

Amateur Radio Exercise Play Book

When a disaster is at its worst, communications should be at its best.

Idaho Winlink Exercise

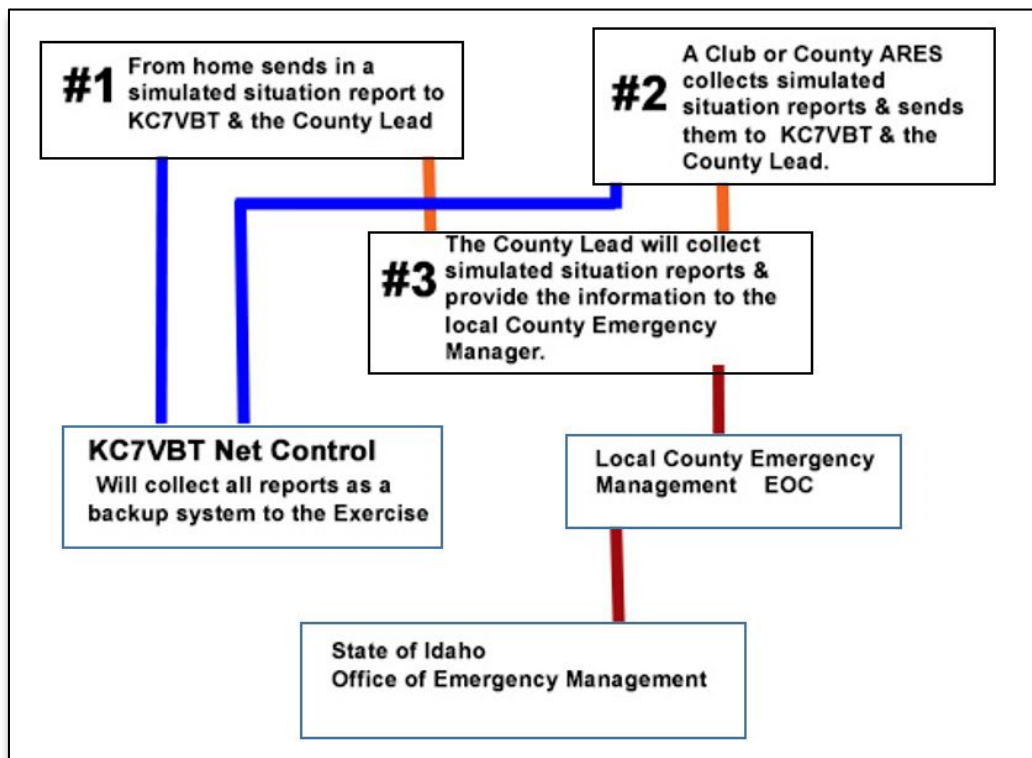
October 5th 2022

Start 9am PST - 10am MST



Idaho EOC's & Winlink Communications *October's Surprise*

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On October 5, 2022 the first ever Idaho statewide exercise, that includes all amateur radio operators that wish to participate, will happen.

This is an exciting exercise and we're trying to keep it as simple as possible. The purpose of this exercise is to provide situational awareness of the condition of Idaho by identifying the hardest hit areas and provide that data to Emergency Management. This will provide ground truthing and accurate information on what's going on in an area.

This exercise will provide amateur radio operators the opportunity to show their skills and talents. The state of Idaho is mixed with high populated areas and very rural areas. This exercise can accommodate all of the state by working with a simple method in which to conduct this exercise. All participants are volunteers. Even the County Emergency Managers are volunteering their time to participate if they wish.

We need as many amateur radio operators as possible to show the State Emergency Services that we are ready to step up in a disaster and deliver various services.

This playbook is a guideline on how to participate in the exercise. It is just guidance and we want everyone to be able to participate so being flexible will be our goal.

The October 5th exercise will be a two hour exercise with a third hour for review. Starting at 9am PT and 10am MT. (remember the State of Idaho is in two time zones) The first 1.5 hours of the exercise will be the time we will ask for your "Field Situation Report" to be submitted. The next half hour, that information will be put together and delivered to the Local EOC's and the State. A Zoom meeting invitation will be sent out for the Hot Wash review for the last hour.

We do understand that many are working or have other responsibilities during the exercise time frame. For those that need to, it will be okay to participate by submitting your Field Situation Report before the exercise starts and as early as the night before the exercise.

There are three objectives for this exercise. As you read through this Play Book you will see how we can accomplish these objectives.

- 1.** Assess operational readiness of Amateur Radio volunteers with participating Local Emergency Management EOC's by successfully sending messages via the Amateur radio Winlink email system while using prescribed communications protocols.
- 2.** Demonstrate the capability of Amateur Radio to deploy and support development of a common operating picture and situational assessment then provided this information to local Emergency Management EOC's and the State.
- 3.** Validate the capability of Amateur Radio volunteers to maintain a unified and coordinated operational structure when supporting local Emergency Management EOC's with situational information.

Let's jump into How to Play.

First

We want every Ham to participate. You can use any method necessary to submit your Winlink "Field Situation Report" Via HF, VHF, UHF, etc, and yes using the internet (telnet) to send your Winlink message is totally acceptable. **Use what you know.** In future exercises we will focus on radio connections for Winlink.

For areas that will work as Clubs/ARES, it is acceptable to have members submit their report via voice radio to a scribe. The reports will need to be complete including Lat & Lon.

The Field Situation Report.

You will find this form in the Winlink Templates section.

You begin by;

1. Start a new email message.

In the new message top taskbar

2. Click on "Select Templates"

The Template Manager will open.


3. Click on the "Standard Templates"

4. Click on "General Forms"

5. Double Click on the "Field Situation Report" and the form will open.

FIELD SITUATION REPORT			
Setup <small>Click to add an agency or group name</small>		Load Field Situation data	Form Info
<small>For Non-Express recipients, this form is sent as plain text in the message body. Once this page is submitted No changes or editing of this message are allowed</small>			
PRECEDENCE: R Routine		DATE/TIME:	TASK #
FROM:			
TO:			
INFO (CC):			
<small>Call signs or E-mails entered into the TO or INFO fields above, can be multiples separated by a semicolon ;</small>			
1. Is there an EMERGENCY/LIFE SAFETY Need? <input type="radio"/> YES <input checked="" type="radio"/> NO <small>If your local situation is LIFE CRITICAL, report via 911. If 911 services are not available, a reporter may use this form and mark the block for LIFE CRITICAL; the reporter should describe the situation and provide the residential address.</small>			
2. City	County:	State:	Territory:
3. Latitude and longitude: LAT 46.4782 LON -116.2083 MGRS 11TWM6077147596 Grid DN16M <small>LAT and LON are required to map this SpotRep. If entering manually use Decimal Degree format or from an attached GPS device. By default LAT, LON and MGRS to the center of the grid square listed in Express Settings</small>			
4a. POTS landlines functioning? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <small>If no, state provider.</small>			
4b. VOIP landlines functioning? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <small>If no, state provider.</small>			
5a. Cell phone voice calls functioning? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <small>If no, state provider.</small>			
5b. Cell phone texts functioning? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <small>If no, state provider.</small>			
6. AM/FM Broadcast Stations functioning? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <small>If no, provide broadcast station call sign/frequency that is off-the-air.</small>			
7a. OTA TV functioning? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <small>If no, identify TV station.</small>			
7b. Satellite TV functioning? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <small>If no, state provider.</small>			
7c. Cable TV functioning? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <small>If no, state provider.</small>			
8. Public Water Works functioning? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <small>Comments</small>			
9a. Commercial Power functioning? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <small>If no, state provider.</small>			
9b. Commercial Power Stable? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Brown out/blinking lights <input checked="" type="radio"/> Unknown - N/A <small>If no, state provider.</small>			
9c. Natural Gas Supply functioning? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <small>If no, state provider.</small>			
10. Internet functioning? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <small>If no, indicate Fiber/Cable/Wireless/Satellite, state provider.</small>			
11a. NOAA weather radio functioning? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <small>Identify NOAA Weather Radio Transmitter by frequency, call sign or location.</small>			
11b. NOAA weather radio audio degraded? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <small>Identify NOAA Weather Radio Transmitter by frequency, call sign or location.</small>			
12. Additional Comments <small>Brief summary of current situation - expected outage times, major observations, etc.</small>			
13. POC <small>Point of Contact</small>			
Save Field Situation data		Submit	Reset Form
			Ver 0.2.7

How to fill out the form.

FIELD SITUATION REPORT			
Setup	Click to add an agency or group name	Load Field Situation data	Form info
<i>For Non-Express recipients, this form is sent as plain text in the message body. Once this page is submitted No changes or editing of this message are allowed</i>			
PRECEDENCE: R/ Routine ▼	DATE/TIME: <input type="text"/>	TASK # <input type="text"/>	
FROM: <input type="text"/>			
TO: <input type="text"/>			
INFO (CC): KC7VBT 	All Winlink messages should be CC to KC7VBT for backup and record keeping		
<i>Call signs or E-mails entered into the TO or INFO fields above, can be multiples separated by a semicolon ;</i>			
1. Is there an EMERGENT/LIFE SAFETY Need <input type="radio"/> YES <input checked="" type="radio"/> NO <i>If your local situation is LIFE CRITICAL, report via 911. If 911 services are not available, a reporter may use this form and mark the block for LIFE CRITICAL; the reporter should describe the situation and provide the residential address.</i>			
2. City <input type="text"/>	County: <input type="text"/>	State: <input type="text"/>	Territory: <input type="text"/>

When you open the form it will automatic fill in your call sign and the date/time

In the Precedence box select "Priority"

The Task Box # will not be used this time.

In the TO box put the call sign of the Amateur Radio Lead for your County. They will be combining the data and submitting that information to the Local EOC. We don't know who this person will be but we will publish the County Lead call signs before the exercise.

CC: With all Winlink messages during this exercise put **KC7VBT** in the CC line. The will send a copy of your message to Exercise control so we can collect and back all information.

When entering a Call Sigh and other email address, the Form will automatically put those emails addresses into your main Winlink email address boxes.

There will no need to change the Emergency/Life Safety. Keep it on NO.

Fill in your **City**, **County** and **State**

3. Latitude and longitude: LAT 46.4792 LON -116.2083 . MGRS 11TNM6077147596 Grid DN16vl

LAT and LON are required to map this SpotRep. If entering manually use Decimal Degree format or from an attached GPS device.
By default LAT, LON and MGRS to the center of the grid square listed in Express Settings

4a. POTS landlines functioning? ☐ YES ☐ NO ☒ Unknown - N/A
If no, state provider.

4b. VOIP landlines functioning? ☐ YES ☐ NO ☒ Unknown - N/A
If no, state provider.

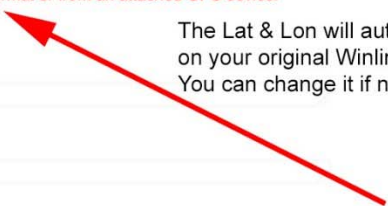
5a. Cell phone voice calls functioning? ☐ YES ☐ NO ☒ Unknown - N/A
If no, state provider.

5b. Cell phone texts functioning? ☐ YES ☐ NO ☒ Unknown - N/A
If no, state provider.

6. AM/FM Broadcast Stations functioning? ☐ YES ☐ NO ☒ Unknown - N/A
If no, provide broadcast station callsign/frequency that is off-the-air.

7a. OTA TV functioning? ☐ YES ☐ NO ☒ Unknown - N/A
If no, identify TV station.

7b. Satellite TV functioning? ☐ YES ☐ NO ☒ Unknown - N/A



The Lat & Lon will autofill based on your original Winlink setup. You can change it if needed.

Line 3 will automatic fill in with the Lat & Lon you used when setting up your Winlink account.
Or if your computer is connected to a GPS it will automatic fill in your current location.

You can change the Lat & Lon based on your current location if needed.

The Lat & Lon is important to have so we can build maps that will locate the areas of the problem.

Line 4a through 7b

Feel free to click any response. This exercise is based on a Cyber-attack that is causing sporadic internet service with very slow speeds or no service at all. The Power grid is attacked and goes down causing local TV and Radio loss.

We recommend that you don't click NO on everything. Think of what might happen in your area if this attack happened. Remember we are just simulating an attack.

7c. Cable TV functioning? ☐ YES ☐ NO ☒ Unknown - N/A
If no, state provider.

8. Public Water Works functioning? ☐ YES ☐ NO ☒ Unknown - N/A
Comments

9a . Commercial Power functioning? ☐ YES ☐ NO ☒ Unknown - N/A
If no, state provider.

9b . Commercial Power Stable? ☐ YES ☐ NO- Brown outs/blinking lights ☒ Unknown - N/A
If no, state provider.

9c. Natural Gas Supply functioning? ☐ YES ☐ NO ☒ Unknown - N/A
If no, state provider.

10. Internet functioning? ☐ YES ☐ NO ☒ Unknown - N/A
If no, indicate Fiber/Cable/Wireless/Satellite, state provider.

Everyone will pick one of the power question as a **NO** for this exercise. Do not pick both

Line 7c, 8, and 9c

Treat these questions just like 4a through 7b

Line 9a & 9b

Everyone will pick one of the Power questions as a **NO** Don't pick NO for both power questions. Have fun maybe flip a coin to make your choice.

Line 10

We need the majority of the reports to show **NO internet**. To achieve this all Amateur Radio Operators will click **NO Except** and anyone with a call sign that starts with a **W** they will check YES

Note:

Just because we are simulating an attack doesn't mean that you have to act like it is really happening. You don't have to go without power or the internet. In this exercise it is just a simulation so we can show the value of the Field Situation Report and Amateur Radio.

11a. NOAA weather radio functioning? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A Identify NOAA Weather Radio Transmitter by frequency, call sign or location.	
11b. NOAA weather radio audio degraded? <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A Identify NOAA Weather Radio Transmitter by frequency, call sign or location.	
12. Additional Comments <i>Brief summary of current situation - expected outage times, major observations, etc.</i> <div> <div>Exercise</div> <div>←</div> <div>Every form sent in Must have Exercise on the document</div> </div>	
13. POC Point of Contact	
<div>Save Field Situation data</div> <div>Submit</div> <div>Reset Form</div>	Ver 0.2.6b

Lines 11a & 11b

Your choice on how to answer

Line 12

This is very important. Always put **Exercise** on this and all other documents sent during the exercise.

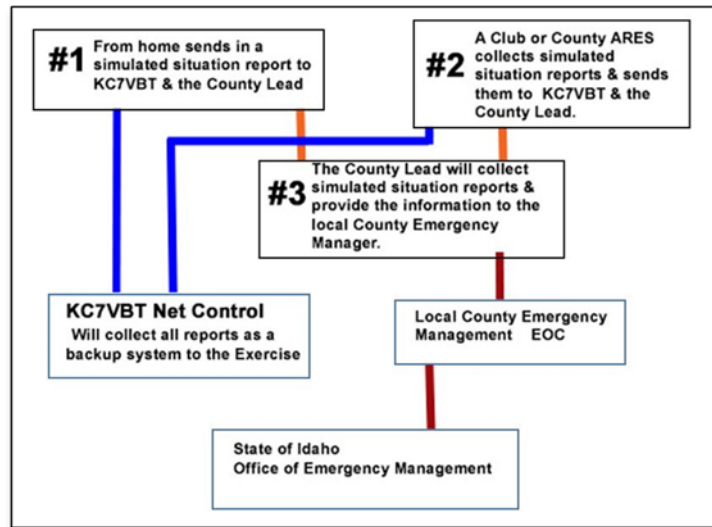
Line 13

The person providing the information is the Point of Contact

When you are done filling out the form click on Submit and follow the instructions.

It would be a good idea to practice filling out and sending this form.

Position Responsibilities



1. From home send in a simulated situation report to net control KC7VBT and the County Lead ham via Winlink.

Everyone should submit a Field Situation Report regardless of other roles you may be doing during this exercise. You can send it from your home, office etc. You will send the Field Situation Report to your County Lead and KC7VBT.

We do understand that many are working or have other responsibilities during the exercise time frame. For those that need to, it will be okay to participate by submitting your Field Situation Report before the exercise starts and as early as the night before.

When the exercise is done please fill out the survey that is in this Play Book and email it to dgardner@clearwatercounty.org

2. Join together with other hams in your county via a Club and/or Ares group, to collect simulated situation report and send them to net control KC7VBT and the County Lead.

Where it is possible Clubs and ARES groups can work together. Most likely someone from this group will also be the Local County Lead. Your goal will be to submit a Field Situation Report for every member of your group. As Clubs/ARES, it is acceptable to have members submit their report via voice radio to a scribe. The reports will need to be complete including Lat & Lon.

How you work together will be up to your group.

3. Be the county lead and collect simulated situation reports and provide the information to the local County Emergency Manager.

This will be a main position. We need amateur radio operators who know how to use Winlink. This position can have more than one person filling the Lead role. In the larger populated counties, we highly recommend a team.

You will be responsible for:

- A. Collecting all Field Situation Report that are from your county.
- B. Using Winlink you will create a map and filter the data to show the type of reports.
- C. From the map you will create a Summary that can be given to the local County Emergency Manager
- D. You will generate a CSV file and a KML file that will be given to the local County Emergency Manager.
- E. Create a 309 Message Log to be turned into KC7VBT to become a part of our After Action Report.


If you can arrange to do this in the Local Emergency Management office/EOC that would be the best.

Note not all Emergency Managers will be available for this exercise. We will simulate these counties during the exercise.

Here are some slides that will help you with your job. Please try to perform these steps before the exercise.

Reception of Reports With GIS Data

- When a message with an attached GIS data report is received by someone running Winlink Express, the information from the report is extracted from the message automatically and stored in a database.
- Messages do not need to be selected or viewed for the data to be added to the database; it's done when the message is downloaded.
- To generate maps and CSV files, click the “world” toolbar icon to get to the mapping control screen.



The image shows a toolbar from the Winlink Express software. It contains various icons for file operations (like open, save, print), editing (like undo, redo), and specific Winlink functions (like a 'world' icon for mapping, a 'message log' icon, and a 'summary' icon). A yellow triangle cursor is pointing at the bottom center of the toolbar.

Showing Maps and Creating csv Files

Maps and CSV/KML Files for Forms

Select form:

Number of stored reports: 998

Type of map:

Expiration days:

Expire old reports:

Delete all reports:

Display map of reports:

Generate CSV File

Close

Import form data

Make csv file

Filtering Reports for Map

Age and Date Limits on Reports

☒ Do not limit reports by age or date

☐ Only display reports more recent than this many hours:

☐ Limit to this date range: (Local time)

(Local time)

Filter Map by Field Values

Stored Filter Sets

Filter set:

☒ Enable map filtering ☐ Include text fields such as comments as filter items (filter with one or more words or phrases separated by commas)

☒ Select reports that match ANY enabled filter item ☐ Select reports matching ALL enabled filter items

Form field	*	Selection Value	Marker Color
AM/FM Broadcast Stations functioning	=	(ignore)	(default)
Cell Phones functioning	=	NO	(default)
Commercial Power functioning	=	(ignore)	(default)
Internet functioning	=	NO	(default)
Is there is an EMERGENT/LIFE SAFETY N...	=	(ignore)	(default)
LandLines functioning	=	(ignore)	(default)
Precedence	=	(ignore)	(default)
Public Water Works functioning	=	(ignore)	(default)
Range (mi)	=		(default)

Which markers to show on map

☐ Display all markers using colors to indicate selected ones

☒ Display only markers selected by filters

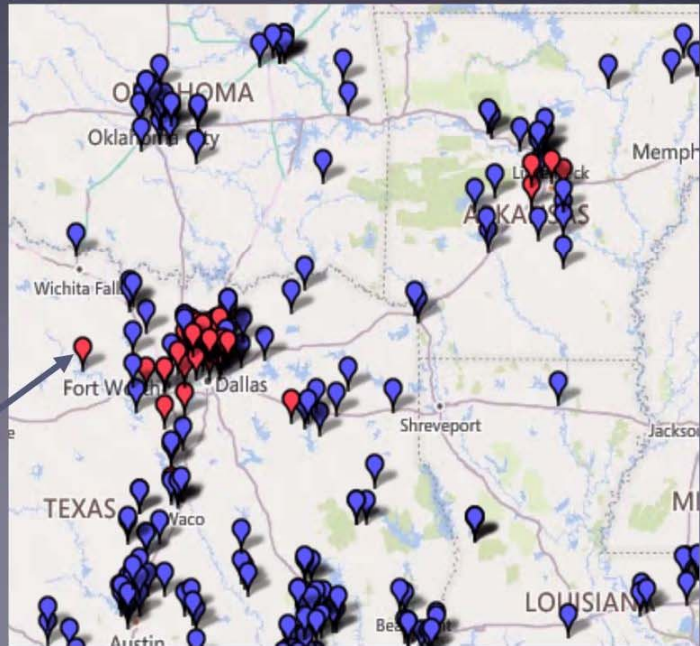
Blue

White

Green

Mark No-Internet Reports in Red

Sender: K15NXU
Date/time: 2022-06-01 11:40 (local)
Age: 89.1 days
Message ID: GPND3OL57HPP
Subject: //WL2K (P) - Priority/ Field Situation Report
Latitude Longitude: 32.8958 N 98.4583 W
MGRS: 14SNB5066339865
Range and bearing: 699.0 mi @ 255
Precedence: (P) - Priority
Agency:
Task Number: 1.0
Is there is an EMERGENT/LIFE SAFETY Need?: NO
Need:
City: Graford
County: Palo Pinto
State: TX
Territory: Territory
LandLines functioning: NO POTS or VOIP
LandLines Comment:
Cell Phones functioning: NO
Cell phone Comment:
AM/FM Broadcast Stations functioning: YES
Broadcast Station Comment:
TV Stations functioning: YES
TV station Comment:
----> Internet functioning: NO
Internet Comment:
Commercial Power functioning: YES



Generating CSV and KML Files

- In addition to the mapping and filtering built into Winlink Express, it can generate CSV and KML files automatically when new reports are received.
- You can set up automatic Telnet polling for reports.

Column Delimiter
☒ Comma ☐ Tab

Format of Dates
mm/dd/yy ☐ UTC time

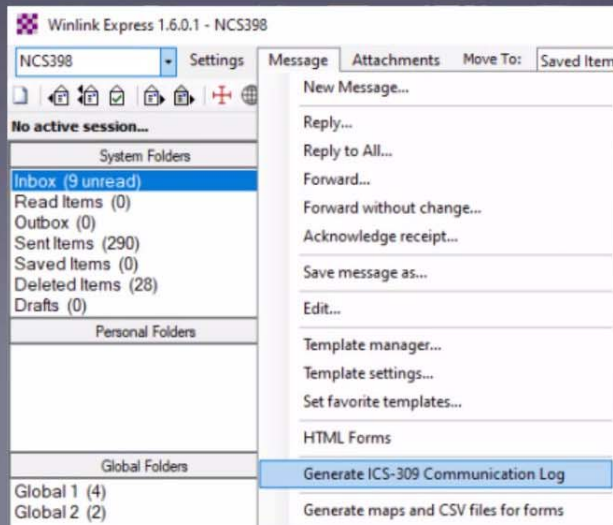
Selection Date Range
☐ Limit start date/time: 2022-06-07 17:21 (Local time)
☐ Limit end date/time: 2022-06-07 17:21 (Local time)

Automatically Generate CSV File When New Reports Are Received
☐ Generate new csv file when reports are received
(CSV file is written to file specified below as "CSV Output File")

CSV Output File
C:\Test\FSR.csv
(Should be .csv file type)

ICS-309 Message Log

- In addition to mapping reports, you may want to generate a 309 message log showing all messages sent and received during an incident.



Generated 309 pdf File

COMMUNICATIONS LOG		TASK # Winlink Express training session		DATE PREPARED: 01/24/22 TIME PREPARED: 11:18	
OPERATIONAL PERIOD # Today			TASK NAME: Demonstrate ICS-309 generation		
RADIO OPERATOR NAME: Phil			STATION I.D. NCS398		
LOG					
TIME	FROM	TO	SUBJECT		
11/01/21 12:07	NCS398	NCS747	//WL2K R/ SPOTREP 2021-11-01 17:06:40Z		
11/01/21 14:16	NCS398	W4PHS	//WL2K R/ SPOTREP 2021-11-01 19:15:56Z		
11/01/21 14:24	NCS398	W4PHS	//WL2K R/ SPOTREP 2021-11-01 19:23:52Z		
11/24/21 14:34	NCS398	W4PHS	Express Check In [Exercise]-NCS398-Brentwood, TN		
11/24/21 16:25	NCS398	W4PHS	Express Check In [Exercise]-NCS398-Brentwood, TN		
11/24/21 19:04	NCS398	W4PHS	Express Check In [Exercise]-NCS398-Brentwood, TN		
11/28/21 19:34	NCS398	W4PHS	//WL2K R/ SPOTREP 2021-11-29 01:33:31Z		
11/30/21 13:55	NCS398	W4PHS	Express Check In [Net]-NCS398-Brentwood, TN		
11/30/21 14:05	NCS398	W4PHS	Express Check In [Net]-NCS398-Brentwood, TN		
11/30/21 16:57	NCS398	W4PHS	Express Check In [Net]-NCS398-Brentwood, TN		
11/30/21 17:45	NCS398	W4PHS	test form data		
12/01/21 08:14	NCS398	W4PHS	Express Check In [Net]-NCS398-Brentwood, TN		
12/02/21 10:12	NCS398	W4PHS	//WL2K R/ SPOTREP 2021-12-02 16:09:35Z		
12/02/21 10:16	NCS398	W4PHS	//WL2K R/ SPOTREP 2021-12-02 16:14:54Z		
12/02/21 13:10	NCS398	W4PHS	//WL2K (R) - Routine/ SPOTREP 2021-12-02 19:08:14Z		
12/02/21 16:53	NCS398	W4PHS	Express Check In [Net]-NCS398-Brentwood, TN		
12/02/21 16:55	NCS398	W4PHS	//WL2K (R) - Routine/ SPOTREP 2021-12-02 22:53:59Z		
12/02/21 19:54	NCS398	W4PHS	//WL2K (R) - Routine/ SPOTREP 2021-12-03 01:52:36Z		
12/02/21 19:55	NCS398	W4PHS	Express Check In [Net]-NCS398-Brentwood, TN		
12/03/21 19:30	NCS398	W4PHS	Express Check In [Net]-NCS398-Brentwood, TN		
12/04/21 17:16	NCS398	W4PHS	Express Check In [Net]-NCS398-Brentwood, TN		
12/07/21 19:17	NCS398	W4PHS	Severe WX Report TN Williamson [First Report]		
12/10/21 10:35	NCS398	W4PHS	//WL2K (R) - Routine/ SPOTREP 2021-12-10 16:34:44Z		
12/11/21 09:34	NCS398	W4PHS	Test report		
12/13/21 12:07	W4PHS	NCS398	Express Check Out [Net]-W4PHS-Brentwood, TN		
12/13/21 12:07	W4PHS	NCS398	//WL2K (R) - Routine/ SPOTREP 2021-12-13 18:06:18Z		
12/15/21 08:50	NCS398	W4PHS	Severe WX Report TN Williamson [First Report]		

PARTICIPANT FEEDBACK FORM

At the end of the exercise fill out this form

Exercise Name: October's Surprise **Exercise Date:** October 5, 2022

Participant Name: _____ **Title/Call Sign:** _____

Agency: _____ **Role:** _____

Exercise Objectives. List the top 3 Successes and any issues areas that need improvement.

1. Assess operational readiness of Amateur Radio volunteers with participating Local Emergency Management EOC's by successfully sending messages via the Amateur radio Winlink email system while using prescribed communications protocols.

2. Demonstrate the capability of Amateur Radio to deploy and support development of a common operating picture and situational assessment then provided this information to local Emergency Management EOC's and the State.

3. Validate the capability of Amateur Radio volunteers to maintain a unified and coordinated operational structure when supporting local Emergency Management EOC's with situational information.

4. Identify steps that could be taken to address any issues identified above.

Exercise Design

What is your assessment of the exercise design?

Please rate, on a scale of 1 to 5, your overall assessment of the exercise relative to the statements provided below, with 1 indicating strong disagreement with the statement and 5 indicating strong agreement.

Rating of Satisfaction with Exercise

Assessment Factor	Strongly Disagree			Strongly Agree	
a. The exercise was well structured and organized.	1	2	3	4	5
b. The exercise scenario was plausible and realistic.	1	2	3	4	5
c. The documentation used during the exercise was a valuable tool throughout the exercise.	1	2	3	4	5
d. Participation in the exercise was appropriate for someone in my position.	1	2	3	4	5

What changes would you make to improve this exercise?

Please provide any recommendations on how this exercise or future exercises could be improved or enhanced.

When finished email to Don Gardner - dgardner@clearwatercounty.org