



### INTRODUCTION

Good communication is one of the keys to a successful and safe mission. CERT members must learn to appropriately choose when to use phone, FRS radio, HAM radio and face-to-face conversation...each has its purpose and ideal uses. CERT members must also know certain radio protocols so that information flows clearly. And of course in a disaster if phone service is compromised, radio becomes critical to keep field teams in touch with leadership. Unlike telephones, radios cannot transmit and receive simultaneously, so special methods must be used to facilitate communication between two parties.

The lack of on-the-air privacy, as well as the prevalence of social media, makes information transmitted by radio especially vulnerable to being overheard and spread rapidly, sideways and haywire. For sensitive information, radio is our last resort method of communication, and there are some things that almost never are said on the air.

#### FRS radios (Family Radio Service...no license required)

- ★ Broadcast up to 1-2 miles in ideal conditions; typically not that far. FRS radios are restricted by the FCC to 0.3 watts of power
- ★ Offer plenty of channels for assignment to various Vashon Island teams
- ★ An affordable and excellent standard for intra-team communications; the short range usually allows each team to talk among themselves without interference from others
- ★ Many FRS radios claim to have a "privacy code" function...it's a misnomer; nobody has privacy on the air

#### HAM radios (FCC license required)

- ★ Work much like FRS but can transmit over longer distances and can overcome interference (such as weather, forests and hills) somewhat better than FRS
- ★ CERT works with at least one HAM radio and a licensed operator at each location and team. Channel assignments and the communications plan will depend on circumstances of our mission
- ★ HAM is the standard for inter-team communications, and is often used even when phones are fully operable; it allows leaders to communicate simultaneously and quickly with many (or all) responders
- ★ Vashon has two repeaters that greatly assist getting HAM radio messages to their desired destination
- ★ Authorization to access and operate the LACC's at fire stations is limited to licensed HAM radio operators who have completed training specific to this equipment, and who show competency in using the equipment and basic troubleshooting. The LACC's, or Local Area Communications Caches, are portable kits of radios and accessories.

### PARTNERSHIP BETWEEN CERT & HAM RADIO CLUB

Vashon CERT has a wonderful partnership with the island's HAM radio club and their specialized sub-group of skilled volunteers, the [Auxiliary Communications Service \(ACS\)](#).

These people have set up a versatile communications center at the Vashon Fire Dept's main station and several portable HAM radio kits (LACC's) that include laptops for sending email over the radio. They have also installed antennas and repeaters in key locations. In activations and trainings, ACS assigns and coordinates use of channels, provides net control, maintains and debugs equipment, and more.

## GUIDELINES FOR TALKING ON THE AIR

- ✓ Assume you are being monitored
- ✓ First try using a phone for sensitive info
- ✓ No private or personal information on the radio; no victim/patient names
- ✓ Be clear and concise; edit before you speak and before you key-up the mic
- ✓ Use a professional tone and words
- ✓ Be courteous
- ✓ Listen before transmitting; avoid “stepping on” other radio traffic
- ✓ Plain English should be used, combined with decorum and respect of confidentiality
- ✓ The terms red-yellow-green-black apply to patients in a triage situation only. Do not apply these terms to buildings, your team’s well-being, etc.
- ✓ Speak slowly
- ✓ E-nun’-ci-ate and use ITU phonetics
- ✓ Use proper procedural words
- ✓ Use 24-hour time format
- ✓ Use day-month-year date format (example: 5 April 2016 rather than 4-5-16)
- ✓ If you are given someone else’s message to transmit, transmit it exactly as written
- ✓ Accuracy is the first priority, not speed
- ✓ *Please* and *thank you* are understood

## HELP YOUR RADIO WORK FOR YOU

- Keep the antenna vertical when in use
- Push to talk, but allow the microphone to “key-up” (PTT = push-to-talk button)
- Let go of the PTT button to listen
- Talk across the face of the microphone, usually a few inches from your mouth
- Be careful that the PTT is not accidentally depressed while the radio is in your pocket or pack. You will completely block the channel if this happens, not to mention the embarrassment you will suffer if you don’t realize you are transmitting continuously!
- Protect your radio from rain, puddles ...
- Store it “off” with batteries removed
- Keep extra batteries with the radio
- During an activation, prolong battery life by talking on radio only when necessary
- Keep your radio clean (including the first signs of corrosion in the battery compartment)

## PROCEDURAL WORDS (PRO WORDS)

**AFFIRMATIVE** “Yes” or “I agree” or “Permission granted”

**BREAK** You have an emergency message and need to interrupt the current dialogue  
Also used in between short phrases or groups of about 5-6 words when sending long messages to allow the receiving station to transcribe and/or ask for repeats

**CONFIRM MESSAGE** Read back the message

**END OF MESSAGE** The end of a written message

**GO AHEAD or READY** You are ready to hear/copy (or transcribe) a message or continue copying

**HOLD POSITION** Your team should physically stop and not proceed until instructed

**I SPELL** You will spell the following word(s) phonetically

**MESSAGE FOLLOWS** A message will be sent to the receiving station that should be written down (formal traffic).

**NEGATIVE** “No” or “I disagree” or “Permission denied”

**OUT** You are done with your transmission and no reply is expected

**OVER** You are done with the current transmission and expect a reply

**ROGER** You have received the transmission satisfactorily, and you understand it

### SAY AGAIN

You want the last message to be repeated. You may include a modifier to have part of a message repeated, as in the following examples:

"Say again ALL AFTER \_\_\_\_\_"

"Say again ALL BEFORE \_\_\_\_\_"

"Say again WORD AFTER \_\_\_\_\_"

"Say again WORD BEFORE \_\_\_\_\_"

### STAND BY or WAIT

You are not yet ready to copy. You may include a time modifier, such as “Standby one”

### STANDING BY

You are waiting for additional radio traffic or waiting as instructed

**THIS IS** \_\_\_\_\_ The transmission is from the station whose call sign follows


## SHORT REPORTS: Brief Plain English

### An individual patient or victim: Location, age, sex, condition, and what you need

Ex: 14 y.o. male, open leg fracture at Burton Skate Park. Request aid car or pickup truck

Ex: Middle-age female, chest and jaw pain, short of breath, at 123 Main St. SW. Request medical support  
If you don't know the patient's age, just use a generic term that approximates the age: baby, teenager, etc.

### You have found the subject of a search (= highly sensitive!)

1. Use a phone 📞 to call CERT Manager on duty. If cell signal is too weak for a phone call, walk around to see if you can improve the signal.
2. Send a text message to the CERT Manager's cell phone and wait a minute or two for a reply.  
Ex: Subject found at 123 Main St. SW; unconscious; needs urgent medical care
3. Walk or drive to the CERT Command Post if no cell signal or text reply in reasonable length of time.  
 Send a buddy pair with the information; keep a buddy pair with the person and keep trying phone call
4. Last resort: use Ham radio to reach CERT Command Post only if patient needs urgent medical attention
  - If subject has critical life-threatening condition(s), you might save their life by using radio if you can't reach the CP promptly any other way. Make proper radio contact first, then give a short report: **"Subject found at 123 Main St SW, unconscious, weak breathing, need immediate medical support"**
  - If subject of search is obviously dead or has just non life-threatening injuries, there is NO rush. Do NOT report by radio. Use a phone, or walk/drive to report the information promptly in person.

? **WHY** do we do all this regarding a lost person? So that authorities can properly notify the family/friends of the status of their loved one, so that identity is protected when necessary, so that a potential crime scene and evidence is protected, so that onlookers do not swarm, and so that social media and news people do not obtain the information before the family does and before the agency in charge can issue a proper media statement.

### A triage situation with multiple patients: Location & number of Red, Yellow, Green and Black

Ex: At XYZ Store, 123 Main St. SW; 2 reds, 4 yellows, 10 greens, 1 black. Need transport & medical help  
(be cautious when categorizing people as black that those folks are only the very obviously dead)

### Damaged building, without apparent injured people: Location, what you see (no "probably" remarks)

Ex: Sawbones building on fire, spreading rapidly; manager said all employees are accounted for outside  
Ex: Old Fuller Store on Vashon Hwy and Cemetery Rd, leaning and off foundation; unknown if victims

### Damaged building, with trapped and/or injured people: Location, what you see, status of people

Ex: Blue Heron Arts Center, the old white VAA facility, is leaning; roof partly collapsed, porch roof is fully collapsed; people yelling for help from inside.

### CERT Team well-being or status: Team name/number, location, status

Ex: CERT Team 3 at Dockton Forest trailhead on Dockton Rd., one member with ankle injury needs to be picked up. Can you send a driver for our injured person and another person to join our team?

Ex: CERT Team 4 finished with job, returning to Command Post for short break before next assignment

### CERT Team is in big trouble: Be clear about your location and need for help

Ex: CERT Team 2 needs help now! Our vehicle is stuck in a large hole caused by landslide; road completely impassable; we are on Vashon Hwy about 200 yards east of the Tahlequah ferry dock

### No Secret Codes or Words

CERT almost never uses code words. The Incident Commander or CERT Manager may specify a unique word, phrase or procedure in some extenuating circumstance, but that is unlikely. Plain English is by far the best to convey meaningful and useful information quickly and clearly.

Use the color codes Red, Yellow, Green and Black ONLY for patient status and usually only for a triage situation. Do not apply these colors to buildings, roads, etc. Do not make up priority rank numbers or codes, but be prepared to report the biggest problems first (people are always a bigger priority than property).

## REFERENCES

<b>VASHON TACTICAL NAMES</b>			<b>FRS CHANNELS for VASHON CERT</b>	
<p><b>Prefix</b> Vashon EOC (could be anywhere) Main 55 Burton 56 Tahlequah 57 Dockton 58 North 59 Comm Trailer Ops. (Operations) Staging location (e.g. Agren Park)</p>	<p><b>Suffix</b> CP (Command Post) leader IC (Incident Commander) Radio Operator CERT Manager CERT Command Posts (aka CERT CP) Location, fire station # if at a station e.g. Burton 56 CERT CP Agren Park CERT CP CERT Teams are identified by: CERT + name of location from which dispatched + consecutive number e.g. CERT Team Burton 1 Team Leader</p>	<p>9-9 CERT Manager CP (Intra-base) 10-10 CERT Manager CP to Teams (Ham channel would be preferable) 11-11 CERT Team 1 Intra-team 12-12 CERT Team 2 Intra-team 13-13 CERT Team 3 Intra-team</p> <p>Others will be assigned as needed.</p> <p>Secondary radio channels will be established in advance and assigned.</p>		
<b>ITU PHONETIC ALPHABET and NUMBERS</b>			<b>PRACTICE PHONETICS !</b>	
<p><b>A</b> ALPHA <b>B</b> BRAVO <b>C</b> CHARLIE <b>D</b> DELTA <b>E</b> ECHO <b>F</b> FOX-TROT <b>G</b> GOLF <b>H</b> HOTEL <b>I</b> INDIA <b>J</b> JULIET <b>K</b> KILO <b>L</b> LIMA <b>M</b> MIKE</p> <p>ITU is International Telecommu- nications Union</p>	<p><b>N</b> NOVEMBER <b>O</b> OSCAR <b>P</b> PAPA <b>Q</b> QUEBEC <b>R</b> ROMEO <b>S</b> SIERRA <b>T</b> TANGO <b>U</b> UNIFORM <b>V</b> VICTOR <b>W</b> WHISKEY <b>X</b> X-RAY <b>Y</b> YANKEE <b>Z</b> ZULU</p>	<p>Enunciate clearly, digit by digit. Talk slowly <i>Examples:</i> 84 is ATE FO-WER 2,500 is TOO FIVE ZEERO ZEERO <b>0</b> Zee-ro (never "Oh") <b>1</b> Wun <b>2</b> Too <b>3</b> The-ree (or Tree) <b>4</b> Fo-wer <b>5</b> Five <b>6</b> Six <b>7</b> Se-ven <b>8</b> Ate <b>9</b> Ni-ner <b>10</b> Wun Zeero <b>11</b> Wun Wun</p>	<p>Just count: Zeero through Niner And keep going: Ten is Wun Zeero Your phone number Address and Zip Your own Ham Call Sign (<i>learn it!</i>) Your name Sam is: Sierra Alpha Mike Car license plates that you see XRC 509 is: X-ray Romeo Charlie Five Zero Niner</p>	
<b>HAM RADIO CHANNELS PRE-PROGRAMMED FOR CERT</b>			<b>VASHON FIRE STATIONS</b>	
<p>Channel 0: W7VMI-1: 443.500 (+5 MHz offset, 103.5 tone) Channel 1: W7VMI-2: 443.775 (+5 MHz offset, 103.5 tone) Channel 2: VSIMP-1: 147.520 MHz Channel 3: VSIMP-2: 147.480 MHz Channel 4: EQUINE: 147.560 MHz Channel 5: VSIMP-4: 446.575 MHz</p>			<p><b>55</b> Main "five five Mike Alpha India November" <b>56</b> Burton (also note Bennedsen House) <b>57</b> Tahlequah <b>58</b> Dockton <b>59</b> North</p>	
<b>PHONE NUMBERS</b>			<b>PHONE NUMBERS</b>	
<p>CERT Manager Jan Milligan Cell/text: 206-949-1184 Ham call sign: KE7KDU Vashon Fire &amp; Rescue – main office 206-463-2405 In activations and trainings, you'll be given other numbers you might need</p>			<p>CERT Manager Jan Milligan Cell/text: 206-949-1184 Ham call sign: KE7KDU Vashon Fire &amp; Rescue – main office 206-463-2405 In activations and trainings, you'll be given other numbers you might need</p>	