



Community Emergency Response Team - CERT

What is it and why should you care enough to get involved?

**Randall Elliott P.E.
Amateur NW7T
...and the Tigard, Oregon CERT leadership**



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Community Emergency Response Team - CERT

What is it and why should you care enough to get involved?

CERT Charter

- ❖ A **CERT** member's first responsibility is to **personal** and **family safety**.
- ❖ A **CERT** member then helps **neighbors** and **community** with **public safety issues** including life-threatening **injuries** when **First Responders** are overwhelmed.
- ❖ A **CERT** member does the most good for the most people as quickly as possible.

CERT is also known as NETs or NERT

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CERT training is intended to reduce the amount of victims in a disaster. Like Flight Attendants tell you: “Put on you oxygen mask first before assisting your child.”

CERT trains you to take care of yourself first, then your family, then your neighborhood, then your locale. The training is FREE with most supplies provided. It pays for itself via future crisis prevention and more effective mitigation.

Community Owned

CERT members assist **First Responders** using **standard operating procedures** developed by **certified training agencies** (Red Cross, FEMA, Fire & Rescue, etc) as directed through your **local City Hall**.

Working as a team in a **disaster**, **CERT** members are **Force Multipliers** for overwhelmed **First Responders** as their **training, willingness and expertise** allows.

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Basic CERT training attends to the basics, sometimes called the 3-B's: Blood, Breath & Brain.

Advanced CERT training can go as far as you care to take it, both tactically and strategically.


In Tigard and Beaverton, we are trained by Tualatin Valley Fire & Rescue at their world-class facility!



Community Owned

Neighbors Helping Neighbors

- ❖ **Lessen the impact** of disasters.
- ❖ **Reduce** the number of victims.
- ❖ Help all community members take steps to **prepare**.
- ❖ **Address the unique threats** within one's community.

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CERT training reduces the victim count while increasing the survival rate.

It is available to adults and teens.

Training is tuned to disasters typical of specific locales:


Earthquake, tsunami, chemical spill, derailment, tornado, hurricane, and others.



CERT Member Protection

CERT members *generally* protected by:

- ❖ “Good Samaritan” Oregon ORS 30.800
Wash. RCW 4.24.300 & 70.54.320
- ❖ Volunteer Protection Act of 1997:
promote volunteerism by limiting or
eliminating risk of tort liability when
acting for nonprofit organizations or
government entities.
- ❖ Other relevant State statutes.
- ❖ Red Cross First Aid Certification.
- ❖ Coverage varies from place to place.

Make sure before you act!



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While nothing is risk-free, CERT provides guidelines to stay within the law when offering assistance.

“Good Samaritan” laws can be confusing and vary from locale to locale.

When **activated** by City Hall, we in Tigard are covered by the City including **Workman’s Comp**

...as long as we are acting within the scope of our CERT training/skills.



Keep in mind, **self-activation** may **NOT** be covered by your locale’s authority and liability protection.

Legalities varies from locale to locale SO **MAKE SURE BEFORE** you act!

FEMA Responsibility

What **FEMA** does:


- ❖ Develop, test, and refine emergency plans and processes using the **Incident Command Structure (ICS)**
- ❖ Ensure emergency responders have adequate **skills and resources** using web-based **ICS Training**
- ❖ **Provide services** to protect and assist citizens

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FEMA provides FREE training materials to us and ARES. That's about it!



Disaster Types

- ❖ Natural
- ❖ Technological
- ❖ Intentional



The slide features three images illustrating disaster types. The top-left image shows a flooded area with debris, representing a natural disaster. The top-right image shows a nuclear power plant with cooling towers, representing a technological disaster. The bottom-center image shows a destroyed building, representing an intentional disaster.

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Beside locale-specific risks, CERT trains for disasters common to all places.
This includes terror threats.



CERT Priorities

“Situational Awareness” or “Size-Up”
Also know as **WIN**
“What’s Important Now?”

- ❖ Locating and turning off utilities as needed.
- ❖ Extinguishing small fires.
- ❖ Treating life-threatening injuries until professional assistance arrives.
- ❖ Conducting light search and rescue.
- ❖ Staying safe to **NOT become victims!**

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CERT training is based on Situational Awareness or “Size-Up”.

First Responders call this WIN meaning “What’s Important Now?”

CERT trains how to shut off household electrical supply, water supply and natural gas.



Includes when to NOT shut off natural gas since authorized Gas Company folks can turn it back on.

CERT emphasizes PPE use and other risk reductions to keep us from adding to the victim list!

More Priorities

CERT responds after a disaster by:

- ❖ **Help Disaster Survivors cope** with their emotional stress.
- ❖ **Direct Traffic.**
- ❖ **Direct 1st Responders** to victims, etc.
- ❖ **Organizing Disaster Medical Operations.**
- ❖ **Managing SUVs:**
“Spontaneous Unaffiliated Volunteers”

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As a disaster plays out, “What’s Important Now?” changes so priorities change, too.

One may direct traffic, guide newly arriving First Responders to a crisis, or sit with a victim.



CERTs can help organize SUVs according to their training, if any, to be useful and not become victims.

...or looters!

Crisis Preparation

Preparing for Health and Safety hazards affecting people and infrastructure

- ❖ Personal preparedness
- ❖ Map-Your-Neighborhood (M.Y.N.)
- ❖ Neighborhood preparedness
- ❖ Locale preparedness
- ❖ Ongoing training (sometimes)

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Crisis Preparation, both in knowledge and supplies, is pivotal to proper crisis handling. For both for identifying neighborhood complication and advertising CERT, M.Y.N. is an excellent tool! It is about **meeting** your neighbors in the good times so you're on a better footing in the bad times!

Alerting and helping your neighbors to take care of themselves in an emergency **SAVES LIVES!**

CERT members regularly move up the ranks into leader/trainer positions to help the locale. Some CERT programs are “catch-and-release” so-to-speak leaving ongoing training to the individual.

Personal Disaster Plan

- ❖ Where will you meet family members?
- ❖ Will you have an extended stay? Shelter in place? Evacuate?
- ❖ How will you escape your home? Workplace? School? Place of worship?
- ❖ What route (and several alternates) will you use to evacuate your neighbors?
- ❖ Do you have transportation?
- ❖ Who is your out-of-State “check-in” contact?
- ❖ Did you practice your plan?



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CERT trains in handling home, school and workplace issues after a disaster.

A basic Personal Disaster Plan is a great first-step tool to start addressing your needs.

Shelter Options

- ❖ Shelter-in-place:
 - sealing an internal room
 - Stay for 4-8 hours
 - Store supplies
- ❖ 72-hour GO Bag option.
- ❖ Extended stay
 - Stay for several days up to 2 weeks 2-3 months
 - Store emergency supplies
- ❖ Mass care - community shelter
 - 3-day disaster kits
 - Shelters provide most supplies
- ❖ School Evacuation
 - Contact for pick-up

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CERT generally teaches “Shelter In Place” but this is NOT an option in a tsunami or flash flood zone.

Whether you stay or go, you need to prepare for the event that is likely for your locale and home.

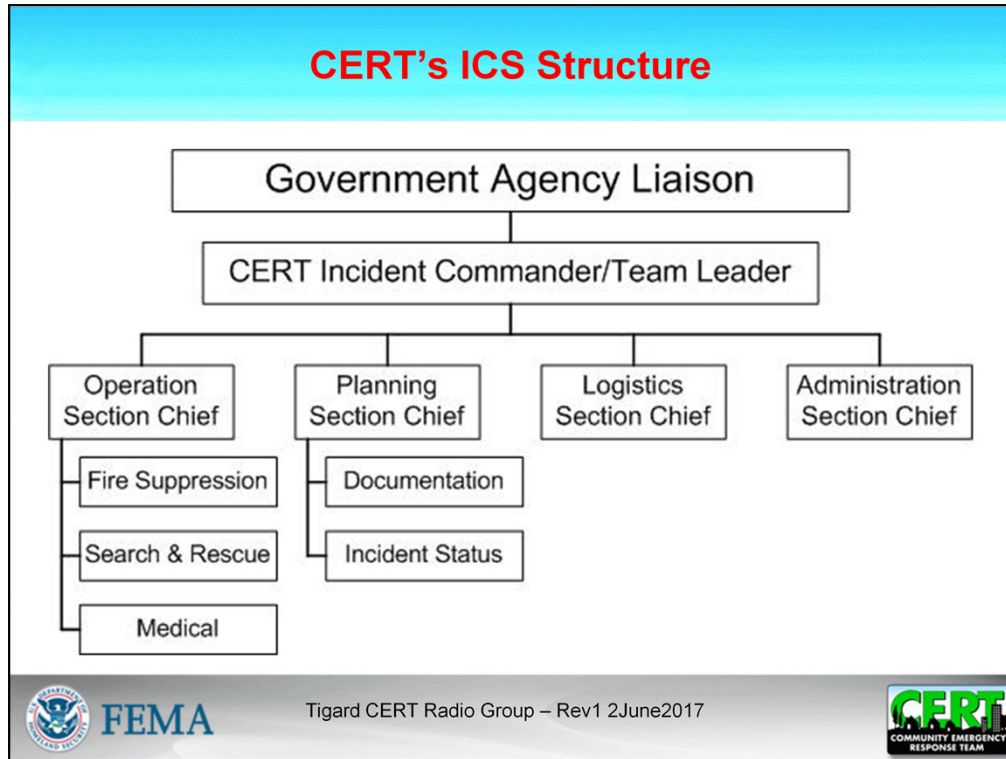
In some places, this may mean far more than a 2 week food & water supply.

The ICS Structure

- ❖ Assigns responsibility to organizations and individuals
- ❖ Establishes lines of authority
- ❖ Describes how people and property will be protected
- ❖ Identifies personnel, equipment, facilities, supplies, and other resources

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All First Responders use the FEMA ICS system, as does forest fire fighting operations and military civilian aid.





CERT follows the model, however the structure can change to fit the incident and as personnel are available.

PPE (Personal Protective Equipment)

- ❖ Helmet
- ❖ Eye Protection
- ❖ N95 Mask
- ❖ Gloves (work and non-latex)
- ❖ Sturdy shoes or work boots



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Equipment is usually inexpensive and some are provided by your locale.
Not provided are boots and gloves since those have to fit the individual.

Non-Disaster Roles

- ❖ Identify and aid neighbors/coworkers who might need assistance
- ❖ Distribute preparedness materials; do demos
- ❖ Staff first aid booths at special events
- ❖ Assist with installation of smoke alarms
- ❖ Parade route management



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 **FEMA** 

CERT is self-advertising. We hold Preparedness Fairs and presentations at schools, parks, businesses, etc.

We provide personnel to parades, fun-run races, and First Aid tents to events like the Tigard Festival Of Balloons.

MORE CERT Training!

Knowledge is Power!

❖ Utilities control	❖ Special needs
❖ CPR - AED	❖ Animal issues
❖ Wilderness First Aid	❖ Networking with
❖ Community relations	▪ Preppers
❖ Debris removal	▪ Survivalists
❖ Traffic/crowd management	▪ Homesteaders
❖ Shelter management	▪ Church groups
	❖ Radio Comms!

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BUT WAIT! There's more!

Advanced CERT training includes helping utility workers, sandbagging, clean-up and more!

CERTs network with other CERT groups, Churches, Preppers, Survivalists, Homesteaders and off-the-grid folks to share lots of ideas. Of course, RADIO COMMUNICATION is included in this.

Networking!



- ❖ EDC Gear
- ❖ Medic Bag
- ❖ DIY Bandages
- ❖ B.O.B.
- ❖ G.H.B.
- ❖ 72-hour Kit
- ❖ Car Kits

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BUT WAIT! There's **STILL** more!

Networking with Preppers and Survivalists gets us ideas for Every-Day-Carry, food storage, quick latrines, water handling, Get-Home-Bags, Bug-Out-Bags, 72-hour kits, Car kits, elderly and shut-in care kits, and far more than can be listed here!

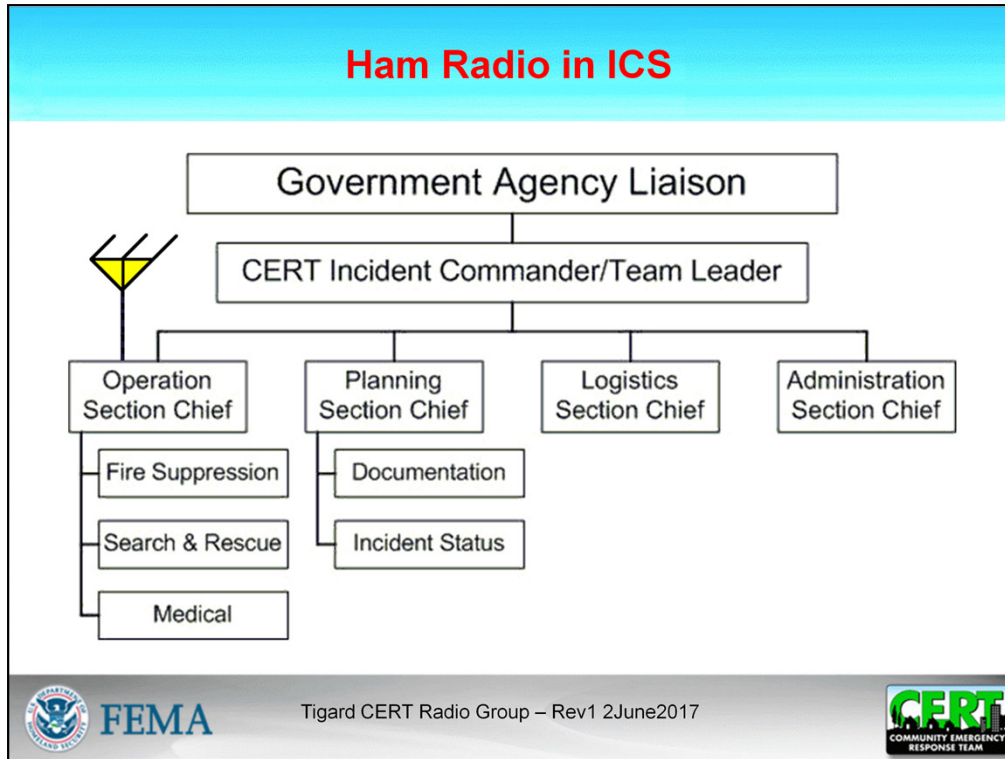
By the way, don't diss Survivalists! **THEY** know how to make fabulous B.O.B.s!

CERT ARES Differences

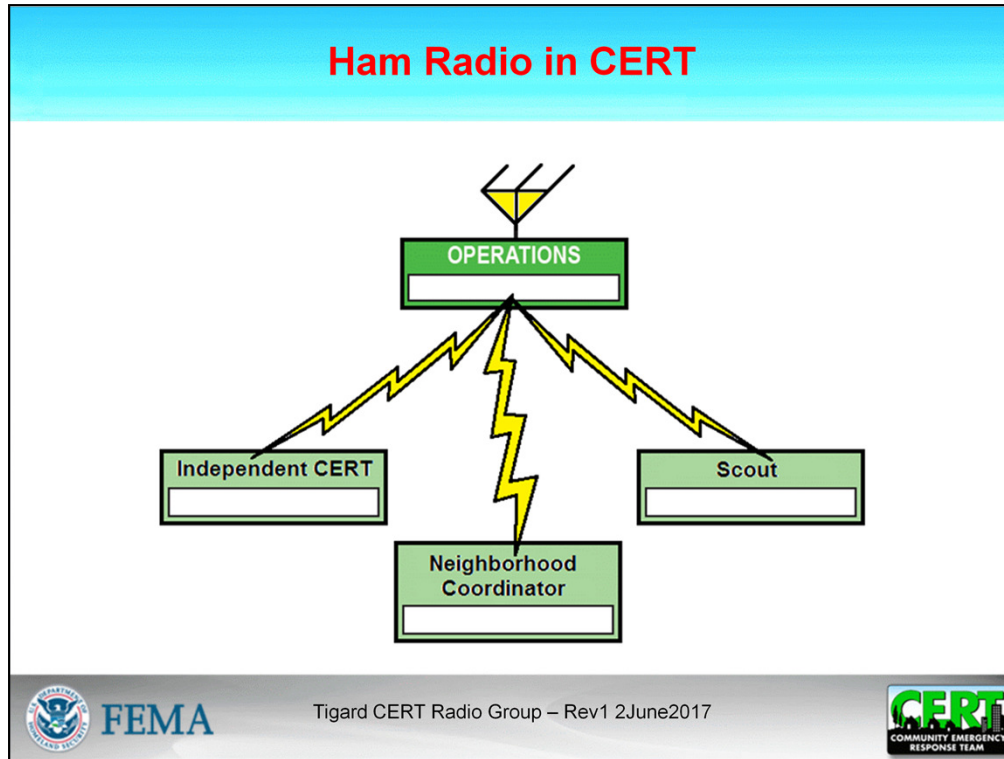
- ❖ **Amateur emergency crisis communications**
 - Robust Infrastructure
 - Trained, experienced, practiced radio operators
- ❖ **ARES, RACES**
 - “Boots-Under-The-Desk”
 - Message *Handling* charter
 - Experts in *Technical* requirements
- ❖ **CERT**
 - “Boots-On-The-Ground”
 - Message *Originating* charter
 - Experts in *Tactical* requirements

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CERT uses Amateur Radio differently than ARES, RACES, MARS, NTS and others. CERT centers on the neighborhood and locale, not county, state or nation like ARES. ARES and others are heavily technically skilled in message handling and such. Most importantly, CERTs are Message Originators, not only Handlers. Our technical requirements are less but our tactical requirements are more.



Radio adds favorably to any ICS structure. The first application is Operations. That said, the alternative to Ham Radio is FRS or runners. ***groan***



In a typical large incident, an “Independent CERT” can call for help for himself, family and/or neighborhood.

The Operations Chief may direct the CERT to be a Neighborhood Coordinator for incoming First Responders.



After any family or neighborhood obligations, the CERT can report to Incident Command or a Staging Area.

The CERT may be directed by the Operations Chief to do some scouting of other neighborhoods along the way.

Situation Reporting

DAMAGE ASSESSMENT FORM		CERT	DATE
LOCATION			
SIZE UP <small>(check if applicable)</small>			
FIRES		HAZARDS	
BURNING	OUT	GAS LEAK	H2O LEAK
ELECTRIC	CHEMICAL	DAMAGED	COLLAPSED
INJURED	TRAPPED	DEAD	ACCESS
NO ACCESS	INJURED	TRAPPED	ROAMING
OBSERVATIONS			
CERT MEMBER		PAGE ____ OF ____	


CERT FORM #1


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Regardless of location, a CERT will be called upon to report any situation worth reporting. This form is a reduced Form ICS 209 - Incident Status Summary that helps track each incident.

SITuation REPorting

<p>SITuation REPorting: FIRST, Size-Up! "WIN" – What's Important Now?</p> <p>CALLSIGN & NAME PRECEDENCE levels EVENT LOCATION EVENT CATEGORY NUMBER of PEOPLE LOCATION SAFETY HELP NEEDED LOCATION (if moved) CONTACT (if different)</p> <p>PRECEDENCE levels: Emergency-Immediate! Urgent - Delayed. Minor - Save until last</p>	<p>EVENT LOCATION: Address, cross-street, landmarks, mileposts</p> <p>EVENT CATEGORY:</p> <ul style="list-style-type: none"> - Fire (structure?) - Vehicle Accident - Injury (type?) - Man Down (reason?) - Building Collapse - Downed Powerline - High Water - Flooding - Natural Gas Leak - HAZMAT or CBRNE - Police Activity - Shots Fired - Rioting, Looting - Volcanic 	<p>NUMBER OF PEOPLE: establishes SEVERITY!</p> <p>LOCATION SAFETY: Damage and Threats: Severe, Moderate, Light; Explosions, Gas Leak, Flammable Spill, Burning</p> <p>HELP NEEDED: <u>Search&Rescue, Triage,</u> <u>Fire Control, Medical,</u> <u>Public Works, Police,</u> <u>SWAT, other responders.</u></p> <p>YOUR LOCATION: ...if not at the Event Location.</p> <p>CONTACT: ...if not you!</p>
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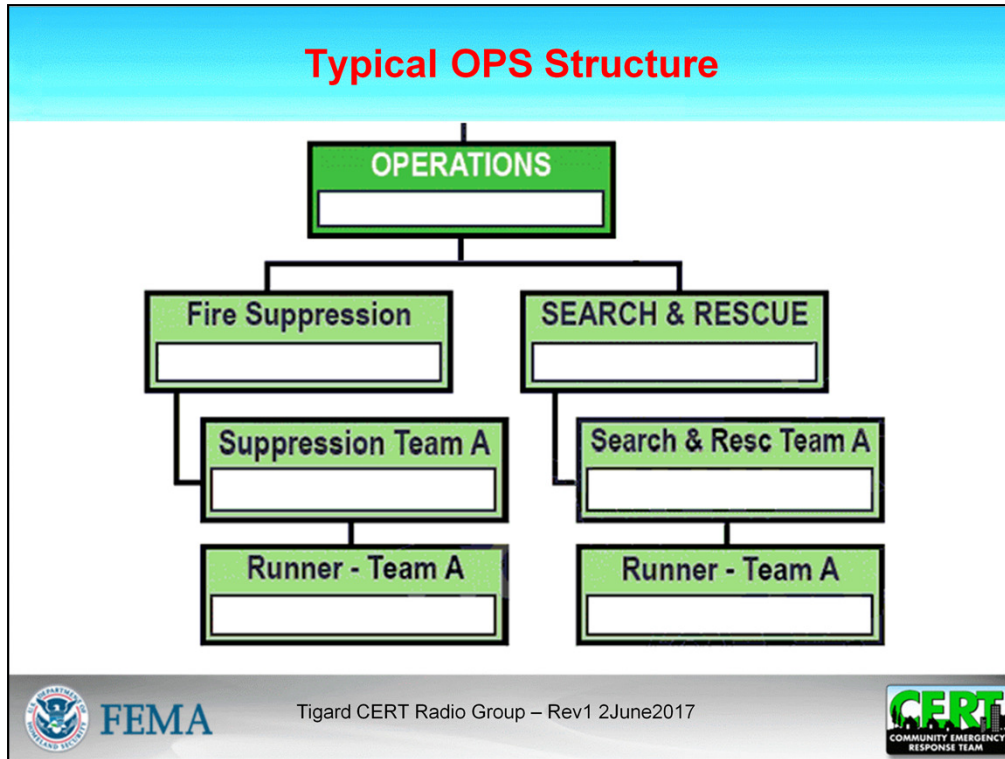


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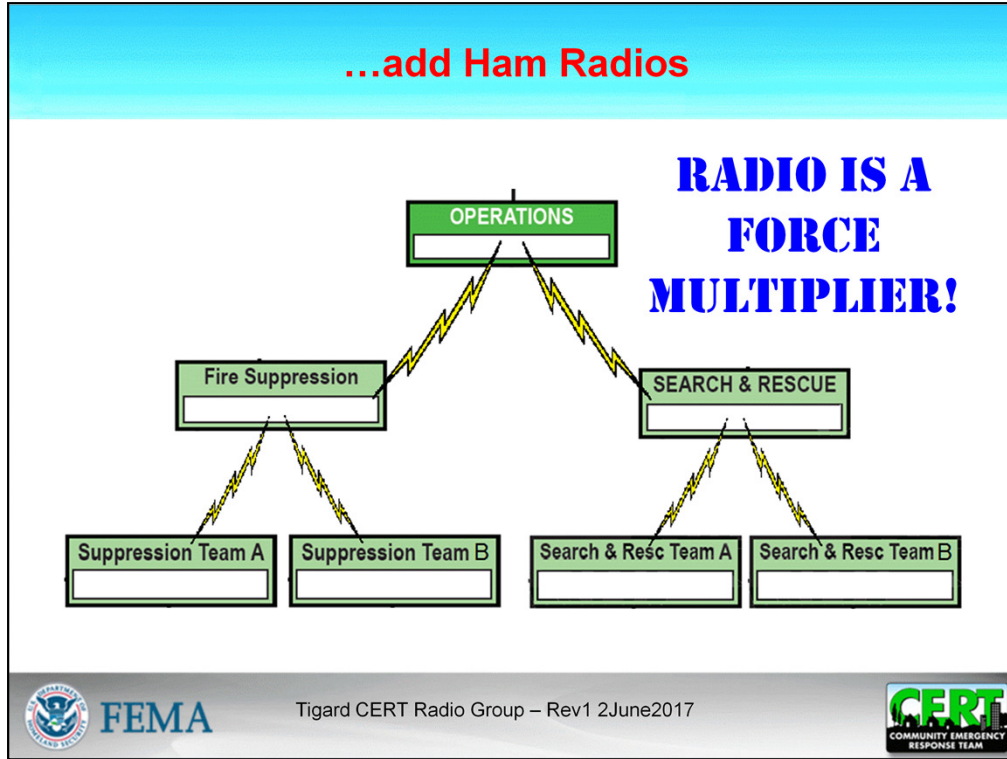


When 2-way radio is involved, this changes from a form to a SitRep given over the radio. The accuracy and completeness of this information is vital to correctly responding to the situation.

The content here is modified from the Coast Guard ICS 209-based SitRep.



In this manner, a message “Runner” is no longer needed. This frees up a person to be more functional.



CERTs that would have been “Runners” without 2-way radio communication are now free to be additional team members.



Truly, Radio Is A Force Multiplier!

ICS 213 Message

GENERAL MESSAGE		
TO		POSITION
FROM		POSITION
SUBJECT	DATE	TIME
MESSAGE		
SIGNATURE		POSITION
REPLY		
DATE	TIME	SIGNATURE/POSITION

CERT FORM #8 (ICS 213)

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CERTs do handle radio messages too in their work. As such we use FEMA ICS forms like this ICS213 version.

CERT DOES NOT USE...

ARRL — the national association for Amateur Radio™

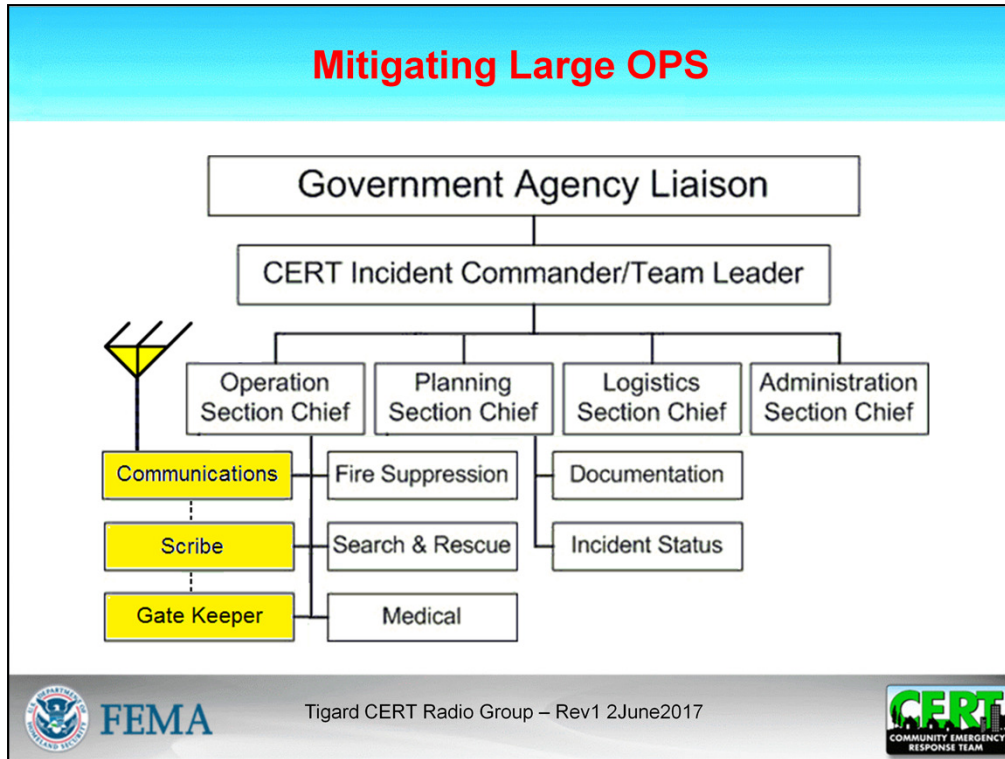
RADIOGRAM

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
TO			THIS RADIO MESSAGE WAS RECEIVED AT				
PHONE NUMBER			AMATEUR STATION _____		PHONE _____		
E-MAIL			NAME _____		E-MAIL _____		
			STREET _____				
			CITY, STATE, ZIP _____				
<p style="color: red; font-weight: bold; font-size: 1.1em;">Amateur Radio supports CERT.</p> <p style="color: red; font-weight: bold; font-size: 1.1em;">CERT does NOT support ARRL/NTS.</p>							
FROM			DATE		TIME		TO
REC'D			SENT				
<small>This message was handled at no charge by a licensed Amateur Radio operator, whose address is shown in the box at right above. No compensation can be accepted by a "ham" operator. A return message may be filed with the "ham" delivering this message to you. Further information on Amateur Radio may be obtained from ARRL Headquarters, 225 Main Street, Newington, CT 06111 or www.arrl.org.</small>				<small>The ARRL is the national association for Amateur Radio and the publisher of QST magazine. One of its functions is promotion of public service communication among Amateur Radio operators. To that end, the ARRL has organized the National Traffic System for daily nationwide message handling.</small>			
				1320 2/11			

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Since CERTs must use FEMA ICS forms and procedures, we do NOT use NTS/ARRL Q-codes, procedures or forms ...like this ARRL RadioGram.

That said, there was talk after Cascadia Rising that FEMA liked the NTS messages they saw being used. Haven't heard anything further on that so for the time being, we don't use it!



Emergencies come in all sizes so the ICS is designed to be VERY flexible to adapt to any situation.

The Operations Chief may delegate a Communications position to handle messages.


The Operations Chief may delegate a Scribe to document messages.

The Operations Chief may delegate a Gate Keeper to handle interruptions.


These three positions may be the same CERT member if the Operation is small.

Ham/CERT Individual Motives

<p>How and why did you become a Ham?</p> <ul style="list-style-type: none"> ❖ Was a Novice and dropped out. Got back in around 2000 primarily for CERT communication work. Allow communication when other media may not be available. ❖ Extends my community ❖ Reliable communications where normal communications fail ❖ Extra capability for CERT and expands our reach beyond CERT ❖ Force Multiplier for CERT. 	<p>How and why did you become a CERT?</p> <ul style="list-style-type: none"> ❖ Disaster preparation for self and community. ❖ Was a Ham before CERT. Joined at Preparedness Fair. ❖ Retired. Invited by Ham/ARES/CERT neighbors. ❖ Just following my CERT girlfriend. She hasn't led me astray yet! ❖ Neighbor recruited. Important to have emergency skills for self, family and others. ❖ Map Your Neighborhood! ❖ Was also Ham before CERT. Wants to be part of communications aspect. ❖ Joined in CERT after meeting Tigard's Emergency Coordinator during the Balloon Festival.
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So there is a lot for an Amateur Radio Operator (ARO) to do as a CERT member.

One of our Tigard CERT weekly networks on our CERT repeater asked the questions:

1. How and why did you become a Ham?
2. How and why did you become a CERT?

Lessons From The 2014 eHam Survey

eHam.net Survey

Survey Question


What can be done to further Amateur Radio?
 Posted: Jun 26, 2014 (815 votes, 63 comments) by NW7T

- Provide training for better use in local CERT teams
- Appeal to more preppers and homesteaders
- Outreach to high school science students
- Outreach in high-tech locales like Silicon Valley, Silicon Gultch, Silicon Spudland, Silicon Rainforest, etc
- Outreach to shut-ins and retirement communities
- Appeal to truckers and other road-warriors who want more than "smokey reports" on CB radio


(815 votes, 63 comments)

Survey Results

Provide training for better use in local CERT teams	■ 5% (43)
Appeal to more preppers and homesteaders	■ 10% (78)
Outreach to high school science students	■ 71% (579)
Outreach in high-tech locales like Silicon Valley, Silicon Gultch, Silicon Spudland, Silicon Rainforest, etc	■ 4% (30)
Outreach to shut-ins and retirement communities	■ 6% (47)
Appeal to truckers and other road-warriors who want more than "smokey reports" on CB radio	■ 5% (38)



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3 years ago, I posted an eHam survey to hear others thoughts on promoting Amateur Radio. I was surprised by the results considering the baby-boomers, high-tech workers, EmComm emphasis and general independence of the hams I know (and am)!


One result that was not a surprise was the high-school angle. That is how I became a Novice in 1975.

eHam Survey Lessons

<p>What can be done to further Amateur Radio?</p>
<p>Reaching out to high school science students won't work. School administrators and teachers are too busy trying to implement common core standards to spend time with amateur radio. I tried to introduce amateur radio to my students only to have my proposals denied by the district. A teacher cannot start a club without approval of the school board. The only way to reach high school students is off campus with the help of local hams.</p> <p>Posted by W2UIS on June 29, 2014</p>
<p>For NW7T</p>
<p>Yes, I criticized the answers provided for this excellent question by NW7T. Perhaps I was hasty in my criticism. In retrospect I see where he was heading, but the limited answer pool, and the few tongue-in cheek answers provided were just too limited in scope to be realistic. My suggestion, which works for our local club in our tiny community, is simply publicity, publicity, publicity. Our club is great about getting the word out about its existence, it's public service (ARES), and the hobby in general. We hold a class or two each year...it is publicized heavily. We have several events, Field Day, Wing's and Wheels at the local airport, International Lighthouse & Lightship weekend, and numerous other events which are well publicized and the public is invited to all. We even have the local radio station air some of the free ARRL Public Information Ads for ham radio. All in All, it is this heavy publicity that has drawn interest to our club and provided new ham licensees for the club every year.</p> <p>Posted by K7AAT on July 2, 2014</p>
<p>Subpart A General Provisions</p>
<p>§ 97.1 Basis and purpose. The rules and regulations in this part are designed to provide an amateur radio service having a fundamental purpose as expressed in the following principles: (a) Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications</p>



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...but this isn't 1975 anymore. There was no Department of Education then, but there was Auto Shop, Wood Shop, Metal Shop, Electronics, and JROTC (at least there was in Boise, Idaho.) Times changed.


Still in smaller locales, there is lots of opportunity for publicity, and the EmComm purpose of Part 97.1 (a) still reigns!

eHam Survey Lessons

RE:"highlight what we do in Emergencies around the world both at home & abroad"
 ECOMM.....What a JOKE. Git yo lime-green vests boyz...We'z are 1st responders!!!!
 Reality check...Ham Radio does not play a roll in REAL ECOMM!!!!! ...
 Posted by [N7WKN](#) on July 29, 2014


Re: emcomm haters
 While I am swatting flies, why are emcomm hams not only still around, but thriving? Easy,because they are wanted. They are appreciated, even honored for their community service.
 Why are emcomm haters always on the sidelines? Because they cannot make themselves to be better than they are. They cannot make themselves participate in emcomm services. They fear failure. They cannot get along with others. They are inadequate, and they know it. Emcomm haters can't smile. They are not generous people, so they sit on the sidelines and ridicule. They look silly doing that. What a waste of a ham license!
 Posted by [A12IA](#) on July 30, 2014

You may regret it.
 "As such, I believe it is no longer relevant to emphasize the communication aspect of amateur radio."
 There may come a time when you and others may regret that you did not consider the emergency communication aspects of the amateur radio service seriously.
 ".... and they believed that that all was well, and in one moment they were gone without warning."
 Posted by [A12IA](#) on July 3, 2014



FEMA

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CERT
COMMUNITY EMERGENCY RESPONSE TEAM

As such, I was surprised how few people know that this is what many CERT teams are doing with Amateur Radio NOW!

So here I am to try to fix this dilemma! Yes, there are some dissenting votes out there, but they are few (albeit vocal).



Anyone involved in ARES, MARS, RACES, ACES or the myriad of Clubs know this well.
Anyone who steps up in any time of trouble knows this well.
Whether you stop for a traffic accident, help a choking stranger, help a lost child, aid an elderly person, whatever, YOU KNOW THIS!

What can you do?

What do you want to learn and do?


- ❖ **Disaster Preparation** for self, home, neighbors, locale, beyond.
- ❖ **Disaster Mitigation** in the face of storms, accidents, earthquakes, tsunamis, other.
- ❖ **Working with 1st Responders** like Fire, Medical, Police, Public Works and others.
- ❖ **Develop Tactical Radio skills.**
- ❖ **Apply your Technical Radio skills.**

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So, that is that. Do you want this training? Would you like to fit into our numbers, too?

We need all the expertise we can get. We have doctors, nurses, EMTs, firemen, cops, Hams and more!

...so why not you?



THANK YOU!
QUESTIONS?
NW7T@ARRL.ORG



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