PALM BEACH COUNTY
DEPARTMENT OF PUBLIC SAFETY
DIVISION OF EMERGENCY MANAGEMENT

STANDARD OPERATING GUIDE
COMMUNITY EMERGENCY RESPONSE TEAM (CERT)
AMATEUR RADIO COMMUNICATION

SOG PL-010
Rev. March 20, 2017

Purpose

To establish a policy and procedures to ensure that amateur radio communications are clearly articulated and then followed by Palm Beach County (PBC) Community Emergency Response Team (CERT) members in order to successfully communicate with the Emergency Operating Areas (EOA) and/or the Emergency Operations Center (EOC).

Policy

Each CERT shall have their own Communication Plan for internal communications with team members. Changes in individual CERT procedures may be required if the team is dependent on commercial systems (e.g., cellular, landline, internet) at the time of activation due to possible damage to the communications infrastructure. Information received from reporting teams will help the EOC establish and maintain a common operating picture of the incident. CERT communications will provide up-to-date information to assist in formulating responses from the EOC, EOAs, law enforcement, fire rescue, and other responding agencies.

All CERT leaders are responsible to ensure that their team's amateur radio operator(s) have a valid license issued by the FCC, are familiar with these communication protocols, and are familiar with the maintenance and proper operation of their radio equipment. Team operators should participate in nets[1], drills, and exercises to practice their skills and to test equipment. If a CERT team does not have an amateur radio operator, then the team leader should make alternative arrangements with a team nearby that has the capability to handle their messages during times of disaster, or arrange for some other type of communications medium (e.g., satellite phone, nearby shelter, messenger, or landline call to the Emergency Information Center). During preparedness times, teams without amateur radio operators should work to build and train members to obtain a valid FCC license.

Procedure

1. The CERT→AUXCOMM Liaison will obtain the names of the amateur radio operators from each team no later than April 1st of each year.
2. The AUXCOMM→CERT Liaison (at the EOC) will assemble the operator directory categorized by team and EOA by May 1st of the same year and provide it to the Director of Emergency Management and the Communications Unit Leader at the EOC.

Disaster Communication Protocol

1. Prioritizing messages: The CERT team leader must prioritize any traffic to be passed to the EOA/EOC.

[1] Amateur radio operators coordinate their communications through groups referred to as "networks" or "nets" as a way to organize and manage radio traffic.

a. Emergency Traffic: If a station breaks through with an emergency message, all other traffic will cease until the emergency message has been handled. Such traffic may include any of the following:
   i. Mass casualties, mass fatalities
   ii. Potential for loss of life or mass casualties
   iii. Trapped victims
   iv. Hazardous materials which may require evacuation of people
   v. Large scale fires with potential to spread`
   vi. Property damage to essential services (hospitals, sewer systems, etc.)

b. Priority Traffic: Incidents included in this ranking may involve major risk to property or time dependent issues:
   i. Confirmed or potential risk of long-term environmental damage (flooding, sewer leaks, etc.)
   ii. Severe damage to shelter supplies, public safety buildings, etc.
   iii. Other incidents ranked as priority by the team incident commander

c. Routine Traffic: Non-critical messages such as request for resupply of non-urgent equipment or other supplies

2. Communications are for informational purposes only. No "idle chatter" is allowed.
3. Keep messages brief.
4. Listen before transmitting.
5. Make sure there are no messages being passed before transmitting. Think about what information you are going to pass before starting to transmit.
6. At the end of the message you must identify yourself utilizing your FCC call sign.

Reporting Protocols

1. Frequencies: The Communications Unit Leader will create the ICS-205 for use in an EOC activation or training drill. This 205 will be used as a guide for frequencies that may be active immediately before, during, and after an incident. An emergency amateur radio communicator should first check the primary, secondary, and then tertiary repeaters for their area (i.e., North, Central, West, and South) to determine if the net is active. It is very likely that the first net to be operating will be one of the repeaters assigned for the Central area. Under normal ICS procedures, net control will direct the user to the appropriate frequency as other nets are established.

2. EOAs: Once activated, EOAs are expected to be operational in three to four hours based on road conditions. If an EOA is activated, CERT operators should check the frequencies (simplex) for their respective EOA and report traffic to the EOA operator. The net control station will also direct operators, if and when they are informed, that a local area EOA is operational.
3. Municipal CERTs: In a communications failure for a municipal CERT (e.g., West Palm Beach, Jupiter, Boca Raton, etc.), the same procedures listed above should be followed based on their location within Palm Beach County.

Note: The Communications Plan (ICS-205) has certain designations for the various Palm Beach County repeaters., Keep in mind that there are other repeaters within our local area that are not on the ICS - 205 that also might be used. Some of them may be on UHF frequencies.

General Communications CERT to/from EOC or EOA

Tactical call signs are based upon the name of the CERT team. For example, Platina CERT is the tactical call sign for the amateur radio operator reporting for Platina CERT. There may be a change in operators but the tactical call is always Platina CERT. No personal names should be used. The use of "Q" messages, such as "QSO, QTH, etc." should not be used. A communicator's FCC call sign will be used at least every ten (10) minutes and when an exchange of information is complete where transmissions are not expected to occur for a while.

When making radio transmissions, the following sample protocol listed below should be used:

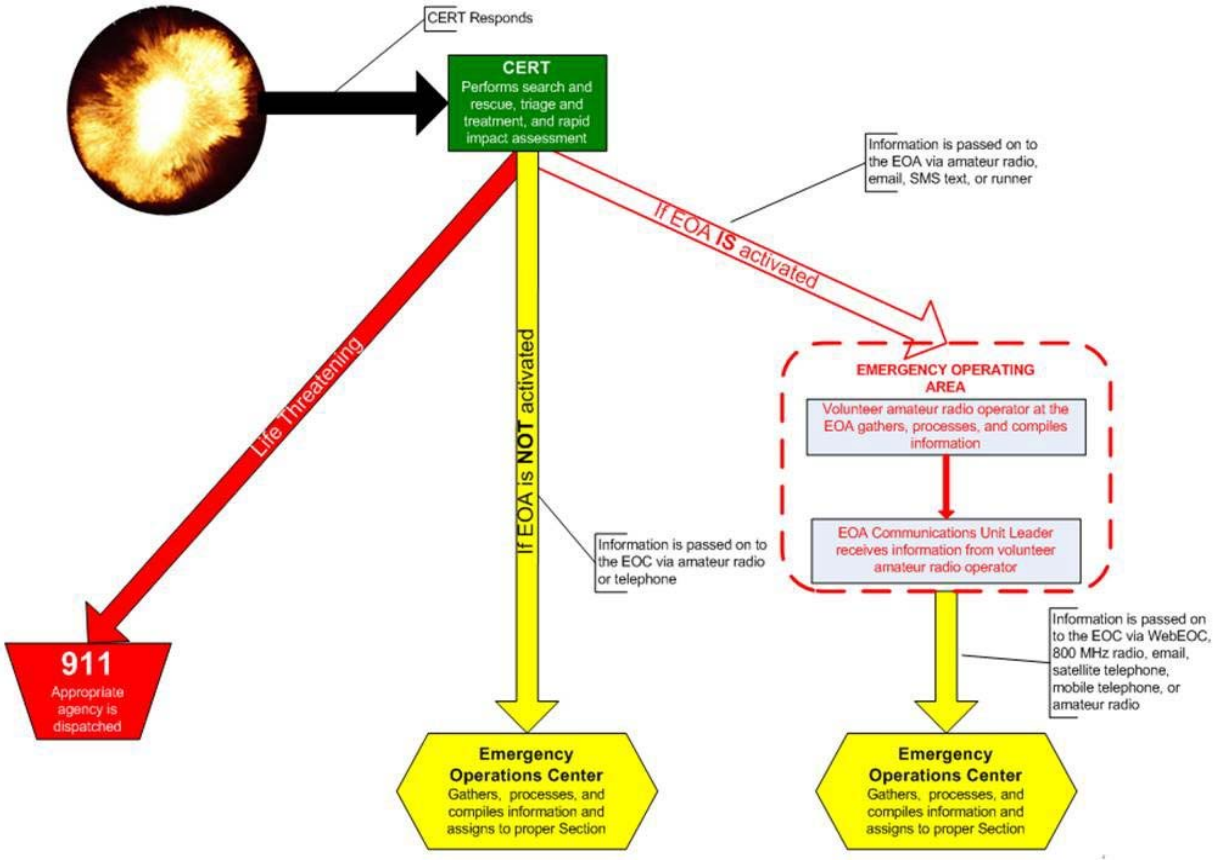
1. **CERT Operator Calling EOC**
   CERT: "EOC (this is) Platina CERT."
   EOC: "Platina CERT (this is) EOC."
   CERT will then proceed with their message.
   Both operators will clear the final transmission by using their FCC call-sign.
2. **CERT Operator Calling EOA**
   CERT: "EOA 5 (this is) Platina CERT."
   EOA 5: "Platina CERT (this is) EOA 5."
   CERT will then proceed with their message.
   Both operators will clear the final transmission by using their FCC call-sign.

Record all transmissions on Communications Log (ICS - 309). Formal messages should be recorded on the General Message Form (ICS - 213).

Figure 1 depicts the flow of information following a disaster from CERTs to 9-

1-1 centers, EOAs (if activated), and the EOC.

Figure 1. Communication Flow



Attachments

ICS 205 - Communications Plan
ICS 213 - Radio Message Form
ICS 309 - Communications Log (modified)

Approved

Digitally signed by Bill Johnson, RN
Date: 2017.04.24 15:43:05 -04'00'

Bill Johnson, RN, Director
Division of Emergency Management

April 24, 2017
Date

ICS-205 Incident Radio Communications Plan	1. Incident Name: Amateur Radio and Other Volunteer Activation		2. Date / Time Prepared:		3. Operational Period:
4. BASIC RADIO CHANNEL / TALK-GROUP or MODE UTILIZATION					
Group	System / Cache	Channel / Talkgroup	Additional Settings	Function	Assignment	Remarks
PBC RACES	**RACES - EOA 1 (Western Communities West of 20-Mile Bend)**	147.120/147.720	PL 110.9 Hz	Primary	County / Red Cross Shelters, Area Hospitals, Municipalities, ESF-8 Communications. Other Communications per EOC and Public Safety needs.	
		147.360/146.760	PL 110.9 Hz (P25 NAC: 293)	Secondary		Shared with RACES Admin
		147.315/147.915	PL 110.9 Hz	Tertiary		Shared with CERT
		147.570		Simplex		
	RACES - EOA 2 (Jupiter/Jupiter Farms)	146.625/146.025	PL 110.9 Hz	Primary		
		147.165/147.765	PL 114.8 Hz	Secondary		
		147.540		Simplex		
	RACES - EOA 3 (WPB - Riviera - RPB)	146.670/146.070	PL 110.9 Hz	Primary		
		146.880/146.280	PL 110.9 Hz (P25 NAC: 293)	Secondary		
		146.580		Simplex		Shared w/ EOA 4
	RACES - EOA 4 (Lake Worth - Lantana - Wellington)	146.940/146.340	PL 88.5 Hz	Primary		
		145.390/144.790	PL 110.9 Hz (P25 NAC: 293)	Secondary		
		145.230/144.630	PL 110.9 Hz (P25 NAC: 293)	Tertiary		Shared with RACES Admin
		146.580		Simplex		Shared w/ EOA 3
	RACES - EOA 5 (Delray - Boynton)	147.390/147.990	PL 110.9 Hz (P25 NAC: 293)	Primary		
		146.820/146.220	PL 110.9 Hz	Secondary		
		145.290/144.690	PL 107.2 Hz	Tertiary		
		146.550		Simplex		Shared w/ EOA 6
	RACES - EOA 6 (Boca Raton)	147.390/147.990	PL 110.9 Hz (P25 NAC: 293)	Primary		
		146.820/146.220	PL 110.9 Hz	Secondary		
		145.290/144.690	PL 110.9 Hz	Tertiary		
		146.550		Simplex		Shared w/EOA5
	RACES - Wellington	147.285/147.885	PL 103.5 Hz	Primary		
		442.050/447.050	PL 103.5 Hz	Secondary		Village of Wellington Operations
	RACES Admin	147.360/147.960	PL 110.9 Hz	Primary	Administrative communications between RACES operations	Shared with EOA-1 (Sec'd)
	RACES Admin	145.230/144.630	PL 110.9 Hz	Central & North		Shared with EOA-4 (Sec'd)
	RACES Special Purpose	147.390/147.990	PL 110.9 Hz	South & Link to Broward		Broward County Link
		444.275/449.275	PL 103.5 Hz	West County Link		Admin to West County
	RACES State (HF)	7247 kHz - Days, 3940 kHz - Nights	LSB	"Long Haul" Communications	County EOC to State EOC	HF nets to State EOC
Other Volunteer Org's (see pg 2 for CERT)	**Special Care Unit / Special Needs Shelter**	147.500 Simplex or EOA-3 freq's			Special Care Units to EOC	
	PBC Sheriff's Office C.O.P. and V.E.R.T.	800 Trunking		Neighborhood Patrols	County-Wide	Moved to 800 MHz 5/09
	National Weather Service	146.670/146.070	PL 110.9 Hz	Severe Weather Reporting/Monitoring	Coordinated by **SKYWARN**	
	National Weather Service	444.175/449.175	PL 107.2 Hz	SKYWARN Admin	SKYWARN County Coordinators / NWS Office	
	SKYWARN	Various		*During times of large scale emergencies, SKYWARN nets will activate on their area's primary RACES frequency. For other SKYWARN activations use 146.670 listed above.*		
NWS	**National Weather Service**	162.475	Receive Only	Palm Beach County coast		S.A.M.E. code 012099
	National Weather Service	162.400	Receive Only	Palm Beach County western communities		S.A.M.E. code 012099
	National Weather Service	162.550	Receive Only	Dade and Broward Counties		S.A.M.E. code 012011 - Broward, S.A.M.E. code 012025 - Dade
	ICS form 205	5. Prepared By: Dave Messinger, Communications Specialist, Palm Beach County Public Safety, 04/22/2011				
	Notes: All frequencies are MHz unless otherwise noted; Repeaters are listed as "output/input"; ***CERT Teams are on a separate page***					

ICS-213 RADIO MESSAGE

Number	Precedence	Handling	Station of Origin	Check	Place of Origin	Time Filed	Date Filed

1: Incident Name:	2: Date & Time of Message:
3: To:	ICS Position:
4: From:	ICS Position:
5: Subject:	
6: Message (One word per underline):	
7: Signature and position:	

Received From	Date	Time	Sent To	Date	Time

REPLY RADIO MESSAGE ICS-213

Number	Precedence	Handling	Station of Origin	Check	Place of Origin	Time Filed	Date Filed

1: Incident Name:	2: Date & Time of Message:
3: To:	ICS Position:
4: From:	ICS Position:
5: Subject:	
6: Message (One word per underline):	
7: Signature and position (person replying):	Date and Time of Reply:

Received From	Date	Time	Sent To	Date	Time

COMMUNICATIONS LOG	FOR OPERATIONAL PERIOD:		3. TACTICAL I.D.
	1. START DATE/TIME:	2. END DATE/TIME:	
4. INCIDENT NAME	5. LOCATION:		
6. DATE / TIME PREPARED (finalized and submitted)	7. OPERATOR SIGNATURE:		
8. OPERATOR CALL SIGN:	9. OPERATOR PRINTED NAME:		

MESSAGE AND ACTION LOG

10. TIME (local)	11. STATION I.D. FROM	or TO	12. SUBJECT / INFO

13. PAGE __ of __	ICS 309

LOGGING REQUIREMENTS
ALL STATIONS ARE REQUIRED TO MAINTAIN COMPLETE LOGS of all communications that occur during any period of activation**.**

This log will contain the DATE & TIME (in local, 24 hour time) of each message, the CALL of the contacted station and brief CONTENT of the message, or the message number and subject.

A Copy of all FORMAL TRAFFIC will be kept and become part of the log.

ALL LOGS, INCLUDING COPIES OF ALL FORMAL TRAFFIC, SHALL BE SUBMITTED TO
- The agency being served, usually in the Plans Section, Documentation Unit
- The Operations Section Chief. These logs will be kept as a part of ACS records. These logs should be submitted at the end the operational period they cover and must be received by no later than five (5) days after conclusion of the activation. If an operator requires copies for his/her own log, copies should be made and the originals remain with the agency served.

ICS 309 COMMUNICATION LOG

Item #	Item Title	Instructions
1 - 2	For Operational Period	Record the start and end date (month, day, year) and time (24 hour local time).
3	Tactical I.D.	Enter the tactical identifier for this station
4	Incident Name	Enter name of exercise or incident (e.g., Hurricane Wilma)
5	Location	Enter the location for a fixed station such as xxxx SHELTER or County EOC. Enter the address if available.
6	Date / Time Prepared	Enter date and time **this log was finalized and submitted** with copies of all formal traffic handled during the operating period.
7	Operator Signature	Enter the signature of the radio operator
8	Operator Call Sign	Enter the Call Sign of the Radio Operator
9	Operator Printed Name	Print the name of the radio operator
10	Time	Enter Time (24 hour) the communications took place
11	Station ID FROM/TO	Enter station that was contacted (TO) or the station that contacted you (FROM). Only one of the sections should be completed per contact. It shows if you called the other station or if they called you.
12	**SUBJECT / INFO**	Enter message number and addressee for formal traffic. Enter brief summary for informal traffic.
13	Page __ of __	Sequentially number all pages for the operational period covered by the log. Page numbers start over at 1 at the beginning of each new operational period.