high jump event. Bob Beamon redefined the long jump when he shattered the previous record with a remarkable le ap of $29^{\prime} 21 / 2^{\prime \prime}$. For many, this remains the single greatest moment in track and field history.

In 1984, Los Angeles played host to the world's games and a young man named Carl Le wis began fis quest for track and field immortality. Le wis mirrored the accomplishment of his idol, gesse Owens, by winning four gold medals in a single Olympic Games.
$\mathcal{A l o n g}$ with the vivid memories of success, the world remembers the moments that ended with dis appointment and tragedy. From decatflon favorite $\mathcal{D a n} O^{\prime} \mathcal{B r i e n}$ and fis failed attempt at the 1992 Olympic Trials, to Great Britain's Derek Redmond, who was helped off the track by his father when he no

Conger was able to finish the race alone, as spectators we sympathize with the failed attempts with the same energy with which we celebrate the victorious.

The 1996 Olympic Games were marked by the record-setting feats of Michaelgohnson and the fistoric final gold medal of Carl Le wis' incredible career.

Perfiaps the greatest moments in track and field history are still to come. But there is no doubt that the last 100 years have been spectacular and indelible.

> General Information

 will provide opportunities for athletes of all ages to pursue excellence in long distance running, race walking and track and field in the US $\mathcal{A}$.

In simplest terms, if you're a track and field, long-distance running or race walking athlete, coach, volunteer, official, administrator, parent or entfusiast, ULS A Tracke Field is YO Ul.
 walking and cross country. Prior to 1992, you may fave known us as "The Athletics Congress/USA ( $\mathcal{T A C} /$ US $\mathcal{A})$." The name change was ratified at our '92 National Convention to more appropriately convey what we do as an organization; it has been a very positive move and one that has carried our visibility to unprecedented levels.

USS $\mathcal{A T F}$ is a volunteer-driven, not-for-profit organization with a small staff of program administrators headquartered in Indianapolis. Through our nationwide memberstip of more than 2,500 clubs, schools, colleges and universities, US $\mathcal{A T F}$ promotes programs of training and competition for men, women and boys and girls of all ages; establishes and enforces the rules and regulations of our sport; sanctions events; provides insurance to sanctioned events, member clubs and member-athletes; and certifies race courses for accuracy.
$\mathcal{U S} \mathcal{A T F}$ is comprised of 56 member $\mathfrak{A s s o c i a t i o n s ~ t h a t ~ o v e r s e e ~ t h e ~ s p o r t ~ a t ~ t h e ~ l o c a l l e v e l . ~ O u r ~ i n d i v i d u a l ~}$ membersfip numbers over 100,000 each year, and our member organizations include the $\mathcal{N}(\mathcal{A} \mathcal{A}, \mathcal{N}(\mathcal{A I} \mathcal{A}$,
$\mathcal{R R C A}$ and $\mathfrak{N F S} \mathcal{H S} \mathcal{A}$.
The majority of our country's elite trackand field athletes, including 1996's crop of Olympians, progressed up through USATF feeder systems such as I unior Olympics, Youth Athletics and I unior programs.
$\mathcal{B e}$ sides more than $140 \mathfrak{N}$ ational Championsfips offered each year, $\mathcal{U S} \mathcal{A T F}$ conducts instructional programs such as Coaching Education seminars, designed to elevate and standardize the levelof coaching across the country. Young athletes can join a US $\mathcal{A T F}$ member club to receive instruction and expertise in their chosen activity. Clinics are feld nationwide, covering a wide range of disciplines, including race walking and pole vault. Activities such as Cultural Exchange trips, Association Workshops and Athle te Retreats allow our members opportunities to share ide as and information.

Our $\mathcal{A n n u a l} \mathfrak{M e}$ eting Grings together more than 1,200 of the sport's athletes, officials, coaches, administrators and supporters to consider policy changes, select national team staffs and Championship meet sites, elect national officers...in short, to chart the future of the sport. It is a forum for the individual's voice to be fieard.

US $\mathfrak{A T F} \mathcal{F}$ 'sxhibit Show at the $\mathcal{A n n u a l} \mathfrak{M e}$ eting also offers national sponsors, equipment suppliers, 6ook and magazine publishers, committees, travel bureaus, etc., to showcase their wares in front of the country's Cargest gathering of track and field conventione ers.

In addition to insurance benefits, "card-carrying" athlete members also receive copies of our national publication, The Record, which includes features on elite athletes and rising stars, information on and qualifying standards for upcoming events; order forms for $\mathcal{U S} \mathcal{A T F}$ official publications and licensed apparel and ne ws on important rules changes.

## Rules

There are extensive rules and regulations for each of the 44 Track and Field events included on the Olympic Program. For information on the rules of any specific $\mathcal{T r a c k}$ and Field event, visit the ULS $\mathcal{A}$ Track and Field We 6 site (in PDF format) at www.usatf.org.

## Equipment

- Besides running shoes used by (ne arly) all competitors, equipment needs for Track and Field events come almost exclusively from the Field category.
- Discus Throw: Men's discus weighs 2 kilograms (4 pounds, $61 / 2$ ounces), women's weighs 1 kilogram (2 pounds, 3 1/4 ounces).
- Hammer $\mathcal{T}$ frow: $\mathcal{A} 16$-pound metalsphere attached to a grip by means of a spring steel wire not longer than 3 feet, $113 / 4$ inches.
- High gump: Crossbar is 4 meters long. Runway must be at least 20 meters long and preferably at least 25 meters.
- I avelin: The men's javelin must weigh a minimum of 800 grams (1 pound, $121 / 4$ ounces) and measure Getween 2.6 meters and 2.7 meters. The shaft may be either wood or metal. The women's javelin must weigh a minimum of $600 \mathrm{grams}(26.16$ ounces) and measure between 2.2 meters and 2.3 meters.
- Pole Vault: Pole may be of any length and made of any material or combination of materials. The runway must be at le ast 40 meters long and preferably at le ast 45 meters. The crossbar is 4.5 meters long.
- Shot Put: $\mathfrak{A}$ shot is a ball made of iron or brass. Men use a 16 -pound ball, women 8 pound, 14 3/4 ounces.
Glossary
- International $\mathcal{A m a t e}$ ur $\mathcal{A}$ thletic $\mathcal{F e d e r a t i o n : ~ I n t e r n a t i o n a l g o v e r n i n g ~ b o d y ~ f o r ~ t h e ~ s p o r t ~ o f ~ t r a c k ~ a n d ~}$ field, located in Monte Carlo, Monaco.
- Marathon: Perfaps the most tradition-based Olympic event, runners travel 26.2 miles, re-enacting the distance run by a Greekmessenger in 490 B.C., to report the news of military victory over the Persians at the Battle of Marathon. After completing fis assignment, the messenger dropped dead.
 in the United States, headquartered in Indianapolis, Ind.

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For more information contact:
US A Track $\mathfrak{F}$ Field, PO Box 120, Indianapolis, IN 46206.0120
Phone: 317-261-0500; Fax: 317-261-0481
Internet: www.usatf.org

Since its inception in 1989, the International $\mathcal{T}$ riathlon Union (ITCI) has assumed the responsibility for developing the international scope of triathlon. With its 130 national federation members around the world, the $I \mathcal{T C l}$ is the sole International Governing $\mathcal{B o d y}$ for the sports of triathlon and duathlon. It is recognized by the International Olympic Committee (IOC), is a member of the Association of Summer Olympic International $\mathcal{F e d e r a t i o n s}(\mathcal{A S O I F})$ and is a member of the General $\mathfrak{A s s o c i a t i o n ~ o f ~ I n t e r n a t i o n a l ~ S p o r t s ~}$ $\mathcal{F e d e r a t i o n s}(\mathcal{G A I S} \mathcal{F})$.

In addition to the international promotion and advancement of triathlon, the ITU's ultimate goal is to support the aims, ideals and principles of the Olympic movement. In September 1994, the IOC named triathlon to the 2000 Summer Olympic Games Programme in Sydney. Nurturing the growth and national recognition of the member federations is the organization's immediate focus.

The ITH has established various competition standards for the sport. The Olympic Games event will be at the distance of 1.5 km swim, 40 km cycle and 10 K Kun , standard for world-wide competition with the establishment of the annual IT TL Triathton World Championship, which has been held in $\mathcal{A v i g n o n}$, France (1989); Orlando, Florida (1990); Gold Coast, Australia (1991); Huntsville, Ontario (1992); Manckester, England (1993); Wellington, New Ze aland (1994); Cancun, Mexico (1995); Cleveland, Ofio (1996); Perth, Australia (1997); Lausanne, S witzerland (1998); and Montreal, Quebec (1999).

The ITU Triathlon World Cup was created to expose the sport to the largest number of spectators, both on-site and via television broadcasts to more than $200,000,000$ vie wing housefolds. Regional Championsfip
 ITCl events, prizes are awarded equally to men and women, consistent competition rules are enforced and $I O C$ doping control regulations are stringently applied.

## General Information

USA $\mathcal{A}$ riathlon has more than 19,000 annual members and 108,000 single-event participants. The organization also sanctions 700 events annually. Federation functions include:

- Support and assist all triathletes in obtaining their goals in training, improve ment and successfulcompetition.
- Sanction events to ensure they have passed stringent criteria and therefore deemed wellmanaged.
- Publisfing a national magazine, Triathlon Times, that includes a national sanctioned event catendar.
- Developing and administering a national ranking system.
- Selecting an Olympic Team, National Team, I unior $\mathcal{N a}$ (ional $\mathcal{T e}$ am and $\mathcal{T e}$ am $\mathcal{U S} \mathcal{A}$ for various international competitions.
- Aiding in the development of programs for allcoaches and atfletes wisfing to participate in triatflon.
- Competitors may use any stroke to propelthemselves through the water. They may also tread water or float.
- A competitor may stand on the bottom or rest by folding an inanimate object sucf as a buoy or stationary boat. A competitor may not make use of either the bottom or inanimate objects to gain an advantage.
- In an emergency, a competitor should raise an arm overfead and call for assistance. Once official assistance is rendered, the competitor must retire from the competition.

Cycling

- Competitors must not blockothers.
- A competitor must obey traffic laws unless otherwise directed by an official.
- Any competitor who appears to officials to present a danger to themselves or others may be disqualified and removed from the competition.
- A bare torso will not be permitted while cycling.
- $\mathcal{N}$ o forward progress will be permitted without the bicycle.

Running

- The competitor may run or walk.
- The competitor may not crawl.
- The competitor may not run with a bare torso.
- The responsibility of keeping on the course rests with the competitor.
- A competitor will be judged as "finisfed," the moment any part of the torso, not including the fead, neck, shoulders, arms, fips or legs, reaches the perpendicular line extending from the le ading edge of the finisf-line.
- Any competitor who appears to officials to present a danger to themselves or others may be removed from the competition.

Equipment
$S$ wimming

- A competitor must wear the swim cap provided by the race organization.
- If the swim cap is lost unintentionally during the swim section, the competitor will not be penalized.
- Goggles and nose clips are allowed.


## I llegal Equipment

- Artificial propulsiondevices, i.e., fins, socks, gloves, paddles, or floatationdevices.
- Wet-suits with thickness exceeding 5 mm .
- Wet-suit bottoms only.

> Cycling

Bicycles must have the following characteristics:

- They must be no more that two (2) meters long, and fifty (50) centimeters wide for "elite" and juniors, in $\mathcal{T}$ riathlon World Cup Series, Duathlon world Cup Series, Triathlon and $\mathcal{D}$ uathlon

World Championsfips. For all other competition, two (2) meters long and seventy-five (75) centimeters wide will be permitted.

- They must measure at least twenty-four (24) centimeters from the ground to the center of the chain wheelaxle.
- A vertical line touching the front-most point of the saddle will be no more than five (5) centimeters in front of and no more than fifteen (15) centimeters befind a verticalline passing through the center of the chain wheel axle, and a competitor must not have the capability of adjusting the saddle beyond the se lines during competition.
- They must measure no less than fifty-four (54) centimeters and no more than sixty-five (65) centimeters between a vertical line passing through the center of the chain wheel axle and a vertical line through the center of the front wheelaxle. (Exceptions may be given for the bicycles of very tall or very short competitors.)
- Farings which reduce air resistance are profibited.
- The front wheel may be a different diameter than the rear wheel, but must be of spoke construction. Covers are allowed on the rear wheel. These provisions may be changed by the $\mathcal{T} \mathcal{D}$ in the interest of safety, (i.e., figh winds.)
- No wheelmay contain mechanisms which are capable of accelerating it.
- Handle bar ends must be plugged, tires wellglued, headsets tight and wheels true.
- There must be a brake on each wheel.
- Non-traditional or unusual bicycles or equipment shall be illegalunless prior approval has been receive d from the Chief Race Official prior to the start of the competition.
Cycling $\mathcal{H e l m e t s}$
- Cycling felmets are compulsory.
- The helmet must be approved by an officially testing authority, such as $\mathcal{A N S}$ I or $\mathcal{S} \mathfrak{N} \mathcal{E L L}$.
- Alterations to any part of the helmet are forbidden.
- The helmet must be securely fastened at all times when the competitor is in possession of the bicycle, i.e., from the time they remove the ir bicycle from the rack at the start of the cycle, until after they have placed their bicycle on the rack at the finish of the cycle.
- Competitors who do not we ar approved helmets while cycling at the race site, within 7 days of an ITUl event, may be disqualified from competition.
Illegal Equipment
- Headpfones or headsets
- Glass containers.


## Running

## Illegal Equipment

- Headpfones or headsets
- Glass containers

Body Markings/Logos

- No body markings other than race numbers applied by ITU Officials will be allowed.
- Temporary tattoo's and body decals displaying sponsor names and/or marks/logos are specifically profibited. In the event that an athlete displays a temporary tattoo or body decal at an ITU Triathlon World Cup event, officials shall either cover the body mark/logo or prokibit the athlete from participating in the event.

> Uniforms

Head

- S wim: All athletes participating in IT T Triatflon World Cup events must we ar the official event swim cap provided by ITGU ding the swim section of eachevent. The caps may be removed after the athle te
completes the swim section of a race. $\mathcal{N}$ o athlete sponsorsfip identification may appear on the swim cap. $\mathcal{A}$ thletes may not alter the swim caps in any manner. Athletes failing to wear the official swim caps or altering the official swim caps may be subject to disqualification.
- Bicycle: All atfletes participating in ITTUTriatflon world Cup events must we ar $\mathcal{A N S}$ I or $\mathcal{S} \mathcal{N} \mathcal{E L} \mathcal{L}$ approved helmets on the bicycle section, as described in the ITCLCompetition Rules. Athletes must place race number decals with an $I \mathcal{T} \mathcal{U}$ identification as provided by ITG on the front and sides of the helmet. $\mathcal{N}$ o identification may impair the official IT T decals on the fuelmets. The felmet manufacturer's mark/logo may appear on the fielmet, either by one 15 square cm location on the front, or one 10 square $c m$ on each side. No other sponsor mark/logo may appear on the fielmet. Only marks/logos of bicycle-related products may appear on the atflete's bicycle. Such marks/logos may not interfere with or finder the placement of the bicycle race number on the bicycle frame.
- Run: Atfletes may we ar fiats or visors on the run section of ITCTITiathlon World Cup events, only as provided by ITGU. The ITG provided hats may contain the ITGMark/logo and the mark/logo of ITG or event sponsors. $\mathcal{N}$ o sponsor mar $\mathcal{K} /$ gogo or pin may be affixed to the hat or visor worn during the run section. Hats or visors not provided by IT $\mathcal{H}$ will not be permitted to be worn during the run section.
Front
- Athletes are required to include the ITGl Global sponsor mark/logo on the front of the ir uniform and are allowed to include up to three sponsor marks/logos on the front of the ir uniform. One of the three sponsor marks/logos must be of the manufacturer of the athlete's uniform.
- The ITU Global Sponsor markllogo will be placed on their upper chest. The top of the ITGUGlobal $S$ ponsor mark/logo sfall be positioned 5 cm below the lowest point on the neckline of the uniform. The $I \mathcal{T} \mathcal{G}$ Global S ponsor markllogo sfall be 5 cm tall. No other images may appear in this area, or on either side of the ITH Global Sponsor mark/logo. No other images may appear above this area, except the manufacturer mark/logo as described below and on diagram $\mathcal{A}$. All marks/logos must be screen printed on to the uniform. The artwork for the Global S ponsor will be provided by ITU and it may not be altered in any manner. In the event that ITGUGs not secured a Global Sponsor, no printing of a mark $/ \log o$, or image of any kind may be placed in this area. Athletes have the right to place up to two sponsor marks/logos below the ITGU Global Sponsor on the front of the ir uniform and the uniform manufacturer mark/logo on the upper chest as described indiagram $\mathcal{A}$. If two sponsor marks/logos appear, the maximum size of each sponsor mark/logo shall be 20 square cm with a maximum feight of 4 cm. If a single sponsor mark/logo appears, the maximum size of the sponsor mark/logo shall be 40 square cm with a maximum height of 4 cm . The uniform manufacturer mark/logo shall be placed on the left side of the chest, no less than 5 cm from the $I \mathcal{T} \mathcal{U}$ Global Sponsor mark/logo. The uniform manufacturer mark/logo sfall be a maximum of 40 square $c m$, with a maximum feight of 4 cm . All atflete sponsor marks/logos should be screen printed on the uniform.
Back
- Athletes are required to include on their racing uniform their surname on the upper back. The lettering shall be all uppercase, 5 cm tall and in the type style $\mathcal{H}$ lvetica $\mathcal{B o l d}$. No other images may appear in this area. Atfletes are required to include the ITGU Global sponsormarkllogo on the lower back portion of their uniform as described in diagram $\mathcal{B}$. The top of the IT $\mathcal{T l} \mathcal{G l o b a l} \operatorname{Sponsor}$ mark/logo shall be positioned no lower than 3 cm below the top of the bather for athletes wearing two piece uniforms and 5 cm below the waistline for athle tes we aring one piece uniforms. The ITGUGlobals ponsor mark/logo shall be 5 cm tall. The mark/logo must be screen printed on to the uniform. The artworkfor the Global $S$ ponsor will be provided by ITG and it may not be altered in any way. In the event that IT $\mathcal{T}$ fias not secured a Global Sponsor, no printing of marks/logos or images of any kind may be placed in this area. Race $\mathcal{N u m b e r s}$
- Athletes are required to display a race number (race bib) provided by ITG on the back of the ir uniform on the bicycle section and on the front of the ir uniform during the run section. The race numbers will
be 17 cm tall and 20 cm wide. All four corners of the race number must be securely fastened to the uniform. The race number may not be altered or folded in any way. Race number belts are allowed as an alternative to fastening the numbers to the uniform, provided that no sponsormarks/logos appear on the race number belts and the race number may not be altered or folded in any way.
Glossary
- Breakaway: similar to a surge in running, when one or more athletes increase their speed significantly in an attempt to create distance between themselves and the rest of the competitors.
- Drafting: proceeding directly befind some one in an effort to gain an advantage by conserving energy. Weaker swimmers and cyclists utilize this tactic by finding the toes or wheels of other athletes to maintain a faster pace during the swimming and cycling portions.
- Duatflon: a multi-sport event similar to triathlon, usually in a run-bike-run format. The common world championship distance is a $10 \mathcal{K} r u n$, followed by a 40 K bike and a 5 Krun.
- $1.5 \mathcal{K} S$ wim: 9 miles, the distance of the swimming portion of an Olympic-distance triathlon.
- 40 KBike: 24.8 miles, the distance of the cycling portion of an Olympic-distance triathlon.
- $10 \mathcal{K}$ Run: 6.2 miles, the distance of the running portion of an Olympic-distance triathlon.
- Olympic-format: the style of the triathlon that will be contested in the Olympic Games and all International Games. It usually consists of multi-lap course in all three disciplines and adraft-legal format during the swimming and cycling portions. This style of racing is generally recognized by athletes grouped together during all three disciplines. Generally the finisfing times are much closer in O Cympic-format triathlon.
- Pack Riding: while cycling, two or more participants work together to improve performance, efficiency or position by teamwork or other joint conduct.
- Surge: similar to a breakaway in cycling, when one or more athletes increase their speed significantly in an attempt to create distance between themselves and the rest of the competitors.
- Transition area: the fub of the triathlon course, the place in which the athle tes transform from swimmer to cyclist to runner. Races can be won or lost in the time it takes for athletes to change from one discipline to another.
- Iriathlon: a sport combining any three different athletic disciplines in continuum, such as swimming, cycling and running.
- T1: the swim-to-bike transition
- T2: the bike-to-run transition


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For more information contact:
USS A Triathfon
3595 East Fountain $\mathcal{B l v d}$., S uite $\mathcal{F}$ - 1
Colorado Springs, CO 80910
Phone: 719-597-9090
Fax: 719-597-2121
Internet: www.usatriathlon.org
Email: USSATriathfon@usatriathlon.org


## Volleyball

## $\mathcal{H}$ is tory

In 1995, the sport of Volleyball was 100 years old!
The sport originated in the United $S$ tates, and is now just achieving the type of popularity in the U.S. that it has received on aglobal basis, where it ranks befind only soccer among participation sports.

Today there are more than 46 million $\mathcal{A}$ mericans who play volleyball. There are 800 million players world wide who play volleyball at le ast once a week.

In 1895, Wilfiam G. Morgan, an instructor at the Young Men's Christian Association (YMCA) in Holyoke, Mass., decided to blend elements of basketball, Gaseball, tennis, and fandball to create agame for his classes of businessmen which would demand less physicalcontact than basketball. He created the game of Volleyball (at that time called mintonette). Morgan borrowed the net from tennis, and raised it 6 feet 6 inches above the floor, just above the average man's head.

During a demonstrationgame, someone remarked to Morgan that the players seemed to be volleying the ball back and forthover the net, and perfips "volleyball" would be a more descriptive name for the sport. On July 7, 1896 at Springfield College the first game of "volleyball" was played.

Volle yball Time line

- 1895: William G. Morgancreated the game of volleyball.
- 1900: a special ball was designed for the sport.
- 1916: in the Philippines, an offensive style of passing the ball in a figh trajectory to be struck by another player (the set and spike) were introduced.
- 1917: the game was changed from 21 to 15 points.
- 1920: three fits per side and backrowattackrules were instituted.
- 1922 : the first $\mathcal{Y M C A}$ nationalchampionsfips were held in $\mathcal{B r o o k l y n}, \mathcal{N} . \mathscr{Y} .27$ teams from 11 states were represented.
- 1928: it became clear that tournaments and rules were needed, the United States Volleyball $\mathcal{A s s o c i a t i o n}(\mathcal{U S} \mathcal{V B A}$, now US $\mathcal{A} \operatorname{Volleyball)~was~formed.~The~first~Ul.S.~Open~was~staged,~as~the~field~was~}$ open to non-ソММА squads.
- 1930: the first two-man beach game was played.
- 1934: the approval and recognition of national volleyball referees.
- 1937: at the AAM convention in Boston, action was taken to recognize the U.S. Volleyball Association as the official $\mathfrak{N a t i o n a l}$ Governing $\mathcal{B o d y}(\mathcal{N} \mathcal{G B})$ in the $\mathcal{U} . \mathcal{S}$.

- 1948: the first two-man beach tournament was held.
- 1949: the initial World Championships were held in Prague, Czechoslovakia.
- 1964: Volleyball was introduced to the Olympic Games in Tokyo.
- 1965: the California Beach Volleyball Association (CBVA) was formed.
- 1974: the World Championsfips in Mexico were telecast in Iapan.
- 1975 : the $\mathcal{U} . S$. National Women's team began a year-round training regime in Pasadena, Texas (moved to Colorado Springs in 1979, Coto de Caza and Fountain Valley, CA in 1980, and San Diego, CA in 1985).
- 1977: the U.S. National Men's team began a year-round training regime in $\mathcal{D a y t o n , ~ O f i o ~ ( m o v e d ~ t o ~} S$ an Diego, CA in 1981).
- 1983: the Association of Volleyball Professionals $(\mathcal{A V} \mathcal{P})$ was formed.
- 1984 : the U.S. won their firstmedals at the Olympics in Los Angeles. The Men won the Gold, and the Women the Silver.
- 1986: the Women's Professional Volleyball Association (WPVA) was formed.
- 1988: the U.S. Men repeated the Gold in the Olympics in Korea.
- 1989 : the $\mathcal{F} I V \mathcal{B}$ Sports $\mathcal{A l d}$ Program was created.
- 1990: the World League was created.
- 1995 : the sport of Volleyball was 100 years old!
- 1996: 2-person beach volleyball debuted as an Olympic Sport.

> General Information

The United States Volleyball Association (ULS VBA) was created in $1928 . \mathcal{N}$ (ow known as US $\mathcal{A}$ Volle yball $(\mathcal{U S} \mathcal{A V})$, the association is the $\mathfrak{N a t i o n a l}$ Governing $\mathcal{B o d y}$ for the sport, and the parent organization of the USS $\mathcal{A}$ Men's and $\mathcal{W o m e n}$ 's $\mathcal{N a t i o n a l} \mathcal{T}$ eams.

It is the $\mathcal{U S} \mathcal{A V}$ mandate to nurture all variations of the game (indoor, grass, sand, six-person, doubles, coed, etc.) at all skill and age levels.
$\mathcal{U} \mathcal{A V}$ responsibilities include supporting a year-long training schedule for the Olympic Teams; US $\mathcal{A} \mathcal{Y}$ outh Volle yball (ages 7-12); the I unior Olympic Volleyball program (ages 12-18); U.S. Open Cfampionsfips by age groups; the US A Coaching Accreditation Program ( $\mathcal{C A} \mathcal{A}$ ); establisfing rules of play in the $\mathcal{U} . \mathcal{S}$.; and certifying referees and scorekeepers.

## Rules

## Volle yball Basics

Volle yball is a team sport played by two teams on a playing court divided by a net. The object of the game is for each team to send the ball regularly over the net to ground it (fiave it fit the ground or floor) on the opponent's court, and to prevent the ball from being grounded on its own court.

## Playing the Game

The ball is put into play by the right back-row player who serves the ball by fitting it over the net to the opponent's court. A player is not allowed to fit the ball twice consecutively, except when attempting a block. The rally continues until the ball touches the ground/floor, goes "out" or a team fails to re turn it to the opponent's court or commits a fault.

In volleyball, only the serving team may score a point, except in the deciding game when rally-point scoring is used. When the receiving team wins a rally, it gains the right to serve (also scoring a point in the deciding game), and its players rotate one position clockwise. Rotation ensures that players play at both the net and the backzone of the court. A team wins a game by scoring 15 points with a two-point advantage and wins the match by winning the best of three or five games. In the event of a 16-16 tie, the team scoring the 17 th point wins anon-deciding game with only a one-point advantage. In a deciding game there is no point cap.

## Equipment

- The volleyball net shall not be less than 32' (9.5 meters) long and 3' (.91 meters) in width.
- The fieight of the net measured from the center of the court is $7^{\prime \prime} 115 / 8^{\prime \prime}(2.43$ meters) for men and $7^{\prime} 41 / 8^{\prime \prime}$ (2.24 meters) for women.
- The ball weighs between 9 and 10 ounces (260-280 grams). Ball pressure is between 4.5 and 6.0 pounds ( 0.32 and 0.42 kg ).
- Long sleeve shirts/jerseys provide a safer sliding surface and more cushion.
- Footwe ar should be chosen which provides good ankle support for jumping, landing, twisting and diving.

> Glossary

- Ace: a served ball that directly results in a point.
- Bagel: winning a game 15-0.
- Block: an attempt by a player or players to interrupt the ball before, as or just after it crosses the net.
- Bump (Pass): technique of playing ball using forearms, fands together, to direct the ball.
- Bump (Set): a forearm pass used as a set.
- Carry: a fault called if the ball comes to rest in the course of contact by one player.
- Chickenwing: a last-ditch way to dig a ball using your elfow and a bent arm.
- Court: the playing surface divided into two equal areas by a net. In its official form, volleyball is played on a rectangular court 18 meters ( 59 feet 0.75 inches) long and 9 meters ( 29 feet 6.475 inches) wide; a net placed 2.24 meters ( 7 feet 4.125 inches) high.
- Coverage: most often, refers to backing up a teammate's hit whenthe block is up and the ball comes back.
- Cross Court/Cut Shot: an offensive hit when a player, instead of hitting with power, slices the ball just over and ne arly parallel to the net.
- Dig Lips: defending more than once and successfully an opponent's fard spike as if the attacker was saying beforefind where the hit was going and you read their lips. Also used in blocking lips.
- Dig: to pass a very hard hit spike; a ball brought up (saved) with any part of the body, particularly from a spike attempt.
- Dink: a very softly-fit spike; Gall played just over the net or the blockers hands.
- Down-Referee: secondary referee. He/she stands on the floor at the opposite end of the net as the upreferee. Also known as the second official.
- Dump: when the setter, instead of setting the fitters, attacks the Gall over the net.
- Facial Disgracial: a spike that fits the opposing blocker or floor defender in the face.
- Foot fault: ste pping on the court or out of bounds before serving the ball.
- Free Ball: a ball the opponent cannot attack and must yield by passing over the net. Blockers drop off the net to near the three meter line and setter awaits a good pass in the slot that looks like it's going to ne $t$, but then somefrow clears.
- Husband and Wife: when a serve drops untouched between two receivers who fail to move.
- Ioust: when two players on opposing sides attempt to block the ball by vying to push it onto each other's side of the net.
- Kill: an attackthat results in an immediate point.
- Paint Brush: a wipe off shot by the spiker (painter) on a blocker.
- Pancake: a one-fanded floor defensive technique where the hand is extended and slid along the floor, palm down, and the ball rebounds off the back of the fiand, rather than the floor.
- Pass: the first of three contacts on the offensive side - overhead or forearm.
- Perimeter Defense: backrow defenders work in the area a meter in from the backline and sidelines up to the three-meter line.
- Pipe: a ball set in the middle of the court, on the three-meter line, for a backrow player to fit.
- Quick: the first of the three attackoptions. The attacker contacts the ball immediately after it is released from the setter's fiands.
- Red card: a severe sanctiongiven by the up-referee and resulting in ejection.
- Roof: to 6lock a spike, us ually straight down and for a point.
- Screening: an attempt by a player to conceal the start of a teammate's serve by obstructing an opponent's line of sight. Screening is illegal.
- Seams: the space between the blockers and between backcourt defenders.
- Set: the act of getting the ball into the position for the fitters to attack the ball. Ulsually done overthead with two hands.
- Setter: the team quarterback. Attempts to "set" every second contact for his/her fitters to attack.
- Serve: the act of putting the ball into play.
- Shank: to pass the ball badly.
- "Six Pack": another term for getting a spiked ball in the face on defense.
- "T welve Pack": actually knocks down the defender. In the past the defender was then obligated to buy the spiker a six pack of his/her desired beverage (roots are found in doubles sand play).
- Sizzle the Pits: a spike that goes under, and past, the armpits of a big block.
- Slide: a movement from an attacker's serve receive position past another into a third; usually the ball is fit while "sliding out" towards the sideline.
- Spiked Ball: a ball fit forcibly from a height not less than the top of the net. Also known as a bury, crush, fammer, kill, put-away or slam.
- Stuff: a blockin which the ballgoes straight down to the floor with no hope of being picked up by an opposing player.
- Tool: when a ball is intentionally spiked off a blocker's hands to make it go out of bounds.
- Touch: when the ball lands out of bounds, but not before contacting one of the players.
- Up-referee: the main referee. He/she stands upon a specialchair. Also known as the first referee.
- Yellow card: penalty given by the up-referee, resulting in a point.

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For more information contact:
US A Volleyball
3595 East Fountain $\mathcal{B l v d}$., Suite I-2
Colorado Springs, CO 80910
Phone: 719-637-8300
Fax: 719-597-6307
Internet: www.volleyball.org/usav

Water Polo

## $\mathcal{H}$ istory

There is little documentation as to the origins of water polo. However, it is known that the sport originated in the rivers and lakes of mid-nineteenth century England as an aquatic version of rugby football. Early games used an inflated, vulcanized rubber ball imported from India Known as a "pulu" (the single Indian word for all "Galls"). Pronounced"polo" by the Englisf, botf the ball and the game became known as water polo.

In 1870, with a view to attract more spectators to swimming exfibitions, the London S wimming $\mathcal{A} s \sin$ fiation developed a set of water polo rules for indoor swimming pools.
$\mathcal{A}$ first, players scored by planting the ball on the end of the pool with both hands. A favorite trick of the players was to place the five-to-nine inch rubber ball inside their swimming suit and dive under the murky water, then appear again as ne ar the goal as possible. If the player came up too ne ar the goal, fie was promptly jumped on by the goalie, who was permitted to stand on the pooldeck. Games were often nothing more than gang fights in the water as players ignored the ball, preferring underwater wrestling matches that usually ended with one man floating to the surface unconscious.

The introduction of the "Irudgeon stroke" by Scottisf players changed the nature of water polo to a game that emphasized swimming, speed and passing. Scottisf rules moved from a rugby variant to a soccer style of play. Goals became a cage of $10 x 3$ feet and a goal could be scored by being thrown. Players could only be tackled when they "held" the ball and the ball could no longer be taken under water. The small rubber ball was replaced by a le ather soccer ball.

When water polo came to the $\mathcal{U S} \mathcal{A}$ in 1888 , it developed its own peculiar variation .- resembling $\mathcal{A m e r i c a n}$ $\mathcal{F o o t b a l l}$ in the water. Generally regarded as the "roughest game in the world." Games were violent yet so spectacular that by the late $1890 s$ it was one of the nation's most popular spectator sports.
$\mathcal{M e}$ anwhile the rest of the world adopted the Scottishrules: Hungary in 1889, Belgium in 1900, Austria and Germany in 1894 and France in $1895 . \mathcal{B y} 1900$ water polo was so popular that it became the first team sport added to the Olympic program. At the 1904 St . Louis Olympics, only U.S. teams were willing to compete under the American rules and a team from the New York Athletic Club defeated the Chicago Athletic
 International Governing $\mathcal{B o d y}$ for all amateur aquatic sports, adopted the $S$ cottisf rules for all international events.
$\mathcal{A m e r i c a n s}$ continued to play by their own rules until 1912 , when, inste ad of playing their semi-final match in the $\mathcal{N a t i o n a l}$ Championsfips tournament, the $\mathcal{N e w ~ Y o r k ~} \mathcal{A C}$ and the Chicago AA chose to brawl. The Amateur Athletic Union (AACl) canceled its sponsorsfip of the sport until 1914 when Americanclubs finally agreed to play under the more civilized international rules.

Internationally, European teams have fistorically dominated water polo. The United $\mathcal{S}$ tates in the only nonEuropean team to medal in Olympic competition, winning the gold medal in 1904, silver medals in 1984 and 1988 and 6ronze medals in 1924, 1932 and 1972.
$\mathcal{H}$ istory of Women's Water Polo in the United $S$ tates
$\mathcal{N}$ ineteen nine ty-six marked the 20 th anniversary of the $\mathcal{U} . \mathcal{S}$. Women's $\mathcal{N a t i o n a l} \mathcal{T} e$ am, and fittingly, the sport continues to become more and more popular among female atfletes in our country. As we lookforward to great things and a bright future for women's water polo in the United S tates and around the world, fiere is a look back at the history of women's water polo.

Women's water polo was played regularly in the United $S$ tates until 1926, when the $\mathcal{N}$ (ationals were won by the Los Angeles Athletic Club. After this time, the sport was considered too rough for women, and no $\mathcal{N}$ (ationals were held for 35 years. The $\mathcal{A n n} \mathcal{A r b o r} \operatorname{S}$ wim Club, coached by Rose $\mathcal{M a r y} \mathcal{D a w s o n}$, was instrumental in reviving the sport. Ann Arbor, later coacked by gofn Urbanckek, 1996 U.S. Men's Olympic $S$ wimming $\mathcal{A s s i s t a n t ~ C o a c k , ~ w o n ~ t h e ~} \mathcal{N}$ (ationals in 1961 through 1963. The goalkeeper for $\mathcal{A n n} \mathcal{A r b o r}$ was Micki King, later a United States Olympic diving gold medalist.
$\mathcal{N}$ orthern Virginia Aquatic Club won seven national titles from 1964-69, although on the West Coast, Santa Clara S wim Club, with Pokey Watson Richardson and Claudia Kolb Thomas, both Olympic gold medalists in swimming, took two indoor titles in 1965 and 1966.

Water polo was introduced into $\mathcal{F l o r i d}$ a by Rob $\mathcal{D e} \mathcal{V}$ ust in the late 1960 s, with $\mathcal{F l o r i d}$ a teams winning the majority of the national championships from 1971-75, although the Cincinnati Marlins won the Indoors in 1974 with a team including $\mathcal{D e}$ ena $\mathcal{D e}$ ardurff and genny Kemp, 6oth O fympic swimmers.
 Team coach, won the Indoor Nationals in 1975 and 1977 and the Outdoors in 1976 . Sainte Foy, from Quebec, Canada, coached by Claude Lavoie, won the 1976 Indoor $\mathcal{N}$ (ationals. Merced, coached by Flip $\mathcal{H a s s e}$ t, the $1979 \mathcal{N a}$ ional $\mathcal{T}$ eam coach, won the 1977 Outdoors. The 1978 and 1979 Indoor $\mathcal{N a}$ (ionals were won by Long Beach. Kelly Kemp coached these fine players from 1976 to 1978.

Sandy $\mathfrak{N}$ itta's Commerce Aquatics team captured the 1978 Outdoor Championship and the Commerce International Women's Water Polo Championships held in Commerce, Calif., which was the first such tournament in the United $S$ tates and the largest women's tournament in the world. Sixteen teams participated in the tournament, including 11 teams from outside the United $S$ tates.
$\mathcal{D}$ uring the 1978 Can-Am-Mex series in Long Beach, Calif., the Technical Water Polo Committee of $\mathcal{F} I \mathcal{N} \mathcal{A}$ was able to view an exfibition game of women's water polo between the Ulnited $S$ tates and Canada, with the Ul.S . winning, 3-2.
$\mathcal{A}$ the III World Championsfips in $\mathcal{B}$ erlin in $\mathcal{A}$ ugust, 1978 , five national teams were invited to play on an exhibition Gasis, with the U.S. finisfing third befind Holland and Australia. After the UlS. earned another Gronze medal in exfigition play at the 1982 World Championsfips in Guayquil, Ecuador, women's water polo made its official World Championships debut in Madrid, Spain in 1986. The United $S$ tates squads have earned bronze medals in 1986 and 1991, and finished fourth and eighth at the 1994 and 1998 World Champions fips.

In 1979 , the first $\mathcal{F} I \mathcal{N} \mathcal{A}$ World Cup for women was organized, with the $\mathcal{L l n i t e d} S$ tates taking the gold on $\mathcal{A m e r i c a n ~ s o i l ~ i n ~ M e r c e d , ~ C a l i f . ~} 1999$ marked the inaugural women's competition at the Pan $\mathcal{A m e r i c a n ~ G a m e s , ~}$ where the United States captured the silver medal. The US $\mathcal{A}$ fas beenextremely successfulat the junior level (20-under), winning gold medals at all three Iunior Pan American Championsfips and finisfing in the top five at all three of the $\mathcal{F I} \mathcal{N} \mathcal{A} \operatorname{I}$ unior $\mathcal{W}$ orld Championships.

After a long wait, women's water polo will be contested for the first time in the Olympic Games in the year 2000 in Sydney. Six teams will compete in the Olympics.

The Ul.S. Women's $\mathfrak{N a t i o n a l} \mathcal{T}$ eams have been among the best in the world for the past twenty years and the thousands of women playing the sport in the Ulited States today intend to help the Ul.S. stay there for many years to come.

Chartered in 1977, United States Water Polo, Inc. (USS $\mathcal{W} \mathcal{P})$ is a non-profit organization recognized by the United States Olympic Committee as the $\mathcal{N a t i o n a l ~ G o v e r n i n g ~ B o d y ~ f o r ~ t h e ~ s p o r t ~ o f ~ w a t e r ~ p o l o . ~ U S S ~ W e ~ s e t s ~}$ the rules and policies that govern water polo in the United $S$ tates at all competitive levels.

## Mission of United States Water Polo

To consistently win medals at Pan $\mathcal{A m}$ Games, $\mathcal{F} \mathcal{N} \mathcal{N} \mathcal{C u p}$, World Championships and the Olympic Games. Supporting objectives for accomplishing this mission are:

- To encourage high standards of play, good sportsmanship and increased participation at all levels throughout the United States by establishing the curricula to train and certify coaches, officials and athletes from all cultural and ethnic backgrounds at all competitive levels.
- To foster increased participation in the sport of water polo at all levels by creating, organizing and conducting clinics and training camps for coackes and athletes throughout the United States.
- To provide financial assistance to potential Olympians who would not otherwise be able to participate in the full-time residential training program required for successful international competition.
- To select and train the U.S. Teams for the Olympics, World Championsfips, Pan American Games and other international championsfips.
- Io work within the water polo community, $\mathcal{F I} \mathcal{N} \mathcal{A}$, and $\mathcal{A S} \mathcal{U A}$ to promote the inclusion of women's water polo as an event in the Pan $\mathcal{A m e r i c}$ an and Olympic Games.
- To work to promote increased participation from $\mathcal{N C C A A}$-member institutions to ensure the continuation of the Men's Championship and creation of a Women's Championship.
- To increase endowment support and self-funding through fund development and marke ting programs.


## External Analysis

The United States has established an enviable record as one of the most consistently successful powers in international water polo.

With the generous support of the USOC, US W' ${ }^{\prime}$ 's national coaching staff launched a vigorous campaign aimed at tapping its youthfulcoacking and athle tic talent by establisfing a residential, full-time training program in 1994, in Long Beach, Calif.

> Rules

What Is Water Polo?
Water polo is a game of strength, quickness and endurance. Ball handling skills and exceptional swimming ability are especially important with the mobile, fast-paced style of game play.

The Game

- The playing area is $30 \times 20$ meters with a minimum of 2 meters ( $61 / 2$ feet) of depth.
- Each team is allowed 13 players, with seven (a goalke per and six field players) participating at any one time. Players tread water the entire game and cannot touch the bottom or sides of the pool. Except for the goalke eper, players may fandle the ball with only one fand.
- The game is played in four quarters, each quarter being seven minutes in length with two-minute intervals between quarters (28 minutes of stopped time). In the case of a tie, two three-minute periods of overtime are played. If the score is tied after overtime, sudden-death overtime is played.
- Substitutions are most common after agoal is scored, between periods, or for an ejected player. Players can also substitute by swimming to their bench corner and tagging an entering player. Each team is allowed three time-outs during regulation.
- Physicalcontact is the rule rather than the exception, as the players maneuver for position in front of the goal. The referee indicates fouls by blowing a whistle and using fand signals to point out the location of the foul and the attacking direction of the fouled player. Unlike most sports that stop on a whistle, action in water polo is initiated by the whistle.
- Agoal (1 point) is scored when the ball is thrown or pushed completely past the face of the goal. Time Clocks
- As in basketball, two clocks are used to time a water pologame. One indicates the time remaining in the quarter and the other, called the shot clock or 35 second clock, indicates how much time remains for the offensive team to shoot the ball (the team is allowed 35 seconds to shoot the ball).

Starting

- Each quarter is started with the teams lined up on opposite goal lines. On a signal (whistle) from the referee, the teams sprint toward center pool where the referee tosses the ball into the water. The team gaining possession of the Gall advances it toward its offensive end of the pool by swimming, dribbling or passing the ball.


## Fouls

- There are two types of fouls in water polo - ordinary fouls, which account for approximately 90 percent of the whistles during the game, and major fouls. Players are allowed three major fouls Gefore they foul out of the match. Major fouls include exclusion and penalty fouls.
- Common ordinary fouls include:
- Touching the ball with two hands;
- Taking the ball under water when tackled;
- Impeding an opponent who is not folding the ball;
- Pushing off an opponent; and,
- Stalling (failing to shoot or advance the ball within 35 seconds).
- When the referee calls an ordinary foul, the offended team is awarded a free throwat the point of the foul. The offended team must put the ball in play within three seconds by releasing, swimming or passing the ball. A player cannot shoot the ball on a free throw, unless the foul occurred beyond seven meters away from the goal.
- Common exclusion fouls include:
- Kicking or striking;
- Deliberate splasking in the face;
- An ordinary foulcommitted by the defense during dead time (after a fouloccurs, but before the offended player has put the ball into play);
- Interfering with a free throw;
- Misconduct or disrespect to the referee;
- Holding, sinking or pulling back an opponent not holding the ball.
- Exclusion fouls result in a player being excluded for 20 seconds. The excluded player (or his/her substitute) may not return until the 20 second exclusion time expires, a goal is scored or a change of possession takes place, whichever occurs first. A player with three major fouls is removed from the game with substitution. Deliberate kicking or striking with intent to injure (brutality) results in ejection of the offending player for the remainder of the game, without substitution.
- Penalty fouls are committed within the four-meter area where a goal probably would have resulted. The offensive player fouled while in control of the ball and facing the goal inside the four-meter line
is usually awarded the penalty throw. A penalty foul is recorded against the player committing the foul. Any player in the game from the offended team can take the penalty throw. The shot is taken from the four-meter line, with only the goalie defending.
- The award of a penalty throwmost commonly occurs in the following situation within the four-meter area:
- Any player, including the goalkeeper, pulling down or pusting away the goal;
- Any player, except the goalke eper, playing the ball with both hands or a clenched fist;
- The goalkeeper or a defensive player taking the ball underwater;
- When an offensive player in control of the ball and facing the goal is fouled by folding, sinking or pulling back.


## Equipment

- The playing area is $30 \times 20$ meters with a minimum of 2 meters ( $61 / 2$ feet) of depth.
- The goalmeasures 3 meters from post to post, and the crossbar is .90 meters high from the water surface.
- A waterproof ball between 400 and 450 grams is used. For men, circumference is . 68 meters to . 71 meters. For women, 65 meters to 67 .
- One team shall we ar white caps and the other team caps of a contrasting color as approved by the referee.


## Glossary

- Ball Under: $\mathcal{A}$ tecfnical foul; a player may not hold the ball underwater while being tackled by an opponent.
- Corner $\mathcal{T}$ frow: $\mathcal{A}$ free throwfrom a positive position against a wall at the two-meter line, awarded when the ball goes over the goalline after being toughed by a defensive player.
- $\operatorname{Drib6ling}: S$ wimming while controlling the ball in front of the head..
- Driver: $\mathcal{A n}$ offensive specialist and scoring threat, usually a smaller player capable of hard drives toward the goal and quickchanges of direction.
- Eggbeater: $\mathcal{A}$ kicking stroke used for stability and support in treading water, similar to an alternating Greaststroke kick.
- Goal Throw: A free throw by the goalkeeper, awarded when the ball goes over the end line after being touched by an offensive player (without scoring).
- Inside Water: $\mathcal{A}$ situation when the offensive player has an advantageous position in front of the defender, with nothing but open water between fimself and the goalkeeper.
- Neutral Throw: Similar to a jump ball in basketball, the referee drops the ball between players from each team.
- Penalty Shot: A free shot taken by offensive player from the 4-meter line, awarded for a foulthat occurs inside the 4-meter line preventing a goal.
- Point: $\mathcal{A}$ position at the "top" (or 12 o'clock position) of an offensive set.
- 2-meters: $\mathcal{A}$ player positioned in front of the opposing goal responsible for absorbing fouls, passing to teammates and scoring; similar to the center in basketball probably the roughest position in the water; also called "hole man" or "setter." A 2-meter defender tries to control the area in front of the defensive goal.
- Wet Shot: A shot that is attempted while the ball is touching the water; usually a quick, wrist shot; also called an "off-the-water" shot.
- Wing: An area on the perimeter of the offensive set, away from the center of the pool.

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For more information contact: United States Water Polo, 1685 Uintaf, Colorado Springs, CO 80904 Phone: 719-634-0699; Fax: 719-634-0866; Internet: www.uswp.org; Email: uswpoffice@uswp.org

## Water Skiing

## History

Throughout its fistory, water sking fas closely paralleled the development of recreational boating in its appeal to the general public. Over the years it has shown almost continuous, sustained growth. Surveys of sports participation show that there are from 13 million to 16 million water skiers in the United $S$ tates, with approximately 1.7 million new participants being attracted each year. Sixty-two percent of USA $\mathcal{A}$ Water $\mathcal{S k i}(\mathcal{U S} \mathcal{A}-\mathcal{W S})$ members are between 30 and 40 years of age. About 75 percent are mate, and 85 percent of them skitwo or more times each week (weather and water conditions permitting).

Water sking is a family-oriented activity and the participants tend to be well-educated and affluent. Twothirds of adult USS $\mathcal{A}$-WS members are college graduates and many are career professionals and administrators -. physicians, attorneys, psycfologists, business owners and top-leveladministrators, among others. Over three-forths of the Organization's members have yearly housefold incomes of more than $\$ 55,000$ a year, and 70 percent have incomes of more than $\$ 65,000$.

Organized competitive water skiing Gegan in 1939 with formation of the association by a small group of enthusiasts living in $\mathcal{N e w ~ Y o r k s t a t e . ~ T h a t ~ s a m e ~ y e a r ~ s a w ~ t h e ~ f i r s t ~} \mathcal{N}$ (ational Championsfips Tournament, field at Iones Beach, Long Island, New York. The slalom course at that tournament was a string of pointed Guoys set in a straight line. The skier had to skiaround each to the end of the course. The Tricks event consisted of a skier removing one ski and holding it over his head, and a side slide or two. The gump event provided the most excitement. The surface of the jump ramp was made of wooden rollers! Before the event was over, more than one skier wished he hadn't tried going up the treacherous ramp.

With the exception of 1942-1945 (during World War II), the $\mathcal{N}$ (ational Championships tournament has occurred every year. Today, more than 1000 contestants enter the five-day tournament in 26 divisions of competition.

## $\mathcal{A}$ Profile of Water $\mathcal{S}$ kiing In the World

The international aspect of the sport is attracting more attention as water skiing moves closer to becoming a participating sport in the OCympics. The International Water $\mathcal{S}$ Ki Federation (IWS $\mathcal{F}$ ), headquartered in Medellin, Colombia, is the World Governing $\mathcal{B o d y}$ for the organized sport. Seventy-seven national water ski federations are affiliated with the IWS $\mathcal{F}$.

They are subdivided into three hemispheric groups: Region I-Pan American Region, comprised of $\mathfrak{N}$ orth,



Water sking has had a World Championships tournament since 1949. World Championships are held every two years. Other internationalevents are the Pan American Championships, World Iunior Championships, World Cup, Americas Challenge, World Games and the Pan American Games. The traditional Ul.S. Water Ski Team competed in the 1999 Pan American Games in Canada, winning four gold medals, two silver and one Gronze, setting 3 Pan $\mathcal{A m e r i c a n}$ Games records in the process. The Uis. Team fopes to compete in the 2003 Pan $\mathcal{A}$ merican Games in the $\mathcal{D}$ ominican Republic.

## General Information

Water sking was invented in the United States in 1922 when Minnesotan Ralph Samuelson built the first pair of skis and was towed on them befind an outboard-powered boat. What Samue lson originated became an extribition sport on both sides of the Atlantic in the 1920 s and early 1930 s . It developed officially into a
competitive sport in 1939 when the $\mathcal{A m e r i c a n} \mathcal{W}$ ater $\mathcal{S}$ Ki Association ( $\mathcal{A} \mathcal{W S} \mathcal{A}$ ) was organized and held the first annual $\mathfrak{N a t i o n a l} \mathcal{W}$ ater $\mathcal{S}$ Ki Championships at gones Beach, Long Island, New York.

## USA Water Ski (USA-WS)

$\mathcal{U S} \mathcal{A} \mathcal{W}$ ater $\mathcal{S k}$ kis the $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}$ for organized water skiing in the United $\mathcal{S}$ tates. USS $\mathcal{A}$ - WS is a member of the International Water Ski Federation (World Governing Body), the Pan American Sports Organization and the United States Olympic Committee. Affiliated with US $\mathcal{A}-\mathcal{W} S$ as $\mathcal{S}$ port $\operatorname{Divis}$ ions are
 Collegiate Water Ski Association, National Show Ski Association, National Spedboat and Water Ski Association and Water Skiers With Disabilities Association.

From the beginning, USA-WS has had a dual mission of promoting the growth and development of recreational water sking, and organizing and governing the sport of competitive water skiing. The largest and most active water skifederation in the world, US $\mathcal{A}$-WS has a paid staff of 19 persons. Headquartered in Winter $\mathcal{H a v e n , ~ F l o r i d a , ~ t h e ~ s t a f f ~ s e r v e s ~} 35,000$ members in five regions across the country. Sixty to 70 percent of USA-WS members are involved in tournament competition each year; the remainder are recreational water skiers.

US $\mathcal{A}-W$-W programs include: water skintructor certification; learn to skiclinics; officials' education; junior skiers' development; legislative coordination and oversight; safety training and information dissemination; membership development, including affiliation of state federations and local water skiclubs; public communications and media information; industry relations; and local, national and international competition ranging from novice to world-leveltournaments.

USA-WS's communications program includes publication of a seven-times-a-year magazine, The Water Skier, sent to all members and other persons with an interest in the sport, and numerous educational materials addressing all aspects of water skiing.

US $\mathcal{A}-\mathcal{W S}$ trains and maintains performance records for competitive skiers and ne arly 3,000 judges, drivers and scorers who officiate at sanctioned tournaments.

Approximately 800 local water skiclubs throughout the United $S$ tates are affiliated with US $\mathcal{A}$-WS. The clubs provide a working base in almost any locale for development of $\mathcal{U S} \mathcal{A}$-WS programs, and in addition are the local organizers for ne arly all water skicompetition in the United States.

## Rutes

- The three events of traditional water skiing are Tricks, Slalom and Iump.
- In Slalom, the contestant negotiates a zig-zag course of six buoys. The boat speed is increased two mph until a maximum speed for the division of competition is reached. Thereafter the rope is shortened in pre-measured lengths. The winner is the one who rounds the most buoys without a miss or fall. The Gest skiers do not miss until the rope is shorter than the distance from the boat to the buoy and the skier must try to round the buoy by leaning over it with fis or her body!
- In Tricks, the contestant performs two, 20-second routines of tricks, each of which has an assigned point value. Some of the most difficult tricks include wake flips, and multiple turns performed with the tow rope attacked to the contestant's foot.
- In Iump, the object is distance. Although there is a maximum boat speed for each age division, the skier can increase his or her speed by "cracking the whip" befind the boat; men jumpers approach speeds of more than 70 mph at the Gase of the jumpramp. Some men skiers in Open Division competition jump 200 feet or more off a six-foot-high ramp. Women competitors are jumping more than 150 feet using a five-foot-high ramp.
- Variations of these same events are performed by Barefoot, Kne eboard and Disabled skiers, except that Kneeboard skiers do not jump from a ramp.

Tournament Sanctioning and Proprietorsfip

- As the National Governing $\mathcal{B o d y}$ for water skiing, US $\mathcal{A}$ Water Ski (US $\mathcal{A}-\mathcal{W S}$ ) sanctions $\mathcal{T}$ raditional, Barefoot, Khe board, Collegiate, Show, Ski Race and Disabled skiing tournaments, as well as cash-prize events such as the U.S. Pro Tour, the Masters, Ul.S. Open and Ul.S. Barefoot Open tournaments.
- USA.WS is the proprietor of the U.S. Water SkiTeam, U.S.Veteran Team, U.S. Iunior Water Ski $\mathcal{T e}$ am, U.S. Barefoot Water Ski Team, U.S.Ski Racing $\mathcal{T} e$ am and U.S. Disabled water Ski $\mathcal{T}$ eam. $\mathcal{A} \mathcal{W} \mathcal{A} \mathcal{A}$ is also proprietor of the U.S. National Water Ski Championships, U.S. Open Water Ski Tournament, U.S. $\mathcal{N}$ (ational Barefoot Water Ski Championsfips, UU.S. National S fow Ski Championsfips, U.S. $\mathcal{N}$ (ational Kne eboard Championships, U.S. Disabled Water SKi Championsfips and U.S. National Collegiate Water SKiChampionships.


## Equipment

In Water Sking events, the basic equipment needs are the same: we tsuit, skis, motor boat and tow rope. For exact specifications, contact USA Water Skiat 863-324-4341, or visit the ir home page at usawaterski.org.

## Glossary

- Asia-Australasian Region: International water skiing region comprised of $\mathcal{A u s t r a l i a}, \mathcal{N} e w$ Zealand and the $\mathcal{F a r}$ East.
- UUS $\mathcal{A}$ Water $\mathcal{S}$ Ki: Nationalgoverning Gody for the sport of water skiing in the United $\mathcal{S}$ tates,
headquartered in Winter Haven, $\mathcal{F l a}$.
- European-African Region: International water sking region comprised of Europe, Africa and the Middle East.
- International Water $\mathcal{S} k i \mathcal{F e d e r a t i o n : ~ I n t e r n a t i o n a l ~ g o v e r n i n g ~ b o d y ~ f o r ~ t h e ~ s p o r t ~ o f ~ w a t e r ~ s k i i n g , ~ l o c a t e d ~}$ in Me dellin, Colombia.
- Pan $\mathcal{A m e r i c a n ~ R e g i o n : ~ I n t e r n a t i o n a l ~ w a t e r ~ s k i n g ~ r e g i o n ~ c o m p r i s i n g ~} \mathcal{N}$ orth, Centraland South $\mathcal{A m e r i c a}$.

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For more information contact:
$\mathcal{A m e r i c a n}$ Water SkiAssociation
799 Overlook Drive, $\mathcal{S E}$
Winter $\mathcal{H a v e n}, \mathcal{F L} 33884$
Phone: 941-324-4341
Fax: 941-325-8259
Internet: www.usawaterski.org
Email: usawaterski@worldnet.att.net

## Weightlifting

## History

The genealogy of lifting traces back to the beginning of recorded history where man's innate fascination with physical prowess can be found among numerous ancient writings. $\mathcal{A}$ 5,000-year-old Chinese text tells of prospective soldiers having to pass lifting tests.

Ancient Greeksculptures also depict lifting feats. The weights were generally stones, but later gave way to "dumbeells." The origin of the word dumbbells comes from the practice of removing clappers from bells, rendering them soundless during lifting.
$\mathcal{A}$ s sportsmen strove to organize athletics in the 19 th century, weightlifters were on the cutting edge. European immigrants to America, particularly Scots, 6rought with them a strong competitive heritage that included we ightlifting.
$\mathcal{A s} \mathcal{A m e r i c a n s} n u r s e d$ their infant sport, European athletes forged afead, holding a European Championships. In 1896, the first modern day Olympics we re held and weightlifting was included as an official sport.

Weightlifting did not appear in the 1900 Games, Gut returned to the Games program in 1904. Weightlifting Gecame a regular Olympic event in 1920. Three lifts were standard by 1932: the press (subsequently eliminated in 1972), the snatch and the clean-and-jerk. In 1932, there were five weight classes; today there are eight.

The U.S.men, after reigning as World and Olympic Champions through the $1930 \mathrm{~s}, \mathrm{\prime} 40 \mathrm{~s}$ and ' 50 s , were ranked 15 th in the world in 1996 after a successful Olympic Games performance in Atlanta, Ga.

Women also participate in weightlifting in seven weight classes and it will be on the Olympic program in 2000. It has been conducted at the Women's World Championships since 1987.

General Information
$\mathcal{U} \mathcal{A}$ Weightlifting is the $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}$ for Olympic weightlifting in the $\mathcal{U S} \mathcal{A}$, a Group " $\mathcal{A}$ " Member of the U.S. Olympic Committee and a member of the International Weightlifting Federation $(I \mathcal{W} \mathcal{F})$.
$\mathfrak{A s}$ the $\mathcal{N}$ ational Governing $\mathcal{B o d y}$, US $\mathcal{A}$ Weightlifting is responsible for conducting Olympic we ightlifting programs throughout the country, including those at local are a we ightlifting clubs. The organization conducts a variety of programs that will ultimately develop Olympic, World Championsfip and Pan $\mathcal{A m e r i c}$ an Games medal winners on the senior level.

USA $\mathcal{A}$ Weightlifting is responsible for selecting teams that compete in all major international events, such as the Olympic Games, World Championsfips, Pan American Games and Goodwill Games.

There are nearly 200 events held throughout the country in which weightlifters of all ages can compete in hopes of qualifying for the $\mathcal{N}$ ational-levelevents. US $\mathcal{A}$ Weightlifting sanctions $\mathcal{N}$ (ational Championsfips in all age groups, giving athletes a chance to see fow they fare against competitors across the country.
$\mathcal{A} \mathcal{B o a r d}$ of Directors oversees the full-time staff that is located on the $\mathcal{U} . \mathcal{S}$. Olympic $\mathcal{T}$ raining Center in Colorado Springs, Colo. that implements the services to its members.
$\mathcal{B r i a n} \mathcal{D e r w i n}$ of $\operatorname{Minnesota}$ presides as the current $\mathcal{U S} \mathcal{A}$ Weightlifting President until the year 2000. He is also a Board of $\operatorname{Directormember~of~the~U.S.~OCympic~Committee~and~serves~on~the~Ethics~Committee~and~}$ the $\operatorname{Drug}$ Testing Committee.

USA $\mathcal{A}$ Weightlifting is broken out into 45 Local Weightlifting Committees (LWC) that promote weightlifting programs and develop athletes in their region. Each LWC holds coaching courses, athle te symposiums and other programs to help foster a grassroots program for weightlifting.

Overall, USA $\mathcal{A}$ Weightlifting is working to become an international power competitively, as well as trying to broaden a young atfletes knowledge of the sport in the United $S$ tates. We invite you to join our team!

## Rules

## The Lifts

Two lifts are contested in weightlifting, the snatch and the clean-and-jerk. Medals are some times given to the top three lifters in eachindividual lift category and always for the overall total(best snatch plus best clean-and-jerk). Final placing is based on alifter's total. $\mathcal{A}$ t the Olympic Games, medals are awarded only for total.

Snatch: The snatch is the more technical and more explosive of the two lifts. It is performed in one continuous movement: the bar is brought from the platform to a position overhead using one fluid motion. The lifter pulls the bar to about chest height and then, in the moment before the bar starts to descend, pulls their body into a squat position under the bar, securing it overfead-arms held straight. The lifter must then stand and wait for the referees' signal, called a "down" signal, to lower the bar. The down signal is usually indicated by the sounding of a forn.

Clean-and-gerk: More weight is lifted in the clean-and-jerk than in the snatch, and two separate efforts are involved as opposed to one. For the "clean," the lifter must pull the weight from the platform to his shoulders in one motion. The bar is pulled to about waist levelkeeping it close to the body; close enough for the Gar to brush the thighs. Then, Gefore the bar starts to descend, the lifter pulls their body beneath the bar, secures the bar on the shoulders or chest, and then stands erect. The "jerk" then follows in which the lifter thrusts the bar from the shoulders to a position overhead, again in one motion, and splits their legs front and back. The lifter then brings their feet together and awaits the signal from the referee to lower the Gar.
$\mathcal{N}$ ote: In both lifts, the bar must be held overhead until the referees' down signal. The down signal is given once the lifter is motionless.

Total: $\mathcal{A}$ lifter's total represents the combined weight of the best snatch and clean-and-jerk. If alifter has lifted 80 kg in the snatch, and 110 kg in the clean-and-jerk, the total is 190 kg .

## Competition Procedure

Each weightifter has three chances to successfully performeach lift. If a lifter misses all three opportunities in the snatch, helshe is allowed to continue in the clean-and-jerk, 6 ut is ineligigle for final placing. Only the heaviest successfulsnatch and clean-and-jerkare used when tabulating final score (total).

The amount of weight eachindividual lifter chooses to start with determines the lifting order for the competition (lightest to heaviest). In the case of identical weight requests, the order is determined by lot numbers. Since starting weight is up to the individual lifter, a 64 kg lifter could lift before a 59 kg lifter if the weight requested by the 64 kg lifter is less than that requested by the 59 kg lifter. This may occur when two or more categories compete at one time.

The weight lifted must increase by a minimum of 2.5 kg for each attempt. When attempting to breaka national or world record, the weight increase may be as little as .5 kg (although only the nearest multiple of 2.5 kg may be counted towards the total). Each lifter has a $60-$ second time limit in which to approach the
platform and begin the lift. If the lifter is making consecutive attempts, two minutes are allowed between lifts.

If upon completion of a weight class, two lifters have identical totals, the lifter with the lower bodywe ight is awarded the figher place.

## I udging

Three referees judge each lift - a head referee who sits directly in front of the platform and two side referees. Each referee controls a red light and a white light. White indicates a good lift, red an illegallift. Majority rules when the officials disagree. The activation of two like signals will set off a horn, or "down" signal, telling the lifter to lower the barbell. The "down" signal may be activated prior to the conclusion of a lift, rendering the lift invalid if two referees observe an error.

GeneralRules for $\mathcal{A l l}$ Lifts

- The technique known as "hooking" is permitted. It consists of covering the last joint of the thumb with the other fingers of the same hand at the moment of gripping.
- In all lifts, pulfing from the "hang" is forbidden.
- In all lifts, touching the bar against the legs shall not render the lift "No Lift."
- In all lifts, the referee must count as "No Lift" any unfinished attempt in which the bar has arrived at the height of the knees.
- In all lifts, if the Gar stops in its upward path Gefore arriving at the shoulders (clean) or arms' length (snatch and jerk), the attempt shall be rendered "No Lift."
- The use of grease, water or any similar lubricant of any kind on the thighs is forbidden. The lifter who uses lubricants will be ordered to remove them. During the removal the clock will run.
- In all lifts, touching the platform with any part of the body other than the feet shall render the attempt "No Lift."
- Any clean in which the bar is placed on the chest before the turning over of the elbows shall render the attempt "No Lift."
- Any clean touching the thighs or knees with the elfows or upper arms shall render the attempt "No Lift."
- In the jerk, any apparent effort from the shoulders, if the lift is not completed, must be counted as "No Lift." This includes lowering the body or bending the knees.
- After the referees' signal to replace the bar on the platform, the lifter must lower the bar and not let it drop either deliberately or accidentally. The lifter may release fis grip when the barbell has passed below the level of the waist.
- If a competitor cannot fully stretch their arm resulting from anatomical deformation of his elbows he must report this fact to the three referees and the jury before the beginning of the competition.


## Common Errors

Press Out: This happens when an athle te Gends their arms while folding the bar overhead and then presses out to make them straight.

Touching the Platform: A lifter may touch the ground with their feet, but no other part of the body is allowed to touch the platform.
$\mathcal{F a i l u r e}$ to Control the $\mathcal{B a r}: \mathcal{A}$ lifter must have the bar under complete control prior to the down signal.
In the Clean: Touching the arm or elfow on the knee or leg is not allowed.

## Equipment

- Shoes: Low or high-topped shoes are used. The soles are made out of wood or rubber, and the uppers of Leather or suede.
- Platform: $\mathcal{A}$ competition platform measures four meters by four meters. It may be made out of wood, plastic or any other solid material, and may be covered with a non-slippery material.
- Bar: The bar weighs $20 \mathrm{~kg}(44 \mathrm{lb}$.$) and is 2,200 \mathrm{~mm}$ long and 28 mm in diameter. As a competition progresses, the weight on the bar always increases, it is never lessened. The ends of the bar consist of revolving sleeves on which the weight plates are loaded. There is a special women's bar that weighs 15 kg (33 (6.) and is $2,010 \mathrm{~mm}$ in length and 25 mm in diameter.
- Plates: The discs or Gumper plates, are covered with rubber or plastic and are color-coded as follows:
$25 \mathrm{~kg} / 55 \mathrm{cb}$. Red
$20 \mathrm{~kg} / 44 \mathrm{lb}$. Blue
$15 \mathrm{~kg} / 33 \mathrm{lb}$. Yellow
$10 \mathrm{~kg} / 22 \mathrm{cb}$. Green
$5 \mathrm{~kg} / 7 \mathrm{lb}$. White
$2.5 \mathrm{~kg} / 5.5 \mathrm{l6}$. Black
$1.25 \mathrm{~kg} / 2.75 \mathrm{cb}$. Silver
$0.25 \mathrm{~kg} / 0.55 \mathrm{l6}$. Record Discs
- Minimum weight: The minimum weight of aloaded Garbellfor competition is 27.5 kg , i.e. 6 ar, 1.25 kg discs and collars. The minimum weight of a loaded women's 6ar for competition is 22.5 kg (49.5 (6.).
- Collars: These secure the weights on the Gar. Each collar weighs 2.5 kg . The bar must be loaded with the largest discs toward the middle of the bar and the smaller ones in descending order toward the outside.
- Belt: A lifter may use a weightlifting belt, though it may not exceed 120 mm in width.
- Bandages and Wraps: Bandages and wraps are allowed though strict limits are placed on width (300 mm at the knees, 100 mm at the wrists).
- Chalk: Chalk may be applied to the fands and on the thighs if desired in an unlimited quantity.


## Glossary

- Bomb: A Cifter "bombs"whenhe/she fails to record a total. An athlete has three chances to make a successfullift in both the snatch and clean-and-jerk. If he/she fails to make a valid lift in either of the two lifts, there will not be a total and has therefore bombed.
- Clean-and-gerk: A type of lift in which the lifter must pull the weight from the platform to his shoulders in one motion, then, Gefore the Gar starts to descend, pull his or her body beneath the bar, secure the bar on the shoulders or chest, and then stands erect. The "jerk" then follows in which the lifter thrusts the bar from the shoulders to a position overhead, again in one motion, and splits the ir legs front and back. The lifter then brings his or her feet together and awaits the signal from the referee to lower the bar.
- Hooking: Hooking is a tecfnique used to fold the bar. A fookgrip is when thumbs are placed around the bar and underneath the inde $x$ and second fingers.
- Kilogram: Weight in the sport of weightlifting is measured in kilograms. One kilogram equals 2.2046 pounds.
- Six-for-Six: This refers to a lifter making six valid lifts in six attempts...three successfulsnatches and three successfulclean-and-jerks.
- Snatch: A type of lift in which the bar is brought from the platform to a position overhead using one continuous motion. The lifter pulls the bar to about chest height and then, in the moment before the Gar starts to descend, pulls his or her body into a squat position under the bar, securing it overfead... arms held straight. The lifter must then stand and wait for the referees' signal, called a "down" signal, to lower the bar.

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For more information contact:
US A Weightlifting
One Olympic Plaza
Colorado Springs, CO 80909
Phone: 719-578-4508
Fax: 719-578-4741
Internet: www.usaw.org
Email: usaw@worldnet.att.net

## Wrestling

## $\mathcal{H}$ istory

USA $\mathcal{A}$ Wrestling has served the wrestling community for more than 25 ye ars and looks confidently to the future. The organization was founded upon basic principles which
remain intact today.
Around 1965, several individuals, principally Terry McCann and Myron Roderick, were dissatisfied with the governance of the Amateur Athletic Union (AAU). They Gegan discussions with Walter Byers, then the Executive $\mathcal{D i r e c t o r ~ o f ~ t h e ~} \mathcal{N}(\mathcal{A A}$, with the goal to form a wrestling organization administered by wrestling people.

The group wanted to develop an overall program that would: 1) offer competitive programs for wrestlers who had completed high school and/or college; 2) offer educational and developmental programs for wrestlers, coaches and officials in the international styles of wrestling; 3) offer wrestlers, coaches, officials and organizations conducting wrestling programs a voice in policies and procedures directly affecting the sport.

Initial organizational meetings were held in Ianuary of 1968, where the need to develop a newfederation to challenge the AAM was reaffirmed.Subsequently, a brochure which announced the formation of the United
 structure and proposed financing, and set the stage for the official organizational meeting.

In $\mathfrak{A p r i l}$ of 1969, the $\mathcal{U S} \mathcal{W} \mathcal{F}$ conducted its first $\mathcal{N a t i o n a l}$ Open Championsfips in Evanston, Ill. The Mayor Daley Youth Foundation, led by Olympians Don Befm and Larry Kristoff, won the first freestyle and GrecoRoman team trophies.

Myron Roderick, head coach at OKlahoma State University, was appointed USW $\mathcal{W} \mathcal{E}$ Executive Director in $\mathcal{A}$ ugust of 1969 and moved the offices to Stillwater, OKla.
 took the international franchise away from the $\mathcal{A A U}$ and ordered a joint commission, five members each from $\mathcal{U S} \mathcal{W} \mathcal{F}$ and $\mathcal{A A \mathcal { A }}$.

The $\mathcal{F e}$ deration suffered a setbackin 1972 as new $\mathcal{F I L A}$ president Milan Ercegan returned the $\mathcal{A} \mathcal{A} \mathcal{L}$ to full membership. Yet individual membership doubled to 3,000 and the national office added its second full-time employee, Bob Dellinger.

The Federation merged with the U.S. Kids Wresting Federation in 1975.
The $\mathcal{N a t i o n a l} \mathcal{W}$ restling $\mathcal{H a l l}$ of $\mathcal{F a m e}$ was formally de dicated on Sept. 11, 1976 and housed the $\mathcal{N}$ (ational Office of the $\mathcal{F e d e r a t i o n . ~ T h e ~ s t r e e t ~ i n ~ S t i l l w a t e r ~ w h e r e ~ t h e ~} \mathcal{H}$ all is located was renamed $\mathcal{H} a l l$ of $\mathcal{F}$ ame $\mathcal{A v e n u e}$. Fourteen charter members were inducted into the Hall of Fame. Membersfip in the Federation grew to 25,686 by the end of 1976 .

On Sept.7, 1978, the American Arbitration Association ruled that the $\mathcal{A A U}$ was no longer a member of the U.S. Olympic Committee, replaced by the Ul.S. Wrestling Federation. Congress passed the $\mathcal{A m}$ mateur Sports $\mathfrak{A c t}$ of 1978 into law in $\mathfrak{N o v e m b e r , ~} 1978$.

Congress amended the Amateur Sports $\mathcal{A c t}$ in 1980 to cut off $\mathcal{U S}$ OC membership and funding for any arbitration loser.
 resign from the Olympic Committee. The USOC was ordered to terminate its recognition of the $\mathcal{A A} \mathcal{A}$ as a

Group $\mathcal{A} \mathcal{M e m b e r}$ and the $\mathcal{N a t i o n a l}$ Governing $\mathcal{B o d y}(\mathcal{N G \mathcal { B }})$. US OC president $\mathcal{B i l l} \operatorname{Simon}$ convened a seven-man panelon Sept. 23 to develop a structure for the new United States $\mathcal{W}$ restling Association. It was to include two members for the $\mathcal{A A} \mathcal{A}$, which boycotted.

USWG became USA Wrestling (USAW) on March 14, 1983. Werner Holzer was elected president and Steve Combs continued as executive director.

Shortly thereafter, $\mathcal{F} I \mathcal{A}$ recognized $\mathcal{U S} \mathcal{A} \mathcal{W}$ as the member organization from the United States. The US $\mathcal{W} \mathcal{F}$ had finally triumphed in its struggle to become the $\mathcal{N} G \mathcal{B}$ for wrestling in the United $S$ tates.

Since assuming $\mathfrak{N} \mathcal{G B}$ duties, $\mathcal{U} \mathcal{A} \mathcal{A}$ Wrestling fas achieved numerous milestones for the sport of wrestling, which include:

- 27 Olympic medals (14 gold, 7 silver, 6 bronze)
- 67 World medals ( 21 gold, 31 silver, 15 6ronze)
- 1993 and 1995 Freestyle World Team ChampionsЋips
- Hosted the 1995 World Freestyle Wrestling Championships, one of the most successful World Championstips ever held
- Strong athle te support created through national teams programs
- Significant increase in training and competitive opportunities for all age groups of athletes
- Strong programs developed for coaches' and officials' education
- One of the le ading international exchange programs among $\mathfrak{N}$ (ational Governing $\mathcal{B o d i e s}$
- 49 recognized state associations
- Regional and national age-group championships annually attract more than 12,500 competitors
- UUS A Wrestler, the official publication of USA $\mathcal{A}$ Wrestling, published six times annually, has a circulation of over 130,000
- USA $\mathcal{A}$ Wrestling recognized a Women's Sport Committee, created a $\mathfrak{N a t i o n a l} \mathcal{T e}$ am for women and increased financial support for its development
- USA $\mathcal{A}$ Wrestling's I unior National Championsfips developed into the le ading wrestling competition in the Ulnited $S$ tates and, possibly, the world
- USA $\mathcal{A}$ Wrestling's Cadet $\mathcal{N a t i o n a l}$ Championsfips grew to match the size and scope of the $g$ unior $\mathcal{N}$ ational Championships
- Four additional $\mathcal{N}$ ational Tournaments were created: Espoir $\mathcal{N}$ (ationals (1985), Cadet $\mathcal{N}$ (ationals
 established for Freestyle, Greco-Roman and Developmental programs
- USA $\mathcal{A}$ Wrestling purchased a building to house the full-time staff
- Two wrestlers were named winners of the games $\mathcal{E}$. Sullivan Award, presented annually to the top amateur athlete in the United States: Iofn Smith (1990) and Bruce Baumgartner (1995)
- All-American Club created for past UlS. team members, Olympic Trials finalists, national champions and national $\mathfrak{A l l}-\mathcal{A m e r i c a n s}$ in freestyle, Greco-Roman and women's wrestling.

USA $\mathcal{A}$ Wrestling is now in a strong position to move forward and face the challenges of the future and fulfill the original goals of the founders of the organization.

General Information

About USA $\mathcal{A}$ Wresting

USS $\mathcal{A}$ Wrestling is the $\mathcal{N}$ (ational Governing $\mathcal{B o d y}$ for the sport of amateur wrestling in the United $S$ tates and, as such, is its representative to the United States Olympic Committee (USOC) and to the International


USA $\mathcal{A}$ Wrestling coordinates grassroots and elite wresting programs across the country and works to create interest and participation in those programs.

USA $\mathcal{A}$ Wrestling's 135,000-strong membership is comprised of athletes of all ages, coaches, officials, parents and fans striving together to strengthen the sport.

On the elite level, USA $\mathcal{A}$ Wrestling is responsible for the selection and training of teams to represent the Ul.S. in international competition, including the World Championships and Olympic Games. It conducts national camps and clinics and provides for coaches' education through numerous programs. USA $\mathcal{A}$ Wrestling Goasts an active internationalexchange program, which gives athletes of many age levels the opportunity to compete against foreign teams.

On the developmentallevel, USA Wrestling fosters grassroots expansion of the sport. This is facilitated by the sanctioning of age-group tournaments and the chartering of wrestling clubs. Nationalchampionships are held for wrestlers older than 14 years of age. Regionalcompetitions are open to athletes who are nine years or older.

Leaderstip of US $\mathcal{A}$ Wrestling
USA $\mathcal{A}$ Wrestling is overseen by a Board of Directors composed of wrestling leaders. These experts in the sport set the policies and direction for wrestling nationwide.

Larry Sciacchetano of Baton Rouge, La. is the current President of US $\mathcal{A}$ Wresting. Sciacchetano has been a leader within USA Wrestling and the international wresting scene for many years as a coach and te am leader.
$\mathcal{H}$ is officers include $\mathcal{F i r s t} \operatorname{Vice} \operatorname{President~Bill~Crum~of~Hoboken,~N}$.g., Second Vice President Leroy Evans of $\mathcal{H}$ ughson, Calif., Secretary Chris Campbell of Fayetteville, $\mathcal{N} \cdot \mathcal{Y}$. and $\mathcal{T} r e$ asurer $\mathcal{F}$ rank Rader of Mooresville, $\mathcal{N}$.C.

Iames E.Scherr is the Executive Director of US $\mathcal{A}$ Wrestling. He is responsible for implementing the policies and directionset by the Board. He is assisted by a staff of professionals who workdaily to guide the sport and administer its programs. US $\mathcal{A}$ Wrestling's national headquarters are in Colorado Springs, Colo., just a fewminutes from the U.S. Olympic Training Center.
$\mathcal{A c t i v i t i e s}$ of US $\mathcal{A}$ Wrestling
There are 49 state organizations which focus on providing state and localcompetitions. These groups are comprised of volunteers, coaches, officials, athletes and parents who have an active interest in the sport. These leaders conduct tournaments, runclubs, organize trips and coach atfletes in their area.

USA $\mathcal{A}$ restling strives to promote the sport to the general public and expand interest in wrestling across the nation.

USA $\mathcal{A}$ Wrestling sanctions more than 1,600 events annually. It boasts more than 2,400 chartered clubs across the nation and has more than 11,000 active coaches. It also oversees the more than 2,200 officials who Gelong to the U.S. Wrestling Officials Association.

The United States has grown to become a leader on the world levelin both freestyle and Greco-Roman wresting. At the same time, USA Wrestling works to expand opportunities for young athletes to take part in the exciting sport of wrestling. We invite you to become a member and to support this dynamic organization.

Rules

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Freestyle and Greco-Roman Wrestling
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There are two Olympic styles of wrestling, freestyle and Greco-Roman. With one key exception, the rules of the two styles are identical:

In Greco-Roman, a wrestler may not attack fis opponent's legs, nor use his ownlegs to trip, lift or execute other moves.
In freestyle, 6oth the arms and legs may be used to execute holds or to defend against attack. Freestyle is similar to the "folkstyle" wrestling popular in $\mathcal{A m e r i c a n ~ s c h o o l s ~ a n d ~ u n i v e r s i t i e s , ~ b u t ~ w i t h ~}$ different scoring and strategies. There are some major differences between the Ul.S.folkstyle wrestling and the international styles.

The Atfletes
$\mathcal{A n}$ athle te must be at least 17 years old, and must be sponsored by their nationalfederation, to compete at the World Championsfips or Olympic Games.

The Weight Divisions
There are eight weight divisions in men's international wresting and six for women. Athletes are weighed in prior to the competition, and must be at the weight levelor below in order to participate in the competition.
Freestyle and Greco-Roman Weight Classes:
Men's Weight Classes

- $54 \mathrm{~kg} / 119 \mathrm{lb}$.
- $58 \mathrm{~kg} / 127.75 \mathrm{lb}$.
- $63 \mathrm{~kg} / 138.75 \mathrm{lg}$.
- $69 \mathrm{~kg} / 152 \mathrm{lb}$.
- $76 \mathrm{~kg} / 167.5 \mathrm{l6}$.
- $85 \mathrm{~kg} / 187.25 \mathrm{cb}$.
- $97 \mathrm{~kg} / 213.75 \mathrm{cb}$.
- $125 \mathrm{~kg} / 275.5 \mathrm{cb}$.

Women's Weight Classes

- $44 \mathrm{~kg} / 101.25 \mathrm{lg}$.
- $51 \mathrm{~kg} / 112.25 \mathrm{cb}$.
- $56 \mathrm{~kg} / 123.25 \mathrm{cb}$.
- $62 \mathrm{~kg} / 136.5 \mathrm{l}$.
- $68 \mathrm{~kg} / 149.75 \mathrm{cg}$.
- $75 \mathrm{~kg} / 165.25 \mathrm{cb}$.


## The Mat

International wrestling is contested on a mat, with a nine meter circular competition area. There is also a 1.2 to 1.5 meter protection Gorder on all international mats.

There is a red band, a one-meter passivity "zone" on the inside of the edge of the nine meter circle, where wrestlers are encouraged by officials to stay in the competition area.

## The Officials

There are three officials for every international wresting match, a referee (on the mat) plus a chairman and a judge. There are never two officials from the same nation working the same match, nor may an official work a match including an athlete from fis or her nation.
The officials award points on a majority vote. $\mathcal{A}$ t least two of the three officials must agree on technical points and falls.

## The Coach

The coach may remain at the foot of the platform or at least two meters from the edge of the mat during the competition.

> The Uniform

Wrestlers must wear a one-piece singlet, in the color assigned to them (red or blue). The wrestling singlet must be of a type approved by the international wrestling federation. Wrestlers must wear wrestling shoes providing firm support for the ankles and must carry a handkerchief. Referees must we ar an all-white shirt or pullover. Pants and shoes are also white. The Competition

Beginning with 1999, the match became six minutes long. There is a 3-minute period, followed by a 30 second rest, followed by a 3-minute period.
At the start of each bout, the wrestlers shake hands. The match starts with the wrestlers standing on their feet. The wrestlers attempt to take their opponent down to the mat to score points. Wrestling also occurs down on the mat, known as "par terre." At the end of each bout, the arm of the winning athle te is raised. The wrestlers shake hands with the referee and with their opponent.
The main objective in wrestling is to pin your opponent. This is achieved by holding fis shoulder blades to the mat for about one-half of a second. This automatically ends the match. $\mathcal{A}$ pin is also known as a fall. If a wrestler is not able to pin his rival during the six minutes, he must score more technical points to win the bout. Points are awarded for performing techniques or moves within the rules.
If a wrestler scores 10 points more than fis opponent at any time, the bout is stopped. This is a tecfinical superiority, or also known as a technical fall.
$\mathcal{A}$ bout can also end by an injury default, a forfeit or a disqualification.
Wrestlers are now required to score a minimum of three points in order to win a match. If neither wrestler has scored three points at the end of six minutes, the match will go into a three-minute overtime period. The first wrestler to reach three points will be the winner.
If neither wrestler reaches three points in overtime, the winner will be determined by the officials. If the bout is tied at the end of overtime, a wrestler with more cautions and warnings for passivity will Cose. If the marks are equal, the officials select a winner based upon activity.
$\mathcal{A l l}$ bouts tied at the end of regulation also go into over-time. If no winner is determined at the end of the three minute overtime, the winner is decided by the officials.

Scoring Terms
Takedown: occurs when a man takes his opponent to the mat from a standing position. This is worth one point, but can be worth more if the opponent is brought down onto his back.
Exposure: turning an opponent's shoulders to the mat. Once the line of the back area breaks a 90-degree angle, points are scored. This can occur both from the feet and on the mat. $\mathcal{A}$ wrestler who holds his opponent in a danger position for five seconds will receive one extra point.
Reversal: when the man underneath completely reverses fis position and comes to the top position in control, he has scored a reversal, worth one point.
Escape: when an athle te works to come out from the bottom position (after being under dominant control) and gets to his feet, facing his rival, he has scored an escape, worth one point.
Passivity: There are no longer disqualifications for passivity in international wresting. The officiating team can call an unlimited number of passivity calls. Wrestlers will be permitted to place the passive opponent in the down "par terre" position or continue the bout in a standing position after each passivity call.

Wrestlers are paired off for the preliminary round according to a numericalorder determined by a drawing of lots during the weigh-in.
The winning wrestlers in the preliminary round are placed in Group $\mathcal{A}$, while the losing wrestlers in the preliminary round are placed in Group $\mathcal{B}$.
$\mathcal{A} t \hbar l \mathrm{le}$ es are then paired off against opponents in their group in each following round.
Each wrestler must lose two matches to be eliminated from the tournament. A wrestler wholoses a match in Group $\mathcal{A}$ will be placed in Group $\mathcal{B}$ for the next round. The highest that a wrestler in Group $\mathcal{B}$ can place is third.
The winner of Group $\mathcal{A}$ claims the gold medal, while the second place wrestler in Group $\mathcal{A}$ claims the sitver medal. The winner of Group $\mathcal{B}$ is the bronze-medal winner.
$\mathcal{F}$ inal matches are held to determine places $1-6$ in each weight class. Place finishers $7-10$ are determined by a point system.
Team Scoring
$\mathcal{A}$ the end of the tournament, team scores are compiled. A champion earns 10 points for fis nation, a runner-up scores 9 points, third place is wortheight points, etc., down to a 10 th place wrestler scoring 1 point.
The nation with the most team points including all 10 weight classes is declared the World Team Champion.
Scoring Rules and Terms

Match length: Six minutes, two periods of three minutes with a 30-second rest in betwen
$\mathcal{F a l l}$ or Pin: Both shoulders held on mat, match ends
Technical Fall: 10 -point margin, match ends
Injury default: Athle te can not continue to compete, matchends.
Decision: The athle te who scores the most points in a bout and wins. If neither wrestler scores at least
three points during regulation, the bout goes into a three-minute overtime period. The first wrestler to reach at least three points is the winner. If neither wrestler reaches three points, officials decide winner. Tie scores: Broken by sudden-death overtime. If tie is not broken by end of three-minute overtime, officials decide winner.
1 point: Takedown, Reversal, Hand-to-hand Exposure, Escape
1 extra point: High amplitude throw from mat, holding man on back for five seconds
2 points: Exposure, Takedown then exposure
3 points: Takedown to immediate exposure from feet; figh amplitude throw without danger
5 points: High amplitude throw to danger

> Penalty Calls

- Illegalfold without consequence: 1 point plus caution
- Illegal fold with consequence: 2 points plus caution
- Fleeing the mat: 1 or 2 points plus caution
- Fleeing the fold: 1 point plus caution


## Equipment

The contestant must appear on the edge of the mat we aring a one-piece singlet of the color assigned to the team. In Greco-Roman wrestling, contestants may we ar a full orknee-length singlet, or one that extends below the knee. In freestyle wrestling, the singlet may only go to mid-thigh. The singlet must adkere to the body. Light knee pads may be worn.

Ear protectors or reinforced headgear are forbidden．Any addition to this dress is profibited．
The contestant must we ar wrestling shoes providing firm support for the ankles．However，the use of heeled shoes，shoes with buckles or with any metallic part，is profibited．Wrestlers must not walk on any other surface than the wrestling mat when we aring wrestling shoes．

It is also profibited to wear bandages on wrists，arms or ankles，except in the case of injury or on prescription from a doctor；apply any greasy or sticky substance to the body；arrive at the mat perspiring； or we ar any object that might cause injury to the opponent，such as rings，Gracelets，etc．

At the weigh－in for each competition day，each contestant must be clean shaven，or else have a beard of severalmonths＇growth．Hair must be short or tied back，if the referee deems necessary．

## The Mat

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There is a red band，a one－meter passivity＂zone＂on the inside of the edge of the nine meter circle，where wrestlers are encouraged by officials to stay in the competition area．

## Glossary

－Decision：The athlete who scores the most points in a bout and wins．If neither wrestler scores at least three points during regulation，the bout goes into a three－minute overtime period．The first wrestler to reach at least three points is the winner．If neither wrestler reaches three points，officials decide winner．
－Escape：When an athle te works to come out from the bottom position（after being under dominant control）and gets to fis feet，facing his rival，he has scored an escape，worth one point．
－Exposure：Turning an opponent＇s shoulders to the mat．Once the line of the backarea breaks a 90 － degree angle，points are scored．This can occur both from the feet and on the mat．A wrestler who holds his opponent in a danger position for five seconds will receive one extra point．
－Fall or Pin：Both shoulders feld on mat，match ends
－Freestyle：Both the arms and legs may be used to execute folds or to defend against attack．Freestyle is similar to the＂folkstyle＂wrestling popular in $\mathcal{A m e r i c a n ~ s c h o o l s ~ a n d ~ u n i v e r s i t i e s , ~ 6 u t ~ w i t h ~ d i f f e r e n t ~}$ scoring and strategies．There are some major differences between the U．S．folkstyle wrestling and the international styles．
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For more information contact: US $\mathcal{A}$ Wrestling, 6155 Lefman $\mathcal{D}$ rive, Colorado Springs, CO 80918
Phone: 719-598-8181; Fax: 719-598-9440; Internet: www.usawrestling.org; Email: usaw@concentric.net

