Start: 1950 L – Stop: 2002 L

Simplex Net Operation

1.1 OVERVIEW.

Thank-you, Bob. Good evening everyone. First, I'd like to thank all those who attended the Pinellas ACS monthly membership meeting and took part in our Round Table discussion about ACS Positions and task descriptions. 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 Simplex network operations.

In an ideal world, the NCS station for a simplex net would always be located on a high point within the county, have a high gain antenna mounted on a tower, and have several days of back-up power. Unfortunately, during 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 and then send an announcement to everyone in the net. When everyone in the net has acknowledged receipt of

the announcement, the net will transition back to the W4ACS repeater and the Drill will be closed.

1.3 OBJECTIVES

This drill has two objectives.

    a.   Provide training to the membership on Simplex mode operation.

    b.   Identify the appropriate number of relay stations, and practice relaying information between net participants.

1.4 PROCEDURE

The following procedure will be used to conduct the drill.

BEGIN DRILL

    a.   AT 1930 hours local on Thursday September 23rd, 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**.

    b.   At the completion of the Net Check-in phase, the NCS will pause for 1 minute and then announce on the W4ACS repeater that the net is transitioning to a county wide simplex net on a frequency of 146.430 Mhz. This is the Pinellas ACS Simplex Plan A.

    c.   All Stations should QSY to the simplex frequency and wait for the NCS or a designated relay to request for them to check-in to the net.

    d.   We will attempt to bring everyone into the net by assigning multiple relay stations. This is a little more complicated than what we have done in the past. The relay stations will form a tree structure that has three tiers.

        (1)   First, The Net Control Station, tier one, 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. 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.

(e)   Once the county wide simplex net has been established, the drill will transition to part two.

(f)   During part two, the NCS will send an announcement to all stations. Each relay in turn will send the announcement to its lower-level tier. Each recipient must acknowledge receipt.

(g)   When the last level 2 relay station reports that all its subordinate stations have acknowledged the receipt of the announcement, the net will transition back to the W4ACS repeater system for closing remarks and net deactivation.

END DRILL

1.5 SCHEDULE

September 23rd, 2021 @ 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.

<p style="text-align:center;"><strong style="color:red;">ACTION - PAUSING FOR QUESTIONS</p>

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 September is scheduled for this Thursday September 23rd 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 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, September 29th, at 1930 hours local. This will be a mixed voice and data net with the voice segment taking place on the W4ACS repeater. A Winlink bulletin describing the planned net activities will be sent to all registered Winlink net participants next Monday. A copy of the bulletin will also be located on the Pinellas ACS Website.

3.   A copy of the ACS training plan and task list that was discussed during last Thursday's workshop at the Pinellas EOC has been posted to the PACS Web site. Please review this material and provide comments and suggestions. The only way we can make these documents truly useful is if the membership assists us in their development.

I can be contacted via email at WA1RYQ@arrl.net. My contact information is also available on the Pinellas ACS Web site.

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	KJ4RUS	Important that the Tier-2 and Tier-3 relay stations relay to their subordinate stations the NCS command to return to the W4ACS repeater. It is also important that each station in the net acknowledge the change in frequency command.	Concur with the recommendation. The Drill script will be updated accordingly.
2	KJ4FXX	Will the Tier-2 relay stations be pre-designated, or will the designation happen on the fly?	The Tier-2 relay stations will be assigned dynamically. The intent is to build the tree structure dynamically and determine how well this procedure works. In the real world, we don't know who will be net control, where they will be located, what the power or antenna situation might be.