Start: 1946 L – Stop: 2002 L

Low Power Simplex Net Operation

1.1 OVERVIEW.

Thank-you, Bob. Good evening to the net. First, I'd like to thank all those who attended the Pinellas ACS monthly membership meeting and took part in our ICS 213 Tabletop exercise. We had a great exchange of ideas. It was a productive meeting.

Tonight, I'll be briefing everyone on the upcoming Pinellas ACS training Drill that is scheduled for this Thursday at 1930 hours local. As a reminder, the purpose of a Drill is to exercise specific operational skills, practice voice and digital network operations, and assess both user and ACS performance.

This month's drill will focus on Low power Simplex network operations.

During an activation event, a county wide simplex net will only be activated if the primary, secondary, and tertiary repeater systems within the county are all inoperative.

Pinellas County is thirty-eight miles long from north to south and fifteen miles wide at its broadest point. Its elevation varies throughout the county from sea level to a high point of 110 feet near the intersection of SR 580 and Countryside Blvd in Clearwater. For many stations, the county's topography alone will limit the number of simplex VHF/UHF communication links they can establish. If, however, we encounter an activation event severe enough to require ACS to operate without repeaters in a full simplex mode, both the NCS and the membership may be working at reduced power to conserve batteries and operating with back-up antennas. In this scenario, information may need to be passed through several relay stations before everyone in the net is informed.

1.2 DESCRIPTION

The ACS/ARES® Tactical-Resource Net will be established at ACTIVATION LEVEL 1 using the primary ACS repeater system, W4ACS. The Net Control Station (NCS) will notify the net

participants that the net is transitioning to a county wide simplex net. The NCS will establish the net on the simplex frequency using the appropriate number of relays. Once this initial simplex net is established, the NCS will direct all stations to transition to low RF power and begin using back-up DC power if they have it available.

The NCS will then reestablish the net. It is fully expected that the number and type of relay stations are likely to change when operating at a low RF power level. Once the net is reestablished, the NCS will send a bulletin to everyone in the net and then transition back to the W4ACS repeater for question, comments and net shut down.

1.3 OBJECTIVES

This Drill has three objectives.

a. Establish a county wide simplex net using normal RF power levels in accordance with the procedures documented in the *Pinellas ACS/ARES® Emergency Communications and Standard Operating Procedures* document.
b. Transition the simplex net to a low RF power setting and back-up DC power sources (If available).
c. Exchange message traffic and network operations data within a simplex net.

1.4 PROCEDURE

The following procedure will be used to conduct the drill.

BEGIN DRILL

a. AT 1930 hours local on Thursday February 24th, the NCS will activate the ACS/ARES® Tactical-Resource Net using the procedure for ***ACTIVATION LEVEL 1*** that is documented in the Communications Plan. The NCS will clearly state that the reason for the activation is a ***TRAINING DRILL***.

Note: *Because this is training exercise designed to test simplex network operations, Echolink check-in will not be solicited.*

b. After net check-in is complete, the NCS will review the objectives and planned activities for the evening's training drill and then field comments and questions from net participants.

c. Following the question-and-answer period, the NCS will pause for 1-minute and then announce on the output frequency of the W4ACS repeater system that the net is now operating in simplex mode on a frequency of 146.430 Mhz. This is the Pinellas ACS Simplex Plan A.

d. The NCS and the net participants transition to the designated simplex frequency.

e. Once on the simplex frequency, the NCS will attempt to bring everyone into the net by assigning multiple relay stations.

(1) First, The Net Control Station will request net check-ins. The stations heard by Net Control will be referred to as Tier two Relays.

(2) Once the NCS has completed checking in the stations it can hear, the NCS will request that each of these tier 2 stations in turn (or one at a time) request check-ins. The stations heard by a tier 2 station will be called tier 3 stations. Once a tier 2 relay station has finished collecting net check-ins, the tier 2 relay station will report back to Net Control with a list of additional net stations.

(3) For Example, if the NCS can only hear 2 stations, A and B, The NCS will first direct station A to request net check-ins. Once Station A reports back to Net Control with its list of new check-ins, the NCS will direct station B to request net check-ins.

Note: An important note: If you hear multiple requests for check-in, please only check-in once.

(4) Now depending on the size of the network and the distribution of stations throughout the county, we may need to perform a tier 3 level net check-in. To perform a tier 3 net check-in, the NCS would request, in turn, that each of its tier 2 relays (these are the stations directly heard by the NCS) direct each of their tier 3 stations to request net check-ins. Once

each of the tier 3 stations under the control of a tier 2 station has completed net check-in, the tier 2 station will report back to net control with a list of additional net stations.

***NOTE**: Its extremely important that everyone keep track of the stations that they are responsible for relaying information to and from.*

f. Once the check-in phase of the net is complete, the NCS will notify all Tier-2 stations that the net is transitioning to low power. The NCS will request, in turn (one at a time), that each Tier-2 station deliver the announcement to each subordinate Tier-3 station.

g. Each Tier-2 station will report back to the NCS after each subordinate Tier-3 station has acknowledged the network power level change.

h. At this time, all stations should be operating at a low RF Power Level.

i. The NCS will again call for check ins, starting with Tier-2 stations and then requesting that each Tier-2 stations call for check-ins.

***Note:** The transition to low power will likely change the make-up of Tier-2 and Tier 3 stations.*

***Note:** Depending on the size of the network and the distribution of stations throughout the county, the NCS may need to perform a Tier-3 level net check-in.*

j. Once the Net Check-in phase of the net is complete, the NCS will send a bulletin to all net participants. This will require Tier-2 relays and possibly any Tier-3 relays to pass the bulletin to all their subordinate stations.

***Note:** The bulletin will direct all stations to return to the W4ACS repeater system at current time+5 minutes.*

k. Once the last tier-2 station has reported that all Tier-3 stations have acknowledged receipt of the bulletin, the NCS will wait for the designated time and then Transition back to the W4ACS repeater system.

l. After returning to the W4ACS repeater system, the NCS will perform a roll call of all stations.

m. The NCS will field comments and questions about the net's objectives and activities from net participants.

n. The NCS will shut down the net.

END DRILL

1.5 SCHEDULE

February 24th, 2022 @ 1930 Hrs local. Drill duration is scheduled for approximately 1 hour.

1.6 RESOURCES

The W4ACS Repeater system.

Net Control Station: ***WA1RYQ***

Alternate Net Control Station: **W8QFV**

1.7 AFTER-ACTION REPORT AND ACTIVITIES

The NCS will provide a copy of the NCS log to the training officer.

After the drill and prior to next week's Tuesday training net, all Drill participants are encouraged to send comments, suggestions, and recommendations to the Training Officer via email. I will compile the responses, report them to the membership during the next regularly scheduled ACS weekly training net, and post the information on the PACS web site.

The Communications Plan will be updated to incorporate changes if required.

1.8 QUESTIONS OR COMMENTS

I'd like to pause here for a minute and ask if anyone has a comment or question about the upcoming drill. If you have a comment or question, please provide me with your call sign, slowly, clearly, and phonetically so I don't make a mistake when I respond. And then ask your question or provide me with your comment.

This is WA1RYQ.

ACTION - PAUSING FOR QUESTIONS

1.9 CONCLUSION.

That's all I have for this week's training session. Let me conclude with three reminders.

1. The Pinellas ACS training Drill for the month of February is scheduled for this Thursday February 24th at 1930 hours local. A detailed description of the training drill has already been posted to the Pinellas ACS web site. Please review the drill material and the countywide procedure documented in the *Pinellas ACS/ARES Emergency Communications Plan and Standard Operating Procedures* document. Please let me know if you have questions or comments. I will be sending an email, reminding everyone of the drill date and time, on Thursday morning. I'm hoping for a good turnout!

2. There is no Winlink training this week. The next Winlink Training net is scheduled for Wednesday, March 2nd, at 1930 hours local. This will be an on-line zoom presentation and is part 2 of our introduction to Winlink series.

   No Winlink experience is required. I would encourage everyone who is interested in Winlink to attend. Invitations will be sent to all registered users on Tuesday afternoon, March 1st.

If you would like to attend and are not currently a registered Winlink net participant, please send me an email at WA1RYQ@arrl.net and I will send you an invitation.

3. Finally, I strongly encourage everyone to provide me with comments and suggestions for future training activities. I can be contacted at WA1RYQ@ARRL.net.

Now with that, I'll turn it back to Net Control.

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1.10 QUESTIONS AND COMMENTS.

The following table contains a summary of the comments and questions provided by the membership during the presentation.

No.	Call Sign	Comments	Response
1	W8QFV	Important to remember that if the county is hit by a major hurricane, individuals located in an emergency evacuation zone will be forced to leave.	Agree
2	W8QFV	Recommend that anyone with an HT should try to use that radio during the drill. Also, individuals should use an auxiliary antenna.	Individuals should carefully select the equipment used during the low power segment of the drill.
		No additional comments or questions.	