Winlink Peer-to-Peer Practice Drill

Purpose

The purpose of this practice drill is to provide Winlink operators in Orange County the opportunity to gain experience using Winlink Peer-to-Peer (P2P) operating mode and to become more familiar operating their Winlink computer and radio equipment in this Winlink Operating Mode.

Background

Currently Orange County has limited Winlink Radio Message Servers (RMS). or "Gateways" available for Winlink operators to connect to for general and emergency use, as well to use for testing their equipment. Testing is needed in order to verify that equipment setups are operational and prepared to support Emergency Communications.

Importance of P2P. For those not familiar with Winlink P2P, it is one of the four Operating Modes that Winlink supports, and does not rely on an intermediate Radio Message Server (RMS) or "Gateway" for connection to the internet. It is valuable to understand how to operate this mode since it is expected to be a critical Winlink mode used after a major disaster when phone, text, and internet services are not available in our area.

I highly recommend that you take advantage of this exercise to gain experience with P2P. However, make sure your Winlink equipment can operate using Conventional Mode (i.e., using local a "Gateway") before participating in this drill. The main purpose of this drill is not to verify that your Winlink equipment works, but instead focuses on becoming familiar with how to operate P2P mode.

Disclaimer and Notice to Participants

This practice drill is not associated with any specific organization and is solely for the personal benefit of the participants. Specifically, it is not an OCRACES or OCSD drill, and that DSW or liability coverage is not provided. By participating in this activity, you assume all risks associated with your actions and those around you. This drill is open to all licensed Amateur Radio operators interested in working their Winlink station. However, a condition of participation is that all operators have a copy of this ***Winlink Peer-to-Peer Practice Drill*** and the separate ***Winlink Peer-To-Peer Message*** and ***Working with a Winlink Check-In Form*** documents, read them, and are eager to try something new.

Date and Time

The date for this drill is Saturday, December 14th, from 9:00 am until noon (Pacific Daylight Time).

Drill Step by Step Overview

The steps to successfully participating in the drill are:

1. **Read The Instructions**. Even if you've participated in P2P drills before.
2. **Create a New Message**. To be sent as a Peer-to-Peer Message. Use the separate ***Winlink Peer-to-Peer Message*** document (File: P2PMessage_V1.7) for details on how to create a P2P message.
3. **Complete and Attached One of the Following Forms (*Optional for New Winlink Users*):**
   a. **Check-In Form**. Click on **Template** from the Menu Bar of the *Message* window to find the General Forms> Winlink Check-In form. The separate ***Working with a Winlink Check-In Form*** document (File: CheckInForm_V1.5) provides details on completing the Winlink Check-In form. Make sure to include your GPS location (i.e., Latitude & Longitude). Include responses to requests #1 & #2 (only) in the comments section.

b. **Other MAPPING-GIS FORMS**. (***Alternative to Check-In Form***). Click on **Template** from the Menu Bar of the *Message* window to find the MAPPING-GIS FORMS > Field Situation Report (*for example*). Complete the chosen form as much as you'd like. Extra kudos for creativeness and for completeness. If needed, use **OCP2P-24.4** for the Optional Exercise ID. Make sure to enter your GPS location (i.e., Latitude & Longitude).

4. **Transmit.** After completing the form and clicking **Submit** (so that it is part of your P2P message), use the ***Winlink Peer-to-Peer Message*** document again for details on completing the transmission of your message.
5. **Receive Reply.** Once your message has been successfully sent, you will receive an acknowledgement from Drill Ops via P2P that it has been received. ***Keep your P2P session open to receive reply!*** Refer to the ***Winlink Peer-to-Peer Message*** document (File: P2PMessage_V1.7) for details on how to receive a P2P message.

Winlink Peer-to-Peer Communications

NOTE: With the anticipated heavy traffic on the frequency for this drill, it is highly recommended to use this exercise only to gain experience with using the P2P Winlink operating mode. If you want to verify that your equipment setup can generally operate Winlink, please do this at another time.

Direct P2P Operator Communications

With your Winlink Express station set up for Packet P2P, send a P2P message with attached form to: **KM6RTE**. If it is received, it will be acknowledged with a reply Winlink message via P2P.

If you are not able to contact KM6RTE directly after multiple attempts and you suspect it is due to the excessive distance, try using a closer participating Winlink RMS Gateway as a relay.

P2P Message Using Intermediate Digipeater Relay Station

To extend your communication range, you can try sending a P2P message to a station that is difficult to reach by utilizing a closer Winlink station as an intermediate relay. For example, sending a message from South OC (or North San Diego County) using the Winlink RMS Gateway KM6SLF-12 acting as a relay to KM6RTE (located at Loma Ridge in central OC). See the separate *Winlink Peer-to-Peer Message* instructions for details on how to do this.

P2P Drill Winlink Frequency

For this drill, use the primary frequency used in Orange County, 145.090 MHz, as noted in Table 1.

Table 1. *Winlink Peer-to-Peer Frequency Used for This Drill.*

Frequency [MHz]	Encoding / Baud	Notes / Comments
145.090	Packet / 1200	Currently supported by several operational RMS Gateways (that can act as P2P relays) in OC. These include KM6RTE-10 [North Tustin], WD6CDN-11 [Seal Beach], WA6RUZ-10 [Mission Viejo], W6HBR-10 [Huntington Beach], KM6SLF-12 [Dana Point], as well as several others.

Transmitting a Winlink message with an attached form will generally take a minute or two, which will result in use of the frequency band. Please be patient and judicious with your transmissions.

Winlink Station Operating Locations

Drill Ops Winlink Station: Central Orange County

Scott MacGillivray, KM6RTE ("Drill Ops") will temporarily operate the Winlink Express client station from the Orange County RACES Radio Room located on Loma Ridge in central Orange County. This location provides extremely good coverage for most of Orange County and simulates a key AuxComm coordinating station for the county.

Your Operating Location

During the drill, participants are encouraged to "go mobile" and are invited set up their Winlink station at a temporary remote location that is safe to operate. However, it is not required for this drill, and operating from your home location is a great way to take advantage of this drill. Participants can support this drill from any location they prefer, given that your location is safe and you can access via RF directly with Winlink station KM6RTE at Loma Ridge, or one of the Winlink Gateway relay stations.

Non-Winlink Communications During the Drill

Since operation of the Winlink station for Winlink P2P operation must be kept with the Packet P2P session open and active in the receive/transmit mode, it is difficult to operate the same radio also for voice communications (less so for a dual channel radio, but still not optimal). Therefore, alternate forms of inter-station communications are offered. These alternate communication methods can be used to ask questions, suggestions for setup issues, share drill changes, and etc.

Using Amateur Radio Voice

In support of a primary method of non-Winlink communications, "Drill Ops" will monitor ***446.000 MHz*** simplex. Please be patient if a response isn't immediately received. Think of Net Ops as similar to an acrobat juggling several spinning plates simultaneously.

Using Cell Phone Texts

If your needed response is not time-critical, the recommended secondary method of non-Winlink communications is to use cell phone texts with Drill Ops at (714) 392-9095 during the drill.

Additional Notes

1. In the case of inclement weather (e.g., rain, high winds), this drill may be postponed and rescheduled for another day.
2. If after thoroughly reviewing these drill instructions and the accompanying ***Winlink Peer-To-Peer Message*** and ***Working with a Winlink Check-In Form*** instructions, you still have questions about this drill, and/or recommendations, please contact Scott MacGillivray (KM6RTE) via E-mail at KM6RTE@gmail.com, or by text at (714) 392-9095.

That's it! Have fun and enjoy!

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