

Cherokee ARES

Winlink GPS Mapping and Reporting

Version 1/25/2022
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Agenda

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4. Winlink Supported Mapping Forms
5. Map your Own Report
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7. Add Map to Google Maps.

Overview

Winlink (www.winlink.org) is a worldwide network for passing email traffic over radio. It does not depend on the internet but has connectivity to internet-based stations allowing you to send and receive to other winlink.org recipients AND to email account that are internet based.

Winlink is used by mariners, RV enthusiasts, MARS, ARES, and many other agencies who need to communicate when the internet is not available.

The Winlink system consists of a group of Common Message Servers (CMS) placed at various locations around the world. These connect via the internet to Radio Message Servers (RMS) in many geographic locations to form a star network configuration. The RMS are the VHF, UHF, or HF RF gateway into the Winlink system. The final component is your station running the software to send/receive messages via your radio.

Winlink messages, like regular email, are sent to specific addresses and may contain file attachments such as pictures, weather maps, spreadsheets, ICS forms, etc.

References

- Winlink Site: <http://Winlink.org>
- Download Winlink Express: <https://winlink.org/RMSExpress>
- Winlink FAQ: [Winlink FAQ - July 20, 2020 - Revised \(Frequently Asked Questions\) | Winlink Global Radio Email](#)
- Lee-KT4LS: Google Map upload instructions

Winlink Mapping

1. Winlink has an advance feature that allows operators to map various enabled MAPPING-GIS FORMS from within Winlink.
2. When mapped, the operator may drill down on the callsign to see additional data received via the Winlink Form.
3. Winlink has various Filters, based on the form to see only the data that the operator is interested in.
4. The Winlink Map can be saved as a jpeg to be shared with served agency or saved with a time-stamp to see the progression of the reports as the incident or exercise unfolds.
5. The Winlink data can be exported to a CSV file and used for custom reporting, or imported into Google Maps for dissemination at a wider level, (individuals without Winlink).

Winlink Supported Mapping Forms

The following Form Templates, support mapping and are found under MAPPING-GIS-FORMS.

(For Cherokee County ARES, the forms with the stars are the F=forms we are going to focus on in this training)

1. Hospital Bed Report
2. Hurricane Report
3. LAX Bed Availability Report- HAS
- ★ 4. Local Weather Report
- ★ 5. Severe Weather Report
6. SHARES Spotrep-2
- ★ 7. Winlink Check-In
- ★ 8. Winlink Check Out.

Winlink Supported Mapping Forms- Local Weather Report

The Local Weather Report may be used during SKYWARN or HEALTH and WELFARE nets when severe weather not present, and an efficient form for communicating current weather reports.

CURRENT LOCAL WEATHER CONDITIONS			
<input type="button" value="Setup"/> Click to add your agency/group name to title		<input type="button" value="Load Local WX Report Data"/>	
Call sign: <input type="text" value="W1JKU"/>	Observer Name: <input type="text"/>		
Report Date/Time (local): <input type="text" value="2022-01-23 19:32:16"/>	Location: <input type="text" value="Street name or known closest landmark"/>		
City: <input type="text"/>	State: <input type="text"/>	County: <input type="text"/>	
Latitude and longitude: LAT <input type="text" value="34.1458"/> LON <input type="text" value="-84.5417"/> MGRS <input type="text" value="16SGC2665681052"/> Grid <input type="text" value="EM74rd"/>			
<small>Auto filled if GPS device is working in Express, or you can enter Latitude and Longitude / MGRS coordinates manually. For accurate mapping you must enter the latitude and longitude. If sending report for someone else, do not use your GPS Lat/Lon, obtain theirs if available and manually enter in decimal format.</small>			
Measurements used: <input checked="" type="radio"/> Metric <input type="radio"/> Imperial			
Current Conditions: Check all that apply			
<input type="checkbox"/> CLEAR	<input type="checkbox"/> RAIN	<input type="checkbox"/> THUNDER STORM	<input type="checkbox"/> HAIL
<input type="checkbox"/> SNOW	<input type="checkbox"/> BLIZZARD	<input type="checkbox"/> TORNADO	<input type="checkbox"/> HURRICANE
<input type="checkbox"/> FOG	<input type="checkbox"/> CLOUDY		
Temperature <input type="text" value="--"/> °C	HUMIDITY: <input type="text" value="--"/> %	DEWPOINT <input type="text" value="--"/> °C	
Barometer <input type="text" value="--"/> millibars	Three hour trend <input type="radio"/> RISING <input type="radio"/> STEADY <input type="radio"/> DROPPING		
Cloud cover description: <input type="text"/>			
Wind Speed: <input type="text" value="--"/> KM/h	<input type="button" value="Estimated"/> <input type="button" value="Actual"/>	Direction From: <input type="button" value="Select Direction"/>	
Wind Gusts: <input type="text" value="--"/> KM/h	Wind Gusts MAX: <input type="text" value="--"/> KM/h		
Rain 1 HR: <input type="text" value="--"/> millimeters	Rain Total: <input type="text" value="--"/> millimeters		
Snow 1 HR: <input type="text" value="--"/> centimeters	Snow Total: <input type="text" value="--"/> centimeters	Water Content: <input type="text" value="--"/>	
NWS Level: <input type="button" value="NONE Issued"/> <input type="text"/>			
Notes: (optional) Anything of importance, damages noted, or weather type not indicated in above form.			
<input type="textarea"/>			
<input type="button" value="Save Local WX Data"/>	<input type="button" value="Submit"/>	<input type="button" value="Reset Form"/>	
Form Concept by KF5SMH			Ver 2.8

Winlink Supported Mapping Forms- Severe Weather Report

The Severe Weather Report may be used during SKYWARN or HEALTH and WELFARE nets when severe weather is occurring or following up on severe weather that has previously occurred:

SEVERE WEATHER REPORT	
Load Severe WX Data	
Sender: <input type="text" value="W1JKU"/>	
Report Date/Time (local): <input type="text" value="2022-01-23 19:35:01"/>	Report Version (Select one): <input checked="" type="radio"/> First Report <input type="radio"/> Update Report <input type="radio"/> Final Report
Reporting Party Name: <input type="text"/>	
Reporting Party Phone Number: <input type="text"/>	
Reporting Party Email Address: <input type="text"/>	
EVENT AREA	
City: <input type="text"/>	State/Province/Region: <input type="text"/>
County: <input type="text"/>	Other: <input type="text"/>
Latitude and longitude: LAT <input type="text" value="34.1458"/> LON <input type="text" value="-84.5417"/> MGRS <input type="text" value="T6SGC2665681052"/> Grid <input type="text" value="EM74rd"/>	
<small>LAT/LON and MGRS default to the center of the grid square listed in Express Settings, unless a GPS is used or Lat/LON or MGRS are entered manually.</small>	
<small>If sending report for someone else, do not use your GPS Lat/Lon, obtain theirs if available and manually enter in decimal format.</small>	
OBSERVED EVENT CONDITIONS	
<small>Check All That Apply</small>	
Flood: <input type="text" value="Choose"/>	
Hail: <input type="text" value="Choose"/>	
High Wind Speed: <input type="text" value="Choose"/>	View Wind Speed guidelines
Tornado / Funnel Cloud: <input type="text" value="Choose"/>	
Wind Damage: <input type="text" value="Choose"/>	
Winter Precipitation: <input type="text" value="Choose"/>	
Snow: <input type="text" value="Choose"/>	
Freezing Rain: <input type="text" value="Choose"/>	
Heavy Rain: <input type="text" value="Choose"/>	Time period: <input type="text"/> <small>Report 1" or greater in an hour and every inch thereafter; 2 inches or greater storm total.</small>
Additional Information or Damage Descriptions (Be Brief)	
<input type="text" value="Anything of importance or damages noted. No names or specific addresses"/>	
Save Severe WX Data <input type="button" value="Submit"/> <input type="button" value="Reset Form"/>	
Ver 3.2	

Winlink Supported Mapping Forms- Winlink Check-In

The Winlink Check-In Report may be used to check into a NET or Incident, depicting your current Location and brief operational status.

SEVERE WEATHER REPORT	
Load Severe WX Data	
Sender: <input type="text" value="W1JKU"/>	
Report Date/Time (local): <input type="text" value="2022-01-23 19:35:01"/>	Report Version (Select one): <input checked="" type="radio"/> First Report <input type="radio"/> Update Report <input type="radio"/> Final Report
Reporting Party Name: <input type="text"/>	
Reporting Party Phone Number: <input type="text"/>	
Reporting Party Email Address: <input type="text"/>	
EVENT AREA	
City: <input type="text"/>	State/Province/Region: <input type="text"/>
County: <input type="text"/>	Other: <input type="text"/>
Latitude and longitude: LAT <input type="text" value="34.1458"/> LON <input type="text" value="-84.5417"/> MGRS <input type="text" value="T6SGC2665681052"/> Grid <input type="text" value="EM74rd"/>	
<small>LAT/LON and MGRS default to the center of the grid square listed in Express Settings, unless a GPS is used or Lat/LON or MGRS are entered manually.</small>	
<small>If sending report for someone else, do not use your GPS Lat/Lon, obtain theirs if available and manually enter in decimal format.</small>	
OBSERVED EVENT CONDITIONS	
<small>Check All That Apply</small>	
Flood: <input type="text" value="Choose"/>	
Hail: <input type="text" value="Choose"/>	
High Wind Speed: <input type="text" value="Choose"/>	View Wind Speed guidelines
Tornado / Funnel Cloud: <input type="text" value="Choose"/>	
Wind Damage: <input type="text" value="Choose"/>	
Winter Precipitation: <input type="text" value="Choose"/>	
Snow: <input type="text" value="Choose"/>	
Freezing Rain: <input type="text" value="Choose"/>	
Heavy Rain: <input type="text" value="Choose"/>	Time period: <input type="text"/> <small>Report 1" or greater in an hour and every inch thereafter; 2 inches or greater storm total.</small>
Additional Information or Damage Descriptions (Be Brief)	
<input type="text" value="Anything of importance or damages noted. No names or specific addresses"/>	
Save Severe WX Data <input type="button" value="Submit"/> <input type="button" value="Reset Form"/>	
Ver 3.2	

Winlink Supported Mapping Forms- Winlink Check-Out

The Winlink Check-Out Report may be used to check out of a NET or Incident, depicting your current location and brief operational status.

SEVERE WEATHER REPORT	
Load Severe WX Data	
Sender: <input type="text" value="W1JKU"/>	
Report Date/Time (local): <input type="text" value="2022-01-23 19:35:01"/>	Report Version (Select one): <input checked="" type="radio"/> First Report <input type="radio"/> Update Report <input type="radio"/> Final Report
Reporting Party Name: <input type="text"/>	
Reporting Party Phone Number: <input type="text"/>	
Reporting Party Email Address: <input type="text"/>	
EVENT AREA	
City: <input type="text"/>	State/Province/Region: <input type="text"/>
County: <input type="text"/>	Other: <input type="text"/>
Latitude and longitude: LAT: <input type="text" value="34.1458"/> LON: <input type="text" value="-84.5417"/> MGRS: <input type="text" value="T6SGC2665681052"/> Grid: <input type="text" value="EM74rd"/>	
<small>LAT/LON and MGRS default to the center of the grid square listed in Express Settings, unless a GPS is used or Lat/LON or MGRS are entered manually.</small>	
<small>If sending report for someone else, do not use your GPS Lat/Lon, obtain theirs if available and manually enter in decimal format.</small>	
OBSERVED EVENT CONDITIONS	
<small>Check All That Apply</small>	
Flood: <input type="text" value="Choose"/>	
Hail: <input type="text" value="Choose"/>	
High Wind Speed: <input type="text" value="Choose"/>	View Wind Speed guidelines
Tornado / Funnel Cloud: <input type="text" value="Choose"/>	
Wind Damage: <input type="text" value="Choose"/>	
Winter Precipitation: <input type="text" value="Choose"/>	
Snow: <input type="text" value="Choose"/>	
Freezing Rain: <input type="text" value="Choose"/>	
Heavy Rain: <input type="text" value="Choose"/>	Time period: <input type="text"/> <small>Report 1" or greater in an hour and every inch thereafter; 2 inches or greater storm total.</small>
Additional Information or Damage Descriptions (Be Brief)	
<input type="text" value="Anything of importance or damages noted. No names or specific addresses"/>	
Save Severe WX Data <input type="button" value="Submit"/> <input type="button" value="Reset Form"/>	
Ver 3.2	

Winlink Supported Mapping Forms- Map your own Report

If you, as the operator, want to submit a report for it to appear on your Winlink, then there is a process you must follow.

- After adding yourself at the Recipient (To Address), then use the **Move To:** option and move your message from your Outbox to your Inbox.
- You must do this for Winlink will not let you Transmit the Form to yourself over Telnet or RF.
- Once your message is in your Inbox, then Winlink will be able to Map your form/report. After Winlink recognizes the message and adds to the GPS database, the message “can” be moved out of the Inbox to any other folder without affecting the mapping capability of Winlink.



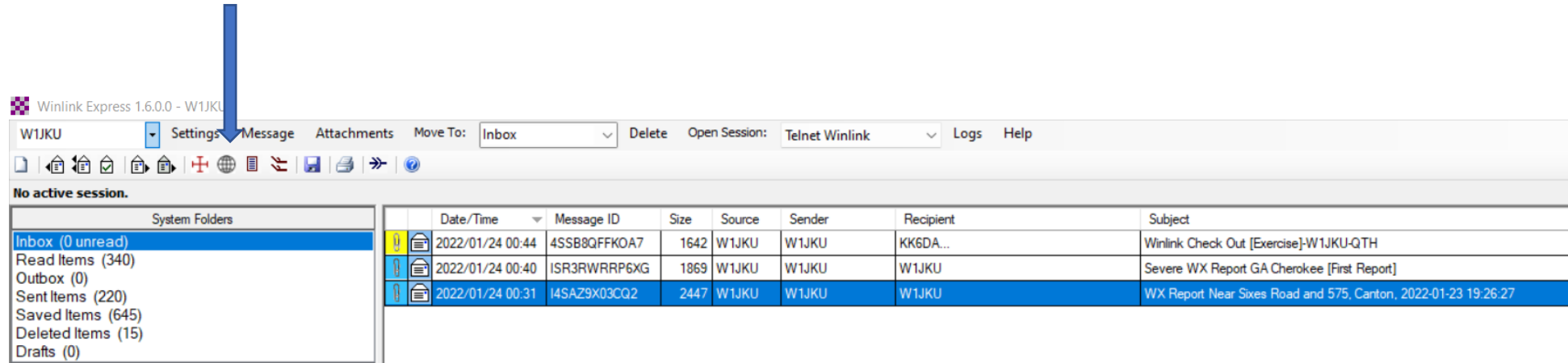
The screenshot shows the Winlink interface with the following details:

- Top bar: W1JKU, Settings, Message, Attachments, Move To: Inbox, Delete, Open Session: Telnet Winlink, Logs, Help.
- Toolbar: Icons for file operations and session management.
- Status: No active session.
- System Folders: Inbox (0 unread), Read Items (340), Outbox (1), Sent Items (220), Saved Items (645), Deleted Items (15), Drafts (0).
- Message List Table:

Date/Time	Message ID	Size	Source	Sender	Recipient	Subject
2022/01/24 00:40	ISR3RWRP6XG	1869	W1JKU	W1JKU	W1JKU	Severe WX Report GA Cherokee [First Report]

Winlink Mapping Real-Time

Click on the Globe Icon to begin the Mapping process



The screenshot shows the Winlink Express 1.6.0.0 interface. The title bar reads "Winlink Express 1.6.0.0 - W1JKU". The menu bar includes "W1JKU", "Settings", "Message", "Attachments", "Move To: Inbox", "Delete", "Open Session: Telnet Winlink", "Logs", and "Help". The toolbar contains various icons, including a globe icon. Below the toolbar, it says "No active session." The main area displays a list of messages in the inbox. The left sidebar shows system folders: "Inbox (0 unread)", "Read Items (340)", "Outbox (0)", "Sent Items (220)", "Saved Items (645)", "Deleted Items (15)", and "Drafts (0)".

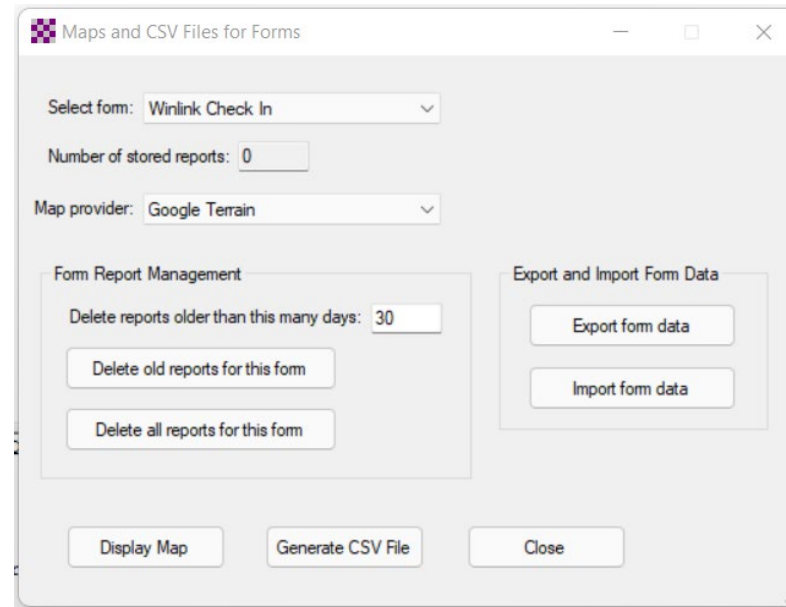
	Date/Time	Message ID	Size	Source	Sender	Recipient	Subject
	2022/01/24 00:44	4SSB8QFFKOA7	1642	W1JKU	W1JKU	KK6DA...	Winlink Check Out [Exercise]-W1JKU-QTH
	2022/01/24 00:40	ISR3RWRRP6XG	1869	W1JKU	W1JKU	W1JKU	Severe WX Report GA Cherokee [First Report]
	2022/01/24 00:31	I4SAZ9X03CQ2	2447	W1JKU	W1JKU	W1JKU	WX Report Near Sixes Road and 575, Canton, 2022-01-23 19:26:27

Comments:

1. Only Reports in your Inbox may be Mapped.
2. You may further clear old reports or all prior reports that Winlink is tracking. Consider doing this before the incident

Winlink Mapping Real-Time

1. You will then be presented with the MAPs and CSF Files Selection Screen.
2. You may further clear old reports or all prior reports that Winlink is tracking. Consider doing this before the incident.
3. You must select the form that was automatically found in your Inbox to map that form.
4. Winlink will tell you how many reports were found for that form and eligible to be mapped.
5. While you have various Map Provider Options, consider using Google Terrain.
6. You may click the Display Map to see all of the reports for the current form selected.
7. You may generate a CSV file from this data to use as needed for importing into Google Maps, or custom reporting.

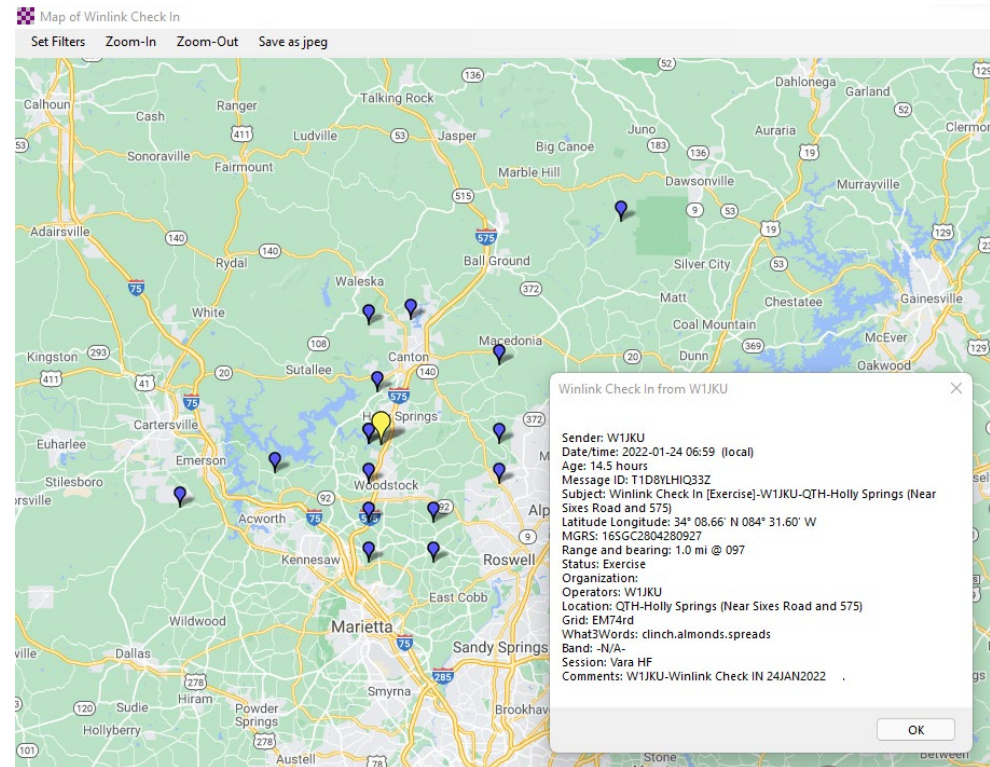
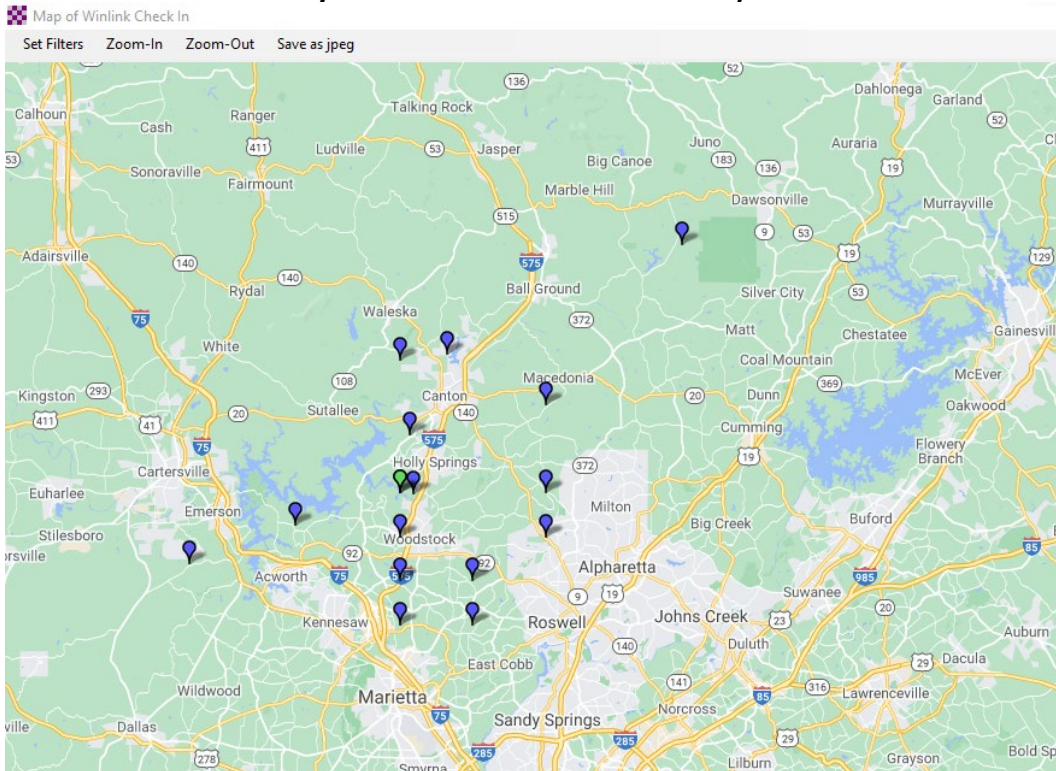


The screenshot shows a dialog box titled "Maps and CSV Files for Forms". It contains the following elements:

- A dropdown menu for "Select form:" with "Winlink Check In" selected.
- A text field for "Number of stored reports:" showing "0".
- A dropdown menu for "Map provider:" with "Google Terrain" selected.
- A section titled "Form Report Management" containing:
 - A text field for "Delete reports older than this many days:" with "30" entered.
 - A button labeled "Delete old reports for this form".
 - A button labeled "Delete all reports for this form".
- A section titled "Export and Import Form Data" containing:
 - A button labeled "Export form data".
 - A button labeled "Import form data".
- At the bottom, three buttons: "Display Map", "Generate CSV File", and "Close".

Winlink Mapping Real-Time

1. Now that the Map has appeared, you may click on the icon for a reporting station to see the details of the report that station provided.
2. You may further Zoom-In, Zoom-Out, Save as JPEG
3. You may set Filters depending on the Report you're displaying. Those filters will allow you to change the station to Red based on the report filter you select. (Very helpful in knowing which stations have critical issues you want to focus on.)

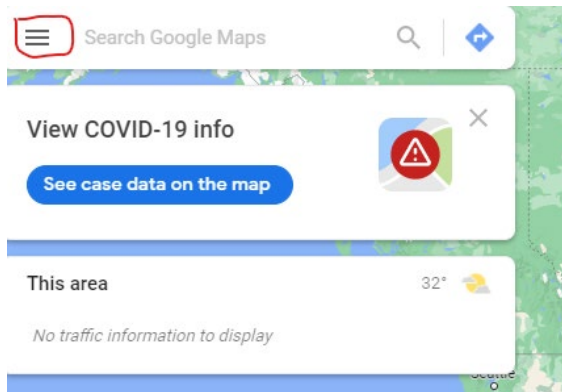


Importing to Google Maps

This step is only needed if you have a Google Account and want to make the Maps visible on the internet

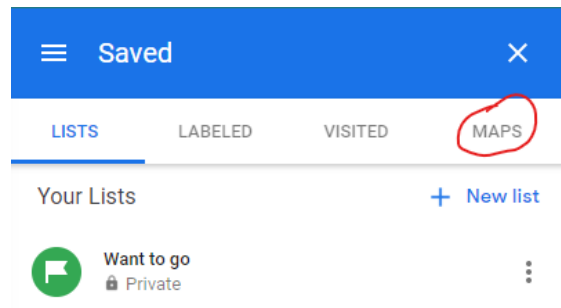
Map Creation

1. Go to: <https://google.com/maps>
2. Open Menu



3. Select 'Your places'

4. Select 'Maps'



Importing to Google Maps (Cont)

5. Select 'Create Map' at bottom of page
6. Select 'Open in my maps'
7. Select 'Import'
8. Drag and drop your file into the box that appears. (Use the CSV File you created from **Winlink Mapping Real-Time**)
9. Select 'Latitude and Longitude'
10. Click 'Next' Select other content that you want to display (Select **FROM**)
11. After the map is created, use the options to change pin color or other setting
12. Once the map is created, there are options to Share the MAP. The map must be shared to be visible by anyone else.

Q&A

THANK YOU