

COMUNICACION DIGITAL PARA EMERGENCIAS

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KP4RGD

16/SEP/18
Humacao

PROPOSITO DE CHARLA

Presentar un medio de comunicación para salvar vidas,
sobre todo la suya y la de los que viven con usted

¿QUE ES WINLINK? ¿QUE ES RMS (Radio Message Servers)?

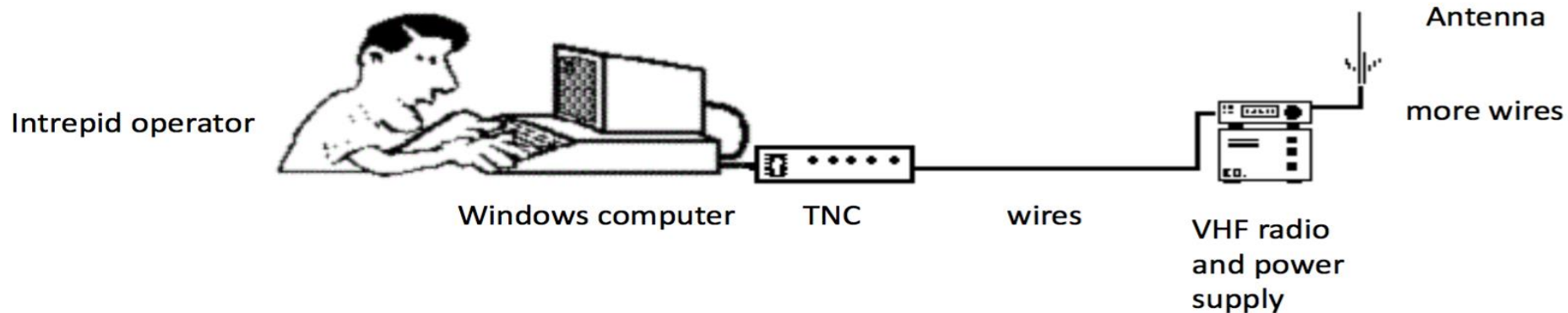
- ENVIO DE CORREO ELECTRONICO SIN INTERNET
 - RADIO HF (Se puede usar VHF, pero no lo tenemos en Puerto Rico)
 - CABLE: INTERFASE (Tarjeta de sonido, ej. Signalink, si radio no tiene conexión de data)
 - COMPUTADORA (Preferible, una laptop)
 - SOFTWARE (RMS Express)

<http://www.winlink.org>
<http://www.kp4net.org/>

Arquitectura de Packet (chats por teclado)

Traditional PACKET Radio Station

thanks TAPR



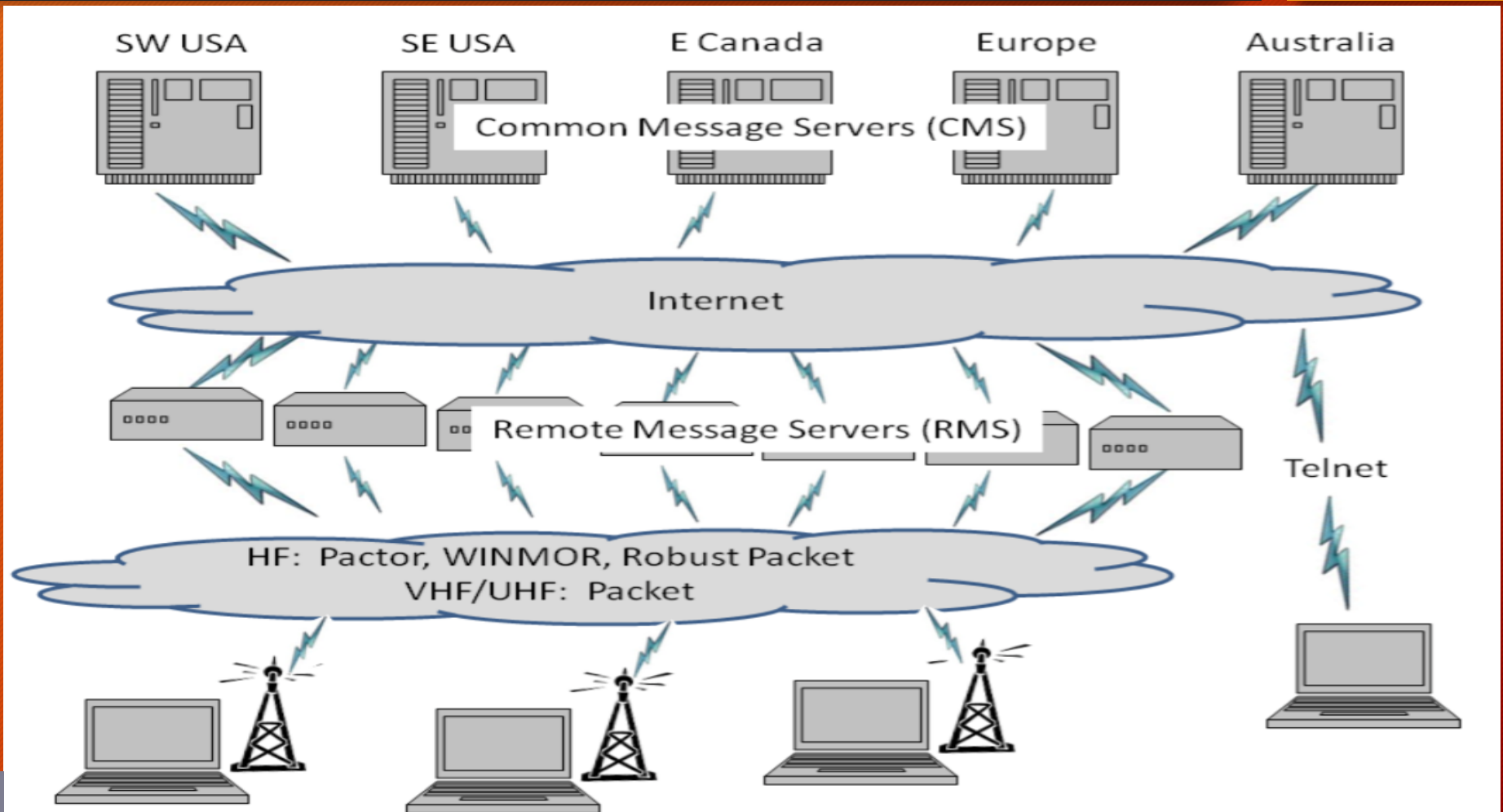
- Messages are sent to radio BBS to be picked up by other BBS users
- Everything located close by – probably the same room
- Probably lots of software tweaking and setup time at a disaster site
- Takes a lot of power (relatively)
- How can you send email to the internet? You can't!

Arquitectura de Winlink (envío email)



Arquitectura de Winlink (modo convencional)

- CMS
- RMS (gateway)
- Client (you)



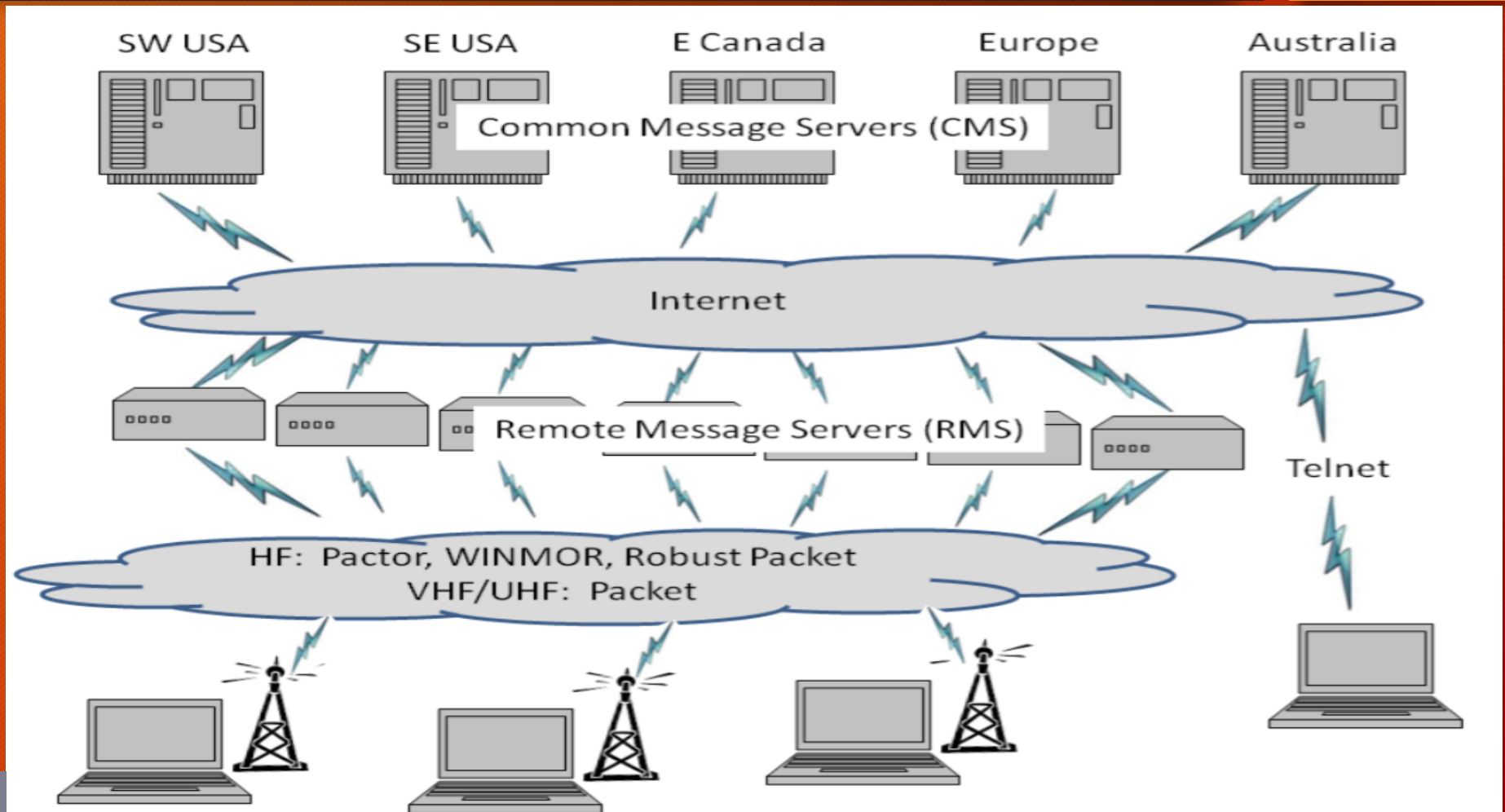
INSTALACION DE EQUIPO HF: 20, 10, 30, 70 m

RMS PACTOR Stations Worldwide



Arquitectura de Winlink (modo convencional)

- CMS
- RMS (gateway)
- Client (you)



SUSCRIBIRTE EN PAGINA DE WINLINK.ORG

- Paso 1 -----Baja el software RMS Express
- Paso 2 -----Haz conexiones; computadora y radio
- Paso 3 -----Actualiza sistema operativo de tu compu (update window).
- Paso 4 -----Instala programa RMS Express
- Paso 5 -----Abre programa RMS Express
- Paso 6 -----Configura programa RMS Express (escribe tu información, indicativo, grid, etc). Sigue instrucciones del programa (el puerto en cada radio es diferente). Lee manual de tu radio
- Paso 7 -----Redactar y enviar mensaje

No te rindas: El reto mayor es instalar programa y hacer configuración.

PASO 1: BAJA PROGRAMA RMS EXPRESS



> [My Account](#)

> [Tools](#)

> [News](#)

> [Positions](#)

> [User Programs](#)

> [Book of Knowledge](#)

> [Download](#)

> [Support](#)

Winlink is...

...a worldwide radio email service that uses radio pathways where the internet is not present, and is capable of operating completely without the internet--automatically--using smart-network radio relays. Winlink provides its users email with attachments, position reporting, weather and information bulletins, and is well-known for its role in emergency and disaster relief communications. Licensed Winlink operators/stations use both amateur radio and government radio frequencies worldwide. The system is built, operated and administered entirely by licensed volunteers. Support for the system is provided by the [Amateur Radio Safety Foundation, Inc.](#), a US 501(c)(3) non-profit, public-benefit entity.

Network Station News

- [N4BTA Trimode for Hurricane Florence](#)
- [Winlink - Citadel Rumble in San Diego CA](#)
- [WOLED-10 No News is Good News](#)
- [KE7TJK-10 back on the air](#)
- [Back on the Air](#)

Ham Radio Equipment for Emergency Communication Delivered in Honduras

On August 22, the Honduras National Telecommunications Commission (CONATEL) delivered Amateur Radio equipment to COPECO -- a government disaster-organization coordination agency -- for use in an International Telecommunication Union (ITU) pilot project that aims to take wider advantage of the Winlink HF email system for emergency communication. The ITU pilot project includes Central America and the Caribbean with the goal of achieving implementation throughout South America. Winlink already enjoys wide usage in North America by Amateur Radio Emergency Service (ARES) teams. ITU donated the equipment.

"The most important thing is that CONATEL, COPECO, and radio amateurs start working with the Winlink tool," said ITU Area D Representative Miguel Alcaine. "I am very happy to know that we are doing something before disaster strikes."

The donation consists of an HF radio, a VHF radio, a multiband dipole, a VHF antenna, an automatic antenna tuner, a modem, and coaxial cable.

National Commissioned Minister of COPECO Lisandro

Fast Info...

- Support Winlink: [Register](#) your program
- **Lost Registration Key?** [Log in](#). It's on your account page.
- Callsign change? [What to do. How to do it.](#)
- [Info about Winlink Express HTML Forms](#)
- No internet? [Winlink Hybrid Network](#)
- [Become a Winlink Gateway Sysop](#)

Get Winlink Express

The *only* client program with *everything* Winlink offers. Easy to set up, learn and use. Fully supported. [Free Download](#)

Winlink Was There...

Lives and property saved, damage mitigated: Why Winlink volunteers do what they do.

- US Western Wildfires of 2018: [Carr wildfire](#), [ARRL article](#), [Waccasassa Wildfire](#).
- Hurricanes [Katrina](#), [Rita](#), [Wilma](#), [Dolly](#), [Dennis](#), [Jeanne](#), [Ivan](#), [Frances](#), [Charley](#), [Isabel](#), [Sandy](#), [Irma](#), [Katia](#) and [Maria](#).
- [2015 NCC Disaster Preparedness FCC - 2017](#)

PASO 1: BAJA PROGRAMA WINLINK EXPRESS

User Programs



WINLINK
Global Radio EmailSM

> My Account > Tools > News > Positions > **User Programs** > Book of Knowledge > Download > Support

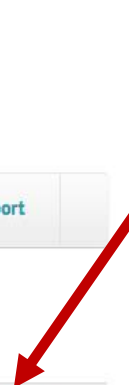
Winlink is...
...a worldwide radio email service that uses radio pathways where the internet is not present, and

Ham Radio Equipment for Emergency Communication Delivered in Honduras
On August 27 the Honduras National

Fast Info...

- Support Winlink: [Register](#) your program
- [Lost Registration Key?](#) [Log in](#). It's on your

WINLINK EXPRESS



WINLINK
Global Radio EmailSM

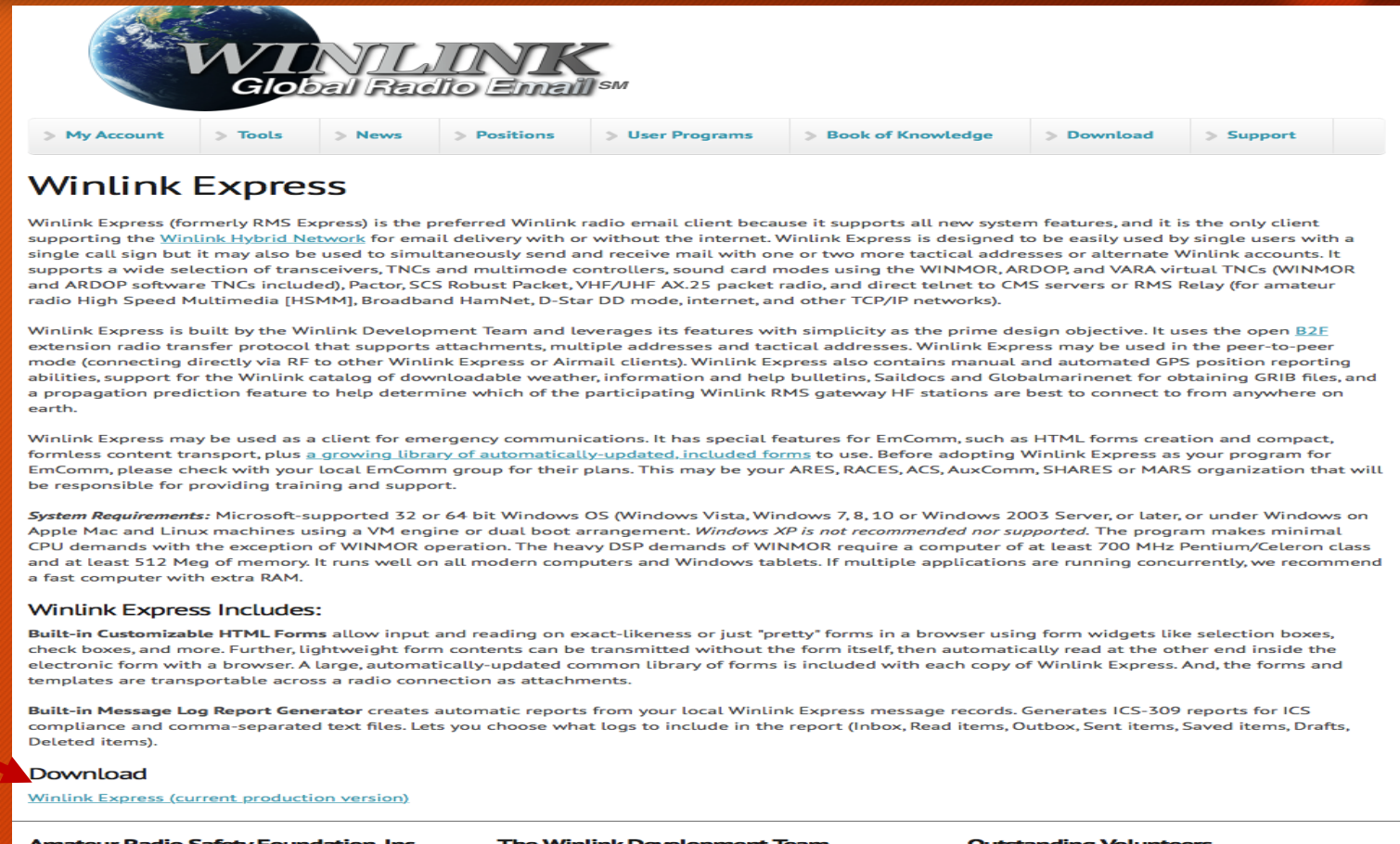
> My Account > Tools > News > Positions > **User Programs** > Book of Knowledge > Download > Support

Compare Client Programs

Programs (Download)-> Features below	Outpost	AirMail	Pat	Paclink-Unix	Paclink	Winlink Express
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PASO 1: BAJA PROGRAMA WINLINK EXPRESS

BAJA PROGRAMA WINLINK EXPRESS



The screenshot shows the Winlink Express website. At the top is the logo for Winlink Global Radio Email SM, featuring a globe. Below the logo is a navigation menu with links: My Account, Tools, News, Positions, User Programs, Book of Knowledge, Download, and Support. The main content area is titled "Winlink Express" and contains several paragraphs of text describing the software. A red arrow points from the text "BAJA PROGRAMA WINLINK EXPRESS" to the "Download" section of the page.

Winlink Express

Winlink Express (formerly RMS Express) is the preferred Winlink radio email client because it supports all new system features, and it is the only client supporting the [Winlink Hybrid Network](#) for email delivery with or without the internet. Winlink Express is designed to be easily used by single users with a single call sign but it may also be used to simultaneously send and receive mail with one or two more tactical addresses or alternate Winlink accounts. It supports a wide selection of transceivers, TNCs and multimode controllers, sound card modes using the WINMOR, ARDOP, and VARA virtual TNCs (WINMOR and ARDOP software TNCs included), Pactor, SCS Robust Packet, VHF/UHF AX.25 packet radio, and direct telnet to CMS servers or RMS Relay (for amateur radio High Speed Multimedia [HSMM], Broadband HamNet, D-Star DD mode, internet, and other TCP/IP networks).

Winlink Express is built by the Winlink Development Team and leverages its features with simplicity as the prime design objective. It uses the open [B2E](#) extension radio transfer protocol that supports attachments, multiple addresses and tactical addresses. Winlink Express may be used in the peer-to-peer mode (connecting directly via RF to other Winlink Express or Airmail clients). Winlink Express also contains manual and automated GPS position reporting abilities, support for the Winlink catalog of downloadable weather, information and help bulletins, Saildocs and Globalmarinenet for obtaining GRIB files, and a propagation prediction feature to help determine which of the participating Winlink RMS gateway HF stations are best to connect to from anywhere on earth.

Winlink Express may be used as a client for emergency communications. It has special features for EmComm, such as HTML forms creation and compact, formless content transport, plus [a growing library of automatically updated, included forms](#) to use. Before adopting Winlink Express as your program for EmComm, please check with your local EmComm group for their plans. This may be your ARES, RACES, ACS, AuxComm, SHARES or MARS organization that will be responsible for providing training and support.

System Requirements: Microsoft-supported 32 or 64 bit Windows OS (Windows Vista, Windows 7, 8, 10 or Windows 2003 Server, or later, or under Windows on Apple Mac and Linux machines using a VM engine or dual boot arrangement. *Windows XP is not recommended nor supported.* The program makes minimal CPU demands with the exception of WINMOR operation. The heavy DSP demands of WINMOR require a computer of at least 700 MHz Pentium/Celeron class and at least 512 Meg of memory. It runs well on all modern computers and Windows tablets. If multiple applications are running concurrently, we recommend a fast computer with extra RAM.

Winlink Express Includes:

Built-in Customizable HTML Forms allow input and reading on exact-likeness or just "pretty" forms in a browser using form widgets like selection boxes, check boxes, and more. Further, lightweight form contents can be transmitted without the form itself, then automatically read at the other end inside the electronic form with a browser. A large, automatically updated common library of forms is included with each copy of Winlink Express. And, the forms and templates are transportable across a radio connection as attachments.

Built-in Message Log Report Generator creates automatic reports from your local Winlink Express message records. Generates ICS-309 reports for ICS compliance and comma-separated text files. Lets you choose what logs to include in the report (Inbox, Read items, Outbox, Sent items, Saved items, Drafts, Deleted items).

Download

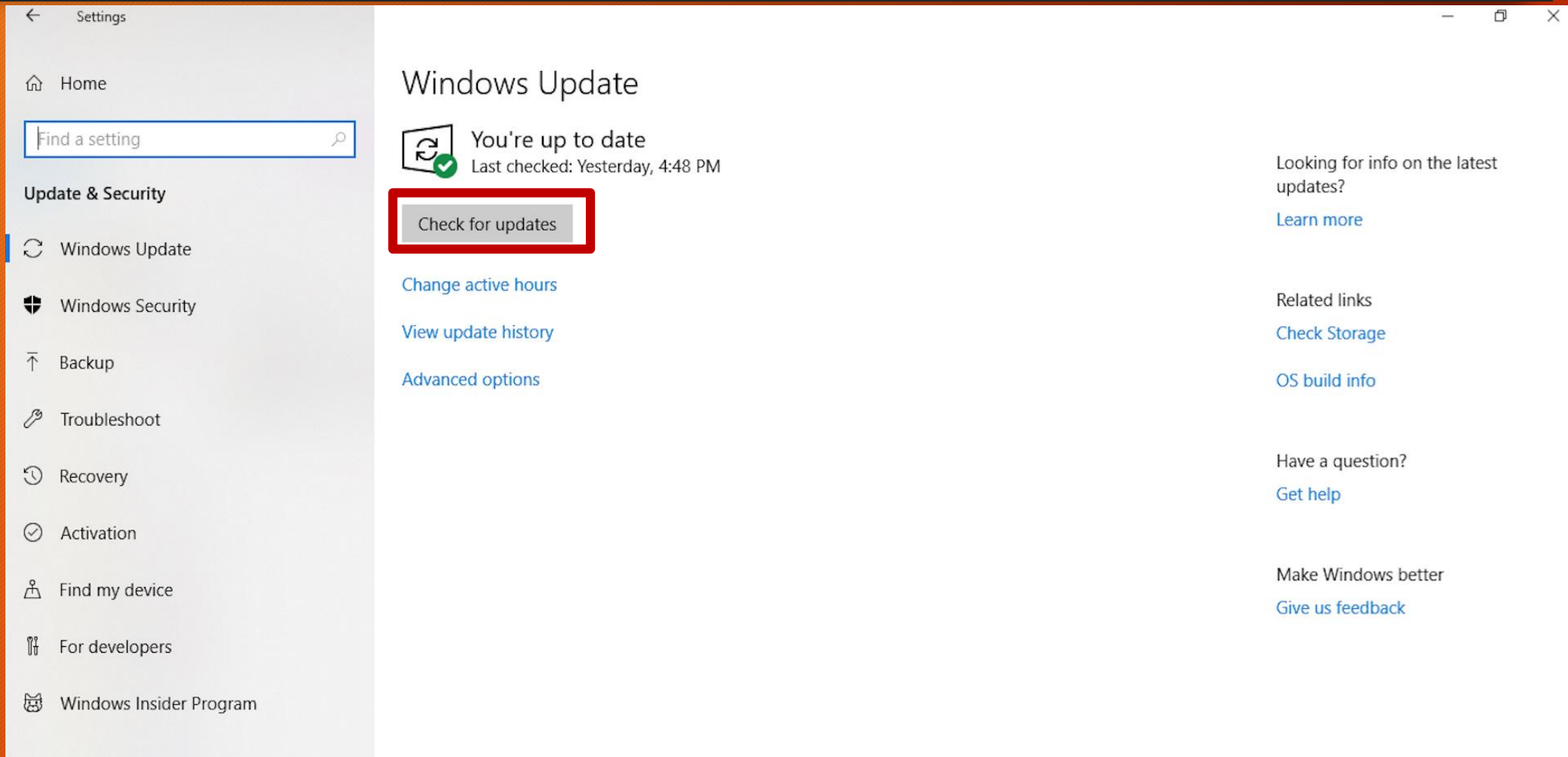
[Winlink Express \(current production version\)](#)

Amateur Radio Safety Foundation, Inc. The Winlink Development Team Outstanding Volunteers

Arquitectura de Winlink (envío email)



Paso 3 - Actualiza sistema operativo de tu computadora (update window).



The screenshot shows the Windows Settings application. On the left, the 'Settings' sidebar is visible with 'Update & Security' selected. Under 'Update & Security', 'Windows Update' is highlighted. The main content area displays the 'Windows Update' page. At the top, it says 'You're up to date' with a green checkmark icon and 'Last checked: Yesterday, 4:48 PM'. Below this, the 'Check for updates' button is highlighted with a red rectangular box. Other options include 'Change active hours', 'View update history', and 'Advanced options'. On the right side, there are links for 'Learn more', 'Check Storage', 'OS build info', 'Get help', and 'Give us feedback'.

Settings

Home

Find a setting

Update & Security

- Windows Update
- Windows Security
- Backup
- Troubleshoot
- Recovery
- Activation
- Find my device
- For developers
- Windows Insider Program

Windows Update

You're up to date
Last checked: Yesterday, 4:48 PM

Check for updates

[Change active hours](#)

[View update history](#)

[Advanced options](#)

Looking for info on the latest updates?
[Learn more](#)

Related links
[Check Storage](#)
[OS build info](#)

Have a question?
[Get help](#)

Make Windows better
[Give us feedback](#)

INSTALANDO EL SOFTWARE WINLINK EXPRESS

Then complete the following steps:

2. Unzip the contents to a directory you can find again, then go to that directory.

3. Run the .msi file to properly install the program. Follow the onscreen directions.

4. Complete documentation is contained in the help file with the .chm extension. Simply click to open it, or use the program's help menu. Refer to the "Setup" section of the help file for detailed configuration information.

Other Files:

(See your client program's help files for information.)

New_itshfbc_161207.exe -- Propagation engine software.

(needed for a new Express install on a computer that does not have this program)

RMS_Link_Test_install_x-x-xx-x.zip -- Contained in most WL2K software packages. It's here as a separate utility.

WinRAR, winzip: Programas para descomprimir archivos

Paso 4 - Instala programa RMS Express

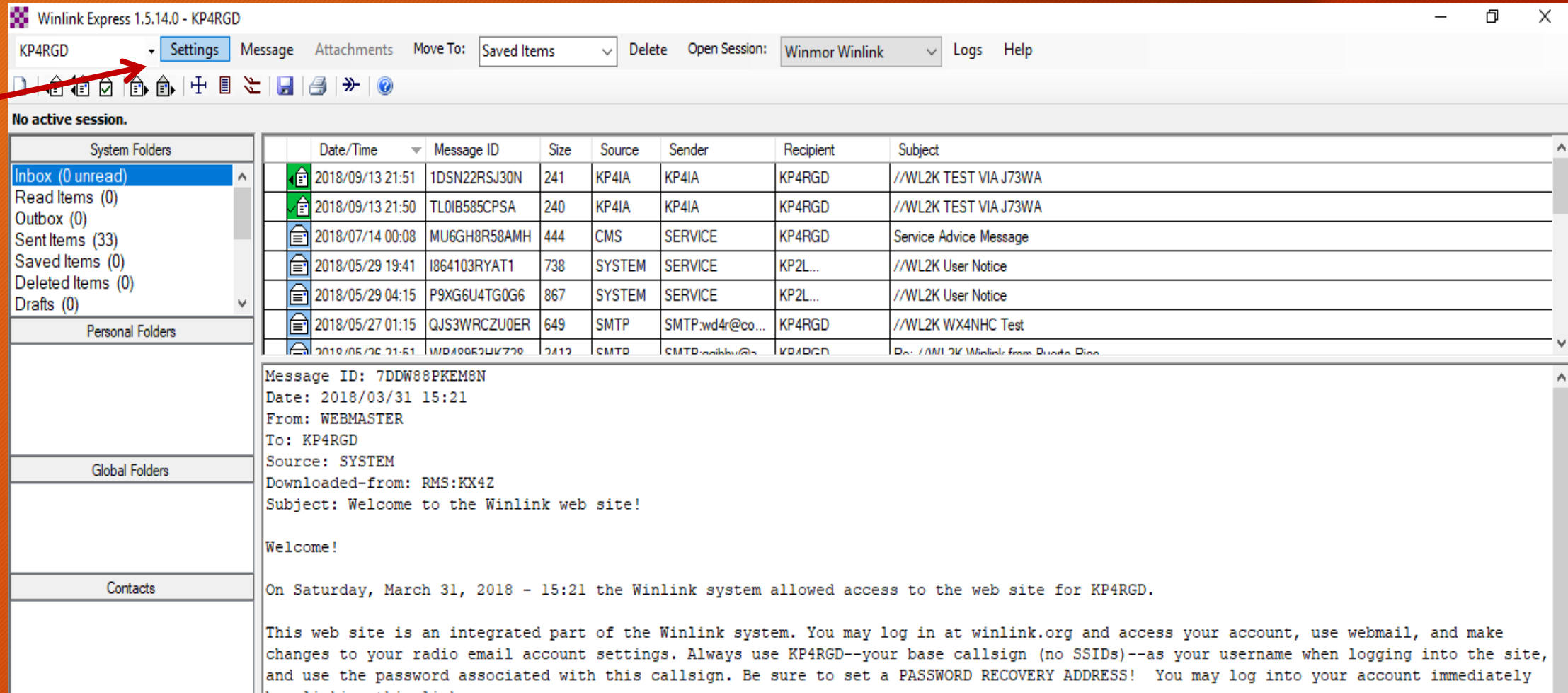
Una vez descargados los instalas y creas un "Shutcut" en el escritorio, (Desktop). Ya completada la instalación vamos a ejecutar **"RMS Express"**



Baja software Winlink Express. El archivo se llama Winlink Express Install xxxx.zip, donde 'xxxx' significa la version actual del programa.

Paso 5 - Abre programa RMS Express

Luego
abrir
Settings



Winlink Express 1.5.14.0 - KP4RGD

KP4RGD Settings Message Attachments Move To: Saved Items Delete Open Session: Winmor Winlink Logs Help

No active session.

	Date/Time	Message ID	Size	Source	Sender	Recipient	Subject
	2018/09/13 21:51	1DSN22RSJ30N	241	KP4IA	KP4IA	KP4RGD	//WL2K TEST VIA J73WA
	2018/09/13 21:50	TL0IB585CPSA	240	KP4IA	KP4IA	KP4RGD	//WL2K TEST VIA J73WA
	2018/07/14 00:08	MU6GH8R58AMH	444	CMS	SERVICE	KP4RGD	Service Advice Message
	2018/05/29 19:41	I864103RYAT1	738	SYSTEM	SERVICE	KP2L...	//WL2K User Notice
	2018/05/29 04:15	P9XG6U4TG0G6	867	SYSTEM	SERVICE	KP2L...	//WL2K User Notice
	2018/05/27 01:15	QJS3WRCZU0ER	649	SMTP	SMTP:wd4r@co...	KP4RGD	//WL2K WX4NHC Test
	2018/05/26 21:51	WPA09F3UV729	2412	SMTP	SMTP:webbu@...	KP4RGD	Re: //WL2K Winlink from Puerto Rico

Message ID: 7DDW88PKEM8N
Date: 2018/03/31 15:21
From: WEBMASTER
To: KP4RGD
Source: SYSTEM
Downloaded-from: RMS:KX4Z
Subject: Welcome to the Winlink web site!

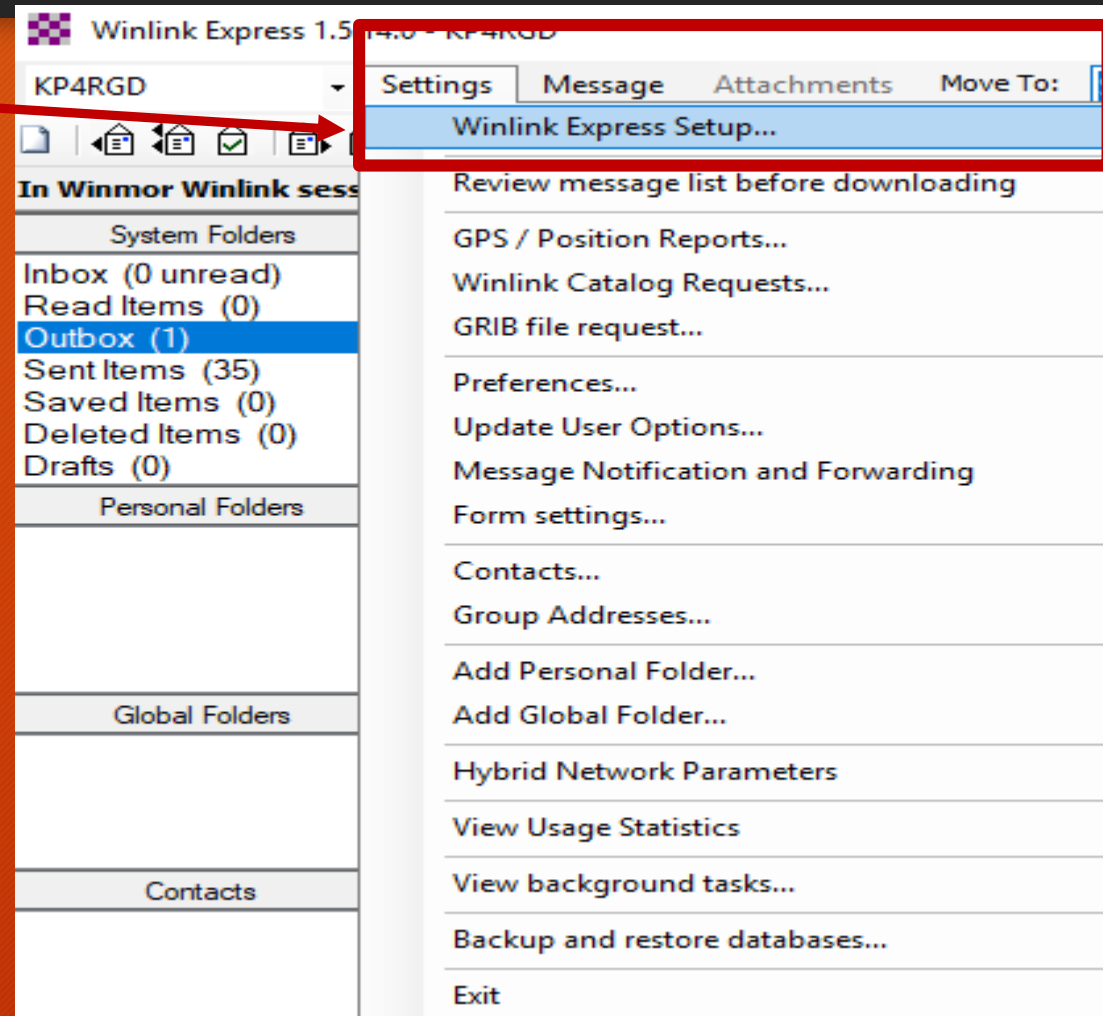
Welcome!

On Saturday, March 31, 2018 - 15:21 the Winlink system allowed access to the web site for KP4RGD.

This web site is an integrated part of the Winlink system. You may log in at winlink.org and access your account, use webmail, and make changes to your radio email account settings. Always use KP4RGD--your base callsign (no SSIDs)--as your username when logging into the site, and use the password associated with this callsign. Be sure to set a PASSWORD RECOVERY ADDRESS! You may log into your account immediately by clicking this link:

Paso 6 - Configura programa RMS Express

“Settings-Winlink Express”



Paso 6 - Configura programa RMS Express

“Settings-Winlink Express Properties”: Configura programa RMS Express (escribe tu información, indicativo, email, password, grid, etc).

Dale click a “update” para guardar información

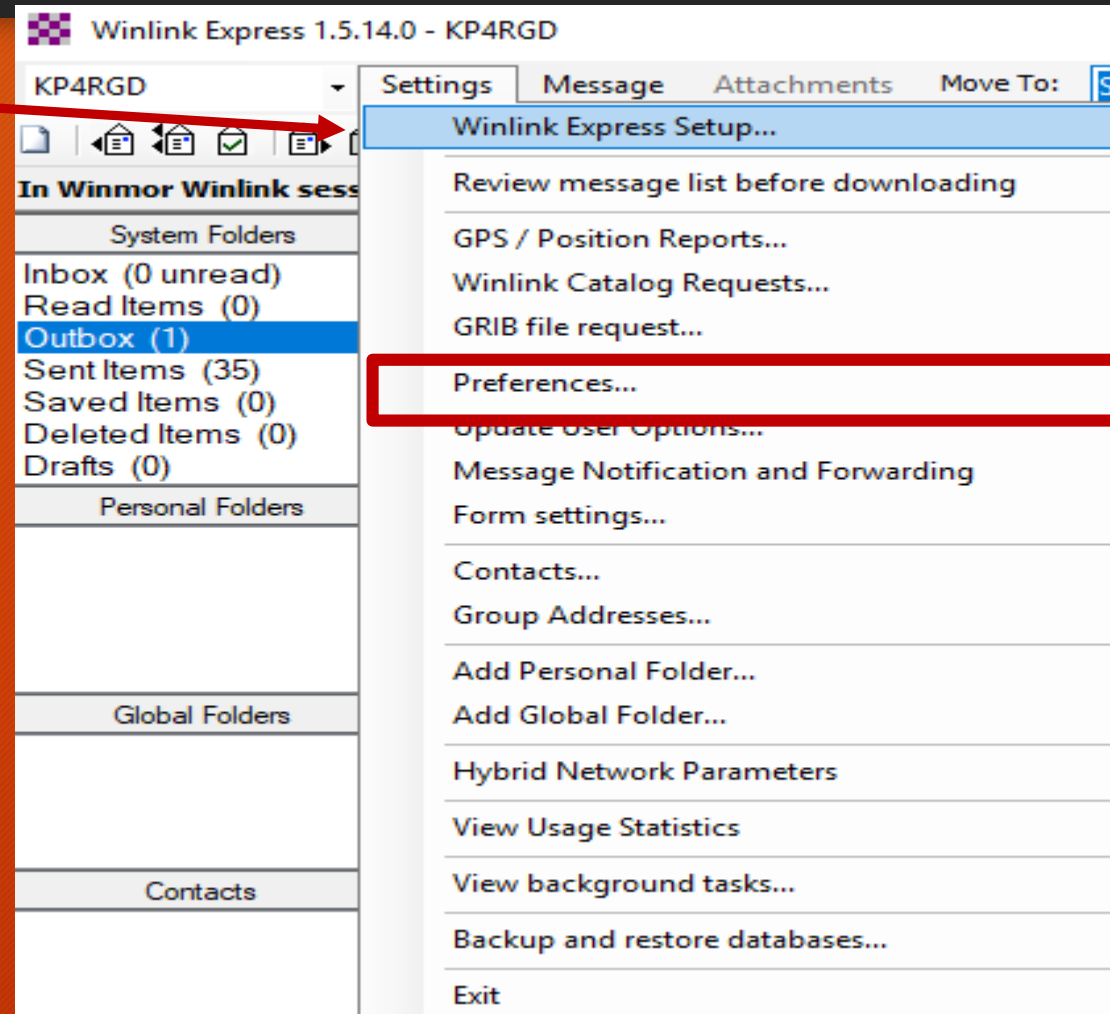
The screenshot shows the 'Winlink Express Properties' dialog box. Several sections are highlighted with red boxes:

- Call Signs:** My Callsign: My Password: (Case sensitive) Show password
Callsign suffix (optional): (Used for country code)
Password recovery e-mail: (Non-Winlink e-mail address where lost password will be sent when requested)
- Contact Information (Optional):**
Name:
Street address 1:
Street address 2:
City:
State/Province:
Country:
Postal code:
Web Site URL (optional):
Phone number:
Non-Winlink e-mail:
- Additional information (optional):**
- My Grid Square:**
Winlink Express registration key:
Path to propagation forecast program:
Service Codes:
(Use PUBLIC for ham call signs. Separate multiple service codes by spaces.)
If you change service codes, you must update the list of channels.
- Recalculate HF path quality if SFI changes more than:**
Keep logs for weeks. Keep deleted messages for days.
 Display list of pending incoming messages prior to download
 Warn about connections to stations holding messages
 Allow diagnostic information to be sent to the Winlink Development Team
 Automatically install field-test (beta) versions of Winlink Express

At the bottom, there are and buttons. A red arrow points from the text 'Dale click a “update” para guardar información' to the 'Update' button.

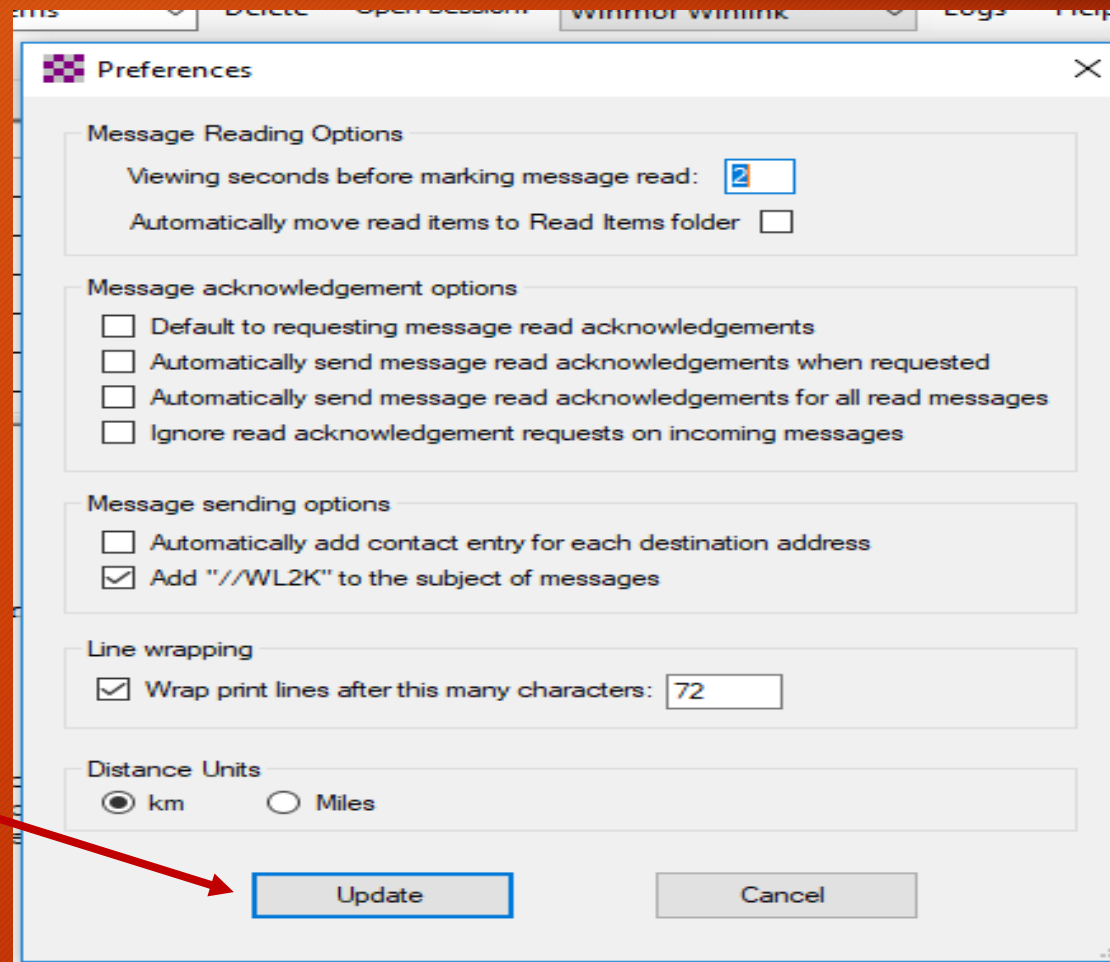
Paso 6 - Configura programa RMS Express

“Settings”-Preferences”



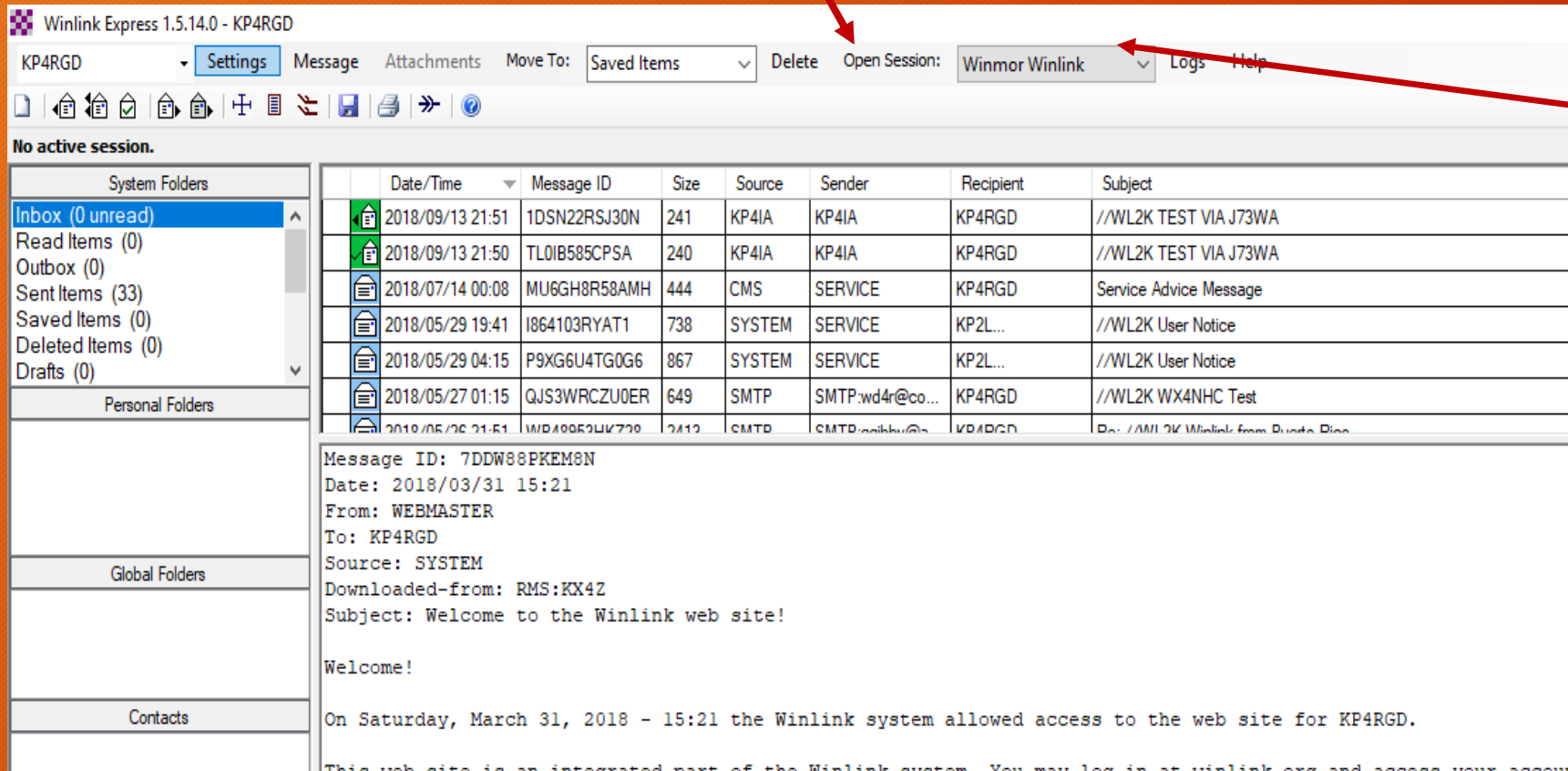
Paso 6 - Configura programa RMS Express

“Settings” -
Preferences” -
Selecciona “Add
//WL2K to the subject
of messages”



Paso 6 -Configura “Winmore Winlink”

Oprime “Open Session”



The screenshot shows the Winlink Express 1.5.14.0 interface for user KP4RGD. The top menu bar includes 'Settings', 'Message', 'Attachments', 'Move To: Saved Items', 'Delete', 'Open Session: Winmor Winlink', 'Logs', and 'Help'. A red arrow points to the 'Open Session' button. Below the menu is a toolbar with various icons. The main area displays a message list with columns for Date/Time, Message ID, Size, Source, Sender, Recipient, and Subject. The selected message is from WEBMASTER to KP4RGD, dated 2018/03/31 15:21, with the subject 'Welcome to the Winlink web site!'. The message content includes a welcome message and information about the Winlink system access.

Date/Time	Message ID	Size	Source	Sender	Recipient	Subject
2018/09/13 21:51	1DSN22RSJ30N	241	KP4IA	KP4IA	KP4RGD	//WL2K TEST VIA J73WA
2018/09/13 21:50	TL0IB585CPSA	240	KP4IA	KP4IA	KP4RGD	//WL2K TEST VIA J73WA
2018/07/14 00:08	MU6GH8R58AMH	444	CMS	SERVICE	KP4RGD	Service Advice Message
2018/05/29 19:41	I864103RYAT1	738	SYSTEM	SERVICE	KP2L...	//WL2K User Notice
2018/05/29 04:15	P9XG6U4TG0G6	867	SYSTEM	SERVICE	KP2L...	//WL2K User Notice
2018/05/27 01:15	QJS3WRCZU0ER	649	SMTP	SMTP:wd4r@co...	KP4RGD	//WL2K WX4NHC Test
2018/05/26 21:51	WPA498534K728	2412	SMTP	SMTP:webbu@...	KP4RGD	Re: //WL2K Winlink from Puerto Rico

Message ID: 7DDW88PKEM8N
Date: 2018/03/31 15:21
From: WEBMASTER
To: KP4RGD
Source: SYSTEM
Downloaded-from: RMS:KX4Z
Subject: Welcome to the Winlink web site!

Welcome!

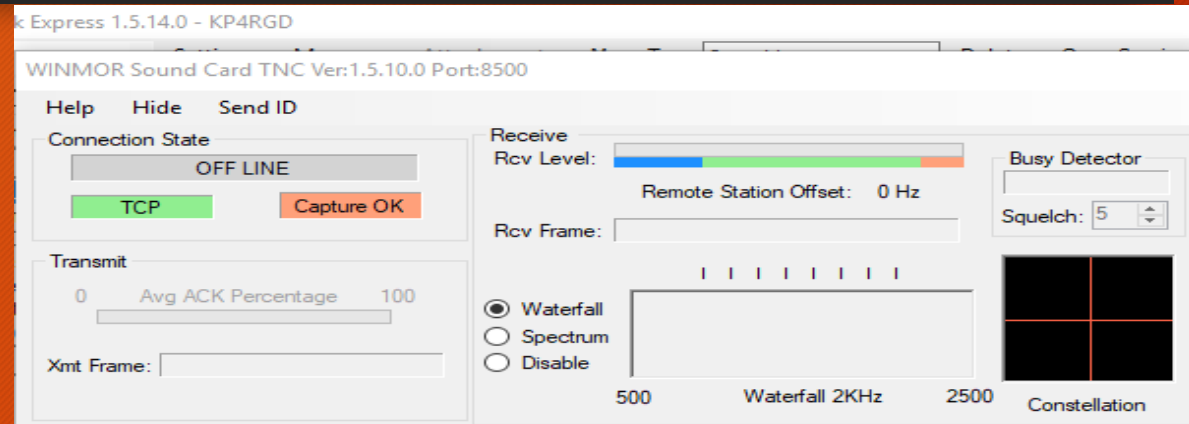
On Saturday, March 31, 2018 - 15:21 the Winlink system allowed access to the web site for KP4RGD.

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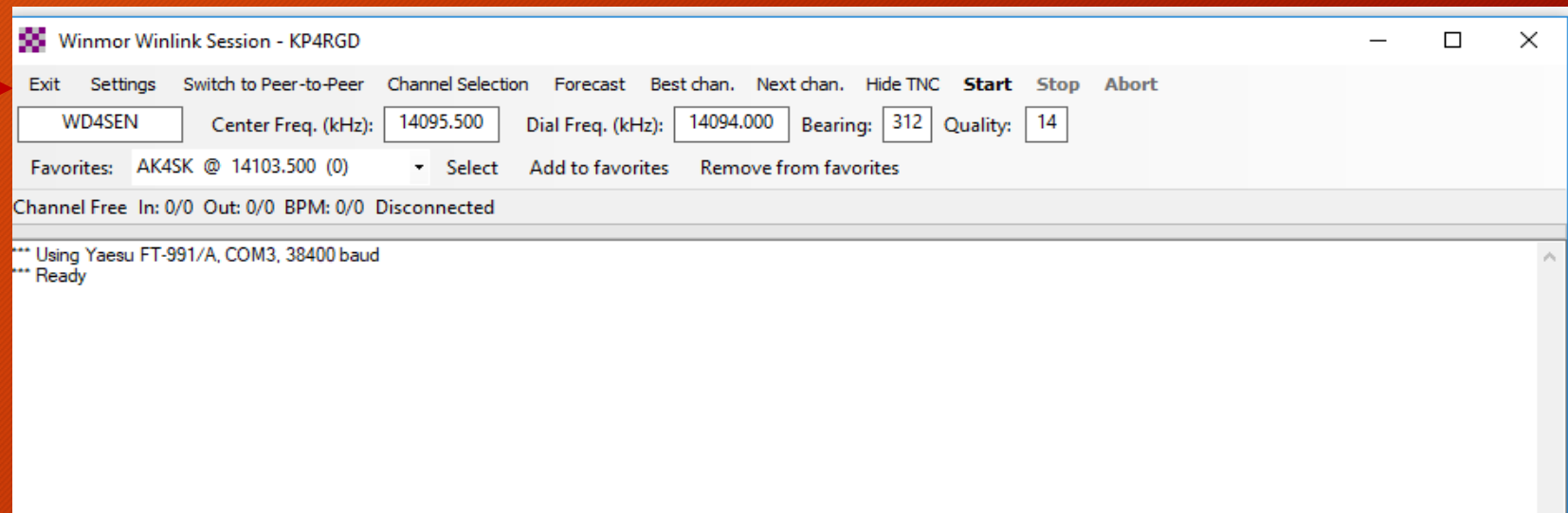
Oprime “Open Session” para abrir ventanas de configuración de radio y selección de frecuencia a comunicarse.

Paso 6 - Configura "Winmore Winlink"

Se abren dos ventanas
1. Winmor Sound Card...

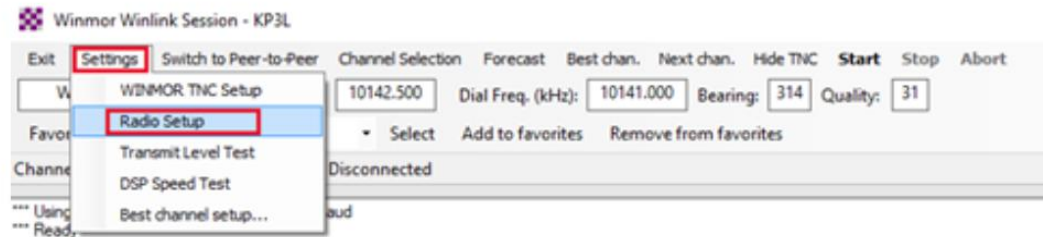


2. Winmore
Winlink Session
-Tu indicativo

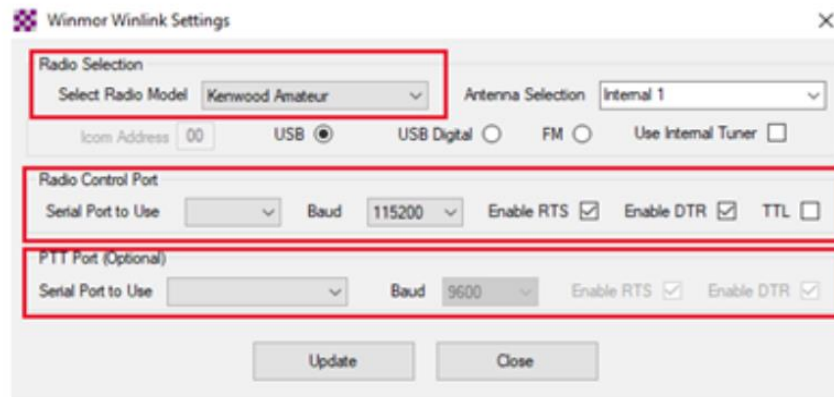


Paso 6 - Configura “Winmore Winlink Session”

La otra pantalla es la principal de “Winmor” en donde se configura el radio que vamos a usar.



En el menú “Radio Steup” se configura según el radio que se use, (referirse al manual del radio para conectar entre la computadora y el radio).



Paso 6 - Configura “Winmore Winlink Session”

“Settings-Radio Setup:”
Vea manual de su radio y puerto que esta conectado cable interfase, entre radio y computadora. Oprime “update” para guardar información.

Winmor Winlink Settings

Radio Selection

Select Radio Model: Yaesu FT-991/A

Antenna Selection: Default

Icom Address: 00

USB USB Digital FM Use Internal Tuner

Radio Control Port

Serial Port to Use: [Dropdown]

Baud: 38400

Enable RTS Enable DTR TTL

PTT Port (Optional)

Serial Port to Use: [Dropdown]

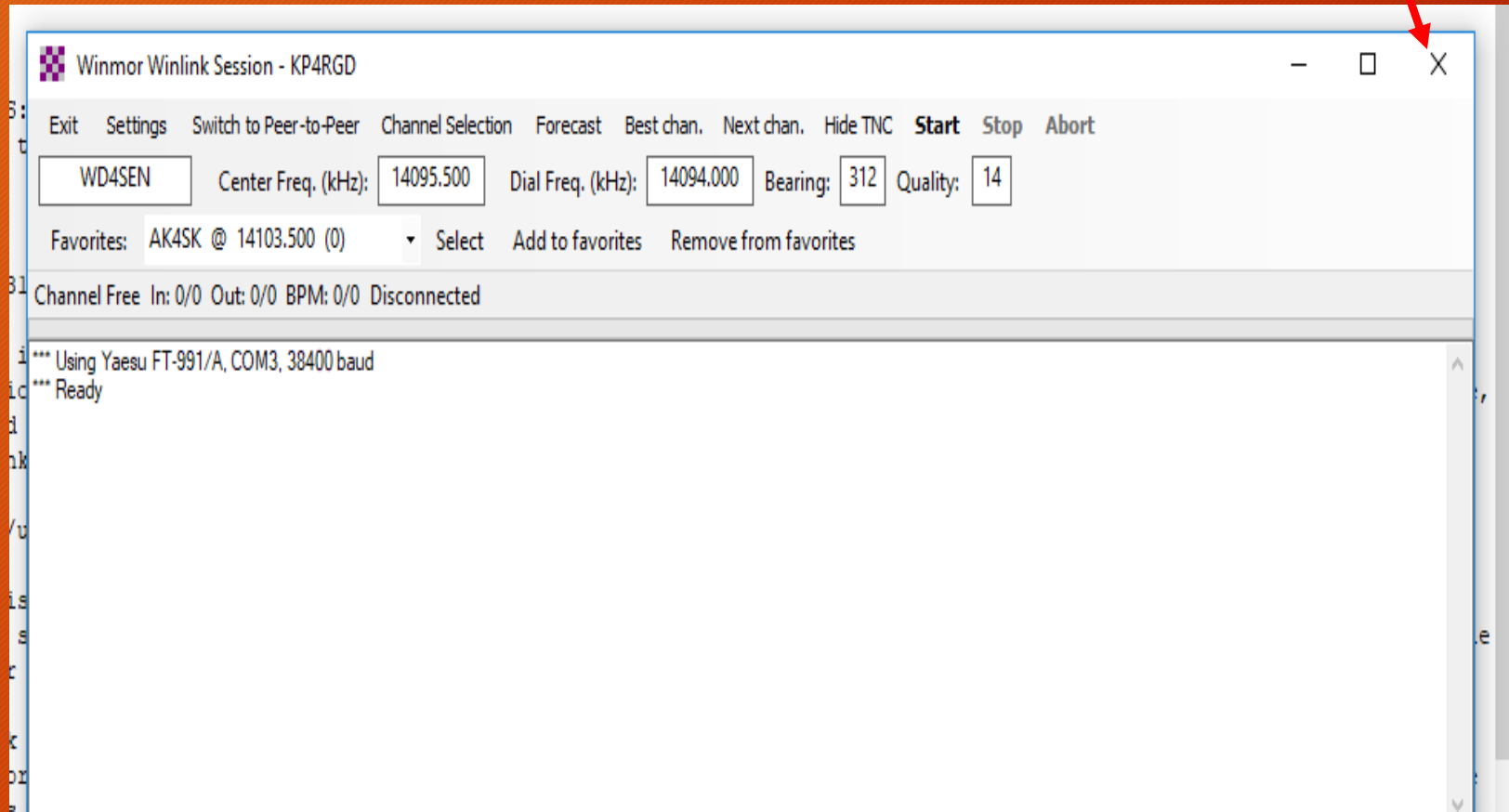
Baud: 9600

Enable RTS Enable DTR

Update Close

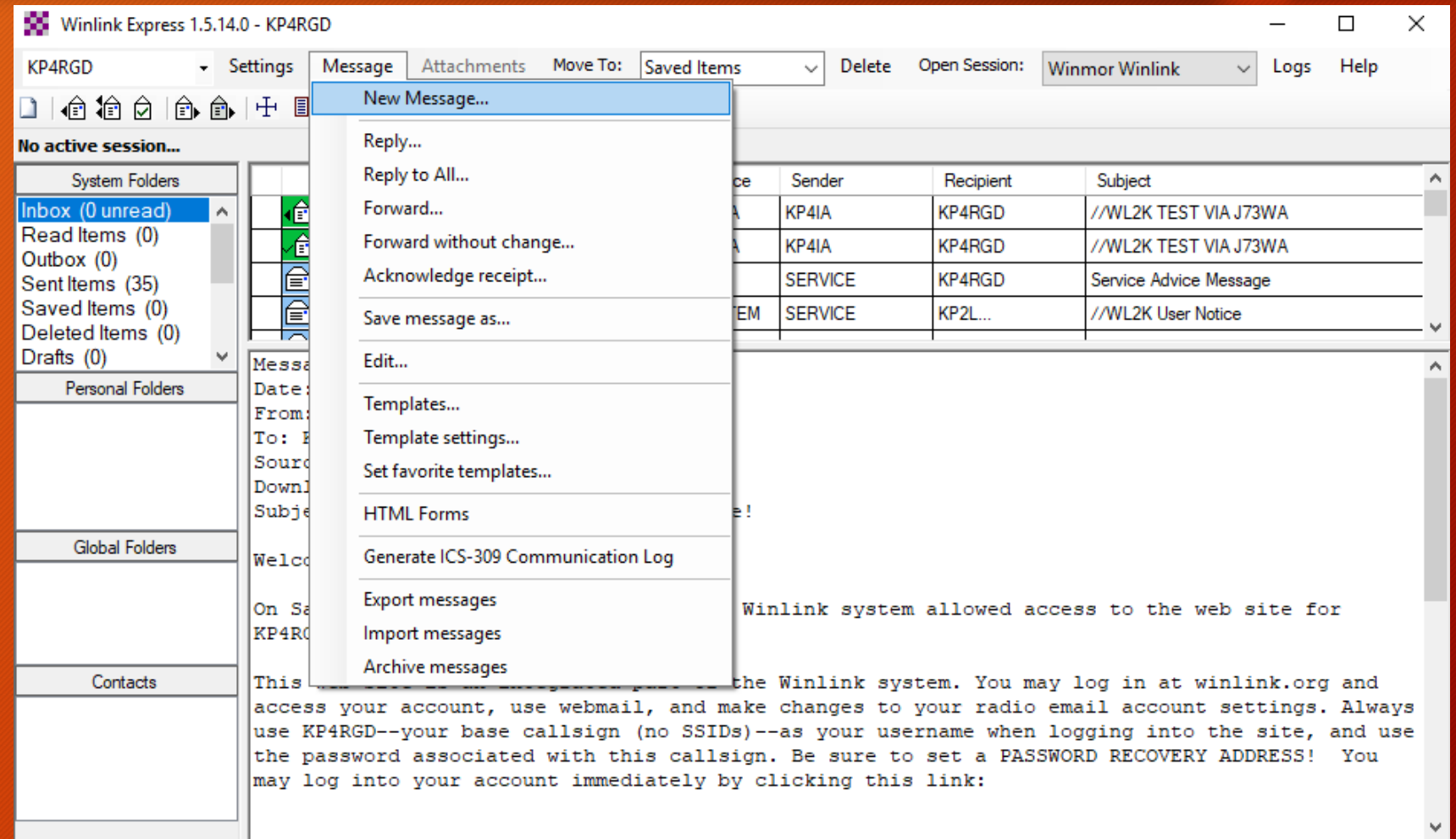
Paso 7 - Redactar y enviar mensaje

Cierre
ventanas de
configuración
para trabajar
en redacción
de mensaje.



Paso 7 - Redactar y enviar mensaje

Ventana de mensajes. Oprima “Message” y seleccione “New Message”



Paso 7 - Redactar y enviar mensaje

To: Destinatario
Subject: Asunto
Attach: Aneje documento o foto (envíe foto de baja resolución)
Redacte mensaje. Puede seleccionar “Request read receipt” para acuse de recibo. Oprima “Post to Outbox” para envío una vez conecte su radio a la otra emisora.

Enter a new message Attach: Aneje documento o foto

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

From: KP4RGD Send as: Winlink Message Request read receipt Set Defaults

To:

Cc:

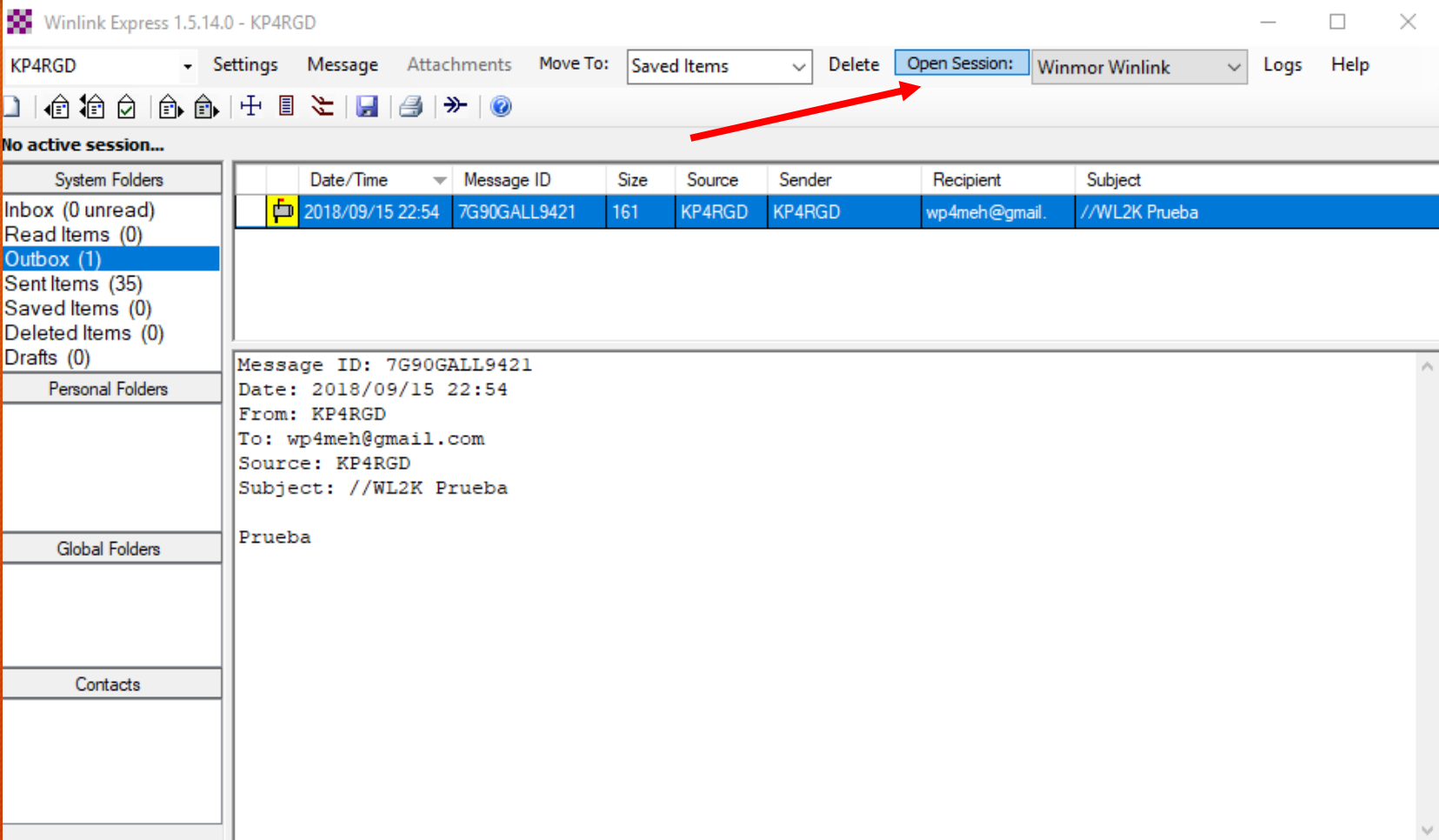
Subject:

Attach:

Redacte mensaje

Paso 7 - Redactar y enviar mensaje


Oprima “Open Session” para seleccionar ventanas de “Winmor Winlink”



Winlink Express 1.5.14.0 - KP4RGD

KP4RGD Settings Message Attachments Move To: Saved Items Delete **Open Session:** Winmor Winlink Logs Help

No active session...

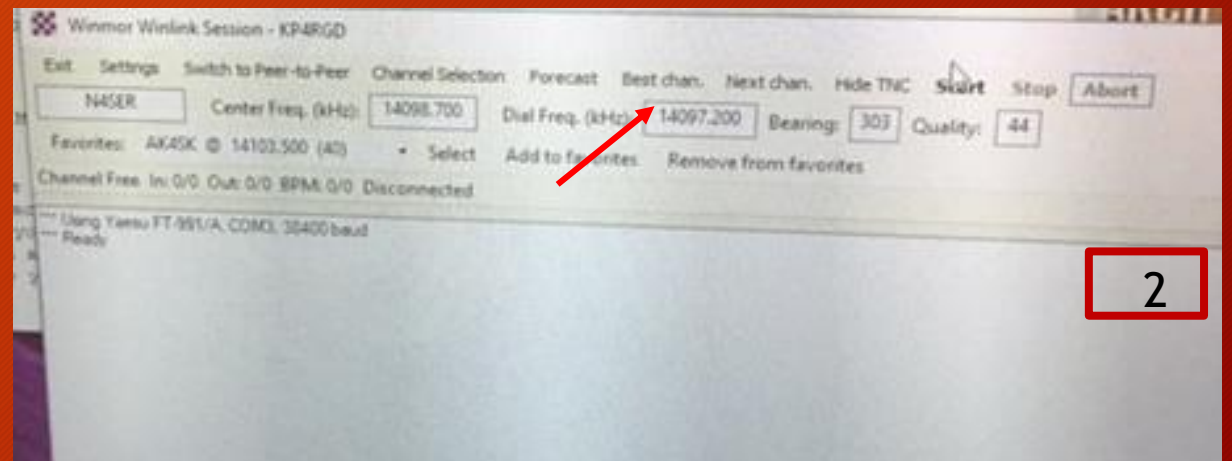
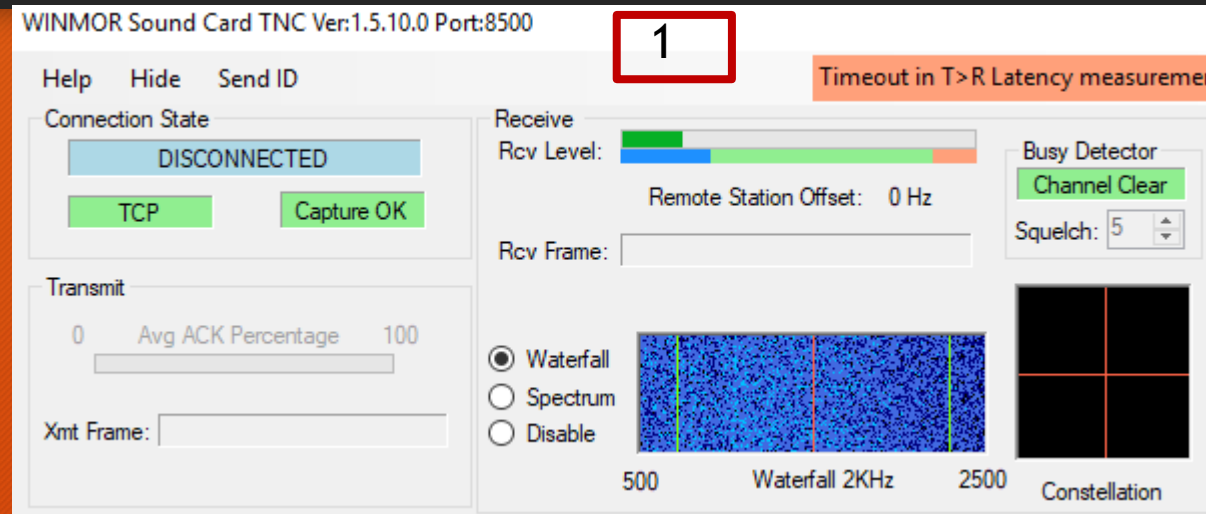
	Date/Time	Message ID	Size	Source	Sender	Recipient	Subject
	2018/09/15 22:54	7G90GALL9421	161	KP4RGD	KP4RGD	wp4meh@gmail.	//WL2K Prueba

Message ID: 7G90GALL9421
Date: 2018/09/15 22:54
From: KP4RGD
To: wp4meh@gmail.com
Source: KP4RGD
Subject: //WL2K Prueba

Prueba

Paso 7 - Redactar y enviar mensaje

Aparecen dos nueva ventanas “Winmor Winlink:” 1. una tiene cascada de recepción y 2. la otra, la de selección de frecuencia donde transmitirá mensaje.



Paso 7 -----Redactar y enviar mensaje

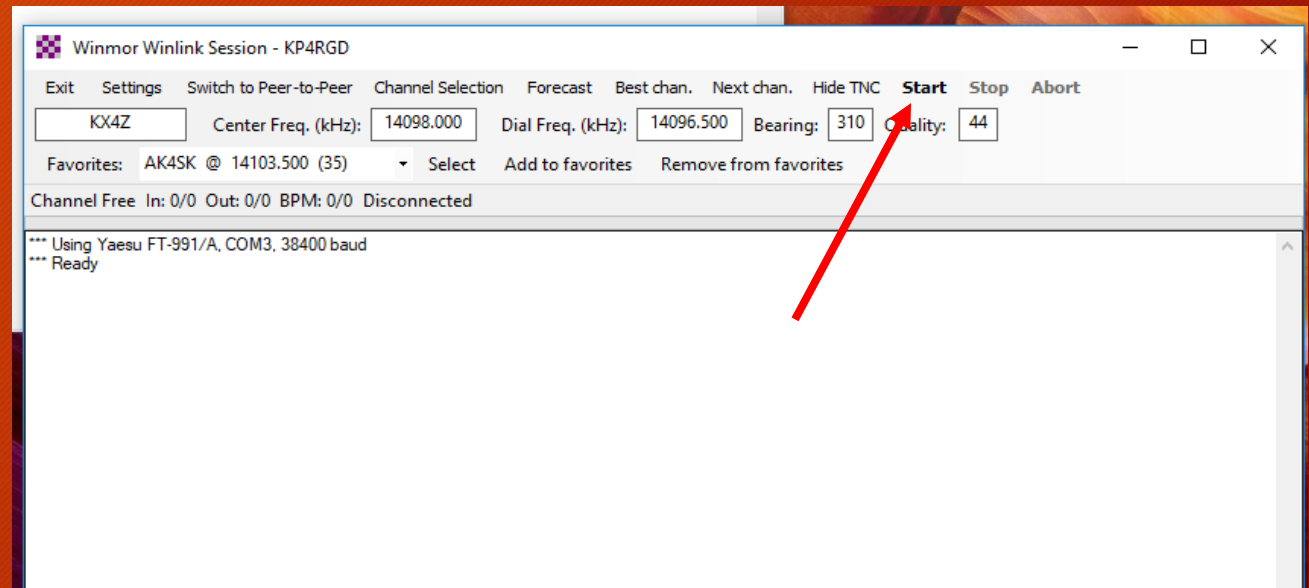
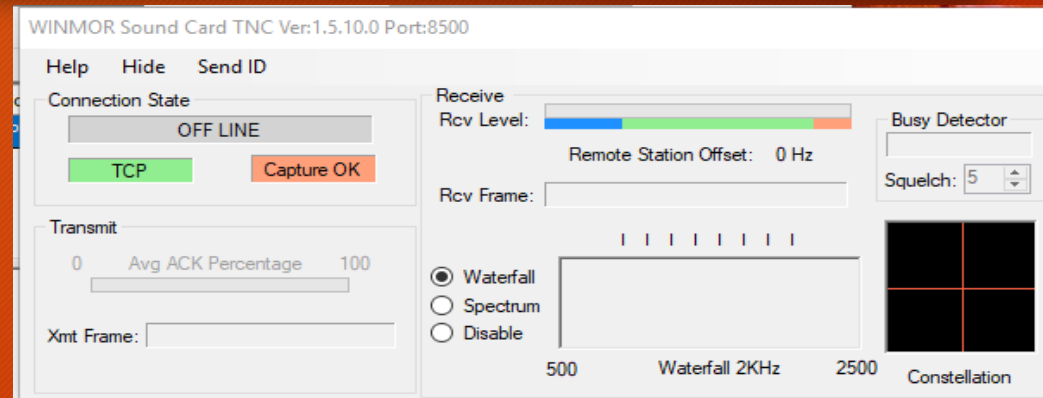
En la tabla de las frecuencias “Channel Selector,” oprima “Update Table Via Internet.” (actualiza emisoras que están a su alcance). Seleccione (doble clic encima de callsign seleccionado). Recuerde escoger frecuencias sombreadas en verde. No olvide “tunear” antena con frecuencia seleccionada.

Callsign	Frequency (kHz)	Mode	Grid Square	Hours	Group	Distance (km)	Bearing (Degrees)	Path Reliability Estimate	Path Quality Estimate
AK4SK	14103.500	1600	EM60VL	13-00	PUBLIC	2432	307	50	40
N4BTA	14110.500	1600	EM74UB	00-23	PUBLIC	2505	317	50	40
KI4WPI	7103.200	1600	EL96UF	00-23	PUBLIC	1699	303	56	41
KX4Z	10141.500	1600	EL89RQ	00-23	PUBLIC	2085	310	64	43
KX4Z	14098.000	1600	EL89RQ	10-23	PUBLIC	2085	310	65	43
WD4SEN	10142.500	1600	EM90CC	00-23	PUBLIC	2051	312	65	44
N4SER	10146.000	1600	EL87SH	00-23	PUBLIC	1945	303	66	44
WD4SEN	14095.500	1600	EM90CC	00-23	PUBLIC	2051	312	66	44
N4SER	14098.700	1600	EL87SH	00-23	PUBLIC	1945	303	67	44
KK4SIH	14160.000	1600	EM70VN	00-23	PUBLIC	2272	310	67	44
XE3N	14104.500	1600	EL60LP	00-23	PUBLIC	2211	280	68	44
KI4WPI	10142.500	1600	EL96UF	00-23	PUBLIC	1699	303	70	45
N4SER	18107.000	1600	EL87SH	00-23	PUBLIC	1945	303	74	47
J73WA	7069.000	1600	FK95GN	22-10	PUBLIC	582	123	84	49
J73WA	7104.000	1600	FK95GN	10-23	PUBLIC	582	123	84	49

Paso 7 - Redactar y enviar mensaje

Asegúrese de que su radio está sintonizado en la frecuencia seleccionada “Dial Freq. (KHz).” No olvide “tunear” antena con frecuencia seleccionada.

Oprima “Start” y listo. Lea información en ventana de la frecuencia contactada para saber si se conectó a la emisora seleccionada y si recibió su mensaje



PIZZA TIME!



Referencias

- <http://www.winlink.org>
- <http://www.kp4net.org>