

# Fundamentals of Field Events Throws 2015



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# Presentation

More detailed 2013 presentation at [www.pausatf.org](http://www.pausatf.org)  
Officials  
Training/Tools/Rules

1. Safety Considerations
2. Rules for Throws
3. Throws Rules Comparison-2015
4. Throws Officials and Duties
5. Placement of Certified Officials and Volunteers
6. Throwing Officials' Tasks
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# Throwing Events

Shot Put

Discus Throw

Hammer Throw

Weight Throw

Superweight Throw

Javelin Throw

## Safety Considerations

- Throwing events are inherently dangerous.
- Eyes on circle/runway at all times.
- All throwing, including warm ups, should be supervised and from the ring or runway.
- Ring or runway is closed before and after event.
- Only officials/retrievers in sector. No athletes in sector.
- Wait until competitor is not throwing to bend over to pick up implement.
- Carry implements out of sector. Do not throw back.
- Officials and retrievers should spread out with retrievers standing beyond the officials.
- Field officials should stand near side of sector.
- Watch for curve of Discus or Javelin in air. Move to left or right, not backward.
- Watch for skip of Discus or Javelin and bounce of Shot or Hammer after hitting ground.
- Stand outside circle made by hammer and handle as it lands (at least 10 feet from estimated landing spot.)
- Officials and athletes should stand at least 6 feet from net and well away from cage opening.
- Location of spectators should be controlled by flags along sectors and barriers near ring. NCAA has a 55° angle as suggested implement danger area. Some older cages might have larger danger area.
- Look both ways when crossing track.

# Rules for Throws

## Rule Books

Can be purchased from Pacific Association USATF or from rule maker.

PDF files for current IAAF, USATF, and NCAA rules and 2013 High School rules can be accessed at <https://my.usatfofficials.com/resources/>

## General Rules for Throwing

Foul if after commencing throw and prior to its completion, competitor

- Does not start from stationary position within circle or on runway.
- Touches top of iron band, stop board, painted circle, or runway lines.
- Touches any part of body outside circle or runway lines.
- Improperly releases implement.
- Causes implement to land on or outside sector lines.
- Leaves circle or runway improperly or before implement lands.
- Does not start throw within the 1 minute time limit (must be completed).

# Rules for Throws – Specific Events

## Shot Put

- Put from shoulder with one hand only.
- At start, shot should be in proximity of neck or chin and should not drop below this position during act of putting.
- Shot must not be brought behind the line of the shoulders.

## Discus Throw

No specific instructions for throwing the discus.

## Hammer Throw/Weight Throw/Superweight Throw

- The hammer head may be laid on the ground inside or outside the circle before the throw.
- During the throw, the competitor may assume any starting position and shall use both hands holding the handle.
- A throw may be interrupted and restarted from a stationary position if no foul has been committed if restarted within the time limit.

## Javelin Throw

- Javelin must be held by the grip with one hand only so that the little finger is toward the front and the thrower's last contact is with the grip.
- At no time until the Javelin is in the air may the competitor turn completely around so his/her back is toward the throwing area, unless returning to starting point for a restart.
- The javelin is thrown over the shoulder or upper part of the throwing arm.

# THROWS RULES COMPARISON - 2015 - Page 1 of 2

Rule	GOVERNING BODY		
	IAAF	USATF	NCAA
<b>THROWING AREA DIMENSIONS-CIRCLE</b>			
SP, DT, HT SECTOR SIZE/ANGLE	34-92° from center of circle (5 units along sector lines, 3 units across). Sector lines, 5 cm wide, on outside edges of sector.		
CIRCLE - SHOT PUT & HAMMER THROW	2.135 m inside diam		
CIRCLE - DISCUS	2.50 m inside diam		
SHOT PUT STOP BOARD	Length 1.15-1.21 m, Width 11.2 cm, Height 9.8-10.2 cm	Length 1.21 m, Width 11.2 cm, Height 10 cm	Length 4 ft (1.22 m), Width 4.5 in (11.4 cm), Height 4 in (10 cm)
CIRCLE RING	Band iron, steel, or suitable material. 20±6 mm high. Top set at ground level. Circle below ground level.	Metal ring. 19±6 mm high. Bottom set at ground level. Circle at ground level.	Metal, wood, or plastic band. 0.75 in (1.9 cm) above level of circle. 2 in (5 cm) painted circle as alternative for hard material circle.
1/2 CIRCLE LINES	75 cm each side, 5 cm wide located in front half of circle		
<b>THROWING AREA DIMENSIONS -JAVELIN THROW</b>			
JAVELIN SECTOR SIZE/ANGLE	28-95° from 8 meters behind arc (2 units along sector lines, 1 unit across). Sector lines .5 cm wide, on outside edges of sector.		
JAVELIN RUNWAY	Min length 30 m. For Championships: min length 33.5 m (36.5 m where feasible)		
JAVELIN ARC & RUNWAY	8.0 m radius arc, 4 m width		
JAVELIN ARC EXTENSION LINES	75 cm each side, 7 cm wide		
<b>MEASUREMENT</b>			
DEVICE	Fiberglass tape, steel tape, certified electronic measuring device (laser)		
ZERO END OF TAPE	At edge of mark closest to circle or runway arc		
READ DISTANCE	At inside of stop board, ring, runway arc		
RECORD PERFORMANCE	Successful throw: Enter Distance; Fouled/failed throw of any type: Enter 'X'; Pass: Enter Dash (-)		
UNITS	Meters and centimeters to next lesser cm	Meters and centimeters to next lesser cm	Announce meters and feet and inches
<b>COMPETITION</b>			
UNIFORM	Clean and worn so as not to be objectionable. Non-transparent material. Same color front and back.	School issued tops and shorts, deemed not objectionable. Top covers entire torso. Solid color undergarment.	School issued full length track top (to waist or below) and track bottom (worn above hips). Visible garment worn under bottom and extending below knees is unadorned and single solid color.
SHOES	Not required. Javelin: 11 spikes. 12 mm or less in length for synthetic runway, 25 mm or less for nonsynthetic runway.		Required. Spike configuration not specified.
WARM-UPS BEFORE FLIGHTS INCLUDING FINALS	Games Committee	Time or number of attempts-Determined by Games Committee for each flight. Max 2 warm-ups/turn	Length-Determined by Games Committee; Max 15min/flight including before Finals.
LATE ARRIVAL AFTER COMPETITION STARTS	Not Addressed	Take remaining trials - if entered	Cannot compete
ABSENCE FROM COMPETITION	May be excused one round at a time. Order changed within one round only.	May be excused one round at a time. Order changed within one round only. For Youth, order may be changed for preliminaries and for finals.	Order of throws may be changed for preliminaries and for finals.
IMPLEMENT OWNERSHIP LOST	Yes	Yes (Except Youth Jav & All Master)	No. May use another's with permission
PERSONAL ELECTRONIC DEVICES	Not allowed by athlete		Coach can use in unrestricted area or coaches' box. No communication with athlete during trial.

Modified from Throws Rules Comparison, USA TF Best Practices, Jan 10 (Credit: B. Buttermore)

# THROWS RULES COMPARISON - 2015 - Page 2 of 2

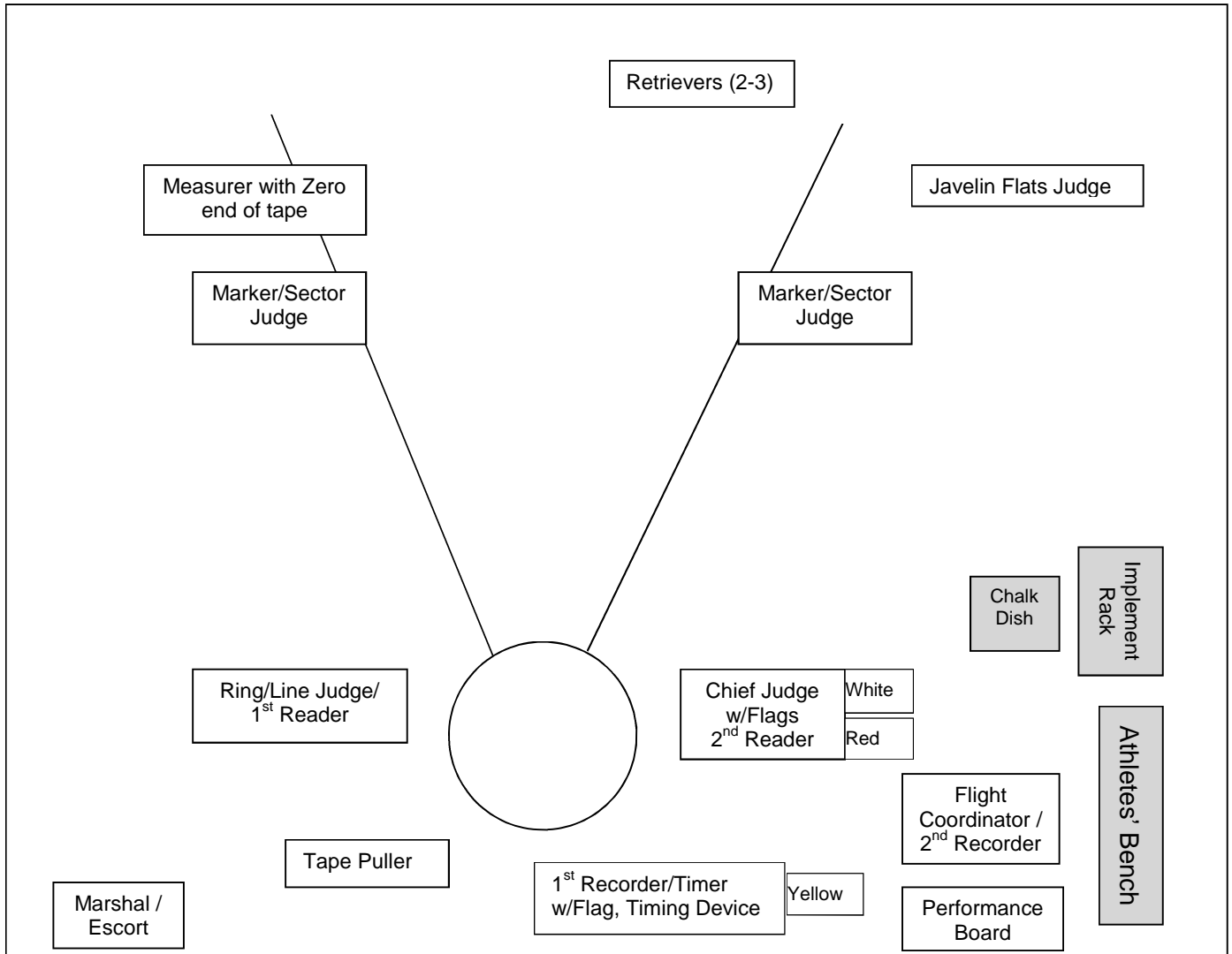
Rule	GOVERNING BODY			NFHS
	IAAF	USATF	NCAA	
<b>COMPETITION-CONTINUED</b>				
SUBSTANCE ON HANDS	Suitable substance allowed (HT & WT-on gloves)			Chalk or adhesive substance such as rosen
SUBSTANCE ON IMPLEMENT	Shot & Discus - chalk or similar substance		SP, DT, JT - chalk only	Not addressed
SUBSTANCE ON RING OR SHOES	No spraying or spreading of any substance in circle or on shoes		Only water allowed to clean ring or shoes	Not addressed
GLOVES	HT & WT only-fingers open			No (HT not addressed)
TAPE ON HANDS/FINGERS	Yes but no 2 fingers taped together. Taping wrist is ok.			No (except for open wound). HT not addressed. Taping wrists is ok.
MARKS ADJACENT TO CIRCLE	1 temp marker for own throw			Not addressed
MARKS ADJACENT TO RUNWAY	1 or 2 markers; no chalk/indelible marks			Not specified. L/JT specifies 1 or 2 markers.
START OFFICIATING FOR FOULS	After stationary in ring or on runway before starting attempt			
IMPLEM. HITS CAGE, LANDS IN SECTOR	Fair			Foul
FOUL-DURING ATTEMPT FROM CIRCLE	Touch surface outside ring with any body part. Touch on top of iron band or stop board or painted circle, including top inside edge of each.	Touch outside ring, on top of ring, on top of stop board		Touch any surface outside ring. Touch top or end of stop board
FOUL-DURING ATTEMPT FROM RUNWAY	Touch lines marking runway or area outside		Touch foul line, run-up lines, or area outside	Touch on or outside runway or foul-line arc
SHOT PUT, DISCUS, HAMMER MUST LAND	Inside sector, on line is out. Hammer handle and wire can land outside sector.			
JAVELIN MUST LAND	Tip first inside sector	Tip first inside sector (Youth: any part first lands inside sector, mark first touch)	Tip first inside sector	Any part first lands inside sector; mark first touch
INTERRUPT THROW; LEAVE CIRCLE/RUNWAY	Yes, Must leave from back half or behind arc			Not addressed
LEAVE CIRCLE AFTER THROW	After implement lands: from back half of circle. First contact outside ring is considered leaving.			
LEAVE RUNWAY AFTER THROW	After implement lands: from behind arc & extended lines or after moving 4 m backwards from arc. First contact of runway is considered leaving.			After implement lands: from behind arc & extended lines
<b>FLIGHTS</b>				
QUALIFYING-NOT PART COMPETITION	Yes if large field. 12 b competition	C-ships: Yes if > 15 throwers. 12 to competition	Yes if deemed necessary	Not addressed
USE FLIGHTS IN ROUNDS 1-3 (PRELIM.)	Not addressed	First 3 throws if > 15 throwers (Masters if > 12)	Yes 5 to 16 throwers/flight	Yes 5 or more throwers/flight
NUMBER TO ROUNDS 4-6 (FINALS)	8	8/9 depending on number of lanes on track	Scoring places + 1 but not < 8 (must have valid mark)	Scoring places + 1 (must have valid mark)
TIES FOR LAST ROUNDS 4-6 POSITION	Break ties unless exact			Ties qualify for finals
ROUNDS 4-6 (FINALS) ORDER	Reverse of performance in first 3 rounds (preliminaries).			
<b>NUMBER OF COMPETITION THROWS (TRIALS)</b>				
MORE THAN 8/9 IN COMPETITION	3 throws for all; 3 throws for top 8 or 9 (4 throws for all if decided by games committee)			
8/9 OR FEWER IN COMPETITION	6 total [3 (fair throw not required), reorder, 3]	6 total [3 (fair throw not required), reorder, 3]	6 total [3 prelim (1 attempt required), reorder, 3 final] (4 throws for all if decided by games committee)	3 prelims (1 fair throw), 3 finals (4 total throws if decided by games committee)
COMBINED EVENTS	3			Not addressed
<b>TIME TO INITIATE ATTEMPT</b>				
2 OR MORE THROWERS	1 Min			
CONSECUTIVE THROWS	2 Min		1 Min	2 Min
COMBINED EVENTS-2 OR MORE	1 Min			
COMBINED EVENTS-CONSECUTIVE	2 Min		1 Min	2 Min
TIME EXPIRATION WARNING METHOD	Clock and hold up yellow flag w/15 seconds left	Clock and hold up yellow flag w/15 seconds left, attend drop flag, verbal	Clock, or hold up yellow flag w/15 seconds left	Not addressed

Modified from Throws Rules Comparison, USA TF - Best Practices, Jan 10 (Credit: B. Buttermore)



**USATF OFFICIALS BEST PRACTICES**

**THROWS  
SUGGESTED OFFICIALS' PLACEMENT**



- |   |       |                        |       |
|---|-------|------------------------|-------|
| 1. Chief Judge/Flags                    | _____ | 7. Marker/Sector Judge | _____ |
| 2. Flight Coord./2 <sup>nd</sup> Record | _____ | 8. Marker/Sector Judge | _____ |
| 3. Ring Judge/1 <sup>st</sup> Reader    | _____ | 9. Measurer w/tape     | _____ |
| 4. 1 <sup>st</sup> Recorder/Timer       | _____ | 10. Retriever          | _____ |
| 5. Ring Judge/2 <sup>nd</sup> Reader    | _____ | 11. Retriever          | _____ |
| 6. Tape Puller                          | _____ |                        |       |

Tape Puller and Retrievers may be supplied by Meet Management.

Others as needed/available: Escort/Marshal, Operator for Performance Board, Palm Pilot, Implement Official

Priority for Officials' assignments:

If 1 available – 1/2/3/4 with 6, 7/9, 10, 11 supplied  
 If 3 available (Long) - 1/2/3/4, 7, 9 with 6, 10, 11 supplied.  
 If 4 available – 1/2/3/4, 6, 7, 9 with 10, 11 supplied  
 If 6 available – 1/2/5, 3/4, 6, 7, 8, 9 with 10, 11 supplied  
 If 8 available – 1, 2, 3, 4, 5, 6, 7, 8, 9 with 10, 11 supplied  
 If using a laser measurement, eliminate 6

If 2 available – 1/2/3/4, 7/9 with 6 and 10, 11 supplied  
 If 3 available (Short) – 1/2/3/4, 6, 7/9 with 10, 11 supplied  
 If 5 available – 1/2/5, 3/4, 6, 7, 9 with 10, 11 supplied  
 If 7 available – 1/2, 3, 4/5, 6, 7, 8, 9 with 10, 11 supplied  
 If 9 available – 1, 2, 3, 4, 5, 6, 7, 8, 9 with 10, 11 supplied  
 For javelin, add a judge to call "flats" (with sun at back)

Modified from Throws Ofcls Plemt. Diag., USATF Best Practices, Mar 11 (Credit: R. Schornstein)

# THROWS OFFICIALS AND DUTIES

		Duties		
Officials	Pre-event/warm up	During Event	Post-Event	
Head Official	Confirm meet instructions with Meet Management. Obtain flight sheets. Meet with officials. Review safety. Assign tasks. Inspect venue. Confirm sectors. Confirm distance arcs. Meet with athletes. Introduce Coordinator	Watch circle or runway for fouls. 2nd reader. 2nd recorder. Signal fair/foul w/flags. Signals venue is ready. Move Hammer gate.	Review results sheets. Sign results. Deliver to Referee or Scoring Personnel.	
Flight Coordinator	Meet with athletes. Bring to venue. Cover rules/methods. Confirm entered athletes with Laser operator and recorders.	Call up athletes (UP, ON DECK, ON HOLD or UP, FOLLOWED BY, THEN). Confirm field personnel are ready. Call X IS UP. 3rd recorder. Watches for legal throw.	Compare results, paper and electronic.	
Ring Official 1	Lead out officials. Control ring during warm ups. Track time or number of throws for warm up.	Watch circle or runway for fouls. Communicate with head. 1st recorder.	Compare results, paper and electronic. Sign results.	
Ring Official 2	Work with tape puller. Set record cones. Retrieve during warm ups.	Watch circle or runway for fouls. Communicate with head. 1st reader.	Sign results.	
Tape Puller	Stretches out tape. Help retrieve.	Pulls tape through center of ring or 8 m point for Jav. Move Hammer gate.	Secures tape. Removes twist. Police area/clean up	
Timer	Prepare count-down clock and place so competitor can see it. Help retrieve.	Times 1 minute for trial. Yellow flag when 15 sec left.	Remove equipment. Police area/clean up.	
Measurer with Tape	Retrieve during warm ups	Marks with tape. Opposite side of athletes. Smooth Shot Put or Hammer holes after throw.	Sign results. Assist athlete control. Leads athletes off.	
Marker/Sector Judge 1	Retrieve during warm ups. Smooth Shot Put or Hammer holes at end of warm ups.	Locate and mark landing of implement with screwdriver or skewer. Call sector foul.	Secures implements. Polices area/clean up.	
Marker/Sector Judge 2	Retrieve during warm ups	Locate and mark landing of implement with screwdriver or skewer. Call sector foul.	Rear line escort of athletes	
Retriever(s)	Retrieve. Carry implements back to circle area	Removes implement from sector. Return to ring/runway	Police area/clean up.	
Laser Operator	Prepare equipment. Set reference reflector. Confirm calibration measurement. Shoot circle center and edges. Confirm entered athletes.	Spot reflector. Initiate measurement. Announce measurement.	Compare electronic results to paper results. Check calibration of Laser.	
Reflector Holder	Hold reflector at center of circle	Holds reflector at mark in field	Help pack Laser equipment	
Point/Flats Spotter	Retrieve during warm ups	Determine point or flat landing for Javelin. Located outside sector at distance of throw	Police area/clean up.	
Extra person	Retrieve during warm ups	Convert meters measurement to feet and inches and display on performance board or display feet and inches directly.	Secure performance board.	

# Placement of Officials and Volunteers

## Meet help or volunteers from spectators

Retrievers

Tape Puller

Field marker (with some experience)

## One certified official:

- Official: head, flight coord., ring judge, reader, recorder, timer, flags.
- Meet help/Volunteers (min 3): measurer with tape in field (most experienced), retriever, tape puller, performance board, hammer gate.
- Flats for Javelin Throw: by marker or by head.

## Two certified officials:

### Shot Put/Discus Throw/Hammer Throw

- One official: head, flight coord., ring judge, reader, recorder, timer, flags.
- Second official: measurer with tape in field, sector.
- Meet help/volunteers: tape puller, marker (long throws), retriever, performance board, hammer gate.

### Javelin Throw

- One official: head, flight coord., arc/runway judge, reader, recorder, timer, flags.
- Second official: points/flats spotter, help on location for near flats, flat flags.
- Experienced volunteer: marker with tape in field, sector.
- Meet help/volunteers: retriever, tape puller, performance board.

## Three certified officials:

### Shot Put/Weight Throw/Discus Throw/Hammer Throw

- One official: Head, flight coord., ring judge, reader, recorder.
- Second official: ring judge, tape puller, timer, flags.  
For Discus Throw/Hammer Throw, field marker.
- Third official: measurer with tape in field, sector.
- Meet help/volunteers: pull tape (DT/HT), retriever, performance board.

### Javelin Throw

- One official: Head, flight coordinator, arc/runway judge, reader, recorder, timer, flags.
- Second official: Points/Flats Spotter and flat flags.
- Third official: mark for the javelin and measurer with tape, sector.
- Meet help/volunteers: retriever, tape puller, performance board.

# Throwing Officials' Tasks

- Before meet, review rules and check personal equipment
- Arrive at least 1 hour before start of competition
- Meet with meet management to review local rules and obtain flight sheets
- Meet with event officials to review safety and rules and determine assignments
- Check venue and modify if possible
- Check equipment
- Check on mark for implements
- Check-in athletes and assign flights
- For each flight, bring athletes into competition area
- Give instructions to athletes
- Warm-up for flight
- Conduct preliminary trials for flights
- Determine finalists and conduct final flight
- Finish flight sheets and give to meet management

# Throwing Officials' Tasks (Continued)

## Ring

- Fouls start after competitor starts throw
- Use flags to communicate with field
- White flag after competitor leaves ring
- Start call up while moving to measure
- Reader checks tape is through center and tight
- Officials should stay outside ring
- Check if field ready after measurement
- Call next competitor up, start time

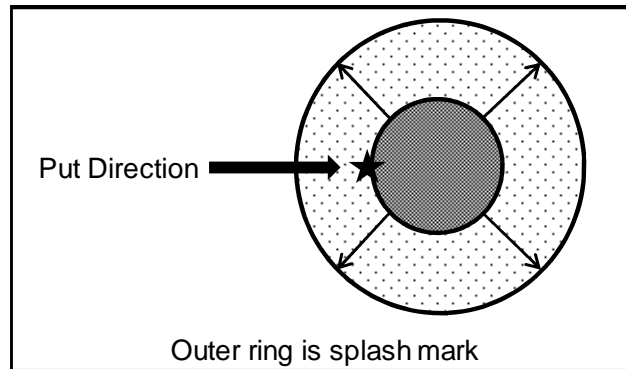
## Field

- Measurers/markers to side of sector
- Zero end of tape in field
- Move to landing spot quickly and determine mark
- Carry rod and tape with two hands
- Work with tape puller to move and set tape
- Keep mark until next competitor: fair or foul

# Implement Marks

## Shot

- Landing can leave 2 rings (inner mark and outer splash mark)
- Measure at inner mark nearest to ring
- Depends on ground surface, mark consistently
- Smooth mark after measurement



## Discus

- View flight from side
- May or may not leave visible mark on ground
- Follow discus to ground and go to expected mark
- For distinct mark, measure at nearest point to ring
- For indistinct mark, measure at visually determined landing point

## Hammer/Weight

### Dirt field

- Landing can leave 2 rings (inner mark and outer splash mark)
- Measure at inner mark nearest to ring
- Smooth mark after measurement

### Grass field

- Head can bury
- Mark at disturbed ground nearest to ring
- Replace as much of divot as possible after measurement

## Javelin

- View flight from side

### Sticking javelin

- Leave in ground until marker arrives
- Mark at part of hole nearest to runway

### Skipping javelin

- Follow head to ground (USATF/NCAA) and go to expected mark
- Follow 1st point of contact (High school) and go to expected mark
- May or may not leave visible mark on ground
- For distinct mark, measure at nearest point to runway
- For indistinct mark, measure at visually determined landing point

# General Instructions to Competitors

- Current flight number of total number of flights
- Number of throws in Preliminary round
- Number of competitors to Final round
- Minimum measurement distance
- Uniform, number, tape instructions
- Electronic devices including video
- Talking to coach
- Absences to compete in another event
- Procedures for warm ups: time or number of throws
- Call up procedure
- Throwing order for flight

# Specific Instructions to Competitors

- You may enter the ring from any side.
- You need to be stationary in the ring before you begin your throw.
- Fouls start when you start your throw after you are stationary.
- As you throw, you may not touch the top of iron ring, stop board, runway arc, or any place outside the ring or runway with any part of the body. You may touch the inside of the stop board or iron ring.
- (Shot put) At the start of the throw, the shot should be at or near your neck and may not drop behind the line of your shoulders as you throw.
- (Hammer) You may stop and restart your throw if the head hits ground if no foul was committed and within time limit.
- (Javelin) Hold javelin by grip. Do not turn your back to the throwing area before releasing javelin. Throw javelin over shoulder or upper part of arm.
- A fair throw must land within the sector. On the sector line or outside the sector is a foul.
- After the implement lands, leave from the back half of the ring or behind the extended javelin foul lines. The first step should be distinctly behind the line.
- You have one minute from when I call you up to when you start your throw that goes to completion. A yellow flag will be raised at 15 seconds to go. You may restart within the 1 minute time limit if no foul has been committed.
- We will measure in feet and inches (high school) or meters and centimeters (NCAA, USATF).



# Call up procedure

First competitor:

- Announce “A WILL BE UP (or ON THE RUNWAY), B IS ON DECK, C IS ON HOLD”  
or “A WILL BE UP (or ON THE RUNWAY), FOLLOWED BY B, AND THEN C”
- Check readiness of field personnel
- Announce “A YOU ARE UP”
- Start time for A

Following competitors:

- After A throws and while mark is measured, announce “B WILL BE UP (or ON THE RUNWAY), C IS ON DECK, and D IS ON HOLD”  
or “B WILL BE UP (or ON THE RUNWAY), FOLLOWED BY C AND THEN D”
- Record and announce A’s measurement
- Check readiness of field personnel
- Announce “B YOU ARE UP”
- Start time for B

## Suggested Personal and Supplied Equipment – Throws

Recommended to have at a minimum	Additional Equipment Supplied by Meet
<p>Clip Boards                      Cone, small 4 in (circle or runway closure)                      Field Markers (screwdrivers, skewers)                      Flags (white, red, yellow)                      Pens or Pencils (Use pencil if raining)                      Rulebooks (USATF, NCAA, High School)                      Stopwatch                      String for laying out sector                      Sun Screen (Higher Rating, the better)                      Tape Holder/Marking Rod                      Tape Measure -Long Throws: 100 m/330 ft-in Fiberglass                      Tape Measure - Short Throws: 30 m/100 ft-in Fiberglass                      Old Tape Measure for Javelin Runway                      Tape - Adhesive/Athletic Tape/White Duct Tape                      Towels – cloth.                      Water Bottle                      WeatherWriter clip board if in rain-prone area</p>	<p>Benches for Athletes                      Brooms: Small Broom for Ring                      Push Broom to smooth field                      Chairs for officials                      Chalk or Paint Dispenser for Sectors                      Count-Down Clock                      Distance Signs                      Field Event Forms                      Ladder, 12 ft. to reach hammer stuck on cage                      Performance Board                      Rake to smooth field holes                      Sector Tape and nails                      Tape Measure - Long Throws: 100 m/330 ft-in steel for records                      Tape Measure - Short Throws: 30 m/100 ft-in steel for records                      Umbrella for Athletes</p>

Personal Clothing
<p>Extra Pair of Shoes if inclement weather or wet field                      Extra Pair of Socks (particularly if wet in morning)                      Gloves for cold weather                      Hand Warmer                      Hat, preferably with wide brim for sun protection                      Hat with chin strap for windy conditions                      Pull Over Rubber Boots or Rubber Shoes                      Sweater, Jacket or Wind Breaker (depending on time of year)                      Sunglasses                      Umbrella, personal                      Uniform for meet</p>

## Suggested Personal and Supplied Equipment - Throws (Continued)

Additional Miscellaneous Equipment	
<p>           Baggies (2 gallon to fit over clipboard during rain)            Big Clips for clipboard paper sides            Blank Field Event Forms            Blank Numbers (for lost numbers)            Bug Repellant            Cell Phone (for emergency call-off or on vibrate during competition)            Chalk, small and large            Conversion Book, Metric to feet/inches            Disinfectant            Distance Markers (Laminated)            Eraser            Extra Key Rings to fix tape ends            First Aid Kit with Band Aids, tape, etc.            Foot Mat to clean shoes            Garbage Bags (for equipment bag or poncho if rain)            Gloves for handling hammers            Highlighter, several colors            Instruction to Athlete Cards (List of rules for each event)            Labels (Address for implements)            Level            Megaphone, battery operated            Membership Forms (USATF)            Note Pad            Officials Address List (local)            Officials Application Forms            Paper Towel to put between baggie and sheets if raining)            Permanent Markers (particularly black) and/or paint stick            Pencil Sharpener         </p>	<p>           Plastic Ties (various sizes for netting)            Plastic Sheet Protectors (8 ½ by 11), Heavyweight            Post It™ notes            Push pins and tags for Javelin runway            Record Forms            Record List for Competition (National and World Records)            Rubber Bands (for clip board)            Safety Pins            Scissors            Screwdrivers (as markers and tools): Phillips, Regular (Long thin and Large)            Spike Wrench            Stapler and Staples            Tape:                Duct (Silver, White, Yellow, Red)                Electrical (several colors)                Masking                Cellophane            Tarp to cover ring or equipment if raining            Time of Day Clock (hung near event)            Tools:                Allen Wrenches                Adjustable Wrench (6")                Hammer and nails                Knife                Pliers: Needle Nose, Regular            Two-way radio            Vise Grips            Towels, Cloth            USATF Directory            Wind Sock (Javelin)         </p>

Adaped from Kleeman, George (2007). **The Throwing Officials' Manual.**

# Recording Measurements

## USATF/NCAA/IAAF-All Events

Meters (MM) and centimeters (cc), MM.cc

## High School - Shot Put

Feet (FF) and inches, FF-ii.dd

where ii is whole inch

dd is decimal inch: .00, .25, .50, .75

## High School-Discus/Hammer/Javelin

Feet (FF) and inches, FFF-ii

where ii is whole inch

## Other Entries

Foul X

Pass Dash (-)

No Distance ND

Did Not Start DNS

# Example of Filling out Field Sheet

Short example

**8 competitors get 2 throws in the Preliminaries**

**4 longest qualify for 2 throws in the Finals**

Start 5:00 PM, End 5:45 PM

Hy-Tek's MEET MANAGER

**adidas Golden West Invitational  
Folsom High School, Folsom, CA 6/12/2010  
Field Score Sheet**

**Event # 44 Boys Shot Put A Flight 1 of 1**

**Records**

**GWI: M 81-03.50 1979 Michael Carter (Dallas, TX)**  
**National: N 77-00 5/5/1979 Michael Carter (Jefferson, Dallas, TX)**

**Start Time: \_\_\_\_\_**

**End Time: \_\_\_\_\_**

	Attempt 1	Attempt 2	Attempt 3		Attempt 4	Attempt 5		Attempt 6	Best	Place
1 Jarvis, Jefferson 10 Hidden Valley										
2 Lohman, Will 12 Jenkins HS										
3 Coniglio, Zach 12 Alhambra HS										
4 Cullors, Dimitri 11 Atascadero HS										
5 Stetler, Zachary 12 Elko HS										
6 Eckel, Jacob 12 Castro Valley										
7 Mason, Eric 12 Castro Valley										
8 Casas, Richie 11 N Monterey Co										

Metric	1	2	3	4	5	6
Jarvis, Jefferson 10 Hidden Valley	15.53	15.64	-	15.81	16.11	-
Lohman, Will 12 Jenkins HS	16.34	Foul	-	17.31	17.46	-
Coniglio, Zach 12 Alhambra HS	Foul	17.34	-	Foul	17.18	-
Cullors, Dimitri 11 Atascadero HS	Foul	Pass	-	-	-	-
Stetler, Zachary 12 Elko HS	16.94	18.70	-	18.35	18.63	-
Eckel, Jacob 12 Castro Valley	Did not start		-	-	-	-
Mason, Eric 12 Castro Valley	15.04	15.64	-	15.80	16.09	-
Casas, Richie 11 N Monterey Co	14.62	15.37	-	-	-	-

Feet-Inches	1	2	3	4	5	6
Jarvis, Jefferson 10 Hidden Valley	50-11.5	51-3.75	-	51-10.5	52-10.25	-
Lohman, Will 12 Jenkins HS	53-7.25	Foul	-	56-9.5	57-3.5	-
Coniglio, Zach 12 Alhambra HS	Foul	56-10.75	-	Foul	56-4.5	-
Cullors, Dimitri 11 Atascadero HS	Foul	Pass	-	-	-	-
Stetler, Zachary 12 Elko HS	55-6.75	61-4.25	-	60-2.5	61-1.5	-
Eckel, Jacob 12 Castro Valley	Did not start		-	-	-	-
Mason, Eric 12 Castro Valley	49-4	51-3.75	-	51-10	52-9.5	-
Casas, Richie 11 N Monterey Co	47-11.5	50-5.25	-	-	-	-

# Field Data Sheet with Entries

Short example

8 competitors get 2 throws in the Preliminaries

4 longest qualify for 2 throws in the Finals

Start 5:00 PM, End 5:45 PM

Hy-Tek's MEET MANAGER

**adidas Golden West Invitational**  
**Folsom High School, Folsom, CA 6/12/2010**  
**Field Score Sheet**

Event # 44 Boys Shot Put A Flight 1 of 1

Records

GWI: M 81-03.50 1979 Michael Carter (Dallas, TX)

National: N 77-00 5/5/1979 Michael Carter (Jefferson, Dallas, TX)

Start Time: 5:00 PM

End Time: 5:45 PM

	Attempt 1	Attempt 2	Attempt 3		Attempt 4	Attempt 5		Attempt 6	Best	Place
1 Jarvis, Jefferson 10 Hidden Valley	50-11.5 15.53	51-3.75 15.64		2	51-10.5 15.81	52-10.25 16.11			52-10.25 16.11	4
2 Lohman, Will 12 Jenkins HS	53-7.25 16.34	X		3	56-9.5 17.31	57-3.5 17.46			57-3.5 17.46	2
3 Coniglio, Zach 12 Alhambra HS	X	56-10.75 17.34		4	X	56-4.5 17.18			56-10.75 17.34	3
4 Cullors, Dimitri 11 Atascadero HS	X	-			-	-			ND	ND
5 Stetler, Zachary 12 Elko HS	55-6.75 16.94	61-4.25 18.70		5	60-2.5 18.35	61-1.5 18.63			61-4.25 18.70	1
6 Eckel, Jacob 12 Castro Valley	-	-			-	-			DNS	DNS
7 Mason, Eric 12 Castro Valley	49-4 15.04	51-3.75 15.64		1	51-10 15.80	52-9.5 16.09			52-9.5 16.09	5
8 Casas, Richie 11 N Monterey Co	47-11.5 14.62	50-5.25 15.37			-	-			50-5.25 15.37	6
9										
10										

## Dimensions for Sectors USATF/NCAA/HIGH SCHOOL

A is length on sector side

B is distance across sector at points A on sides - Acceptable error in B is  $\pm 0.1\%B$  ( $\pm 0.001B$ ).

C is distance along centerline of sector to midpoint of B

Measurements made from center of ring (Shot, Discus, Hammer) or center of arc (Javelin)

Sector angle is inside angle

Measurements for sector layout are made from center of ring (SP,DT,HT,WT) or center of arc (JT)

Measurements for sector layout are in meters.

Sector side lines are to outside of sector angle. The sector angle is the inside angle.

Distances for sector arcs are measured from inside edge of circle, toe board, or inside javelin foul arc along radius through center of circle or arc.

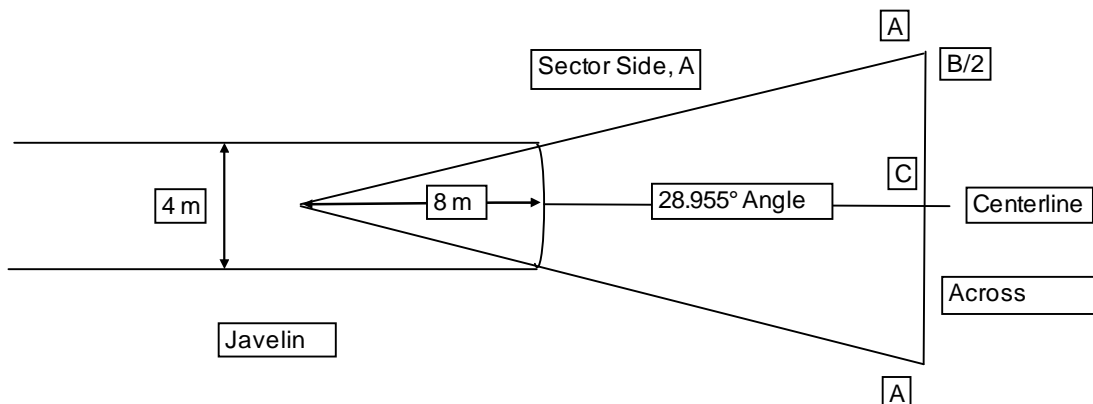
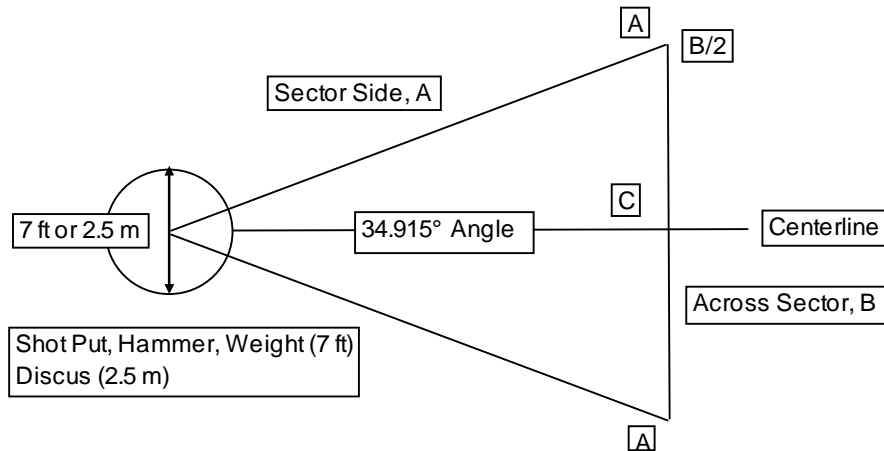
Throw	Ring Diameter	Sector Angle	Sector Side A	Across Sector B	Center line C	B/2	
		Degrees	m	m	m	m	
Shot Put Weight Throw	2.134 m 7 ft	34.915	1.0668	0.64	1.02	0.32	At stop board
			5	3.00	4.77	1.50	
			10	6.00	9.54	3.00	
			15	9.00	14.31	4.50	
			20	12.00	19.08	6.00	
			25	15.00	23.85	7.50	
Discus, ring	2.5 m 8.2021 ft	34.915	1.25	0.75	1.19	0.375	At ring
Hammer, ring	2.134 m 7 ft	34.915	1.0668	0.64	1.02	0.32	At ring
Discus/Hammer Sector		34.915	30	18.00	28.62	9.00	
			40	24.00	38.16	12.00	
			50	30.00	47.70	15.00	
			60	36.00	57.24	18.00	
			70	42.00	66.78	21.00	
			80	48.00	76.32	24.00	
			90	54.00	85.85	27.00	
Javelin 4 meter wide runway		28.955	8	4.00	7.75	2.00	At foul line
			40	20.00	38.73	10.00	
			60	30.00	58.09	15.00	
			80	40.00	77.46	20.00	
			100	50.00	96.82	25.00	

For SP,DT,HT,WT:  $B = 0.6 \cdot A$                        $B/2 = 0.3 \cdot A$

For JT:  $B = 0.5 \cdot A$                                  $B/2 = 0.25 \cdot A$

For all:  
 $C = \text{Sqrt}[A^2 + (B/2)^2]$   
Sector angle =  $\arcsin[(B/2)/A]$

## Procedure for Layout of Sectors



1. Determine direction of centerline.
2. Measure distance C along centerline and mark.
3. Measure distance B/2 approximately perpendicular to centerline and make a provisional mark.
4. Measure distance A from center of circle or arc to location near provisional mark of step 4.
5. Place permanent mark at distance A that is near previous provisional mark.
6. Measure distance B from mark in step 5 and distance A from center of circle or arc to a point along other sector line.
7. Place permanent mark where two distances of step 6 intersect.
8. Recheck distances of sector sides, A, and across sector distance, B.
9. Confirm that centerline of sector is at desired orientation.
10. Lay out marking string from center of circle or arc to points A along sector sides.
11. Check across sector distance, B at one or more sector distances A.
12. Place sector tape or chalk along marking string to the outside of the sector line.
13. Measure distances for sector arcs within sector from inside edge of circle, toe board, or arc across sector.
  - 13a. With two people:
    - One person holds the zero of the tape at the inside edge.
    - The other scribes an arc from one sector side to the other at the desired distance from the inside edge.
  - 13b. With one person and hole at center of circle or arc:
    - Secure the tape to nail at the center of the circle or arc.
    - Add the radial distance to the inside edge of the circle or arc to the desired sector line distances.
    - Scribe arc between sector lines at those distances.
14. Place tape or chalk along scribed arcs from one sector side to the other.



**IMPLEMENT SPECIFICATIONS-2013**  
Weights only

	Men		Women	
	Men Senior	Men Junior	Women Senior/Junior	Women Junior
Shot Put	7.260 kg	6.000 kg	4.000 kg	3.000 kg
Discus	2.000 kg	1.750 kg	1.000 kg	1.000 kg
Hammer	7.260 kg	6.000 kg	4.000 kg	3.000 kg
Javelin	800 g	800 g	600 g	500g

	Men		Women	
	Men Senior	Men Junior	Women Senior/Junior	Women Junior
Shot Put	7.260 kg	6.000 kg	4.000 kg	3.000 kg
Discus	2.000 kg	1.750 kg	1.000 kg	1.000 kg
Hammer	7.260 kg	6.000 kg	4.000 kg	3.000 kg
Javelin	800 g	800 g	600 g	500g
Weight	15.880 kg	9.080 kg		

**USATF Youth**

	Under 8 (Sub Bantam)	9-10 Boys (Bantam)	9-10 Girls (Bantam)	11-12 Boys (Midget)	11-12 Girls (Midget)	13-14 Boys (Youth)	13-14 Girls (Youth)	15-16 Boys (Intermediate)	15-16 Girls (Intermediate)	17-18 Men (Young Men)	17-18 Women (Young Women)
Shot Put	2 kg	6 lbs	6 lbs	6 lbs	6 lbs	4 kg	6 lbs	12 lbs	4 kg	12 lbs	4 kg
Discus	-	-	-	1 kg	1 kg	1 kg	1 kg	1.6 kg	1 kg	1.6 kg	1 kg
Hammer	-	-	-	-	-	-	-	12 lbs	4 kg	12 lbs	4 kg
Javelin	-	300 g	300 g	300 g	300 g	600 g	600 g	800 g	600 g	800 g	600 g

**USATF Masters**

	Men 30-49	Men 50-59	Men 60-69	Men 70-79	Men 80 and up	Women 30-49	Women 50-59	Women 60-74	Women 75 and up
Shot Put	7.26 kg (16 lbs)	6 kg	5 kg	4 kg	3 kg	4 kg	3 kg	3 kg	2 kg
Discus	2 kg	1.5 kg	1 kg	1 kg	1 kg	1 kg	1 kg	1 kg	0.75 kg
Hammer	7.26 kg (16 lbs)	6 kg	5 kg	4 kg	3 kg	4 kg	3 kg	3 kg	2 kg
Javelin	800 g	700 g	600 g	500 g	400 g	600 g	500 g	400 g	400 g
Weight	15.88 kg (35 lbs)	11.34 kg (25 lbs)	9.08 kg (20 lbs)	7.26 kg (16 lbs)	5.45 kg (12 lbs)	9.08 kg (20 lbs)	7.26 kg (16 lbs)	5.45 kg (12 lbs)	4 kg (8.8 lbs)
Super Weight	25.40 kg (56 lbs)	25.40 kg (56 lbs)	20.00 kg (44 lbs)	15.88 kg (35 lbs)	11.34 kg (25 lbs)	15.88 kg (35 lbs)	11.34 kg (25 lbs)	9.08 kg (20 lbs)	7.26 kg (16 lbs)

**NCAA**

	Men	Women
Shot Put	7.26 kg	4 kg
Discus	2 kg	1 kg
Hammer	7.26 kg	4 kg
Javelin	800 g	600 g
Weight	15.88 kg (35 lbs)	9.08 kg (20 lbs)

**High School**

	Boys	Girls
Shot Put	12 lbs	4 kg
Discus	1.6 kg	1 kg
Hammer	12 lbs	4 kg
Javelin	800 g	600 g
Weight	25 lbs	20 lbs

## References

Adams, George (2008). **Officiating the Throws**. Presented at USATF Annual Meeting, Reno, NV, December 6, 2008.

Kleeman, George (2007). **The Throwing Officials' Manual**. USATF National Officials Training Monograph Series.

### **Officials' Resources from USATF: PDF and Word files**

Best Practices for Throws and other track and field events

Current IAAF, USATF, and NCAA rule books and 2013 High School rule books

Accessed at

<https://my.usatfofficials.com/resources/>