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Our VISION:
A Disaster Re-
sistant University
as a global model
for other institu-
tions of higher
learning.

Our MISSION:
To administer a
campus-based com-
prehensive emer-
gency management
program in part-
nership with UW
academic depart-
ments, operating
units, staff, admin-
istration and neigh-
boring jurisdictions
in order to save
lives, protect prop-
erty and safeguard
the environment.

Disaster Digest

VOLUME IIII ISSUE 111

JULY 2013



Director's Corner

Steve Charvat, UWEM Director

As the new fiscal year (and biennium begins), our collective thoughts turn to the slower times of summer season here on campus. It also allows us here in UWEM – and our partners – to collect our thoughts on what has already been a very busy and productive year. A series of campus power outages and severe weather tested our systems and provided us with a number of lessons learned in updating our plans and procedures. The old adage of “doing more with less” continues as we look at providing an even higher level of customer service in a department that does have traditional customers or providing a service that our stakeholders can necessarily see or touch. Measuring our “SUCCESS” is a challenge. Metrics and measurement of systems can be difficult in an industry that deals with infrequent – but potentially catastrophic – events and incidents that don’t generally occur on a regular or recurring basis. We are quite excited about our newest [Lean Project](#) in which we are engaging a campus-wide team of stakeholders to better collect, analyze, and disseminate critical emergency and incident information to our students, faculty and staff. Our next newsletter in October will highlight some of the exciting projects and end products of this endeavor...so STAY TUNED. In the meantime, while summertime is traditionally a time of fewer storms and reduced campus activities, we ask that each of our newsletter subscribers and partners continue to practice your emergency drills with your families, co-workers and communities. Don’t know where to start or what resources are available? “Like” our UWEM Facebook page (click [here](#)) or go to our [Homepage](#) for ideas to start your summer of discovery and learning. Have a Safe and Enjoyable Summer everyone!

Partner of the Quarter: Tom Pittsford



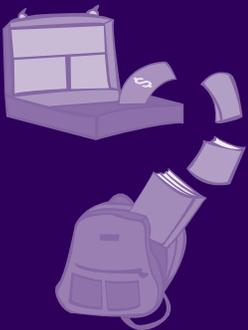
The 2001 Nisqually earthquake was a wake-up call for the UW in more ways than one. For those of us who were on campus that morning, many remember standing outside of our buildings, wondering what to do, if the structures were safe to return or who would tell us what to do next. The UW's leadership and Facilities Services eventually turned to a recognized leader in our own ranks to lead this effort. Mr. Thomas (Tom) Pittsford, who started working for the UW February 2005, was selected to lead the UW's effort in developing, training and testing cadre of campus engineers, architects and other building systems specialists to immediately inspect the UW's 200+ buildings for structural stability. Called the "ATC-20 Teams", Tom's leadership in this effort has proven to be a valuable asset to the UW after an earthquake. Tom's extensive technical knowledge as Structural Engineer in Campus Engineering and Operations has led to the establishment of 3 fully-equipped teams that will quickly assemble and fan out across campus to survey each building so that our students, faculty and staff will know if it safe to re-occupy their respective buildings. The UW's ATC-20 Team is fully "deputized" by the City of Seattle's Department of Planning and Development and is a model for other colleges and universities across the nation. This is due to Tom and his dedicated ATC-20 Team.

For this reason, and as an 8-year member of the UW's Emergency Management Planning Committee, Tom has been awarded the July – September 2013 Partner of the Quarter Award. Congratulations Tom!

Scholarship Available for Students in Emergency Management

The Washington State Emergency Managers Association (WSEMA) is currently receiving applications for the \$2500 Joel Aggergaard Memorial Scholarship. WSEMA announces the winner of this scholarship at our annual Conference in September. A \$2,500 scholarship is awarded to students pursuing a certificate, diploma, baccalaureate, or graduate degree in emergency management or a closely related field. The scholarship award will be directly paid to the college. Recipients do not need to be a member of WSEMA to apply and all applications are due no later than August 1, 2013.

All applicants must be residents of Washington State and attending a college, university, or online program in the State of Washington having completed one academic term (quarter or semester) prior to the scholarship application period. For more information and a link to the application, go to the WSEMA webpage at www.wsema.com.



Operation Flashpoint

This year's annual EOC exercise, Operation Flashpoint, took place on the evening of June 25 in the UW's Emergency Operations Center (EOC). The intent of the exercise was to test the UW's ability to manage a mid-sized accident on the east part of campus with a response that transitioned from afternoon to evening. The exercise planning team for Operation Flashpoint identified the following objectives as goals to accomplish with testing the EOC:

- **EOC responders will employ their roles and responsibilities as defined by the UW All-Hazards Emergency Management Plan.**
- **Test the efficient flow of information within the EOC between the sections and external entities.**
- **Test real-time EOC Activation and deactivation protocols for a late-day event.**
- **Test integrity of the Unified Command by actively involving the Emergency Policy Council (President's Cabinet) in strategic decisions that impact campus Business, Academic and Research operations.**
- **Test the ability of the University to develop and implement a system to manage the surge of requests for information via various methods.**



The scenario used to test the EOC was a natural gas explosion caused by an accident near the Power Plant. This provided a simulated disruption of Montlake and the UW buildings and facilities east of Montlake. Having the Power Plant offline did not actually cause a power-outage as many people assume, but disrupted important secondary systems such as hot water, steam and natural gas. This in turn caused disruptions for University operations at the UW medical Center, the various dining venues, the residence halls and the sports facilities east of Montlake, in addition to nearly all other buildings on campus.

The exercise was driven by information provided through a simulation cell, where a group of subject matter experts from the UW and some of our community partners, provided expert input into how to test the EOC response. The information was provided to the EOC by radio, phone and paper messages. The exercise ran roughly 3:00 PM until about 7:30 PM or so and was immediately followed by a "hotwash" where we discuss what worked well, what needs improvement and suggestions for that improvement.

As with all good exercises, the UWEM staff and the EOC responders learned a lot of lessons about how to better prepare the University for these types of events and how to better cooperate and collaborate ahead of time with our regional partners to ensure an efficient, effective response. A formal report will be released by UWEM before the end of July with official findings and recommendations for improvement.

First-Aid/CPR Being Offered by UWEM

Beginning Mid-July, UW Emergency Management will begin to offer a low-cost alternative for First Aid & Adult CPR/AED to Facilities Services-affiliated groups. The class is the result of an effort to help Facilities Services departments reduce training costs by providing such training in-house at the cost of only the credential card- around \$6.00.

UWEM was able to achieve this by:

- * Using salaried UWEM staff members that have been credentialed through the American Heart Association as instructors, so no additional pay is required for their time.
- * Eliminating much of the operating costs of the class by placing the option to purchase a student manual back on the individual class attendees. If they want a manual, they can buy one or ask their department to buy one. The student manual is not needed to take and pass the course.
- * Using recyclable items such as the CPR masks so that new masks are not required to be purchased for each class.
- * Using green technology in the form of a baby-bottle steamer to sanitize CPR masks to ensure the health and safety of the students in the course.

The overall cost savings estimates are expected to be around \$50,000 per biennium across Facilities Services.





Power Outages Don't Have a "Season" of Impact

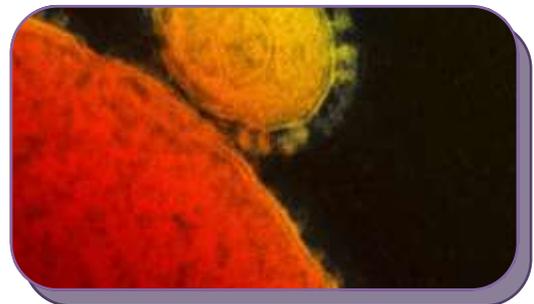
When the entire UW Campus went dark on March 13, 2012, we were told by local and campus utility and power officials that events like this are "once-in-a-lifetime" event. While it was limited in nature (less than 5 hours), the UW's emergency planning and response teams and department administrators convened an After-Action Review (AAR) group and developed a number of corrective actions to deal with many

of the UW's critical systems that failed or were reliant upon a constant supply of electrical power. Since then, we have seen a number of other national disasters from Hurricane Sandy to the Midwest tornadoes that ravaged huge portions of the US. Then, exactly one year and month after, yet another regional power outage hit the UW and surrounding community. Like the 2012 event, this 4-hour evening/weekend outage had many of the same impacts to the UW's critical business, academic and research activities. Luckily, due to the short-duration of the event and some active planning and lessons learned, the effects to the Seattle campus were limited. Less than 2 weeks later, on Tuesday, April 30th, yet another limited power outage impacted the eastern and southwestern parts of the campus, including many off-campus residence units. Due in large part to the general aging underground infrastructure and limited external pathways of power sources into the main campus, we are quickly learning to deal with the increased likelihood of regular power outages. UWEM departments are encouraged to take advantage of the UW's (free) business, academic and continuity online planning tool, called HuskyReady to assist them to plan for future outages as well as disruptions to their core missions after any disaster. Information on the HuskyReady online planning tool can be found at: <http://www.washington.edu/emergency/bcm>.

Will This Be the 2014 "Disease Du Jour?"

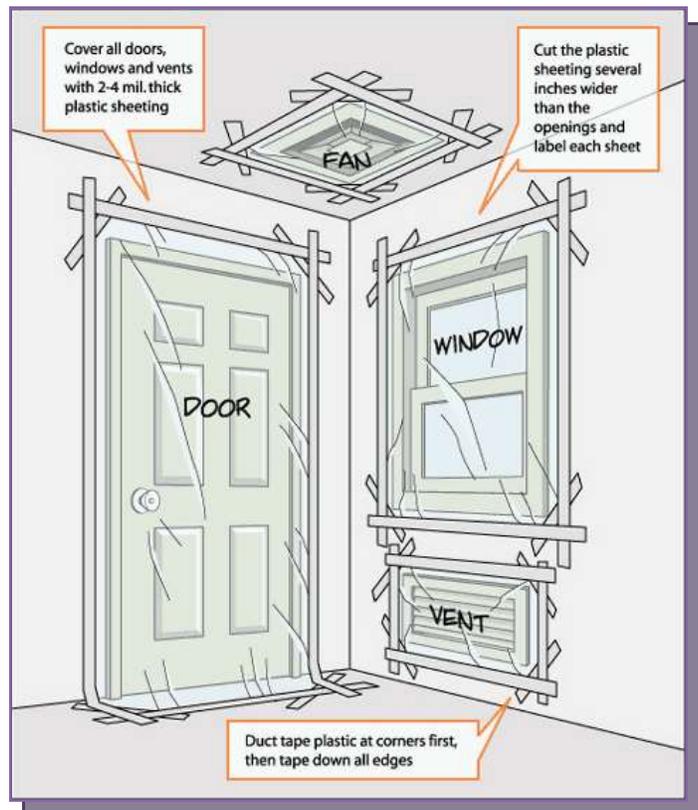
A mysterious new respiratory virus that originated in the Middle East spreads easily between people and appears more deadly than SARS, doctors reported Wednesday after investigating the biggest outbreak in Saudi Arabia. As of June 21st, more than 60 cases of what is now called MERS, including 38 deaths, have been recorded by the World Health Organization in the past year, mostly in Saudi Arabia. So far, illnesses haven't spread as quickly as SARS did in 2003, ultimately triggering a global outbreak that killed about 800 people.

An international team of doctors who investigated nearly two dozen cases in eastern Saudi Arabia found the new coronavirus has some striking similarities to SARS. Unlike SARS, though, scientists remain baffled as to the source of MERS. In a worrying finding, the team said MERS (Middle East respiratory syndrome) not only spreads easily between people, but within hospitals. That was also the case with SARS, a distant relative of the new virus. "To me, this felt a lot like SARS did," said Dr. Trish Perl, a senior hospital epidemiologist at Johns Hopkins Medicine, who was part of the team. Their report was published online Wednesday in the *New England Journal of Medicine*. For more information, click ([here](#)). Additionally, the US Centers for Disease Control has a website set up with up-to-date information at: <http://www.cdc.gov/coronavirus/MERS/>



Lockdown vs Shelter-In-Place

As current events involving emergency management and disaster response receive more coverage in the media, the terms “lockdown” and “shelter-in-place” are being presented to the public for a variety of purposes. What is the difference between these two ideas? When might first-responders use one instead of the other? It’s actually pretty simple to sort out! A Lockdown is an emergency action used specifically to prevent people or information from escaping custody of law enforcement professionals. A lockdown could also be used to provide protection to the people located within a building or facility, as well as information technology networks, when a dangerous threat to security has been detected. A lockdown is most commonly used in correctional facilities and hospitals. A Shelter-in-Place message, on the other hand, is recommended by local government officials or first-responders when a known threat of unknown scope, duration or movement has been reported. The most common causes for municipal leaders to advise sheltering in place would be potential Hazardous Material (HAZMAT) incidents, such as a gas leak, chemical spill or accidents that involve medical supplies/medical waste. When you shelter-in-place, you are advised not only to remain indoors for a period that could last several hours, but to also actively take steps to fortify the room against non-living hazards; this could include sealing off heating or air-conditioning vents, covering sinks/drains/faucets or sealing off doors to prevent liquids & vapors from seeping in through cracks in the doorframe. A key difference to remember is that Lockdowns are direct orders from local law enforcement or private security professionals to simply get into a safe place and remain there for a very brief period of time (Less than 1 hour, typically). Shelter-in-Place involves more work for individuals once they reach the designated sheltering site, and people should be prepared to remain sheltered for several hours. As such, a Shelter-in-Place site should include some basic duct tape, plastic sheeting and other items to seal the shelter off, plus a radio, flashlight, a first-aid kit and some bottled water if possible. A Lockdown could happen almost anywhere, so the only thing you can bring ahead of time is a sense of urgency, good listening skills and as much patience as possible!



Cost of 2012 Natural Disasters is One for the Record Books *(Source: LiveScience)*

Hurricane Sandy and an extensive drought made 2012 the United States' second-costliest year for natural disasters since 1980, federal officials said Thursday.

Weather and climate disasters racked up \$110 billion in damages across the country last year, according to a report released by the National Climate Data Center (NCDC).

There were 11 events in 2012 that each incurred at least \$1 billion in damages, including spring tornado outbreaks in the Midwest and Texas, a derecho that plowed from the Plains to the Northeast, and the yearlong drought and its associated heat waves and wildfires that burned more than 9.2 million acres, mostly in the West.

All told, more than 300 people were killed in these 11 extreme weather events — 159 of those lives were claimed by Sandy. Sandy by far was the most costly event of the year, with \$65 billion in damages. The gigantic storm, which at one point had tropical storm-force winds extending almost 500 miles (800 kilometers) from its center, made landfall on the Jersey Shore on Oct. 29. It caused a record storm surge, historic flooding and widespread power outages along a huge stretch of the East Coast.

Last year's severe, yearlong drought, meanwhile, was estimated to have cost about \$30 billion in damages, much of it due to widespread harvest failure. For most of 2012, more than half the country was affected by the drought, which covered the largest area of any drought since the 1930s, according to the NCDC's report.

The costliest year on record for natural disasters was 2005 — the year Hurricane Katrina devastated New Orleans and the Gulf — with \$160 billion in damages. According to the NCDC, 2012 also ranks second for number of billion-dollar disasters, just behind 2011, which saw 14 such events.



Personal Situational Awareness

Emergency management traditionally focuses on the basic physical needs when teaching individual emergency preparedness: food, water, shelter, etc. However, another aspect of personal emergency planning that deserves some attention is the development of personal situational awareness and unlike some other aspects of personal preparedness; it takes some time to develop this skill and there is no short-cut. Being aware of what's going on around you is an all-hazards skill: it applies to surviving earthquakes and storms as much as it applies to surviving street crime.

Being personally aware of your surroundings, your environment and the conditions that you find yourself in can be a critical element to your overall safety, whether you find yourself in a disaster or emergency or just in your everyday travels around town. Paying attention to potential risks and anticipating hazards can be a prudent way to avoid trouble before it starts or to mitigate a problem once it has started to minimize the potential magnitude of the incident. Our modern society of convenience can lead to a sense of complacency where we fail to properly recognize and manage a threat until it's too late.

These threats can be in a variety of formats, including:

- Aggressive people.
- Aggressive animals.
- Changing weather and environmental conditions.
- Group or crowd behavior.
- Human-caused hazards such as hazardous materials, structural fires and various transportation accidents.

The key to being able to identify and respond appropriately begins with educating yourself on how to improve your awareness of your surroundings by practicing some good habits and minimizing some bad ones.

Good Habits Give You Options for Action if Something Goes Wrong

1. Survey your environment

- If this is a new environment for you, this is your opportunity to learn more about it.
- If this is a familiar environment for you, this is your opportunity to identify what has changed.

2. Do a little research and anticipate potential problems (i.e. check the weather report before hiking).

- If going downtown, are there any special events or activities that may impact you?
- If going outdoors, what weather or environment conditions should you consider?
- If traveling abroad, what are the social conditions and political climate in the country that you'll be visiting?

3. Be out and about with confidence

- If you are out in public, move with a confident intent about you. This is less likely to put you into the category of a potential "victim" to some criminals.
- Try to minimize anything that may attract predators (human or otherwise)

4. There really is safety in numbers

- Travel with friends whenever possible. The more people that you know and trust, the more resources you will have if something goes wrong or you need help.

Bad Habits Reduce Your Options for Action if Something Goes Wrong

- Avoid walking alone in darkened or less populated areas, particularly at night.
- Avoiding flashing too much money when paying for things in public.
- Minimize distractions to your attention.
 - ⇒ Using cellphones while walking can make you an easy target for a would-be thief, but they also can reduce your ability to focus on the environment around you, especially at night. At night, a cellphone not only blinds you to what’s in the dark near you, but also lights you up like a beacon.
 - ⇒ Earphones reduce your ability to hear what’s going on around you. Maybe you can’t hear an approaching emergency vehicle’s siren as you step out into the road.
- Be wise when consuming alcohol. Intoxication can leave you vulnerable to the environment and will magnify heat-related illness or hypothermia. It also slows your reaction time should an emergency take place.

Being aware becomes a habit. There are some excellent books and resources that can help you develop these skills. Here’s a few we recommend:

- [University of Washington Police Department](#) has a great webpage and offers tips on personal safety and even classes on defense for women.
- [Campus Safety Magazine](#) has a number of articles on a variety of topics, including this video on [making quick decisions in a crisis](#).

Books

- [The Gift of Fear](#) by Gavin DeBecker is a book that has an outstanding reputation for teaching the reader to learn how to spot trouble and danger signals that other people miss or disregard.
- [Deep Survival](#) by Laurence Gonzales is a book that many in the search and rescue community read. It helps the reader develop the most important survival tool of all: your attitude and determination to live.

The more that a person can learn to become more aware of their environment, the better off that person will be to avoid trouble in the environment (whether a natural hazard or a human one) or be able to effectively manage the trouble if avoidance is not an option. The mind is an amazing tool in an emergency, but like all tools, it needs to be prepped and maintained so that it’s ready when needed most.





Grill Safety: Don't Get Burned!

Summer is here, and it promises to be a particularly-warm one for the Puget Sound area. Many local residents have opened the garage or backyard shed in order to break out a beloved icon of the season: The grill. Also called “the barbeque-er” up here in the Pacific Northwest, the common grill promises many good meals shared with friends and family, but it also possesses dangers far greater than the debate over propane vs. charcoal. The National Fire Protection Association (NFPA) reports that between 2006-2010, U.S. fire departments were dispatched to an average of 8,600 fires inside homes or outside on residential property each year. 28% of these accidents involved grills burning out of control in courtyards or patios, with another 28% occurring on open porches or balconies. Almost half of the total number of fires associated with grills is a result of flammable gas or liquid catching fire suddenly. 140 people, on average are injured every year, with nearly 10 fatalities related to grill fires and \$75 million in direct property damage. Though July is when the number of fires peaks, they can occur throughout the year. To reduce the chances of your burger-burn getting out of control, make sure all grills (regardless of fuel source) are only used outdoors and are kept well away from the home, deck or low-hanging tree branches. Keep children and pets away from the grill area and clean the grill after every use to avoid grease build-up; grease fires can only be put out by smothering them, not by spraying water on the grill! Never leave your grill unattended when in use, and for charcoal users, make sure the coals have completely cooled before disposing of them in a metal container. For propane users, check the hose annually before cooking by applying a solution of dish soap and water to the hose; any leaks will produce bubbles on the surface, requiring a replacement hose before you can safely grill. Whether veggie burgers, salmon, steak or hot dogs: Grill safely and enjoy your summer!

Grilling Safety

There's nothing like outdoor grilling. It's one of the most popular ways to cook food. But, a grill placed too close to anything that can burn is a fire hazard. They can be very hot, causing burn injuries. Follow these simple tips and you will be on the way to safe grilling.

SAFETY TIPS

- ❗ Propane and charcoal BBQ grills should only be used outdoors.
- ❗ The grill should be placed well away from the home, deck railings and out from under eaves and overhanging branches.
- ❗ Keep children and pets at least three feet away from the grill area.
- ❗ Keep your grill clean by removing grease or fat buildup from the grills and in trays below the grill.
- ❗ Never leave your grill unattended.
- ❗ Always make sure your gas grill lid is open before lighting it.

CHARCOAL GRILLS

- ❗ There are several ways to get the charcoal ready to use. Charcoal chimney starters allow you to start the charcoal using newspaper as a fuel.
- ❗ If you use a starter fluid, use only charcoal starter fluid. Never add charcoal fluid or any other flammable liquids to the fire.
- ❗ Keep charcoal fluid out of the reach of children and away from heat sources.
- ❗ There are also electric charcoal starters, which do not use fire. Be sure to use an extension cord for outdoor use.
- ❗ When you are finished grilling, let the coals completely cool before disposing in a metal container.

PROPANE Grills

Check the gas tank hose for leaks before using it for the first time each year. Apply a light soap and water solution to the hose. A propane leak will release bubbles. If your grill has a gas leak, by smell or the soapy bubble test, and there is no flame, turn off the gas tank and grill. If the leak stops, get the grill serviced by a professional before using it again. If the leak does not stop, call the fire department. **If you smell gas while cooking, immediately get away from the grill and call the fire department. Do not move the grill.**

If the flame goes out, turn the grill and gas off and wait at least 15 minutes before re-lighting it.

FACTS

- 1 July is the peak month for grill fires.
- 1 Roughly half of the injuries involving grills are thermal burns.

www.nfpa.org/education

Your Source for SAFETY Information
 NFPA Public Education Division • 1 Batterymarch Park, Quincy, MA 02269

Are You Prepared for a Wilderness Emergency?

Are you prepared for a wilderness emergency? The Ten Essentials, a packing list for hikers which has recently been updated by The Mountaineers, is designed to answer two basic questions: can you respond positively to an accident or emergency? Can you safely spend a night out if necessary? Make sure you've got them all even on the easiest of day hikes, as you never know what the day will bring.

1. **Navigation:** Carry a topographic map and a compass. These items are lightweight and will be essential if you lose the trail.
2. **Sun Protection:** This includes sunglasses, sunscreen, and lightweight clothing.
3. **Insulation:** Despite the aforementioned need for sun protection, you never know when the weather will turn – especially in the Pacific Northwest! Carry an extra layer in your pack and consider packing a hat and an extra pair of socks as well, just in case.
4. **Illumination:** Even if you're only planning on a day hike, it can be easy to hike further than you'd planned, leaving you in darkness on the way back. Pack a small flashlight, just in case. You might consider purchasing a headlamp instead – they're inexpensive, lightweight, and will leave your hands free.
5. **First-aid Supplies:** Any outdoor store will sell small, preassembled first-aid kits which are easy to put in a pack. Make sure your kit has band aids, gauze pads, adhesive tape, disinfecting ointment, blister treatments, and tweezers.
6. **Fire:** Carry waterproof matches, even if you have a lighter already. If the area you are hiking is particularly wet or lacking in vegetation, consider carrying something to help you sustain a fire as well: a candle works well and is lightweight.
7. **Tools:** A basic multi-tool can be helpful for gear repair, first aid, food preparation, or making kindling if you need to build an emergency fire.
8. **Nutrition:** Always pack more food than you think you need. You'll be happy for that extra trail mix or pack of jerky if you're stranded or just out longer than you'd planned.
9. **Hydration:** Carry a water bottle and a purifier (either a filter or chemical treatment) for treating wilderness water sources in case you unexpectedly run dry. Your map can help you locate possible water sources.
10. **Emergency Shelter:** Especially important for day hikers, who have not packed with the intention of sleeping outside, an emergency shelter can save your life if you're stranded overnight in the wind or rain. A shelter can be as simple as a tarp, a space blanket, or even just a large plastic trash bag.

This list is at the core of wilderness preparedness but it's just a starting point. Know the hazards specific to the area you plan to hike and let people know where you're going and when you plan to be back. Your hike will be more fun if you have peace of mind!



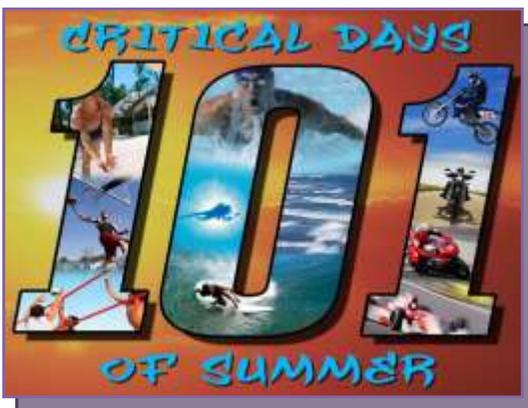


UWEM's Steve Charvat and Katharine Flug had the opportunity to travel to King County's Emergency Coordination Center in May for a demonstration of and discussion about Puget Sound FirstToSee, a new app that could improve communication and reduce confusion for responders during an emergency. Emergency responders and the general public can use the app to quickly report what they are seeing on the ground from their phones or tablets and can easily upload photos and tag a location. Users can be vetted by emergency agencies and tagged as "trusted users", ensuring that incoming information is reliable. The app has the capability to pull information from social media, RSS feeds, and news media for updates relevant to the emergency, so that all information is gathered in one place for use by emergency agencies. As the information is pulled from various sources, it is automatically sorted into different categories, called "buckets", for quick evaluation. Incident information can be viewed as a sortable list or as a map, where information is shown as icons which can be clicked for more detail. Reports can be edited as they're reviewed, which allows for the addition of comments and status updates. The system is cloud based, so can be accessed from any computer, and can serve as an interagency platform.

The May event included a presentation on why social media is growing in importance during emergency response, a discussion of the technology involved in FirstToSee, and a demonstration of the system in action using a simulated incident. Attendees were given temporary log-ins and were able to make reports and test various features of the app. The app is currently available for free in Apple and Android stores. The system is still being tested and adjusted but developers and community partners hope that emergency agencies both in the Puget Sound area and outside the region choose to use the app and find it helpful in future.

Drowning: It Doesn't Always Look Like Drowning

Many people picture drowning the way it often appears on television: the victim is screaming, splashing, and thrashing dramatically in the water. In reality, drowning deaths can occur so quietly that people around the victim may not realize anything is wrong until it's too late. A person who is drowning is unable to call for help, as their mouth will move in and out of the water too quickly. Instinct will kick in and override voluntary arm movements, so a drowning person is usually not able to wave their arms for help or assist in their own rescue. Drowning is the sixth leading cause of unintentional injury death for people of all ages and the second leading cause of death for children ages 1 to 14. Enroll your children in swimming lessons, or learning to swim yourself if you don't already know how. If you have a swimming pool and young children at home, install fencing around the pool. Make sure all gate latches are out of reach of children. Consider additional safety features such as an alarm that will alert you if someone enters the pool area. Designate a responsible adult to watch young swimmers in or around the water, even if you're at a public pool and there is an official lifeguard on duty. The designated adult should not be engaged in distracting activities while supervising children and should be within "touch range," or close enough to easily pull a child out of the water if necessary. Consider taking a CPR class. CPR performed by bystanders before the arrival of emergency personnel has been shown to improve outcomes in drowning incidents. If you're at the beach, know the meaning of and obey warnings of the lifeguards and colored beach flags. If you're boating, wear a life jacket, even if you know how to swim. In drowning deaths that occurred while boating in 2010, 88% of the victims were not wearing life jackets. Drowning can occur in less than sixty seconds. Take these precautions and make sure you and your loved ones are safe this summer.



The period between Memorial Day Weekend and Labor Day Weekend contains the highest risk of accidents, injuries and fatalities for people nationwide each year. The state and federal government has recognized this and promotes a culture of safety to employees through the annual "101 Critical Days of Summer" campaign. Activities that we enjoy doing during the season often have elements of risk we do not consider prior to heading out on the road. How many of these have you done before: Driving more than 200 miles from home, swimming or boating, playing outdoor sports or going to a party? Accidents while traveling often lead to injuries or even deaths; make sure to buckle up, never drive while tired or impaired by alcohol/medications and follow the posted speed limits. If on a motorcycle, wear all of your protective gear and don't assume that near-

by cars can easily see you in their mirrors or windows. When traveling, make sure you stop for frequent breaks every 2-3 hours as well. When near the water, make sure to actively keep track of any small children. Learn how to swim and encourage your friends & family to do so if they haven't already; obey posted signs about the safety of water and only swim where lifeguards are present. If boating, make sure everyone is wearing a life jacket. Failure to do so is not only dangerous, but you can be given a ticket & fined by the Coast Guard if caught! Before engaging in sports or other outdoor activities, make sure to stretch properly. Stay hydrated as well and use all protective gear required. This summer, everyone in the UW community is encouraged to take advantage of the seasonal weather and activities that we've been waiting for all winter, but it's more important that every Husky is able to do so in a safe manner. We want you to come back with good memories, amazing photographs of your vacations and nothing worse than a mile sunburn; see you in September!

Did You Know about the Deadly Tornado in Our Neck of the Woods???

The Vancouver tornado of 1972 stands alone in the record books. It is the holy grail of Pacific Northwest tornadoes. Even now, 40 years later, the April 5th 1972 Vancouver tornado is the single deadliest tornado to strike west of the Rocky Mountains in modern history, killing six people and injuring more than 300 in Vancouver, Washington alone. Those who lived through that day witnessed the fury of mother nature to a degree that is not likely to be matched again anytime soon. The 1972 tornado was similar in atmospheric structure to that of the Hazel Dell tornado of January 2008. However, the 1972 tornado was much stronger. The 2008 Hazel Dell tornado was an EF1 on the newer Enhanced Fujita scale that became operational in 2007. Winds were likely between 90-110 MPH in the 2008 Hazel Dell tornado. The Vancouver tornado of 1972 was rated an F3 under the original Fujita scale which came online in 1971. Winds on the older Fujita scale were estimated between 158-206 MPH if rated as an F3, as was the case in the Vancouver tornado of 1972.



Unlike tornados east of the Rockies, tornados in the Pacific Northwest are referred to by many as “cold core” due to their lack of humid and buoyant air. The Pacific ocean keeps our atmosphere relatively mild year round. This is not conducive for the formation of super cell thunderstorms needed to generate the really large and damaging tornados you might see in the Midwest. What makes the 1972 tornado so rare is the fact that it was able to spin up to F3 status and stay on the ground for nearly 8 miles. Meteorologists over the years have hypothesized that both the Columbia River and Vancouver Lake could aid in the development of tornados across Clark County. Although the larger mechanism at play for these tornados lies in the atmosphere above us, there is something to be said for these two large bodies of water sitting just upwind from where these two tornados formed and tracked. Some Meteorologists believe that Vancouver sits in a rare atmospheric location, on the down slope side of Portland’s West Hills. As a line of strong springtime showers moves west to east over the west hills, it often collides with upper air flowing south to north up the Willamette Valley. When these two air masses collide, it creates some degree of rotation in the atmosphere. Even with the proper atmospheric conditions present, the odds of seeing another “perfect storm” akin to April 5th 1972 is extremely small, no matter which method of calculation you use.

<http://blogs.columbian.com/weather/2012/04/04/40th-anniversary-of-great-vancouver-tornado/>



Tornado Preparedness

Wherever you live in this world Mother Nature is always at play and ready to throw a natural disaster your way. Here in Washington State we live in Earthquake country. We all know when the earth starts to shake to Drop, Cover and Hold On! But how many of us north westerners ever think about what to do in a tornado? I live and breathe earthquake education and preparedness. I simply find it all fascinating. But realize I need to expand my knowledge and preparedness about other natural disasters for the various places I travel to around the country. I ask the question of you: if you were traveling into Tornado Alley and a warning was issued would you know what to do?

If you are under a tornado warning, seek shelter immediately! Most injuries associated with high winds are from flying debris, so remember to protect your head!

IF YOU ARE IN:	THEN:
A structure (e.g. residence, small building, school, nursing home, hospital, factory, shopping center, high-rise building)	<ul style="list-style-type: none"> • Go to a pre-designated shelter area such as a safe room, basement, storm cellar, or the lowest building level. If there is no basement, go to the center of an interior room on the lowest level (closet, interior hallway) away from corners, windows, doors, and outside walls. Put as many walls as possible between you and the outside. Get under a sturdy table and use your arms to protect your head and neck. • In a high-rise building, go to a small interior room or hallway on the lowest floor possible. • Put on sturdy shoes. • Do not open windows.
A trailer or mobile home	<ul style="list-style-type: none"> • Get out immediately and go to the lowest floor of a sturdy, nearby building or a storm shelter. Mobile homes, even if tied down, offer little protection from tornadoes.
The outside with no shelter	<ul style="list-style-type: none"> • Immediately get into a vehicle, buckle your seat belt and try to drive to the closest sturdy shelter. • If your vehicle is hit by flying debris while you are driving, pull over and park. • Stay in the car with the seat belt on. Put your head down below the windows; cover your head with your hands and a blanket, coat or other cushion if possible. • If you can safely get noticeably lower than the level of the roadway, leave your car and lie in that area, covering your head with your hands • Do not get under an overpass or bridge. You are safer in a low, flat location. • Never try to outrun a tornado in urban or congested areas in a car or truck. Instead, leave the vehicle immediately for safe shelter. • Watch out for flying debris. Flying debris from tornadoes causes most fatalities and injuries

I-5 Bridge Collapse, Vulnerable Infrastructure

The critical Infrastructure that is our Transportation network is vital to our way of life. Here in the northwest we rely heavily on bridges to connect us between cities and over the multiple waterways that make up the beautiful Pacific Northwest. Most of us take these transportation lines for granted as we move about our everyday lives.

On May 23 2013 we witnessed failure of one of these vital bridges, the Skagit River bridge along I-5. This failure was not due to any sort of natural disaster but of man-made error and would soon have a state wide impact. Loss of this bridge meant disruption of the busy north-south corridor between Canada and Washington. Canada Was No. 2 trading partner (\$33.4 billion total imports and exports) It is a huge commercial artery and any damage along the way can have huge economic ramifications. The 2007 floods that washed out a section of I-5 in Chehalis and closed the freeway in both directions for four days caused \$47.7 million lost economic output, 280 jobs lost for one year following the closure, and state tax revenue loss was \$2.39 million.

As the news unfolded about this bridge collapse many people's immediate thoughts were of the other 7,700 bridges throughout the state of Washington. How vulnerable our transportation lines are to failure due to earthquakes alone (because that is just what some members of the public are thinking about). When we talk about the need for people to be more self-sufficient and have emergency supplies on hand this is in part because of the damage that will be caused to our transportation system. The vital blood lines of our system to move goods and services. We have now seen the impacts of a bridge failure and closure shutting down a major artery for 4 weeks, and the 4 day closure of I-5 due to flooding. But imagine damage to our transportation lines caused by an earthquake that could take months to years to rebuild. You will not be able to run down to the local store for supplies as the semi-truck that usually brings just-in-time inventory every day will not be able to get down the highway. Prepare now!





July: Under the Bed Items

When disaster strikes, it may be difficult to think as rationally and as quickly as you would like. The more procedures you have in place, and the easier they are to remember and implement, the more effective and efficient will be your response. We recommend that you keep these basic response supplies under the bed. That way, day or night, you'll know where to go to get the essentials.

August: Utility Safety

Natural gas leaks and explosions are responsible for a significant number of fires following any major earthquake. It is vital that all household members know how to shut off the natural gas. Water quickly becomes a precious resource following many disasters. It is vital that all household members learn how to shut off the water at the main house valve.

September: Drop, Cover & Hold

During earthquakes, many people's fight/flight instinct urges them to *run!* – even when they *know* they should “drop, cover, hold.” Why? Rational thought (in other words, the *knowing*) flees. We learn to counter this instinctual response to run by *practicing* doing the safe thing. Studies show that people in our country tend to be hurt by falling objects, not collapsing structures. If you are on your feet trying to move, you are in danger from toppling bookcases, breaking windows, flying dishes, falling televisions, collapsing fireplaces, or shifting furniture. Safety comes from quickly getting to a place of safety.

HELP WANTED! UW Emergency Management is always looking for volunteers to be trained and ready to work in the Emergency Operations Center (EOC) upon activation. If you are interested in learning more about this wonderful opportunity, please email: disaster@uw.edu

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