# Chapter 2: Winlink P2P

K6OLI with KN6BKT, AC6LS and KM6KAQ

## Why P2P?

Using peer-to-peer nets to leverage training and disaster response

- **Deliver** Winlink training in the absence of gateways
- **Build** a supportive learning environment and trust with live nets
- Fall-back in the face of disaster



# Winlink P2P: Push vs. Pull Tactical: voice (on VHF+) Logistical: Digital NCS Best if RADO stations initiate session

lacksquare

RADO

RADO

RADO

### P2P: Concurrence is Necessary

- Session concurrence
- Universality
- Tactical voice net control (on VHF+)

**P2P Sessions:** Packet, Pactor, Robust Packet, Winmor, Ardop, VARA HF, VARA FM, Telnet



## UZ7HO and VARA FM Setup and Sound Settings



### **Sound Settings**

#### **Hardware**

#### **Windows**





### UZ7HO

Sound Card		TNC Connection
Output device       Speakers (USB AUDIO CODEC)         Input device       Line (USB AUDIO CODEC)         Dual channel       TX SampleRate         TX rotation       TX corr. PPM         Single channel output       RX SampleRate	PreEmphasis filter None - All KISS Optimization non-AX25 filter Modern type ch: A	Packet TNC Type:       KISS         Packet TNC Model:       ACKMODE          Autoconnect time:       Disabled         TCP       TCP Host/Port:         127.0.0.1       8100         Packet sound modem:       C:\RMS Express\Modems\Soundmodem\soundmodem.ex         Browse       Image: Comparison of the sound modem         (For KISS mode)       Automatically launch packet sound modem
▼ Color waterfall       RX corr. PPM       0         Stop waterfall on minimize       Priority       Highest       ▼         Minimized window on startup       Server setup       ✓       ✓         AGWPE Server Port       8000       Enabled       ✓         KISS Server Port       8100       ✓       Enabled         PTT Port       Select PTT port       Dual PTT         Advanced PTT settings       Swap COM pins for PTT	Mode       AFSK AX.25 1200bd         TXDelay       250         TXT ail       50         Add. RX       0         pairs         Add. RX shift       30         His Recovery       NONE	TNC Parameters <ul> <li>TX Delay (Milliseconds):</li> <li>400</li> <li>300</li> <li>400</li> <li>300</li> <li>Maximum Packet Length:</li> <li>128</li> <li>255</li> <li>Maximum Frames:</li> <li>4</li> <li>7</li> <li>Frack:</li> <li>2</li> <li>2</li> <li>2</li> <li>Persietance:</li> <li>160</li> <li>224</li> <li>Slot time:</li> <li>30</li> <li>20</li> <li>Maximum Retries:</li> <li>5</li> <li>5</li> <li>Usable Xmt</li> <li>Transmit Level:</li> <li>100</li> <li>100</li> <li>Enable IPoll:</li> </ul>
UZ7HO Devices and M	odems Settings	Winlink Packet Session Settings

### VARA FM

SoundCard X		
Device Input	🎂 VARA Setup	🐼 Vara EM Setup
Line (USB AUDIO CODEC)	TCP Ports:	
Device Output	Command	Virtual TNC host address/name: 127.0.0.1
Speakers (USB AUDIO CODEC)	8300	Virtual TNC Command Port: 8300 - Data Port: 8301
Drive level:	Data	VARA FM Modem location: c:\VARA FM\VARAFM.exe
Tune -5 dB Auto	8301	Automatically launch Vara FM TNC when session is opened
Close	EM Sustem:	Update Cancel
	NABBOW -	
DTTVG	Hetries:	
C CAT C COM C RA-Board @ VOX		
VARA FM Sound Card, PTT, Se	ettings	Winlink VARA FM Session Settings

## Settings View Log\* Help



X

# P2P Messages and Sessions



### P2P in Message and in Session

You <u>must</u> select Peer-to-Peer (P2P)

in the Message (Peer-to-Peer), and
 in the Session (P2P)

to send a message to a peer successfully.

# Peer-to-Peer Message

From:	K6OLI	~ S	nd as:	Peer-to-Peer I	Message ~	Request mes	sage receipt	Set De	efaults
To:	W2JCL								
Cc:									
Subject:	Express Chee	ck In [Exerc	se]-K60	oli-Arling	TON				
Attach:	RMS Expres	s_Form_V	inlink_	Check_In_V	iewer.xml;				
- ARES LAX Status: [Ex Date/Time Initial Assig Location: A	Check-in ercise] : 2020-7-29 16:3 gned Operators: RELINGTON	5 K6OLI							
- ARES LAX Status: [Ex Date/Time Initial Assign Location: A Band Used Session Ty Call/Tactic	: Check-in ercise] : 2020-7-29 16:3 gned Operators: RLINGTON I: VHF /pe: Vara FM al Sender: K6OL	5 K6OLI I							

TAB Delimited:					
2020-7-29 16:35	K6OLI	K6OLI	ARLINGTON	VHF	Vara FM

### Peer-to-Peer Message

#### Enter a new message

Close	Select Template Che	c <mark>k-In H</mark> S	A ResReq Attachmo	ents Post to Out	tbox Spell	Check Save	in Drafts
From:	K6OLI ~	Send as:	Peer-to-Peer Message ~	Request mes	sage receipt	Set Defaults	]
To:	W2JCL;KN6BKT;		Winlink Message Radio-Only Message				
Cc:			Peer-to-Peer Message				
Enter	Peer address				Note:		
Select	Send as				• Sen	d as resets af	ter form
Click P	ost to Outbox –				subr	nission. Dout r <b>address:</b> no	ble check! tactical

addresses, only base calls

## **P2P Session**

Vara FM Peer	r-to-Peer Session - K6OLI					×
Exit Settings W2JCL	Switch to Winlink Session Cha Freq.: 144.420 Rang	nnel Selection S	s <b>tart Stop</b> ng:	Abort		
Favorites: KM	6TGJ @ 145.525	Select Add t	o <mark>favorite</mark> s	Remove fr	om favori	tes
In: 0/0 Out: 0/0 B	PM: 0/0 Disconnected/Listeni	ng				
*** Launching VARA *** Successfully conr *** Ready 	NEM TNC: c:\VARA FM\VARAFM.e	эхө				~

### **P2P Session Selections**



### P2P Session



#### Packet Peer-to-Peer Session (K6OLI)

#### Note:

Click Start

Digipeaters are only available for Packet.

Verify frequency and <u>listen</u> before clicking Start.

## Exercise 2

Compose, post and send a Winlink Peer-to-Peer message via P2P Packet or VARA FM

#### 3 Step Process:

- 1. Compose a new message and select Send As: Peer-to-Peer
- 2. **Post:** Post message to Outbox
- 3. Send: Open a P2P Session and Start the connection to send

# More Winlink Resources

### Winlink Groups on Google

### Winlink Programs Group

https://groups.google.com/g/winlink-programs-group

### Winlink\_For\_Emcomm

https://groups.google.com/g/winlink for emcomm

### Winlink.org Resources

### WL2K Frequently Asked Questions by Don Felgenhauer, K7BFL https://winlink.org/content/winlink faq\_july 20 2020 revised frequ ently asked questions

#### **Book of Knowledge**

https://winlink.org/content/winlink book knowledge

**How To Recipes** 

https://winlink.org/content/how to recipes