

Using Winlink for Emergency Communications

South Pasadena Amateur Radio Club November 6, 2019

SPARC's Goals

- Operators have necessary equipment, knowledge and experience to send digital traffic when needed in emergency situations
- Focus on Winlink
- Work one-on-one with operators who want to set up digital stations
- Provide regular exercises so all operators can develop and practice their skills



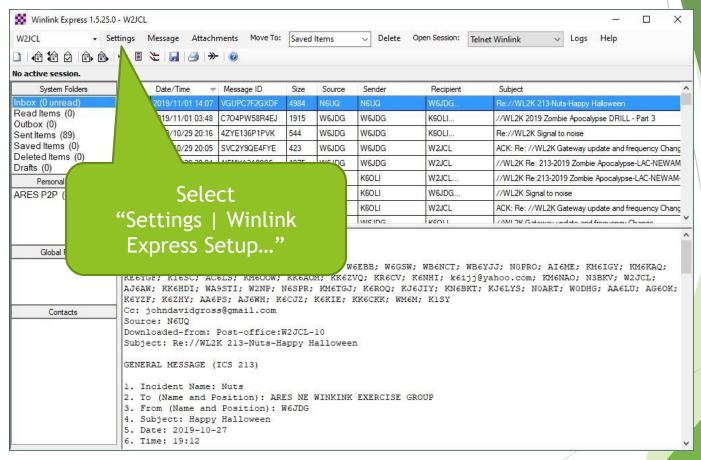
Winlink

- Computer application for sending email via radio
 - A valid amateur radio license is required to obtain a Winlink email account
- Built-in forms
 - ► ICS, ARRL
 - Custom
- Attachments
 - ► Text files (e.g., Excel CSV files)
 - Binary files (e.g., images)



Winlink Setup

Settings | Winlink Express Setup...





Winlink Setup

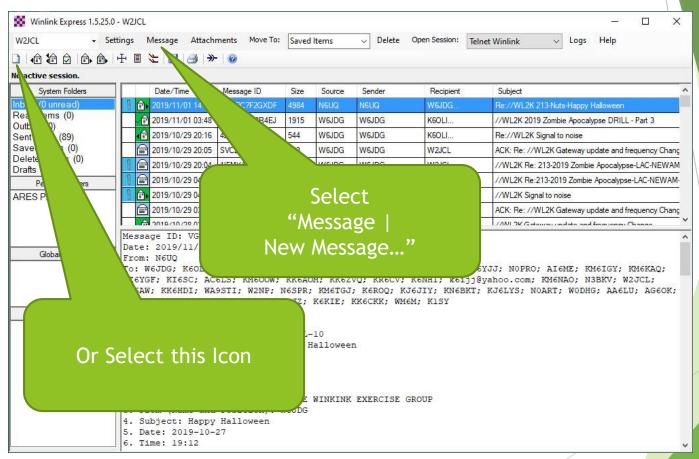
Settings | Winlink Express Setup...

| Winlink Express Properties | | | |
|---|---|--|----------------------------------|
| Call Signs My Callsign: W2 | ICI My Password: ••••• | Contact Information (Optional) | |
| Callsign suffix (optional): | (Case sensitive) Chow password | Name: | Jeffrey Liter |
| Calisign sumx (optional): | (Used for country code) | Street address 1: | 1964 Marengo Ave |
| Password recovery e-mail | iliter@icloud.com | Street address 2: | |
| | ss where lost password will be sent when requested) | City: | South Pasadena |
| Remove Callsign | Request password be sent to recovery e-mail | State/Province: | CA |
| | | Country: | USA |
| Auxiliary Callsigns and Tactica | Addresses | Postal code: | 91030 |
| -uxiliary Calisigns and Tactica | Add Entry | Web Site URL (optional): | www.w2jcl.net |
| | Remove Entry | Phone number: | 626-375-7383 |
| | Edit Entry | Non-Winlink e-mail: | jliter@icloud.com |
| 3 | , | Additional information (optional) | |
| My Grid Square: DM04W0 Winlink Express registration | Lat/Lon to Grid Square | | |
| Service Codes | | Recalculate HF path quality if SFI | changes more than: 30 |
| PUBLIC EMCOMM | | Keep logs for 2 🖨 weeks. | Keep deleted messages for 30 |
| | gns. Separate multiple service codes by spaces.) s, you must update the list of channels. | □ Display list of pending incoming ☑ Warn about connections to sta ☑ Allow diagnostic information to | |
| Upd | ate Cancel | ☑ Automaticaly install field-test (but | eta) versions of Winlink Express |



New Message

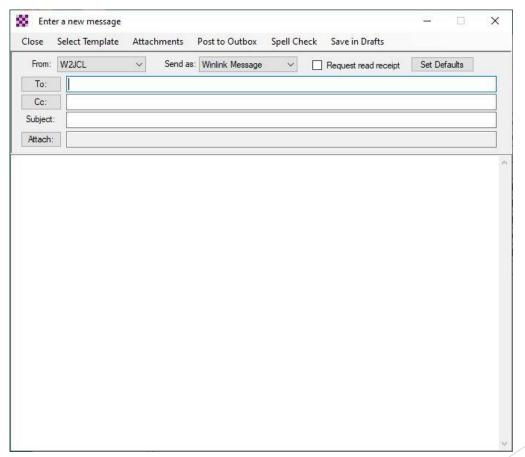
Message | New Message...





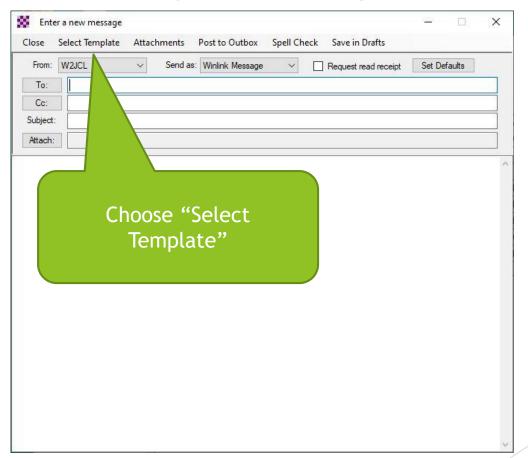
New Message

Message | New Message...



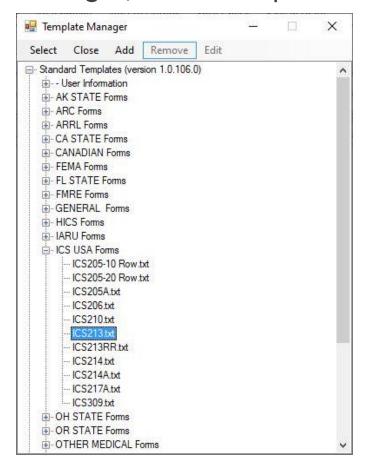


Enter a new message | Select Template





► Enter a new message | Select Template





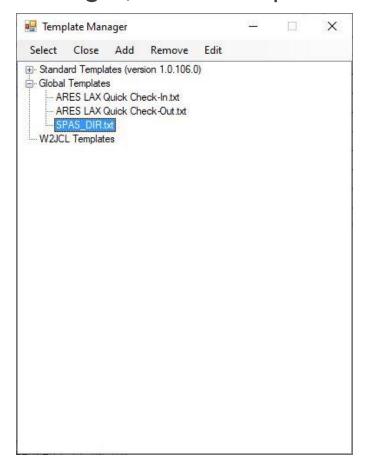
- Some useful forms:
 - GENERAL Forms
 - Damage Assessment
 - ► Race Tracker (AC 100)
 - Welfare Message
 - HICS Forms
 - ► HICS 213 (General Message)
 - ► HICS 254 (Patient Tracking)
 - ICS USA Forms
 - ► ICS 205 (Communications Plan)
 - ► ICS 213 (General Message)
 - ► ICS 214 (Activity Log)



- Some useful forms:
 - ► ARC Forms (American Red Cross)
 - ARRL Forms
 - RADIOGRAM RRI Forms
 - Radiogram
 - WEATHER Forms
 - Severe WX Report
 - Custom Forms
 - Check-in / Check-out
 - South Pasadena Disaster Information Report

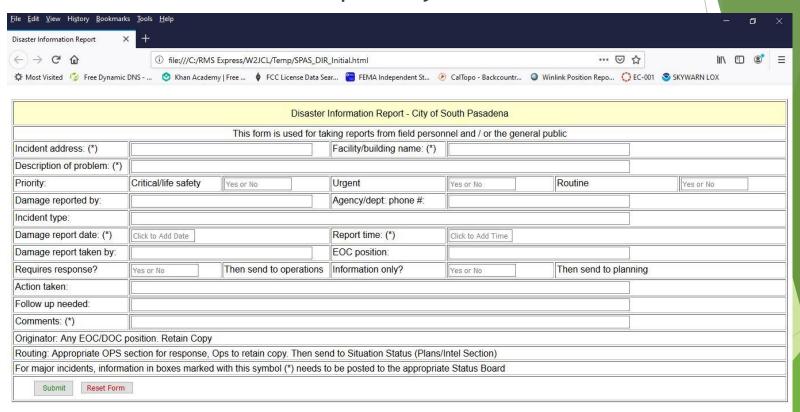


Enter a new message | Select Template



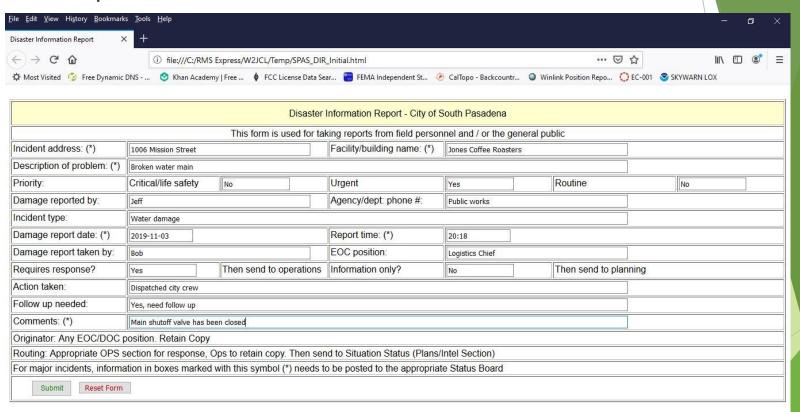


The selected Form will open in your web browser





Complete the Form then click "Submit"



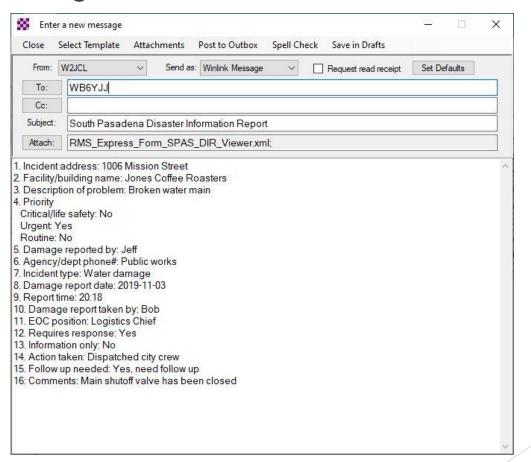


Click "Ok" then close the web browser

| <u>File Edit View History Bookmark</u> | s <u>T</u> ools <u>H</u> elp | - a × |
|--|--|--------------------------|
| Disaster Information Report > | (| |
| ← → G ® | ① file:///C:/RMS Express/W2JCL/Temp/SPAS_DIR_Initial.html ☑ ☆ | \ □ © ≡ |
| Most Visited 🧔 Free Dynamic | DNS 👲 Khan Academy Free 🛊 FCC License Data Sear 🖀 FEMA Independent St 🕖 CalTopo - Backcountr 🔘 Winlink Position Repo 🚺 EC-001 | SKYWARN LOX |
| | | |
| | Disaster Information Report - City of South Pasadena | |
| | This form is used for taking reports from field personnel and / or the general public | |
| Incident address: (*) | 1006 Mission Street Facility/building name: (*) Jones Coffee Roasters | |
| Description of problem: (*) | Broken water main | |
| Priority: | Critical/I | No |
| Damage reported by: | To complete your form submission, click OK and close the open browser window. You will return to the new message window so you can post your message to the outbox | |
| Incident type: | Water da | |
| Damage report date: (*) | 2019-11-1 OK Cancel | |
| Damage report taken by: | Bob | |
| Requires response? | Yes Then send to operations Information only? No Then send to planning | |
| Action taken: | Dispatched city crew | |
| Follow up needed: | Yes, need follow up | |
| Comments: (*) | Main shutoff valve has been closed | |
| Originator: Any EOC/DOC | NOOPEN NO | |
| 0 11 | section for response, Ops to retain copy. Then send to Situation Status (Plans/Intel Section) | |
| For major incidents, informa | ation in boxes marked with this symbol (*) needs to be posted to the appropriate Status Board | |
| Submit Reset Form | | |
| | | |
| | | |
| | | |



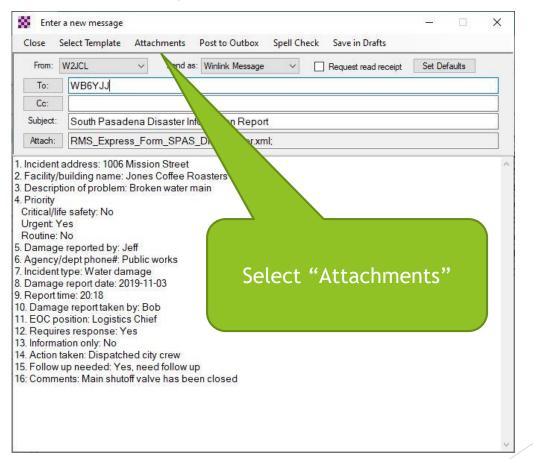
► The message will contain the Form data





Adding Attachments

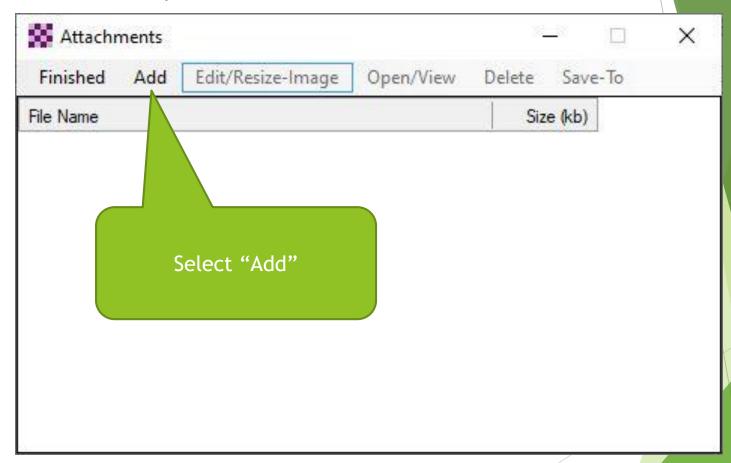
Enter a new message | Attachments





Adding Attachments

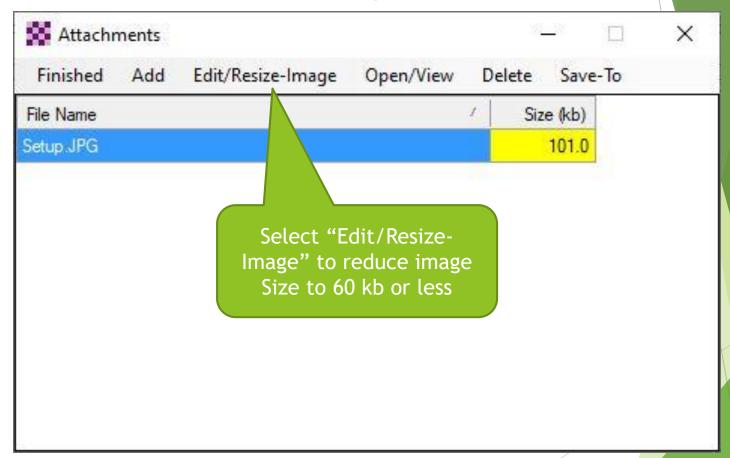
Attachments | Add





Adding Attachments

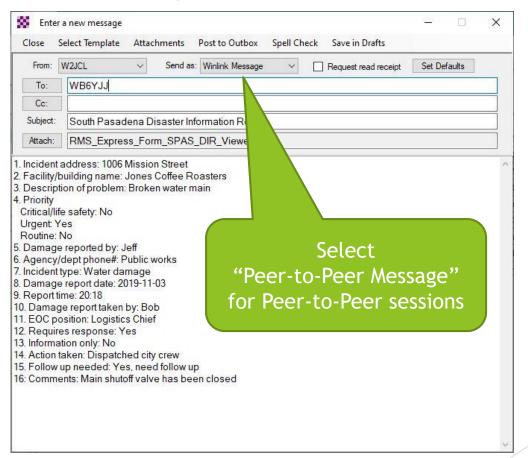
Attachments | Edit/Resize-Image





Gateway or Peer-to-Peer

Enter a new message | Send as...





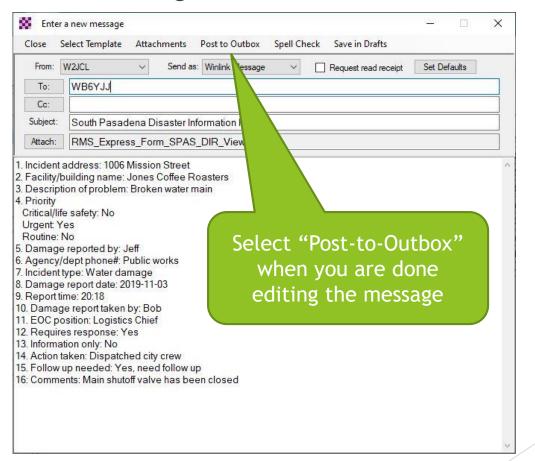
Gateway or Peer-to-Peer

- Messages can be exchanged either through a gateway or via a direct peer-to-peer connection
- A gateway is a station connected to one or more Common Mail Servers (CMS) in the "cloud"
 - ► The CMS servers allow messages to be exchanged via the internet to or from any email address
 - ▶ If the CMS servers cannot be reached, the gateway station can hold messages until they are picked up by the intended recipient
- Peer-to-peer exchange allows radio-to-radio communication with no internet connection



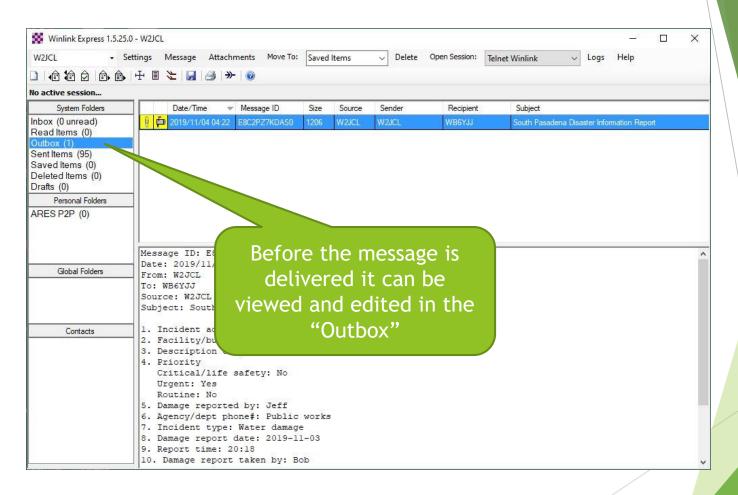
Post to Outbox

Enter a new message | Post to Outbox





Post to Outbox





Special Messages

- GPS position report
 - Read data from a GPS receiver, or
 - Enter Latitude and Longitude directly
- GRIB file request
 - "GRidded Binary" or "General Regularly-distributed Information in Binary"
 - A data format commonly used in meteorology to store historical and forecast weather data
 - Separate application needed to read received data



Special Messages

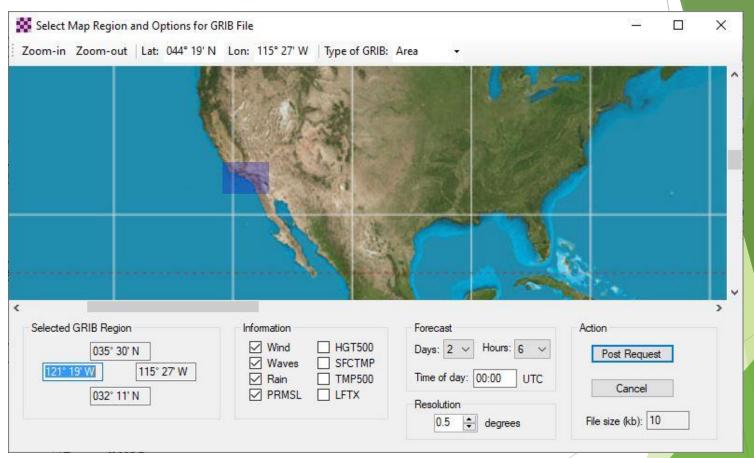
Settings | GPS / Position Reports...

| GPS Serial Port: | COM14 | GPS | Baud Rate: 9 | 600 | ~ |
|------------------|--|----------------|---|-------------------|-----------------|
| PS Status | | | | | |
| \$GPRMC,231142.0 | 0,A,3406.10760 | N,11808.7 | 7965,W,0.075, | .021119, | D*63 |
| | Last fix | at 2019-11 | 02 23:11:40 | | |
| GPS Latitude: | 34-06.11N | | GPS Longitude | : 118-08 | .78W |
| GPS Speed: | 0.08 | Knots | GPS Course: | 00 | 0 True |
| ✓ Automati | ically update grid | square from | GPS position: | DM04W | |
| osition Report | | | | | |
| Your las | t position report v | was posted | use Curre | TO AND THE OWNER. | итс |
| Your las | | | | ent Time | итс |
| Your las | Copy GPS Data | e: 2019/1 | Use Curre | uTC | UTC (DD-MM.MMx) |
| F | Copy GPS Data Report Date/Time 34-06.11N | 2019/1 Long | Use Curre 1/02 23:11:40 itude: 118-08 | uTC | |
| Your las | Copy GPS Data Report Date/Time 34-06.11N 0.0 k | 2019/1 Long | Use Curre 1/02 23:11:40 itude: 118-08 | uTC | (DD-MM.MMx) |



Special Messages

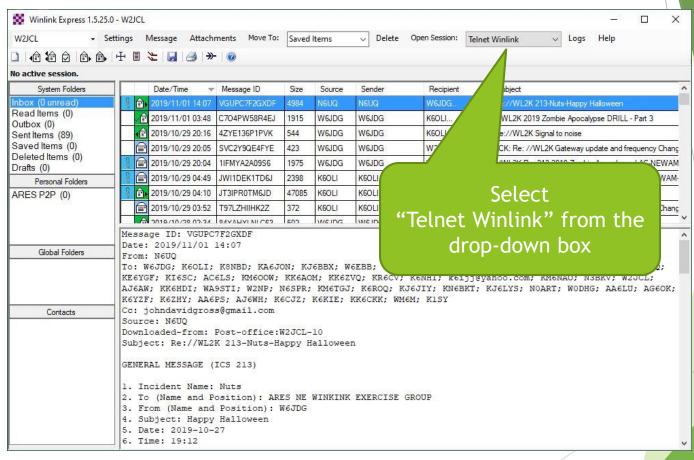
Settings | GRIB file request...





Sending & Receiving Messages

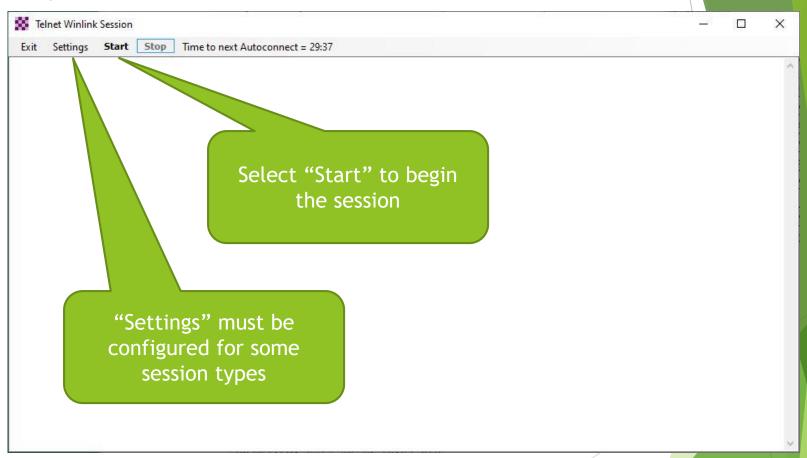
Open Session: Telnet Winlink





Sending & Receiving Messages

Open Session: Telnet Winlink





ICS-309 Message Log

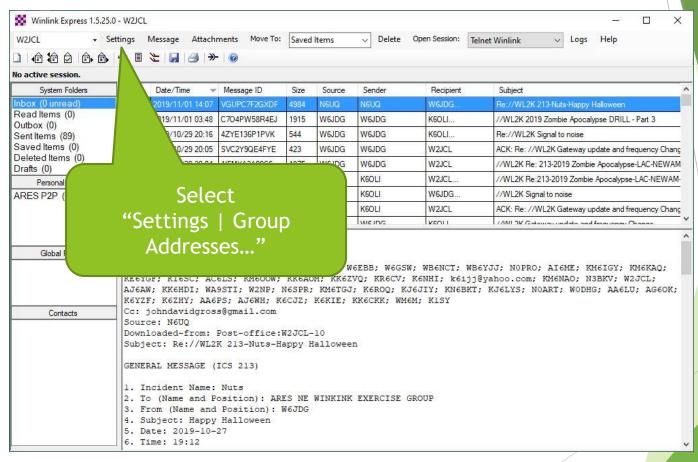
Message | Generate ICS-309 Communication Log

| ☑ Inbox ☑ C | | |
|---|-------------------------------------|-------|
| ☑ Read ☑ S | Outbox Drafts Personal 1: | ~ |
| ✓ Read ✓ S | Personal 2: | ~ |
| Message Date Range | | |
| ☑ Limit start date/ti | ime: 2019-08-31 ■▼ 00:01 🔄 (Local | time) |
| ☑ Limit end date/ti | me: 2019-08-31 🗐 🔻 23:59 🚖 (Local | time) |
| Separate entry for Combine recipier Task ID: | nts into a single entry Set Page La | iyout |
| Task Name: | ARES LAX-NE Deployment Exercise | = |
| lask Name. | 2019.08.31 | = |
| Operational period: | | |
| Operational period: Operator name: | Jeff | |
| | Jeff W2JCL | |



Address Lists

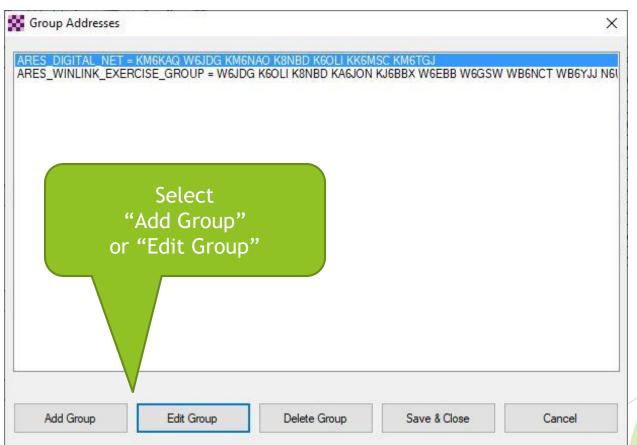
Settings | Group Addresses...





Address Lists

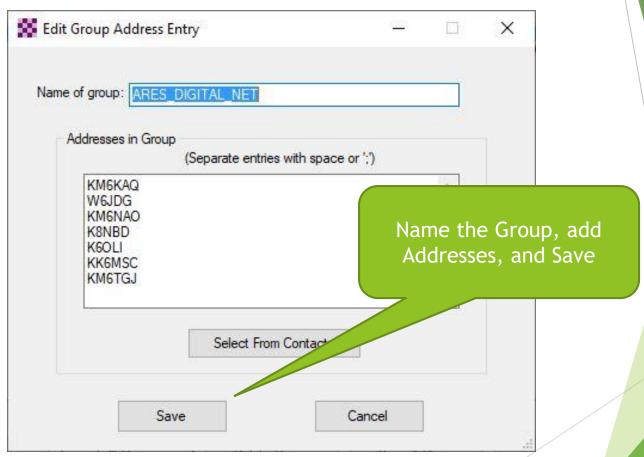
Settings | Group Addresses...





Address Lists

Group Addresses | Edit Group Address Entry





Software (as of 11/6/2019)

- Winlink version 1.5.25.0
 - https://downloads.winlink.org/User Programs/
- Soundmodem version 1.05
 - http://uz7.ho.ua/packetradio.htm
- VARA FM version 1.2.9
 - https://rosmodem.wordpress.com/
- VARA HF version 3.0.4
 - https://rosmodem.wordpress.com/

