

FINALS IN SHOOTING

The History of Finals; How To Perform Well in Finals; How To Conduct Finals

By Gary Anderson, DCM Emeritus



Today all major Junior Championships in the USA use finals to decide individual championships. This is the start of the 2022 JROTC National Championship Three-Position Air Rifle Precision final, which used a Start-From-Zero final for the first time. Responses were very favorable.

Former ISSF¹ President Olegario Vázquez Raña delighted in telling this story about the King and Queen of Sweden's visit to the Olympic shooting venue during the 1984 Olympic Games in Los Angeles as his explanation for how finals began in Shooting. The King and Queen arrived at the Olympic venue on the day of the 50m Pistol event because they wanted to see Swedish national hero Ragnar Skanåker² compete. President Vázquez Raña had to explain to the King and Queen that the competition would last 90 minutes, that it would take another 40 or 50 minutes after the match before official scores are posted, and then there would be a 30-minute protest time before scores were final. The King and Queen said they could not wait that long to find out how Skanåker finished and left the range disappointed. That incident, and a desire to

make Olympic Shooting events more spectator and media friendly led the ISSF to adopt a new competition format in which all athletes complete event "qualification" stages from which the top six or eight athletes advance to "finals" where medal winners are decided. Shooting's first finals were conducted during the 1986 World Championship. Finals were first used in the Olympic Games in 1988.

A HISTORY OF FINALS IN SHOOTING

Shooting finals were adopted so the best athletes could finish competitions together in theater-like settings where scores and rankings can be presented to media and spectators, ideally instantly. In the 1980s when finals first appeared, rifle and pistol events still used

¹ The ISSF (International Shooting Sport Federation), is the world governing body for the Olympic sport of Shooting.

² Ragnar Skanåker was the 1972 Olympic gold medalist and reigning World Champion in the 50m Pistol event.

paper targets so instant results were not possible, especially when finals required decimal scoring. Electronic scoring helped but waiting for results after each final round shot was part of those first finals. The need for electronic targets that score and display shots instantly became obvious. Thanks to pioneering work by the Sius Company of Switzerland, electronic targets were available for the 1990 World Championship and 1992 Olympics. This represented a huge advance in making Shooting more of a spectator sport and in adapting it for television.

The 1986/1988 finals were *Qualification Plus Final* events. From 1986 through 2012, the top eight athletes in qualification stages were allowed to carry their scores forward to the final. Finals consisted of ten additional shots, with those scores being added to finalists' qualification scores for final rankings. Each final shot was timed separately. Scores and rank changes were displayed and announced after each shot. Finals were very controversial at first but after a few years, the greater visibility and appeal finals had given Shooting competitions led almost everyone to agree that finals were one of the best changes Shooting ever made.

One significant flaw in the *Qualification With Final* format, however, was that it was not a true final. In Athletics' running events, for example, winners are not decided by their total times in a qualification plus the final. Winners are decided by who among the athletes who qualified for the final runs the fastest in the final. By 2012, the International Olympic Committee was insisting that all Olympic events must start with qualifications for all athletes and conclude with start-from-zero finals to decide the rankings of finals' qualifiers.

The ISSF adopted *Qualification With Start-from-Zero Finals* in 2013. They used progressive eliminations that ended with the top two athletes firing the last shots to decide the gold and silver medals. 10m single position finals had 24-shots. Finalists fired two 5-shot series and then began single shots with 50-second time limits. Eliminations took place after every two single shots until two athletes remained to fire the dramatic 23rd and 24th shots to decide the gold and silver medals.

50m three-position finals were three-position finals with 45 shots. Finalists fired three 5-shot series kneeling, three 5-shot series prone, and two 5-shot series standing. The 7th and 8th place athletes were eliminated after the second standing series. The final concluded with five additional single shots standing, with another athlete being eliminated after each. The top two athletes remained to



One of the world's best examples of a 'marksmanship theater' for Shooting finals is this rifle-pistol finals range in New Delhi, India. The huge Taj Mahal backdrop makes the location unmistakable and memorable. Note the array of electronic scoreboards and monitors to keep athletes, officials, media, and spectators informed.

decide the gold and silver medals on the last 45th shots. The start-from-zero concept was also controversial, but its advantages were soon recognized. With this finals format, Shooting enjoyed its greatest television and internet viewer numbers ever during the 2016 Olympic Games. 15 Olympic Shooting finals attracted an average worldwide TV audience of 48.1 million viewers. That ranked above the average Olympic sport and compared favorably with the highest ranked sport that averaged 62.4 million viewers. Every one of the 15 events was not decided until the last shot.

EVENT. An "event" within a sport is a separate contest or competition that ends with rankings and awards. In the sport of Shooting, 10m 3-Position Air Rifle, 10m Air Rifle, and 50m 3-Position are events.

QUALIFICATION. The "qualification" in a Shooting event with a final is the first stage where all athletes fire a standard course of fire to determine which athletes advance to the final. Qualification scores may also be used to determine team rankings.

FINAL. The last stage in a competition where the athletes with the best scores in the qualification compete to decide event medal winners.

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Progressive elimination finals end with the top two athletes firing the last shots. This scene from the 2021 Olympic television production shows the gold and silver medal winners in the 10m Air Rifle Men event, Will Shaner, USA (l.), and Lihao Sheng, China (r.). They are shown here with one shot to go and Shaner holding a 1.3-point lead.

New ISSF leadership elected in 2018 has made further attempts to modify Shooting's finals but whether they are an improvement remains to be seen. Recent versions have multiple starts-from-zero and modified eliminations that end with gold medal duels between the last two athletes that are decided by a points system. A version of this format was accepted for the 2024 Olympic Games, but whether it will become firmly established is uncertain. Until those doubts are resolved, the 24 and 45-shot finals that were used in the 2016 and 2021 Olympic Games will continue to be the standard finals format for most championship competitions in the USA.

Finals were first used in U. S. Junior championships in the late 1990s. Today every significant Junior shooting championship conducted by the CMP and USA Shooting uses finals to decide individual championships for Three-Position Air Rifle, Smallbore Rifle Position, Air Pistol, and other Olympic events. **Every Junior athlete who expects to compete for high place finishes in these championships must be prepared to compete in finals.**

Junior competitions today may be conducted in one of three competition formats: 1) *Standard* events, 2) *Qualification Plus Final* events, and 3) *Qualification with Start-From-Zero Final* events. Match sponsors are encouraged to include finals in junior competitions but to do that they must know when finals are appropriate and whether their range is capable of hosting it. The *Standard*

SHOOTING EVENT FORMATS

1. **Standard Event.** All competitors fire the same course of fire, with no final.
2. **Qualification Plus Final.** All competitors fire a qualification course of fire; the top eight also shoot a final; qualification and final scores are added together for ranking.
3. **Qualification with Start-From-Zero Final.** All competitors fire a qualification course of fire; the top eight finish the event in a final; only scores in the final decide finalists' rankings.

event, usually a 3x10 or 3x20 course of fire for rifle or a 30, 40 or 60-shot event for pistol, is the best event when the highest priority is on participation by maximum numbers of athletes. For Junior competitions where the main objective is to give as many young athletes as possible a chance to say, "I competed," and to have an enjoyable experience while competing, the *Standard Event* format is best.

For championship competitions where important titles are at stake, using a final is the preferred way to decide individual champions. For many years, Junior Championships used the *Qualification Plus Final* format, but in the last few years newer *Qualification With Start-From-Zero Finals* are being used more frequently. CMP National Championships for Smallbore Three-Position, Air Rifle, Air Pistol, and Three-Position Air Rifle; USA Shooting National and Junior Olympic Championships and NCAA National Intercollegiate Championships all use start-from-zero elimination format finals. As a result, more and more Junior Championships at the regional or state levels are not only scheduling finals, but they are using start-from-zero finals.

FOR ATHLETES AND COACHES – HOW TO PERFORM WELL IN FINALS

Every athlete who aspires to win high place finishes in today's Shooting championships must be prepared to compete in finals. Here are some ways to prepare for excellent finals performances:

- **Learn About Finals.** Junior Shooting instruction should teach athletes about finals and the critical role they play in Olympic, World Championship and other Shooting championships. Teach young athletes about finals and look for ways to give them finals-like experiences. Any program can conduct elimination contests where participants fire single shots on command with the athlete who had the lowest scoring shot dropping out. Shots continue until one athlete remains.

- **Know Finals Rules.** Athletes who have the potential to qualify for finals should be instructed in finals rules so they will know how the final in an upcoming competition is to be conducted.

- **Practice Finals.** Advanced athletes should practice finals during training. Finals place unique demands and extra pressure on athletes because they must fire single shots in short 50-second time limits; athletes can expect to hear announcers call their names, and spectator cheering. The best way to prepare for these unique challenges is to practice them. Not all these challenges can be duplicated in practice but include as many as possible. At a bare minimum, practice firing single shots, with commands, and 50-second time limits.

- **Finals Shot Technique.** Shots fired during competitions should follow the same shot plan or technique for both the qualification and final. The shot technique used today should be suited for finals where shots must be prepared and fired within 50 seconds. The shot plan should have a pre-shot preparation that begins with the **LOAD** command. It must ensure that the first hold is a good hold because there is not enough time to take second holds. For each shot, balance and relaxation checks must still be made before starting to aim. Also pay attention to minimizing shot-to-shot changes through efficient loading and waiting techniques. Many athletes keep rifles in the shoulder for several shots.

- **Have a Position Change Plan.** Three-position finals have three preparation or changeover and sighting times when finalists must set up their positions and fire sighting shots to prepare for match firing in the next position. Successful finals athletes devote a lot of effort to carefully preparing their firing positions to produce consistent, excellent holds. Their changeovers from kneeling to prone and prone to standing are organized to go quickly so more time is available for sighting shots.

- **Be Prepared for Distractions.** Successful finalists



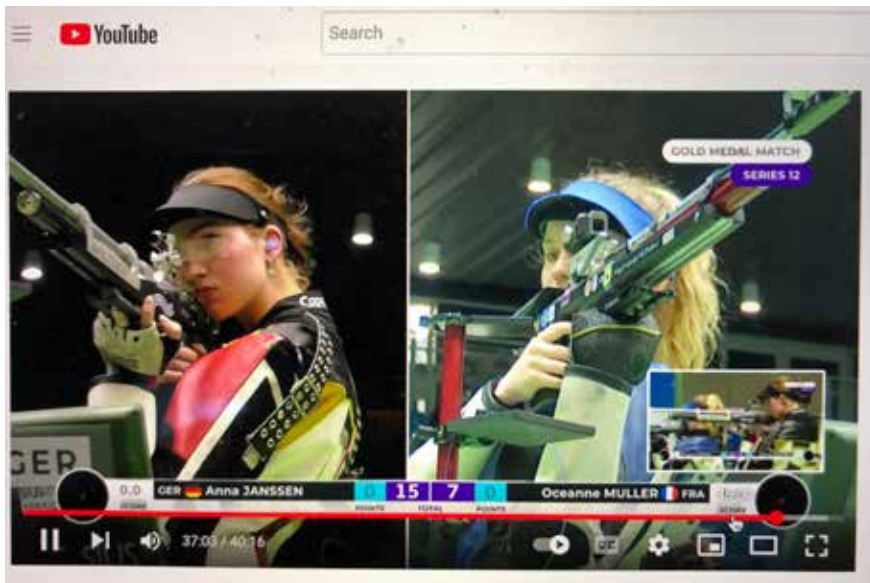
Successful finals shooters have a strategy for controlling their thoughts while waiting for post-shot announcements to be made. The athlete is Qian Yang, China, 10m Air Rifle Women gold medalist in the Tokyo Olympics.



Three-position finalists must know how to make quick, efficient position changes that consistently yield positions with great holds.

are mentally prepared for the many distractions that occur during finals. What will you do after firing a 10.9 that generates a loud cheer? What will you do when you hear the Announcer say you have just taken the lead? What about when the Announcer says you are in danger of being eliminated after the next shot? When these distractions occur, the key to dealing with them is having a thought replacement strategy that gets the mind refocused on a performance key. Thinking about winning or being afraid

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An excellent way to study shot techniques used by the world's best shooters is to watch them perform in ISSF Championship finals. Go to: https://www.issf-sports.org/news_multimedia/video.ashx. Open a rifle/pistol video and advance to the end where the best athletes are firing single shots.

of losing is definitely not the answer.

- **Be Positive and Enjoy Finals Experiences.**

Shooting well enough in a match to “make the final” should be a source of pride. Having to perform well in front of an audience will cause increased nervousness, but this can also be exhilarating. Athletes should enjoy competing in finals. When finalists are introduced at the beginning of

a final, a warm smile and the wave of a hand will help to put spectators on their side. When the Announcer praises an athlete for making a great shot or score, they can enjoy it for a moment but must quickly get refocused on the next shot.

FOR MATCH OFFICIALS – HOW TO CONDUCT FINALS

PREPARING FOR FINALS

If finals are conducted correctly, they are impressive spectator events full of drama and excitement where rankings can change after each shot and medals are not decided until the very last shots. Finals must offer fair competition for the athletes while providing a show that highlights the athletes' skills. Here are some considerations for organizing a great final.

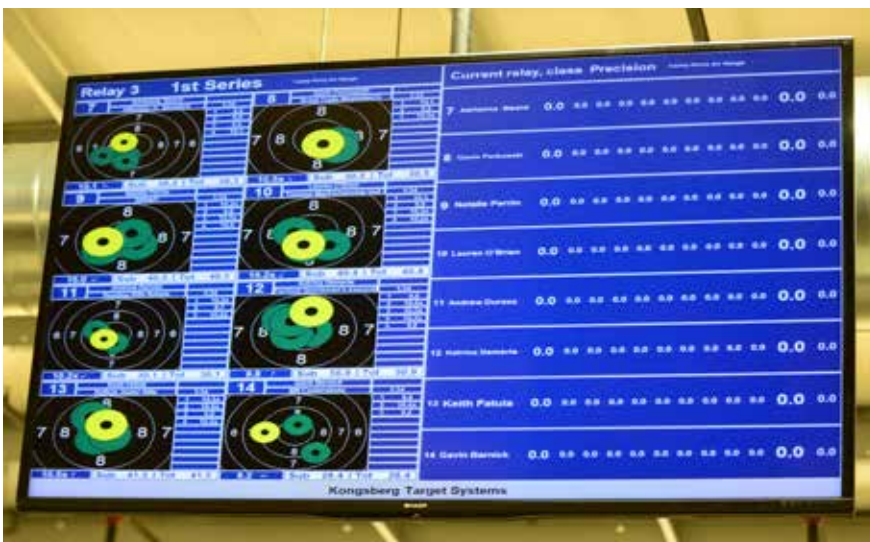
- **Electronic targets.** While it is possible to conduct a *Qualification Plus Final* on paper targets if electronic scoring (Orion) is available,

Start-From-Zero Finals can only be effectively conducted if electronic targets are available. The recent availability of affordable Athena electronic targets in the USA means a growing number of 10m and 50-foot ranges will now be able to conduct *Start-From-Zero* Finals.

- **Eight Firing Points.** Eight adjacent firing points are required for a final. On a large range, choose eight points in the middle of the range. If possible, finals firing points should be relabeled with the letters A through H.

- **Finals Scripts.** A CRO conducts the final using a script. CMP Smallbore Rifle, Air Rifle/Air Pistol, and Three-Position Air Rifle rulebooks all have scripts for running finals. CROs who conduct finals should always follow standardized scripts so that the athletes know what to expect and there are no surprises. CROs should practice running finals before conducting finals in matches.

- **Spectators.** Encourage spectators to attend finals. If possible, provide spectator seating (or standing room) behind the finals firing points. Spectators typically include other athletes and coaches, parents, and friends. Spectators should be encouraged to support finalists with applause and even cheering.



A visual display like this should be used to keep athletes and spectators informed about finalists' scores and rankings. Electronic target manufacturers now provide software to drive such displays with their target installations.

- **LCD Panel or Videoboard Display.**

Preparing the range so spectators can see athletes' scores and rank changes is important. Electronic target manufacturers (Athena, KTS, Megalink, Sius) now provide software that facilitates displaying finalists' scores and rankings on an LCD panel or with a projector and screen.

- **Finals Staff.** As few as two or as many as four or five Match Officials are required to conduct finals. A CRO conducts the final. A second RO should observe the athletes on the firing line

and handle any problems that arise there. A Technical Officer, who is familiar with the electronic target software operates the main computer that controls the targets and the display of scores and rankings. A separate Match Official can serve as the Announcer, or one person can serve as both the CRO and Announcer.

- **Schedule and Timing.** The Final Start Time (*when the first Match shot starts*) must be published in the Match Program. This ensures that people who want to see the final know when to be there. The schedule must allow enough time between the end of the last relay and the start of the final to finish scoring qualification targets, run required score protest periods and give finalists enough time to report to the finals reporting area 30 min. before the Final Start Time.

- **Qualifying for the Final.** All athletes in an event will fire the qualification course of fire. The eight highest ranking athletes in this stage qualify for the final. A Finals Start List with the names of the finalists and their firing point assignments should be posted (*announce finalists on the range*) at least 45 min. before the Start Time. If a *Qualification Plus Final* is conducted, finalists must be squadded in order (#1 on the left; #8 on the right) according to their placing



Finals ranges like this one used for 2021 Tokyo Olympic Shooting are a model for how rifle-pistol finals ranges are laid out.

in the qualification. If a *Start-From-Zero Final* is conducted, firing points for the eight finalists must be assigned by a random draw.

- **Finals Reporting Area.** A separate room or area near the range should be designated as a finals' reporting area. Finalists should report to this area 30 minutes before the Final Start Time. Since some finalists may be shooting their first final, plan to brief finalists before calling them to the line so that everyone knows the procedures that will be followed.



Accommodating spectators and conducting finalist introductions at the beginning of finals are important aspects of successful finals.

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FINALS SHOTS AND TIME LIMITS

PHASE OF FINAL	3PAR Q + F	10m SfZ AR/AP	3-P SfZ Kneeling	3-P SfZ Prone	3-P SfZ Standing
Call to Line	2 min.	2 min.	2 min.		
Preparation or Changeover & Sighting	5 min.	5 min.	5 min.	7 min.	9 min.
5-Shot Series		2 x 5 shots in 250 sec.	3 x 5 shots in 200 sec.	3 x 5 shots in 150 sec.	2 x 5 shots in 250 sec.
Single Shots	10 shots 50 sec. each	14 shots in 50 sec.			5 shots in 50 sec.

SfZ = Start from Zero

PRE-FINAL ACTIONS

The proper conduct of a final requires the CRO and match staff to complete necessary preliminary steps according to a precise timetable. Pre-final steps include:

- 30 minutes before: Have finalists report to a designated reporting area. Brief finalists, especially any who have not fired finals before, on how the final will be conducted.

- 15 minutes before: Arrange finalists in firing point order.

- 10 minutes before: The CRO announces **ATHLETES TO THE LINE** to call finalists to their firing points; coaches may assist in bringing equipment to the firing points. Have finalists ground or bench their rifles or pistols and turn towards the audience. Introduce the finalists with their names and hometowns, clubs, or schools.

- 5 minutes and 30 seconds before: The CRO commands **TAKE YOUR POSITIONS** and starts the preparation and sighting time. After 5 minutes, the **STOP** command is given, and targets are cleared.

- **START TIME:** The CRO gives commands for the first competition shot and continue this until the end of the final.

CONDUCTING THE FINAL

Once match firing starts, the CRO and Announcer must establish a rhythm that keeps the final going smoothly. Their conduct of the final must facilitate athletes' performances and keep spectators informed about finalists' performances. While conducting a final pay attention to:



Conclude the final by having the three medal winners stand with their rifles or pistols while the Announcer recognizes them.

- **CRO Commands.** Each finals' shot or series is initiated with this command: **FOR THE FIRST/NEXT COMPETITION SHOT/SERIES...LOAD..**(5 sec. pause)..**START.** These commands must be clear and consistent. The 5-second pause between **LOAD** and **START** must give finalists a consistent time to load and start to prepare their positions.

- **STOP Command.** If all athletes in a final fire their shots before time expires, the CRO should command **STOP.** To avoid making a mistake and commanding **STOP** when all athletes have not fired, a second RO should confirm that all finalists have fired.

- **Announcer Commentary.** After each shot or series, Announcer commentary should follow. It is not necessary to call out shot scores if a videoboard or LCD display panel is used where everyone can see the scores. Commentary may identify who is leading, who had great shots or series scores and who is gaining or falling back in the rankings. In finals with eliminations, the Announcer must recognize and congratulate each athlete who is eliminated.

- **Tie-Breaking.** If there are ties for the first three places in a *Qualification Plus Final* event or for any place in a *Start-From-Zero Final*, those ties must be broken with shoot-offs. Scripts for conducting tie-breaking shoot-offs are in the rulebooks.

- **Ending the Final.** After the last shot in the final is fired and ties, if any, are broken, end the final by announcing **RESULTS ARE FINAL.** The Announcer or CRO must immediately recognize the top three athletes (*Having the three medalists pose together with their rifles or pistols so photos may be taken is a good practice.*).

ISSUES AND THEIR RESOLUTION IN FINALS

ROs who conduct finals must be prepared to resolve issues that sometimes occur during finals:

- **Athlete Loads before LOAD Command.** It is not permitted to insert a pellet or cartridge until the CRO commands **LOAD.** Give a warning for a first violation. Deduct 2-points from the score of the next shot if there is a second violation.

- **Aiming Exercises.** Many athletes want to shoulder their rifles or raise their pistols to do aiming exercises between shots. Aiming exercises are permitted if actions remain open, but dry firing is not permitted.

- **Early STOP.** If the CRO commands **STOP** before all finalists have fired a single shot or completed a series, any athlete who has an unfired shot(s) must be given a full firing time to fire that shot/series while the other finalists wait.

- **Shots Fired Before START or After STOP.** Either violation must be scored as a miss for that shot.

- **Malfunction.** If a finalist has an allowable malfunction, they must be given a maximum of one (1) minute to repair the malfunction or replace a malfunctioning rifle or pistol. The athlete must then be given a new, full firing time to fire/complete that shot/series.

- **Tie-Breaking Shots.** When conducting a tie-breaking shoot-off, be alert for any athlete who is not involved in the tie who attempts to load and shoot. Stop them, or if an athlete who was not one of the tied athletes fires a shot, simply nullify that shot.

About the Author

Gary Anderson is the Director of Civilian Marksmanship, Emeritus, and is the holder of two Olympic gold medals, seven World Championships and 16 National Championships. Mr. Anderson served as a Technical Delegate for Shooting during the 2012 and 2016 Olympic Games as well as for the 2014 and 2018 World Shooting Championships.

In 2012, the International Olympic Committee awarded Gary Anderson with the Olympic Order, its highest honor "for outstanding services to the Olympic Movement."

