Physical Plant Safety Meeting

“Severe Weather Preparedness”

March 27, 2003
Information Sources

- NSSL - National Severe Storms Laboratory
- National Weather Service
- NOAA - National Oceanic and Atmospheric Administration
- Storm Prediction Center
- American Red Cross
• March, 1929 – Record 98 deg. at Harrison
• March, 1952 – Tornadoes kill 111 people in several counties across the state
• March, 1957 – 14 deg. Below Zero at Lead Hill
• March, 1988 – Harrison gets 22” of snow
• March, 1997 – One storm produced two F4 class tornados; 25 people killed in 3 counties
• April, 1913 – Little Rock gets 9.58” rain in 24 hrs.
• April, 1960 – Several valley locations record lows below freezing and highs above 90 on the same day
• April, 1979 – Hamburg hit twice by tornadoes
• April 14, 1996 – F4 class tornado kills 7 people
• April 21, 1996 – Tornado hits Fort Smith 20 minutes prior to watch issued from weather service in Tulsa
Where and When Thunderstorms Occur
Average Number of Thunderstorm Days
Thunderstorms

Mostly occur during the late afternoon and evening hours of spring and summer.
Severe Thunderstorm Watch

Thunderstorms with large hail and damaging winds are possible in your area.
Severe Thunderstorm Warning

Severe Thunderstorms are imminent or are occurring in your area.
A warning CAN be issued without a watch
Flash Flood Fact

Flash floods are the number ONE thunderstorm-related killer!
Weather Fatalities

1966-1995 (30-Year Average)
Who’s Most at Risk From Flooding...

People who are in automobiles when flash flooding occurs near them
Lightning... Nature’s Fireworks
Weather Fatalities
1966-1995 (30-Year Average)
Lightning Deaths in the USA 1959-1991

Source: NWS Storm Data

Number of Deaths:
- 0 to 50
- 51 to 100
- 101 to 200
- 201 to 400

Puerto Rico: 29
Lightning Fact

A lightning strike is hotter than the surface of the sun!

One lightning strike: 50,000°F
Surface of the sun: 11,000°F
Side Flash
Lightning Can Strike Anywhere!
Who's Most at Risk From Lightning...

People who are outdoors, especially:
under or near tall trees;
in or on water;
on or near hilltops or mountain summits
Lightning Myth

If it is not raining, then there is no danger from lightning.

Fact
Most lightning occurs outside of the rain, sometimes as far as TEN miles away!
Lightning Myth

The rubber tires on a vehicle will protect you from being struck by lightning while in that vehicle

Fact

Rubber tires provide NO protection from lightning
Lightning Myth

People struck by lightning carry an electrical charge and should not be touched.

Fact

Lightning-strike victims carry no electrical charge and should be attended to immediately.
Lightning Myth

Lightning never strikes the same place twice

Fact

Lightning can strike the same place more than once -- often several times during the same storm!
Weather Fatalities
1966-1995 (30-Year Average)
Killer Tornado Distribution, 1950-1994
by Month

Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Tornado *Watch*

Tornadoes are possible in your area. Remain alert for approaching storms.
Tornado Warning

A tornado has been sighted or indicated by radar.
A warning CAN be issued without a watch
Tornado Fact

Most tornado deaths occur in mobile homes and automobiles.
Myth: Areas near where rivers converge, areas around lakes or mountains are safe from tornadoes.

Fact: Landscape characteristics do not prevent tornadoes from forming or significantly effect the path they travel.
Myth: Some towns are “protected” from being hit by tornadoes

Fact: Tornadoes are a relatively rare event in nature creating the illusion of being in a protected area. Any town where severe thunderstorms occur is at risk from being struck by a tornado.
Tornado Fact

Myth:  Low pressure associated with tornadoes causes buildings to “explode” as the tornado passes overhead

Fact:  Extreme high speed winds and debris slamming into buildings cause most of the structural damage
Tornado Fact

Myth: Windows should be opened before a tornado approaches to allow pressure to equalize and reduce damage

Fact: Open windows allow more debris to enter the building and exposes you to higher risk of injury
Tornado Fact

Myth:  A highway overpass is a safe place for shelter from a passing tornado

Fact:  Even a weak tornado can produce enough suction to pull people from under a highway overpass; the berm of an overpass puts you ABOVE ground level
Tornado Fact

Myth: Tornadoes never strike big cities

Fact: Tornadoes travel a relatively narrow path. The term “big cities” is usually considered to be the down-town area where most tall buildings are located—a relatively small target in an entire effected region.
Myth: The southwest corner of a basement is the safest place when a tornado passes.

Fact: Generally, the part of a building toward an approaching tornado is the LEAST safe area even in basements.
When Severe Weather Strikes

- The possibility of severe weather will be discussed at pre-shift meetings
- UCAPD and shift coordinators will monitor weather broadcasts and issue updates to supervisors
- When severe weather is imminent (a WARNING) the community warning siren should sound
- Take appropriate safety measures and call Physical Plant or UCAPD from a secure location

DO NOT GO OUTSIDE!!
When Severe Weather Strikes

- Go to the lowest level and smallest room in the center of the building—**STAY OUT OF ELEVATORS!**
- Centrally located stair wells, chemical free closets, restrooms etc. are good shelter areas
- Avoid exterior doors and windows
- Immediately exit large, free-span interior areas
- Avoid hallways that open to south or west
- Do not seek shelter in cars or temporary structures
- When it is safe to do so, call your supervisor
No one can accurately predict the . . .

- Path
  - Intensity
  - Duration
- Scope
  . . . of a tornado
• Everything possible will be done to provide current and accurate information
• But YOU must act to adequately provide for your personal safety
When Severe Weather Strikes

Remember . . .

• Stay inside . . .
  • Go to the lowest level . . .
  • Go to the smallest interior room . . .
  • Wait until the threat has passed