



# **Safety in Track and Field**

**A Guide to a safe Track & Field Meet**

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# Safety in Track and Field

## I. Introduction

This is a compilation of the reviews by a number of officials and coaches on the subject of Safety in Athletics. It includes ideas and material from Shelby Sharpe, lawyer and Master official; Bob Rush, coach and Master official; Mark Heckel, throwing coach and Master official; Joe Showker, Master official; The Pole Vault Committee; National Throwing Coaches Association; Art Venegas, UCLA Head Coach; Al Minturn, Master Throws official; Bob Tice, Master official; Jerry Bookin-Weiner, Master Thrower and Masters Throws Coordinator; and the author, George Kleeman, long time Master Throws official.

“Athletic competition has an inherent risk of injury for the competitors, as well as those involved with the competition, including officials, venue personnel, media and spectators. Some injuries are not preventable, while others are. It is almost a certainty that when an injury occurs, litigation will follow. Following the recommendations made in this paper provides the best opportunity for avoiding these injuries, and if litigation comes, will place those sued in the strongest position possible to prevail. “<sup>1)</sup>

But before we get into the legal and liability issues, who job is safety? It is everyone’s responsibility whether they are the facility owner, meet management, officials, athletes or spectators. Everyone must be aware of and looking out for everyone else. No one is exempt. Safety is a personal thing. Each of us has a different risk tolerance. What is safe for one person may be unsafe for another because of physical ability, age, mental capacity, location, or knowledge. Each of us contributes our own perspective. Safety has to be the top priority and then comes the competition. There can be no exceptions. Of course that is easier said than done. In all our endeavors we balance safety or risk versus reward and our different perspective of risk makes that balance different for each of us. What is important here is that we don’t do it in vacuum or just for ourselves and that we do at least as much as a prudent individual would deem appropriate, i.e. the legal requirement. Because of the close proximity of venues and the multitude of activities going on simultaneously at a track and field meet, what occurs in one area can have an impact on another. Generally when people speak of safety they are talking about throws safety but there are safety implications for jumping and track events as well. One of the critical elements of safety at a track meet is awareness of what is happening around you and to pre-think what can happen and be prepared for what action you might have to take. These can be categorized into five areas, implements, equipment and facilities , practice/warm-up, competition and personnel. Many safety concerns can be mitigated by schedule, proper flagging and awareness. But not everything can be eliminated. As an official you need to think about what could happen at your event and the events around your venue. For example, have you given all the

necessary warnings to those who might be impacted by your event? Is the equipment to be used in good shape? Is the proper flagging or marshaling available? What can you do to mitigate or eliminate a possible equipment or facilities problem? Are there any medical people at the meet? Where are they? How do I call for emergency support if needed? This is only the beginning. Planning a safe starts long before the meet starts. Hopefully this clinic will give you some ideas and checklists that you can use to improve your personal safety, the safety of your event and that of the meet.

There should be no difference in the safety procedures for a “small” meet and a large meet. Getting hit with a discus or shot doesn’t have anything to do with the size of the meet.<sup>6)</sup>

## **II. Develop an Eye for Safety**

Safety awareness is accident prevention. It must start with the individual and his or her commitment to doing all activities in a safe manner. The principle reason you should be interested in safety is that you will finish the meet in the same condition that you started it and are able to return to your family. But if that isn’t adequate to make you act in a safe manner then maybe the possibility of a law suit will. As Shelby Sharpe says: “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.

In summary, any injury that could have been prevented by reasonable action by a person responsible for taking the action creates legal liability.”<sup>1)</sup>

Do you consider the official to have used reasonable care?

### **A. 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.<sup>4)</sup>

Obviously that means as an official we have some responsibility to inspect the facility and be comfortable with the adequacy of the facility and equipment to safely hold the competition. We will deal with that subsequently.

### **B.Keys to a Safe Competition**

Knowing what is necessary for a safe competition, namely

## ❖ Awareness

- Knowing what is necessary for a safe competition
- Constant Awareness of what is going on around you

## ❖ Adequate Facilities, Equipment and Implements

- Good Facilities and Equipment
- Safe Landing Area for Throws or Jumps and a clear Track
  - Adequate lighting
  - Sufficient flagging or control
- Safe Implements in the case of Throws, and poles in the case of Pole Vault

## ❖ Capable Officials.

- Officials capable of doing the event, knowing and applying the rules properly

## ❖ Necessary Support

- Know what and where medical help is available
- Know what marshal/ access support is available

What are the awareness elements that you should include in a pre meet safety check of your area:

- Get the “Lay of the land”
  - How do you get to your areas?
  - Is there a coach’s box or nearby spectator area?
  - What conditions or ground rules may be in effect that will affect the event?
  - Is there adequate venue access control, i.e. flagging, marshals?
  - What else is going on nearby?
  - Is there a potential for interference?
- Know where the warm-up areas are, if any
- Address any critical safety issues IMMEDIATELY!
- **If you see a potential hazard** that has not been addressed, **SAY SOMETHING**

What is the status the venue equipment you will need to officiate your event?

Is it properly set up?

Is all the necessary equipment available?

Is it working properly?

Is there any spacing problem with the immediate surroundings?

- **OFFICIALS must control the competition areas at all times.** That means you must know when things should occur. Set up a pre-event timetable so that you can control the venue. Allow adequate time to complete each of the necessary activities and not be rushed.
- When the chief official arrives at the event – he/she is in charge

- **The event official will dictate how it is conducted, when warm-ups begin, when they end, and when the area will be cleared**
- Warm-ups should be organized and controlled
- Keep runways and sectors clear
- Pre-Event Timetable:
  - 1-Safety Check the area
  - 2-Be Aware of Nearby Activities
  - 3-Inventory/Set up and Calibrate equipment
  - 4-Organize the Crew
  - 5-Competitor Briefing before Warm-ups Start
    - Set Warm-up Requirements
    - Inform the athletes of Safety considerations

The warm-up period is when most accidents occur because multiple athletes are using the facilities simultaneously, they are intent on their own preparation and often there is less attention by officials because it isn't part of the competition. More rather than less attention is warranted. This is particularly true for field events.

- Don't allow warm-up in an area not designated for warm-up such as areas where
  - Track athletes warming up
  - Spectators
  - Other competitors
  - Slippery surfaces

Finally know your support

- By this time one of the question that should come to mind is what kind of medical support is available at the competition?
- Are there doctors, nurses, or therapists?
- How do you get emergency aid whether it is paramedic or ambulance?
- Where would you direct them to come?
- What is the protocol at this particular school or venue?

If the meet is sanctioned by USATF, some of these questions have been answered by meet management in their sanction document although I rarely have seen it shared with the officials or volunteers on the field of play who might need it.

- Know about your other support
  - What kind of control do you have of your venue?
  - Do you have flagging or marshals or both?

### **III. What to do in the event of an accident:**

- Send for help
- Get Meet Management Involved
- Document what , when and to who it happened

- Note any witnesses
- 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
- 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!

Now let us delve a little more into the four main keys required for a safe competition, namely;

## **IV. Awareness**

### **A. Dangers within a Competition Area**

Every competition area should be examined for dangers within the area. For example, some long jump-triple jump pits have metal grating around the pit. If the grating is broken, an athlete or an official stepping on the grating may be injured. Sometimes this grating is unstable so that it could give way causing an injury, such as a twisted ankle. At indoor competitions, the hardware supporting the running surfaces needs to be checked to be sure none is sticking out to injure a person walking next to these surfaces. All running and walking surfaces whether natural or artificial must be checked for hazards or tears that could cause an injury.

Meet management must also be aware of any object such as an advertising sign that is covering an object that if an athlete fell into the sign would injure the athlete. All too often, these kinds of signs are found too close to a running surface, such as the finish line, or near field events pits.

Lastly, 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.

The questions that would probably be asked for dangers within a competition area are:

- (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 or someone working the venue from being struck by an implement that might go out of the sector?
- (6) Were these precautions reasonable?
- (7) Were the running and adjacent surfaces checked for safety?
- (8) Were the landing pits checked?
- (9) Were areas surrounding each landing pit checked?
- (10) Was a written report of the investigation of all competition areas made?
- (11) Who made the report?
- (12) To who was the report given and when?
- (13) Were all problems identified in the report corrected before access was given to the competition area?

## **B. Awareness of Surroundings**

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. In a national meet, a tube for returning shot puts was used that was partially in an adjacent field event venue that was active. This problem was cured simply by moving the tube to the other side of the shot sector, which was out of the adjacent field event venue.

The questions that an attorney would probably ask where competition areas overlap are:

- (1) Did you have any person 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 and if not, why?
- (5) Could you have positioned qualified individuals to protect persons moving in areas adjacent to the competition area and if not, why?
- (6) Who was assigned to protect the adjacent areas?
- (7) What qualifications and experience did these people have whose responsibility was to protect the adjacent areas?

## **V. Adequate Facilities, Equipment and Implements**

### **GOOD FACILITIES ARE MANDATORY BUT THEY NEED TO BE INSPECTED BEFORE EACH MEET FOR SAFETY**

All facilities, implements and equipment that will be used during a meet must be examined for any problems that might arise during their use for the projected meet. 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. Also, every cage needs to be checked for proper height and positioning. At a major national championship meet several years ago, the discus cage was positioned such that a left-handed thrower hanging on to the discus too long could put it into the stands where spectators would be sitting. This cage had to be repositioned before competition began.

As a part of the review of equipment, hurdles, starting blocks, landing pits, standards and bars all need to be examined to be sure that they are in proper condition to function as they are designed to function. Any of these found to be deficient in any way should either be replaced or properly repaired, if repair is appropriate.

The questions related to equipment that would be asked are:

- (1) Was all equipment in the competition area that might cause the injury checked before the athletes were permitted to use it?
- (2) Were all landing areas, such as around the pole vault, 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 who was the report given and when?
- (8) Were all discovered problems corrected prior to access being given to the competition area?

#### **A. Adequacy of the Facility:**

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, an athletic conference and other sports organization. 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 that are reasonably likely to cause injury. Thus, 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.

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.

The questions that an attorney for an injured person would probably ask concerning any dangerous condition in the venue are:

(1) Did you have any person on your behalf examine the entire venue where the competition would occur?

(2) Please 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) Who took the corrective measures and were they successful?

(12) Were the lights for each competition area checked for brightness and position and their effect upon those persons in each competition area?<sup>1)</sup>

Look at the following pictures. What safety problems can you see?



3)



3)

If the cage, netting, sector, or landing area is unsafe, you must make it safe for competition or the event should NOT be held. Landing Zones where athletes or spectators are present must be made safe. See Long Jump runway in background on left. See the low netting. Flagging is evident, however, many people on the left side have their backs to the circle and with the low netting are in the danger zone.

## B. Lighting

If a competition will occur at night, the lights should be checked for not only brightness, but positioning. At one 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.

The questions that would relate to lighting are the same as those found at the end of Section II A. of this paper. 1)? Redo reference



3)





How safe are those in the gallery should a spinner lose the implement out to the side during a throw in any of the three pictures?



3)

How could **flagging or physical barriers** improve these situations?

How could **common sense** improve these situations?

### C. Implement Inspection<sup>3)</sup>

- Inspect implements at the beginning of each throwing season
- Inspect any implement that has come in contact with a hard surface (walkway, cage, building, etc.)
- If the implement is unsafe, don't even throw it in practice sessions
- **INSPECT THE IMPLEMENTS** to the proper specs for each and the level of competition prior to competition and again if the implement comes in contact with a hard surface (cage, building, rocks) or breaks a record.

- Check implements for loose or damaged pieces, “burrs” non-smooth edges, loose core plugs or plates, wires/handles/straps on hammer and weight implements. Rubber discs have a unique set of conditions that render them illegal.
- Impound and store implements that do not comply with certification standards.
- Be prepared to defend your decisions with a rule or case book, and accurate measurements. <sup>3)</sup>

### 1. Discus

- “Burrs” or other protrusions from the rim surface
- Loose core plugs
- Loose body plates
- Cracked body plates



<sup>3)</sup>

### 2. Hammer

- Cracked wires
- Thin swivel attachments
- Loose core plugs
- Wires that are not secured
- Cracked or damaged handles

### 3. Weight

- Cracked handles
- Cracked shells
- Thin swivel attachments
- Loose core plugs
- Bag straps that are frayed or broken

### 4. Shot put

- “Burrs” or other protrusions from the shot surface
- Loose core plugs (indoor)

- Cracked shells (indoor)



3)

## 5. Javelin

- Loose or non-secured grip cord
- Loose point
- Cracked shaft

## D. Safe Field Venue

The following items are suggested in Bob Rush's paper<sup>6)</sup> for having a safe field event venue. They seem so simple and logical but they are often overlooked.

### 1. Shot Put

- a. The shot put impact area should be roped, flagged or fenced or in some way protected from spectators, other athletes or officials from access to the area. This leaves the shot put officials and participating athletes in the area.
- b. Most accidents seem to happen to officials. Cause: Not paying attention. The shot put action can occur very quickly. Many of the accidents in the shot put happen during the warm-up period. Both athletes and officials have to have a continual awareness of each other's presence. Athletes should not be allowed to retrieve their own implements.

### 2. Discus

Probably the most accidents occur in this throwing event for the following three reasons.

- a. The aero dynamic design of the discus allows it to be affected by the wind.  
This causes the impact area to become extremely large under windy conditions.
- b. The control of the discus upon release is difficult, especially for beginners.
- c. The discus continues to travel on the landing area after impact.  
Although serious injury is not always a factor, broken ankles and other



serious foot injuries can occur. The installation of new artificial turf compounds this situation. A discus landing on these surfaces (especially wet) will “skid” longer distances. Officials and athletes must be aware of this situation. Flagging must protect this entire area even into where the discus can “skid”.

### 3. Javelin

The javelin, like the discus is affected by aerodynamics and the wind. The impact area can also be very large. Wind direction should be considered when placing the flagged area outside the sector lines. Like the discus, a javelin that lands flat can also “skid” for a long distance. When in doubt, place the warning flagging as far outside the sector lines as possible. Javelin throwers should not be allowed to “spike” or throw practice throws outside the competition area. Never stand behind a javelin thrower, they bring the javelin back before going forward, the back-end of a javelin can inflict a very serious injury, including a loss of an eye.

### 4. Hammer

The hammer throw, although not affected as much by the wind as the discus and javelin, is potentially a very dangerous event. The size of the actual impact is very large because of the attached wire and handle. The “attachments” can also cause serious injury. Flagging should be placed well outside the sector lines. Spectators and cameraman should be kept well outside the sector area.

## VI. Characteristics of Capable Officials <sup>7)</sup>

They 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.

#### **A. 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. If you are the head official at the pole vault or high jump, double check to insure that the foam landing pits are securely buckled together prior to warm-up and during warm-up and competition.
6. Officials should immediately contact meet management if they are not comfortable with the safety in any situation.
7. If you are not actively involved in assisting an event. Stay out of the infield.
8. Immediately notify meet management of any injury in your area.

Now let us look at safety from another perspective, that is who is responsible. This discussion will be subdivided among the principle players, the role of facilities owner, meet management, Officials, Athletes, Coaches and Spectators. This will include the fourth key which is adequate support personnel.

### **VII. Role of Meet Management and Administration <sup>1)</sup>**

#### **A. 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.

The questions on sufficient, properly qualified personnel to conduct a meet safely and reasonably address injuries requiring treatment are:

- (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?

## **B. Assignment of Personnel for Prevention and Treatment of Injuries**

### **1. Personnel Within the Fields of Competition<sup>1)</sup>**

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.

Concerning the horizontal and vertical jumps, marshals have the responsibility of protecting the approach to the pit so that no one is injured by a collision as an athlete approaches the pit. 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.

Lastly, concerning running events, the marshals have responsibility for protecting the start and the finish to avoid collisions there.

Turning to those responsible for hydration, 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. While meet management often considers the needs of the athletes, there are too many meets where the needs of the officials who must be in a competition area for extended periods of time are often overlooked. An injury that results where water and electrolytes are not made reasonably available will create liability. Thus, meet management should regularly have the field of competition inspected to be sure water and electrolytes are continuously available during the competition for all those on the field of play

Meet management and chief or head officials of a competition must never forget that the marshals' primary responsibility is protection. When a marshal is requested to escort an athlete, or group of athletes, the individual making the request needs to be certain that the absence of the marshal is not going to compromise safety. If safety will be compromised, then someone other than a marshal should be asked to do the escort duty, which usually is the primary function of a steward. All too often, a meet does not have stewards or insufficient numbers of stewards. A steward does not have to be a certified official as a marshal must be. Stewards can be positioned so that they do not interfere with those watching the competition.

The questions on sufficiency and qualifications of personnel within the fields of competition are:

- (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?

## **2. Healthcare Personnel <sup>1)</sup>**

Trainers and other healthcare personnel need to be in sufficient numbers and positioned to be able to respond timely to an injury occurring within the field of competition. The numbers of these people will depend upon the numbers of competitors. These people need to be qualified to deal with every type of injury that can be expected at a track and field competition from a minor injury to a life-threatening one. In connection with major injuries, those responsible for the conduct of the meet need to be certain that there are readily available means of transporting an injured person to a local healthcare facility that is equipped to handle the injury.

Questions related to healthcare personnel are:

- (1) Were sufficient healthcare personnel at the venue at all times the athletes were practicing or competing?
- (2) Were they properly positioned?
- (3) Did they have adequate equipment for the injuries that were reasonably foreseeable?
- (4) Was proper hydration available to those in the competition areas?
- (5) Was the hydration regularly checked to be sure it was available in sufficient amounts?

## **3. Facility Security<sup>1)</sup>**

The prime responsibility on who is admitted into any facility where a track and field competition is being held is that of the facility security force. This force may be local law enforcement hired for the occasion or it may be the institution's own law enforcement group. In any event, these people have responsibility to see that no one enters a track and field facility with a weapon. These people also have the responsibility for not allowing unauthorized people into the competition areas. This is not a function of the marshals.

There is, unfortunately, an occasional need for law enforcement to be within the field of competition. When law enforcement learns of physical threats directed at a competitor and it is determined that protection needs to be afforded within the field of competition, this activity must be coordinated with meet management and the

marshals. Usually, these law enforcement officials who enter the field of competition will be dressed like the officials working the meet. Their positioning will be coordinated with the marshals. If it is a field event competitor, the chief or head judge should be discreetly notified of these additional people. This protection must be given as discretely and unobtrusively as possible.

The questions on adequacy of facility security are:

- (1) Were sufficient law enforcement personnel present at the venue to protect from unwarranted entrance into the venue?
- (2) Were they properly positioned?
- (3) Were they properly equipped to respond or prevent what could reasonably be expected?

### **C. Interference with Competition <sup>1)</sup>**

Meet management is responsible for the public address system affecting the competition venues. This includes announcers and advertisements that come over the public address system. At first blush, it would seem that this aspect of meet management is unlikely to cause an injury. However, this is not the case. Any sudden loud noise can cause an athlete to be startled to a degree that the athlete can be injured. This has happened to athletes in the horizontal and vertical jumps. In any of these events, severe injury can occur.

The questions that would be asked are:

- (1) Could meet management have known in advance the sound level of an announcement or advertisement that would transmit over the public address system?
- (2) Could meet management have known what was happening in the competition venues at the time a sudden high-level sound was to be transmitted over the public address system?
- (3) Could meet management have restricted the sudden high volume of sound so as not to occur during the competition or had the sound adjusted downward so as not to interfere with the competition?

## **VIII. Role of Officials**

- Control the competition areas at all times from warm-up to event completion
- Officiate the event properly and fairly
- Lead by example particularly in the area of safety
- Audit the adequacy of the equipment, implements and the facilities to be used in the competition including lighting if it will be used

- Insure the safety of officials, athletes, coaches and spectators in and around their event by constant awareness of what is happening around them and how it might impact what they are doing.

## **IX. Role of Athletes<sup>4)</sup>**

- Look over the facility before you begin warming up
- Check the surface of the circle or runway
  - Do you need to change footwear or spikes?
  - Does it need to be cleaned or dried out?
- Check your equipment
- Is the cage, standards, take off board properly set?
- Try not to release throws that you “loose” if you can hold onto them safely
- Look twice – once on the way into the circle or runway, and again before you initiate your attempt to make sure the area is clear and the officials ready
- Do not enter the ring or runway or start your attempt until it is clear and/or you have been properly called up
- When waiting for your turn be clear of the runway or sector
- Respect your fellow athlete so that you don’t interfere with his/her attempt

## **X. Role of Coaches**

- Be clear of the venue
- Coach only from the designated area and only before or after an athlete prepares and takes his or her attempt
- Do not interfere with the conduct of the event
- Use proper channels to register any protests or complaints

## **XI. Role of Spectators**

- Honor the rules of the competitions
- Stay out of the field of play and at a safe distance for viewing
- Do not sit on the infield
- Respect the officials and volunteers working the meet

## **XII. TRACK EVENTS SAFETY <sup>6)</sup>**

### **A. Track Safety Rules**

### **B. Sprints-Hurdles**

Starting blocks- Starting blocks should be checked for loose connections and missing parts. On blocks that use track spikes, all should be checked for missing spikes. Spot welding the spikes to the blocks will prevent loss of spikes. Broken spikes however, will be more difficult to replace.

Transporting blocks from one starting area to another should be done with care. Wheel barrows and other top heavy carrying devices should be avoided. Dropped starting blocks can cause serious injuries to the foot and ankles.

### **C. Starting Area**

Starter- The use of a revolver for starting creates some safety aspects. Although only blank cartridges are used, the wadding and powder are capable of injuries especially to the eyes. The starter should wear a protective device on their ears to prevent prolonged loud noises that could damage hearing. The starting pistol should be treated as a real gun, for all safety concerns. Students or young people should not be allowed to access to starting guns. The new strobe light and artificial start sounds are much safer for younger competitors.

#### **D. Middle Distance and Distance Races**

Although serious injuries are rare in distance running, care should be taken in placing too many runners in a race. Getting spiked can cause serious lacerations to the lower leg. Other bumps and falls should be avoided whenever possible. Temperature and humidity factors should be monitored carefully, especially in races over 5K. Distance races should be scheduled in the cooler part of the day. Water should be made available to all runners on hot humid days, especially in the 10K. Athletic trainers should be on alert when longer distance races are held on hot-humid days.

#### **E. Hurdles**

All hurdles should be maintained to insure the following:

1. Crossbars are smooth and not broken or cracked.
2. All bolted or welded joints are firmly together.
3. All pull-over weights are easily movable and adjustable for the proper heights.
4. All height adjustments are free of rust and corrosion. Axle grease ensures long lasting lubrication. WD40 does not last.

#### **F. Hurdle Placement**

All hurdle marks on the track should be checked for accuracy. Hurdles should be properly lined up in a straight row and directly over the hurdle mark. Hurdles should be checked with a string or cord to insure perfect alignment. Pull-over weight adjustments should be checked before each different hurdle race at different heights.

There should be a check to insure that there are ten flights of hurdles on the track. This is especially true in the intermediate hurdles. (Eight in the 300m hurdles)

#### **G. Steeplechase Barriers**

Each barrier should be checked for proper height of men's and women's barriers.

The water jump should be cleaned and filled with clean water to the top. The barrier should be covered in the front to insure that a runner cannot slip under the barrier. The landing area of the water jump should be made of non-slip material.

Generally there should be no barriers between the starting line and the finish line on the first lap.

### **XIII. Jumping Event Safety**

**Now let us turn our attention to the other field events, the jumps?**

*Bob Rush again outlines some very basic safety concerns for jumping event, which too often are overlooked; often because they seem so simple and therefore obvious, unfortunately, safety is never simple and seldom obvious*

#### **A. Jumping Safety Rules**

##### **B. Horizontal Jumps <sup>6)</sup>**

The biggest safety factor in the long and triple jump is the proper preparation of the landing area. The sand should be dampened for accurate measurement. The sand should also be turned over and loosened. This is extremely important. Packed sand is



the most frequent cause of injury. The sand should be raked for an even surface. These precautions should be followed for both practice and competition.

Care should be taken to keep rakes and shovels out of the way where they cannot be accidentally stepped on.

The take-off boards should be checked for excess ware. It is important to make sure the take off boards are close enough to the sand pit to meet the level of competition.

### **C. High Jump<sup>6)</sup>**

The landing pad is the most important item in the high jump. Size of the pad varies with the level of competition. Practice or competition should never be allowed on a pad that does not make specifications. It is extremely important that the segments of the landing pad are properly attached together. No gaps or separations should exist. On overall landing pad should be placed over the segments and secured.

The high jump standards and cross bars should be checked. If a high jumper lands in the middle of the cross bar, it can cause the standards to topple inward causing possible injury.

The take-off area should be checked, especially in wet weather. Some surfaces are slippery when wet.

### **D. Pole Vault<sup>6)</sup>**

Like the High Jump, the landing pad is extremely important. In recent years, the required size and padding of the landing area has increased quite drastically. Before a practice or competition is held, the specifications of the landing area should be checked very carefully. No vaulting should occur unless ALL the pads and padding are in place. This should include the padding around the box as well as the padding for the standards. All segments of the landing pit must be attached together. The overall pad should be in place. No gaps or separations should exist.

All scoring stands, tables, chairs, vaulting box covers, or any object should be out of the area where, if the vaulter "stalls out" they cannot possibly come down on an object that in itself could cause injury.

The beginning vaulter should be coached very carefully. It is imperative that they be placed with the properly fitted pole for their weight and ability. They should also be taught techniques of "bail out" vaults. The beginning vaulter should never be allowed to compete in a meet until he/she has demonstrated that they can clear a height in practice. Particular attention should be placed on gaining the proper steps on the runway to have a plant that is on step with the takeoff leg directly under the top hand hold. These skills should be well mastered before they are allowed to compete in a track meet.

This should all be done under the supervision of a coach. A track meet should not be an unsupervised pole vault practice session.

### **E. Safety Audit for Jumping Venues**

#### **1. Pits Inspections**

#### **2. Runway Inspections**

*Below are some very basic safety concern enumerated by Bob Rush in his paper<sup>6)</sup>, which too often are overlooked; often because they seem so simple and therefore obvious, unfortunately, safety is never simple and seldom obvious.*

## **XIV. Throwing Event Safety**

All of the implements that are thrown are potentially lethal weapons. In fact, many of them have their origins in ancient weapons of war. Unfortunately in the past few years we have had too many grim reminders of the dangers inherent in our events.

In 2005 an official at the USATF National Outdoor Championships in Los Angeles was struck in the head and killed by a shot during warm ups. In the spring of 2007, a masters thrower at a meet in Texas, Chaunce Cook, was killed by a discus that flew over the cage and struck him in the back of the head as he was leaving the area after completing his competition, even though he was walking well outside the sector. At an IAAF Golden League meet in Rome in summer of 2007 French long jumper Salim Sidri was impaled and seriously injured by an errant javelin thrown by world class thrower Tero Pitkamaki from Finland. Accidents do happen at all levels of competition. Each of us can name a number of additional incidents during the last few years including a few in our own association like a cut finger from a discus at the state high school meet. We all have our own personal stories of near misses and minor incidents (or worse) that we've witnessed. In just one meet in Orono, Maine at the Masters National Championships in 2007 there were no serious injuries but three major incidents. An official in the women's discus came very close to being hit, the driver of the cart delivering water to officials was nearly hit by another discus that bounced over his cart, and an official take refuge behind the steeplechase water barrier to avoid being hit by a hammer thrown well outside the sector. Near misses are indications that something is wrong and some corrective action is needed. A good safety manager will tell you as the number of near misses increases the chances of a major incident increases. Major incidents usually occur because the early warning signs are ignored. Major problems don't usually occur if one safe guard is voided but then if two are the chance are significantly greater that an injury will occur. It usually takes three safe guards being overridden. But the risk increase 10 to 100 times for each one being voided. As throwers or throwing officials we know how dangerous our events can be. Bystanders and spectators are not always as aware as we are, and it is our responsibility to inform them – sometimes very forcefully -- for their own good (and our own peace of mind). Hammer and weight throwers have a particular responsibility in this regard because even other throwers are not always fully aware of what can happen when hammer wires break or where it is safe to watch and where it isn't. A cage is an important part of the safety equation, but not all cages conform to the regulations and even regulation cages have their flaws. Non-conforming cages frequently are not high enough to contain all errant throws. Others are made using chain link fencing (which is actually a greater danger to the thrower than to spectators – I have seen an athlete put a throw into the cage and have it ricochet back and hit him; fortunately he wasn't seriously injured. On regulation cages the netting has "give" to it and often throwers and officials are in danger when they think they are completely safe because they are standing too close to the netting. There are places where the netting has holes or weaknesses and implements have gone through even the smallest openings and caused serious injury to officials and spectators. Often netting is tied back to tightly or looped over tied downs which defeats the energy absorbing characteristics for which it was intend. The lesson in all of this is that safety must be the concern of all of us involved with the throwing events – meet planners, meet management, event officials, throwers and knowledgeable spectators. Let's all put safety first and make it our goal to completely eliminate the tragedies and near misses that horrify us and others year after year.

#### **A. Throwing Safety Rules<sup>4)</sup>**

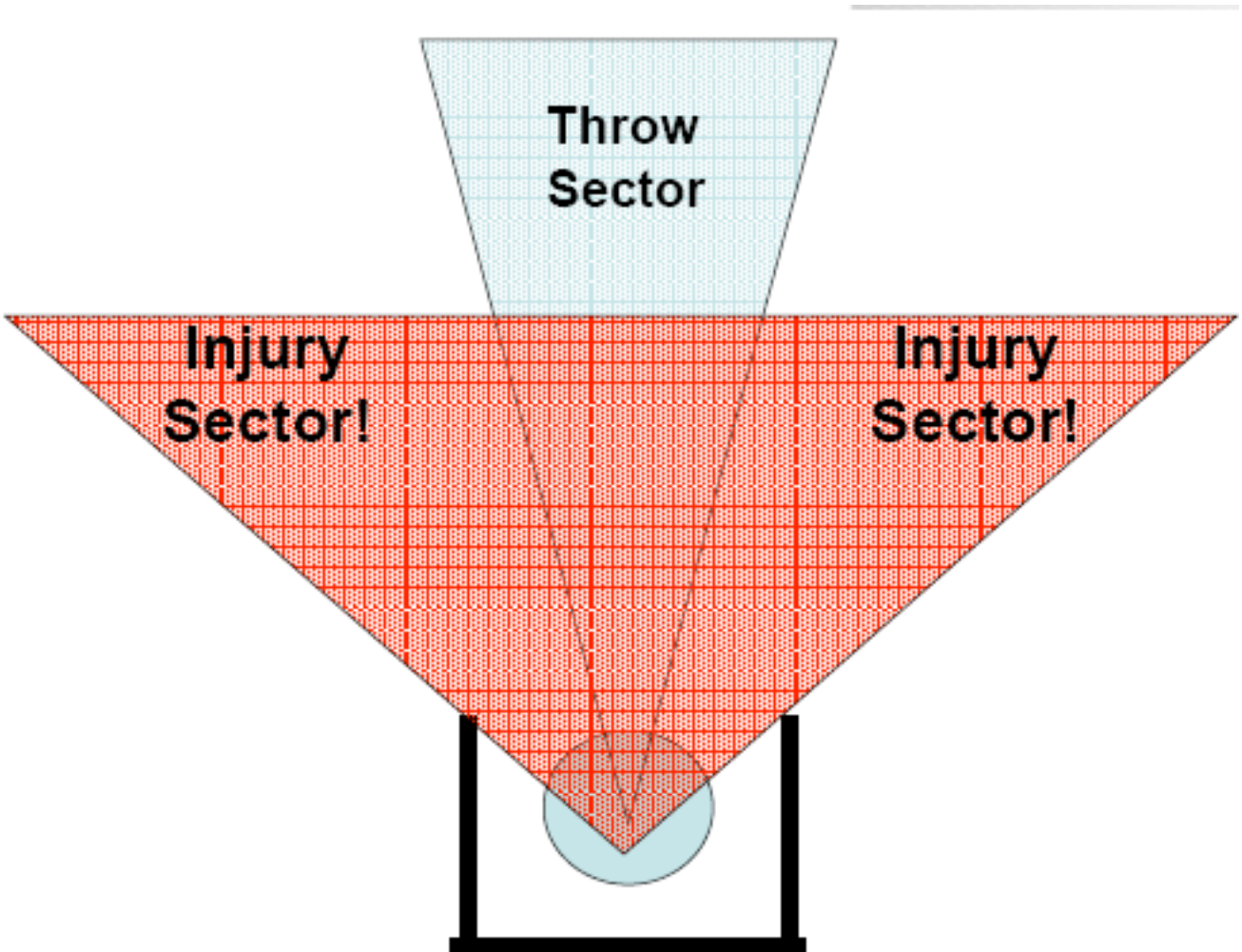
1. NEVER TURN YOUR BACK TO THE CIRCLE OR RUNWAY!
2. NEVER FORGET RULE #1

3. KEEP YOUR EYES ON THE CIRCLE, EVEN WHEN SEPERATED BY A CAGE.

Cages are designed to dissipate the energy of the implement – they may not be able to stop it!

“Most injuries in the throw occur during warm-ups and between flights.”<sup>3)</sup>

### B. Injury Sector



### Sector versus Injury Zone

The deeper the cage the narrower is the injury zone. Use of doors increases the depth of the cage. A more detailed discussion of this concept and the associated draws can be found in the Appendix.

### C. Throwing Event Warm-up

The highest risk time is during warm-ups. Warm-up throws should only be allowed in the actual event area under the supervision of the event official. An official should retrieve all throws. The athlete should not be allowed to retrieve his/her own implements. The event official should carry, not toss the implement to the side. Javelins should always be stuck in the ground in the vertical position. Warm-up need to be organized. For example have them throw in competition order. Call them up. In the case of the longer throws have 4 or 5 athletes take their turns and then officials pick up the implements and return them. Keep the impact area clear during warm-ups. Place limits on where implement can be used, i.e. generally only in the circle or off the runway. For Javelin picking, line them up across the field and let them throw 10-15 feet only and take them up one side across and back to the runway. This is normally adequate time. All long throws must be from the runway. Makes sure to tell the athletes the implement return procedure. Can they retrieve their own implements. If because of lack of manpower you have to allow them to retrieve, make sure they are always facing the runway or circle and do not enter the impact area until the circle or runway throwing is stopped. It is best to not allow the athletes to retrieve their own implements. If there are bleachers or standing room along the sector lines make sure to make frequent announcements concerning being on your feet and focused on the event.

1. Warm-ups may be done in groups or salvos in the case of throws so retrievers are not in sector during throws
2. Javelin – use line for initial stabbing when warming up; allow throws over 15 feet only from runway
3. Same Side Return
4. Check all implements before starting warm ups and have the field retriever check them each time
5. Have adequate retrievers and officials to moderate warm-ups.
6. Officials in the field should be out of the sector during throws. Officials at the ring or runway need to be out of harms way, i.e. back of the opening, back from the netting
7. **Retrievers** should stand to **side of sector**, and run the implement back in. Competitors should NOT retrieve implements. During warm-ups, allow several throws, close the circle, **then retrieve while no throws are being made (Salvo)3**

Now don't forget safety in practice as well as the meet.

#### **D. Practice Safety<sup>4)</sup>**

##### **1. Weather**

- Evaluate the conditions for throwing, given the orientation of the sector
- The wind at ground level may be different that the wind aloft
- Don't rush to "get a few in before the weather hits"
- Know how your facilities react when they get wet – are they faster or slower? Is there mud around the ring or runway?

COACHES control the practice areas

- When practice is over, clear the area and allow no further practice unless YOU supervise it!
- If your cage has doors and the doors can be closed and locked – DO IT!

## 2. Structure

- Set a time for each event to practice
- If an event is on the infield (as in high school) schedule it for the least amount of conflict with running or other infield events (horizontal jumps, pole vault, high jump)
- Regulate retrieval of implements – a student manager can help, or throw in “salvos”, then retrieve
- When you are done with that event, be sure that you are “done”
- Review safety procedures for all throwers during each practice the 1<sup>st</sup> 2 weeks of practice
- Remind them at the beginning of each week

### • Coaches: <sup>4)</sup>

- You are in control of your practice sessions
- You are not in control of competitions – that’s the officials job
- If you observe a safety issue, ask to speak to the chief event judge
  - If not rectified, speak to the throws referee or head field judge
- Know good coaching technique
  - If you don’t know how to coach the hammer safely, ask someone who does, or attend a coaches clinic that deal with the hammer
- Practice safety everyday
  - Review safety every day the first 2 weeks of practice, then at least once per week during the season



3)

## Is this safe?

### E. SAFETY AUDIT FOR THROWING VENUES

#### 1. Cages and Protection

A cage is not required for the shot put, but the sector should be roped off. The shot is a very fast event; officials have to be especially aware.

Cage specification for the discus and hammer cages should be checked carefully. The hammer cage should be equipped with swinging doors for either left or right handed throwers. A ladder should be kept handy to retrieve hammers that get caught in the webbing.

Check the cage containment. Does it have holes? Is there a gap at the doors? Is it anchored at the bottom? Do the doors work properly? Are they marked for movement for the hammer or weight? Check how far the netting or containment will come out it hit? Make sure everyone is outside of the cage supports and probably 3-4 feet further out. You cannot react in time to get out of the way at the circle or runway from an errant throw. How far is the track from the sector or landing area?

#### 2. Surfaces:

Check circle or runway for slipperiness, drainage, holes, tears etc. Can you repair any of them? Does it need to be swept? Is the ring insert tight or loose? Is the toe board tight? Check circle for slipperiness, drainage, holes etc. Can

you repair any of them? Is the edge of the circle, toe board or takeoff board broken?

### **3. Sector:**

Look at the sector. Is it accurate? Look at the surface. Are there unfilled holes? Is it wet? Has the lawn been cut? Are there any tripping hazards? Is there flagging at least 3 m off the sector line? Are there spectators or officials located within expected danger zone? In the shot put are the ends of sector stop boards adequate? Warn them, see if you can't get them out of that area. How close are you to other venues? Is there any overlap of landing areas with adjacent venues? Know which way the wind is blowing, particularly for the discus and the javelin. Preplan before each throw which direction you are going to move. Once you start you won't have time to change directions. Remember a right handed thrower rotates counter clockwise and the discus tends to go to your right in the field. You need to move left which is not the normal reaction for right handed people. Likewise a left handed thrower rotates clockwise and the discus tends to go to your left in the field, so you need to move right. If the wind is from the right or the left it will move the discus and javelin that way. How much are a function of the wind strength and the flight of the implement?

### **Consider the following story:**

#### **Just another Big meet...**

You arrive and notice the discus throwing area is nice and open with no nearby events to worry about. All the throwers can stand anywhere to get a good view. It's about 45 minutes prior to the listed start of the competition. Several throwers are warming up with easy throws from the circle. They stop and place their iPod and headphones on the concrete before stepping into the circle.

The best thrower's Dad and Grand Dad and little brother Billy have taken up position at the best distance coming into the meet about 3 feet outside of the sector line... what a GREAT SEAT.

It's now 10 minutes to start and you see the official coming across the midfield with a clip board in his hand.

He calls everyone in to the circle for roll call and mentions "don't bring your implements. We're running late".

Billy from South High says his teammate Big Al is in the bathroom. The official says "He's number one coming in; I'll get him when his flight comes up".

Mr. Official gives the throwers their full pre-event briefing: "We've got 28 throwers so we'll have 4 flights of 7.

When I call your name enter the back half of the circle only and don't step on the circle line. Throw and walk out the back when I'll yell mark. Y'all have been here before, so if there are no questions, we'll get started."

Mr. Official turns to little Billy and asks him if he can mark until Coach Smith gets back from the long jump.

Billy's dad offers to help roll the discus back into the throwing circle area and takes a position beside marker little Billy. No tape puller yet, so Mr. Official pulls the tape to the exact middle front of the circle... "It's easier that way". He's not marking anything less than an inch because the shot official told him it wasn't worth the trouble.

The student helper arrives during the first flight and waits directly behind the circle at the net, calls his mom on his cell phone telling her it'll be later than he thought. He takes over the tape from Mr. Official and winds it up tight after every throw. This works until little Billy jerks the tape while running to a mark and lets the tape go.

Billy thinks he remembers the spot where the discus landed. He stoops down to mark the spot thinking how sore his back is getting.

Coach Smith and one of his JV football players finally arrive to mark. They let little Billy go back to Grand Dad who now is sitting with several other family members along the sector line at the spot where Big Al's PR is.

Coach Jones and his player are getting ready for the fall and spend a lot of time in the sector talking about new plays. Coach Jones isn't in very good shape anymore and almost falls down trying to avoid a discus throw that lands and skips directly in front of him. Coach is funny when he hops up over the sliding discus. Big Al, the best thrower in the district didn't warm up prior to the start of the throws, he was in the bathroom. After he has checked in for his flight, his first throw goes over the top of the drooping net out of bounds.

The official makes comment that "this old cage has seen a lot of throws". Maybe they'll get a new net next year.

Big Al's last throw in prelims finally soars for a new meet record. The official calls out the distance and the crowd applauds. "165ft. 1/2 inch" He thought since it was a record, he better add in the half inch. He then calls up the last thrower so "they can hurry up and get this over with". Big Al was smart not to report until his flight... he was fresh and ready to go.

The official says we'll start the finals in 5 minutes after I get the order set. He checks all the recorded marks by himself "because he doesn't make mistakes-he's a math teacher" besides that Coach Smith is talking to Big Al's dad. Just like Big Al, he coached Al's dad many years ago.

Big Al checks in with Dad who's been videoing for some tips. Dad shows Big Al his best throw for the record. They high five each other and so goes "just another Big meet".<sup>3)</sup>

How many things in this story are problems. Some are officiating problems and some are safety problems.

Does this sound familiar?

What are the safety problems?

1. Dad and Grand Dad are too close to the line. They are seated which doesn't allow them to move. Yes they are far enough that most throws won't reach them but discuses tend to roll and /or go well beyond the first point of impact.
2. The official didn't check the implements to see if any might be defective.
3. The discuses are being rolled back to the circle. Better than throwing them but still can be a problem.
4. The marker and Coach don't have their full attention on the event since they are talking about football.
5. Net to one side is too low to protect for errant throws.
6. Big Al's relatives are within the danger zone.

How typical is this of many high school meets? Too many.



## F. Competition <sup>4)</sup>



### Prior Planning Prevents Poor Performance <sup>3)</sup>

..that goes for the officials too.

- No one gets hurt
- Performances are accurately measured
- Athletes compete under the rules
- Arrive at event **1 hour** prior to the published time with open circle warm-ups at **30** minutes. Designate a coach to **supervise** if the judge is not present. Follow pre-meet timetable.

As we get older, we lose our mobility. The conditions change all the time. When it rains, it's the worse condition as a Discus hydroplanes and gains more speed and can do plenty of damage from the first and second skip. Coach Venegas has been injured by an implement as many officials from around the country have too. George Kleeman broke his leg from an implement in New Orleans. I noticed in the demonstration that the Discus on the first bounce, was at the mid section and the second bounce was around your shin area. These were dry conditions. The head of the event needs to:

- Take the time and meet with management officials and check out the facility.
- Need to know the layout of the field for that day.
- Ask the school hosting the event for some volunteers.
- Start your event on time.
- Ask for more officials and volunteers, if you don't have enough.
- Keep the official rested and let them have plenty of snack and fluids because, fatigue is a factor.

If you're having the **Hammer Throw**, try to have it the day before and close the track to everyone. All officials and athletes around the cage should be at least 8 to 10 feet away.

If a Hammer gets stuck keep the event moving and ask the athlete to borrow some other athlete's implement, they will retrieve it after the event is done. This will keep the event moving and stay on time. This is the most dangerous event as you never know where the athlete might throw it.

For the **Discus** you should be 5 feet away. A handle or wire could break and cause serious damage. Most danger occurs on the sides in the ring so watch the athlete at all times. If you have the Discus in the evening, it's a nightmare; you may lose the implement in the lights. This happened to an official last June at the Nationals as she was hit in the thigh. So try to have the discus in the daytime.

On the **Javelin**, try to keep establish warm up rules 1-hour before the event. Do a pre-evaluation of the area. Use a cone or a flag that the field is closed. The pole-vaulters think it's a picnic out there. Keep everyone out of the area. The athletes should only throw one direction. Have them warm up on the runway. Let the athletes throw 12 implements then go out and get them. Always keep the javelins in a vertical position. Never have the javelin lay on the ground. Beginners are very dangerous, as they are still learning to throw it.

On the **Shot Put**, we need to pay attention at all times since there is nothing to protect the official. Maybe someday we will see 7 foot tall pole with wire about 3 feet wide bolted down that would protect the official. Something like they have in warm ups in baseball to protect the coach who is pitching.

Here is the challenge from Coach Art Venegas on throwing events:

- Measure all the first throws and mark with a marker with plenty of numbers on it.
- The second thru sixth throw, look at where it landed. If it's better, then measure and place the marker there, if not, leave the old mark alone.
- On the final throws pick up the marker. This will speed things along with the flights.

The second challenge from Coach Venegas is for all officials. For our safety, he wants to:

- Keep all officials and volunteers out of the field and stand on the outside of the sector at 130-foot. The example would be to have one person on the right side at the 130-foot marker and one person at the 140-foot marker on the left

- side. Have another person at the 150-foot marker on the right side, then one at the 160-foot marker. Need to see what athlete throws to adjust at what marker to stand at. We are all guilty of talking with the athlete or other officials when someone is in the ring. This is one reason we can get hurt.
- We need to focus on the athlete at all times, watch where the implement landed, then go out and mark it after it has hit the ground. The head official needs to be in control of the ring at all times and communicate with the field crew that it's safe to throw again.

He suggested that a whistle would be good. My thought would be to find something a little different as it could be confusing to the starters. Check a sporting goods store for a bird caller. Most accidents occur during warm ups so everyone needs to watch the athlete at all times. For this year and in the future, let's use Coach Art Venegas challenges on keeping our officials safe, especially the second challenge. **Let's go injury free!** Talk with the coaches about these challenges and if they work, implement them for the future. We can always do better; it's a start for a safer place on the field.<sup>6)</sup>

## **XV. Conclusion** <sup>1)</sup>

In summary, if an injury is foreseeable to a reasonable person, reasonable steps must be taken to avoid the injury or there is liability. Having and following protocols will reduce injuries with the resulting consequences but **REMEMBER IT ONLY HAPPENS IF EVERYONE ACCEPTS SAFETY AS THEIR PERSONAL RESPONSIBILITY.**

## **Bibliography**

- 1) Protocols to Minimize Injury, Death and Bad Results at the Courthouse by J. Shelby Sharpe Southwestern Association, Revised 11-15-06 Distributed at 2006 National Officials Committee meeting.
- 2) Summary by Joe Nemeth, Pacific Association of a presentation by Art Venegas, Head Coach UCLA for Southern California Association Clinic in January, 2006 on USATF Safety on Throwing Events
- 3) Safety & Common Sense in the Throws, a PowerPoint Presentation, Winter, 2007 by Joe Showker, Virginia Association on <http://www.rockingham.k12.va.us/SHS/throwsafety/safetyinthethrows.htm>
- 4) National Throwing Coaches' Safety Certification Program by Mark Heckel on <http://www.mach2k.net/ntca/safety/>, Spring, 2007
- 5) Throwers Circle, by Jerry Bookin-Weiner, USATF Masters Throwing Events Coordinator, email and article proposed for Fall, 2007 National Master News.
- 6) Safety Guide for Track and Field, By Robert Rush Head Track and Cross Country Coach-Emeritus College of San Mateo, Master Official, Pacific Association, 2006
- 7) Safety for Throwing Events, Presentation by Al Minturn, So. California Association, to Pacific Association Officials Annual Meeting, August 26, 2007.

## **Appendices**

9. Site Check List<sup>4)</sup>

10. Throws Check Lists

b.1 Discus<sup>4)</sup>

b.2 Hammer/weight<sup>4)</sup>

b.3 Shot<sup>4)</sup>

b.4 Javelin<sup>4)</sup>

C. Throwing Safety Zones<sup>4)</sup>

c.1 Discus

c.2 Hammer/weight

c.3 Shot

c.4 Javelin

D. Safety is Everybody's Business

**From National Throws Coaches' Throws Safety Certification Program <sup>4)</sup>**

## **Appendix A**

### **National Throws Coaches Throws Safety Certification**

# **Site Safety Checklist**

#### **Inspection routine**

1. Examine all field event areas for overlaps with other competition areas including running lanes.
2. Examine the sectors where implements will land.
3. Examine all pits and equipment for the competition.
4. Examine all implement cages and their positioning.
5. Check all running surfaces.
6. Examine position and brightness of lights if competition involving field events will be held at night.
7. Determine availability of health-care professionals for meet sufficient for needs of the meet.

## Appendix B.1

### National Throws Coaches Throws Safety Certification

# Safety Checklist 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.

## Appendix B.2

### National Throws Coaches Throws Safety Certification

# Safety Checklist 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

## Appendix B.3

### National Throws Coaches Throws Safety Certification

#### Safety Checklist 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.
  - see the note on divots below
  - 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 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"
  - 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, 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 materials than grass, keeping it level will help to alleviate tray 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.



## Appendix B.4

### National Throws Coaches Throws Safety Certification

# Safety Checklist 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 effect 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 official's 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.

This is a movie of a javelin accident.

## Appendix C

### National Throws Coaches' Throws Safety Certification

#### Safety Zones<sup>4)</sup>

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. 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.

#### Shot put

##### Description of the zones ([zone map](#))

##### Green (safest) ■

The area 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 cautionary area is 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.

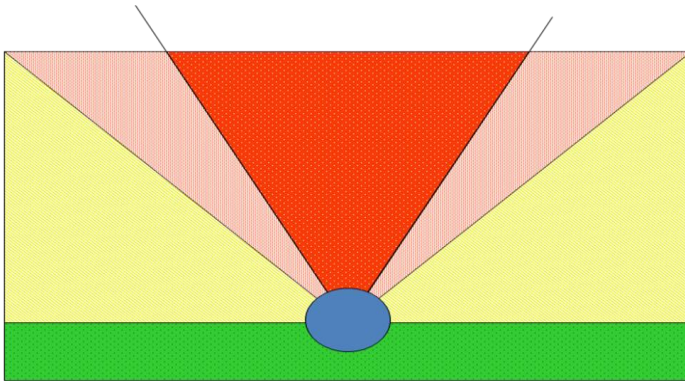
##### Light red (potential danger) ■

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. The

potential for someone to be hit increases dramatically in this zone, particularly as you near the sector line. 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.



## Hammer

### Description of the zones ([zone map](#))

#### 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)

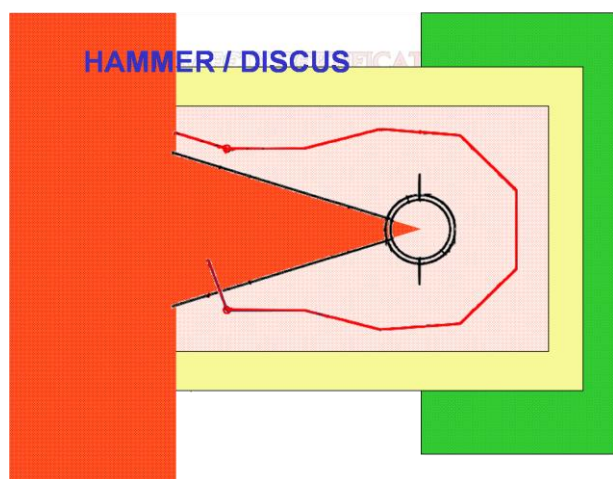
The entire area from the doors back through the circle that is outside the protective cage is considered cautionary. Even though the cage is there, there is no guarantee that the material of the cage can stop the hammer. In reality, the purpose of the cage is to dissipate the energy of the implement, 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.



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## Discus

### Description of the zones ([zone map](#) above)

**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.

## **Javelin**

### **Description of the zones ([zone map](#))**

**Green (safest)** 

The safest area is from the toe board, back towards the beginning of 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)** 





## **APPENDIX D**

**Bibliography Details for Reference 5** (which as an Email communication with the compiler).

### **SAFETY IS EVERYONE'S RESPONSIBILITY**

All of the implements we throw are potentially lethal weapons. In fact, many of them have their origins in ancient weapons of war. Unfortunately in the past few years we have had too many grim reminders of the dangers inherent in our events.

Three years ago an official at the USATF National Junior Championships was struck in the head and killed by a shot during warm ups. This spring, Masters' thrower Chaunce Cook in Texas was killed by a discus that flew over the cage and struck him in the back of the head as he was leaving the area, well outside the sector, after completing his competition. At an IAAF Golden League meet in Rome this summer French long jumper Salim Sidri was impaled and seriously injured by an errant javelin thrown by world class thrower Tero Pitkamaki from Finland.

We all have our own personal stories of near misses and minor incidents (or worse) that we've witnessed. In Orono there were no serious injuries, but I saw an official in the women's discus come very close to being hit, the driver of the cart delivering water to officials nearly hit by another discus that bounced over his cart, and an official take refuge behind the steeplechase water barrier to avoid being hit by a hammer thrown well outside the sector.

As throwers we know how dangerous our events can be. Bystanders and spectators are not always as aware as we are, and it is our responsibility to inform them – sometimes very forcefully -- for their own good (and our own peace of mind).

Hammer and weight throwers have a particular responsibility in this regard because even other throwers are not always fully aware of what can happen when hammer wires break or where it is safe to watch and where it isn't. A cage is an important part of the safety equation, but not all cages conform to the regulations and even regulation cages have their flaws. Non-conforming cages frequently are not high enough to contain all errant throws. Others are made using chain link fencing (which is actually a greater danger to the thrower than to spectators -- I once saw a training partner put a throw into the cage and have it ricochet back and hit him in the head; fortunately he wasn't seriously injured). On regulation cages the netting has "give" to it and often throwers and officials are in danger when they think they are completely safe because they are

standing too close to the netting. There are places where the netting has holes or weaknesses and implements have gone through even the smallest openings and caused serious injury to officials and spectators.

The lesson in all of this is that safety must be the concern of all of us involved with the throwing events – meet planners, meet management, event officials, throwers and knowledgeable spectators. Let's all put safety first and make it our goal to completely eliminate the tragedies and near misses that horrify us and others year after year.

BY JERRY BOOKIN-WEINER

## Appendix E.

### Legal Terms<sup>1)</sup> :

#### 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.

#### Standard of Care

the watchfulness, attention, caution and prudence that a reasonable person in the circumstances would exercise. If a person's actions do not meet this standard of care, then his/her acts fail to meet the duty of care which all people (supposedly) have toward others. Failure to meet the standard is negligence, and any damages resulting there from may be claimed in a lawsuit by the injured party. The problem is that the "standard" is often a subjective issue upon which reasonable people can differ.

#### Foreseeable Risk

is a danger which a reasonable person should anticipate as the result from his/her actions. Foreseeable risk is a common affirmative defense put up as a response by defendants in lawsuits for negligence. A skier hits a bump on a ski run, falls and breaks his leg. This is a foreseeable risk of skiing. A mother is severely injured while accompanying her child on a roller coaster when the car jumps the track and comes loose. While there is potential risk, she had the right to anticipate that the roller coaster was properly maintained and did not assume the risk that it would come apart. Signs that warn "use at your own risk" do not bar lawsuits for risks that are not foreseeable

## **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.

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.

## **When Liability Exposure Begins <sup>1)</sup>**

Liability exposure begins when people who are involved with or 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. Thus, the same precautions that would be taken during a meet for the throwing of implements should be taken during a permitted practice session. Similarly, runners taking starts should be protected from interference during a practice as well as during a meet.

During a meet, liability exposure begins during a warm-up for the competition. This also 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.

The questions related to injuries prior to and during a meet are:

- (1) Did you 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 or running?
- (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 or a collision with a runner?
- (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?

