Key Statistics:

- During the last decade, lightning was responsible for an average of 42 fatalities yearly in the U.S and an estimated 10 times as many injuries.
- Data from 2005 indicated that approximately 15 percent of lightning casualties occurred during organized sports and an additional 25 to 30 percent resulted from recreational activities.
- The National Weather Service reports more recent data from 2010-2011, with 48 percent and 62 percent of lightning fatalities attributed to sport and recreational, respectively.

- National Athletic Trainers Association, April 2013

Introduction:

In the event of severe weather when threatening lightning conditions are probable, precautions will be taken to ensure the safety of both student athletes and spectators. The following protocol is based on recommendations from the NCAA, NATA, current literature and best practices for Western Connecticut State University.

CHAIN OF COMMAND/CRITERIA TO SUSPEND AND RESUME ACTIVITY:

The decision to terminate practice/competition in the event of lightning will be made by athletic training staff personnel in conjunction with coaches, game officials and game operating supervisors. Different scenarios will dictate the chain of command.

IN-SEASON PRACTICE

During in-season practice all outdoor teams will be notified of approaching severe weather by a staff athletic trainer. A first warning by a member of the athletic training staff will be made to the on-the-field head coach. This first warning will inform team personnel that potentially severe weather is headed in our direction. A second warning will inform coaches that severe weather has moved closer to our location and suspension of practice needs to be considered. This second warning would prompt coaches to secure equipment and be prepared to exit the field if a third warning is given. A third warning will instruct coaches to remove all student athletes and personnel from the field and into a safe location. The all clear notification will be given to coaches when it is safe to resume outdoor practice.
NON-TRADITIONAL PRACTICE:

Due to practice schedules for non-traditional teams, a member of the athletic training staff may not be present. In these cases the decision to terminate practice in the event of lightning will be made by the on-the-field head coach.

A first warning by a member of the athletic training staff or the on-the-field coach will inform team personnel that potentially severe weather is headed in our direction. A second warning will inform team personnel that severe weather has moved closer to our location and suspension of practice needs to be considered. This second warning would prompt coaches to secure equipment and be prepared to exit the field if a third warning is given. A third warning will instruct team personnel to remove all student athletes and staff from the field and into a safe location. The all clear notification will be given to team personnel when it is safe to resume outdoor practice.

Note: All coaches will have access to “Weather Sentry” warning announcements texted to their phone. Coaches will also be instruction on how to use the “Flash to Bang” theory.

COMPETITION

During outdoor competition a staff athletic trainer will notify the head coach (on both teams), game officials and game supervisors of approaching severe weather.

First Warning

The first warning will inform all personnel that severe weather is headed in our direction. Competition will not be halted at this point. At this time the game operating supervisor will have the following announcement read:

Lightning Announcement #1

May I have your attention please! A lightning storm is currently moving in our direction. For your safety, you may wish to start moving calmly out of the stands towards shelter. Please go to the O’Neill Center (describe location to gate 4) or your vehicle. The game is not being halted at this time. If we need to fully clear the stadium (stands/field) we will notify you immediately. You will be permitted to re-enter the stadium when an announcement is made that it is safe for you to do so over the public address system. Thank you for your cooperation.

Note: Specific directions on where to seek shelter will vary depending on the location of the venue and competition. See the section on “Safe Locations”.
Second Warning

Large Venue Events/Football

A second warning will inform all personnel that severe weather has moved closer to our location. This warning will postpone play if the contest requires large groups exiting the stadium/stands for safety. This will be the case for all home football games. A staff athletic trainer will inform coaches on both teams to move players and personnel to a pre-determined safe location. Decisions to clear the stadium/fields when other large sport competitions are taking place will be made by the on-site athletic trainer in conjunction game officials and the game supervisor. At this time the game operating supervisor will have the following announcement read:

Lightning Announcement #2

Attention! A lightning storm is approaching our area. We need to clear the stadium. Please move to the nearest aisle and exit the stadium. Seek shelter first in the O’Neill Center through gate 4 or as a second option your vehicle. Do not remain in the stands. We are halting the game. You will be permitted to re-enter the stadium when an announcement is made that it is safe for you to do so over the public address system. Thank you for your cooperation.

Note: Specific directions on where to seek shelter will vary depending on the location of the venue and competition. See the section on “Safe Locations”.

Smaller Venue Events

With smaller venue events, a staff athletic trainer will inform appropriate personnel that severe weather has moved closer to our location. At this time all appropriate personnel should be prepared to exit to a safe location if a third warning is given. A second severe weather announcement will not be made at this time.

Third Warning

Smaller Venue Events/ Soccer, Lacrosse, Field hockey, Baseball, Softball, Tennis

A third warning will inform all appropriate personnel that the field and stands need to be cleared. Instructions will be given to clear the field and move to a safe location. The game operating supervisor will have the following announcement read:

Lightning Announcement #2

Attention! A lightning storm is approaching our area. We need to clear the stadium. Please move to the nearest aisle and exit the stadium. Seek shelter first in the O’Neill Center through gate 4 or as a second option your vehicle. Do not remain in the stands. We are halting the game. You will be permitted to re-enter the stadium when an announcement is made that it is safe for you to do so over the public address system. Thank you for your cooperation.

Note: Specific directions on where to seek shelter will vary depending on the location of the venue and competition. See the section on “Safe Locations”.

All Clear

Once the storm has travelled a safe distance away from the location of competition a staff athletic trainer will notify all of the appropriate personnel that it is safe to return. At this time the game supervisor will have the following announcement.

Announcement

*Ladies and gentlemen may I have your attention please. The severe weather has passed and the facility is ready for re-entry. We will resume play after a brief warm up period for both teams. Our staff will continue to monitor for further severe weather patterns that may be in our area. Thank you for your cooperation.*

AQUATICS SAFETY

The National Lightning Safety Institute provides recommendations for aquatic safety in the case of lightning. Because Western’s Swimming and Diving Coach/Pool Director is concerned about safety when lightning is a threat and student athletes are in the pool, they will follow the lightning protocol. During competition they will be treated as a small venue event.

ATHLETIC TRAINING SAFETY

Western’s three athletic training rooms all have whirlpool areas. Each is located in a safe structure and uses ground fault interrupters. Even though these buildings are grounded, lightning is often fast enough to spread and injury someone before ground faults are activated. Because of this staff athletic trainers will follow lightning protocols for practice situations and remove student athletes from whirlpools.

MEANS OF MONITORING WEATHER:

A member of the Athletic Training Staff will monitor severe weather conditions to determine participation status. The only time coaches will be responsible is during their team’s non-traditional season when staff trainers are not always available. Staff trainers and coaches responsible for this duty will be instructed on the proper techniques used to monitor severe weather.
1. **Weather Sentry** - Weather Sentry by Schneider Electric is an on-line program that detects and warns of any approaching severe weather. Three warning rings have been established around the West-side Campus. Warnings are texted to the appropriate personnel when severe weather enters any of these three rings. The warning rings have been set up at the following distances from the West-Side Campus;

   * 20 Miles = First Warning
   * 12 Miles = Second Warning
   * 10 Miles = Third Warning

   Appropriate responses for each of these three warnings are highlighted in the “Chain of Command” section.

2. **Flash-to-Bang** - In the event that Weather Sentry is not available, all appropriate personnel will utilize the “Flash-to-Bang” method.

   To use the flash-to-bang:

   *Count the seconds from the time lightning is sighted to the first clap of thunder.
   *Divide this number by five to get the actual distance in miles the lightning is occurring.
   *Flash-to-bang will follow the same guidelines as the Weather Sentry warning System.

   First Warning – 100 second count = 20 miles
   Second Warning – 60 second count = 12 miles
   Third Warning – 50 second count = 10 miles

   **All Clear:**

   Once activities or events have been suspended, the decision to return to play will be made by the athletic training staff or the coach in the non-traditional season. In certain situations, these decisions will be made in consultation with appropriate personnel.

   **Monitoring System:**

   1. **Weather Sentry** – An All-Clear message will be sent when 30 minutes have passed without a lightning strike within 10 miles.
   2. **Flash-to-Bang** - The All Clear message can be relayed to appropriate personnel when 30 minutes have passed without a flash-to-bang count under 50 seconds.
SAFE LOCATIONS:
A safe structure is defined as “any sturdy, fully enclosed, substantial, and frequently inhabited building that has plumbing and/or electrical wiring that acts to electrically ground the structure”.

<table>
<thead>
<tr>
<th>WCSU Venue</th>
<th>Primary Safe Location (s)</th>
<th>Secondary Safe Location (s)</th>
<th>Unsafe Location (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAC Stadium</td>
<td><strong>Athletes/Staff:</strong> WAC Locker room level and corridors. <strong>Spectators:</strong> Large group, O'Neill Center Field House (Gate 4). Small group, WAC foyer</td>
<td>Personal vehicles with metal roof. Visiting team travel bus</td>
<td>Sheds, awning, soccer awning, tents, convertible vehicle, stands, field</td>
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<tr>
<td>Baseball Stadium</td>
<td><strong>Athletes/Staff:</strong> O'Neill Center, main entrance locker room level. <strong>Spectators:</strong> O'Neill Center, main entrance. Foyer and field house areas.</td>
<td>Personal vehicles with metal roof. Visiting team travel bus</td>
<td>Dugouts, Sheds, awning, tents, softball/baseball press box, convertible vehicle, stands, field</td>
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<tr>
<td>Softball Stadium</td>
<td><strong>Athletes/Staff:</strong> O'Neill Center, main entrance locker room level. <strong>Spectators:</strong> O'Neill Center, main entrance. Foyer and field house areas.</td>
<td>Personal vehicles with metal roof. Visiting team travel bus</td>
<td>Dugouts, Sheds, awning, tents, softball/baseball press box, convertible vehicle, stands, field</td>
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<tr>
<td>Tennis Courts</td>
<td><strong>Athletes/Staff:</strong> O'Neill Center, main entrance locker room level. <strong>Spectators:</strong> O'Neill Center, main entrance. Foyer and field house areas.</td>
<td>Personal vehicles with metal roof. Visiting team travel bus</td>
<td>Sheds, awning, tents, convertible vehicle, stands, court</td>
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<tr>
<td>Grass Practice Fields</td>
<td><strong>Athletes/Staff:</strong> O'Neill Center or WAC Stadium depending on location of team locker room.</td>
<td>Personal vehicles with metal roof.</td>
<td>Dugouts, Sheds, awning, tents, softball/baseball press box, convertible vehicle, stands, field</td>
</tr>
</tbody>
</table>
FIRST AID:

As is the case with all emergencies, the WCSU Athletic Emergency Action Plan will be activated. An understanding of important steps to follow with this type of injury can be very helpful in pre-hospital care.

- All emergency level personnel should consider personal safety before responding to the victim.
- Lightning strike victims do not carry an electric charge and are safe to touch and move to a safe location.
- Prompt CPR has been highly effective for the survival of lightning strike victims.
- Utilize an AED as soon as possible on the victim.
- Evaluate, treat and monitor lightning strike victims for hypothermia, shock, fractures and burns.