# ARES News


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==> OREGON 2015 QUAKEEX SETS: A RECAP

Next spring, FEMA Region X <http://www.fema.gov/region-x-ak-id-or-wa>,
county emergency management agencies statewide, many others and Oregon
ARES/RACES will participate in the FEMA Cascadia Rising exercise
<http://www.emergencymgmt.com/emergency-blogs/disaster-zone/cszexercise2016cascadiarising.html>.
This is a functional exercise that will play out what might happen
should/when a major earthquake strike the Pacific Northwest. The drill
scenario anticipates widespread loss of normal communication modes such
as cell phones, Internet and public safety radio as well as

major power
outages.

To prepare for Cascadia Rising, Oregon ARES/RACES conducted two
statewide simulated emergency tests (SETs) patterned after the FEMA
scenario playbook. The spring 2015 SET involved 24 counties, four
cities, ten hospitals, about 300 ARES/ACS/other volunteers and moved
about 1,700 messages to various addresses (mostly by HF Winlink Pactor)
during the six hour SET. All traffic went by simplex VHF (no
repeaters), HF SSB and HF Winlink Pactor to out of state gateways. All
of this was done from within state/county/city EOCs statewide. The fall
2015 SET played the same scenario but mostly from the field on
generators/batteries and in stormy weather. The November SET involved
16 counties and about 250 volunteers.

The differences between the two SETs were striking, proving that
operating from the field, Field Day style, is far more challenging.
During high winds and heavy rain, HF antennas were blown down, tents
were flooded and operators got uncomfortable. We discovered that under
field conditions with no Internet, if you haven't updated your modem
firmware lately or obtained your Winlink password, you are off the air.
Repairing broken HF wire antennas in the wind and rain means that you
hope you have that backup antenna! And if the generator won't start you
have no power. If your people aren't trained or prepared for
contingencies, these problems just seem to multiply.

We've learned that as much as you might think you are "ready" to go
into the field in a major disaster like a magnitude 9 earthquake, it
takes constant preparation and training to be truly "ready." Those that
have participated in Oregon's Quake EX SETs have learned a lot and have
a lot more work to do. It was a realistic training experience. More
information is available on-line at Oregon ARES/RACES
<http://www.oregonaresraces.org> on the Cascadia Rising and SET pages.
-- John Core, KX7YT, Oregon ARES/RACES SET Coordinator, KX7YT@arrl.net

==> MAINTAIN A STRICT LISTENING WATCH

"We have two ears and one mouth and they are to be used in proportion."
- anonymous. In the days where every ship of credibility carried a
Morse code set, the radio operator was required to maintain radio
silence on the international distress frequency of 500 KHz for a three
minute interval, at 15 and 45 minutes of every hour. As radiotelephone
came into being a 3 minute watch was maintained at 0 and 30 minutes. If
the disaster your vessel encountered fit within the 30 minute schedule,
your weak, plaintive CQD (later, SOS) had a good chance of being heard
amidst all the commercial traffic and noise.

Today, satellite communications systems have forced these "antiquated"
structures into retirement, but not entirely. A few years ago I enjoyed
a tour of a huge container ship at Boston Harbor. After

pleasantries
with the Captain I asked for permission to meet his Radio Officer. "Our
Engineer holds that title," he told me, "but in reality," with the
Captain putting his hands on a piece of satellite gear, "this is our
Radio Officer." Paying deference to the captain and the high tech gear,
I then headed straight for the radio room - thankfully they still had
one -- and was warmly greeted by a middle-aged man of professional
bearing in full white uniform. There, in a large space, were three
racks, each with a high powered HF transmitter. The wise officer
revealed his best-kept secret to safety: "Should we be going down," he
said, opening a small desk drawer, "I'm using this." A rather sturdy
Morse hand key was revealed, and there began an understanding between
us. "The satellites don't talk back," he told me. "This does."

Quiet Periods, Listening Watches and Amateur Radio

He knew about the quiet periods and listening watches of old and the
stories of lives lost and saved. He also knew that the necessity of
maintaining a strict listening watch has not been lost to time and
technology. In fact, it's a greater necessity than we may have
considered in our own Amateur Radio service. The very first Amateur
Radio public service event I was responsible to organize included this
concept. "Let's keep an ear on the radio, so we might be less tied up
with getting your attention and have more time to pass actual

traffic."
Time and experience reveals that other problems such as the limitations
of newer digital modes are mitigated by the maintenance of the strict
listening watch.

My local club, the Police Amateur Radio Team <http://www.wb1gof.org/>
(PART) of Westford, Massachusetts, operates a 2-meter analog repeater
that is a fantastic performer. It's reliable. It has a wide reach. It
is well maintained. Still, there are instances where the combination of
interference, distance from the repeater site, and operator technique
combine adversely.

The Boston Athletic Association Boston Marathon <http://www.baa.org/>
communications system offers excellent fodder for study. With almost
300 communications volunteers and a few dozen unique repeaters and
other radio-communication systems all pressed to the limit within a
very short time span, anything and everything that can go wrong
generally does go wrong. I have, as a volunteer (this is my 15th year),
listened in pain to dreadfully long attempts at getting a simple
message between two units, which generally begin with several
unanswered calls, adding to the mess. In 2015, in a leadership
capacity, I targeted the only variables within our immediate control:
the operator on both ends of the circuit. Maintaining a strict
listening watch became a mantra, and it will continue as long as we
hold a radio in one hand and a cup of coffee in the other.

At a public service event many of us clip our radio to the belt. Body fading, the same physical phenomena that aids us in Fox Hunting, attenuates what's coming in and of course what goes out. I now encourage my Net Control Operators (NCO) to request that field units "raise the radio over your head and try again" in the first instance where that unit is unreadable. This solves the input problem in almost all cases. With sufficient practice, it's hoped that awareness will spread, and the reminders be made obsolete.

The output problem - the ability to receive the repeater output in the field - is rarely that the (stronger) repeater transmission cannot be heard. It's simply that the operator is not focused, not listening for the call. The operator is chatting with friends, tired and glazed, or listening to other communications. One volunteer insisted that he bring along another radio so he might "listen in on public safety." "That's nice," I replied, "but it's not in our job description." I feared that, while lost to more exciting radio banter, my volunteer would lose awareness - of our situation and responsibility -- so necessary to maintain. I was right. He was often difficult to reach and generally ineffective. Hopefully it was a lesson learned.

Sure, our work can sometimes involve simply waiting for that one call, and this can be boring. But think of how interesting we can make our

listening watch when we form a picture in our mind of what's happening
at the event overall, and what has happened in the past, to grasp that
we perform a life or death function. 100% focus on our duty and
assignment is critical to our "client" event officials being able to
secure the public's safety as best they can, at the rest stop,
intersection, or Red Cross facility to which we are assigned.

Maintaining that strict listening watch repeatedly overcomes the
limitations inherent in our technical communications method, promotes
situational awareness, improves our effectiveness to the teams we
support, and in the end is a discipline that keeps us focused on the
reason we're standing underneath that silly orange hat in the first
place: to provide instant, reliable communications.

So maintain that strict listening watch. Your performance and overall
satisfaction, and public safety at the next public service event will
be all the better for it. -- Mark Richards, K1MGY [Richards serves as a
member of the Boston Athletic Association Communications Committee, and
is a frequent public service event volunteer and organizer. He is
employed in the technical design and product development of hand-held
environmental monitoring instrumentation].

==> TYPHOON! -- A LESSON IN PACIFIC ISLAND DISASTER RELIEF

With a population of 103,000, the Federated States of Micronesia

<http://www.visit-micronesia.fm/index.html> (FSM) in the Pacific is comprised of four states -- Pohnpei, Kosrae, Chuuk and Yap. There are more than 600 islands, spanning 1800 miles from east to west and several hundred miles north to south. On the night of March 31, 2015, super typhoon Maysak <https://en.wikipedia.org/wiki/Typhoon_Maysak_(2015)> struck Ulithi Atoll in Yap State. With winds of more than 160 mph and gusts greater than 210 mph, Maysak was a Category 5 storm. A major storm surge resulted and on most islands, infrastructure including schools, homes, power and communication systems, suffered major damage or were destroyed completely. No fatalities occurred on Ulithi.

I have a home there (on Falalop Island) and my job is to develop computer systems for schools. I also teach technology to the schools' students and train their teachers. I also provide humanitarian services with the help of our local radio club, the Big Island Amateur Radio Club <http://www.biarc.net/>. I was off the island when the typhoon hit, but was ticketed to fly home on April 10 - my mission upon arrival would be disaster relief.

I packed communications equipment, emergency power sources, antennas, tools, spare parts, survival equipment, and enough emergency food for my adopted family of 14 (including ten hungry high school students from Satawal Island) for a period of five weeks. Some of the

supplies were
shipped to Yap just before I left Hilo, Hawaii, but 11 bags had to be
taken on the plane. (Hawaiian Airlines waived all excess baggage fees).
There were some customs hang-ups to be dealt with.

My house survived, but power lines were down and the diesel generator
power house was partially destroyed. The International Office of
Migration (IOM) loaned me two 60 amp/hour batteries and gave me a ride
to my home. Richard Darling, AH7G, and Barbara Darling, NH7FY, had
provided funding for a Renogy 100 watt suitcase folding solar panel,
inverter, battery pack, and toolbox. By morning, I had set up the
batteries and solar power systems, and an Icom IC-718 HF transceiver.
Fiberglass masts and antennas were erected. I then contacted Richard
Darling, AH7G, and William Radolfetheg, V63YWR, as scheduled, with good
propagation and signals. We ultimately conducted 35 health-and-welfare
phone patches from Falalop, Ulithi, and another 38 patches from Federai
back to Hawaii and beyond.

ARRL Pacific Section Manager Bob Schneider, AH6J, procured an ARRL HF
Go Kit from ARRL HQ to be set up as a secondary station at the
dispensary. The kit contained four VHF hand-held radios, which proved
useful for local communications.

Falalop Island was devastated, with vegetation gone, including food
plants. There was no shade. Our household had only 48 hours'

supply of
potable water. Much of the water catchment systems on the island were
destroyed. In many cases, remaining standing water was contaminated and
amoebic dysentery became a problem. The water problem was solved when
IOM set up a desalinization plant. Water was then transported to the
people by wheelbarrow or by whatever containers could be found. Relief
food and supplies started to arrive from Guam.

Many had no houses left and the houses that remained had no roofs. The
United States Agency for International Development
<https://www.usaid.gov/> (USAID) sent tarps for temporary roofs. Most
of the island's HF, SSB and VHF communications were down for an
extended period -- there was no power and most of the antennas were
destroyed. We got the dispensary's VHF communication systems up and
running again with emergency repairs on its antenna.

Insult to Injury

On Monday, May 4, tropical storm Noul hit us, and the next morning it
hit the rest of Yap as a full category 1 typhoon. Our 20-meter vertical
was blown almost horizontal, but continued to hang in there. During
this storm, we remained in communication with Darling, Radolfetheg, and
Ray Gibson, KH2GUM on Guam. Granola bars were the food of the day.
Between 8 pm and 10 pm that night our dining hut with my antenna still
attached finally blew away. The next day, after the storm had

blown by,
we gathered all of the pieces of the hut and rebuilt it. The vertical
antenna and mast had survived but the radials had broken. After more
work, everything was repaired and we were back up on the air.
Unfortunately, all of the USAID tarps on the roofs had blown down so we
were back to square one with no roofs to protect many of us. A week
later, typhoon Dolphin came along, but thankfully it missed us on
Ulithi by a few hundred miles. It did hit Guam.

I was then tasked by the Yap State Department of Education to assist in
rebuilding and restarting the schools that had been destroyed. All of
these buildings were constructed with concrete!

The Value of Amateur Radio

There were two amateurs on Federai Island: William Radolfetheg, V63YWR
and Albert Haped, V63YAH. Richard Darling, AH7G, Ray Gibson, KH2GUM,
and I were in communications with Federai every evening as the storm
approached. We remained in communications until four hours before the
storm made landfall. As a result, the Federai community took our
warnings very seriously and was well prepared: Roofs were tied down
with large ropes, school computers were stored in the new dispensary,
and families with children were sheltered in the dispensary building.
While Federai also had a lot of storm damage, they fared much better
than the other islands. The point is that Amateur Radio

communications
can be even more valuable in advance of and leading into a disaster
like this where there is time for preparations to be made. Amateur
Radio communications in remote locales like this is more effective and
efficient than all other communication systems -- both before and after
the onset of the effects of the disaster. The health-and-welfare phone
patches alone were of great humanitarian value.

A technical note on antennas: the elevated ground plane antenna with
resonant radials performs very well. It's an inexpensive, effective,
efficient antenna, easy to transport, and easy to assemble. It is more
resilient than other antennas.

See the V63JB page <https://www.qrz.com/v63jb> on QRZ.com for photos
and more information on typhoon responses. -- John Bush, KH6DLK/V63JB;
and Bob Schneider, AH6J, ARRL Pacific Section Manager [Bush is the 2012
ARRL International Humanitarian Award
<http://www.arrl.org/international-humanitarian-award> winner - ed.]

==> AMATEUR RADIO CLUB HELPS PROMOTE DIABETES AWARENESS

Members of the University of Mississippi Amateur Radio Club
<http://www.w5ums.org/> (UMARC) provided on-course communications for
the annual Walk For Diabetes held in Oxford on Sunday, November 8. The
walk, sponsored by the Diabetes Foundation of Mississippi, began at the
Lyceum Loop on the university campus and continued to the

downtown area
before returning to the Lyceum.

UMARC members took up positions at rest stops and key junctions,
calling in status reports on the progress of the more than 150 walkers
via the club repeater located on the campus.

The Diabetes Foundation of Mississipp <https://www.msdiabetes.org/>i
conducts these and similar events to raise awareness of diabetes and
raise financial support in helping them provide care for Mississippians
who have diabetes.

Sarah Abraham, Program Coordinator, made the request to UMARC for
supporting the event. A number of walkers assembled in groups, each
distinguished by colorful tee shirts showing their support for a loved
one who has diabetes. All who finished the walk received a medal to
wear and most got a tee shirt promoting diabetes awareness.

Located on the university grounds, UMARC operates with station call
sign W5UMS. Members provide similar coverage for other local events
such as the annual Double-Decker Fun Run and anticipate a continued
partnership with the Diabetes Foundation of Mississippi. -- Ron
Lefebvre, W1IBL, President, University of Mississippi Amateur Radio
Club

==> VETERANS' DAY MONTH: HDSCS LOSES ONE OF ITS OWN

On November 6, the ARES-affiliated Hospital Disaster Support Communications System <http://www.hdscs.org/>, Orange County, California, lost member Roman Kamienski, KG6QMZ, a Lt. Colonel in the Army Reserves and active Army MARS operator. He was remembered in a military memorial service complete with flag presentation to his wife and a 21 gun salute. Only 56, he died of complications from a ruptured cerebral aneurysm. During Roman's 12 years with HDSCS he participated in almost every major drill. He also communicated in some actual emergencies, including a 2004 phone failure caused by a power interruption at an Anaheim Hospital. In 2005 he was on site for a standby operation during phone work at St. Jude Hospital in Fullerton, which then turned into an all-night emergency when the system did not come back on line. In addition to a display of his military certificates and medals, including the Army Commendation Medal with Oak Leaf cluster for distinguished achievement presented in 2007, Roman's wife added his HDSCS blue vest, name badge, certificates related to HDSCS service and an HDSCS commemorative challenge coin numbered 73. We were honored to have had him in HDSCS as a communicator and antenna team member. - April Moell, WA6OPS, District Emergency Coordinator, Amateur Radio Emergency Service; Hospital Disaster Support Communications System, Orange County, Cailfornia

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