Simplex Mode Operation

Throughout the remainder of this document, The *Pinellas County ACS/ARES® Emergency Communications Plan and Standard Operating Procedure* document will be referred to as the Communications Plan.

Description

The ACS/ARES® Tactical-Resource Net will be established at **ACTIVATION LEVEL 1** using the primary ACS repeater system, W4ACS. Once the net is established, the drill will begin. The three phases of the drill are listed below.

- **Part 1**: Transition to a county wide simplex net using multiple relays.
- **Part 2**: Send an announcement to all simplex net participants.
- **Part 3**: Return to the W4ACS repeater system for closing remarks and net deactivation.

The procedures documented in the Communications Plan will be used to activate, transition, and deactivate the net.

Objectives

This drill has two objectives.

- Provide training to the membership on Simplex mode operation.
- Identify the appropriate number of relay stations, and practice relaying information between net participants.

Procedure

The following procedure will be used to conduct the drill.

BEGIN DRILL

1.   The NCS will activate the ACS/ARES® Tactical-Resource Net using the procedure for **ACTIVATION LEVEL 1** that is documented in Appendix D of the Communications Plan. The NCS will clearly state that the reason for the activation is a **TRAINING DRILL**.

2.   Once the NCS has completed the Net Check-in phase, the NCS will announce the following information to the Net:

"Tonight's Training drill is divided into three parts:

> *Part one of the drill will transition the net to a county wide simplex net on a frequency of 146.430 Mhz. This is Pinellas ACS Simplex Plan A.*
> *We will attempt to bring everyone into the net by assigning multiple relay stations. This is a little more complicated that what we have done in the past. The relay stations will form a tree structure that has three tiers.*
> *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.*
> *Once the NCU has completed checking in the stations it can hear, the NCU 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.*
> *For Example, if the NCU can only hear 2 stations, A and B, The NCU 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 NCU 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.

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 NCU would request, in turn, that each of its tier 2 relays (these are the stations directly heard by the NCU) direct each of their tier 3 station 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.

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

During part two, the NCU 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.

When the last level 2 relay station reports that all its subordinate stations have acknowledged the receipt of the announcement, the net will transition to part 3. During part 3, the net will transition back to the W4ACS repeater system for closing remarks and net deactivation.

Are there any questions before we transition to phase 1 of the drill?

Pause for questions

I will now commence part 1 of the drill."

3.   The NCS will pause for 1 minute and then announce that the ACS/ARES® Tactical-Resource net is now operating in simplex mode on a frequency of 146.430.

"This is WA1RYQ the NCS for the Pinellas ACS Tactical-Resource Net. The Pinellas ACS Tactical-Resource net will now transition to simplex mode on a frequency of 146.430. I say again…"

"This is WA1RYQ Out."

4.   The NCU and the net participants will now transition to the designated simplex frequency.

5.   The NCU will request Net Check-ins:

"This is WA1RYQ the NCS for the Pinellas ACS Tactical-Resource Net. I will now take check-ins from all stations for the net. Please speak slowly, clearly, and phonetically. Please call now."

ACTION - Acknowledge check-ins by call sign

"(Call sign), next station please."

6.   Once the Tier 2 stations have checked-in, the NCU will direct each tier two station to request net check-ins.

"This is WA1RYQ (Tier 2 call sign) Please request check-ins to the net. Once check-ins are complete, report back to Net Control with your list of stations."

ACTION - Acknowledge check-ins by call sign from Tier 2 station

Repeat for each Tier 2 station.

7.   Once Tier 3 stations have checked-in, the NCU will direct tier two stations to manage a Tier 3 check-in.

"This is WA1RYQ (Tier 2 call sign) Please direct each of your tier 3 stations to request check-ins to the net. Once check-ins are complete, report back to Net Control with your list of stations."

ACTION - Acknowledge check-ins by call sign from Tier 2 station

Repeat for each level 2 station.

8. Once the Net Check-in phase of the net is complete, the NCS will announce the following information to the Net:

"The Net check-in part of the Drill is now complete. All net stations, please standby to receive and relay an announcement."

"Announcement 1: Tropical Storm Peter is located approximately 140 Miles Northeast of San Juan Puerto Rico."

"(Tier 2 call sign) Do you acknowledge receipt of the announcement?"

Repeat for each level 2 station.

"(Tier 2 call sign) Please relay announcement 1 to each of your tier 3 stations. Direct each of your tier 3 stations to in turn relay the announcement to their subordinate stations. Please notify Net Control when all your stations have acknowledged receipt.

Repeat for each level 2 station.

9.   Once the last tier 2 station has reports that all station have acknowledged receipt of the announcement, the NCS will announce the following information to the Net:

> *"The net has now completed part two of the drill. (Tier 2 call sign) Please notify each of your tier 3 stations that the net is transitioning back to the W4ACS repeater. Direct each tier 3 station to relay this announcement to their subordinate stations. Please notify Net Control when all your stations have acknowledged receipt."*

> Repeat for each level 2 station.

10.   Once each relay station has announced that the net is moving back to the W4ACS repeater, the NCS should request that the relay stations QSY.

11.   The NCS, ANCS and net membership will transition to the primary W4ACS repeater system. The NCS will then make the following announcement.

> *"I would like to thank everyone for participating in tonight's Drill. Everyone is strongly encouraged to send comments, suggestions, and recommendations to the Training Officer via email. My email is WA1RYQ@ARRL.net. I will compile the responses and report them to the membership during the next regularly scheduled ACS weekly training net which is on Tuesday September 28th. I will also post the information on the PCACS web site."*
>
> *"Before I close the net, do I have any comments or questions?"*

Pause for questions

12.   Following the ACS Training Officer Announcement, the NCS will send a Net Report Message to the net manager.

13. After sending the message, the NCS will Deactivate the ACS/ARES® Tactical-Resource Net in accordance with the procedure documented in Appendix D of the Communications plan.

END DRILL

Schedule

September 23rd, 2021 @ 1930 Hrs. Drill duration is scheduled for approximately 1 hour.

Resources

The W4ACS Repeater system.

Net Control Station: *WA1RYQ*

Alternate Net Control Station: *W8QFV*

After-Action Report and Activities

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

Drill participants are encouraged to send comments, suggestions, and recommendations to the Training Officer via email. The Training Officer will compile the responses, report them to the membership during the next regularly scheduled ACS weekly training net, and post the information on the PCACS web site.

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

A.1 NET PARTICIPANT PROCEDURES

When notified by the EC/RO or his/her designee that ACS/ARES® Activation Level 1, 2, or 3 has been established, the general membership will perform the following actions.

a.   Monitor the appropriate repeater system or simplex frequency.

b.   During net establishment and reestablishment, the NCS will call for check-ins based on call sign prefix. When your prefix is called, check-in with the following information.

   (1)   FCC Call Sign

   (2)   Tactical Call Sign (if applicable)

   (3)   Deployment status (e.g., Currently deployed, available for deployment, not available for deployment.)

   (4)   Traffic List (e.g., no traffic, priority traffic, etc.)

EXAMPLES: (1) "THIS IS (release PTT and pause for 2 seconds) WHISKEY ALPHA ONE ROMEO YANKEE QUEBEC, TACTICAL CALL SIGN IS BOCA CIEGA HIGH, CURRENTLY DEPLOYED, NO TRAFFIC, OVER".

(2) "THIS IS (release PTT and pause for 2 seconds) WHISKEY ALPHA ONE ROMEO YANKEE QUEBEC, AVAILABLE FOR DEPLOYMENT, ONE PRIORITY, OVER".

c.   Monitor and copy all bulletins and message traffic passed by the net so that your station can assist with relays if requested to do so by the NCS.

d.   Remain on frequency until release by net control.

e.   If you must leave the net, wait for a break in traffic, call net control, and request authorization to leave the net.

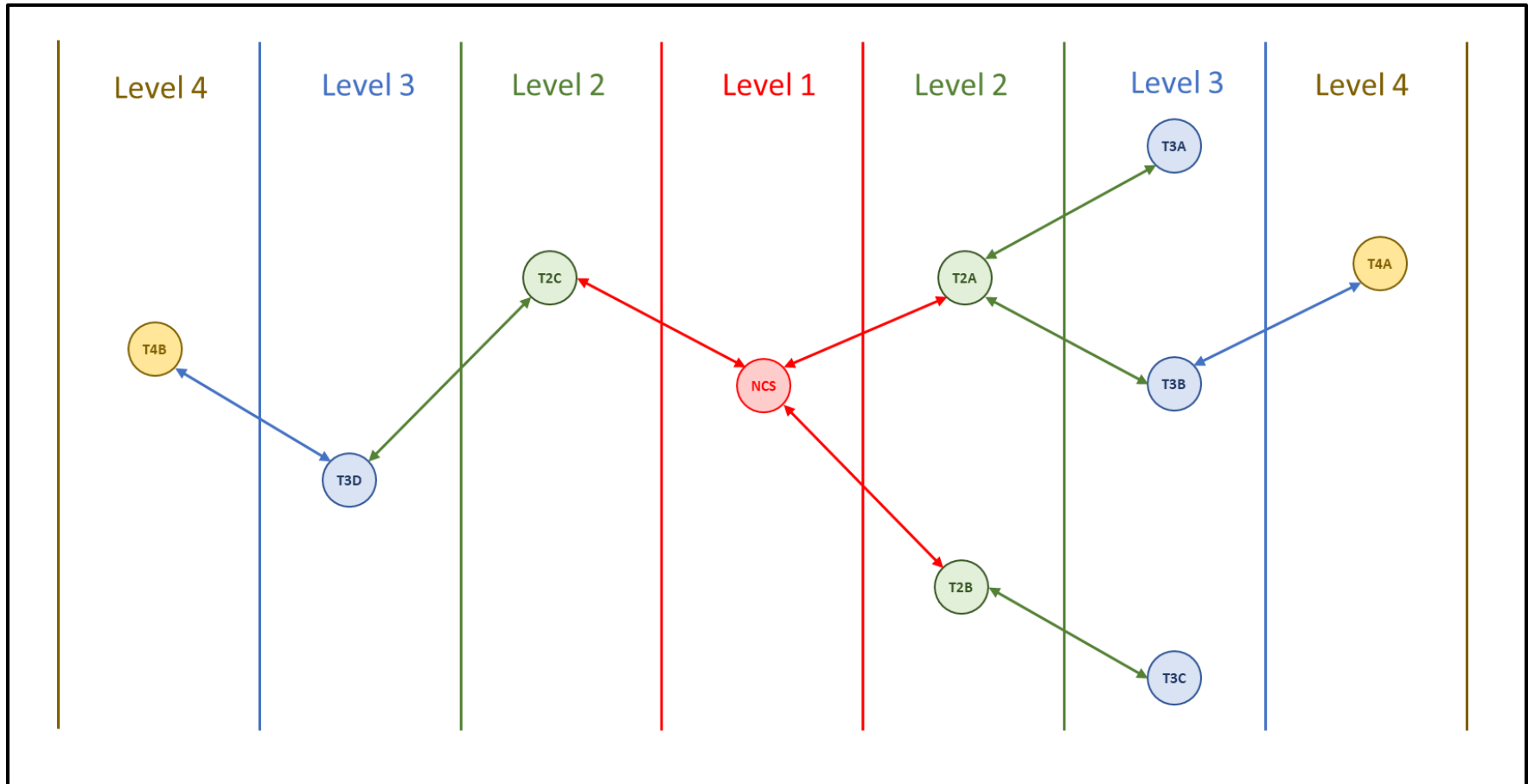f.   Continue to monitor local news outlets for updated information.

Figure 1. Simplex Network Structure

Questions and Comments.

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

No.	Call Sign	Comments	Response