

Clatsop Winlink Net Plan

Participant Manual



The Clatsop Winlink Net is an exercise of the Clatsop County Auxiliary Communications.

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EMAIL 1: WINLINK NET INVITATION

This is an invitation.

If you live in Clatsop County or Southwest Washington, at least part of your interest in Amateur Radio is for “**When All Else Fails**”. *When all else fails*—be it The Big One, a Coastal Gale, a Fire, or anything that cuts power and telecommunications—we want to be able to communicate for ourselves, our community, and in the service of our Emergency Management System at the county Emergency Operation Centers (EOC) or at local Incident Command Centers (ICC).

Emergency Communication takes two critical forms: voice and data. There are numerous local and regional Nets that exercise our voice communication skills. Most of us participate in one or more. However, **when all else fails, data communication is critical** – absolutely necessary – in accessing the resources from county, state and national agencies. Currently, there is not a Net in Clatsop County to develop and exercise our data communication skills.

We are starting a data Net utilizing Winlink Express. Winlink Express is currently the program of choice for local and regional agencies. We are inviting you to become proficient in data communication over Winlink. We want to eliminate every obstacle that would keep you from participating in our Winlink Net.

For starters, the only piece of equipment you need is a computer connected to the internet. You do not even need a radio to develop and exercise the skills that will allow you serve at an EOC or ICC when all else fails. Of course, owning the radio set up (and some other equipment) will allow you to serve *wherever* you are. We can discuss that later.

Next, you will need to install the Winlink Express program to your computer. If you have difficulty with the installation, we will talk you through it, meet somewhere with your notebook computer, or if your computer is not portable, we will come to your house. We will get it done.

Finally, there will not be a set time for the Winlink Net. We will send you an email each time and you need to respond within the following few days whenever it is convenient, morning, noon or night.

We need you to develop these skills. Therefore, I am not going to ask you to opt in. You can opt out, of course . . . I guess . . . but I don't know why you would at this point.

We are going to take this in steps.

- The first step is this invitation.
- The second step will be an email to talk you through setting up Winlink on your computer. If you like to figure out things on your own, don't wait on me. Go to downloads.winlink.org - / and click [User Programs](#).
- The third step will be an email to kick off the Winlink Net. It will include all the instructions you need to execute a Winlink communication over your internet connection.
- Starting with the fourth step, we will work on the radio link, if you are up to it.

Step by step. Please join us on this journey to prepare for "***When All Else Fails***".

AG7JJ Jeff
Net Control
Clatsop Winlink Net

P.S. If you have any questions, send them to ClatsopWinlinkNet@gmail.com .

P.S.S. If you are already up and running on Winlink, and are willing and able to mentor others, please let me know at ClatsopWinlinkNet@gmail.com .

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EMAIL 2: CREATING A WINLINK ACCOUNT

We hope you are ready for the second step on this journey to prepare for “**When All Else Fails**”. It is a giant step, but we have worked hard to make the instructions comprehensive. If we missed something, or if we are confusing, let us know. We want you to understand and we want to fix the instructions for those who join us later.

Let's get started.

System Requirements

If you do not already have a Winlink account, then you will first need to install Winlink and create a Winlink account.

You don't need the most up to date computer, but there are some *System Requirements*:

- *Windows XP or earlier Operating Systems (OS) are not supported.*
- **It runs well on all modern computers and Windows tablets.**
 - Microsoft-supported 32- or 64-bit Windows OS (Windows Vista, Windows 7, 8, 10, (or Windows 2003 Server, or later)
 - On Apple Mac and Linux machines, you will need to use a VM (virtual machine) engine or dual boot arrangement.
 - The program makes minimal CPU demands.
 - * *Optional Info: If you progress into using WinLink over radio waves, and your radio requires using a sound card modem, then there will be higher demands. The Digital Signal Processing (DSP) demands of these modes require a computer of at least 700 MHz Pentium/Celeron class and at least 2GB of memory. If you don't understand, don't worry about it, unless you plan to buy a new computer to do Winlink over the radio waves (e.g., Packet Winlink, VARA, Pactor, etc.)*
 - If multiple applications are running concurrently, we recommend a fast, late-model computer with 2-4GB RAM or more.

Installing Winlink on your Computer

1. Open your internet browser (e.g., Chrome, Bing, Firefox).
2. Type **downloads.winlink.org** / into the Search window and press enter.
3. Click [User Programs](#).
4. Click on the zip file that looks similar to the one below. (The Date, Time, Number and Version Number will be different, but the among the list you want the *Winlink Express Install*.)
6/3/2023 6:41 PM 39941650 Winlink_Express_install_1-7-6-0.zip.
5. It may automatically place it in your computer's **Downloads** folder. Find the file. (If it gives you a choice, save the zip file on your Desktop. You can delete it later.)

6. Open the **Winlink_Express_install** that you just downloaded, for example,



Winlink_Express_install_1-7-6-0.zip

Unless your computer savvy, save the file where it recommends.

7. Open the zip file. On the menu bar and click **Extract All**. It will create the file **Winlink_Express_install.exe** which will look something as this:



Winlink_Express_in
stall.exe

8. Open (double- click) the **Winlink_Express_install.exe**.
9. Your Windows Defender SmartScreen will complain, as may other security programs. You will need to grant permissions to proceed.



10. In the Windows Defender SmartScreen pop-up window, select “**More Info**” The screen will change to this:



11. Click “**Run anyway.**”
You may encounter other queries from any anti-virus program you are running. Grant permission.
12. Check the “**Create a desktop shortcut**” unless you know you really don’t want and can find the program with the short cut. You can delete the shortcut later.
13. The Winlink Express Installation will begin. Accept its recommendations. Click all the “**Next**” and Click “**Install.**”
14. When installation is complete, it will open the program and you can proceed with the set-up.
15. If the “register” pop up appears, click “**Remind me later**”.

Setting Up Your Account

1. Go to **Settings**, then click "**Winlink Express Setup**".
2. Enter your **Call Sign**
3. Create a **Password (6-12 Characters)**. Write it down somewhere.
4. Leave **Callsign suffix** blank.
5. Enter a **Recovery email**, your common everyday email address. This is important in case you forget your password.
6. Ignore **Auxiliary Call Signs and Tactical Addresses**
7. You can find your **Grid Square** at https://www.levinecentral.com/ham/grid_square.php
 - Ignore and do not click the Open or View Manual buttons (these are third party ads).
 - Work just with this box:

Amateur Radio Ham Radio Maidenhead Grid Square Locator Map

Enter any address, city & state or zip:

or Enter any call sign: Data provided by QRZ.com

or Enter any a 4 or 6 character grid square:

[?? How does this work? Why doesn't this work? ??](#)

8. **Contact Information is optional.** You can add it now, return later, or never.
9. Leave remaining settings as is, unless you want to alter them.
10. **Click Update.**
11. **There an opportunity to make a donation.** You don't have, too, but why not if you can.
12. Now go back to "**Settings**" and click on "**Preferences**".
13. In the "**Message acknowledgement options**" section, make sure all checkboxes are not checked.
14. In the "**Distance Units**" section, select Miles.
15. **Click Update.**

You are now setup for TELNET operation. Telnet uses only the internet and does not require a TNC or radio.

How to start a Session and Confirming your Account Set-up

1. Click on the box next to "Open Session" and select the "**Telnet Winlink**" session from the drop-down list. (We'll learn about the other options later.)
2. Click on "**Open Session**". A new window will open.
3. Click "**Start**" and the session will run. The window will fill with some script.
4. Return to the first window.
5. Open the message from SERVICE with the subject 'Your New Winlink Account'
6. Follow the instructions to Confirm your Account Set-up, including entering the account password given in the message, without quotes, into the Winlink password setting.

Quick Start Guide

OK, now it's time to test it out before we start the exercise.

I would suggest pinning the Winlink icon to your taskbar. This is done by right clicking the red & white checkered icon and selecting "**Pin to Taskbar**". If you do this, you can delete the shortcut on the Desktop.

Let's send a simple message, no ICS forms or attachments, to Net Control and to your regular email (or anyone else you want to).

1. Click of the Winlink icon.
2. Click of the New Message icon (□) or select "**New Message**" from the Message dropdown on the Menu Bar. An "**Enter Message**" Window will open.
3. The "Enter Message" Window looks like a normal Email message.
4. Enter **AG7JJ** in the "**To:**" box
5. Enter your standard email address in the "**Cc:**" box. Winlink **does not allow** you to send a Winlink message to your own Winlink address, even if you enter it as a standard email address, e.g., AG7JJ@winlink.org.
6. Click "**Post to Outbox**" on the "Enter new message" Menu Bar.
7. In the Winlink Express window, in the box to the right of "**Open Session**", select the session-type you will use to transmit the message. For this Winlink session use "**Telnet Winlink**" through your internet provider.
8. Click "**Open Session**"
9. For a Telnet Winlink session, just click "**Start**".
10. The Telnet Winlink Session box will confirm how many messages were sent and how many were received along with other data. You will see that the Outbox is empty and your Sent Items will have increased by the number of messages sent.
11. Net Control will reply to you and you can check regular email for your message. It can take a few minutes.

There! That's wasn't (too) hard . . . was it??

EMAIL 3: WINLINK NET PARTICIPANT INSTRUCTIONS

This is an exercise to emulate the sending of Incident Command System (ICS) forms. These are how our Emergency Management Team makes formal reports and requests to the Oregon Emergency Management Team (or an Incident Command Team to the county EOC). You are not responsible for completing the form. This is done by the Incident Command Team. (You don't even have to understand it, but hopefully in time you will.) In this exercise, forms will be created by the Net Control, who may not even understand the form.

By your standard email address, you will receive an email from Net Control with an attachment or two. The first time, you will want to create a new folder on your Desktop (or wherever works for you) and title it "Radio Forms." This is a folder name used on the linked computers in some Emergency Operation Centers (EOC). The ICS Team will save the files they want you to send to the Radio Forms folder. In other settings, they will be passed to you on a USB Thumb Drive. The "Radio Forms" folder you create will simulate these.

Save the attachments to your Radio Forms folder, and note the ICS form number, for example, ICS201 or ICS217. This is the form you are being requested to send in that particular month's exercise.

Sending ICS Forms

Open Winlink Express

Select Message > New Message from the Menu Bar or the New Message icon (□).

Click Select Template from the Menu Bar.

Click the + next to Standard Templates

Click the + next ICS USA Forms

Double Click file name that corresponds with the attachment you just download to the Radio Forms folder.

Your internet browser will open and display a blank ICS form. Again, make sure the form number corresponds with the form number of the file you downloaded.

If the ICS Form has a "Set Up" button in the upper lefthand corner, click it. Some forms do not have this button. Don't worry about it, perhaps they will appear (or disappear) in future form updates.

Your first time the newly opened window will be blank. For our exercises, you can enter Clatsop Winlink Net: THIS IS ONLY AN EXERCISE. Generally, you would enter the name of the agency you are serving, e.g., "Clatsop County Emergency Management." This can be saved.

In the future, open set up to ensure the information is accurate for the service you are providing.

Click on "Load ICS### data" at the top of the form and your file manager will open.

Find your Radio Forms folder, e.g., C:\Desktop\Radio Forms.

Double click the appropriate ICS test file for this exercise or select it and click Open. This action will automatically fill in the information prepared by the ICS Team member.

Double-check that the form header identifies the sending agency. Your Emergency Manager or Incident Commander will guide you. For our exercises, I will, hopefully, remember to always send the form with the header reading: **Clatsop Winlink Net – THIS IS AN EXERCISE.**

Click “Submit” at the bottom of the form.

If there is missing information, the program will tell you and you will fill it in or ask ICS Team Member. It may ask for the number of “IAP Pages”, or date and time (Click on the Date/Time Box accept the suggested date and time. If this does not correspond to the actual date and time then your computer clock needs to be corrected. This would be unusual.) Click “Submit” again.

Click **OK and Close the open browser window.** This will place the form’s information in a simple text format in the message box of the email and attach a viewer.xml file to the message that can be opened by the receiver of this transmission.

If there are further attachments to be sent with the message, **click on Attachments on the “Enter new message” Menu Bar.** This will only be on occasion for these exercises.

Ignore the file already listed in the Attachments window, and

Click on “Add” on the Attachments Menu Bar.

Double click on the additional attachment.

Click on “Finished” on the Attachments Menu Bar.

These additional attachments must be as small as they can be. Even an additional 8Kb can slow down and jam up the transmission. PNG files tend to be half of size as JPG and PDF files. We have work to do to determine the best file format for sending images.

NOTE: For the inaugural exercise and some of the following exercises, there are no additional attachments.

Enter the recipient’s email or Winlink address in the “To:” box. For the Winlink Net exercises, we will use the Winlink address **AG7JJ**. In a real-world event, the ICS Team will tell you where to send the message. It may be a standard email address, e.g., yadayadayada@yada.gov or a Call Sign.

Enter your standard email address in the Cc: box. Winlink **does not allow** you to send a Winlink message to your own Winlink address, even if you enter it as a standard email address, e.g., AG7JJ@winlink.org.

Click “Post to Outbox” on the “Enter new message” Menu Bar.

In the Winlink Express window, select the session-type you will use to transmit the message in the box to the right of “Open Session”. For these Winlink Nets from your home, you will use “Telnet Winlink” through your home internet provider. (If you have the radio equipment, you

should practice “Packet Winlink”, “Vara FM Winlink”, “Vara HF Winlink” or “Pactor Winlink”. Over the weeks and months to come, practice all session-type available to you.)

NOTE: At some of our EOCs, even if the land-based internet providers are out, you will still be using Telnet Winlink through satellite connections. So, all the skills you are developing up to this stage of the exercise will prepare you for either Telnet, Packet Winlink, Vara HF Winlink or Pactor Winlink operations in an emergency.

Click “Open Session”

If using Telnet Winlink, just click “Start”.

The Telnet Winlink Session box will confirm how many messages were sent and how many were received along with other data. You will see that the Outbox is empty and your Sent Items will have increased by the number of messages sent.

If using Packet Winlink, Vara FM Winlink, Vara HF Winlink or Pactor Winlink, check your settings and channel and click “Start”.

If your transmission is Successful, move on to [RECEIVING: Winlink Net Participant Instructions](#)

If your transmission is Unsuccessful, try again. . . and again. If still unsuccessful, please take a screen shot of your entire Winlink Session window, or cut and paste the whole picture into a standard email and send to ClatsopWinlinkNet@gmail.com . We will help you work it out.

Receiving Winlink Message and Delivering to ICS Team

In a real-world situation, you will be receiving ICS Forms and other Winlink messages that need to be passed on to the ICS Team. To simulate this, Net Control intends to reply to your transmission with a simple "Received" via Winlink. You will not see this until a future sign in.

In Winlink Express, **Select the session-type, click "Open Session", (check your settings, if necessary,) and click "Start".**

Your incoming messages will appear in your Inbox.

The first time you open a message with an ICS form, your Internet Browser will automatically open and display the received ICS form.

Subsequently, when you open the message, the text format of the message will open. If you want the view, save or print, the ICS Form format, click on the paperclip (□) to the left of the message.

Determine how your ICS Team wishes to receive messages; either printed or saved as PDF in a network folder or onto a USB Thumb Drive.

Click on the three dots (· · ·) displayed either horizontally or vertically depending on your browser.

To print a hard copy, select "Destination" or "Printer", depending on your Internet Browser.

- **Select a printer, then click on "Print" for a paper copy.**
- **To create a PDF, select "Microsoft Print to PDF", and Click "Print", or select "Save as PDF", and click "Save". Save to the desired location.**

IMPORTANT BONUS MATERIAL: Replying to a Winlink Message

When replying to a Winlink Message, send only the reply. Delete the previous message that is automatically copied into the message. Failure to do so, at best, ties up the frequency with an unnecessarily long message, and, at worst, can result in the message failing to be sent, because the system timed out or froze on the long message. The recipient will know what they asked you or they can look at their Sent Mail.

Resources for Understanding Winlink

Send further recommendations to ClatsopWinlinkNet@gmail.com

Winlink for Emergency Communicators: Beginners Workshop

<https://wavetalkers.com/resources/digital/winlink.php>

Quick Setup Guide: Packet Soundmodem (K6OLI)

https://wavetalkers.com/pdf/Soundmodem_K6OLI.pdf

Winlink Express Overview and Installation https://www.seapac.org/workshop-presentations_files/2023/3.%20SEA-PAC2023%20-Basic%20Winlink%20-%20AE7GQ.pdf

Advanced Winlink Operations

https://www.seapac.org/workshop-presentations_files/2023/5.%20SEA-PAC2023%20WINLINK%20II%20-%20KB7RHI.pdf

Advanced Winlink Features

https://www.seapac.org/workshop-presentations_files/2023/7.5SEA-PAC2023%20Advance%20Winlink%20Features%20Winlink%20Express%20-%20KH6FV.pdf

Vara FM Digital on Winlink Express

https://www.seapac.org/workshop-presentations_files/2023/8%20.SEA-PAC2023%20%20Vara%20FM%20presentation%20-KB7RHI.pdf