

North Hawaii ARES District Action Plan for the SET 2017 Communication Exercise

Introduction

The Simulated Emergency Test (SET) is an annual communications exercise sponsored by the American Radio Relay League, the National Association for Amateur Radio. The purpose of the exercise is to assess the capability of amateur radio operators to provide communications in the immediate aftermath of a natural or man-made disaster.

SET 2017 will be held on Saturday, October 21st, 2017 from 0800 to 1300 hours local time. The scenario for SET 2017 in Hawaii will be a Great Aleutian Tsunami resulting from a Magnitude 9 earthquake in Alaska. The tsunami will be a series of waves more than 30 feet tall which will have a disastrous impact on Hawaii Island. Damage to structures and property from the inundation will be horrific. This simulated event is very similar to the real-world event that devastated Hilo on April 1st 1946.

This document describes the Action Plan for SET 2017 in the North Kohala, South Kohala, and Hamakua districts on the Big Island of Hawaii. All amateur radio operators living in and visiting these districts are invited and encouraged to participate. The Hawaii County Civil Defense Agency (HCCDA) and the Hawaii County Chapter of the American Red Cross (ARC) will be participating in this exercise as well as radio amateurs throughout the State of Hawaii.

Goals and Objectives

The results of this exercise will be used to shape amateur radio communication policy going forward. It is important to assess our ability to provide communications to insure that amateur radio operators are prepared to respond effectively when a disaster disrupts or overloads normal means of communications. The overall goals and objectives of this exercise are:

- to assess the ability of radio amateurs in the North Hawaii ARES district to respond quickly to a catastrophic event
- to test our proficiency at sending clear, concise, comprehensive messages to the Hawaii County Civil Defense Agency and the Hilo Chapter of the American Red Cross
- to identify locations between which simplex communication do not work reliably
- to identify problems with equipment and methods
- to provide a nurturing environment to learn best practices while having fun

Operational Concept

For this exercise, the tsunami will produce multiple waves, some higher than 30 feet tall, that will cause heavy damage in the inundation zones. The tsunami waves will arrive about one hour apart; and, although the first wave will not be the worst, it will knock out all land-line and wireless telephone service as well as electrical service to the entire Big Island.

An hour before the exercise begins all radio amateurs will meet with the amateur radio operator of their respective hub station. Everyone will check their radios to make sure they are working properly and receive any last minute changes to the Action Plan. Then, they will deploy to their chosen destinations.

As soon as the first wave strikes, amateur radio operators at various locations in North Kohala, South Kohala, and Hamakua will become additional eyes and ears for the Hawaii County Civil Defense Agency and the American Red Cross. Amateur radio operators operating near the inundation zones will organize themselves into field teams and adopt tactical call signs. Each field team may consist of one or more amateur radio operators.

The operators on each field team will originate damage reports, requests for assistance, requests for information, and situation report messages. Then, they will use their handheld and mobile radios to send these tactical messages to a hub station within simplex range on the primary VHF channel. A crossband repeater may be deployed in locales where reliable communication between the field team and the hub station is not otherwise possible.

Each hub station is a base station which serves as a collection point for all the tactical messages generated by the field stations. Amateur radio operators at the base stations will transcribe the messages they receive from the field, format them as necessary to meet the requirements of the Hilo EOC and Red Cross, and then send them to their final destination. The operator in charge of each base station will be the ARES Emergency Coordinator for that district.

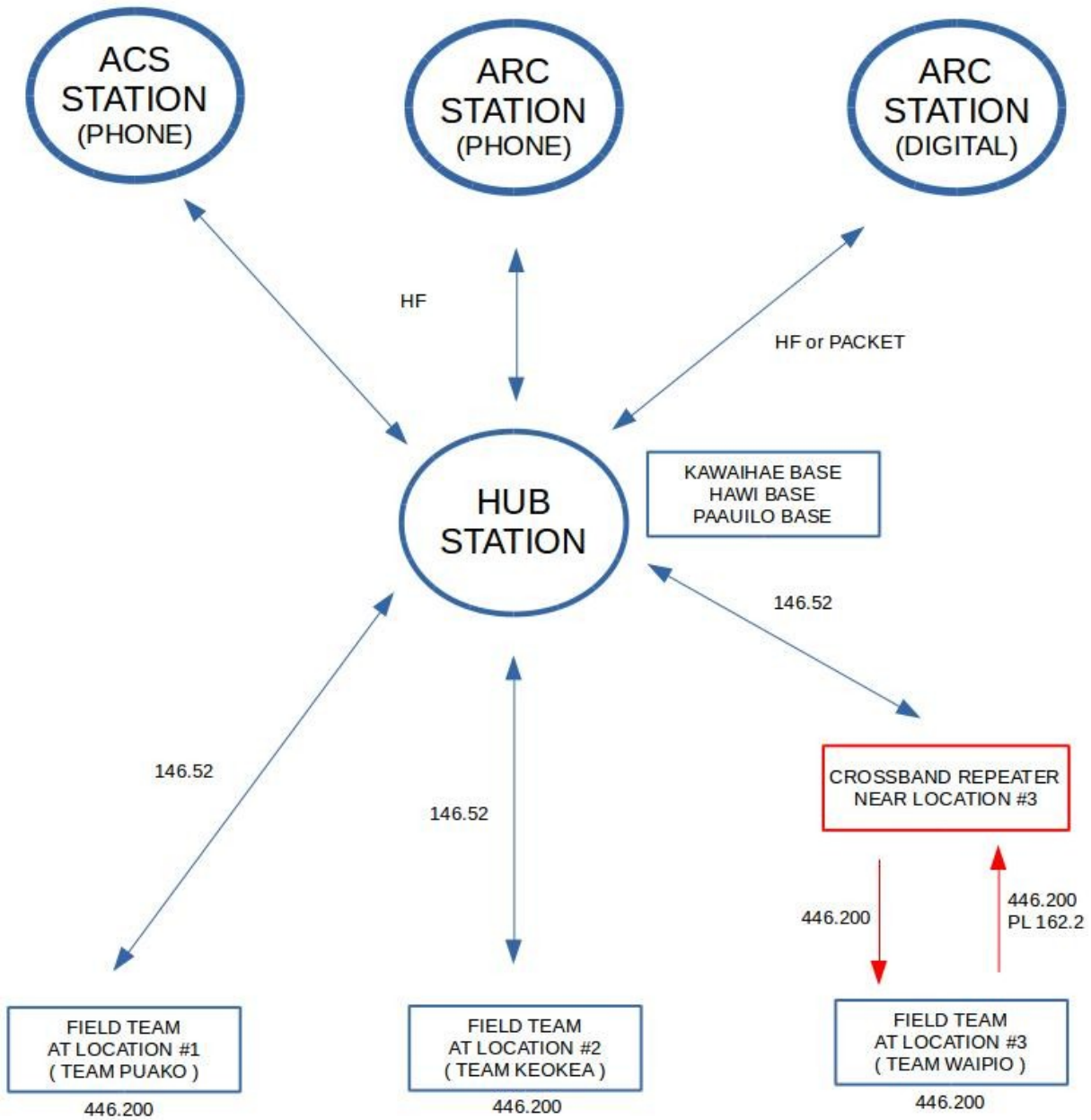
The primary advantage of using a single VHF channel as the primary means of communications is to keep all the field stations on the same frequency as this maintains a high level of situational awareness. A secondary benefit is that the hub stations only need to rebroadcast emergency alert messages from the Hilo EOC and request for information messages from the Red Cross one time for all the field stations in their area to hear.

At the conclusion of the exercise, the operator in charge of each base station will conduct a hot-wash (debriefing) with all the radio amateurs participating in his area. Preferably this will be a face-to-face group meeting, but it may be done on the air at the discretion of the base station operator. The goal is to document what worked, what didn't, and entertain suggestions for improvement. Then, the base station operators will consolidate all of the comments received into an after-action report which they shall submit to the ARES District Emergency Coordinator via email. The DEC will add his comments to the report and forward it to the ARRL Section Emergency Coordinator and ARRL Section Manager and via email.

The illustration on the next page is a graphical representation of traffic flow.

Frequency assignments appear on the ICS 205 form.

TRAFFIC FLOW



KH6CQ traffic flow.odg REV E 28 AUG 2017

INCIDENT RADIO COMMUNICATIONS PLAN (ICS 205)

1. Incident Name: SIMULATED EMERGENCY TEST 2017 IN NORTH HAWAII ARES DISTRICT	2. Date/Time Prepared: Date: 26 August 2017 Time: 2200	3. Operational Period: Date From: 21 OCT 2017 Date To: 21 OCT 2017 Time From: 0800 Time To: 1300								
4. Basic Radio Channel Use:										
Zone Grp.	Ch #	Function	Channel Name/ Trunked Radio System Talk Group	Assignment	RX Freq N or W	RX Tone/NAC	TX Freq N or W	TX Tone/NAC	Mode (A, D, or M)	Remarks
	F1	VHF PRIMARY	52	AREA COMMS	146.52		146.52		FM PHONE	LOCAL AREA COMMS
	F2	ON-SCENE TACTICAL	UHF-200	TEAM COMMS	446.200		446.200		FM PHONE	ON-SCENE COMMS
	F3	ON-SCENE REPEATER	CBR-200	AREA COMMS	446.200		446.200	162.2	FM PHONE	PRIMARY ON-SCENE CROSSBAND REPEATER
	F4	VHF SECONDARY	46	AREA COMMS	146.46		146.46		FM PHONE	SECONDARY LOCAL AREA COMMS ALTERNATE FOR F1
	F5	ON-SCENE TACTICAL	UHF-400	TEAM COMMS	446.400		446.400		FM PHONE	SECONDARY ON-SCENE COMMS ALTERNATE FOR F2
	F6	ON-SCENE REPEATER	CBR-400	AREA COMMS	446.400		446.400	162.2	FM PHONE	SECONDARY ON-SCENE CROSSBAND REPEATER ALTERNATE FOR F3
	F7	COUNTY-WIDE INTER-AGENCY	BIWARN SOUTH KOHALA	COUNTY COMMS	444.450	88.5	449.450	88.5	FM PHONE	MAUNA KEA REPEATER
	F8	COUNTY-WIDE INTER-AGENCY	BIWARN NORTH HAWAII	COUNTY COMMS	146.94	110.9	146.34	110.9	FM PHONE	HALEAKALA REPEATER
5. Special Instructions: F1 AND F4 ARE SIMPLEX CHANNELS FOR LOCAL AREA COMMUNICATIONS. F2 AND F5 ARE SIMPLEX CHANNELS FOR ON-SCENE TACTICAL COMMUNICATIONS. F3 AND F6 ARE ON-SCENE CROSSBAND REPEATERS USED FOR AREA COMMUNICATIONS AND/OR EXTENDED INTER-TEAM COMMUNICATIONS. F8 - IF THE 94 INPUT IS NOT OPERATIONAL, USE F9 INSTEAD.										
6. Prepared by (Communications Unit Leader): Name: ERIC GRABOWSKI, KH6CQ, HAWAII ARES DEC Signature: _____ Date/Time: 26 AUGUST 2017 2200 HOURS										
ICS 205										

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	F9	COUNTY-WIDE INTER-AGENCY	BIWARN NORTH HAWAII	COUNTY COMMS	444.225	110.9	449.225	110.9	FM PHONE	HALEAKALA REPEATER ALTERNATE FOR F8
	F10	COUNTY-WIDE INTER-AGENCY	BIWARN KAMUELA	COUNTY COMMS	147.32	100.0	147.92	100.0	FM PHONE	KAMUELA REPEATER
	F11	HILO EOC	HF	HCCDA ACS	7190		7190		LSB PHONE	ALTERNATE: 3895 LSB
	F12	RED CROSS	HF		7095		7095		LSB	USB FOR DIGITAL TRAFFIC ALTERNATE: 3595 USB
	F13	STATE EOC	HF	HI-EMA KH6HPZ	7088		7088		LSB PHONE	ALTERNATE: 3995.5 LSB
	F14	STATE-WIDE INTER-AGENCY	HF		7080		7080		LSB PHONE	ALTERNATE: 3888 LSB
	F15	NATIONWIDE INTER-AGENCY	VHF DATA	KH6HPZ-9	145.09		145.09		1200 BAUD PACKET	MAUNA LOA DIGIPEATER
5. Special Instructions: F12 IS FOR DIGITAL TRAFFIC HOWEVER VOICE TRAFFIC IS PERMITTED. THE DIGITAL MODE MAY BE WINMOR, MT63, OR OLIVIA PER NCS INSTRUCTIONS. PROGRAM CBR-200 FOR OPERATION ON 446.200 PL 162.2 AND 146.52 CS. PROGRAM CBR-400 FOR OPERATION ON 446.400 PL 162.2 AND 146.46 CS. PROGRAM FIELD RADIO FOR 446.200 MHZ PL 162.2 HZ ENCODE ONLY. PROGRAM FIELD RADIO FOR 446.400 MHZ PL 162.2 HZ ENCODE ONLY.										
6. Prepared by (Communications Unit Leader): Name: ERIC GRABOWSKI, KH6CQ, HAWAII ARES DEC Signature: _____ Date/Time: 26 AUGUST 2017 2200 HOURS										
ICS 205										

Field Stations

Every field station operator should prepare for SET 2017 in advance. Do this by reading the Action Plan, programming all the VHF and UHF channels shown on the ICS 205 form into your radios, and charging your HT battery and backup battery packs. If you have additional questions or need help, contact your local ARES EC.

Tactical call signs will be used by all field stations. Each field team may choose their own tactical call sign. Generally, each tactical call sign will be based on a specific geographical location. See Table 1 and Table 2 for suggestions.

Table 1 — Suggested Tactical Call Signs for Field Stations

Tactical Call Sign	Field Team Location
Team Pololu	Pololu Beach Park
Team Keokea	Keokea Beach Park
Team Kapa`a	Kapa'a Beach Park
Team Mahukona	Mahukona Beach Park
Team Waikoloa	Waikoloa Resort
Team Mauna Lani	Mauna Lani Resort
Team Mauna Kea	Mauna Kea Resort
Team Hapuna	Hapuna Beach Prince Hotel
Team Puako	Puako Village
Team Kawaihae	Kawaihae Harbor
Team Spenser	Spenser Beach park
Team Waipio	Waipio Valley Lookout
Team Lapahoehoe	Laupahoehoe Beach Park

Table 2 — Suggested Tactical Call Signs for American Red Cross Shelters

TACTICAL CALL SIGN	SHELTER NAME AND LOCATION
Kohala School	Kohala Elementary and High Schools
Kamehameha Shelter	Kamehameha Park Gym
Kapa`au Shelter	State Office Building
Waikoloa School	Waikoloa Elementary School
Waimea Community Shelter	Waimea Community Center
Waimea School	Waimea Elementary and Intermediate Schools
Waimea Shelter	Waimea State Office Building
Honoka`a Armory	Honoka`a Armory Shelter
Honoka`a School	Honoka`a Elementary and Intermediate Schools
Honoka`a Sport	Honoka`a Sports Complex

The first message every field station must send to the hub station must always be your “I’m on scene” message. Likewise, the last message you send to the hub station is your “I’m standing down” message.

Every field station is expected to create five distinct types of tactical messages – activation/deactivation, damage reports, requests for assistance (RFA), requests for information (RFI), and situation reports (SITREPS) – and transmit them to their local hub station. Each field station should send several of each message type throughout the exercise period. The content of all messages must be pertinent to the scenario, i.e., tsunami, reflect the reality of the situation, and be stated in clear, concise, comprehensive language in order to minimize the amount of air-time needed to send them. Each field team should try to send at least three messages to the Hilo EOC and two messages to the Red Cross.

If you're located at a Red Cross shelter, the shelter manager may provide you with message content, such as the number of clients present, a request for supplies, etc. Even if they don't, you need to send a message stating that the shelter is open and another one stating that the shelter is closed.

When sending tactical messages, operators at field stations should expect a short delay before the hub station acknowledges each of their transmissions. The reason for this is that the operator at the hub station needs time to transcribe the contents of the message so he can forward it to its destination.

Participating in this exercise will give you the opportunity to work with fellow radio amateurs, to brush up on best practices, and to try out new techniques. It will also enable you to gauge your current skill level and identify areas you could improve upon so that you'll be even better prepared to help when “the big one” really hits.

Operating Tips for Field Station Operators

Ideally every operator on a field team should be able to communicate with the base station on the primary VHF channel. If a field station is using an HT and cannot establish reliable communications with the closest base station, there are a few options you can try to remedy the situation. You can remove the rubber duck antenna and use a magnetic mounted mobile antenna placed on the roof of a vehicle instead. You can use a mobile radio with higher power. You can setup a crossband repeater at a site close by that is in range of both the base station and the HT radios used on-scene.

If two or more operators at the same location need to talk amongst themselves to coordinate something on-scene, like directing traffic around an accident, they should do this on the UHF tactical channel so as not to interfere with other traffic on the primary VHF channel. When this is done, however, at least one team member must always monitor the primary VHF channel to maintain situational awareness and listen for incoming calls from the base station. If the HT does not have the capability to receive both a VHF and a UHF channel simultaneously, the operator can employ the dual watch or priority watch feature in order to monitor the primary VHF channel automatically on a periodic basis.

Field station operators are the on-scene eyes and ears for the Hawaii County Civil Defense Agency and the American Red Cross. They gather information on local conditions and forward it to those agencies so they can shape their response to the actual conditions on the ground. These agencies depend on reports received from the field to learn what has happened and how wide spread the effects are.

The most effective way to transmit this information to the destination agency is by voice with no special forms, formats, or digital technology. Voice is the most effective method to pass information during a crisis because all amateur radio operators can operate voice; therefore, it's quick, it's easy, it's not complicated and there is less chance for mishaps to occur.

Hub Stations

At the discretion of the base station operator there may be more than one operator at each hub station, i.e., one for VHF and another for HF. Hub station operators collect tactical messages from field stations, add whatever formatting is necessary to comply with the requirements of the served agencies, and then forward the messages to the appropriate destination stations on an HF channel. The messages may be passed by voice or data at the discretion of the destination station.

Tactical call signs will be used by all hub stations. Each hub station may choose his own tactical call sign. Generally, each tactical call sign will be based on a specific geographical location. See Table 3 for suggestions.

Table 3 — Suggested Tactical Call Signs for Hub Stations

Tactical Call Sign	District	Operator in Charge
Hawi Base	North Kohala	KH7LZ
Kawaihae Base	South Kohala	NH7UA
Paauilo Base	Hamakua	AH6RK

Each base station serving as a hub has the following responsibilities. Before the exercise begins, hub station operators should meet with all of the field station operators to perform radio checks, answer any questions the participants may have, and inform them of any last minute changes to the Action Plan.

At 0800, hub station operators will announce the start of the exercise. During the exercise, hub station operators are to maintain communications with all field teams within simplex range, accept tactical traffic from the field teams, forward their traffic to either the Hilo EOC or Red Cross, and relay emergency alert messages from the HCCDA and request for information messages from the Red Cross to all field stations.

Hub stations shall make an announcement on the VHF radio frequencies in use that the SET is in progress and everyone is invited to participate. These announcements should be made throughout the SET as time permits on a regular basis. This announcement can be as simple as: **This frequency is being used for the annual Simulated Emergency Test until 1300 hours. If you would like to check into the exercise, please call <say your call sign> now.** At 1300, hub station operators will announce that the exercise has ended.

After the exercise, each hub station operator will conduct a hot-wash (debriefing) with all the amateur radio operators participating in his area. Preferably this will be a face-to-face group meeting, but it may be done on the air at the discretion of the base station operator. The goal is to document what worked, what didn't, and entertain suggestions for improvement.

Then, the hub station operators will consolidate all of the comments received into an after-action report which they shall submit to their ARES District Emergency Coordinator via email. The DEC will add his comments to the report and forward it to the ARRL Section Emergency Coordinator and ARRL Section Manager via email.

Operating Tips for Hub Station Operators

Neither the Hawaii County Civil Defense Agency nor the American Red Cross use ICS message forms. The hub stations will format all tactical messages they receive from the field stations in a way so that they comply with the requirements of these two served agencies. Generally speaking, the additional formatting will probably consist of adding a date-time group as well as the physical location and call sign of the originating station.

One important goal is to minimize the burden on hub station operators when they're handling traffic. The least time consuming way to receive traffic is to type it into a pre-existing form on your station computer. Prior to the exercise, create forms or templates for Requests for Assistance (RFA), Requests for Information (RFI), and the Situation Report (SITREP). These forms should already have the sentence "Exercise. Exercise. Exercise. This is an exercise message." at the top and bottom so you don't have to retype it for every message. Also near the top you could have the phrase "At 0000 hours WH6XXX reports" to save time typing that information every time as well. You would just have to fill in the actual time you received the message and call sign of the station sending it.

Radio traffic designated as Emergency has a higher precedence than any other traffic and must always be received immediately and forwarded as soon as possible. Requests for information have the lowest precedence and should be handled after all other traffic. Other traffic falls in between these two extremes.

When you're receiving a message from a field station, it's perfectly fine to make the field station wait until you have accurately transcribed their last transmission before instructing them to send the next chunk of the message. See Passing Traffic from a Field Station to a Hub Station.

Hub station operators will use the ICS 205A form to keep track of the field stations and the ICS 309 form to keep track of message traffic. Both of these forms need to be filled out in real-time while the exercise is in progress. Each time a new field station checks in, you need to record their location, call sign, and frequency on the ICS 205A. Each time a message is received from a field team, the current time, call sign of the originating station, message number, call sign of the receiving station (your call sign), message number, and a very brief description of the message needs to be recorded on the ICS 309.

Regarding the use of message numbers, I suggest we use a date-time stamp since that's easy to do and no two will ever be the same. For example, if you receive a message at 0805 on 21 October, the message number would be 210805 and it would be recorded under the FROM column. Leave the message number in the TO column blank. Then skip a line on the form so when you forward that message to a destination station, you can enter that transaction on the line directly below the original. When you forward the message, you would leave the message number blank under the FROM column and put the original message number under the TO column. Keeping track of the received and forwarded messages on adjacent lines is a convenient way to see that all incoming messages have been handled.

When forwarding messages using HF, the frequency may be busy. When that's the case and you have a message with Emergency precedence, you should announce that you have Emergency traffic the first time there is a pause in activity using the break tag **BREAK EMERGENCY** so it gets passed before lower precedence traffic does. If you have non-emergency traffic, you may have to let it accumulate in your station queue until you have an opportunity to pass it. Then you should tell the receiving station you have multiple pieces of traffic for them and pass them one after the other or as directed.

When Emergency Alert Messages are received from the Hilo EOC, they should be relayed to all field stations as an informational broadcast. EAM messages are usually lengthy and read continuously in one long transmission. There are two ways to deal with these. One is to announce on VHF that an EAM will be sent. Then, when Hilo EOC begins their transmission, place the microphone of your VHF radio near the speaker of your HF radio and key the mic for the duration of the EAM. Another way is to record the EAM for playback later. This could be done using a tape recorder or by having your station computer capture the EAM as a .wav file. In either case, you should ask each field station to acknowledge that they received the EAM.

If you call a field station and get no response, that team may be using their UHF tactical channel and not able to monitor the primary VHF channel on a full time basis. They may have the dual watch or priority watch feature engaged on their radios in which case they will only hear transmissions on the primary VHF channel every 5 seconds. The best way to deal with this is to make a long call so that they have a better chance of hearing it. For example you might say: **Team Puako. Team Puako. This is Kawaihae Base calling for Team Puako.** That should be long enough to get their attention as long as you don't race through it.

Hub station operators should be aware that they may encounter rogue stations with incidental traffic. Should an amateur radio station attempt to check into one of the HF frequencies, they should be instructed to use the appropriate VHF frequency for their area. If it is impossible for them to comply, their traffic must be handled on the HF net according to its precedence. Stations checking in on VHF should be invited to join the exercise. Instead of consuming a lot of air time educating them about the SET, direct them to KH7LW's web site www.hamradioandmore.com/SET2017 so they can read the Action Plan.

Follow the instructions in the Action Plan as closely as possible but be flexible. If something is not working, change it.

Tips for Creating Messages

Every message should be clear, concise, and comprehensive. Each field station will need to create five different types of tactical messages. They are:

- activation/deactivation
- damage report
- request for assistance (RFA)
- request for information (RFI)
- situation report (SITREP)

The information contained in each type of message is self evident except for SITREPs destined for the Hilo EOC.

When you compose request for assistance messages, use the 9-1-1 style reporting method as a model for creating your messages. The key components are:

- Give your name and location
- State the situation as briefly as possible
- State specifically what assistance is needed
- If people are injured, state the number and estimate the extent of their injuries
- If there is physical damage, estimate the extent and severity
- State any other information you feel is pertinent to the situation at hand like road and traffic conditions, weather, etc.
- At the end of your last transmission, send your call sign to satisfy FCC requirements for identification and alert the receiving station that your message has ended

Possible subjects for these messages may deal with such things as: a tanker truck leaking, water inundation, structure collapse, road blocked by debris, propane tank broken loose, people displaced, size of wave, degree of inundation, traffic accident, people trapped, people washed out to sea, stores flooded, road washed out. Be creative but remember to keep it real.

The ultimate destination for RFA messages can be: Police, Fire, EMS, Public Works, Water Department, Department of Transportation.

Sample Activation/Deactivation Messages

Field stations need to send an activation message to the hub station as soon as they arrive on scene; and, a deactivation message before they secure and leave the scene.

Here is an example of an activation message is: **Kawaihae Base, this is KH6CQ. I just arrived on scene in Puako. My tactical call sign will be Team Puako.**

Here is an example of a deactivation message is: **Kawaihae Base, this is Team Puako. Team Puako is standing down at this time. KH6CQ.**

Sample Request for Assistance (RFA) Messages

Here is an example of an RFA message sent from a field station to a hub station. **Kawaihae Base, this is Team Puako with Emergency traffic. This is an exercise message. Request for Water Rescue. Five adults washed out to sea. They are about a mile off shore and drifting South. They are clinging onto debris. This is an exercise message. KH6CQ.**

And here is an example of the same message sent from the hub station to the Hilo EOC. **ACS Net Control this is South Kohala Hub with an RFA. Exercise. Exercise. Exercise. This is an exercise message. Request for Water Rescue. At 0927 KH6CQ reports five adults washed out to sea in Puako. They are about a mile off shore and drifting South. They are clinging onto debris. This is an exercise message. NH7UA.**

Here is an example of another RFA message sent from a field station to a hub station. **Kawaihae Base, this is Waikoloa Shelter. I have a request for Police assistance. This is an exercise message. Shelter manager requests police presence for a man with machete threatening clients and staff. This is an exercise message. NH7ZF.**

And here is an example of the same message sent from the hub station to the Hilo EOC. **ACS Net Control this is South Kohala Hub with an RFA. Exercise. Exercise. Exercise. This is an exercise message. At 1017 NH7ZF reports Waikoloa shelter manger requests police presence for a man with a machete threatening clients and staff. This is an exercise message. NH7UA.**

Sample Request for Information (RFI) Messages

Here is an example of an RFI message sent from a field station to a hub station. **Kawaihae Base, this is Team Hilton. I have a request for information. This is an exercise message. Hotel security would like an ETA for the buses to take guests to the shelter. This is an exercise message. KH6CQ.**

And here is an example of the same message sent from the hub station to the Hilo EOC. **ACS Net Control this is South Kohala Hub with an RFI. Exercise. Exercise. Exercise. This is an exercise message. At 1135 KH6CQ reports Hilton hotel security would like an ETA for the buses to take guests to the shelter. This is an exercise message. NH7UA.**

Here is an example of another RFI message sent from a field station to a hub station. **Kawaihae Base, this is Waikoloa Shelter I have a request for information. This is an exercise message. Shelter manager would like an ETA for the ambulance requested at 0911 for the heart attack client. This is an exercise message. NH7ZF.**

And here is an example of the same message sent from the hub station to the Hilo EOC. **ACS Net Control this is South Kohala Hub with an RFI. Exercise. Exercise. Exercise. This is an exercise message. At 1030 NH7ZF reports the Waikoloa shelter manager would like an ETA for the ambulance requested at 0911 for the heart attack client. This is an exercise message. NH7UA.**

Sample Situation Report (SITREP) Message for Hilo EOC

Every situation report provides a snapshot of the conditions at a specific location for a specific period in time. Every SITREP destined for the Hilo EOC consists of the following elements in this specific order:

Rain (none, light, moderate, heavy)

Rain Condition (steady and continuous or showers start and stop abruptly)

Wind (none, light [0 – 18 MPH], moderate [19 – 38 MPH], heavy [39 – 73 MPH], Hurricane [74 MPH or greater])

Surf (flat, knee high, waist high, head high, over head, double over head, triple over head or more)

Flooding (none, light, moderate, heavy, extreme)

Road Closures (none, partial, full)

Structural Damage (none, light, moderate, heavy)

Power Outage (yes or no)

Pole Number and Damage Description (if applicable)

Other Comments.

Since all of the elements listed above may not be applicable to every situation, only the pertinent elements need to be included in the SITREP. Be aware, however, that **the order of reporting these elements needs to be observed.** For example, if the report is about flooding and high winds, the wind condition must be reported before the flooding condition.

Here is an example of a SITREP message sent from a field station to a hub station. **Kawaihae Base, this is Team Puako. I have a situation report. This is an exercise message. Several large boulders are blocking the entire width of the access road about 100 yards from the shoreline. All structures are heavily damaged. This is an exercise message. KH6CQ.**

And here is an example of the same message sent from the hub station to the Hilo EOC. **ACS Net Control this is South Kohala Hub with a SITREP. Exercise. Exercise. Exercise. This is an exercise message. At 1015 KH6CQ in Puako reports several large boulders are blocking the entire width of the access road about 100 yards from the shoreline. All structures are heavily damaged. This is an exercise message. NH7UA.**

Passing Traffic from a Field Station to a Hub Station

Below is an annotated sample message illustrating the preferred method of passing a tactical message from a field station to a hub station. Using this method promotes accuracy and minimizes the amount of air-time needed to pass the traffic. Note that Kawaihae Base and Team Puako are tactical call signs.

Station	Message	Remarks
Field	Kawaihae Base this is Team Puako with Emergency traffic.	This is the initial transmission.
Hub	All stations stand by. Go ahead Team Puako.	The operator at the hub station immediately clears the frequency in order to receive the Emergency traffic.
Field	This is a request for a water rescue.	This alerts the hub station operator to pull a blank RFA form and prepare to fill it out.
Hub	Ready to copy.	Before the hub station operator signals the field station to continue, he enters the current time, nature of the message, and physical location of the station initiating the message on the RFA form.
Field	This is an exercise message.	After sending this portion of the message, the field station waits for confirmation from the hub station before continuing.
Hub	Copy.	Since this line is preprinted on the RFA form, the hub station operator does not have to write this down. He simply acknowledges the previous transmission.
Field	Five adults washed out to sea.	After sending this portion of the message, the field station waits for confirmation from the hub station before continuing.
Hub	Copy five adults washed out to sea.	Before the hub station operator signals the field station to continue, he transcribes the message and then repeats it back to the field station to be certain he copied this portion of the message correctly.
Field	They are about a mile off shore and drifting South.	As long as the read-back was correct, the field station operator continues with the next portion of the message. Once again, after sending this portion of the message, the field station waits for confirmation from the hub station before continuing.
Hub	Say again all after shore.	The hub station did not get all of the information on the first pass.
Field	and drifting South.	The field station repeats only the information asked for.
Hub	Copy they are about a mile off shore and drifting South.	Once again, before the hub station operator signals the field station to continue, he transcribes the message and then repeats it back to the field station to be certain he copied this portion of the message correctly.
Field	They are clinging onto debris.	As long as the read-back was correct, the field station operator continues with the next portion of the message. Once again, after sending this portion of the message, the field station waits for confirmation from the hub station before continuing.
Hub	Copy they are clinging onto skies.	Once again, before the hub station operator signals the field station to continue, he transcribes the message and then repeats it back to the field station to be certain he copied this portion of the message correctly.
Field	Negative. onto debris. I spell debris Delta Echo Bravo Romeo India Sierra. Debris	The field station operator calls attention to the mistake and spells out the word debris since it is unusual.
Hub	Copy they are clinging onto debris.	Once again, before the hub station operator signals the field station to continue, he transcribes the message and then repeats it back to the field station to be certain he copied this portion of the message correctly.

Station	Message	Remarks
Field	This is an exercise message. KH6CQ.	As long as the read-back was correct, the field station operator continues with the next portion of the message. Sending the call sign of the operator at the field station signals that this message is complete and satisfies the FCC requirement for station identification. He waits for final confirmation from the hub station.
Hub	Copy KH6CQ. This is NH7UA CLEAR.	Since this text is also already entered on the preprinted form, there is no need for the operator at the hub station to write it down. He finishes completing any remaining information on the RFA form, notes the call sign of the station of origin, verifies he has all the information necessary in order to deliver the message to its destination, and then lists the message on his ICS 309. Only then does he acknowledge the entire transaction is complete, transmits his call sign to satisfy the FCC requirement for station identification, and indicates he is ready to accept another call.

Passing Traffic from a Hub Station to the Hilo EOC

Below is an annotated sample message illustrating the preferred method of passing a message from a hub station to the Hilo EOC via an ACS station. Using this method promotes accuracy and minimizes the amount of air-time needed to pass the traffic. Note that South Kohala Hub is the tactical call sign of the hub station, the message was originated by KH6CQ at 0930, and KH7DQ is the operator at the ACS station receiving the traffic. Text appearing in in ***bold italics*** was added to the original message by the hub station.

Station	Message	Remarks
Hub	Hilo EOC this is South Kohala Hub with Emergency traffic.	This is the initial transmission.
ACS	All stations stand by. South Kohala this is ACS Net Control. Go ahead.	The ACS operator immediately clears the frequency in order to receive the Emergency traffic.
Hub	This is a request for a water rescue.	This alerts the ACS operator to initiate an RFA form.
ACS	Ready to copy.	Before the ACS operator signals the hub station to continue, he enters the current time, nature of the message, and district of the station initiating the message on the RFA form.
Hub	<i>Exercise. Exercise. Exercise.</i> This is an exercise message.	After sending this portion of the message, the hub station waits for confirmation from the ACS operator before continuing.
ACS	Copy.	Since this line is preprinted on the RFA form, the ACS operator does not have to write this down. He simply acknowledges the previous transmission.
Hub	<i>At 0930 KH6CQ reports</i> five adults washed out to sea.	After sending this portion of the message, the hub station waits for confirmation from the ACS operator before continuing.
ACS	Copy at 0930 KH6CQ reports five adults washed out to sea.	Before the ACS operator signals the hub station to continue, he transcribes the message and then repeats it back to the hub station to be certain he copied this portion of the message correctly.
Hub	They are about a mile off shore and drifting South.	As long as the read-back was correct, the hub station operator continues with the next portion of the message. Once again, after sending this portion of the message, the hub station waits for confirmation from the ACS operator before continuing.
ACS	Say again all after shore.	The ACS operator did not get all of the information on the first pass.
Hub	and drifting South.	The hub station repeats only the information asked for.

Station	Message	Remarks
ACS	Copy they are about a mile off shore and drifting South.	Once again, before the ACS operator signals the hub station to continue, he transcribes the message and then repeats it back to the hub station to be certain he copied this portion of the message correctly.
Hub	They are clinging onto debris.	As long as the read-back was correct, the Hub station continues with the next portion of the message. Once again, after sending this portion of the message, the hub station waits for confirmation from the ACS station before continuing.
ACS	Copy they are clinging onto debris.	Once again, before the ACS operator signals the hub station to continue, he transcribes the message and then repeats it back to the hub station to be certain he copied this portion of the message correctly.
Hub	This is an exercise message. NH7UA.	As long as the read-back was correct, the hub station continues with the next portion of the message. Sending the call sign of the operator at the hub station signals that this message is complete and satisfies the FCC requirement for station identification. The hub station waits for final confirmation from the ACS station.
ACS	Copy NH7UA. This is KH7DQ CLEAR.	Since this text is also already entered on the preprinted form, there is no need for the ACS operator to write it down. He finishes completing any remaining information on the RFA form, notes the call sign of the sending station, and verifies he has all the information necessary in order to deliver the message to the Hilo EOC. Only then does he acknowledge the entire transaction is complete, transmits his call sign to satisfy the FCC requirement for station identification, and indicates he is ready to accept another call.

Appendix A – Crossband Repeater Reference

Instructions for Setting Up a Dual Band Radio for Crossband Repeating

Although each radio will be different, the general idea is the same.

1. Program the UHF Channel. Do this by entering the following parameters and saving them to a memory channel.
 - a. Frequency: 446.200 MHz
 - b. Offset: Simplex
 - c. Tone Frequency: 162.2 Hz
 - d. Tone Mode: Enc/Dec
2. Program the VHF Channel. Do this by entering the following parameters and saving them to another memory channel.
 - a. Frequency: 146.52 MHz
 - b. Offset: Simplex
 - c. Tone Frequency: Any
 - d. Tone Mode: Off
3. Activate Crossband Repeat
 - a. Set the UHF channel to the one programmed above.
 - b. Set the VHF channel to the one programmed above.
 - c. Set the squelch for both channels a little tighter than usual.
 - d. Issue the radio-specific command sequence to put the radio into Crossband Repeat mode.
4. Deactivate Crossband Repeater
 - a. Issue the radio-specific command sequence to exit Crossband Repeat mode.

Instructions for Setting Up an HT for use with the Crossband Repeater

1. Program a channel for local simplex use. Do this by entering the following parameters and saving them to a memory channel.
 - a. Frequency: 446.200 MHz
 - b. Offset: Simplex
 - c. Tone Frequency: Any
 - d. Tone Mode: Off
2. Program a channel to access the Crossband Repeater. Do this by entering the following parameters and saving them to the next memory channel.
 - a. Frequency: 446.200 MHz
 - b. Offset: Simplex
 - c. Tone Frequency: 162.2 Hz
 - d. Tone Mode: Enc

Using an HT with a Crossband Repeater

1. Select the Simplex channel to communicate with other team members near you.
2. Select the Crossband Repeater channel to communicate with stations further away *in addition to* other team members near you who are on the UHF simplex channel. Use this channel only when you need to talk to stations further away.