

## 05-10-2025 Semi Annual Drill (Colorado Reporting)

### Exercise Message Submission Window

- **MAY 6 00:00 UTC — May 11 15:00 UTC**

**Difficulty Level:** **Advanced**

### **Purpose:**

Demonstrate the usage of an ICS-213 to provide the instructions for tasks to be presented to a Winlink Operator to use Winlink's GIS mapping features utilizing information from multiple forms and form types provided by other operators. In addition, provide initial analysis from visible evidence in the maps provided by the GIS mapping features.

**This is a drill, not an exercise, and is written to treat as such.** The instructions are contained in the ICS-213 that you must download and import. This PDF consists of notes or guides related to each instruction step that may clarify details and possible issues to avoid.

This is an Advanced exercise. The GIS Mapping tools in Winlink are a specialized feature designed for rapid "in the field" analysis of geographic data received from GIS-enabled reports sent by radio operators. These tools allow users to visualize and interpret crucial spatial information, facilitating informed decision-making in emergency response, resource allocation, and other field operations. Due to their advanced nature, only a select group of experienced Winlink users will be familiar with and proficient in utilizing these tools effectively. With ETO's training, we hope our exercise participants will be among them.

The provided instructions are limited to what task results are to be provided for feedback. The operation and functional features of Winlink may be mentioned, but not in detail. Notes may be provided to assist with paths of operations that may provide more reliable operations. More detailed instructions can be found in previous ETO Basic level exercises described in the Resources. Winlink Express Help content lookup is also provided to assist in an understanding of the tools used in the previous exercises.

For those that like to watch instructional videos, check out item 8 in the Resources.

## Objectives:

Use skills gathered from participation in the 2025 to date ETO Winlink Thursday Exercises, specifically on replying to an ICS-213 via the ICS-213 Reply Form.

- Import Hospital Bed Reports, Local Weather Reports, and Field Situation Reports provided by radio operators reporting on conditions in 16 different locations within Colorado.
- Import an ICS-213 containing the instructions for what GIS Maps are to be produced and what questions are to be answered.
- Use Winlink features to generate GIS Maps to be included in reply.
- Include the message answers in an ICS-213 Reply Form.
- Modify generated maps to a specific size in kilobytes, and attach these resized maps to the ICS-213 Reply form.
- Resources list shows links to key exercises that can provide step-by-step instructions.
- Additional resources point out Winlink embedded instructions under the Help menu for using GIS and import/export features of Winlink.

## Resources:

1. General Notes on Frequently-Seen Mistakes:
  - 1.1. [https://emcomm-training.org/Winlink\\_Thursdays.html](https://emcomm-training.org/Winlink_Thursdays.html)
2. Finding your ETO clearinghouse:
  - 2.1. <https://emcomm-training.org/General-Drill-Info.html>
3. ETO Location Instructions — With or Without a GPS Receiver for your Computer [PDF]
  - 3.1. <https://emcomm-training.org/Santa-2023/ETO-Location-Notes.pdf>
4. How a GIS map-capable form's default position is determined:
  - 4.1. From within Winlink Express Click on **Help** ⇒ **Help Contents...**, expand **Operation**, click on **GIS Mapping Forms & Catalog Items**
5. March 2025 exercise on Replying to an Imported ICS-213
  - 5.1. [https://emcomm-training.org/Winlink\\_Thursdays.html#Assignment\\_3-20-25](https://emcomm-training.org/Winlink_Thursdays.html#Assignment_3-20-25)
6. April Exercise on Importing Hospital Bed Report and using GIS Features for generating reporting Maps
  - 6.1. [https://emcomm-training.org/Winlink\\_Thursdays.html#Assignment\\_4-17-25](https://emcomm-training.org/Winlink_Thursdays.html#Assignment_4-17-25)
7. Winlink Express Application Embedded Help menu item applicable content

## Winlink Thursday Semi-Annual Drill For May 10, 2025

- 7.1. Importing Messages
    - 7.1.1. Under the contents of “Exporting, Importing, and Archiving Messages”
  - 7.2. GIS Mapping
    - 7.2.1. Under the contents of “GIS Mapping & Catalog Items”
      - 7.2.1.1. Details under “Reception of Reports section”
  - 7.3. Cropping and Resizing Images
    - 7.3.1. Under the contents of “Editing, Cropping and Resizing Images”
  - 7.4. File Attachments
    - 7.4.1. Under the contents of “Adding Attachments to Messages”
8. Mapping Winlink - WaveTalkers 125 Video
    - 8.1. <https://youtu.be/drV5oaTHQGw>

**Special Configurations:**

- Recent configurations of Winlink have provided options on whether transmission of Form Data XML file for the current form are transmitted with each document. If not transmitted, the HTML form will not display on the receiving station’s browser; and, the ETO Feedback process uses this form data XML to parse the data in the exercise, so it should be provided. Ensure that the Send Data with Form Data settings are as configured for ETO Exercises submissions.
- This dialog can be found under **Settings** ⇒ **Form settings...**

## Winlink Thursday Semi-Annual Drill For May 10, 2025

Form Server

IP address of form server:

IP port of form server:

Sending Messages with Form Data

- Attach XML files with form data to messages generated by forms
- Attach XML form files to messages going to Internet e-mail addresses

Automatic Form Opening

- Automatically open forms when messages are selected
- Automatically open reply forms when replying to messages with forms

Force Winlink Express to be shown over web browser after form submission

Show on map only most recent report within 100 meters from same sender

Send Forms as pdf Files

If you enable this option, messages with form attachments sent to Internet addresses (e.g., john@xyz.com) have the form information converted to a pdf file. Messages sent to Winlink users (callsigns) continue to have the form data sent in a condensed xml file where it's merged with the display form on the receiving end. Warning: Forms sent as pdf files are much larger than the condensed xml file. Often, messages with pdf forms are 50 kb or larger. They are not suitable for slow radio connections.

Send forms as pdf files to Internet addresses

**Continue To the Next Page for Scenario**

**Scenario:**

ETO was requested by several agencies to provide a demonstration of the tools that Winlink Express can provide at incident management centers in locations without having any internet. Particularly, location-based data that can be easily transferred into CSV spreadsheet files for further analysis and agency-based dashboards. In addition, the demo should exhibit quick look instruments that can call out location-based hotspots and areas of interest.

For the simulated emergency event, 16 ETO field radio operators have generated 3 different Winlink Forms from their assigned location, each of the 48 forms containing information unique to their location. The ETO field operators sent their 16 messages to an assigned radio operator at the ETO Incident Command Post. Using tools provided within Winlink Express, the ETO Radio Operator exported these 48 Winlink Form messages from the inbox to a single Form Data XML file and delivered it to the Director at the Command Post. The Director has provided you with access to this export file, along with an ICS-213 file. This ICS-213 message contains requests for you to perform specific tasks and answer three specified questions, with the information provided. You will be expected to provide the results as a reply with specific attachments to the provided ICS-213.

**Scope:**Area Of Coverage

Given its geographic location and interest in mapping, ETO determined that Colorado would make an excellent mapping location because its borders roughly correspond to latitude and longitude lines. This permits the maps to have a rectangular form. We chose sixteen sites, representing cities, towns, and villages, which are evenly distributed across the state.

Incident Conditions

An extreme weather event was simulated to affect these locations in Colorado based on historical weather reports for May. Strong winds in the southwest US disrupted power transmission in this part of the country at the beginning of our simulated event. Afterward, there was a cold spell with a lot of wet snow, which raised energy consumption. Following the cold snap, there was a temperature spike of more than 70 degrees, resulting in high temperatures that prolonged the need for energy and caused flooding. The state saw rolling blackouts as a result of the high-energy demand and further damaged electrical transmission lines from the flooding. Rolling blackouts were instituted to supply the greatest population with electricity for brief periods of time as capable, with the goal that food storage could

**Winlink Thursday Semi-Annual Drill For May 10, 2025**

remain viable, and buildings can have air conditioning for brief periods of time. The population centers that were supported by older infrastructure suffered the most from the frequent power surges that caused outages.

**Source Material**

Forty Eight Winlink Forms, consisting of 1) sixteen Hospital Bed Reports, 2) sixteen Local Weather Reports, and 3) sixteen Field Situation Reports will be provided in a single downloadable XML Form Data file. This file is to be imported into the participants' Winlink Express instance (refer to March 2025 exercise above under Resources). The download is located on the Winlink Thursday Website. All Form content, dates, and times are set to the day of May 5, 2025. To create these GIS enabled Winlink Forms, ETO members either chose a location or were assigned one or more of the named locations. Research was done to attempt to provide information that would match each location's entities. Each exercise form's content was validated through the ETO feedback mechanism to confirm that all the Winlink forms match the research information assigned to it.

A direct download link for the XML Form Data file containing the 48 Winlink Forms can be found on the Winlink Thursday website at:

[https://emcomm-training.org/drills2.html#Assignment\\_5-10-25](https://emcomm-training.org/drills2.html#Assignment_5-10-25)

A separate ICS-213 was written by an ETO member, which will provide the instructions for the tasks the participant is to perform. Among those tasks will be three questions that need to be answered. They have numerical results and with just the numerical values written each on a separate line in the order of the questions in the reply section (Block 9) of the ICS-213 Reply form. The participant will send this reply form to their Clearinghouse Tactical Address. No other information should be provided within the Reply text block. The download link for the ICS-213 should be accompanying the link for the XML Form Data file with 48 Winlink Forms on the Winlink Thursday website.

The participant will be asked to generate three GIS map reports, one for the sixteen Hospital Bed Reports, one for the sixteen Local Weather Reports, and one for the sixteen Field Situation Reports. For each map request, the GIS Mapping filters are to be set to highlight the positions that correlate to the conditions specified in the ICS-213 instructions. The resulting maps are expected to be cropped to the boundaries of the state of Colorado and resized to 35 kb.

The three maps should be attached to the ICS-213 Reply. Because of the size of the package, the participant is recommended to use Winlink Telnet when sending the message to

their respective ETO Clearinghouse. Please don't use HF for such a large file unless necessary.

## **Exercise Notes**

Similar to the April 2025 ETO Exercise, you will respond to a simulated receipt of an ICS-213 to which you will need to respond. Also, similar to the April Exercise, you will be working with the GIS Mapping features of Winlink Express via a simulated receipt of GIS enabled report forms from 16 different reporting entities. A difference is that there are 3 different report forms from each reporting entity. All contained within a single XML Form Data File export for a total of 48 GIS mapping-enabled report forms.

To SIMULATE receiving the ICS 213 message from ETO-LIAISON01 and the 48 GIS Mapping enabled forms, ETO will use the Message/Import facility of Winlink Express. If you normally use an alternative client to Winlink Express (Radio Mail, WoAD, PAT, etc.), you are “on your own” – ETO strongly recommends using the Winlink Express client for this exercise to take advantage of the built-in tools.

**Important!** Similar to the April Drill you need to download two (2) Form Data XML export files to your computer. One has the instructional ICS-213 as content and the other contains exports for the 48 GIS Mapping enabled reports. Follow the information, **below**, to import it into Winlink Express.

On the EmComm Training Organization's Semi-Annual Drills page, look for the links related to the statement “**Important! You will need these 2 files to complete the exercise:**” related to the May 10th 2025 Drill. Use the associated links to obtain a copy of each of the REQUIRED Form Data XML files needed to complete the May 11, 15:00 UTC, Semi-Annual Drill.

The ICS-213 will contain the step-wise instructions for you to perform using the 48 GIS Enabled Forms. Notes and guides related to the instructions are provided below, starting on the following page.

**This exercise shares the Hospital Bed Reports that were part of the April Exercise.**

If you participated in the April 2025 exercise, your Winlink report database may already contain the 16 messages from that exercise. Only 32 of the 48 messages will be imported because the 16 Hospital Bed Reports are duplicates of those used in April. Also, the filter settings for the Hospital Bed report map for April's exercise will impact the results of the May Hospital Bed report if the Marker Color for the Emergency Beds is not set back to "(default)".

**Exercise Notes:**

In the general instructions, bulleted lists are general instructions, numerical lists are stepwise instructions.

**Optional: Backup databases**

1. From within the Winlink Express application, click on **Settings** and select **Backup and Restore databases**.
3. Select **Backup databases now**.
4. Click **OK** when the "backup was successful" dialog box appears.
5. Close Backup Options.

**Optional: Review Winlink Express Help Files**

- All steps in this drill have been covered in previous exercises. To re-familiarize yourself, review the Winlink Express Help built into Winlink Express. The particular contents of the Help are outlined in section 7 of the Resources within this document.

**Download the ICS-213 Form Data XML export file to which the participant needs to reply.**

- The default filename of the ICS-213 Form Data file to which the participant needs to reply is "ETO-May-2025-ICS-213-Exported\_Message.xml"
- The link for downloading the file can be found on the Winlink Thursday Site on page
  - <https://emcomm-training.org/drills2.html>



**Import, Open, & Review the ICS-213 Form Data XML export file**

1. From within the Winlink Express application, click on **Message** and select **Import Messages**.
2. Select **Browse** and go to the folder that contains the saved “ETO-May-2025-ICS-213-Exported\_Message.xml” message.
3. Select the downloaded message and click **Open**.
4. Select Import and click OK when import is finished.
5. This message has a date of 05/05/2025, and has the recipient ETO-FACILITATOR01 and sorting your Inbox by recipient may make it easier to find.

**Download the GIS Enabled Reports Forms XML export file.**

- The default filename of the Form Data file containing the 48 GIS enabled forms to that must be imported to perform the drill is “ETO-CO-16-by-3-FSR-HB-WX-Exported\_Messages.xml”
- The link for downloading the file can be found on the Winlink Thursday Site on page
  - <https://emcomm-training.org/drills2.html>
- The file will contain 16 Hospital Bed Reports, 16 Field Situation Reports, and 16 Local Weather Reports.

**Import GIS Enabled Form Data XML export file**

1. NOTE: The May Drill Hospital Bed reports are the same Hospital Bed reports that are within the exported report form file from the April 2025 Exercise.
  - a. **IMPORTANT:** If you participated in the April Exercise.
    - i. If they are still in your Inbox, you can ignore the duplicates message.
    - ii. If you have deleted these, but have not deleted the contents of the Deleted Items folder, you can ignore the duplicate message to do this exercise.
    - iii. If you have deleted them from both your folders and the Deleted Items folder, you will need to also delete the map reports for the Hospital Bed Reports.

1. Within the **Maps and CSV/KML Files for Forms** dialog window (accessed by the globe icon), if you see a non-zero value for the **Number of stored reports**:
  - a. Set **Select from:** to General Hospital Bed Report.
  - b. From within the **Form Report Management** block, click on **Delete all reports for this form** and confirm.
  - c. You should now see zero (0) for the value of **Number of stored reports**.
2. From within the Winlink Express application, click on **Message** and select **Import Messages**.
3. Select **Browse** and go to the folder that contains the saved “ETO-CO-16-by-3-FSR-HB-WX-Exported\_Messages.xml” message.
4. Select the downloaded file and click **Open**.
5. Select Import and click OK when import is finished.
6. These form messages were written in late February, early March, you may need to scroll to that region of the list if you have many other messages. They were all written to the Same recipient, ETO-Drill so using the recipient for the sort order and searching for ETO will display these as a group.

## Generate the Map Reports

- This Drill assumes you have no other Hospital Bed Reports, Field Situation Reports, or Local Weather Reports within locations of the State of Colorado for May 5, 2025.
- Use the Form Mapping features built into Winlink Express.
  - Accessed via either the Globe Icon on the main Winlink Express window or the menu item **Generate maps or CSV files for forms** under the main menu item **Message**.
  - Use the Bing Map provider.
- Your imported messages should show the number of stored reports:
  - Field Situation Reports: 16.
  - General Hospital Bed Reports:16.
  - Local WX: 16.
- Display Map.
  - Click on **Zoom Out** to its maximum.
  - Click on **Zoom In** twice, center on the state of Colorado, and click on **Zoom**

- In three times more.
    - Center and resize form so all the borders of Colorado are visible.
  - Set Filters
    - For each type of the report types, you will need to set the following filters
    - All
      - Age and date **Limits on Reports**, select **Limit to this date range**:
        - Limit start date/time: 2025-05-04 00:00
        - Limit end date/time: 2025-05-05 23:00
      - Set **Select reports that match any enabled filter item (Logical Or)**
      - Set **Display all markers using colors to indicate selected ones.**
      - Set **Default color for unselected markers** to Blue.
      - Set **Color if multiple colors are selected** to Black.
      - Set **Color of your location marker (QTH)** to White.
    - Field Situation Report
      - Click on Clear all selections.
      - In **Form field** column, for **09b. Commercial Power Stable**.
        - Set the equality operator: Equal To (=).
        - Selection Value: NO.
        - Marker Color: Red.
      - Select **Display all markers using colors to indicate selected ones.**
      - Note the count of the red markers.
        - These are the locations that had commercial power, but it was unstable.
    - Hospital Bed Report
      - Click on Clear all selections.
      - In **Form field** column, for **Critical Care**.
        - Set the equality operator: Less Than or Equal To (<=)
        - Selection Value: 2.
        - Marker Color: Red.
      - Select **Display all markers using colors to indicate selected ones.**
      - Note the count of the Red markers.
        - These are the number of locations that had Critical Care Bed availability of two or less.
    - Local Weather Report
      - Click on Clear all selections
      - In **Form field** column, for **15a. Temperature (F)**
        - Set the equality operator: Greater Than or Equal To (>=)
        - Selection Value: 90
        - Marker Color: Red
      - Select **Display all markers using colors to indicate selected ones.**
      - Note the count of Red Markers.

- These are the number of locations that had a temperature of 90 degrees or more.
- Save Maps
  - After configuring the filters, save the filters.
  - If you haven't already, for each report type, note the count of the red markers.
  - Field Situation Report
    - Set the **Save as jpeg** file name to:
      - FSR.jpg
  - Hospital Bed Report
    - Set the **Save as jpeg** file name to:
      - HSB.jpg
  - Local Weather Report
    - Set the **Save as jpeg** file name to:
      - LWX.jpg
  - After saving the file, look to see if the size of each map is **larger** than 35 kb, if not, you have the wrong zoom factor and should rebuild them one or more size(s) larger.

### Create the ICS-213 Reply

- Find and select the imported ICS-213 message. It should have a 05/05/2025 date and was addressed to ETO-FACILITATOR01.
- Click on Message > Reply
- Within Section 9 of the ICS-213 Reply.
  - On the first line of Section 9, enter all the following text between the quotes:
    - "FSR, HSB, LWX"
  - On the second line, you will enter three numbers, separated by commas.
    - Such as X, Y, Z
      - Where:
        - X is the number of red markers you noted within the map of the Field Situation Report. (Locations with unstable power)
        - Y is the number of red markers you noted in the map of the Hospital Bed Report (Locations with available Critical Care beds of 2 or less)
        - Z is the number of red markers you noted in the Local Weather Report. (Locations with a temperature reading

of 90 degrees or more)

- Provide your Call Sign in the **Replied By:** field.
- Provide your name in the **Position/Title:** field.
- Provide the Current Date/Time in the **Date / Time:**
  - The date and time should fall within the Exercise Message Submission Window (MAY 6 00:00 UTC — May 11 00:00 UTC)
- It is recommended you Save the Form Data in case you need to recreate it.
- Submit the form.

### Attach the Three Generated Map files

- From within the **Enter a reply to this message** Winlink window, click on the **Attach:** button to bring up the **Attachments Dialog.**
- Click on **Add** to add all three .jpg files you created
  - FSR.jpg
  - HSB.jpg
  - LWX.jpg

### Crop and Resize the Maps

- For each map
  - Select the map.
  - Click on Edit/Resize-Image.
  - Crop the map to the borders of the state of Colorado.
    - Select one of the four border corners.
    - Drag the cursor to the diagonal corner.
    - Click on Crop.
  - Resize the map so it is close to 35 kb
    - Click on Resize
      - Enter 35 in the **Desired size (kb):** field.
      - Click on **Change Size.**
      - Click on **Save.**
  - Click on **Save Changes.**

**Send the ICS-213 Reply with Attachments via Winlink Telnet**

- Address the message to your ETO Clearinghouse.
- Set the CC field to **ETO-BK**
- This message will be close to the maximum size permissible to send via Winlink (120Kb).
  - It is **NOT Recommended** to send this via HF.
  - If you can send via VARA FM to a station that will consistently get a speed level of 7 or more, you can choose that Winlink session mode.
  - Otherwise, send the message via Winlink Telnet.

End of instructional Notes.