



THROWS SAFETY CERTIFICATION

The
National Throws Coaches Association
**Throws Safety Certification
Handbook[®]**

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The materials in this document are intended to be used by participants in the National Throws Coaches Association Throws Safety Certification program. Those who successfully complete the program will be issued a certificate valid for two years.

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Introduction

One of the least addressed areas of our sport is safety. The National Throws Coaches Association feels that safety in training and competition is just as important to the future of our sport as are changes in training and technique.

The Throws Safety Certification program is intended to provide coaches, athletes, officials and supporters of the sport with information and training in conducting safe training sessions and competitions.

With increased interest in the development of the throws, and the hammer in particular, the need for addressing safety issues is more relevant than ever.

These materials are intended as general guidelines. Your facility, situation, and local jurisdiction may be different. We encourage you to use this as a starting point, and to take the necessary steps to ensure safety at your facility.

At the end of the document, you will find safety checklists that we encourage you to duplicate, laminate, and provide to your meet officials and event workers.

Throws safety is an "all-the-time" thing, and should never be taken lightly. In our three hour seminar, we cover the essential points of consideration in conducting a safe practice and a safe competition. Many times, the local coach or athletic director has the responsibility for making sure that the competition arena is safe for everyone - competitors, coaches, spectators and officials.

We acknowledge and thank John Murray, Esq., for his consultation on these materials; Shelby Sharpe, Esq., Al Minturn, Master USATF Official, and Tony Naclerio, former USATF National Throws Coach, for their contributions to this manual and training; Duffy Mahoney, USA Track and Field, for his assistance in the facilities section of this document.

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General Rules of Throwing Safety

1. **Never** turn your back to the circle or runway
2. **Never** allow anyone else to turn their back to the circle or runway
3. Keep the sector and area near the boundaries as **clear as possible**
4. **Walk** the implements back - don't throw them back
5. **Never assume** that everyone is watching and aware of their surroundings
6. Cages are there to dissipate the energy of the implement - **not necessarily** to stop it!
7. **Safety is an all-the-time, every day thing!**

Primary Areas of Concern/Interest in Throwing Safety

- Implements and Venues
- Practice
- Competition
- Coaches
- Officials
- Athletes

Implements and Venues

One of the easiest ways to get an athlete injured is to have faulty equipment. We can reduce the chance for injury to the athlete by routinely inspecting the implements that they are using and the venues in which they are competing.

Implements

We don't want a shot putter to tear up his or her hand from a burr on a shot. A plate that comes loose from a discus and flies off at any angle, potentially injuring someone, is certainly something we should be on the lookout for.

In this listing, we look at some of the things that should be inspected on each implement. Please make note that such inspections should be carried out **ESPECIALLY** when the implement has come in contact with a hard surface (concrete, macadam) or the cage.

- Shot put
 - Examine for burrs or protrusions on the surface
 - On indoor implements, look for loose or missing core plugs
 - On indoor implements, look for cracks or splits in the outer shell
- Discus
 - Look for burrs or protrusions on the rim
 - Check for loose or missing core plugs
 - Look for split or cracked body plates
 - Check that the body plates are secure
- Javelin
 - Look for loose or frayed grip cord
 - Inspect points for cracks or splits
 - Inspect the body of the implement for cracks or splits
 - Look for broken points (both front and back)
- Hammer/Weight
 - Look for unbound wires
 - these can cause an errant throw to hang up in the cage or to tear the cage material
 - Inspect wires for nicks or cuts
 - Look for loose or missing cores (weight implements)
 - Inspect handles for cracks, or so see if they are sprung and no longer useable
 - Inspect gloves for smoothness
 - Inspect indoor weights for loose, cut or broken straps

While the number and frequency of injuries from poorly maintained implements is relatively low, we need to remember that any injury open us to potential liability, if it can be proven that we knowingly allowed a sub-standard implement to be used. It is always better to take the implement out of competition and possibly offend someone, than to have a poorly maintained implement hurt someone.

Venues

As to facilities, there can be any number of areas that we need to address. Let's begin with the condition of circles.

Concrete circles will have a tendency to wear. You should inspect them for dips, holes or cracks that may cause the athlete to fall. Also, try to keep the ring dry when possible, and know how the ring responds when it is wet.

Your circle may be fine when it rains, or it could be very treacherous. If your surface has a tendency to get slick, consider postponing a practice session, or have some way to thoroughly dry the surface before beginning or continuing a session. Some surfaces may actually be better when they are wet.

If the shot circle has a metal rim, look for any dents or intrusions in the rim. A shoe could catch on an intrusion and cause the athlete to fall. Also, be sure that your toe board is securely attached to the ground.

If you have a mesh hammer/discus cage, the webbing can deteriorate, especially if exposed to harsh weather conditions over a period of years. You should look for tears in the webbing, as well as for other problems or signs of rot.

If possible, remove the netting at the end of the season and store it according to the manufacturer's instructions. This will prolong the life of the netting, and will prevent it from being damaged.

A hammer/discus cage with doors should also be inspected to be sure that the doors work properly, and that the netting sufficiently covers the hinge area between the door and the cage. This is an oft overlooked area.

Another area of the cage that is overlooked is the base of the netting. Netting should be attached to the ground so that in the event a hammer wire should break, the head will be impeded from skidding out from under the cage and potentially hitting an official, competitor or spectator.

If using a synthetic javelin runway, inspect the plant area for tears or loose material. This is the most heavily stressed area of the runway, from the toe board extending back the runway for up to 10 meters. Repair any tears, or remove the loose surface.

A grass javelin approach may have holes or ruts from weather and use. Repair any divots or holes, and keep the grass mowed as short as possible, given the weather.

Coaches' checklist:

- ▼ inspect all implements before the season begins
- ▼ inspect any implement that has come into contact with a hard surface or the cage before it is returned to practice

- ▼ inspect all surfaces (circles, runways) and cages (hammer/discus) at the beginning of the season, periodically throughout the season, and if they are struck by anything that could cause structural damage to the cage or the netting
- ▼ Take any damaged implement out of service immediately and either repair or replace it.

Officials' checklist:

- ▼ Inspect the venue (circles, runways, cages) for any problems or deficiencies
- ▼ Review the layout of the venue before the event starts for potential safety hazards, and for traffic flow patterns in and around the throwing area
- ▼ Ask meet management to correct any un-safe situations prior to the beginning of an event to avoid unnecessary delays during the conduct of the event
- ▼ If the chief judge, meet with your crew to review warm-up and competition protocols
- ▼ If the chief judge, meet with competitors and coaches to clearly outline what the acceptable warm-up areas are (if any), and to review all safety protocols

Practice

The practice arena is perhaps the busiest, most complicated area that a throws coach needs to contend with. With a limited amount of time in each practice session, and a limited amount of space in most cases, the coach needs to organize, structure and monitor the practice venue.

We recommend that you establish the protocol for your practice sessions in the pre-season, so that you athletes have time to read, understand and ask questions about how practice will work.

Having a pre-season meeting with both your athletes and their parents (a requirement in most public schools, a recommendation for everyone) is a great way to get the point across that safety is an important and all-the-time thing.

We offer the following points of emphasis:

- As the coach, YOU control practice – not the athletes
 - You decide how the practice will be conducted, who will be throwing what, when and where. The responsibility, and the liability, lies with you as the adult to take necessary precautions to insure student-athlete safety.
- Set time, set place
- When practice is over, it's over! Put the implements away for the day
- Regulate practice – keep your eyes on everything!
- If in a crowded/busy venue, use an air horn
- Be aware of any unique features of your venue
 - Sprinkler systems that may be punctured by javelins

Competition

The competition arena is not as complicated as the practice arena for several reasons. First, the responsibility for the safe conduct of the event lies with the meet officials, not with the coach. Second, the events are usually staged in such a fashion that competitors do not have to move between events and venues until the current event has been completed.

This does not mean that the coach or official should ignore safety concerns. As an official, you should be at the venue at least 60 minutes prior to the announced starting time of the event. Even if you have been to the venue before, things may have changed since your last visit. It is always good practice to review the layout of the venue, and address any safety issues before the competitors arrive.

As a coach, it is important to remember that the event chief judge is the person in charge of the event, not the coach. However, if you see any issues that you believe may be safety concerns, bring them to the attention of the chief judge as soon as possible.

Our recommended points of emphasis in the competition venue:

- On meet day, the head official is in charge, not the coach
 - even on your home surface, the official is in charge from the time that they arrive until the time the event is over and the area has been cleared
- If you have concerns about the competition venue, air them
 - approach the head event judge first
 - If not satisfied with the resolution to the situation, ask for the head field judge or throws referee or field referee

- If you can help my marshalling people to keep them out of potentially dangerous areas - DO IT!
 - Work with the officiating crew in creating a safe environment for everyone
- When talking with your athlete, even in the unrestricted area, use the "over the shoulder" method
 - You never know when an athlete may lose control of the implement
- When the circle is closed, it's CLOSED!
 - Don't try to throw from the pad or any other area when the circle is closed
 - Officials may be taking care of something or attending to another matter. Don't assume anything!
- Don't warm-up in any area UNLESS it's designated for warm-up
 - The extra circle or runway may pose a hazard to something or someone you had not thought of

Coaches

Coaches set the tone for their athletes both at practice and in competition. If they make safety a priority, then their athletes will make it a priority.

While any athlete and/or coach wants to gain whatever competitive advantage they can, it is important to remember that what may seem to be innocent enough, can lead to potential safety hazards. For example, warming-up/practicing in an area that has not been designated for warm-up/practice is not only dangerous, but it may lead to disqualification of the athlete.

Coaches also bear an additional responsibility at the practice venue, in that they are usually charged with having a “duty of care” for their athletes. This term (defined and discussed later in this document) basically means that they have the responsibility for looking out for the athlete while they are in their charge.

Also as a coach, you need to gage the performance level of your athletes in practice on that day. If an athlete is tired, or if their technique has broken down to the point where they are out of control, you need to end their session before they injure themselves or someone else.

As mentioned earlier, have a pre-season meeting with your athletes to present, discuss and review your practice procedures to ensure that everyone know how practice will be conducted, what areas are off-limits and where your event safety zones are.

When in a competition venue, if you believe that the conditions are unsafe, you have an obligation to express this concern to the event chief. If you don't feel that the resolution to the problem is adequate, you can and should contact the referee or head field judge, clearly explaining what you feel is a safety concern.

In either case, if you don't believe that the situation is corrected, you need to make a decision: if you feel that the situation is potentially hazardous to your athlete, do you want them to continue?

This is never an easy decision, and it is one that should be made with a degree of care and consideration. Nevertheless, it may be incumbent upon you to make the decision for the athlete.

Our guidelines for coaches:

- If you practice good safety habits, so will your athletes
 - practice what you preach
 - Athletes should do what you do . . . and what you say when it comes to safety
- Control the environment
 - You set the practice time
 - You set the practice schedule
 - You decide the work out
 - Be observant of weather and field conditions
- Know when to say "when"
 - structure practice to get the most out a fresh thrower, not a tired one
 - Don't allow the "just one more" mentality to take charge - this is when injuries, sloppy technique and safety problems arise

Officials

In most cases, an official will not have safety issues to deal with until at a competition. However, it is at a competition venue that an official has the greatest responsibility. Hopefully, meet administration has handled any potential safety issues prior to your arrival, but this may not always be the case.

As a chief event official, you also have some added responsibility for your crew, and for any non-certified/non-registered helpers that may be volunteering to help. In any event, you need to be prepared.

Prior to the start of any competition, you should meet with your officiating crew, and volunteers and any marshals that may be assigned to that venue. In this meeting, you should review what potential safety issues you have observed and how you plan to deal with them.

Discuss with your crew what the flow of people and implements will be. The efficient flow of people can prevent accidents from happening, and aid in the efficiency of the event.

An often overlooked aspect of competition is the monitoring of the warm-up periods. This is the one time that we usually relax and don't think of safety. It is also the time period when we could see the greatest potential for injury.

Assign officials to monitor the warm-up period, especially the circle and the impact area. You can rotate this responsibility so that officials who have been retrieving implements in the impact area can have a break. By rotating this responsibility, every crew member shares equally in the safe conduct of the event.

Another important consideration, although not an easy one to discuss, is the ability of officials to officiate. As the cadre of officials grows older, we need to seriously evaluate the ability of officials to fill certain roles.

While it is commonly agreed that officials at the circle or runway should have the requisite knowledge to fairly judge each effort, they also need to be able to see adequately. An official who can't see may inadvertently walk into a danger zone and be struck by an implement.

Likewise, officials in the impact area need to be able to move adequately to move out of the way of a thrown implement. If the official cannot move quickly enough to evade a discus or hammer, they can be seriously injured or killed. In addition, an official who

cannot see well enough may not be able to see a thrown implement and may move into its path, rather than away from it.

Characteristics of Capable Officials

(The following material is courtesy of the late Al Minturn, Master USATF Official, Southern California Association)

Capable officials must be:

Mentally and Physically Alert - Many of the injuries and deaths in the throwing events involve officials. Lack of attentiveness is probably the major cause. Throwing event officials have to be extremely alert and concentrate on what and where they are, and where the athletes are and what they are doing. Officials in the impact area should be aware of the abilities of that particular field so that they know who the long throwers are and can adjust their position on the field accordingly.

Focused - on the event. You cannot be distracted because things happen too fast and you must be able to make quick accurate decisions.

Nimble - You must be able to move quickly in all directions if you are in the field and have good balance and mobility. Too much weight can affect your mobility.

They must have good:

Eyesight - to see implements in the air, foot fouls or track fouls.

Hearing - so that they can hear warning.

Age is not a direct factor but certainly impacts a number of the previous items. Not many officials can adequately officiate in the field by the time they are 80 and often some years younger.

You need to **be aware of your limitations** and do not take assignments which are beyond your abilities.

Basic Rules for Track & Field Officials

1. Be alert to what is going on around you, not only at your event but any nearby venue that might impact you.
2. Always look both directions before crossing the track, sector/field or any runway to insure that it is safe to do so, i.e.no athletes or implements are coming.

3. If your job requires for you to be in the infield area, you must be alert to all implements.

a. Never enter any throwing impact area unless your job involves marking throws or retrieving implements.

b. If you are assisting in marking or retrieving you will be in or near the throwing impact area, **never turn your back on the throwers-during warm-ups or competition.**

c. If you help to handle the javelin, always carry it vertically

d. For hammer or discus, if you are not marking/retrieving, you must be behind the cage for all throws, during both warm-up and competition.

4. If you are a head official at a throwing event, you should monitor both the warm-up and the competition to help insure safety.

5. Officials should immediately contact meet management if they are not comfortable with the safety in any situation.

6. If you are not actively involved in assisting an event, stay out of the impact area.

7. Immediately notify meet management of any injury in your area.

Use caution and care when assigning officials to positions where their mobility and dexterity may be critical to conducting a safe event.

For officials, we make the following recommendations:

- You are in charge!
 - It's your responsibility to look out for the fans, coaches and athletes
- Practice the 3 P's for safety: Preparation, Patience and Professionalism
 - Be prepared for any potential safety problems
 - Be patient with athletes who are there to compete, and may lose sight of safety issues
 - Be professional, not personal, when dealing with individuals and throws safety
- As a chief, YOU control the tempo of warm-ups and competition

- Don't allow coaches to push you so that you compromise safety
- Establish a warm-up procedure for each event
 - Be prepared with how you will handle warm-ups before and during competition
 - Know how you will deal with bad weather
 - Assign an official to be a "range safety officer" during warm-ups
 - put a "bouncer at the door of the cage to watch the sector during warm-ups , and regulate the flow of athletes into the cage or onto the runway
- Be proactive
 - Don't let the unsafe situation evolve. If you see it coming, head it off

Athletes

- "Look before you launch"
 - Even if no official is watching, look to make sure that the landing/impact area is clear of any hazards or potential victims
- Circle conditions
 - If you don't like the conditions of the circle, ask the head event official about them
 - Ask BEFORE you enter the circle
 - If you want to wipe the circle out, ask AS SOON AS POSSIBLE so that the trial clock isn't running
- Who's in charge?
 - Remember who is in charge in the setting you are in
 - at practice, it's your coach
 - at the meet, it's the official
- Remember . . .
 - Rule #1 - Never turn your back to the circle or runway!
- Stay out!
 - Allow the officials to retrieve and return the implements
 - Stay out of the sector!

Legal Considerations

While we are not legal professionals, we do need to be aware of some basic tenants of law that can directly affect how we look at the safety in the throwing events.

Three basic terms and phrases that every coach, official and athlete should be aware of are *reasonable care*, *duty of care* and *negligence*. Each of these is defined in the next section, but we can talk about some basic, “common sense” things in relationship to our legal exposure.

In addition, we recommend that any coach or official speak with their insurance broker to determine what level of insurance and indemnification they have in regard to their own situation. It may be that coaches are covered only during practice situations, or only when on school property. Officials may have different coverage. We recommend knowing what your coverage is, before you may be involved in a accident situation.

(The following section, not including the legal definitions, are courtesy of Shelby Sharpe, Esq., and are used with permission. Some paraphrasing and editing has been done to the original source material.)

Any athletic competition has an inherent degree of risk for injury. This risk extends from athletes, to coaches, officials and spectators. This risk increases in the throws, due to the dynamic nature of the events, and the weight and design of the implements. It is in these areas that we need to pay particular attention, and use extra care in the set-up, administration, management, and conduct of these events.

When an injury is caused by someone who did not act as an ordinary, reasonable person, that person has legal liability for the injury with its resulting consequences. If that individual is acting on behalf of someone else, which is usually an organization, the organization will be liable for the person’s negligence. Additionally, if the owner of the track and field competition venue has knowledge or should have had knowledge of a dangerous condition in the venue that causes an injury, this, too, creates liability for the owner of the venue.

To summarize, any injury that could have been prevented by reasonable action by a person responsible for taking the action creates legal liability.

In this article, we will look at some basic tenets of throws safety, how we can mitigate the risks, reduce our exposure to potential litigation, and at the same time provide an athlete and fan friendly environment for the efficient operation of the events.

Equipment

At the beginning of each season, it is a good practice to check all of the implements that will be used during the upcoming season. If any are found to be in disrepair, they should be repaired or replaced before being made available to athletes for practice or competition. If the implement can't be repaired, dispose of it.

Equipment that will be used during an event must be examined. This includes cages surrounding the circle from where an implement will be thrown. A cage should be checked for deterioration that would compromise its ability to restrain an implement from going through. Every cage needs to be checked for proper height and positioning, to make sure that it is not only in compliance with the governing rules, but that it provides reasonable safety for anyone in proximity of the cage.

Questions you should ask/answer related to equipment:

- (1) Was all equipment in the competition area that might cause injury checked before the athletes were permitted to use it?
- (2) Were all cages, support poles, doors, and circles checked for proper positioning and proper condition?
- (3) Who checked these things?
- (4) What was the experience of the person checking these things?
- (5) Was a written report made prior to the athletes being given access to the competition area?
- (6) Who prepared the report?
- (7) To whom was the report given and when?
- (8) Were all discovered problems corrected prior to access being given to the competition area?

We recommend creating a manifest of your implements and equipment, when they were inspected, by whom, what defects were found, how/if they were repaired and by whom was the repair made.

The Venue

Every track and field venue is owned by some party. Most of the time, the owner is a governmental or private educational institution. Less frequently, it is owned by a governmental recreational agency. Occasionally, a contract is signed for the use of the venue by another entity to conduct a competition. Examples of this are USA Track & Field, the National Collegiate Athletic Association, athletic conferences and other sports organizations.

When one of these groups contracts for the use of a venue, the organization assumes liability for any conditions of the venue that are discoverable through a reasonable inspection, and that are reasonably likely to cause injury. It is incumbent upon the owner of a venue, and anyone contracting for its use, to eliminate any potentially dangerous conditions that are known, or should be discovered by a reasonable investigation.

Questions you should ask/answer concerning any dangerous condition in or around the venue are:

- (1) Did you, or did you have any person on your behalf, examine the entire venue where the competition would occur?
- (2) Identify every competition area examined.
- (3) What examination was made of each competition area?
- (4) Who conducted these examinations?
- (5) What are the qualifications of each person conducting these examinations?
- (6) Was a report written on what was found in each competition area of the venue?
- (7) Who received the report, if one was prepared, and when was it received?
- (8) Was anything discovered that might cause injury to persons in any competition area of the venue?
- (9) If the answer to the preceding question is "yes," what corrective measures were taken to eliminate the hazardous condition?

(10) If corrective measures were taken, when were the measures taken and by whom?

(11) Were the corrective measures successful?

(12) (if applicable) Were the lights for each competition area checked for brightness and position and their effect upon those persons in each competition area?

Another major issue in the throwing events is the layout and design of the throwing areas. In many cases, space is limited and some accommodations need to be made. Lets' look at some of these issues

Adjacent Competition Areas

A determination should be made of whether competition areas overlap where an implement has the ability to reach from one competition area into another competition area. There are two options if this is the situation. Either schedule the use of the competition areas adjacent to one another so that an implement going into an adjacent competition area will not have any activity going on at the same time or, adjust the competition area so that an implement cannot reach an adjacent competition area.

Questions you should ask/answer where competition areas overlap:

(1) Did you, or did you have any person on your behalf, examine the competition areas for overlap where competition in one area might affect persons in an adjacent area?

(2) Would an investigation of the competition areas have revealed that the competition in one area could affect adjacent areas?

(3) What precautions did you take to avoid injury to persons in adjacent areas?

(4) Could you have adjusted the competition schedule so that persons would not have been in an adjacent area? If not, why?

(5) Could you have positioned qualified individuals to protect persons moving in areas adjacent to the competition area? If not, why?

(6) Who was assigned to protect the adjacent areas?

(7) What qualifications and experience did these people have whose responsibility it was to protect the adjacent areas?

Dangers within a Competition Area

Every competition area should also be examined for dangers within the area. Meet management must also be aware of any object, such as an advertising sign that is covering an object, which could cause injury if an athlete fell into the object. All too often, these kinds of signs are found close to a running surface, such as the finish line, or near field events pits.

Has the competition area been properly prepared to prevent athletes or officials from being struck by an implement? For example, in a shot put venue, there should either be a warning line or an official positioned to prevent the competitors from going beyond a point where if a competitor's back is to the ring, the competitor could be hit by a shot. This can be done by placing a very visible line that no one should cross while anyone is in the ring or have an official positioned to prevent anyone getting into harm's way. Persons bringing implements back to the competitors who are warming up or in the competition should never have their back to the area from which an implement is being thrown.

We recommend some type of physical barrier, if possible, that prevents athletes from entering the impact area. This minimizes the exposure to risk for everyone involved.

Questions you should ask/answer about dangers within a competition area:

- (1) Prior to any person being admitted to a competition area, was it examined for any discoverable dangers?
- (2) What examination was made?
- (3) Who made it?
- (4) What is the experience of the person who made the examination?
- (5) What precautions were taken to prevent an athlete, spectator, official or someone working the venue from being struck by an implement that might go out of the sector?
- (6) Were these precautions reasonable?

- (7) Was the runway (javelin events) and adjacent surfaces checked for safety?
- (8) Was a written report of the investigation of all competition areas made?
- (9) Who made the report?
- (10) To whom was the report given and when?
- (11) Were all problems identified in the report corrected before access was given to the competition area?

Lighting

If a competition will occur at night, the lights should be checked for not only brightness, but positioning. For example, at a national championship meet the lights were positioned so that the discus was lost in flight, making it hazardous for the officials marking the landing. In fact, two officials were struck in the leg because of losing the discus in the lights.

Controlling the Environment - When Liability Exposure Begins

Liability exposure begins when people who are involved with or are in the competition are admitted to any of the competition areas. If practice sessions are permitted by the organization responsible for the meet, then the same precautions must be taken as if the meet had begun. For example, it is reasonably foreseeable that an implement being thrown during a permitted workout prior to the beginning of a meet is just as dangerous as one thrown during a meet. The same precautions that would be taken during a meet for the throwing of implements should be taken during a permitted practice session.

During a meet, liability exposure begins during a warm-up for the competition. This requires the same protections as required for the competition. It is primarily the responsibility of marshals to protect against injury caused by an implement or interfering with an athlete during a practice or a competition. Adequate numbers of qualified marshals properly positioned are mandatory.

Questions you should ask/answer related to injuries prior to and during a meet are:

- (1) Did you, or someone acting in your behalf, permit athletes into a competition area or know they would be there?

- (2) Is it reasonable that one could expect the athletes would be practicing with implements?
- (3) What efforts did you make to protect the athletes or others you could reasonably foresee would be there from being hit by an implement?
- (4) Did you have sufficient, qualified people to provide for their protection?
- (5) Who were these people?
- (6) What qualifications did each have?
- (7) Where were they positioned when the injury occurred?

It is important that you document everything when an incident occurs. The use of digital photography to accurately depict the venue, the location of persons, and any other features is a good idea. Secure the names of all persons who may have seen the incident, where they were standing and what they witnessed. Make sure that your written report is forwarded to meet management, or, if you are the representative of meet management, that you keep a signed copy available.

Put the Right People in the Right Place – Having Sufficient Personnel

A failure to have a sufficient number of qualified people to protect all involved in the competition from injury will create liability.

Those whose duties involve providing protection in the field of competition are marshals, and those responsible for providing hydration for the athletes and the officials are trainers, or persons specifically assigned this responsibility.

Around the perimeter of the field of competition, those responsible for protection from unauthorized people entering the venue are facility security or local law enforcement. The final group that must be present in adequate numbers has no responsibility for protection of those involved with the competition, but have the responsibility for treating injuries. These are trainers, emergency medical people and physicians.

To avoid liability, there must a reasonable number of all of these various classes of people, considering the inherent dangers attendant to track and field competition. A failure to have sufficient numbers in any one of these areas can result in significant liability.

Questions you should ask/answer on sufficient, properly qualified personnel to conduct a meet safely, and reasonably address injuries requiring treatment:

- (1) What was the length of time the athletes would be permitted in the competition area?
- (2) How many people were needed to reasonably protect those within the competition area from harm?
- (3) How many athletes were expected in the venue?
- (4) What arrangements were made for hydration of those in the competition areas?
- (5) By category, what healthcare providers were there and what were their responsibilities?
- (6) What equipment did you have to address injuries that could reasonably be expected?
- (7) What protection did you have to prevent unauthorized persons from being in the venue or to deal with a breach of the peace?

Personnel within the Field of Competition

The most conspicuous need for marshals is the protection of individuals from flying implements. This means guarding sector lines and any area where a stray implement can reach. In connection with this responsibility, the marshals must work with the media so that the media can do their job with a minimum risk of injury. For example, persons operating cameras will need to be close to sector lines in order to get proper pictures. These photographers should never be permitted along the sector line where implements will normally land.

In positioning persons operating cameras, it must be kept in mind they must be positioned where they have sufficient time to respond to a verbal command to move. For example, it is unwise to let these people within 160 feet of the ring during the discus competition because a normal person cannot move quickly enough to avoid a discus closer in than 160 feet. Yet, during the hammer competition, these people should be closer in than 160 feet because of the way that the hammer comes out even when deflected.

Marshals also need to watch the officials who are working in an implement sector whose responsibility is to mark the landing of the implement. If it becomes apparent that an official, working in this area, for whatever reason demonstrates a lack of judgment or ability to avoid being hit, this should be reported to the coordinator of officials immediately for his investigation.

To assign marshals to an implement area that do not have the experience and the physical ability to discharge their responsibilities can create liability also. Similarly, to assign officials to mark implements that do not have the experience, judgment or physical ability to do the job can also create liability.

Similarly, the marshals have a responsibility for protecting the approach of the javelin throw and especially when it extends out into the running lanes to be sure that the runners as well as the javelin throwers are protected.

Hydration includes more than just water. Water cannot replace electrolytes. Those officials and athletes whose assignments require them to function in weather conditions requiring their bodies to receive water and electrolytes must have these available within, or immediately adjacent to, the competition area.

An injury that results where water and electrolytes are not made reasonably available will create liability. Meet management should regularly have the field of competition inspected to be sure water and electrolytes are continuously available during the competition.

Questions you should ask/answer on sufficiency and qualifications of personnel within the fields of competition:

- (1) How many qualified marshals were selected and were actually present for the competition?
- (2) Were the marshals sufficient in number to cover every event for reasonable safety considering the schedule of events and when athletes could be expected to arrive in a competition area?
- (3) What were the qualifications, physical ability and experience of the marshals?
- (4) Were the marshals properly positioned?

(5) Was a qualified and knowledgeable person assigned to supervise positioning of the marshals?

(6) Was a qualified and knowledgeable person supervising the marshals to be sure they stayed in proper positions throughout the warm-ups and competition?

(7) Did the marshals properly protect those who were in the field of competition or adjacent to the field of competition?

Definitions

Neither the National Throws Coaches Association, MACH2K, nor any session presenter, claim to be a legal authority in the determination of the accurate definition of these terms. This information is presented as an example of one possible interpretation of these terms. The NTCA recommends that any coach, athlete or official consult with their own legal counsel, in their own jurisdiction, for accurate interpretation of these terms.

Reasonable care: the degree of caution and concern for the safety of himself/herself and others an ordinarily prudent and rational person would use in the circumstances. This is a subjective test of determining if a person is negligent, meaning he/she did not exercise reasonable care.

Duty of care: a requirement that a person act toward others and the public with the watchfulness, attention, caution and prudence that a reasonable person in the circumstances would use. If a person's actions do not meet this standard of care, then the acts are considered negligent, and any damages resulting may be claimed in a lawsuit for negligence.

Negligence: failure to exercise the care toward others which a reasonable or prudent person would do in the circumstances or taking action which such a reasonable person would not. Negligence is accidental as distinguished from "intentional torts" or from crimes, but a crime can also constitute negligence, such as reckless driving. Negligence can result in all types of accidents causing physical and/or property damage.

In making a claim for damages based on an allegation of another's negligence, the injured party (plaintiff) must prove: a) that the party alleged to be negligent had a duty to the injured party-specifically to the one injured or to the general public, b) that the defendant's action (or failure to act) was negligent-not what a reasonably prudent person would have done, c) that the damages were caused ("proximately caused") by

the negligence. An added factor in the formula for determining negligence is whether the damages were "reasonably foreseeable" at the time of the alleged carelessness.

If the injury is caused by something owned or controlled by the supposedly negligent party, but how the accident actually occurred is not known, negligence can be found based on the doctrine of *res ipsa loquitur* (Latin for "the thing speaks for itself"). Furthermore, in six states (Alabama, North Carolina, South Carolina, Tennessee, Virginia, Maryland) and the District of Columbia, an injured party will be denied any judgment (payment) if found to have been guilty of even slight "contributory negligence" in the accident. This rule has been replaced by "comparative negligence" in the other 44 states, in which the negligence of the claimant is balanced with the percentage of blame placed on the other party or parties causing the accident. Negligence is one of the greatest sources of litigation in the United States.

What to do in case of an accident





- Send for help
- Get Meet Management involved
- Document what, when and to whom anything happened
- Note any witnesses. Try to get names and phone numbers.
- Note any concerns or potential hazards in writing
 - Document and refer them to meet management
 - Document if they are, or are not, addressed
 - If corrected, document what was done, by whom and when
- Make all documentation in writing
- Be specific – give names, times, locations
- Diagram the venue – who/what was where
- File a report with meet management – keep a signed copy for yourself
- Don't offer any opinions – only provide necessary information
- Stay calm!

We recommend that you speak with your personal attorney or a personal injury attorney for advice on what procedures to follow and what steps/documentation to take in the event of a mishap that leads to personal injury or property damage. Differing jurisdictions have differing rules. Ask beforehand so that you are prepared.

Safety Zones

In an effort to create a common dialog between coaches, athletes and officials, we are recommending the following safety zones for each event venue.

It is our belief that using and honoring these safety zones, and teaching them to our athletes, will lead to safer venues and reduce the chance for injury to athletes, officials and spectators.

For each of the throwing events, we have established recommended safety zones. Each throwing area has 4 zones: green, yellow, light red and red. We look at these as safest () , cautionary () , potential danger () and danger () .

The size of the safety zone will vary, depending on the terrain of your particular throwing venue, the proximity of other events or features, and other game-day factors such as wind. Remember that these zones are **recommendations only**, and that anytime an implement is being throw, rule #1 should always be followed - never turn your back to the circle or runway!

These safety zone maps can be downloaded and printed to distribute to athletes and visiting coaches by visiting the NTCA Safety site (<http://www.mach2k.net/ntca/safety>). A good habit to get into would be to post the map (in color) near each throwing area so that anyone can visually see where the potential danger areas are.

The Shot Put

Description of the zones

Green (safest)

The green area is from the circle bisector (where it delineates the front and back half) toward the rear of the circle. The potential for being struck with the implement in this area is minimal, and is most often off-limits to all but competitors and officials.

Yellow (cautionary)

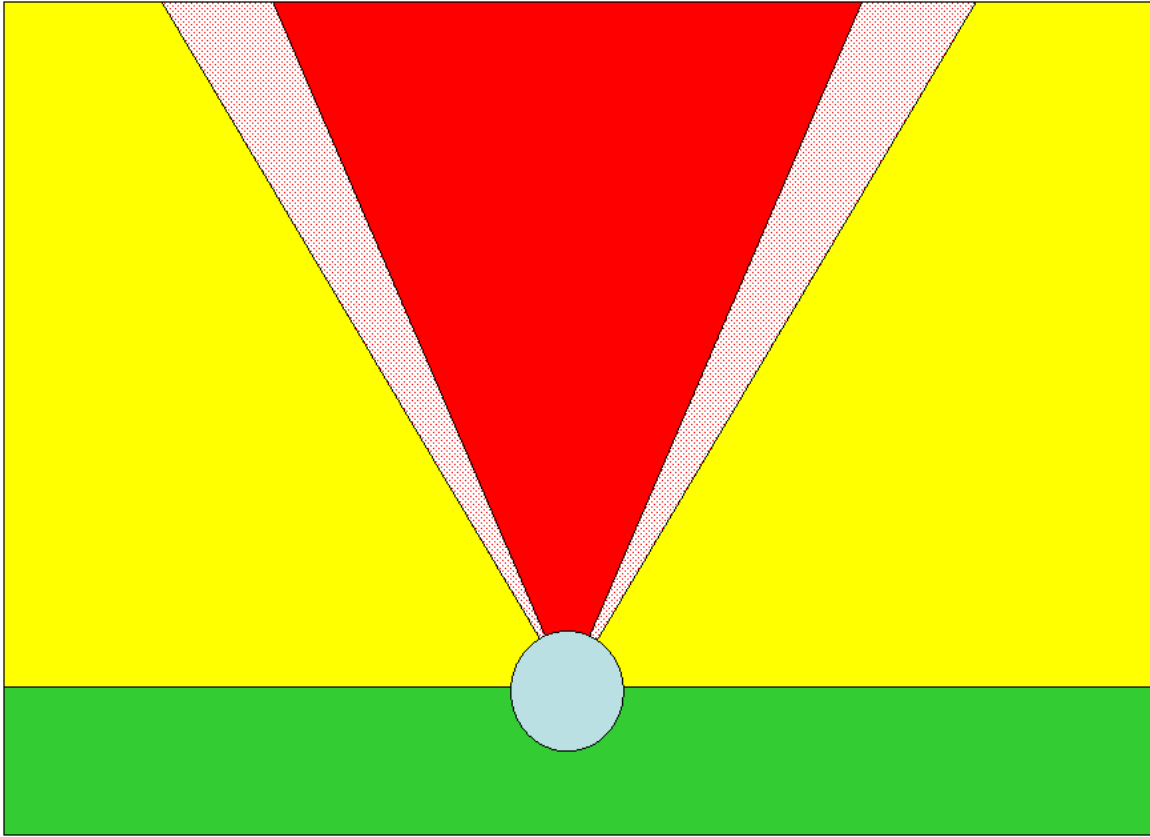
The yellow area begins from the circle bisector toward the front of the sector, including the area outside the sector, extending out in the direction of the landing area on both sides of the sector. There is the chance that a competitor, official or spectator could be struck while in this area. The risk increases nearer to the sector lines, and eventually moves into the potential danger (light red) area. In the cautionary area, care should be taken to ensure that stray throws, especially those from rotational throwers, do not take anyone unawares.

Light red (potential danger)

The light red zone begins at the toe board, and increases in width as it extends into the landing area. As the sector widens, the width of the light red zone widens as well. As you near the sector line, the potential for someone to be hit increases dramatically in this zone. Caution should be exercised in this zone, and only officials should be in this zone at any time. Do not allow athletes to come into the light red zone at any time to retrieve implements. Either have an official or adult worker return the implements to a designated location, or develop and use some type of implement return device.

Red (danger)

This is the area inside the sector. We usually assume that the throw will land inside the sector, as the majority of throws do. This creates the greatest hazard area - not just from flying implements, but also from those that are rolling along the ground or that may bounce or ricochet after hitting a divot in the landing area. Meet management should take care to push in divots in the landing area as best as possible, and fill in those that cannot be pushed in, especially if the landing area is grass covered.



The Discus

Description of the zones

Green (safest)

Since the discus does not attain the same release velocity as the hammer, the green zone can be thought of as the area from about 5 meters away from the cage, in the area behind the mouth or opening of the cage. In most cases the green zone will include the area around the far side of the cage (depending on the local layout and where it is best for competitors to enter the cage) and extending away from the cage opening.

Yellow (cautionary)

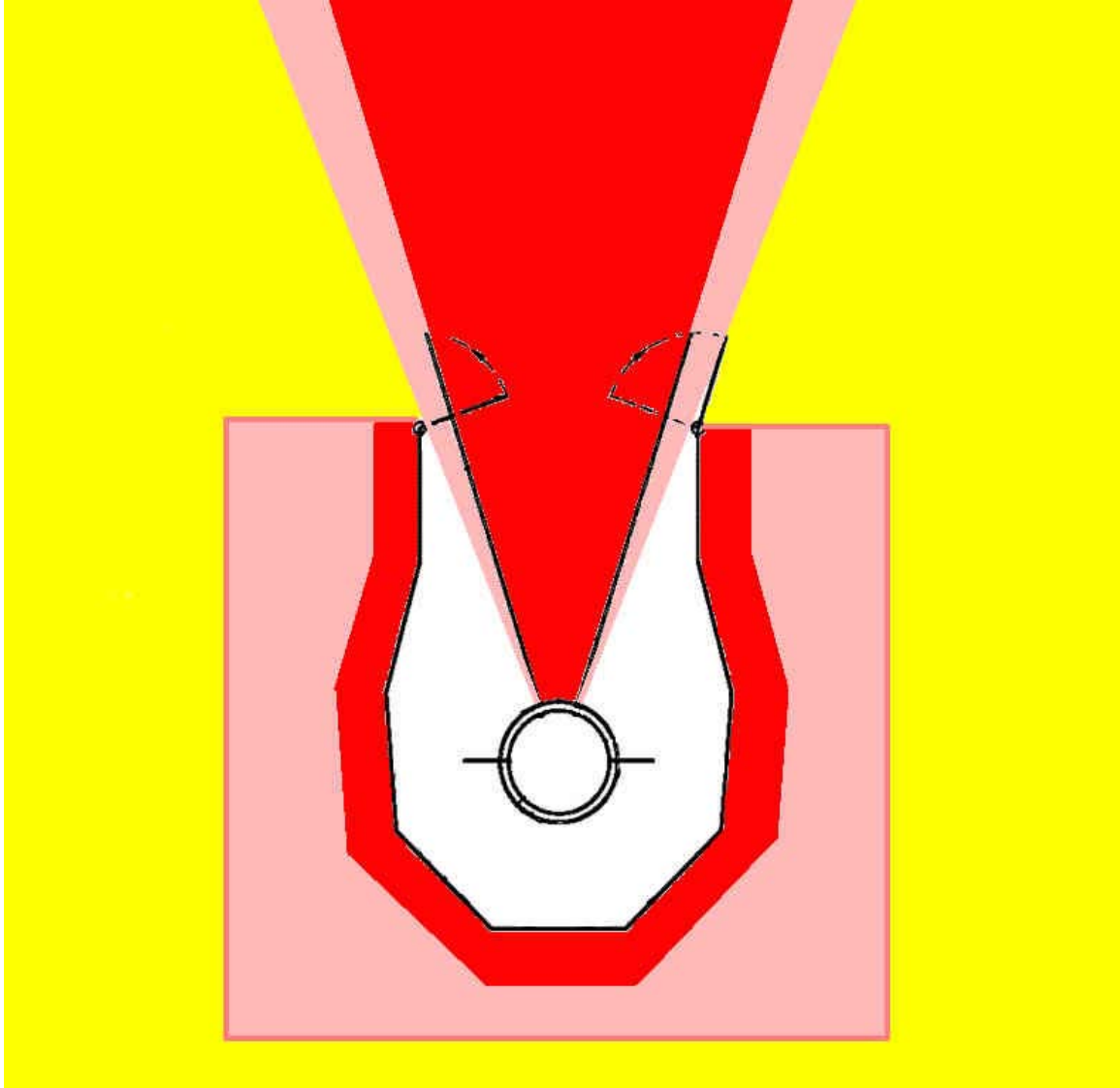
The cautionary area is the general region within the 5 meter perimeter described above. As you move closer to the cage itself, you enter into the potential danger zone. In addition, any area outside the mouth of the cage that is not part of the light red or red zones should be considered to fall in the cautionary zone.

Light red (potential danger)

This is the area within 1 meter of the cage, and the area just outside the sector. The area outside the sector will widen as the sector widens. This includes all areas outside the mouth of the cage, in the direction of the throw. Remember that wind can have a severe effect on discus flight. Precautions need to be made to ensure safety in the light red zone if the winds dictate.

Red (danger)

The area inside the sector is always a danger area in the discus. If the cage is strung too tightly, or is made of wire fencing, the discus can ricochet back at the competitor and potentially cause injury. As with the hammer, care should be taken that the implement does not bounce upon landing. In addition, the implement may "skip" or skid on contact with the landing area. Officials and those in the impact area should take care to monitor the conditions and see how the implements react to the surface.



The Javelin

Description of the zones

Green (safest)

The green area is from the toe board, back towards the beginning of the runway. The javelin provides perhaps the largest green zone since the potential for injury is confined to the area where the javelin may land.

Yellow (cautionary)

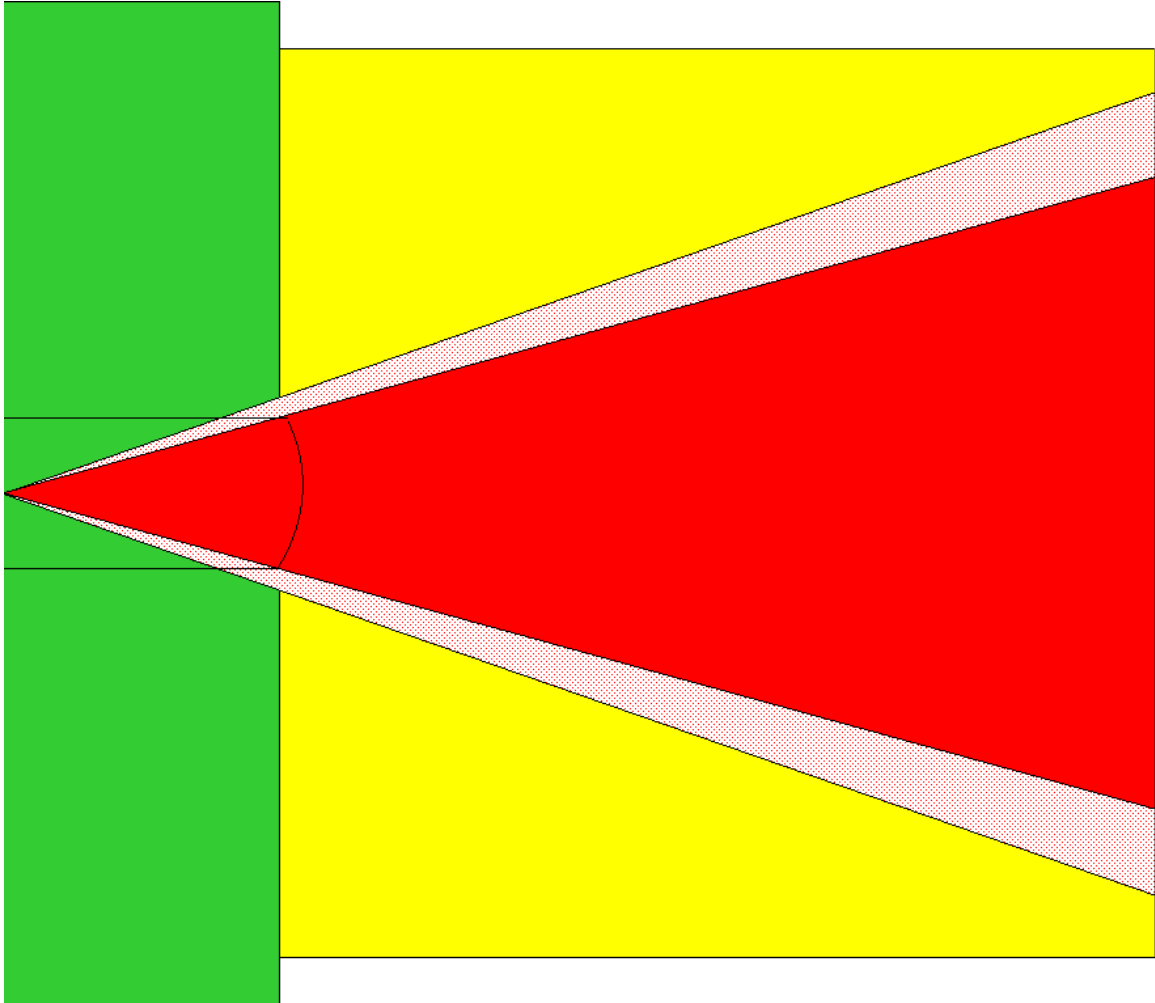
The yellow zone is the area extending from a line drawn through the ends of the toe board in the direction of the impact area. Since the flight of the implement may be altered by wind conditions after it has been released by the competitor, any potential landing area beyond the toe board should be considered cautionary.

Light red (potential danger)

Similar to the other events, the light red/potential danger zone is from the toe board in the direction of the impact area on either side of the sector. It widens as the sector widens. Wind can have a severe effect on the path of the javelin, and should always be considered for every throw.

Red (danger)

Generally, we consider any area in the impact area to be part of the danger zone. The important thing to remember with the javelin is that wind can change the path of the implement after it is thrown much more than the other implements. For this reason, officials in the impact area should judge the wind for each throw, and adjust accordingly.



The Hammer/Weight

Description of the zones

Green (safest)

There really is no green zone in the hammer. Due to the dynamic nature of the event, and the potential for the hammer wire to break, or the competitor to lose his/her grip, the entire area around the hammer cage is cautionary at best.

Yellow (cautionary)

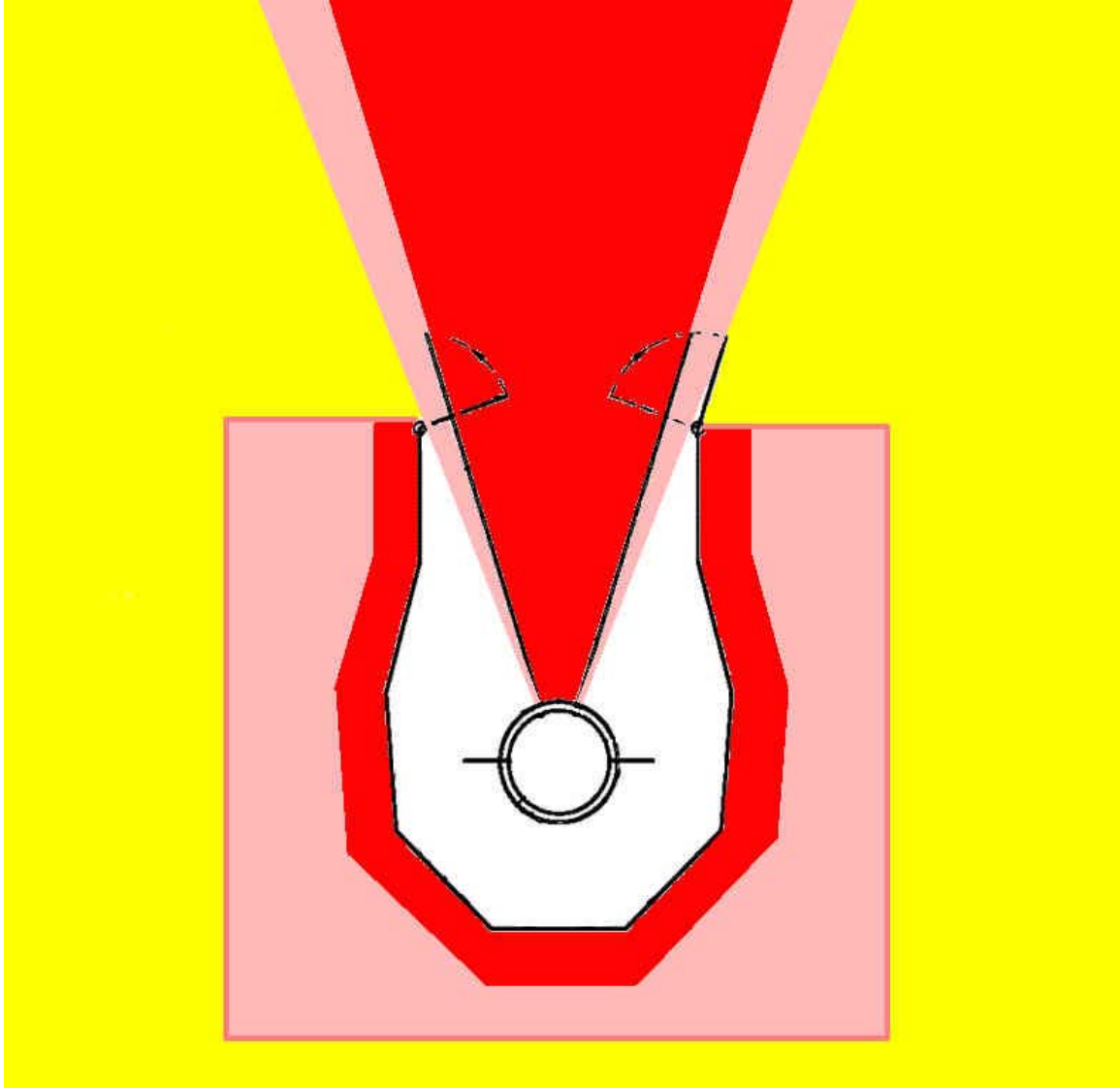
The entire area from the doors back through the circle that is outside the protective cage is considered cautionary. Even though the cage is there, there is no guarantee that the material of the cage can stop the hammer. In reality, the purpose of the cage is to dissipate the energy of the implement, slowing it down to the point where it will stop. We feel that the cautionary area should be expanded if the cage is old, or is constructed of metal fencing. Mesh cord, preferably 2 layers, is best for retarding the momentum of the implement.

Light red (potential danger)

Any area within 5 meters of the cage, and the interior of the cage area, are considered potentially dangerous. If the implement breaks, the head of the hammer can skid under the netting. The wire could penetrate through a hole in the netting. The hammer head could burst through the netting. For the competitor in the circle, if the netting is strung too tightly, the hammer could bounce back at them, creating a potential for serious injury. Remember that not only the head of the hammer, but the wire and handle are also potentially dangerous.

Red (danger)

Any part of the potential landing area that is outside or not blocked by the doors, should be considered the danger area. The hammer head, wire and handle are all potentially dangerous, and potentially lethal. It is important to remember that the wire, as it is spinning about the center of mass of the hammer, can cut through bone and flesh very easily, and should be avoided when in the landing area. On some landing surfaces (such as artificial ones or very hard ground) the hammer may bounce after hitting the ground. Officials and spectators should be aware of the potential for the implement to ricochet if it strikes a hard surface, or if it should strike a rock just below the surface of the ground.



Safety Checklists By Event

We recommend and encourage you to duplicate these checklists and distribute them to your event workers and officials. They may not be aware of what safety considerations need to be taken to ensure the safety of everyone involved.

When combined with the safety zone maps as a program of educating your athletes, officials and event workers, these checklists will aid in the smooth, safe and efficient operation of your throwing events.

The Shot Put

Inspection routine

1. Inspect the surface of the ring for any protrusions or indentations. These can cause the athlete to lose their balance and potentially fall, causing injury
2. Make sure that the ring is swept and free of any grass, dirt or other material that may affect the traction of the competitors' shoes
3. Make sure that the yellow area is flagged off or otherwise partitioned so that non-competitors cannot wander into it
4. Make sure that the landing area will not create unusual bounces or ricochets.
 - o see the note on divots below
 - o don't allow anything foreign in the sector that may cause a bounce (i.e. markers)
 - o large stones can be a problem as well, especially with the smaller shots (4K and under)
5. Divots should be filled in so that officials or workers will not twist an ankle, or trip and fall.

Practice Considerations

- Consider having a meeting with parents of athletes (and the athletes) to explain your safety procedures and why throwing safety is important
- Practice/warm-up with implements does not begin until the coach is present
- Depending on the number of throwers and the number of implements, consider using "salvo throwing"
 - o Assume that you have 5 implements and 10 throwers. Have the 1st 5 throwers each take a throw, then have the second five throwers retrieve them and take their throws.
 - o No one enters the red zone until all of the implements have been thrown.
 - o Never allow athletes to throw anywhere other than into the landing sector.
- When practice is over, all implements should be put away.
- Have a set time for practice.
- Never allow unsupervised practice. You may be liable for negligence if you allow the athlete to practice outside of direct supervision.
 - o check with your school solicitor for more information
 - o consider private liability insurance
 - o organize a "throwing club" with USATF membership to provide an additional level of indemnity

- understand how your state views the terms "negligence" and "reasonable care"

Competition Considerations

Coaches:

- Identify the head official so that if problems arise, you know who to address
- If you see a potentially hazardous situation, bring it to the attention of the head official IMMEDIATELY.
 - This is also true if a situation becomes hazardous during the course of competition.
- Don't assume that the head official sees the potential hazard and has corrected it.
- If the situation is not corrected, and you feel that there is potential for injury to your athlete or another athlete, seek out the head field judge and point out the hazard, and the fact that you have asked the chief judge to address it.
- If not satisfied, make the tough call - do you want your athlete to continue with the potential for harm?
- Document the hazard through a formal protest.
 - documentation is key should there be any situation that would arise

Officials:

- When the circle is closed, place a cone in the center to indicate that the circle is not available for warm-up or practice
- Don't allow unsafe footing conditions to occur. Keep the circle clean and free of debris.

If you need to sweep or clear it, do so at the end of a round, or at the request of a competitor.
- If at all possible, ask meet management to do any mowing around the circle at least 2 days in advance of the competition, and to clear any grass clippings from the circle.
- Do not allow warm-up throwing in any other area, unless that area is supervised by another official, coach or adult. Never allow athletes to warm-up in or near the impact area.
- When possible, ask meet management to erect barriers or other physical obstructions to the impact area. This will go far in preventing others from straying into it.
- Refer to the inspection routine guidelines above.

Supplies

- broom and or squeegee
 - circles can get wet and slippery
- towels
 - not only for the shoes, but also for the implements
- leaf blower
 - effective, fast and efficient way to keep a circle or runway clear of water, leaves, grass clippings, etc.
- steel rake
 - if the impact area is dirt, gravel or some other material than grass, keeping it level will help to alleviate stray bounces of shots that hit other divots. Also, it can save the ankle of an official if the landing area is kept smooth and flat as much as possible.

The Discus

Inspection routine

1. Inspect the surface of the ring for any protrusions or indentations. These can cause the athlete to lose their balance and potentially fall, causing injury
2. Make sure that the ring is swept and free of any grass, dirt or other material that may affect the traction of the competitors' shoes
3. Make sure that the yellow area is flagged off or otherwise partitioned so that non-competitors cannot wander into it
4. Make sure that the landing area will not create unusual bounces or ricochets.
 - don't allow anything foreign in the sector that may cause a bounce (i.e. markers)
 - large stones can be a problem as well
 - make officials, workers and others aware of wet grass that will cause the discus to skid
5. Inspect the cage and netting at least once per week, and as needed if the implement comes in contact with the cage or its supports
 - The cage should be sufficiently slack so that the implement will not bounce back toward the athlete in the circle
 - The red zone should be expanded to reflect this slackness. Use this procedure to determine the red zone around the cage:
 1. Pull on the netting (with a good amount of force) to see how far it is displaced toward the outside of the cage.
 2. Add an additional 3 feet to that point and mark the ground with a red line or stripe. This is a clear indicator to everyone that this is a potential danger area

Practice Considerations

- Consider having a meeting with parents of athletes (and the athletes) to explain your safety procedures and why throwing safety is important
- Use pennants or other visual devices to indicate where the light red zone is
 - As much as possible, keep ALL athletes out of the light red zone
- Practice/warm-up with implements does not begin until the coach is present
- Remember: the cage is there to dissipate the energy of the implement, not necessarily stop it. Athletes should stay back from the cage, outside the red zone (see the information in #5 above.)
- Inspect any implement that has come in contact with any hard surface (ring, cage support, etc.) for damage

- Depending on the number of throwers and the number of implements, consider using "salvo throwing"
 - Assume that you have 5 implements and 10 throwers. Have the 1st 5 throwers each take a throw, then have the second five throwers retrieve them and takes their throws.
 - No one enters the red zone until all of the implements have been thrown.
 - Never allow athletes to throw anywhere other than into the landing sector.
- When practice is over, all implements should be put away.
- Have a set time for practice.
- Never allow unsupervised practice. You may be liable for negligence if you allow the athlete to practice outside of direct supervision.
 - check with your school solicitor for more information
 - consider private liability insurance
 - organize a "throwing club" with USATF membership to provide an additional level of indemnity
 - understand how your state views the terms "negligence" and "reasonable care"

Competition Considerations

Coaches:

- Identify the head official so that if problems arise, you know who to address
- If you see a potentially hazardous situation, bring it to the attention of the head official IMMEDIATELY.
 - This is also true if a situation becomes hazardous during the course of competition.
- Don't assume that the head official sees the potential hazard and has corrected it.
- If the situation is not corrected, and you feel that there is potential for injury to your athlete or another athlete, seek out the head field judge and point out the hazard, and the fact that you have asked the chief judge to address it.
- If not satisfied, make the tough call - do you want your athlete to continue with the potential for harm?
- Document the hazard through a formal protest.
 - Documentation is key should there be any situation that would arise

Officials:

- When the circle is closed from further warm-ups, place a cone in the center of the circle.
This provides a strong visual reminder for the athlete that the circle is closed.
- When the competition is completed, if possible, close the cage doors and secure them, if this is the conclusion of throwing from that facility for the day.
- Be conscious of, and observe, wind conditions.
Remember: winds aloft can be different from winds at ground level.
- Carry all implements back to the designated return area - never throw them back.
- If at all possible, ask meet management to do any mowing around the circle at least 2 days in advance of the competition, and to clear any grass clippings from the circle.
- Do not allow athletes or coaches into the impact area during warm-ups or competition.
- Refer to the inspection routine guidelines above.

Supplies

- broom and or squeegee
 - circles can get wet and slippery
- towels
 - not only for the shoes, but also for the implements
- leaf blower
 - effective, fast and efficient way to keep a circle or runway clear of water, leaves, grass clippings, etc.

The Javelin

Inspection routine

1. Inspect the surface of the runway for any protrusions or indentations. These can cause the athlete to lose their balance and potentially fall, causing injury
2. Make sure that the runway is swept and free of any grass, dirt or other material that may affect the traction of the competitors' shoes (all-weather surfaces)
 - on grass surfaces, be sure that the grass is not wet, nor that the surface is muddy
 - move the approach and arc if the surface is not adequate
3. Make sure that the red area is flagged off or otherwise partitioned so that non-competitors cannot wander into it
4. Make sure that the landing area will not create unusual bounces or ricochets.
 - don't allow anything foreign in the sector that may cause a bounce (i.e. markers)
 - large stones can be a problem as well
 - make officials, workers and others aware of wet grass that will cause the javelin to skid
5. Inspect the implement
 - check for a worn or frayed grip
 - look for cracks or breaks in the body that may cause the javelin to break
 - make sure that the metal head is securely fastened to the javelin

General Considerations

- Implements should be carried back from the impact area, never thrown back
- Javelins should always be carried in a container, or when out of the container carried with the point down so that the implement is perpendicular to the ground

Practice Considerations

- Consider having a meeting with parents of athletes (and the athletes) to explain your safety procedures and why throwing safety is important
- Use pennants or other visual devices to indicate where the light red zone is
 - as much as possible, keep ALL athletes out of the light red zone
- Practice/warm-up with implements does not begin until the coach is present
- Wind will greatly influence the flight of the javelin. Check wind conditions before throwing

- Inspect any implement that has come in contact with any hard surface (runway, stone, etc.) for damage
- Depending on the number of throwers and the number of implements, consider using "salvo throwing"
 - Assume that you have 5 implements and 10 throwers. Have the 1st 5 throwers each take a throw, then have the second five throwers retrieve them and takes their throws.
 - No one enters the red zone until all of the implements have been thrown.
 - Never allow athletes to throw anywhere other than into the landing sector.
- When practice is over, all implements should be put away.
- Have a set time for practice.
- Never allow unsupervised practice. You may be liable for negligence if you allow the athlete to practice outside of direct supervision.
 - check with your school solicitor for more information
 - consider private liability insurance
 - organize a "throwing club" with USATF membership to provide an additional level of indemnity
 - understand how your state views the terms "negligence" and "reasonable care"

Competition Considerations

Coaches:

- Identify the head official so that if problems arise, you know who to address
- If you see a potentially hazardous situation, bring it to the attention of the head official IMMEDIATELY.
 - This is also true if a situation becomes hazardous during the course of competition.
- Don't assume that the head official sees the potential hazard and has corrected it.
- If the situation is not corrected, and you feel that there is potential for injury to your athlete or another athlete, seek out the head field judge and point out the hazard, and the fact that you have asked the chief judge to address it.
- If not satisfied, make the tough call - do you want your athlete to continue with the potential for harm?
- Document the hazard through a formal protest.
 - documentation is key should there be any situation that would arise

Officials:

- When the runway is closed from further warm-ups, place a cone in the center of the runway near the toeboard.
This provides a strong visual reminder for the athlete that the runway is closed.
- After each throw, whether using tape or electronic measurement, stand in the middle of the runway to obstruct the next competitor from attempting to throw until the officials in the impact area are ready to proceed.
- Be conscious of, and observe, wind conditions.
Remember: winds aloft can be different from winds at ground level.
- Carry all implements back to the designated return area - never throw them back.
- If at all possible, ask meet management to do any mowing around the runway at least 2 days in advance of the competition, and to clear any grass clippings from the runway.
- Do not allow athletes or coaches into the impact area during warm-ups or competition.
- When athletes want to perform the "pick warm-up" (short throws of 5-10m), use the following procedure:
 - Line up the interested athletes parallel to the foul line.
 - Work up one side of the sector doing the picks as a group.
 - No one advances to get their javelin until all are ready to advance - keep the group together!
 - Word across the wide part of the sector.
 - Work back the other side of the sector to the foul line.
 - Cross the runway and repeat if needed.
 - **Remember:** the group always stays together under an officials supervision.
- Refer to the inspection routine guidelines above.

Supplies

- broom and or squeegee
 - circles can get wet and slippery
- towels
 - not only for the shoes, but also for the implements
- leaf blower
 - effective, fast and efficient way to keep a circle or runway clear of water, leaves, grass clippings, etc.

The Hammer/Weight

Inspection routine

1. Inspect the surface of the ring for any protrusions or indentations. These can cause the athlete to lose their balance and potentially fall, causing injury
 - never throw the hammer or weight from a shot circle when the toe board is still in place
2. Make sure that the ring is swept and free of any grass, dirt or other material that may affect the traction of the competitors' shoes
3. Make sure that the red area is flagged off or otherwise partitioned so that non-competitors cannot wander into it
4. Make sure that the landing area will not create unusual bounces or ricochets.
 - don't allow anything foreign in the sector that may cause a bounce (i.e. markers)
 - large stones can be a problem as well, especially with the smaller hammers (5K and under)
 - make officials, workers and others aware of wet grass that will cause the hammer to skid
 - very hard ground can cause the hammer to bounce
5. Inspect the cage and netting at least once per week, and as needed if the implement comes in contact with the cage or its supports
 - Net cages are preferable to "cyclone fence" cages, since the netting will absorb much of the energy of the implement.
 - In the hammer, a double layer net cage, with the layers at least 2 feet apart, allows for greater energy dissipation.
 - Make sure that the doors work properly and can be moved.
 - Make sure that any gaps between the cage and the doors are covered with netting.
6. Consider replacing the netting as per the manufacturers recommendation
 - netting on outdoor cages will deteriorate more quickly than on indoor cages
7. Inspect the implement
 - Weight:
 - inspect the harness for frayed or torn straps
 - remember: repairs may only be made with manufacturer supplied parts
 - replace or repair torn straps BEFORE the next practice session or competition with that implement

- duct tape, athletic tape, electrical tape - are not manufacturer supplied parts
- Both: inspect the handles for cracks or burrs
- Hammer:
 - tape the ends of the wires so that they will not catch on netting or clothing
 - look for nicks or kinks in the wire that may cause it to fail. Replace if necessary

Practice Considerations

- Consider having a meeting with parents of athletes (and the athletes) to explain your safety procedures and why throwing safety is important
- Use pennants or other visual devices to indicate where the light red zone is
 - As much as possible, keep ALL athletes out of the light red zone
- Remember: the netting is used to retard the momentum of the ball - NOT stop it!
 - The hammer head can still penetrate the netting
 - The broken hammer wire can penetrate a hole in the netting
 - The cage should be sufficiently slack so that the implement will not bounce back toward the athlete in the circle
 - The red zone should be expanded to reflect this slackness. Use this procedure to determine the red zone around the cage:
 1. Pull on the netting (with a good amount of force) to see how far it is displaced toward the outside of the cage.
 2. Add an additional 3 feet to that point and mark the ground with a red line or stripe. This is a clear indicator to everyone that this is a potential danger area
- Practice/warm-up with implements does not begin until the coach is present
- Inspect any implement that has come in contact with any hard surface (ring, cage support, etc.) for damage
- Depending on the number of throwers and the number of implements, consider using "salvo throwing"
 - Assume that you have 5 implements and 10 throwers. Have the 1st 5 throwers each take a throw, then have the second five throwers retrieve them and takes their throws.
 - No one enters the red zone until all of the implements have been thrown.
 - Never allow athletes to throw anywhere other than into the landing sector.
- When practice is over, all implements should be put away.
- Have a set time for practice.

- Never allow unsupervised practice. You may be liable for negligence if you allow the athlete to practice outside of direct supervision.
 - check with your school solicitor for more information
 - consider private liability insurance
 - organize a "throwing club" with USATF membership to provide an additional level of indemnity
 - understand how your state views the terms "negligence" and "reasonable care"

Competition Considerations

Coaches:

- Identify the head official so that if problems arise, you know who to address
- Don't advocate or allow an athlete to warm-up in an unapproved area.
 - even taking "dry turns" with the implement can lead to danger - a slip, a loose wire, someone not paying attention, etc.
- If you see a potentially hazardous situation, bring it to the attention of the head official IMMEDIATELY.
 - This is also true if a situation becomes hazardous during the course of competition.
- Don't assume that the head official sees the potential hazard and has corrected it.
- If the situation is not corrected, and you feel that there is potential for injury to your athlete or another athlete, seek out the head field judge and point out the hazard, and the fact that you have asked the chief judge to address it.
- If not satisfied, make the tough call - do you want your athlete to continue with the potential for harm?
- Document the hazard through a formal protest.
 - documentation is key should there be any situation that would arise

Officials:

- When the circle is closed from further warm-ups, place a cone in the center of the circle.
This provides a strong visual reminder for the athlete that the circle is closed.
- During warm-ups, have an official at the cage door to regulate the entry of athletes.
 - Be observant and conscious of officials in the impact area, and give them enough time to retrieve the implement and remove it from the impact area.

- When the competition is completed, if possible, close the cage doors and secure them, if this is the conclusion of throwing from that facility for the day.
- Carry all implements back to the designated return area - never throw them back.
- If at all possible, ask meet management to do any mowing around the circle at least 2 days in advance of the competition, and to clear any grass clippings from the circle.
- Do not allow athletes or coaches into the impact area during warm-ups or competition.
- Refer to the inspection routine guidelines above.

Supplies

- broom and or squeegee
 - circles can get wet and slippery
- towels
 - not only for the shoes, but also for the implements
- leaf blower
 - effective, fast and efficient way to keep a circle or runway clear of water, leaves, grass clippings, etc.
- extra hammer wires
- tape for securing hammer wire ends
- gloves for protection of the hands

Throws Safety Case Studies

Case #1

Scenario

At a high school dual meet, the pole vault events had been completed. The boy's discus was warming up in the discus ring, located on the infield of the track. (See the map for case #1).

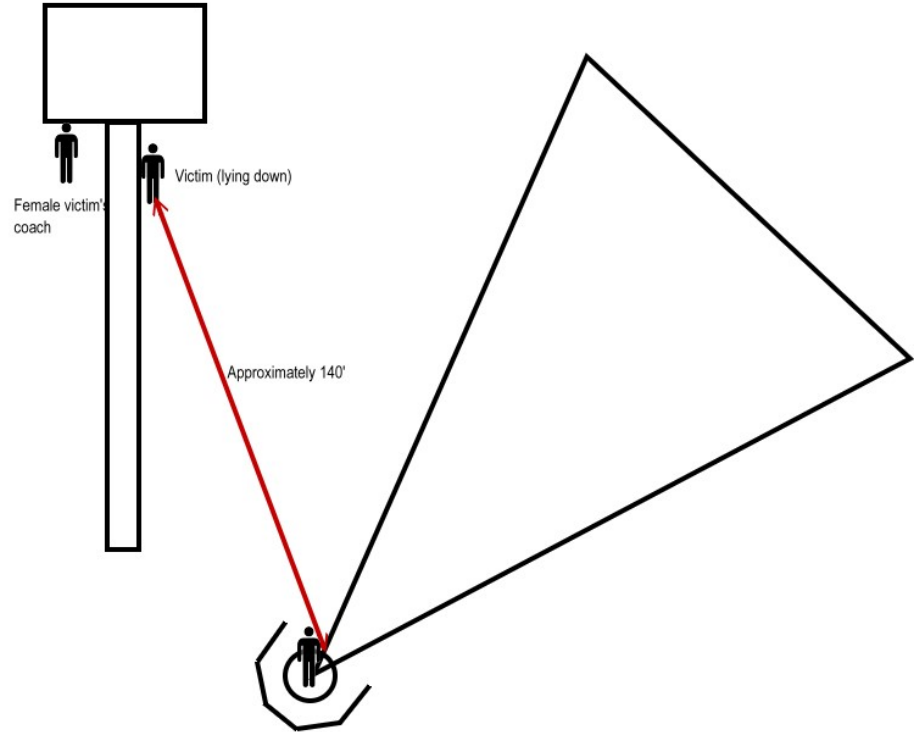
A female pole vaulter was lying down near the landing pit for the pole vault, along the left-hand sector line. During the warm-up period, a discus was caught in the wind, turned, and landed near the girl, skipping and striking her. She suffered from head injuries from the metal rim of the discus. Her Coach was in the area of the PV, but there was no other coach or official at the discus during warm-ups. The area had not been clearly marked with banners, pennants or any other type of marking to indicate the impact area.

Questions and discussion

Based on what we know of this case, and based on the information provided in this throws training, please consider and answer the following questions. Feel free to discuss your answers with other officials.

- What if any responsibility did the coach of the female pole vaulter have in preventing this accident? What steps should he have taken?
- What if any responsibility did the home meet management have in preventing this accident? What additional measures should have been taken? Why?
- What if any responsibility did the male throwing the discus have? How could/should he have approached the warm-up period?
- If you had been an official on the scene in the aftermath of this accident, what steps could/should you take? Try to think of all the possible steps and their ramifications.
- As an official, what would you change? Think of the physical layout of the event, the proximity it has to other venues, crowd control, regulating warm-up periods, etc.

Case study #1 - Approximate layout (not to scale)



Case #2

Scenario

At a high school dual meet, a parent of a competitor in the just completed discus competition was preparing to leave the area. A male discus thrower was in the ring preparing to warm-up for competition. His errant throw struck the woman while she was in an area that was outside the sector (see the map for case #2). The woman suffered injuries to her arm. The area where the woman was sitting was not near the impact area, but was reachable, especially by an errant throw. The fence of the softball outfield was to the woman's back, and was less than 110' in a straight line from the front of the circle.

The facility had a cage, but the front ends of the cage extended only about 5 feet from the front of the circle. The cage had worn netting that showed holes, and has not pulled to the top of its supports.

The throwing area was only accessible through a narrow passage between two fence lines – one for the outer perimeter of the tack, the other for the softball outfield. The only point of ingress/egress was through or along the discus impact area.

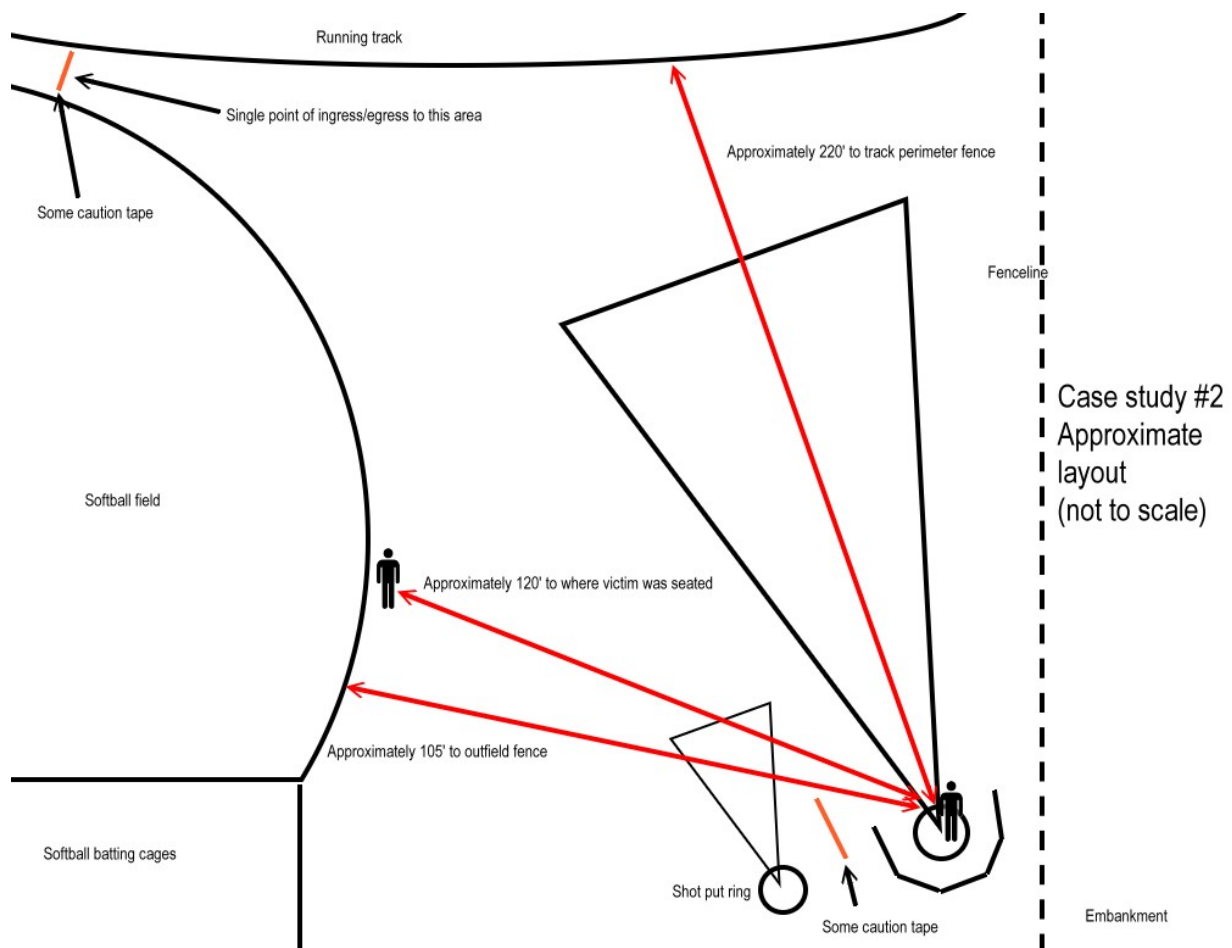
There were no officials present at the time of the warm-ups. There was no crowd control or clear marking of the impact area, nor impediments to keep spectators from wandering into the impact area.

Questions and discussion

Based on what we know of this case, and based on the information provided in this throws training, please consider and answer the following questions. Feel free to discuss your answers with other officials.

- What if any responsibility did the spectator have in preventing this accident? What steps could/should they have taken to mitigate their own risk?
- What if any responsibility did meet management have in preventing this accident? What steps should/could they have taken prior to the event to mitigate or prevent this accident from happening?
- What if any changes to the facility should meet management have made?
- What if any responsibility did the male athlete who threw the discus have in preventing this accident? What steps should/could he have taken?

- Thinking of the male athlete's coach, what could the coach have done prior to competition to mitigate or prevent this or any similar accident from happening?
- As an official, what steps could you have taken to mitigate or prevent this accident? What responsibility if any would you have in a situation like this?
- If you had been an official on the scene in the aftermath of this accident, what steps could/should you take? Try to think of all the possible steps and their ramifications.
- As an official, what would you change? Think of the physical layout of the event, the proximity it has to other venues, crowd control, regulating warm-up periods, etc.



Reviews of the cases

Case #1

Any time that we have the discus contested on the infield of the track (usually the football field in most high schools) we will have an issue with another event venue. In this case, the pole vault venue is along the left hand side of the sector, with the landing pit furthest away from the discus ring.

We don't know if there is adequate room at the other end of the stadium, or on adjacent field, for either the pole vault or the discus. If there were, then one of these event venues (preferably the discus if possible) should have been moved. Putting any event venue in such close proximity to the discus throw area could be seen as an invitation to potential hazard.

Along the left side of the sector, event management did not have any barriers, banners, pennants or other markings to inhibit or prevent anyone from wandering into the discus impact area. They should have. By conspicuously marking that there is a potentially dangerous area, they are making those who may otherwise be unaware, conscious of the impact area. If meet management had created a 55 or 60 degree safety zone, they could have minimized the potential of someone being inside this area.

As noted in the scenario, the pole vault event was over. Event management should have cleared the area around the pole vault of all athletes, coaches and spectators, prior to the beginning of the discus warm-up. By failing to do so, they may not have demonstrated a degree of reasonable care in looking out for the best interests of the victim.

The victim bears some responsibility here as well. First, since her event was completed, she should have left the competition area. Even though her coach was in proximity to her, neither of them should have been in the area. Second, she should not have been lying down on the ground. She would have had little, if any chance to react quickly enough to get up, move or otherwise evade an errant throw.

Her coach bears some responsibility for allowing her to be in the area, and for allowing her to be lying down. He did not show reasonable care for her safety as he should have, especially when he was her coach.

The athlete who threw the discus bears some responsibility as well. He should have looked for potential hazards, seen the girl in an unsafe area, and drawn that to the attention of a coach or official. He also should have been aware of the wind, and the potential that his throw could land outside the sector.

There was no official or coach of the discus throwers team present, so the athlete bears further responsibility for warming up without a coach or official present.

While arguments can be made that there is shared responsibility here, the majority of the culpability lies with the female pole vaulter and meet management. While the athlete in the discus should not have been warming up without supervision, the female pole vaulter placed herself in a potential dangerous situation. Meet management made no attempt (from the information taken in depositions) to clearly mark the impact area, nor did they use a marshal of any kind to remove the athlete and her coach from the pole vault area. Further, meet management did not have a specific official assigned to that event at the time warm-ups began. Meet management should have stopped any warm-up procedures until such time as an official or another adult (preferably a coach) was at the venue.

At a secondary level, the female's coach must take some responsibility, since he should not have allowed the athlete to lie down in a potentially dangerous area, and since he did not remove himself and the athlete from the area at the conclusion of the pole vault event.

Had you been an official at this event, you should have taken pictures or sketched the location of everyone who was a witness to the accident. Using the event tape measure or some other device, measure the distance from the circle to where it impacted the pole vaulter.

Next, you could have collected names, addresses and phone numbers for any witnesses to the accident. Combining this information, along with your description of what you saw, you should file a report with meet management. Make note of any extraordinary circumstances, such as gusting wind, lack of barriers/markers, etc.

How could you have mitigated this accident had you been the official on scene? First, no warm-up period should have started until you were there. If you saw the athletes beginning to warm-up, you should stop it immediately. The victim and her coach would have been removed from their location prior to any throws being taken. If there were no barriers or markers to clearly designate the impact area, you should question meet management and ask that they use them, prior to the beginning of the

warm-up period. If they do not have any, or if they choose not to use them, you should make note of this and file the report with meet management, keeping a signed, dated copy for yourself.

Case #2

This case is a bit more complex. We are presented with facilities issues and limitations, meet management issues, athlete issues and spectator issues.

When we look at the facility, there is a single point of ingress/egress to the discus area. It is located outside the track perimeter fence, behind a softball field fence. The shot put venue is close by as well. A chain link fence and steep embankment border the right side of the sector. There is very little open space, except along the softball outfield fence. The passageway into the venue does not have a gate of any kind. It is barricaded by caution tape that is easily avoided or taken down. Any spectators must walk along the softball outfield fence, within 10 feet of the left boundary line of the discus sector. This is the only workable venue for the discus at this location. In fact, the discus circle had been moved back to afford more room for long throws. However, the approximate distance from the front of the discus ring to the outfield fence is only 104'.

Meet management failed to create a secure, locking gate at the point of ingress/egress. The use of caution tape is not a sufficient deterrent to keep individuals from entering into the area. As was noted in one of the depositions, the caution tape was in place to prevent people from entering the area so that they wouldn't get hit BY SOFTBALLS!

Meet management should have had a marshal either at this point (where the caution tape was), or along the fence to control pedestrian traffic along the fence. A better solution would have been to create a different entrance to the area that did not put spectators, athletes, coaches or officials in a potentially dangerous area.

The cage for the discus barely met the minimum specification outlined by the National Federation. While it did meet the minimum specification, meet management should have been more cognizant of the venue and extended and raised the height of the cage along the left side.

The shot circle was to the left of the discus cage, but well within the potential danger zone of the shot put. Spectators were seated along the outfield fence, same as close as 110' to the circle. Meet management should have created another seating/viewing venue for spectators that was not inside the safety zone for either event, even if it meant changing the venue configuration slightly.

The athlete who threw the discus also bears responsibility for this accident. The athlete admitted in his deposition that he did not look to see if anyone was in or near the impact area, nor was that his concern. The athlete should have taken notice of the potential that persons may be in potential danger and pointed this out to an official. By not doing so, he could be considered to have not shown reasonable care for those watching the event.

The victim should have been more aware of her surroundings and the fact that other athletes were beginning to warm-up. While the victim would have no expectation of knowing the potential dangers of being hit by an implement, or that a stray throw could have endangered her, she should have been more observant of the venue and what was happening around her.

Facilities Planning for Throws Safety

One of the most asked questions is how to plan for a safe, accessible throwing venue. In this section, we will make some recommendations, and present some considerations when constructing or reviewing your throws area.

Considerations for venue planning and layout

When you are planning a venue, you should take into consideration the layout of the throwing areas and their proximity to other parts of the venue. For example, will the discus or javelin areas be inside the track? Will other events border or be near the sector lines?

Throwing venues should be clearly marked with pennants, flags, or other physical barriers that make the area obvious. Of particular concern is the impact area.

Other competitors, who may be warming up for other events, may wander into the impact area.

Safety Sectors

One of the primary considerations in any throwing venue construction is the inclusion of a throwing safety sector. This sector is wider than the conventional 34.92° sector, and is intended to provide a “caution zone” for officials, athletes and spectators.

While USA Track and Field and the National Federation do not recommend or comment on a safety sector, the NCAA recommends a 55° sector. For ease of setup, a 60° sector is recommended, and should be clearly marked on the ground or with some type of physical impediment such as flags/pennants, barriers or some other obvious type of marker. Merely painting a line on the ground may not be sufficient.

The reasoning for the wider sector is that the throw may become more errant the further it travels from the circle or runway. Also, implements (particularly the javelin and discus) can be effected to a greater degree by the wind conditions at the venue. Hence the widening safety zone from the circle or runway.

Cages

Cages are an effective and efficient way to dissipate the energy of a throw implement, and provide a limited amount of security near the throwing venue. However, in no case should a cage be considered to be completely able to stop an implement.

All levels of track and field have minimum specifications for the construction and dimensions of cages. Please remember that these are minimums, and can always be exceeded. In most cases, the recommended cage design will be adequate, but each venue is unique, and other considerations may need to be made for unique circumstances of the venue.

For example, is there a road or other walkway near one side of the impact area that would necessitate a high cage level or higher door on that side? Each aspect of the venue should be considered when designing the cage and its location and orientation to the impact area.

The material for the cage walls should also be considered. While mesh netting is perhaps better, it is more expensive to install and maintain. Mesh netting allows for greater dissipation of the energy of the implement over a broader area, and is less likely to “break” than standard “hurricane” fencing. The important aspect of mesh netting is that it be properly cared for, such as taking it down when not in season and storing and repairing it properly.

“Hurricane” fencing is more durable and can be left up year round. However, it may not provide enough absorption of a throw implement to dissipate its energy. If the fencing is too tight, it can provide a trampoline effect, that effectively throws the implement back in the direction of the circle. Athletes have been hit or nearly hit by implements that have snapped back at them from hitting fencing that was too tight.

Another consideration in cage design is having two layers of barrier. The inner layer can dissipate the energy of the implement, while the outer layer provides additional protection for officials, spectators and athletes. The inner layer need only be from 8’ to 10’ high, it is an effective way to minimize any potential hazards around the cage.

When designing a hammer/weight throwing facility, doors on the cage are another area of concern. Current rules specify how far into the sector the doors should reach, and the design should include a mechanism for moving the doors to these locations and securing them at those spots. Doors should be easy to move and set, and should be used whenever a hammer or weight throw event is conducted.

An important aspect to remember in cage design, especially with doors, is that the area where the door hinges must also be covered with netting. This prevents gaps in the protection field when implements can escape.

Spectator seating/viewing areas

Everyone wants to be able to see the throwing events, and throws athletes are no less deserving of being seen than any other athlete. When planning throws viewing areas, remember to keep safety in mind.

Seating or viewing areas should be set back from the cage in the unlikely event that an implement would penetrate far enough into or through the netting to strike someone. Using the safety zone maps located elsewhere in this document, plan your viewing areas such that there is (preferably) no one seated directly behind the cage or circle. In the javelin event, there should never be any viewing area for spectators along or in close proximity to either sector line. In the shot put, viewing should be restricted to any area behind the circle or at least 10 meters beyond the end of the impact area, furthest from the circle. Seating/viewing should never be allowed in any area where the implement could potentially land.

In the discus and hammer/weight throw events, seating/viewing areas should be behind the cage, or to the side of the cage where an implement would be impeded by the cage. If there is a clear sight line between the circle and the seating/viewing area, with no cage in between, then that area should not be used. Even seating/viewing areas that are well away from the circle but are still in proximity to the impact area should be avoided if at all possible.

Ingress and egress to throwing venues

While some venues may be limited as to where the throwing venues can be located, precautions need to be taken as to the paths for ingress and egress to the throwing venues. Having a pathway to the viewing areas that either intersects the potential impact area, or is along either of the sector lines is not recommended.

If the venue dictates that the only pathways into or out of the throwing area be through or along the impact area, then the area must be marshaled. There should be no movement of spectators in or out of the area once the warm-up period has begun until the end of the competition or a predetermined break for spectators and/or competitors to move through the area. A venue coordinator, official or marshal should have control over the movement through and around the throwing venue to minimize exposure for potential harm.