



Monsoon Safety Awareness Week June 5-10, 2011

SOUTHERN ARIZONA MEDIA KIT

Background

Each year, Southern Arizonans experience a variety of weather related dangers, especially from late spring into early autumn. Through a collaborative effort between National Weather Service offices serving the states of Arizona and New Mexico, which includes offices located in Tucson, Phoenix, Flagstaff, Las Vegas, Albuquerque, El Paso/Santa Teresa and Midland/Odessa, the time period from June 15th through September 30th has been defined as "The Monsoon." A period of extreme heat is typically ongoing at its onset, which in the coming days or weeks is followed by an influx of moisture leading to daily rounds of thunderstorms. The heat is deadly in its own right, causing dozens of deaths in Arizona each year. In addition, thunderstorms present an array of hazards which often strike suddenly and with violent force.

In Arizona, lightning strikes, thunderstorm winds, hail, tornadoes, flash flooding, wildfires and extreme heat have caused an average of seven deaths, 18 injuries, and \$60 million in property damage every year since 1991. Road closures, as well as power and communication outages are additional consequences of monsoon weather hazards experienced by Southern Arizonans each year.

Mission

The goal of Monsoon Safety Awareness Week is to reduce the number of injuries, deaths and property damage caused by thunderstorms by educating Arizonans about weather related dangers that occur during the monsoon and the precautions they can take to protect themselves and minimize property damage. This media kit includes preparedness information with safety details on flash floods, lightning, and power and communication outages. Also included are media tips, contacts and additional resources.

For more information please visit www.monsoonsafety.org





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Warning Information for the Monsoon

Armed with Doppler radars, powerful supercomputers, advanced weather satellites, automated weather and stream gages, and an advanced lightning detection network, forecasters at the National Weather Service are able to provide highly accurate severe weather warnings.

Advanced National Weather Service computer systems now allow warnings to be generated in seconds for highly detailed areas. Those warnings are then transmitted to the public, the media and emergency management officials via NOAA Weather Radio, the Emergency Alert System, and the Internet.

Television meteorologists play critical roles in the warning process. They relay National Weather Service warnings to the public and provide additional detail about the storms, what they are doing and where they are going.

Planning ahead

The best way to avoid lightning, flash floods, and other dangerous conditions is by not being in danger in the first place. Many ways are available to gain weather information including:

- Watching current weather forecasts on TV or the internet
- Listening to weather reports on the radio or a NOAA weather radio
- Subscribing to lightning and severe weather notification services
- Scanning the skies 360 degrees around and overhead before leaving a safe location





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Understanding Watches, Warnings, and Advisories

- Watches mean that widespread severe weather is possible. A watch means that severe weather has not occurred yet, but atmospheric conditions are favorable for severe weather to occur. Pay close attention to the weather, and tune into TV, radio, or NOAA Weather Radio broadcasts frequently.
- Warnings (Severe Thunderstorm, Flash Flood, Dust Storm, or in rare cases, Tornado) mean that life-threatening weather is about to occur, or has been reported. Take action immediately.
- Severe Thunderstorm Warnings are issued for individual thunderstorms producing winds of 58 mph or stronger, one inch diameter hail, or both. NWS meteorologists utilize Doppler radar and spotter reports to determine the severity of thunderstorms.
- Flash Flood Warnings are issued when life-threatening flooding has rapidly developed, or is imminent. Excessive runoff will cause small stream beds to overflow their banks, perhaps entering homes and businesses. Flood waters may also flow rapidly over roadways, creating a very dangerous situation for motorists. If flooding expected to be less serious, a Flood Advisory is issued. This seemingly minor flooding can still become dangerous if improper actions are taken such as playing or walking in normally dry washes or driving through water flowing across a roadway.
- Most thunderstorms, no matter how weak, produce potentially deadly cloud-to-ground lightning. This makes it impractical to issue a warning for every ground strike. Therefore, it is important to know the proper actions to take when any thunderstorm near your area.
- Heat Advisories mean that a potentially hazardous period of unusually hot temperatures is ongoing or predicted to occur. The conditions could become life-threatening if special precautions are not taken to avoid prolonged exposure to the sun or to remain hydrated, especially by those with health conditions that make them susceptible to heat stress.
- Excessive Heat Warnings mean that a life-threatening period of unusually hot temperatures is ongoing or predicted to occur. Extreme caution should be used by those exposed to the sun or confined indoors without air conditioning or adequate ventilation. Check on elderly neighbors and keep yourself hydrated. Heat stroke is a good possibility if these precautions are not taken.





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- Red Flag Warnings are issued when the combination of low humidities and strong winds are likely to cause a fire to grow and spread rapidly into a potentially life-threatening wildfire, given favorable fuel moisture conditions.

Safety & Preparedness

Every family should prepare a family disaster supply kit in the event of severe weather conditions. The disaster supply kit should contain essential items such as food, water, and sturdy clothing, to sustain a family for up to three days since electric power, gas and water services may be interrupted.

Disaster Supply Kit Contents

- Three gallons of water in clean, closed containers for each person and pet
- First aid kit
- A stock of food that requires no cooking or refrigeration
- A portable, battery-operated radio and flashlights in working order and extra batteries. Candles and oil lamps are fire hazards.
- Necessary medications
- Back-up power source for life support or other medical equipment that requires electricity to function.
- Pet food

Flash Flood Safety for Homeowners

- If you live in a flood prone area have an evacuation plan.
- Store materials like sandbags, plywood, plastic sheeting and lumber for protection from floodwaters and to make quick repairs after a severe storm.
- Store materials above flood levels.
- Secure wanted objects to prevent them from floating away.
- Learn where to find high ground, which is safe from flooding. In a flash flood seek high ground quickly.
- Contact an insurance agent to discuss flood insurance coverage. Flood losses are not covered under normal homeowners' insurance policies. Flood insurance is available through the National Flood Insurance Program. Get coverage early—there is a waiting period before it takes effect.



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Flash Flood Safety

Many governmental agencies are dedicated to alerting the community to road closures during our thunderstorm season. City of Tucson's Operation Splash and Pima County Department of Transportation pre-deploy barricades and emergency flashers to locations where they know water will be running across roadways, causing major problems for motorists. Local law enforcement and fire departments pre-deploy response teams into areas that are known to become inaccessible during heavy rain and runoff conditions. More deaths each year occur due to flooding than from any other thunderstorm-related hazard because people underestimate the force and power of water. Many of the deaths occur in automobiles that are swept downstream.

Turn Around Don't Drown - Safety Tips

- Driving around barricades is illegal and dangerous.
- Do not let children play near storm drains or washes after a heavy rain.
- Avoid low-water crossings.
- Avoid camping in a wash or in the bottom of a canyon with steep side slopes.
- Be especially cautious at night. Flood dangers are much more difficult to see in the dark.
- Even a less serious urban flood can be dangerous. Driving too fast through standing water can cause a car to hydroplane. The best defense is to slow down or pull well off the road (with the lights off) for a few minutes to wait out heavy rains.
- Avoid areas already flooded, especially if the water is flowing fast.
- Do not attempt to cross flowing streams.
- Do not camp or park a vehicle along streams and washes, particularly during threatening conditions.
- If flooding occurs, get to higher ground. Get out of areas subject to flooding. This includes dips, low spots, canyons, washes, etc.
- Roadbeds may be washed out under floodwaters. Never drive through flooded roadways
- If your vehicle is suddenly caught in rising water, leave it immediately and seek higher ground
- If a traffic signal is out, treat the intersection as a 4-way stop.
- As little as ten inches of water can float average-sized cars, mini-vans, SUVs and trucks. Strength of the flow is the critical force.
- When in doubt, wait it out, or find a safer route.





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Power and Communications Outage Safety

Power and communications outages can be more widespread and last longer than a thunderstorm. Be ready for outages inside and outdoors by taking precautions and actions to minimize inconvenience and maximize safety. Protect sensitive electrical equipment by installing power protection devices that can be purchased at department, hardware or electronics stores.

Indoor Safety

- Stay at home
- Use a cell phone. Cordless phones do not work without electricity. Use corded phone only for emergencies.
- Unplug sensitive electronic equipment before the storm arrives.
- Turn off electric appliances that were on before power was lost. Leave one light on as an indicator for when power is restored.
- If the power is out for less than two hours, do not open the refrigerator or freezer. This will help food to stay cold. For a power outage lasting longer than two hours, pack cold and frozen foods into coolers. As a general rule, perishable foods should not be held over 40 degrees for more than two hours.
- During a thunderstorm, turn off the AC unit. Power surges from lightning can overload units, leading to costly repair bills.

Outdoor Safety

- Stay away from downed power lines.
- Call 911 to report downed power lines.
- If a power line comes into contact with your vehicle, remain inside the vehicle until help arrives. Do not attempt to get out of the vehicle – that is the safest place for you to be. By stepping out of the vehicle, your body can become the pathway for electricity to reach the ground, causing severe bodily harm and possibly electrocution. Use a cell phone, if available, to notify emergency services of the exact location.





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How Storms Affect the Delivery of Electric Power

- TEP plans for storms in advance, ensuring that our equipment is working, keeping a sufficient amount of supplies on hand and placing extra crews on call. TEP's computer-operated Outage Management System allows service to be restored as quickly and as safely as possible.
- High winds and lightning strikes can cause lines to cross and short out or break, thereby interrupting the flow of electricity.
- Lightning can strike a transformer on a pole or a substation interrupting the delivery of electricity – even miles away from the location of the strike.
- TEP is continuously servicing and upgrading our equipment, making it more able to withstand storm hazards.

Lightning Safety

When thunder roars, go indoors. Lightning fatalities and injuries tend to occur both at the end of a storm and at the beginning, as well as sometimes in the middle of storms. Remaining indoors for 30 minutes after seeing the last lightning and hearing the last thunder will eliminate the risk at the end of storms.

Indoor Lightning Safety

- Never touch wiring during a thunderstorm. It's too late to unplug electronics if thunder is heard.
- Corded phones are dangerous during thunderstorms. Lightning traveling through telephone wires has killed people. Cell phone and cordless phones are safe.
- Wait to use any plumbing—sinks, showers, tubs, and toilets. Plumbing can conduct electricity from lightning strikes from outside.
- Unplug expensive electronics including TV, stereo, home entertainment centers, and computers modem lines when thunderstorms are expected, and before the storm arrives. Typically, summer thunderstorms form in the early to mid-afternoon, when most people are at work.
- Stop playing video games connected to the TV.

Outdoor Lightning Safety

- No place outside is safe from lightning during a thunderstorm. When a storm approaches go to a nearby large substantial building or a fully-enclosed metal-topped vehicle.



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Your Insurance Policies and the Monsoon

The following topics are all important and should be discussed with your personal insurance agent at least every few years. Hundreds of thousands of people each year are impacted by thunderstorms. Unfortunately, too many of them are surprised when they try to make a claim on their insurance only to find out they had no protection for certain losses under their policies. A bad thunderstorm should only ruin your day, not your life. Not having the right protection at the wrong time can be financially devastating.

How to minimize your storm related losses

- Find a local insurance agent who you trust and that will listen to your concerns
- Only work with an agent or their licensed staff members
- Make sure your home is protected to the proper amount
- A homeowner's policy won't protect an automobile for any reason – hail, flood damage or other weather related losses to a vehicle are only covered by Comprehensive coverage on your automobile insurance policy
- Water from the sky is usually covered under a homeowner's policy – once it hits the ground it's usually covered only by a flood policy
- Trees can fall on houses in a storm. Damage to the home is usually covered – does your policy provide for removing the fallen tree or replacing it with a new one?
- Some insurance companies give discounts if you install a lightning rod system
- Un-repaired damages or maintenance on a home may lead to unnecessary damages in the event of a storm – most policies do not cover the results of such neglect – have your agent inspect your home for potential problems and get them fixed
- It's best to use non-flammable paint in and around your home to minimize fire damage caused by lightning or lightning caused brush fires
- Broken windows are subject to your policy deductible, however, most insurers will offer an option to waive the deductible on broken windows
- Get a fireproof file box at most home improvement stores or from your insurance agent – you need one to protect your vital papers and jewelry in case of a fire or flood





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Your Insurance Policies and the Monsoon

What to do if you experience a storm related loss

- Don't panic! Get everybody, including pets, to a safe place
- Call 911 if you have a fire or medical emergency
- If you have damage to your home or vehicles call your insurance agent, day or night
- Your insurance agent will make arrangements for emergency board up services, roof repair, water extraction or other damage control services needed immediately after a loss. Take pictures if you can
- When appropriate, minimize losses by removing expensive electrical items such as laptop computers or other expensive household items
- If you feel your loss should be covered and your agent tells you that your losses will not be covered tell them you want a claim filed anyhow. The agent may be wrong and ultimately the claims adjuster has the final say in what's covered and what's not.
- If you experience a loss that turns out not to be covered by your policy but you thought you had that coverage you still have a chance to get compensated. You will need to file a claim with your insurance agent's Errors and Omissions policy.
- Contact the Arizona Department of Insurance if you have any problems with an insurance carriers solution that was not handled to your satisfaction



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Weather Statistics

- Tucson's average rainfall during the summer thunderstorm season is 6.06 inches. The wettest was an incredible 13.84 inches in 1964. The driest was only 1.59 inches in 1924.
- Arizona ranks Number 27 in the number of lightning strikes per year among the lower 48 states and D.C. However, since the number of days with thunderstorms in southern Arizona only averages about 50, the number of lightning strikes occurring at any given location here during the monsoon rivals almost anywhere else in the country for a similar 2 or 3 month stretch.
- Even though tornadoes are rare in Arizona (an average of four occur every year), and most are fairly small, destructive tornadoes can occasionally occur. For example, eight tornadoes occurred on October 6th, 2010 in northern Arizona.
- Thunderstorm downbursts are much more common than tornadoes in Arizona can produce straight-line winds in excess of 100 mph, with damage comparable to that produced by a tornado.

Flash Floods

- Flash floods can occur many miles away from a storm.
- The vast majority of people killed in a severe storm or a flash flood are males.
- Most people killed in flash floods were in a vehicle.
- It is impossible to detect whether or not a downed utility line is energized.

Lightning

- It does not have to be raining for there to be a lightning risk. Lightning flashes do occur outside the rain area in thunderstorms, and especially in southern Arizona, there can be dry thunderstorms that produce lightning with no rain.
- Lightning activity varies greatly in southern Arizona. In a typical year, about ten times as many flashes occur in Nogales as in Phoenix.
- Nearly all lightning deaths and injuries occur outside.
- During the past 10 years, an average of 39 people were killed by lightning each year in the U.S. Over 300 injuries are reported—the actual number is likely much higher.
- Lightning can travel up to ten miles from a thunderstorm.

Winds

- The vast majority of people killed in straight-line thunderstorm winds are struck by falling debris.
- 60-mph winds can lift the roof off a carport.
- 70-mph winds can turn a mobile home on its side if the mobile home is not anchored to the ground.
- 80-mph winds can lift the roof off a house.





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Media Contacts & Resources

American Red Cross Southern Arizona Chapter, <http://www.redcrossarizona.org>

Media contact: Cheryl Bender, 520.403.7408

City of Tucson, Dept of Transportation, Storm water Management Section,

<http://www.dot.tucsonaz.gov/stormwater>

Media contact: Karen Rahn, 520.791.4251

National Weather Service, <http://www.weather.gov/Tucson>

Media contact: Ken Drozd, 520.670.5156 x 223

NWS Tucson Weather Line - 520.881.3333

Northwest Fire District, <http://www.northwestfire.org>

Media contacts: Katy Heiden or Adam Goldberg, 520.887.1010

Ferrell Insurance Agency, <http://www.ferrellinsurance.com>

Media contact: Chris Ferrell, 520.888.6655 x 7004

Pima County Office of Emergency Management and Homeland Security

<http://www.pimahealth.org/emergency/index.asp>

Media contact: Mike Hein, 520.798.0600

Pima County Flood Control District, <http://rfcd.pima.gov>

Media line: 520.243.1800

Pima County Sheriff's Department Road Information Hotline - 520.547.7510

Rural/Metro Fire Department, <http://www.rmfire.com>

Media contact: Anne-Marie Braswell, 520.400.2777





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Media Contacts & Resources continued

Sabino Canyon Recreation Area, Coronado National Forest, <http://www.fs.fed.us/r3/coronado>

Media contact: Heidi Schewel 520.237.4860

Southern Arizona Rescue Assn., <http://sarci.org>

Media contact: Jason Bowman, jrbowman@email.arizona.edu

Tohono O'odham Nation, <http://www.tonation-nsn.gov>

Media contact: Pete Delgado, 520.383.2028

Tucson Electric Power, <http://www.tep.com>

Media contact: Joseph Barrios, 520.884.3725

TEP Customer Service - 520.623.7711

Tucson Fire Department, <http://www.tucsonaz.gov/fire>

Media contact: Trish Tracy, 520.471.7409

Vaisala, Inc., <http://www.vaisala.com>

Also visit <http://www.monsoonsafety.org>



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