

CERT Radio Communications 102 - The Next Steps

Communications Support Series

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Overview

The purpose of this presentation is to reinforce the need for CERT teams to establish a communications structure and plan for their teams, familiarize team members with the CERT Communications - Procedure and Protocol Guidelines for Hawaii County and provide an overview of ACS (Auxiliary Communications Service).

What's Needed?

- **Intra-team communications**

- Allows team members to quickly and effectively communicate with one another
- It's a critical component of tasks such as search and rescue
- Allows the team leader to keep track of team members (accountability)

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What's Needed? (Cont'd)

- **Communications to/from the next level**

- Important to establish a link to HCCDA:
 - They are lead agency in an emergency
 - We provide information ("eyes and ears")
 - They are our resource link
- **Emergency messages:**
 - Emergency Alert Messages (EAMs)
 - Request for Assistance (RFA)
 - Request for Information (RFI)
 - Situation Reports (SitReps)

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What modes are available?

- Runners (“Sneaker - net”)
- Landline
- Cellular
- Computers
- Two-way radios:
 - FRS, GMRS (Intra)
 - Ham radios
 - Handhelds
 - Mobile
 - Base station

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Two- way Radio Comparisons

	<u>Power Output</u>	<u>License</u>	<u>Range</u>
FRS	.5 w	No	2-3 blocks
GMRS	1 – 5 w	* No	“ “
Ham Radio:			
• Hand held	1 - 5 w	Yes	5 miles
• Mobile	30 - 75 w	Yes	25 miles
• Base station	100 – 1,500 w	Yes	Thousands of miles

* Complete form; \$90 fee; good for 5 yrs.

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Getting Started - Creating a Comms Structure for Your CERTeam

- **Appoint a Communications Unit Leader (CUL)**
- **Develop a Comms Plan**
- **Conduct comms training**
- **Create Comms links with your community**

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Communications Unit Leader (CUL)

The CUL manages and coordinates communications for the team:

- **Intra-team communications**
- **Establish link with HCCDA**
- **Coordinates acquisition and use of equipment**
- **Coordinates training**
- **Establishes Comms Plan**
- **Assists in establishing links with the community**
- **Participation in the Auxiliary Communications Service (ACS)**

Establishing a Comms Plan

What it should cover:

- Comms organization
 - Comms station
 - IC Comms Coordinator
 - Team operators
- How your CERT comms unit is activated
 - Staging area
 - Who will be the CUL (first radio operator on scene?)
 - Assignments

Establishing a Comms Plan

What it should cover:

- Radio protocols for the team
 - Tactical call signs
 - Net control structure (scribe!)
 - Chain of Command
- How communications with HCCDA is established and maintained
 - Equipment and location
 - Designated radio operator

Establishing a Comms Plan

What it should cover:

- References to assist radio operators
 - List of team radio operators and their call signs
 - Sample message forms
 - Maps
 - Phonetic alphabet, pro-words, etc.

Comms Training

- A Technician Test Preparation Class will be available for team members who are not licensed.
- Additional training support will be provided as needed.
- Create your own CERT Net to practice radio protocols and procedures, test equipment and signal strengths in your area.
- Participate in community events such as marathons and other activities where communications are needed.

Establish Links With Your Community

- **Community centers, neighborhood watch, volunteer fire and other organized groups**
- **Local businesses**
- **Selected individuals in the community**

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CERT Communications Procedures and Protocols

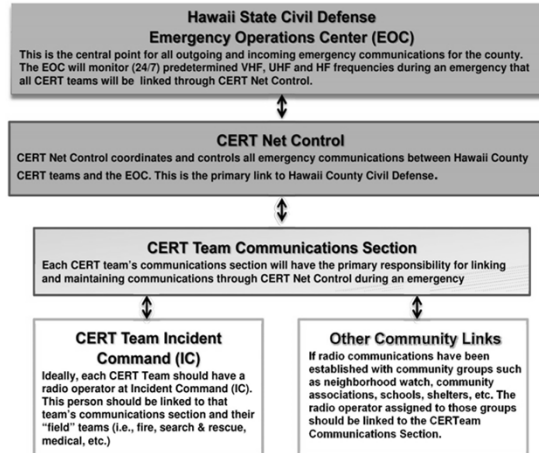
Mission and Purpose:

CERT teams must be self-sufficient and have the ability to communicate with each other and first responders during an emergency. Upon activation our mission is to provide reliable team communications throughout our area of responsibility and assist Hawaii County Civil Defense Agency (HCCDA) and other first responders with emergency communications when requested.

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CERT Communications

Procedures and Protocols



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CERT Communications

Procedures and Protocols

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CERT Communications

Procedures and Protocols – Activation Levels

Level 1 – This level of activation will be in response to a major disaster. (Example: Tsunami warning – 2/27/10; 8.8 earthquake in Chile)

Level 2 – This level will usually involve a disaster that impacts a certain area of Hawaii County. (Example: Hurricanes Ana and Iselle)

Level 3 - In response to a local or district event. (Example: 6/27/14 Lava Flow)

Level 4 - This could be in response to a needed public service such as a parade, marathon or other local activity to which the team can be of assistance.

Level 5 - A local CERTeam Net for the purpose of training and practicing radio protocols.

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CERT Communications

Procedures and Protocols – Who Activates?

Level 1

Hawaii County Civil Defense Agency (HCCDA).

Level 2

CERT Coordinators in response to a disaster on Hawaii Island as directed by HCCDA.

Level 3

East or West Hawaii CERT Coordinator in response to a local event when directed by the Hawaii County CERT Coordinator.

Level 4

CERTeam Leader or Comms Unit Leader in response to a non-disaster event.

Level 5

CERT Comms Unit Leader for the purpose of training and practice of protocols for members of their CERTeam.

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CERT Communications

Procedures and Protocols – Standing up the Net

Level 1

HCCDA will activate ACS for this level of response. The Net (s) will be made up as follows:

- Net Control Operators (NCOs) will be selected from a list of qualified radio operators maintained by ACS and/or the list of CERT radio operators maintained by the CERT Communications Coordinator.
- Radio operators (authorized customers) will be selected from the ACS/CERT lists.
- If additional resources are needed, the COMM-L will contact the various amateur radio clubs in Hawaii County for assistance.

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CERT Communications

Procedures and Protocols – Standing up the Net

Level 2

HCCDA may or may not activate ACS for this level. If ACS has been activated, then the protocol outlined for Level 1 above will be followed. If not, the protocol will be as follows:

- NCO (s) will be designated by HCCDA, CERT Communications Coordinator or East/West Hawaii CERT Coordinator.
- Radio operators will be selected from the list of CERT Radio Operators maintained by the CERT Communications Coordinator.
- If additional radio operators are needed, the CERT Communications Coordinator will contact the various amateur radio clubs in Hawaii County for assistance.

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CERT Communications

Procedures and Protocols – Standing up the Net

Level 3

Upon an HCCDA authorized activation of a CERTeam(s) to respond to a local event, the East or West side CERT Coordinator will direct the Team Leader of the CERTeam closest to the event to stand up a Comms Net if needed. The protocol for this level of activation is as follows:

- The Team Lead will designate the CUL, or Alternate CUL of that team as NCO.
- The CUL will utilize the team's radio operators for the Net.
- If additional radio operators are needed, the Team Lead or CUL will contact the CERT Communications Coordinator.
- The CUL will also establish communications with HCCDA if requested to do so.

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CERT Communications

Procedures and Protocols – Standing up the Net

Level 4

If radio communications are needed for a local non-emergency event, a CERTeam Lead (as authorized by HCCDA) may stand up the team's radio communications unit to provide a community service. The following protocols are to be followed for this level of activation:

- The Team Lead will designate the CUL or Alternate CUL for that team as NCO for the Net.
- The NCO and/or Team Lead will field radio operators from their team members and other volunteers in their area as needed.
- If additional radio operators are needed, the Team Lead or CUL will contact the CERT Communications Coordinator.

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CERT Communications

Procedures and Protocols – Standing up the Net

Level 5

CERTeams are encouraged and authorized to conduct local simplex Nets for the purpose of training, signal checks and practicing radio protocols. The following protocols are to be followed for this purpose:

- The Team Lead and/or CUL shall designate the NCO for the Net and the simplex frequency that will be used for the Net.
- The Team Lead and/or CUL shall encourage all radio operators to actively participate and suggest that non-licensed members monitor the activities for information and training.
- Teams are encouraged to conduct these training Nets on a regular and scheduled basis.

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CERT Communications

Procedures and Protocols – Summary

Activation Reference Chart

<u>Activation Level</u>	<u>Authority for Activation</u>	<u>Who Appoints NCO</u>	<u>Sources of Radio Operators</u>
Level 1	HCCDA	HCCDA, ACS	List of ACS radio operators
Level 2	Hawaii County CERT Coordinator	1) HCCDA, 2) CERT Communications Coordinator, 3) CERT Ops Chief, 4) Hawaii County CERT Coordinator, 5) East Hawaii CERT Coordinator or 6) West Hawaii CERT Coordinator	List of CERT radio operator
Level 3	East/West Hawaii CERT Coordinator	Team Leader	Team Radio Operators
Level 4	Team Lead or Comms Officer	Team Leader	Team Radio Operators and other volunteers
Level 5	CERT Team Comms Officer	Team Leader or Comms Officer	Team Radio Operators

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CERT Nets (coming soon)

The purpose of the CERT Nets is to:

- **Continue the development of CERT as a viable in-community and County resource.**
- **Provide Monthly Siren Test Sounding status field reports to Civil Defense.**
- **Test and assure that County and private amateur radio equipment is operational-ready.**
- **Provide a venue for practicing and refining net procedures, protocols and operating skills.**
- **When needed, pass emergency traffic from CD to CERTs and along to communities.**
- **Utilize the Net as a supplemental communications conduit for pertinent information and updates to the CERT Program, i.e., special announcements.**
- **Conduct educational training and exercises to further develop this resource.**

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CERT Nets – Regular Weekly Net

- **Once a week in the evening (Tuesday at 1900 hours)**
- **Participation of at least one radio operator from each CERTeam**
- **Multiple choice questions (for training/fun)**
- **Announcements from CERT coordinators**
- **Comments and questions**
- **Rotating NCO schedule**

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CERT Nets – Monthly Siren Test Net

- **Purpose:** Assist HCCDA with the monthly siren test by providing sounding reports from various locations throughout the County
- First working day of the month at 1145 hours
- CERT radio operators will report on the operational effectiveness of the siren that is closest to their reporting location
- Sounding reports:
 - 1 = Not audible
 - 2 = Barely audible
 - 3 = Can hear, but not very loud
 - 4 = Can hear without any difficulty
 - 5 = Very loud

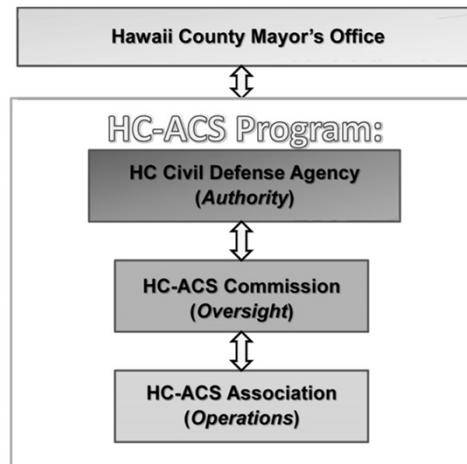
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Hawaii County Auxiliary Communications Service (HC-ACS)

The purpose of HC-ACS is to provide communications services to HCCDA should the primary means of communications be challenged or fail. It is designed to assure that HCCDA can confidently continue to provide and disseminate updated public information throughout Hawaii Island and maintain a robust communications link with its communities.

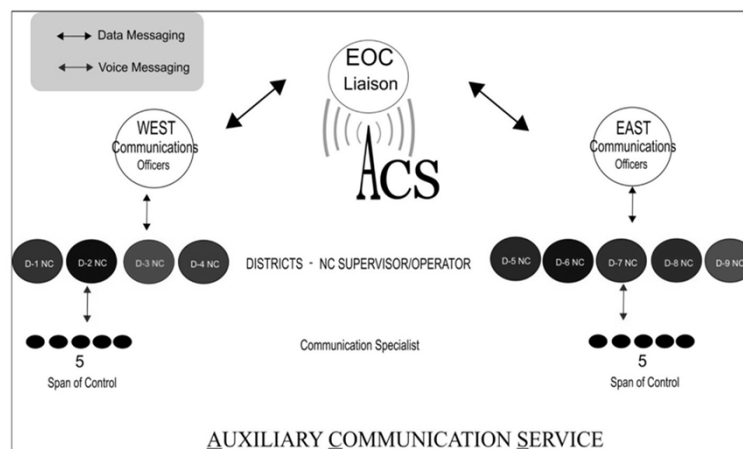
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Hawaii County Auxiliary Communications Service (HC-ACS)



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Hawaii County Auxiliary Communications Service (HC-ACS)



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73' & Mahalo

Doug & Paul

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