

Winlink

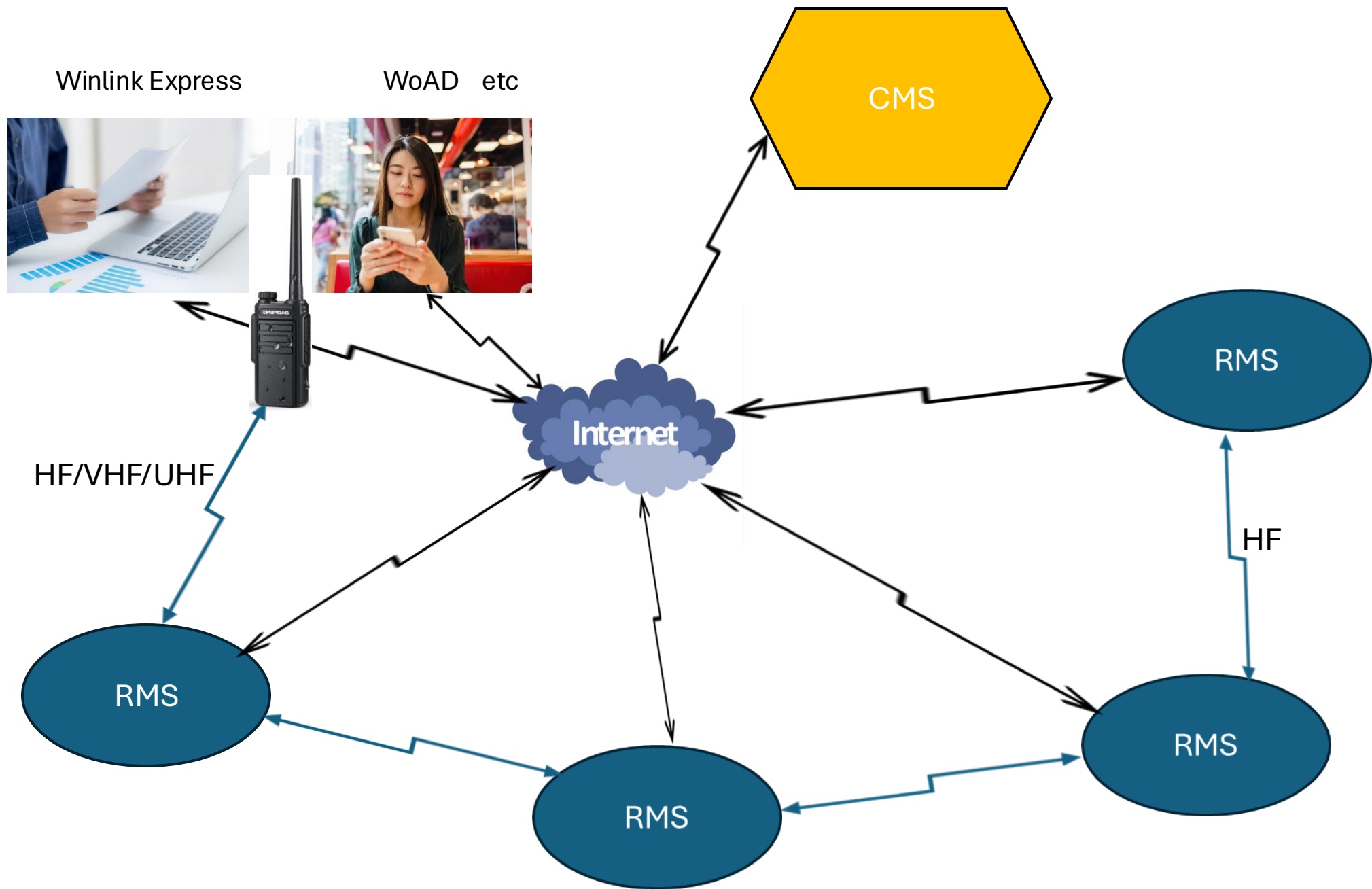
MARC 8 August 2024 ZL3TIL ZL2GBX

Winlink Development History

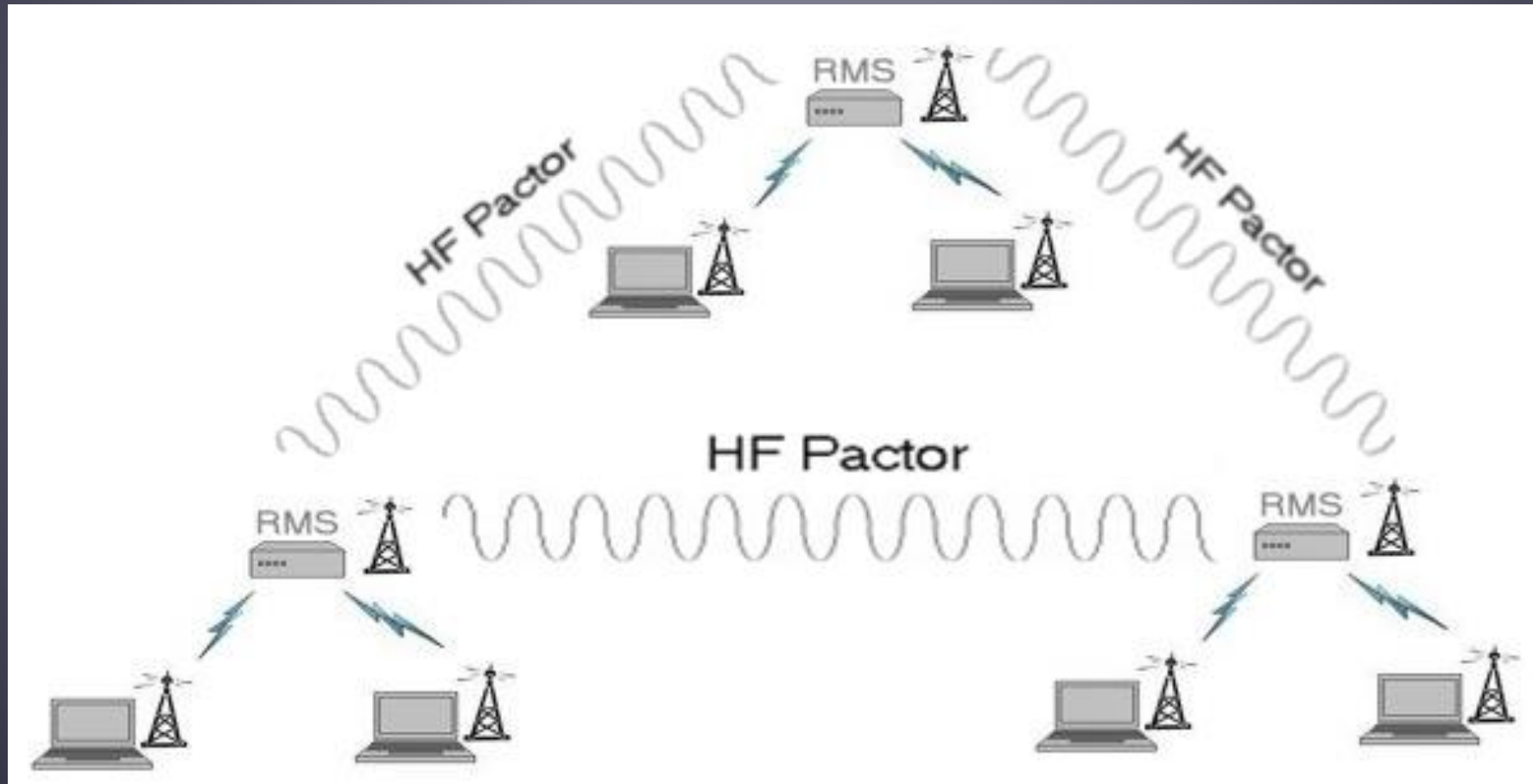
- **Winlink** is a worldwide radio messaging system that uses amateur-band radio frequencies and government frequencies to provide radio interconnection services that include email with attachments, position reporting, weather bulletins, emergency and relief communications, and message relay. The system is built and administered by volunteers and is financially supported by the Amateur Radio Safety Foundation.

Continuity: Lessons Learned

- *Sustaining essential functions* is dependent on the availability of resilient communications systems.
- *Alternative communications* methods are essential.
- *Immediate availability to resilient communication* at primary and alternate locations must be ensured.
- Infrastructure-related outages usually endure for significant periods.
- *Volunteers (“Hams”)* can provide important information about the extent of outages via radio by providing situational awareness “ground truth” within specific jurisdictions and beyond.
- *Volunteers resources* may be trained to install, operate and maintain alternate resilient systems, alleviating agency personnel to perform other functions.



Radio-Only Winlink Network (No Internet - MESH)



Using Winlink

What you need to use Winlink



Winlink Express
[VARA HF]



IF YOU CAN DO DIGITAL MODES
LIKE FT8 YOU CAN DO WINLINK



In Vara HF Winlink session.

System Folders
Inbox (4 unread)
Read Items (0)
Outbox (0)
Sent Items (31)
Saved Items (0)
Deleted Items (3)
Drafts (0)
Personal Folders
Global Folders
Contacts
AREC CENTRAL
AREC_NORTHERN_(AUCKLAND)
AREC_NORTHERN_(GISBORNE)
AREC_SOUTHERN_REGION
AREC-RUWHENUA
HOME_EMAIL
HOME_EMAIL2

	Date/Time	Message ID	Size	Source	Sender	Recipient	Subject
	2024/06/30 08:00	ZAYQ841GC2GK	31049	ZM1SEA	AREC-CHECKIN	ZK1EBW...	AREC-Check-In Net Results Dated 30.06.24
	2024/06/29 17:39	5B9D3LGZRT64	493	AREC-C...	AREC-CHECKIN	ZL2GBX	ACK: Winlink Check-in EXERCISE - ZL2GBX - Home QTH, Blenheim - Branch 22
	2024/06/23 08:02	6HUDT0BVN1L0	54154	ZM1SEA	AREC-CHECKIN	ZK1EBW...	AREC-Check-In Net Results Dated 23.06.24
	2024/06/16 07:33	V831W8G5N0BZ	849	ZM1SEA	AREC-CHECKIN	ZK1EBW...	EmComm training Exercise June 20th
	2024/06/16 0...	OBZ3ZLQFR...	62763	ZM1SEA	AREC-CHECKIN	ZK1EBW...	AREC-Check-In Net Results Dated 16.06.24
	2024/06/16 0...	BGYZQ2LT6LLJ	493	AREC-...	AREC-CHECKIN	ZL2GBX	ACK: Winlink Check-in EXERCISE - ZL2GBX - Home QTH, Blenheim - Branch 22
	2024/06/13 15:56	XJC5HT4QWAF6	535	KN4LQN	KN4LQN	W4JLP...	Winlink Wednesday Net Confirmation (Episode #405)
	2024/06/12 18:34	RRLYB7NLMSBT	496	AREC-C...	AREC-CHECKIN	ZL2GBX	ACK: Winlink Check-in EXERCISE - ZL2GBX - Home QTH, Blenheim - Branch 22
	2024/06/12 07:44	04V6S7HDE206	802	ZK7EVB	AREC RUWHENUA	ZL2GBX	Re: Winlink Check-in EXERCISE - ZL2GBX - Home QTH, Blenheim - Branch 22

Message ID: 5XJ7DBIRWE1G

Date: 2024/03/12 06:25 (UTC)

From: gjbceds@gmail.com

To: ZL2GBX

Source: SMTP

Downloaded-from: RMS:ZL1SEA

Subject: Re: testing 54321

The quick brown fox jumped over the lazy dogs eh

On Tue, 12 Mar 2024, 7:23 pm , <ZL2GBX@winlink.org> wrote:

> Blh The quick btrown fox jumps over the lazy dog

>

>



Composing a Message

The screenshot shows a 'Winlink' 'Enter a new message' dialog box. It features a menu bar with options: **Post to Outbox**, **Select Template**, **Check-in**, **Sitrep**, **Attachments**, **Spell Check**, **Save in Drafts**, and **Close**. Below the menu, there are fields for 'From' (set to 'W4PHS'), 'Send as' (set to 'Winlink Message'), and a checkbox for 'Request message receipt' (unchecked). A 'Set Defaults' button is also present. The main area contains input fields for 'To:', 'Cc:', 'Subject:', and 'Attach:'. The 'To:' field is currently selected. A large text area for the message body is at the bottom.

Callouts point to the following features:

- Click to select standard form**: Points to the **Post to Outbox** menu item.
- Post to Outbox after composing**: Points to the **Post to Outbox** menu item.
- Add attachments like pictures**: Points to the **Attachments** menu item.
- Correct with Spell Check**: Points to the **Spell Check** menu item.
- Obtain a message receipt upon delivery**: Points to the **Request message receipt** checkbox.

- Inbox (4 unread)
 - Read Items (0)
 - Outbox (0)
 - Sent Items (31)
 - Saved Items (0)
 - Deleted Items (3)
 - Drafts (0)
- Personal Folders
- Global Folders
- Contacts
- AREC CENTRAL
 - AREC_NORTHERN_(AUCKLAND)
 - AREC_NORTHERN_(GISBORNE)
 - AREC_SOUTHERN_REGION
 - AREC-RUWHENUA
 - HOME_EMAIL
 - HOME_EMAIL2

Enter a new message

Post to Outbox Select Template Attachments Spell Check Save in Drafts Close

From: ZL2GBX Send as: Winlink Message ☐ Request message receipt Set D

To:

Cc:

Subject:

Attach:

- Subject
- AREC-Check-In Net Results Dated 30.06.24
 - ACK: Winlink Check-in EXERCISE - ZL2GBX - Home QTH, Blenheim - Branch 22
 - AREC-Check-In Net Results Dated 23.06.24
 - EmComm training Exercise June 20th
 - AREC-Check-In Net Results Dated 16.06.24**
 - ACK: Winlink Check-in EXERCISE - ZL2GBX - Home QTH, Blenheim - Branch 22**
 - Winlink Wednesday Net Confirmation (Episode #405)
 - ACK: Winlink Check-in EXERCISE - ZL2GBX - Home QTH, Blenheim - Branch 22
 - Re: Winlink Check-in EXERCISE - ZL2GBX - Home QTH, Blenheim - Branch 22

No active session...

System Folders

Inbox (4 unread)

Read Items (0)

Outbox (0)

Sent Items (33)

Saved Items (0)

Deleted Items (3)

Drafts (0)

Personal Folders

Global Folders

Contacts

AREC CENTRAL

AREC_NORTHERN_(AUCKLAND)

AREC_NORTHERN_(GISBORNE)

AREC_SOUTHERN_REGION

AREC-RUWHENUA

HOME_EMAIL

HOME_EMAIL2

	Date/Time	Message ID	Size	Source	Sender	
	2024/07/26 08:45	OH3A0XF24Q8C	49508	SMTP	SMTP:gibarton@...	ZL
	2024/07/26 02:21	33FGLD5JIQUU	806	KN4LQN	KN4LQN	W
	2024/07/25 15:42	QRYQ2G6RIDBL	703	KN4LQN	KN4LQN	W
	2024/07/25 06:22	01SI25FVWTC	1118	ZM1SEA	ZM1SEA	ZL
	2024/06/30 08:00	ZAYG841GC2GK	31049	ZM1SEA	AREC-CHECKIN	ZL
	2024/06/29 17:39	5B9D3LGRZRT64	493	AREC-C...	AREC-CHECKIN	ZL
	2024/06/23 08:02	6HUDT0BVN1L0	54154	ZM1SEA	AREC-CHECKIN	ZL
	2024/06/16 07:33	V831W8G5N0BZ	849	ZM1SEA	AREC-CHECKIN	ZL
	2024/06/16 07:33	Q873710EP	62762	ZM1SEA	AREC-CHECKIN	ZL

Message ID: 5XJ7DBIRWE1G
Date: 2024/03/12 06:25 (UTC)
From: gjbceds@gmail.com
To: ZL2GBX
Source: SMTP
Downloaded-from: RMS:ZL1SEA
Subject: Re: testing 54321

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

>

- Vara FM Winlink
- Telnet Winlink
- Packet Winlink
- Pactor Winlink
- Robust Packet Winlink
- Ardop Winlink
- Vara HF Winlink
- Vara FM Winlink
- Iridium GO Winlink
-
- Packet P2P
- Pactor P2P
- Robust Packet P2P
- Ardop P2P
- Vara HF P2P
- Vara FM P2P
- Telnet P2P
-
- Pactor Radio-only
- Vara HF Radio-only
- Vara FM Radio-only
- Telnet Radio-only
-
- Telnet Post Office

Wednesday Roster Published (24 July 2024, Episode #411)
Wednesday Net Confirmation (Episode #411)
Training Organization - Excercise
ck-In Net Results Dated 30.06.24
nk Check-in EXERCISE - ZL2GBX - Home QTH, Blenheim - Branch 22
ck-In Net Results Dated 23.06.24
aining Exercise June 20th
ck-In Net Results Dated 16.06.24



In Vara HF Winlink session.

System Folders		Date/Time	Message ID	Size	Source	Sender	Recipient	Subject
Inbox (16 unread)	⌵	 2024/07/28 07:55	HMZ0TTBTJPWH	49318	ZM1SEA	AREC-CHECKIN	ZK1EBW...	AREC-Check-In Net Results Dated 28.07.24
Read Items (0)		 2024/07/28 0...	YE6UOMKL8...	498	ZM1SEA	AREC-CHECKIN	ZL2GBX	ACK: Winlink Check-in EXERCISE - ZL2GBX - Home QTH
Outbox (0)		 2024/07/24 05:56	6EX3IXQE11RK	1384	ZM1SEA	ZM1SEA	ZL2GBX	Re: Marlborough
Sent Items (63)		 2024/07/21 07:29	817QUHQSP8MF	96092	ZM1SEA	ZM1SEA	ZL4ROB...	AREC-Check-In Net Results Dated 21.07.24 Special Update
Saved Items (0)	⌵	 2024/07/21 07:14	M5IY9XYGXC8L	83165	ZM1SEA	AREC-CHECKIN	ZL4ROB...	AREC-Check-In Net Results Dated 21.07.24
Deleted Items (11)		 2024/07/21 06:50	5BUJJAQNHN9H	987	ZM1SEA	AREC-CHECKIN	ZL2GBX	Re: Winlink Check-in EXERCISE - ZL2GBX - Home QTH, Blenheim
Drafts (0)		 2024/07/20 07:20	V1GLQ7F23AXY	1097	ZL2SEA	ZL2SEA	ZL2GBX	Re:ZL2BD New HF Winlink Gateway at Hokitika
Personal Folders		 2024/07/20 07:00	2772VUBAS2TT	630	ZM1SEA	AREC-CHECKIN	ZK1EBW...	Re:ZL2BD New HF Winlink Gateway at Hokitika
Emcomm (5)		 2024/07/20 06:29	YDMDDK427OZ0	1108	ZM1SEA	AREC-CHECKIN	ZL2GBX	Re:ZL2BD New HF Winlink Gateway at Hokitika
		 2024/07/19 21:14	8N8X41371P6A	1022	ZL2TBD	ZL2TBD	AREC-CHECKIN...	Re:ZL2BD New HF Winlink Gateway at Hokitika
Global Folders		 2024/07/19 0...	64CZWZ7GA...	475	KN4LQN	KN4LQN	ZL2GBX...	Winlink Wednesday Roster Published (17 July 2024, Ep...
		 2024/07/18 1...	2KV1KMKCT2LB	377	KN4LQN	KN4LQN	ZL2ATH...	Winlink Wednesday Net Confirmation (Episode #410)
		 2024/07/18 08:43	AFEKROSDD96N	634	ZM1SEA	AREC-CHECKIN	ZK1EBW...	ZL2TBD New HF Winlink Gateway at Hokitika
		 2024/07/16 11:31	I7IRVRL2FTVA	1609	KN4LQN	KN4LQN	XE1PAS...	Winlink Wednesday Reminder (#410)
Contacts	⌵	 2024/07/14 16:24	DBEVE7GRHQO2	32787	ZM1SEA	AREC-CHECKIN	ZK1EBW...	AREC-Check-In Net Results Dated 14.07.24
DON LAING	⌵	 2024/07/07 07:26	6JEO2KK4JC2	31697	ZM1SEA	AREC-CHECKIN	ZK1EBW...	AREC-Check-In Net Results Dated 07.07.24
ETO-DX		 2024/07/05 0...	LBZB8DSIF8MR	484	KN4LQN	KN4LQN	ZL1BQA...	Winlink Wednesday Roster Published (3 July 2024, Epis...
GARY LODGE		 2024/07/04 1...	4CJ612F5CLB8	382	KN4LQN	KN4LQN	ZL1BQA...	Winlink Wednesday Net Confirmation (Episode #408)
GREG J. BARTON		 2024/07/02 11:34	O154DLLMNOKA	1612	KN4LQN	KN4LQN	YV5BRB...	Winlink Wednesday Reminder (#408)
JOHN ERRINGTON								
PAUL_RENNIE								

Message ID: E96C7UQ3JYBM
Date: 2024/03/10 08:47 (UTC)
From: gjbceds@gmail.com
To: ZL2GBX
Source: SMTP
Downloaded-from: RMS:ZL1SEA
Subject: Return test 3

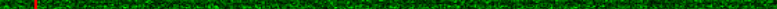
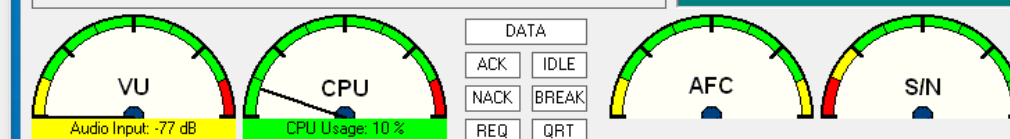
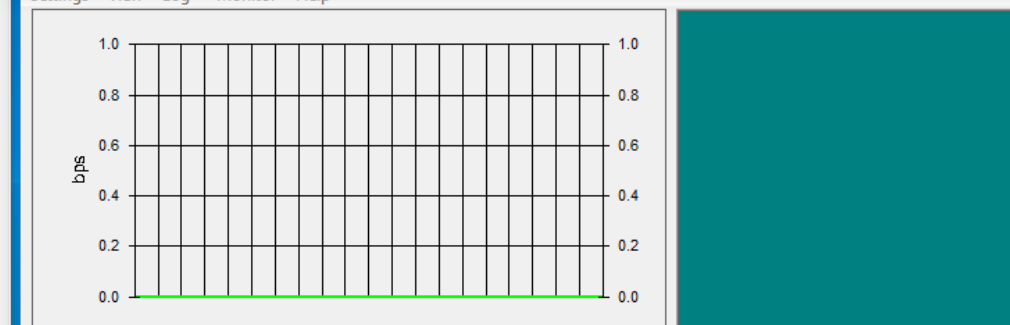
Testing testing testing 0987654321

ZL2TBD	Center Freq:	7155.000	Dial Freq:	7153.500	Bandwidth:	2750	Bearing:	240	Quality:	53
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Favorites:  [Select](#) [Add to favorites](#) [Remove from favorites](#)

Channel Free In: 0/0 Out: 0/0 BPM: 0/0 Disconnected

```
*** Launching VARA TNC
*** Successfully connected to VARA TNC at 127.0.0.1 port 8300
*** Maximum signal bandwidth is set to 2300 Hz.
*** Using lcom 7300, COM3, 19200 baud
*** Ready
*** This is a registered version of Vara TNC that can operate at full speed.
```



● RX Disconnected 2300 LISTEN ● TCP ● DCD ●

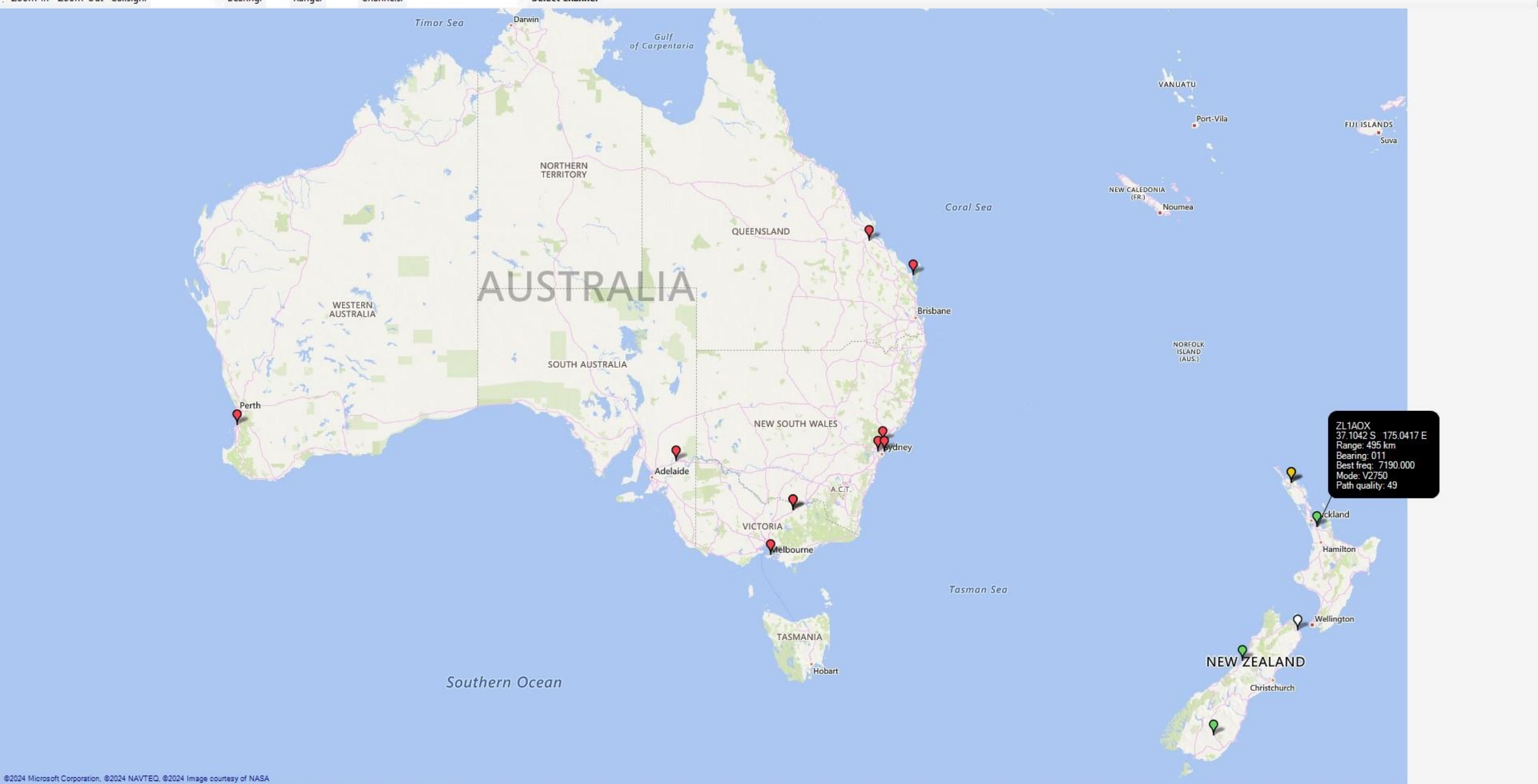
In Vara HF Winlink session.

System Folders		Date/Time	Message ID	Size	Source	Sender	Recipient	Subject
Inbox (16 unread)		2024/07/28 07:55	HMZ0TTBTJPWH	49318	ZM1SEA	AREC-CHECKIN	ZK1EBW...	AREC-Check-In Net Results Dated 28.07.24
Read Items (0)		2024/07/28 0...	YE6UOMKL8...	498	ZM1SEA	AREC-CHECKIN	ZL2GBX	ACK: Winlink Check-in EXERCISE - ZL2GBX - Home QTH
Outbox (0)		2024/07/24 05:56	6EX3IXQE11RK	1384	ZM1SEA	ZM1SEA	ZL2GBX	Re: Marlborough
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Saved Items (0)		2024/07/21 07:14	M5IY9XYGXC8L	83165	ZM1SEA	AREC-CHECKIN	ZL4ROB...	AREC-Check-In Net Results Dated 21.07.24
Deleted Items (11)		2024/07/21 06:50	5BUIJQAHNH9H	987	ZM1SEA	AREC-CHECKIN	ZL2GBX	Re: Winlink Check-in EXERCISE - ZL2GBX - Home QTH, Blenheim
Drafts (0)		2024/07/20 07:20	V1GLQ7F23AXY	1097	ZL2SEA	ZL2SEA	ZL2GBX	Re:ZL2TBD New HF Winlink Gateway at Hokitika
		2024/07/20 07:00	2772VUBAS2TT	630	ZM1SEA	AREC-CHECKIN	ZK1EBW...	Re:ZL2TBD New HF Winlink Gateway at Hokitika
		2024/07/20 06:29	YDMDDK427OZ0	1108	ZM1SEA	AREC-CHECKIN	ZL2GBX	Re:ZL2TBD New HF Winlink Gateway at Hokitika
		2024/07/19 21:14	8N8X41371P6A	1022	ZL2TBD	ZL2TBD	AREC-CHECKIN...	Re:ZL2TBD New HF Winlink Gateway at Hokitika
Personal Folders		2024/07/19 0...	64CZWZ7GA...	475	KN4LQN	KN4LQN	ZL2GBX...	Winlink Wednesday Roster Published (17 July 2024, Episode #409)
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	2024/07/14 16:24	DBEVE7GRHQQ2	32787	ZM1SEA	AREC-CHECKIN	ZK1EBW...	AREC-Check-In Net Results Dated 14.07.24	
	2024/07/07 07:26	6JEO2KK46JC2	31697	ZM1SEA	AREC-CHECKIN	ZK1EBW...	AREC-Check-In Net Results Dated 07.07.24	
	2024/07/05 0...	LB2B8DSIF8MR	484	KN4LQN	KN4LQN	ZL1BQA...		Winlink Wednesday Roster Published (3 July 2024, Episode #408)
	2024/07/04 1...	4CJ6I2F5CLB8	382	KN4LQN	KN4LQN	ZL1BQA...		Winlink Wednesday Net Confirmation (Episode #408)
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Global Folders								
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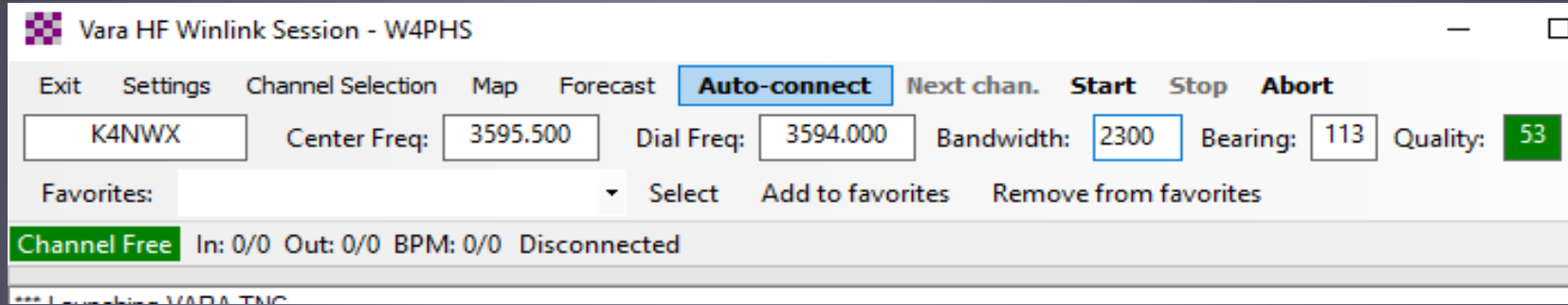
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From: gjbceds@gmail.com
To: ZL2GBX
Source: SMTP
Downloaded-from: RMS:ZL1SEA
Subject: Return test 3

Testing testing testing 0987654321

Callsign	Frequency (kHz)	Mode	Grid Square	Hours	Group	Distance (km)	Bearing (Degrees)	Path Reliability Estimate	Path Quality Estimate
ZL2TBD	7175.000	V2750	RE57LG	00-23	PUBLIC	284	240	95	53
ZL2TBD	14105.000	V2750	RE57LG	00-23	PUBLIC	284	240	0	0
ZL2TBD	14150.000	V2750	RE57LG	00-23	PUBLIC	284	240	0	0
ZL2TBD	7155.000	V2750	RE57LG	00-23	PUBLIC	284	240	95	53
ZL2TBD	7165.000	V2750	RE57LG	00-23	PUBLIC	284	240	95	53
ZL1AOX	7215.000	V2750	RF72MV	00-23	PUBLIC	495	011	85	49
ZL1AOX	7190.000	V2750	RF72MV	00-23	PUBLIC	495	011	85	49
ZL1AOX	7195.000	V2750	RF72MV	00-23	PUBLIC	495	011	85	49
ZL1AOX	14130.000	V2750	RF72MV	00-23	PUBLIC	495	011	6	10
ZL4RMS	21424.000	V2300	RE44QI	00-23	PUBLIC	592	217	0	0
ZL4RMS	7136.000	V2300	RE44QI	00-23	PUBLIC	592	217	81	48
ZL4RMS	3621.500	V2300	RE44QI	00-23	PUBLIC	592	217	0	20
ZL4RMS	7146.000	V2300	RE44QI	00-23	PUBLIC	592	217	81	48
ZL4RMS	14124.000	V2300	RE44QI	00-23	PUBLIC	592	217	22	28
ZL4RMS	14134.000	V2300	RE44QI	00-23	PUBLIC	592	217	22	27
ZL2SEA	3591.500	V2750	RF64TU	00-23	PUBLIC	704	358	0	1
ZL1SEA	3657.000	V2750	RF64TU	06-04	PUBLIC	704	358	0	12
ZL1SEA	7187.000	V2750	RF64TU	06-04	PUBLIC	704	358	71	45
ZL1SEA	1847.000	V2750	RF64TU	06-04	PUBLIC	704	358	0	0
ZL2SEA	21427.000	V2750	RF64TU	00-23	PUBLIC	704	358	0	0
ZL2SEA	18137.000	V2750	RF64TU	00-23	PUBLIC	704	358	0	0
ZL2SEA	14137.000	V2750	RF64TU	00-23	PUBLIC	704	358	34	34
ZL1SEA	3647.000	V2750	RF64TU	06-04	PUBLIC	704	358	0	11
ZL1SEA	3717.000	V2750	RF64TU	06-04	PUBLIC	704	358	0	12
ZL2SEA	14127.000	V2750	RF64TU	00-23	PUBLIC	704	358	34	35
ZL1SEA	7133.000	V2750	RF64TU	06-04	PUBLIC	704	358	70	45
ZL1SEA	7143.000	V2750	RF64TU	06-04	PUBLIC	704	358	70	45
ZL2SEA	7143.000	V2750	RF64TU	00-23	PUBLIC	704	358	70	45
ZL2SEA	7133.000	V2750	RF64TU	00-23	PUBLIC	704	358	70	45
VK2RZ	10146.400	V2750	QF56PG	00-23	PUBLIC	2165	286	1	25
VK2RZ	21086.400	V2750	QF56PG	00-23	PUBLIC	2165	286	0	0
VK2RZ	7045.000	V2750	QF56PG	00-23	PUBLIC	2165	286	0	0
VK2RZ	18115.000	V2750	QF56PG	00-23	PUBLIC	2165	286	5	6
VK2RZ	14103.000	V2750	QF56PG	00-23	PUBLIC	2165	286	15	34
VK2IO	7046.500	V2300	QF56LG	00-23	PUBLIC	2191	286	0	0
VK2EHQ	3569.500	V2750	QF56OR	00-23	PUBLIC	2197	287	0	0
VK2EHQ	7063.000	V2750	QF56OR	00-23	PUBLIC	2197	287	0	0
VK3MIT	21080.500	V2750	QF33DP	00-23	PUBLIC	2447	274	0	0
VK3MTI	3577.000	V2750	QF33DP	00-23	PUBLIC	2447	274	0	0
VK3MIT	7056.500	V2750	QF33DP	00-23	PUBLIC	2447	274	0	0
VK3MIT	14103.500	V2750	QF33DP	00-23	PUBLIC	2447	274	14	33



Using “Auto-connect” to Select RMS



- Click “Auto-connect” to tell Winlink Express to start trying channels in decreasing order of connection quality. Busy channels are skipped automatically.
- Quality estimate is based on several things:
 - Computed propagation quality
 - Success/Failure history for channel
 - Relative Signal/Noise history

In Vara HF Winlink session.

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Inbox (16 unread)		2024/07/28 07:55	HMZ0T1BTJPWH	49318	ZM1SEA	AREC-CHECKIN	ZK1EBW...	AREC-Check-In Net Results Dated 28.07.24
Read Items (0)		2024/07/28 0...	YE6UOMKL8...	498	ZM1SEA	AREC-CHECKIN	ZL2GBX	ACK: Winlink Check-in EXERCISE - ZL2GBX - Home QTH
Outbox (0)		2024/07/24 05:56	6EX3IXQE11RK	1384	ZM1SEA	ZM1SEA	ZL2GBX	Re: Marlborough
Sent Items (63)		2024/07/21 07:29	817QUHQSP8MF	96092	ZM1SEA	ZM1SEA	ZL4ROB...	AREC-Check-In Net Results Dated 21.07.24 Special Update
Saved Items (0)		2024/07/21 07:14	M5IY9XYGXC8L	83165	ZM1SEA	AREC-CHECKIN	ZL4ROB...	AREC-Check-In Net Results Dated 21.07.24
Deleted Items (11)		2024/07/21 06:50	5BUIJQNH9H	987	ZM1SEA	AREC-CHECKIN	ZL2GBX	Re: Winlink Check-in EXERCISE - ZL2GBX - Home QTH, Blenheim
Drafts (0)		2024/07/20 07:20	V1GLQ7F23AXY	1097	ZL2SEA	ZL2SEA	ZL2GBX	Re:ZL2BD New HF Winlink Gateway at Hokitika
Personal Folders		2024/07/20 07:00	2772VUBAS2TT	630	ZM1SEA	AREC-CHECKIN	ZK1EBW...	Re:ZL2BD New HF Winlink Gateway at Hokitika
Emcomm (5)		2024/07/20 06:29	YDMDDK427OZ0	1108	ZM1SEA	AREC-CHECKIN	ZL2GBX	Re:ZL2BD New HF Winlink Gateway at Hokitika
		2024/07/19 21:14	8N8X41371PGA	1022	ZL2TBD	ZL2TBD	AREC-CHECKIN...	Re:ZL2BD New HF Winlink Gateway at Hokitika
Global Folders		2024/07/19 0...	64CZWZ7GA...	475	KN4LQN	KN4LQN	ZL2GBX...	Winlink Wednesday Roster Published (17 July 2024, Ep...
		2024/07/18 1...	2KV1KMKC12LB	377	KN4LQN	KN4LQN	ZL2ATH...	Winlink Wednesday Net Confirmation (Episode #410)
		2024/07/18 08:43	AFEKROSD96N	634	ZM1SEA	AREC-CHECKIN	ZK1EBW...	ZL2TBD New HF Winlink Gateway at Hokitika
		2024/07/16 11:31	I7IRVRL2FTVA	1609	KN4LQN	KN4LQN	XE1PAS...	Winlink Wednesday Reminder (#410)
Contacts		2024/07/14 16:24	DBEVE7GRHQO2	32787	ZM1SEA	AREC-CHECKIN	ZK1EBW...	AREC-Check-In Net Results Dated 14.07.24
DON LAING		2024/07/07 07:26	6JEO2KK4JC2	31697	ZM1SEA	AREC-CHECKIN	ZK1EBW...	AREC-Check-In Net Results Dated 07.07.24
ETO-DX		2024/07/05 0...	LBZB8DSIF8MR	484	KN4LQN	KN4LQN	ZL1BQA...	Winlink Wednesday Roster Published (3 July 2024, Epis...
GARY LODGE		2024/07/04 1...	4CJ612F5CLB8	382	KN4LQN	KN4LQN	ZL1BQA...	Winlink Wednesday Net Confirmation (Episode #408)
GREG J. BARTON		2024/07/02 11:34	O154DLLMNOKA	1612	KN4LQN	KN4LQN	YV5BR8...	Winlink Wednesday Reminder (#408)
JOHN ERRINGTON								
PAUL_RENNIE								

Message ID: E96C7UQ3JYBM
Date: 2024/03/10 08:47 (UTC)
From: gjbceds@gmail.com
To: ZL2GBX
Source: SMTP
Downloaded-from: RMS:ZL1SEA
Subject: Return test 3


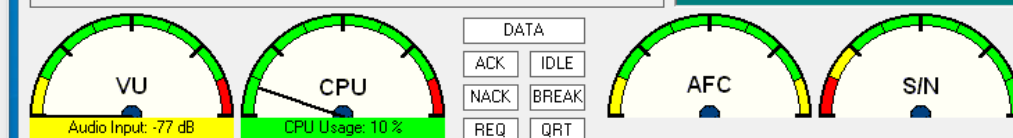
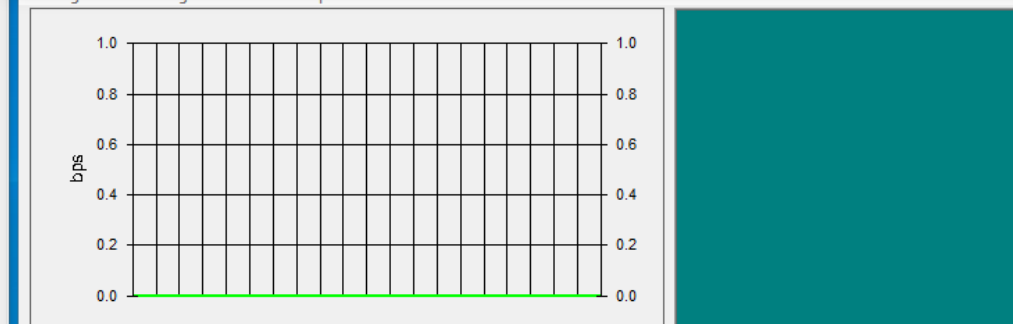
Testing testing testing 0987654321

ZL2TBD	Center Freq:	7155.000	Dial Freq:	7153.500	Bandwidth:	2750	Bearing:	240	Quality:	53
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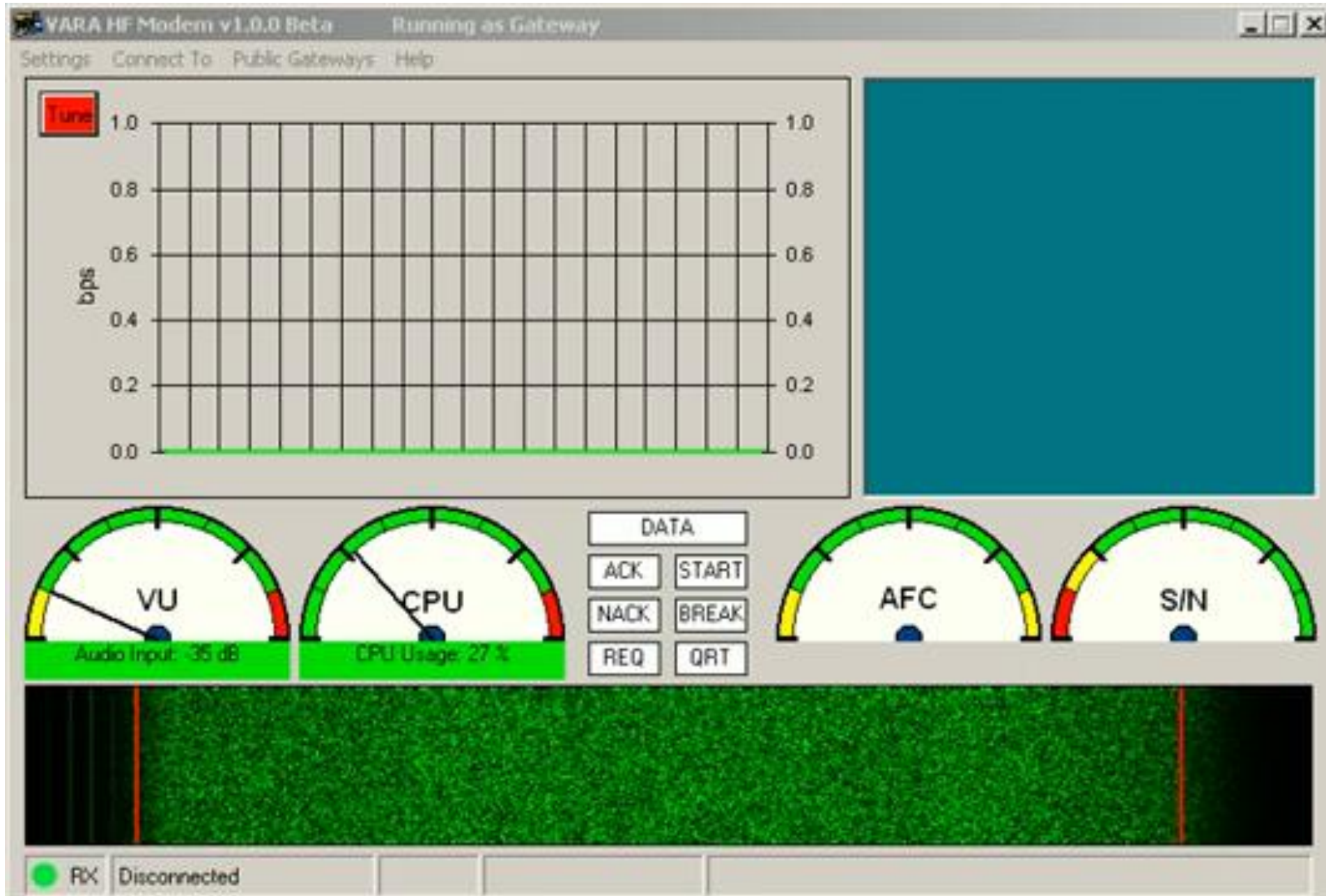
Favorites: [Select](#) [Add to favorites](#) [Remove from favorites](#)

Channel Free In: 0/0 Out: 0/0 BPM: 0/0 Disconnected

```
*** Launching VARA TNC
*** Successfully connected to VARA TNC at 127.0.0.1 port 8300
*** Maximum signal bandwidth is set to 2300 Hz.
*** Using Icom 7300, COM3, 19200 baud
*** Ready
*** This is a registered version of Vara TNC that can operate at full speed.
```

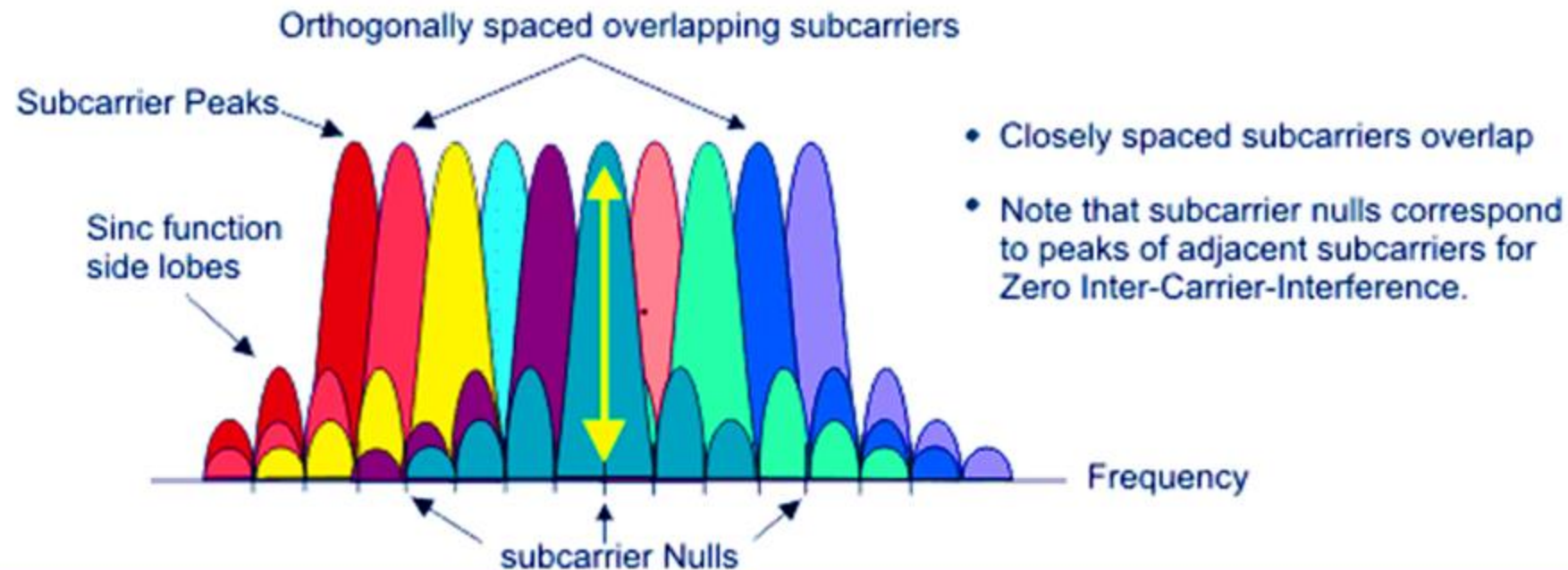


● RX Disconnected 2300 LISTEN ● TCP ● DCD ●



VARA

Level	Symbol Rate	Carriers	Mod.	Bytes / Packet	Net Data Rate	User Data Rate
1	37,5	52	BPSK	20	35	29
2	37,5	52	BPSK	32	54	45
3	37,5	52	BPSK	71	113	94
4	37,5	52	BPSK	150	234	194
5	37,5	52	BPSK	308	476	395
6	37,5	52	BPSK	626	963	799
7	37,5	52	4PSK	1257	1929	1601
8	37,5	52	8PSK	1887	2893	2401
9	37,5	52	16QAM	2951	4521	3752
10	37,5	52	32QAM	3690	5653	4692
11	37,5	52	32QAM	4428	6782	5629



OFDM Signal Frequency Spectra

Setting up a Winlink Client

Google is your friend – there are many hardware-specific tutorials

Download Winlink Express if on PC

Download WoAD if android-based

Download VARA (HF/FM) as required

Setup is reasonably straightforward – sometimes getting audio levels correct is tricky
Beware there are settings in both Winlink Express and VARA etc, and in the radio.

Connection between computer and radio ranges from simple to complex
(but remember Google will help!)

Once setup and working document/record all settings