Director’s Corner

Starting this month, our beautiful campus and university comes back to life after another relaxing summer break for many students and what tends to be a slower pace for most faculty and staff. However, what most campus residents, staff and visitors often do not realize, is that summertime is actually considered the “busy-season” for a select group of individuals who take advantage of the students’ temporary absence to address a growing list of projects that must wait until this summer hiatus. These unsung heroes, over 150 on the Seattle campus alone, carry an additional set of job responsibilities that stretch well beyond what is in their formal job descriptions. This group of UW staff are designated and referred to as Building Coordinators. You may ask.. Who are they and what do they do?

Each day, UW Building Coordinators are responsible for a number of critical liaison functions between you (as building residents) and most UW administrative support and service departments. Without knowing it, you likely benefitted from some of their more mundane responsibilities — such as ordering and handing out brass door keys and building securing access control, office and space planning requests, handling those complaints that your space is either too HOT or COLD, helping you figure out who can help when someone is stuck in elevator or what calling the right person when that annoying sink or restroom toilet won’t stop running!

However, these same Building Coordinators also perform a number of critical life safety functions ranging from scheduling fire drills, drafting you building evacuation plans, or signing up your building for emergency occupant training opportunities such as the upcoming annual earthquake drill on October 20th — the Great UW ShakeOut (see story on pages 2-3). Perhaps most importantly, our UW Building Coordinators act as ambassadors to UW Emergency Management — often as our “eyes and ears” throughout campus. On a regular basis, we reach out to them to share alerts messages and test schedules, provide you with critical incident or event information and to share opportunities allowing our residents to feel more safe in the spaces that they work, study and/or live.

So if you happen to run into your Building Coordinator anytime soon, take a moment to thank them for their service and dedication!

Steve Charvat, UWEM Director
The Great UW ShakeOut is coming our way on Thursday, October 20, 2016 @ 10:20 am

First, Some History and Background

The Annual Great ShakeOut is a dedicated time for organizations around the world to practice the recommended actions to take as soon as the earth starts shaking. The goal is that muscle memory will win over that Fight-or-Flight instinct, and in the end we will be safer as a community.

The Great ShakeOut is a national program, often administered at state level. In Washington, for example, it is coined the Great Washington ShakeOut. As the UW Seismic Resilience Program Manager, I have coined the UW’s efforts as the Great UW ShakeOut.

That’s right, you have an opportunity to practice DROP, COVER, and HOLD ON at your workplace, and with thousands of people across the state on THURSDAY, October 20th at 10:20 am.

Frequently Asked Questions (FAQs)

What if our Department Already Registered for the Great ShakeOut directly with WA State? (as opposed to the Google Form being used for Great UW ShakeOut registration)

That registration goes directly to the State, and we cannot see who has registered there. Here at UW Emergency Management, we would like to give credit where credit is due! If you could also take the additional 2-3 minutes to register here, we would be extremely grateful.

Why Doesn’t the Registration Link Work or I get a Warning Message When I Try to Register?

You need to be logged into Google with your uw.edu email in order to have access to the registration link. If you are having trouble registering, try opening a new browser. Go simply to www.google.com, and on the upper right-hand side, log out of your non-uw.edu google account and log back in with your UWNNetID.

(continued on page 3)
The Great UW ShakeOut ...

(continued from p. 2)

Does our Earthquake Drill Have to be on October 20\textsuperscript{th} at 10:20 am?

No. We understand that some departments may need to alter, slightly, the date and/or timing of their Great UW ShakeOut Drill. I have already received registrations that note when their alternative earthquake drill will take place! The important thing is that everyone take time to practice \textit{DROP, COVER, and HOLD ON}.

Ways to Participate

1- \textbf{The Basics}. The simplest way to participate is to practice \textit{DROP, COVER, and HOLD ON} at 10:20 am on 10/20/16. This can be done by using your building’s Public Address (PA) system to alert occupants of the preceding drill (\textit{contact your Building Coordinator for details}). No access to your PA system, or departments in your building not participating? Choose a team member to use whistles, a blow horn, or the like to alert department members that “This is an earthquake drill! \textit{DROP, COVER, and HOLD ON!”}

2- \textbf{Reaching for Gold}. In addition to practicing Activity #1, some departments may also add a building evacuation drill to their earthquake drill. Be mindful that your earthquake evacuation location is not always the same location as your fire evacuation location. Furthermore, \textit{evacuation after an earthquake is not always necessary}.

3- \textbf{Over Achiever (in a good way)}. The real superstar departments will take this time to also review any and all emergency plans \textit{as a team}. Reminder: UW Emergency Management can tailor just about any training to your department’s specific needs. Furthermore, we offer a multitude of services that are all \textbf{100\% free} to the UW Community. Just ask!

Anything Else?

As your UW “Earthquake Concierge”, we have already registered the entire Seattle campus on the official Washington State Great ShakeOut website. All that is left for you to do is use this internal \textbf{Google Form} to let us at UWEM know you will be participating.

If you need help planning your department’s participation in the Great ShakeOut, send an email to smiths42@uw.edu
Book Review: Sully — The Untold Story Behind the Miracle on the Hudson

Last month, on my way to a disaster training session in Kentucky, I picked up the book “Sully” at one of the SeaTac Airport gift shops thinking it would help pass the time on the long trip back East. After reading it, I would classify this book “the ultimate airport book” as it was easy-to-read in the not-so-ideal locations of airport lounges and long, uncomfortable plane rides. The 340-page paperback was written with lots of photos, charts, but definitely was not boring. I also knew that the move starring Tom Hanks had just come out in local movie theaters and I wanted to read the book before seeing it on the big screen.

The January 15, 2009 USAir flight #1549 actually lasted less than five minutes. How would the authors be able to “milk” those five minutes into a full-length book (and movie) without needless filler and back-stories? Well, they did it successfully – so much so that I finished the book before my flight landed that afternoon in Lexington.

In Sully, the book, there is the obligatory biography of the author himself. How he learned to fly as a young man in rural Texas, his career in the Navy etc… But the biography is more than just about the miraculous landing and is surprisingly personal. Besides intimate family details, the reader learns much about the airline industry, how flight 1549 touched the lives of those not even directly related to the flight, and, most importantly, important details of the flight that were missed or reportedly inaccurately by the media. Sully was originally published under the title “Highest Duty.” It was renamed (presumably) to help market the movie.

Wearing the lens of a professional emergency manager, the lessons I took away after reading the book were the following: (1) the need and requirements for regular and ongoing training for people entrusted with others’ safety, (2) the importance of teamwork when dealing with a crisis situation, and most importantly…. (3) that real-life heroes are made, not born. Captain Chesley B. “Sully” Sullenberger, his co-pilot and 3 flight attendants performed to the level of their training and today, over 150 other passengers and their families can thank them for giving them a second chance at life.

Review Steve Charvat, UWEM Director
UW StormReady Through 2019!

This past August, the UW was officially notified that our 3-year (re)application to maintain our status as a certified "StormReady" university was officially approved by the National Weather Service. As the only StormReady university in Washington State and only 1 of 3 in the entire Pacific Northwest, this is both an honor & proof of our commitment to preparedness.

98% of all Presidentially declared disasters in the US are weather-related, leading to around 500 deaths per year and nearly $15 billion in damage. The NWS StormReady program helps arm America’s communities with the communication and safety skills needed to save lives and property -- before, during and after the event. StormReady helps community leaders and emergency managers strengthen local safety programs.

Currently, there are nearly 2,600 StormReady communities, counties, Indian tribes, colleges/universities, military bases, and other commercial sites who are better prepared to save lives from the onslaught of severe weather through advanced planning, education and awareness. No community is storm proof, but StormReady can help communities save lives.

StormReady uses a grassroots approach to help communities such as the UW, to respond to extreme weather—from rainstorms, tornadoes, snow/ice and windstorms. StormReady activities directly benefit the UW to respond to hazardous weather by providing emergency managers with clear-cut guidelines on how to improve our hazardous weather operations and procedures. Applying is easy.

This past summer, the UW completed a detailed application to allow us to re-certify our Seattle campus for then next 3-years (2016-19). UWEM intern, Katelyn Fischer, conducted the research and gathered the following information for our application:

- Ensure that the UW has established a 24-hour warning point and emergency operations center
- Has more than one way to receive severe weather warnings and forecasts and to alert the public (the UW does this via UWAlert)
- UWEM has a tested-system that continuously monitors weather conditions locally
- The UW promotes the importance of public readiness through campus seminars, workshops, and classes open to students, faculty and staff
- Develop a formal hazardous weather plan, which includes training severe weather spotters and holding emergency exercises.

So, you may ask….with all this intense weather planning by UWEM staff and recent weather awards, will the UW ever have to test these plans and procedures with some severe weather?! See our Seattle-area Winter Weather predictions story on pages 8-9.
Partner of the Quarter: Another Twist!

2016 seems to be a year of firsts for our Partner of the Quarter Award. Last quarter, we presented the certificate to our first student recipient. This quarter, by a unanimous vote, the July—September 2016 UWEM Partner of the Quarter Award was presented not to just 1 person, but to group of key individuals who are truly exceptional.

The award this past quarter goes out to over 150 UW staff members whose work often goes unnoticed. Yet, if not wasn’t performed daily on our behalf, 24/7/365, we would immediately notice and likely not be able accomplish our primary reason for coming to campus. In case you have not already figured it out, the July—September 2016 Partner of the Quarter Award was presented to the UW Building Coordinators! As noted in the story on page 1 of this newsletter, this group provides a wide variety of services that UWEM relies on for campus situational assessment and to help us share critical emergency and incident information to the campus. CONGRATULATIONS!

What a Change in the Weather Means for Your Survival Kit

If you have had the chance to hear any one of UW Emergency Management staff speak about personal preparedness over the years, you might remember that we suggest having a survival kit that will last you at least 72 hours in your home, car, and at work.

Many people have the space at home to store supplies for up to two weeks, which is highly recommended. Some people are lucky enough to even have some space at work to store emergency supplies as well. What is often over-looked is storing supplies in your car.

Winter weather is notorious in this region for closing down some major transportation arterials. Do you have what you need to be comfortable if you end up being stuck in your car for a few hours, if not a whole day? Check out this great tutorial (and video) created by Ready Wisconsin.
Winter Outlook for Zika Virus

If you are inquisitive, maybe this question recently crossed your mind recently:

“Will the Pacific Northwest be less at-risk from the Zika virus as cold weather begins killing off the mosquitoes?”

The short answer is, unfortunately NO!

How Come?

- A Mother’s Love: Infected female mosquitoes can transmit the ZIKA virus along to their offspring, according to a new study published in the American Journal of Tropical Medicine and Hygiene. That means that even once it gets too cold or dry for adult mosquitoes, their eggs — which can easily survive the dry season or winter — can hatch the next spring when it rains, producing Zika-infected larvae that grow into infected mosquitoes.

- Winter Travel: Any snow-birds out there? Many people use these colder months as an opportunity to visit areas of the earth with warmer climates. Hope Ricciotti, MD, advises patients to avoid endemic regions if they are currently pregnant, or trying to get pregnant. This includes both partners, as it has recently been discovered that the virus can be transmitted sexually. She says, “When it is absolutely necessary to travel to these places while pregnant, such as for urgent family or business issues, mosquito bite prevention is key. You can avoid bites by using insect repellent, wearing appropriate attire to shield your extremities, and staying in places with windows, screen doors, or air conditioning. EPA-registered insect repellents that contain ingredients such as DEET, picaridin, and IR3535 are safe for use during pregnancy.” (Harvard Health Publications)

Check out the Centers for Disease Control and Prevention (CDC) website for more specific Zika Travel Information.

The Zika Virus — Information for UW Students and Staff

UW’s Hall Health Center maintains a ZIKA website with up-to-date outbreak information, resources for travelers and links to external public health authorities.
When “Neutral” is not a Bad Thing!
Official Detailed Predictions this Winter

We haven't had a region-wide major lowland snow event in Seattle since January 2012, or even much of an extended cold spell, but maybe we're finally due? And if it doesn't happen again for the 5th winter, maybe we'll get a small consolation prize?

Forecasters with the Seattle office of the National Weather Service held its annual emergency managers and media workshop this week, to go into greater detail of what the winter forecasts are saying so we all know what to expect and keep you all informed.

Most of the focus was on the disappearance of La Nina from the winter forecast and the 90 day forecasts issued by NOAA a little earlier this month showing a warm autumn -- topics I've already covered here in the blog in the past couple of weeks.

The short recap: Earlier forecasts of a La Nina winter -- those are the winters that typically are cooler and wetter than normal with historically good snows -- have waned, and now we're more likely to go into a "neutral" winter of no El Nino nor La Nina.

Neutral winters are bad in the sense that they don't present any steady historical patterns of which to base a good long range forecast like El Nino (warm/dry) and La Nina (cool/wet), and thus the long range forecasts have begun to trend warmer without the cooling influence of La Nina. (Hey, I had no idea I could condense one of my rambling weather blogs into a long sentence! First time for everything...)

Jon Gottschalck with NOAA's Climate Prediction Center added neutral years thus become more sensitive to shorter-term large scale weather pattern influences such as the Madden-Julian Oscillation (MJO -- not named for John Madden, FYI), Arctic Oscillation (AO), North Atlantic Oscillation (NAO) and the Pacific/North American Pattern (PNP).

You've probably never heard of most or any of these -- this is actually fairly recent and ongoing research into discovering other regional large-scale weather patterns that occur on smaller time scales - like days to weeks instead of seasons. For example, the MJO is a tropical pattern in which waves of activity form in the far western Pacific, then trek west to east across the entire equatorial Pacific over a 30-60 day period. The pattern varies in intensity -- sometimes it's not there, sometimes it's weak, sometimes it's really raging. But it typically gets enhanced during neutral years with no La Nina or El Nino to get in its way. And Gottschalck says the planet gets more extreme weather -- both ends; stormy and dry -- when the MJO is more active.

Not to get too involved, but a quick example of how the MJO can affect our weather: Researches have found 8 phases of the MJO when it's active and when it's in phase 1, it's general-cool/wet in the Pacific Northwest, while phases 1, 3, and 4 usually mean very rainy weather here, and phase 8 translates to warm and dry. (You can see all 8 phases' correlation on Page 3 of this PDF file.) So they can be like little mini El Nino/La Ninas over a 5 day period. But overall, active MJO periods translate into wetter conditions around here.

So that can give an example of how neutral winters can really run the gamut with cold stretches, mild stretches, dry stretches, wet stretches and potentially stormy stretches. Sounds like forecasting this winter is like trying to corral a wet cat, eh?

Here's What to Expect

Lo and behold, even in neutral years you can get some ideas of what to expect around here with our major fall and winter headaches of flooding, windstorms, snow (mountain and lowland) and air quality. Washington State Climatologist Nick Bond gave a fantastic presentation showing how each of those events are (or are not) influenced by the large scale La Nina/El Nino patterns. For example, in neutral years, Western Washington is more prone to flooding and windstorms.

Bond provided several slides correlating our frequency of severe weather events to the La Nina/El Nino/neutral pattern. Here are the highlights:

Flooding:

Historically speaking, neutral years tend to bring more frequent strong flooding events. Their flooding forecast: "High probability of major floods" But severe events? They can't predict this far out, but just note some of greatest historical floods have occurred in neutral years.

Wind Storms:
Neutral years have a good news/bad news relationship with windstorms. Strong wind events tend to be most frequent in La Nina years for most spots:

But neutral years have provided just about all of our greatest windstorms. If the windstorm has a name (Columbus Day, Inauguration Day, Hanukkah Eve Storm, etc...), it happened in a neutral year. Not all neutral winters have brought historical wind storms, but if one’s going to happen, it’ll likely be in a neutral year such as this.

"We're poised," Bond said. "Nothing is stopping us from having an intense windstorm." Thus their windstorm forecast: "Hard to say, but possibility of an intense storm."

Lowland Snow:

OK, admit it. How many of you just scrolled to this part? (Maybe I should have saved this for the end? I still have a few more after this). While La Nina winters have decent snows and El Nino winters you can pretty much forget about needing your snowman equipment, neutral years kinda run the gamut: Note the epic 2 week snow of December 2008 was in a similar neutral year that was on the fringe of being La Nina. (Don’t ask why no data around 2000. NWS decided for 7 years not to track snowfall. Ugh)

So neutral years have some hope! We'll finally have a snow day at school? Eh, well, there is the Blob lurking out there. It is expected to give a slight warming effect to this winter again so that's another hindrance to lowland snow.

Bond also posted a chart showing that winters in general are getting warmer in Seattle. Note the past two winters have been quite above normal. But Bond thinks that while this upcoming winter will probably come in a little warmer than usual, he thinks it'll be cooler than the last two. Their cold air outbreak forecast: "Better odds then last two years, but extremely low temperatures are unlikely." As specifically for lowland snow: "marginally decreased" odds is what they're going for, but then Bond might have saved the day hammering home the point that even if it's a slightly warmer winter does not kill off all odds of a cold period here and there.

"If we didn't at least have a minor (cold/snow event), I'll eat a bug!" Bond joked. (No, we won't hold him to it!) Just remember if we do manage to finally get a widespread snow event, it's been four years since we've had one, which means anyone who has just moved to this region in the past four years likely has no idea the freak-out factor Seattle has with snow. And what little experience Seattleites have with snow is now rusty. That... will be something to see.

Mountain Snowpack:

Surprise! Neutral years are a bit all over the place for predicting Cascade snowpack as well. Here's the scatter chart for the past 70+ years:

Echoing the same theme as lowland snow, Bond thinks we'll end up with slightly less than the long term average, but "almost certainly" more than the record low 2014-15. That was the forecast last winter and ended up pretty spot on, and is the leading theory going into this winter. Not having El Nino will help. Again read more the Blob effects here.

Coastal Flooding:

The good news this year is Coastal Flooding is expected to be not as much of a danger this year because El Nino winters tend to have higher base sea levels. We were extremely lucky we didn't have any major storms during astronomical high tides last year during our record El Nino.

That doesn't mean we can't have coastal flooding, just we have more of a buffer before waters get too high.

Air Quality:

Bond notes that we as a local society have been doing much better in using less polluting sources of heat, that our overall air quality has been on a vast improving trend, no matter the weather: But he notes that neutral years, as much as they get stormy patterns, also tend to get extended stagnant/dry patterns which leads to inversions and burn bans. So be ready for that this year.

Putting it all Together:

It looks like if you had to place odds, we'll be busy with extra flooding events this fall and winter, and be on guard for a stronger wind event. Lowland snow fans will have to cross their fingers a little; skiers should be fine. You can certainly get ahead of the game by visiting Take Winter By Storm for tips on how to be prepared.

**This article was originally published on September 30, 2106 and was written by Scott Sistek from KOMONews.com. Portions of the longer online article can be found here**
Winter is right around the corner and that means that we start to come into potentially hazardous driving conditions. Heavy rain, wet leaves, frost, snow and ice can make for more difficult driving conditions that increase the potential for being involved in a motor vehicle accident. Here are some winter driving tips from the Washington State Patrol:

**Practice the Following:**

- Drive for conditions – slower speeds, slower acceleration.
- Check to see if you have traction tires & know what the traction advisories mean.
- **Watch a video** to learn how to install tire chains. Slow down and be extra cautious near the chain-up and removal areas.
- Do not use cruise control.
- Four-wheel and all-wheel vehicles do not stop or steer better on ice.
- Leave extra room between your vehicle and the vehicle in front of you. And remember, the larger the vehicle, the longer the stopping distance.
- Slow down when approaching intersections, off ramps, bridges, or shady spots and if you find yourself behind a snowplow, slow down and give the plow a little extra room.

**What Would cause One of the Mountain Passes to Close?**

1. **Blocking Vehicles**
2. **Avalanche Control**: When possible avalanche control work is scheduled at night when traffic volumes are low. WSDOT attempts to provide advance notice, but in an emergency, it's not always possible.
3. **Road Clearing**: If there is heavy snow in a short amount of time, road crews may close the pass to clear ice and snow from the travel lanes.

**If you are Involved in an Accident, Remember to be Safe** (from [www.dmv.org](http://www.dmv.org)):

- Don’t flee. Gather your wits and assess. Try to move your vehicle from the road. This helps prevent another accident and allows emergency vehicles easier access.
- Stay to the side of the road. You were already involved in one accident, you don't need another.
- If you are out of your vehicle, stay at least 5’ off of the road while waiting to protect you if another driver hits the accident scene.
- Turn the engine off, if it’s still running.
- Avoid all urges to smoke. Spilled fuel combined with a discarded match makes for a volatile situation.
- If you collided with a utility pole be alert to the possibility of downed electrical wires.
- Try to alert approaching traffic. Flares work best.
- If you slammed into an unoccupied vehicle, try to locate the owner. If unsuccessful, leave a note. But just don’t write "sorry." Include your name and contact information. Then report it to the local authorities, so if the note blows away, you won't be charged with a hit-and-run.
- Exchange information with all involved drivers. Be sure to get name, address, phone number, license number, and insurance information. As well as get the names and numbers of witnesses.
- If you’re carrying a camera, snap photos of damage to all involved vehicles. This will help in the event of an insurance claims dispute.

With a little extra effort and attention to our driving it’s possible to be safe as the weather changes and road conditions get worse.
Emergency Management’s Role in Emergency Services

Emergency management is an often misunderstood discipline. Generally, it’s part of the 5 emergency services professions:

- Police
- Fire
- EMS
- 9-1-1 Dispatch
- Emergency Management

These professions all share roles of one type or another in the emergency management cycle. There are many flavors of the following graphic, but generally the cycle looks like the diagram to the right:

It would be impossible to fully describe every type of duty and service each of these disciplines provide, however the chart below gives a simplified examples of how each emergency service fits in the emergency management cycle. You note that each service has a role to play in every portion of the cycle.

<table>
<thead>
<tr>
<th>Example of Role in the Emergency Management Cycle</th>
<th>Preparadness</th>
<th>Response</th>
<th>Recovery</th>
<th>Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire</td>
<td>Firefighter training. Community fire safety education.</td>
<td>Stabilize a problem. Classic public view of what firefighters do (lights, sirens, etc)</td>
<td>Overhaul (making sure the fire is out)</td>
<td>Recommendations for improvement for firesafety (fire code).</td>
</tr>
<tr>
<td>EMS</td>
<td>First Aid, CPR. Medical responder standards and training.</td>
<td>Stabilize a problem. Classic public view of what EMT’s/Paramedics do (lights, sirens, etc)</td>
<td>Post-incident medical review of techniques, policies, etc.</td>
<td>Recommendations for improvement for health and life safety.</td>
</tr>
<tr>
<td>9-1-1 Dispatch</td>
<td>Community awareness. How/when to call 9-1-1.</td>
<td>Supports response efforts. Coordination of resources and communications between the emergency scene(s) and responding agencies.</td>
<td>Post-Incident review of communications policies, technology, etc.</td>
<td>Recommendations for improvement for public safety communications, including interoperable radio and data systems.</td>
</tr>
<tr>
<td>Emergency Management <em>Varies greatly across jurisdictions.</em></td>
<td>Community education/personal preparedness. Government &amp; Private organizational preparedness.</td>
<td>Jurisdictional and regional coordination of resources and information to support the local response.</td>
<td>Post-incident analysis. Guide and support efforts to return to new operational state.</td>
<td>Recommendations for improvement for overall community resilience from individuals and families to all levels of government and private organizations (whole community).</td>
</tr>
</tbody>
</table>

It takes all of the emergency services, every one of them, to work together to keep us safe by improving our resistance to disasters and emergencies, responding to such incidents when they occur so they can stabilize the incident and minimize the impact to society and to recover from the incident and restore our communities to normal.
October: Fire Safety

When it comes to fire – be smart! If the fire is too big for you to handle, immediately get out of the house. Don’t stop to gather anything or to do anything. Once you are outside, stay outside. Intense heat and toxic fumes can kill you.

November: Shelter in Place

Your house provides a good first-layer barrier against chemical airborne agents. Additional protection is achieved by tightly sealing one room of your home that you have pre-designated and prepared. A safe room is one that easily and quickly can be sealed to protect you from airborne agents, and that has a few supplies to get you through the hours that you will need to stay inside it. All doors and windows of that room will be sealed with plastic sheeting and tape, and dampened towels or cloths will be placed under the doors. You will probably need to stay inside several hours, but not several days. So, choose a room that can accommodate your needs for several hours. A master bedroom with an attached bathroom is ideal to give you access to the toilet and running water.

December: Home Hazard Hunt

All of Washington has the potential of being impacted by a major earthquake. Earthquakes strike suddenly and without warning. When they occur, they cause the ground to undulate and shake, perhaps violently. Buildings – and their contents – are vulnerable to this rocking and rolling. Fortunately, experts teach how to secure homes to their foundations, and contents to wall studs.

For more preparedness information please download your own copy of Washington State