

**Simulated Emergency Test 2018**  
**Communications Exercise Plan**  
**Saturday, October 13, 2018**  
**9 a.m. to 12 noon HST**

**Introduction:**

The Simulated Emergency Test (SET) is an annual communications exercise sponsored by the American Radio Relay League (ARRL), 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. All radio amateurs throughout the State of Hawaii including members of ACS, American Red Cross, ARES, CERT, DEM RACES, Hawaii VOAD, SKYWARN, STATE RACES, The Salvation Army, and unaffiliated, are encouraged to participate.

The scenario for SET 2018 in Hawaii will be a major hurricane with sustained winds of 130 to 156 MPH (a category 4 on the Saffir-Simpson Scale) affecting all islands in the State of Hawaii. The hurricane has approached the State from the south and passed close to the Western coastline of all the islands as it heads North.

The impact to the State is severe. There is heavy damage on every island. All land-line, cellular and Internet service is down throughout the entire State. Many utility poles have been blown down and electrical power is out. Coastal highways are damaged. Major highways and roads are impassable due to debris. There is no water and no sewage. ATMs are down, and fuel cannot be pumped due to the power outage. Many homes have been damaged; some have been destroyed. There is major flooding in low lying areas and near the shore line due to the storm surge riding on top of a King tide. At 9 a.m. the ALL CLEAR is issued, and all counties will enter their response phase.

**Objectives for this Exercise:**

The results of this exercise may be used to shape amateur radio communications policy in the future. It is important to assess our ability to provide communications to ensure that amateur radio operators are prepared to respond effectively when a disaster disrupts or overloads normal means of communication.

The specific objective for this communications exercise is to develop a Simulated Incident Map for all islands.

Developing this map will also support these important objectives:

- Assess the ability of radio amateurs throughout the State to respond quickly to a catastrophic event, in this case a major hurricane;
- Develop skills to send clear, concise, comprehensive messages;
- Encourage the effective use of digital communications, specifically *Winlink*;
- Test skills in use of simplex communications;
- Encourage the effective use of communications equipment and methods of operations;
- Confirm our ability to operate entirely off the electrical grid by using batteries, solar panels, generators, etc.;
- Provide a positive environment to learn best practices while having fun.

**Concept of Operations:**

SET 2018 will be held on Saturday, October 13, 2018, from 0900 to 1200 hours Hawaii Standard Time (HST).

No conventional repeaters shall be used for this exercise. All stationary VHF and UHF repeaters are to be considered nonfunctional due to damaged antennas, lack of power, or other infrastructure failures.

This exercise will use the hub and spoke method for passing traffic between field stations and the simulated county Emergency Operations Centers (EOCs) and the State EOC (ARES Operations Center). Stations in the field will pass their traffic to a local hub station on a VHF and/or UHF simplex frequency. The hub stations will forward this traffic to their simulated county EOCs on HF. Then the simulated county EOCs will forward messages to the State EOC (ARES Operations Center) as appropriate.

The tactical call signs for the simulated ARES EOCs are:

- |                |                          |
|----------------|--------------------------|
| • <b>Phone</b> | <b><i>Winlink</i></b>    |
| • Hilo EOC     | HI-Hilo-ARES@winlink.org |
| • Maui EOC     | HI-Maui-ARES@winlink.org |
| • Oahu EOC     | HI-Oahu-ARES@winlink.org |

- Kauai EOC HI-Kauai-ARES@winlink.org
- State EOC HI-State-ARES@winlink.org

Communications with the simulated State EOC (ARES Operations Center) will be on 7.088 MHz LSB using voice or USB digital. It's up to each county to choose their own HF frequency so as not to interfere one another or the State EOC (ARES Operations Center) frequency. *Winlink* messages for ARES simulated EOCs will be retrieved by assigned ARES members.

Simplex relays are encouraged if direct communication is not possible. The goal is to move the messages forward to the addressees by whatever means possible.

Every Amateur Radio Emergency Service (ARES) District Emergency Coordinator (DEC) shall be responsible for establishing their own VHF and/or UHF simplex communication plan for their district. They shall document their plan on an ICS-205 Incident Radio Communications Plan (a blank ICS-205 is attached). In addition, each DEC shall create pre- and post-amble messages.

Each DEC shall setup their respective net control station(s) (NCS). Since this is an emergency communication (EMCOMM) exercise, each net shall be a directed net. In this exercise NCS use of relay stations will be required for stations not having a direct path to the NCS.

When the SET 2018 begins at 9 a.m., field stations will originate messages for 1. Situation Report (SITREP), 2. Damage Report (DR), and 3. Request for Assistance (RFA). All messages, whether tactical or formal ICS-213, shall have the phrase "This is an exercise message" before and after the body of the message.

Then, field stations will use their hand-held or mobile radio to send these messages to their local hub station who is within simplex range on the VHF or UHF channel established in their respective district. Cross band repeaters may be deployed in locations where reliable communication between the field and the hub station is not otherwise possible.

The NCS shall acknowledge stations checking in. Once a station is signed in, it will need permission from the NCS to leave the net or stand down.

Stations participating will be asked to originate simulated ICS-213 messages. Please use your knowledge of your local environment and create believable reports. Please create your messages before the event and be creative!

The following messages should be addressed to: ARES Operations Center (which will be on Oahu for exercise purposes) so they can be included on the incident map:

1. Situation Report (SITREP): This message should include:
  - a. Callsign
  - b. Name of radio operator
  - c. Location
  - d. Radio equipment(s)
  - e. Antenna(s) being used
  - f. Power source – Battery, generator, solar or other emergency system (stations without emergency power should state “currently without emergency power”)
2. Simulated Damage Assessments (DA):
  - a. Roads: Report any road closers from debris, fallen trees, telephone poles, landslides, rockslides or mudslides;
  - b. Storm surges: Caused destruction to roads; making bridges impassable;
  - c. Floods: Report location of flooded areas;
  - d. Structures damaged: Report severity of damages of homes, buildings, business structures, churches, etc.; County and State facilities, i.e., schools, government building (including, police, fire and EMS, base yards, district parks, etc.); communication site;
3. Request for Assistance (RFA): Report need for evacuations, medical assistance, search & rescue. (Due to the short exercise timeline, we may not be able to return a response on any request for assistance)

Each Hub will have two NCS stations. One on VHF and one on HF. Messages received by each district hub will be passed to the County simulated NCS AND ALSO to the simulated State (ARES Operations Center) NCS.

With the above information, we can locate the data on an Incident map for each island for exercise purposes.

On Oahu, the City and County of Honolulu Department of Emergency Management (DEM) will permit the use of their ten (10) UHF portable repeaters for this exercise. Use of cross band deployable repeaters on all islands should be considered by each DEC.

The use of *Winlink* via 2-meter packet, Telnet, and HF using Pactor III or ARDOP is encouraged during this exercise. (*Winlink* WINMOR and VARA should be avoided). There are presently six 2-meter packet RMS gateways and five HF RMS gateways in the State (go to [Winlink.org](http://Winlink.org) to view the gateways and frequencies).

Even though the Internet and electrical grid have been declared to be down for this exercise, we will permit the use of *Winlink* Telnet to send e-mail messages. The reason for this exception is to encourage radio amateurs to gain experience using RMS Express.

We encourage amateur radio operators who are not already registered *Winlink* users to get their *Winlink* email address by checking out the [hawaii.ares.info](http://hawaii.ares.info) or the [Winlink.org](http://Winlink.org) web sites well in advance of the exercise. Learn how to use templates for sending ICS-213 formatted messages.

*Winlink* ICS-213 templates for reporting damages are available in RMS Express (copies attached). For those radio amateurs not familiar with the ICS-213 forms, voice messages will be accepted.

At the end of the exercise, the operator in charge of each hub station shall conduct a hot-wash with all the amateur radio operators participating in his area. This can be a face-to-face meeting or on the air. Either way, the goal is to document what worked, what did not, and document suggestions for improvement.

Hub station operators shall consolidate all the comments received into an after-action report and submit it to their respective ARES DEC via email. The DEC shall add his comments to the report and forward it to the ARES Section Emergency Coordinator (SEC) and ARRL Section Manager (SM) via email no later than two weeks after the exercise.

**Practice:**

The annual Grid Madness contest being held Sunday September 16th from 1:00 to 5:00 pm HST is an excellent opportunity to test simplex equipment. SET participants are encouraged to participate to test and improve simplex operation. See <http://gridmadness.blogspot.com/> for contest details.

**Safety:**

When working in the field safety is a priority, especially when installing antennas, working with generators, and exposure to RF radiation.

*Remember - Safety. Safety. Safety*

**General Message (ICS 213)**

1. Incident Name: ARRL SET 2018      Msg # **KH7HO-1**

2. To (Name/Position): HI-State-ARES

3. From (Name/Position): KH7HO

4. Subject: SITREP	5. Date: 2018-9-14	6. Time: 2150L
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7. Message

THIS IS AN EXERCISE MESSAGE

THIS IS KH7HO, CLEM JUNG  
KAILUA, OAHU, HAWAII  
IC-7000  
OFF CENTER DIPOLE 6M - 80M  
ON BATTERIES AND GENERATOR

THIS IS AN EXERCISE MESSAGE

8. Approved by: CLEMENT JUNG / KH7HO      Position / Title: RADIO OPERATOR

9. Reply:

Print form to obtain a written response if needed. You cannot create a reply from here. Close this form. When ready to respond double click on the message. Click *Reply* at the top and enter the response into the new form. Click SUBMIT when ready to post.

10. Replied By (Name):       Position / Title:

Date / Time:

General Message (ICS 213)

1. Incident Name: ARRL SET 2018      Msg #: **KH7HO-2**

2. To (Name/Position): HI-State-ARES

3. From (Name/Position): KH7HO

4. Subject: DAMAGE ASSESSMENT

5. Date: 2018-9-14

6. Time: 2207L

7. Message

THIS IS AN EXERCISE MESSAGE

THE FOLLOWING ROADS ARE CLOSED:

- PALI HWY (MUD SLIDE CLOSING KAILUA BOUND TUNNELS)
- LIKELIKE HWY (TREES BLOCKING BOTH TUNNELS ON THE HONOLULU SIDE OF THE TUNNELS)
- H3 (TREES BLOCKING SEVERAL SECTIONS ON THE KANEOHE SIDE OF THE HWY)

THIS IS AN EXERCISE MESSAGE

8. Approved by: CLEMENT JUNG / KH7HO

Position / Title: RADIO OPERATOR

9. Reply:

Print form to obtain a written response if needed. You cannot create a reply from here. Close this form. When ready to respond double click on the message. Click *Reply* at the top and enter the response into the new form. Click SUBMIT when ready to post.

10. Replied By (Name):

Position / Title:

Date / Time:

General Message (ICS 213)		
1. Incident Name: ARRL SET 2018      Msg #: <b>KH7HO-3</b>		
2. To (Name/Position): HI-State-ARES		
3. From (Name/Position): KH7HO		
4. Subject: REQUEST FOR ASSISTANCE	5. Date: 2018-9-14	6. Time: 2236L
<p>7. Message</p> <p>THIS IS AN EXERCISE MESSAGE</p> <p>REQUEST EVACUATION FOR FIVE MEDICAL PATIENTS NEEDING DIALYSIS ASAP            LOCATION: KAILUA HIGH SCHOOL            POC: JANE SMITH            CELL: 808-555-1234</p> <p>THIS IS AN EXERCISE MESSAGE</p>		
8. Approved by: CLEMENT JUNG / KH7HO      Position / Title: RADIO OPERATOR		
9. Reply:		
<div style="border: 1px solid gray; height: 100px; width: 100%;"></div>		
<p><small>Print form to obtain a written response if needed. You cannot create a reply from here. Close this form. When ready to respond double click on the message. Click <i>Reply</i> at the top and enter the response into the new form. Click SUBMIT when ready to post.</small></p>		
10. Replied By (Name): <input type="text"/>		
Position / Title: <input type="text"/>		
Date / Time: <input type="text"/>		
<input type="button" value="Print"/> Senders Base Call: AH0A		Ver 32

