BASIC WINLINK PROFICIENCY

STORMAGEDDON SCENARIO PLAYBOOK

Abstract

The exercises associated with this playbook practice the basic Winlink skills as identified in the Georgia ARES Winlink Proficiency Goals document. The exercises are based around a scenario theme as presented in an Incident Command System ICS-201 Incident Summary Plan format. The theme is Stormageddon.

GA ARES Training and Development

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INTRODUCTION

OVERVIEW

This series of exercise sessions are based on the basic Winlink goals as identified in the Georgia ARES Winlink Proficiency Goals document. Before working through the exercises, the student (hereafter operator) is requested to review the Proficiencies Goal document and referenced training material.

In the basic sessions the operator is introduced to Winlink Express and a small set of standard form templates:

- Winlink Check-In and Check-Out
- Local Weather Report
- ICS-213 General Message Form
- ICS-213RR Resource Request Form
- ICS-214 Activity Log
- ICS-309 Communications Log

The Incident Command System (ICS) forms used in the exercises are typical of that used during an actual event. Exercise ICS-213 and 213RR messages are provided in each exercise to the operator "handwritten" as if originating from agency staff.

Stormageddon exercise session success is measured by:

1. Accurate transcription (section: **Message Check Points**) of agency message into the appropriate Winlink Express form.
2. Messages are sent or received via a Winlink Express radio-based Packet Winlink and Packet P2P session methods.
3. Message handling (section: **Message Handling**) procedures are followed to include recording activity in ICS-214 activity and ICS-309 communications logs.

> Note: These exercise sessions focus on building basic message skills and operating with packet sessions. In the event the operator is in an area with no VHF/UHF packet RMS gateways or are not otherwise able to access an HF RMS gateway, complete the exercises using Telnet sessions.

REFERENCES

Refer to the following documents for additional information related to this series of exercises:

A. *Georgia ARES Winlink Proficiency Goals*, document dated 2021
B. *Winlink Book of Knowledge*, winlink.org
C. Basic Winlink Session Exercises:
   - *Basic Winlink Proficiency Session B1*

- *Basic Winlink Proficiency Session B2*
- *Basic Winlink Proficiency Session B3*
- *Basic Winlink Proficiency Session B4*

D. San Diego ARES Winlink YouTube Series
https://www.youtube.com/playlist?list=PL-7mirT-kjfs84FQzLr-qv066Kl94rtYM

E. Georgia ARES Training YouTube Channel
https://www.youtube.com/channel/UCyytlu3lEKyTcJeeGoFBE9A/videos

Georgia ARES wishes to express thanks to the various organizations for publicly sharing documentation and video material in support of Winlink proficiency training. In particular, the Sand Diego ARES organization for their excellent YouTube Winlink training channel.

Thanks go to Georgia Section members Karen (AB4NW) and Larry (AB4NX) Whited for their thoughtful input and review.

PRE-EXERCISE ACTIVITIES

Prior to commencing the Winlink exercise sessions:

1. Install, configure and test Winlink Express (Telnet session).
2. Send message to email address (Telnet session), (see **Winlink Express Test Message** subsection).
3. Send message to SMS (or MMS) text message (Telnet session), (see **Sending Message to SMS or MMS Address** subsection).
4. Configure packet session and send a test message.
5. Update packet channel list.
6. Create Stormageddon Personal Folder.

Refer to the *Georgia ARES Winlink Proficiency Goals* document, **Basic Operator Skills** section, for direction to videos and other self-help sources of information related to this exercise.

> Note for best results the operator should seek the assistance of an experienced Winlink Express Elmer or instructor (hereafter referred to as the NCS). In addition, a portion of the exercises involve receipt and reply to messages, this requires a second operator or Elmer to originate message traffic.

INSTALL AND CONFIGURE WINLINK EXPRESS

If not already performed, download the complete Winlink Express package. The file is called Winlink Express Install xxxx.zip, where 'xxxx' is the current version number. Download page:

https://downloads.winlink.org/User%20Programs/

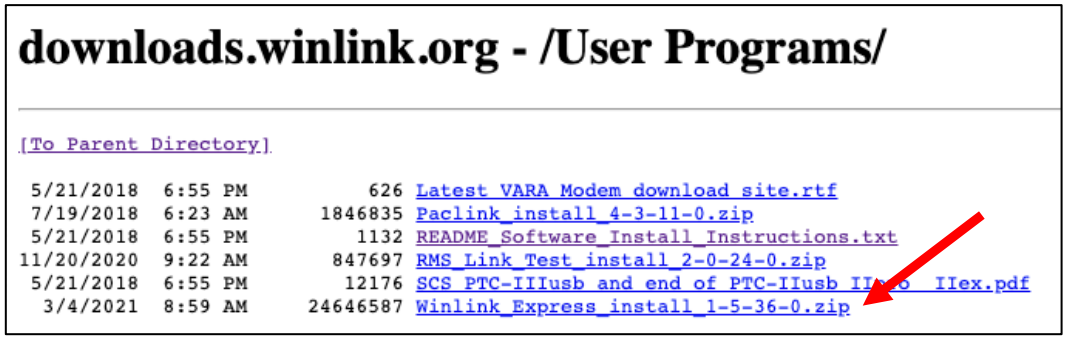

Figure 1 Winlink Express Download Page

1. Unzip the contents to a directory you can find again, then go to that directory.
2. Run the .msi file to properly install the program. Follow the onscreen directions.
3. Start Winlink Express.

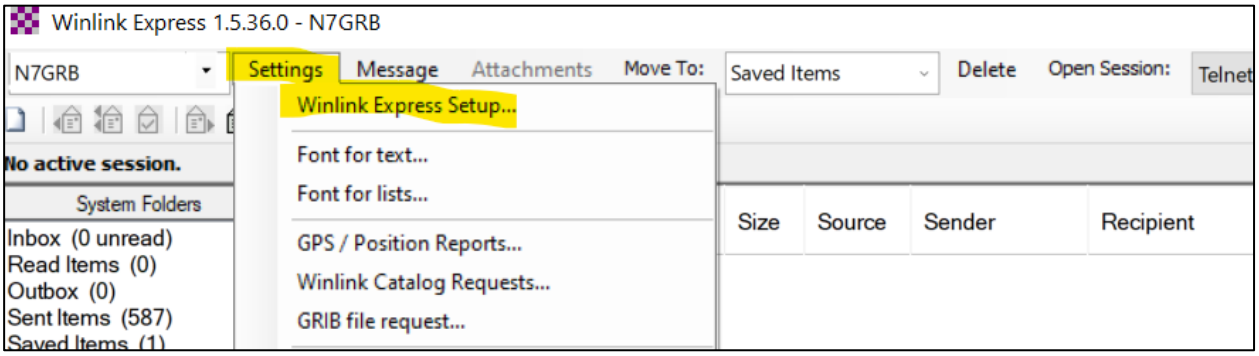

Figure 2 Winlink Express Setup Access

If this is the first time Winlink Express has been run a settings dialog will automatically appear. If not, then on the top menu bar select: Settings followed by Winlink Express Setup.

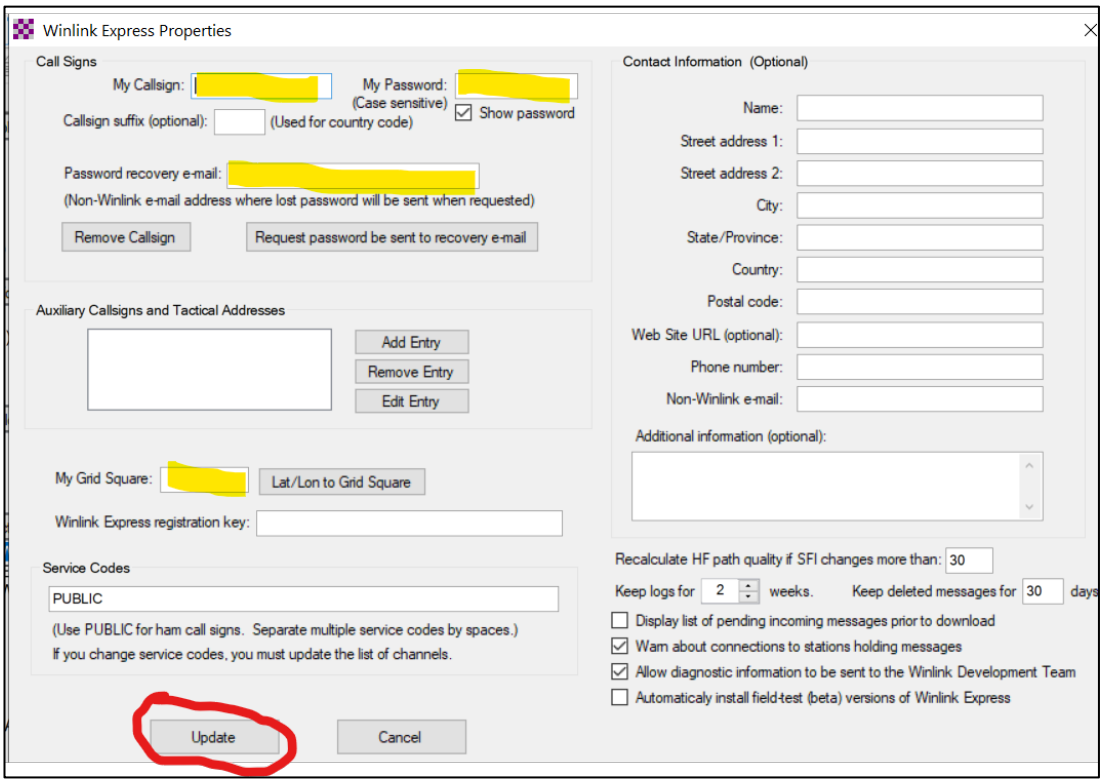

Figure 3 Winlink Express Properties (Settings)

Enter at least the following minimal information (Figure 3 Winlink Express Properties (Settings)):

1. My Callsign
2. My Password
3. Password recovery e-mail
4. My Grid Square
5. Service Codes (e.g., PUBLIC)
6. Press Update (ensure the host system is connected to the Internet)

Follow the procedures described in **Starting a Winlink Telnet Session**. With a Telnet session test the configuration and email account, see sections **Winlink Express Test Message** and **Sending Message to Email, SMS or MMS Addresses**.

> Need more help?
>
> View the San Diego ARES YouTube video: *How to download and install Winlink Express*.
> Review Winlink Express Help, Setup topics: *Installation* and *Basic Configuration*

STARTING A WINLINK TELNET SESSION

Telnet Winlink sessions do not utilize radio equipment. It does require the host computer to have an Internet connection. The Telnet session connects with one of several redundant Common Message Servers (CMS), email servers associated with the Winlink system. The CMS servers are currently hosted by Amazon Web Services.

Starting a session, whether Telnet or one of the several other session types, is a two-step process:

1. Select and open the session manager.
2. Start a session connection.

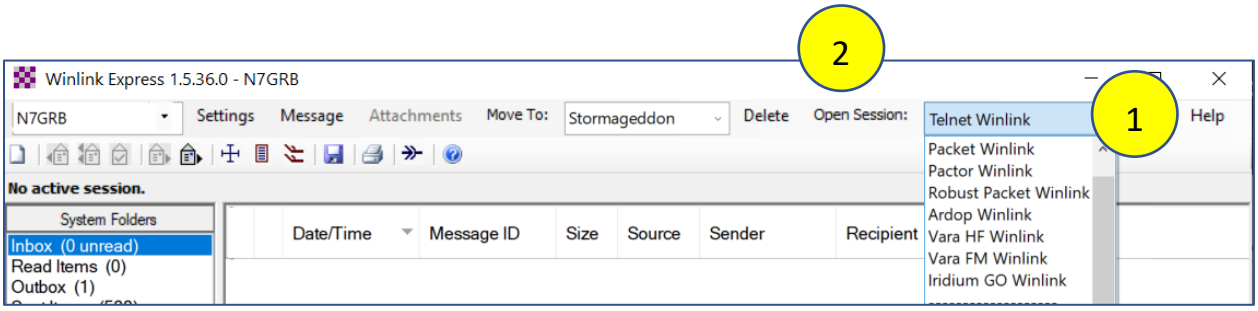

Figure 4 Open Telnet Session

Instructions to open a Telnet session:

1. On the main Winlink menu bar (Figure 4 Open Telnet Session) open the drop down select list to the right of Open Session. Select **Telnet Winlink**.
2. Press **Open Session**. The Telnet Winlink Session manager will start in a new window.

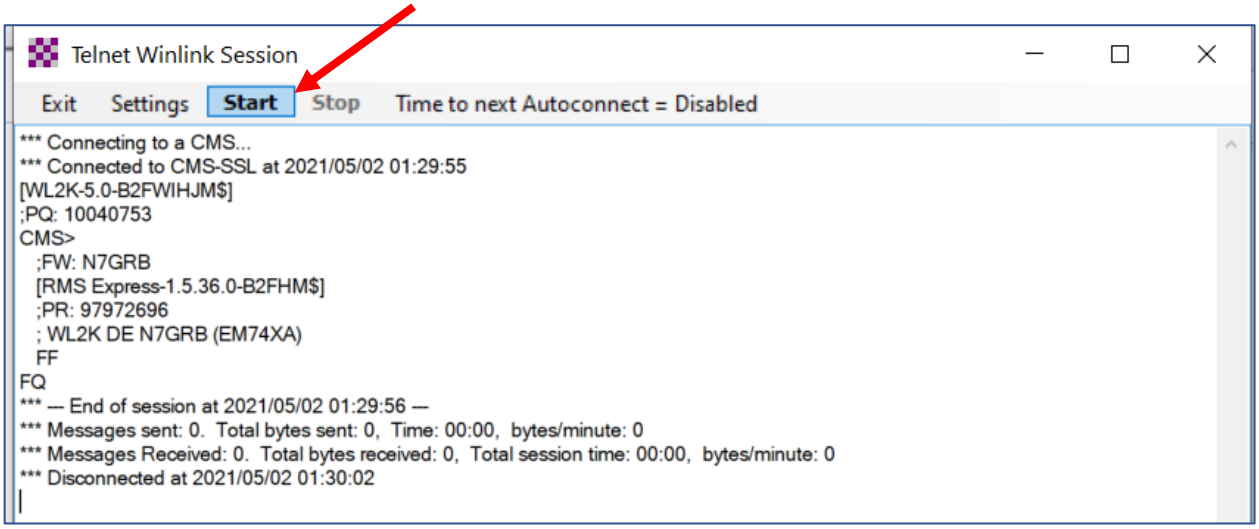

Figure 5 Start Telnet Session

Instructions to start a Telnet connection to a CMS server:

Press **Start** on the Telnet Winlink Session manager menu bar (Figure 5 Start Telnet Session). Connection progress is shown in the session manager dialog window.

WINLINK EXPRESS TEST MESSAGE

The Winlink system does not allow messages to be addressed back to the message sender, that is the operator is not allowed to send a message to their own Winlink account. Winlink does provide a message test service. The process is described in the *Winlink Book-of-Knowledge* How-to recipe: *How to Send a Message to Yourself.*

In brief:

1. Compose and address your message to TEST@winlink.org (Figure 6 Test Message to Self).
2. Post to outbox, as you would any other message.
3. Open a session, a radio or telnet session, and send it normally.
4. Wait a minute and connect again. The message you sent to TEST@winlink.org will be returned to your inbox as if it came from another user with the TEST callsign.

Figure 6 Test Message to Self

Need more help?

View the San Diego ARES YouTube video: *How to test your Winlink email account*.
Read Winlink Book-of-Knowledge How-to recipe: *How to Send a Message to Yourself*.

SENDING MESSAGE TO EMAIL, SMS OR MMS ADDRESSES

The "To" and "Cc" fields accept Internet email addresses. Multiple email addresses and/or call signs are separated with semi-colons ";".

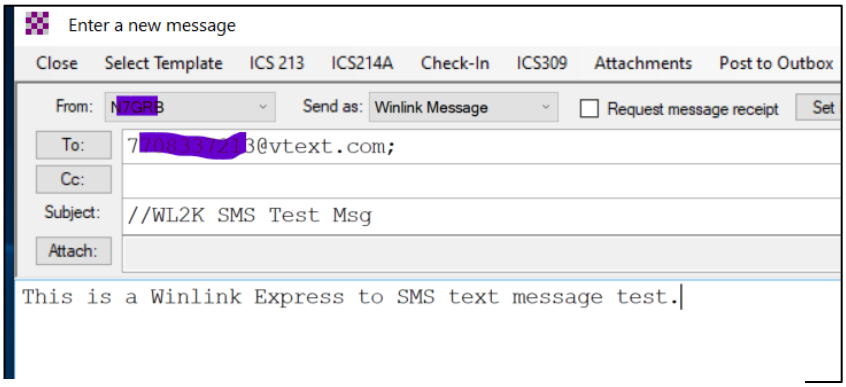

Figure 7 Winlink to SMS Text Message

Sending a Winlink message to a phone SMS (or MMS) text message is like sending a Winlink message to an email address (Figure 7 Winlink to SMS Text Message). The address is typically {10-digit phone number@ service provider gateway). Example sending to an AT&T provider: <10-digit-number>@txt.att.net (SMS) or <10-digit-number>@mms.att.net (MMS). While not always required, start the subject line with //WL2K. A Verizon or Spectrum Mobile SMS gateway: <10-digit-number>@vtext.com (SMS).

As the messages are being directed to a phone SMS service, keep the text simple and short (less than 160 characters for an SMS text). MMS can accept longer messages. (Phone charges and message rates may apply to the text message.)

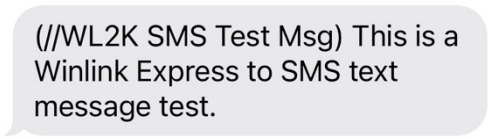

Figure 8 Received Winlink SMS Message

> Don't be surprised if the text message is not successful and a *Relaying Denied* response is received. Some service providers may not recognize the Winlink SMTP server and consider the text as spam. Experiment with the provider.

For this exercise the operator must look up the recipient's phone service provider SMS and/or MMS email gateway. It is recommended to create a list of the more popular provider gateways for future reference. Keep a copy of the gateway list in operator's go-kit!

PACKET SESSION CONFIGURATION

Unlike the Telnet session, the packet session requires setting configuration information related to the Terminal Node Controller (TNC) connection method and parameters.

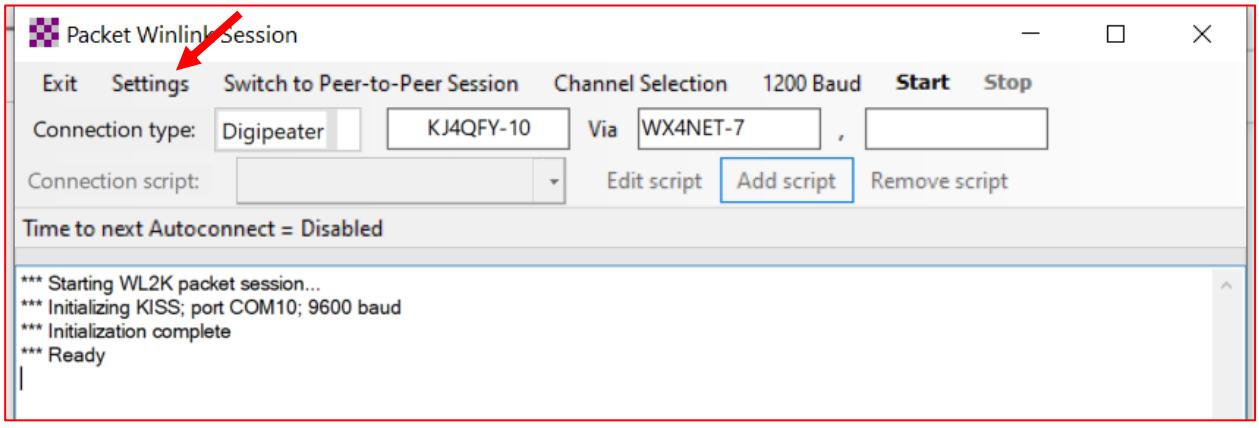

Figure 9 Packet Session Manager

Instructions to access the packet session

1. Open a Packet Winlink session manager (similar to opening a Telnet Winlink session).
2. On the Packet Winlink Session menu bar select **Settings**. A Packet Winlink / P2P Setup window opens similar to Figure 10 TNC Connection Settings Example.

There are numerous packet session hardware configurations that are driven by the radio capabilities (e.g., radio may have a built-in TNC, soundcard device and/or a data interface port) or the use of an external TNC or soundcard attached to the radio via a data port or speaker/mic ports. The configurations and interfacing cables vary significantly based on the hardware requirements.

The operator will need to research the interfacing options for their radio and TNC solution. This would be a good topic to engage with an Elmer.

Some radios, such as the ICOM IC-7100, have a built-in soundcard where the only interface required is a USB cable. Other radios, such as the Alinco DR-135mk III, have provisions for an internal TNC or a data port for interfacing an external TNC or soundcard.

> Note radios such as the ICOM ID-4100 and ICOM ID-5100 have a data port; however, that data port is dedicated to D-Star and not AX.25 packet.

Radios having no internal or data port provisions may still be used; however, interfacing is done by the radio microphone and speaker jacks along with a soundcard device.

One popular interfacing solution with radios not having internal TNC support is with a soundcard and a software based TNC-like application from Andrei Kopanchuk, UZ7HO (http://uz7.ho.ua/). There are numerous Internet articles on the topic of soundcard devices. A very popular device is the Signalink from Tigertronics.

> Need more help?
>
> There are several "how-to recipes" in the *Winlink Book of Knowledge* related to configuring the radio and PC for VHF/UHF packet radio. In particular:
>
> - *Packet Radio-Winlink with UZ7HO software using sound card interfaces (Signalink, DRA, built-in)*
> - *Using a Sound Modem TNC for VHF Packet in Winlink Express* -- Video How-To
> - *How to set up Signalink Sound Levels* -- Video How-To

EXAMPLE PACKET SESSION CONFIGURATION

Figure 10 TNC Connection Settings Example illustrates the session settings for a KISS TNC connected via Windows com port COM10. The KISS TNC is built-in feature of the radio, a Kenwood TH-D74 HT. COM10 is a Bluetooth connection to the HT.

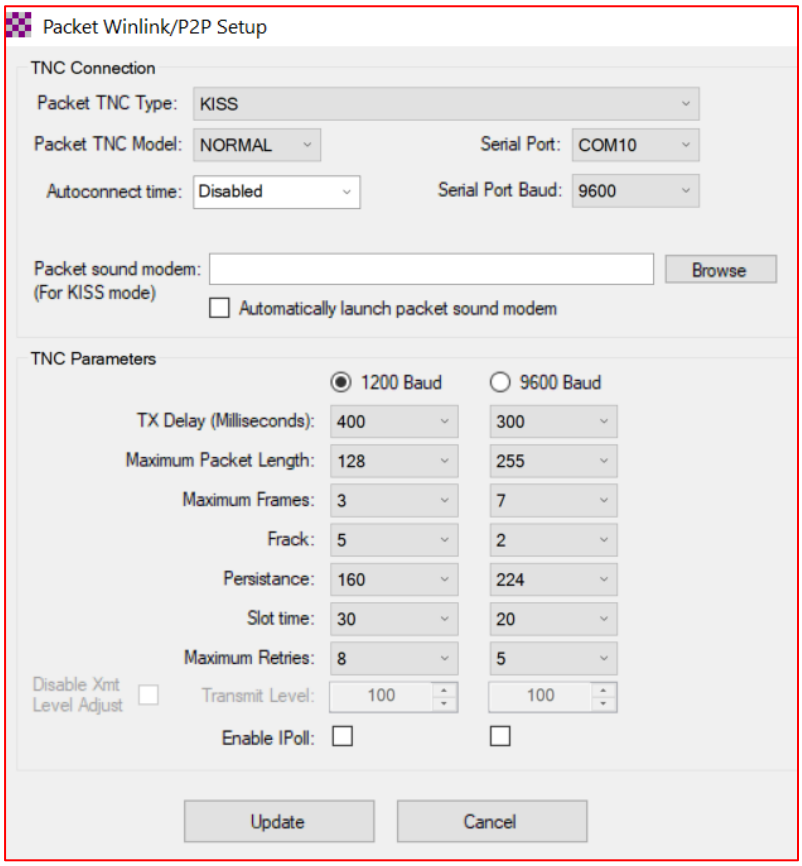

Figure 10 TNC Connection Settings Example

SESSION FOLDER AND ICS-309 COMMUNICATIONS LOG

Winlink Express has a feature to generate an *ICS-309 Communications Log* of Winlink message traffic (review this topic in the references provided in the Proficiency Goals document). This feature is accessed from the Messages menu, Generate ICS-309 Communications Log.

To facilitate Winlink Express creation of an ICS-309 during these exercise sessions, place both received and sent exercise session traffic in the Stormageddon Personal Folder. To create a personal folder, in the folders column left click on the Personal Folders bar or from the Settings menu select “Add Personal Folder …”. A pop-up window appears where a folder name is entered (Figure 11 Stormageddon Personal Folder).

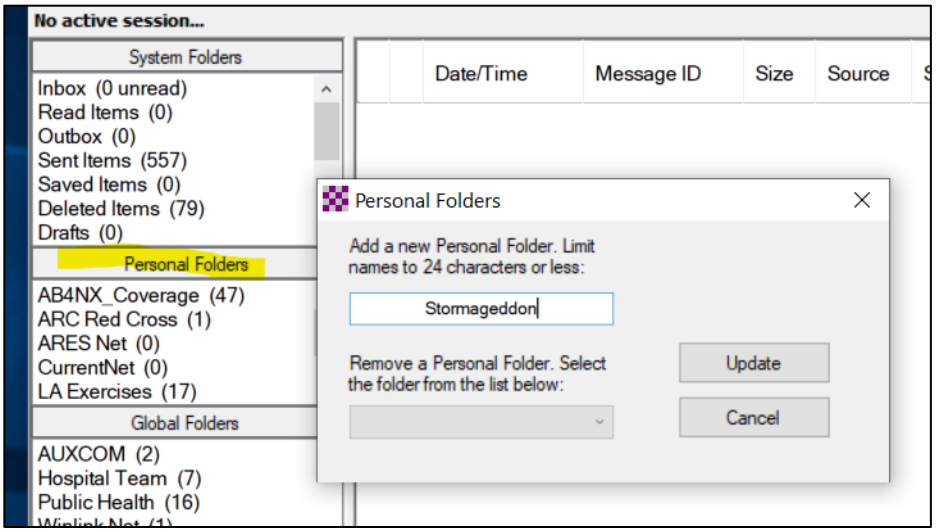

Figure 11 Stormageddon Personal Folder

Need more help?

View the San Diego ARES YouTube video: *How to create a personal folder in Winlink Express*.

While operating at a station an operator will likely have a mix of Winlink digital messages and voice communications. In the latter case for voice communications, the operator will either need to track traffic using paper or the Winlink ICS-309 template form. Using the Winlink ICS-309 template form throughout the shift requires an operator technique and has some risk for data loss should the ICS-309 browser window accidentally close without saving form data.

As shown in Figure 12 Generate an ICS-309 Communication Log as a pdf File, there are several message selections options. As we have placed both sent and received traffic into the Stormageddon personal folder, the ICS-309 generation is simplified, particularly when the exercise sessions have been done on different days.

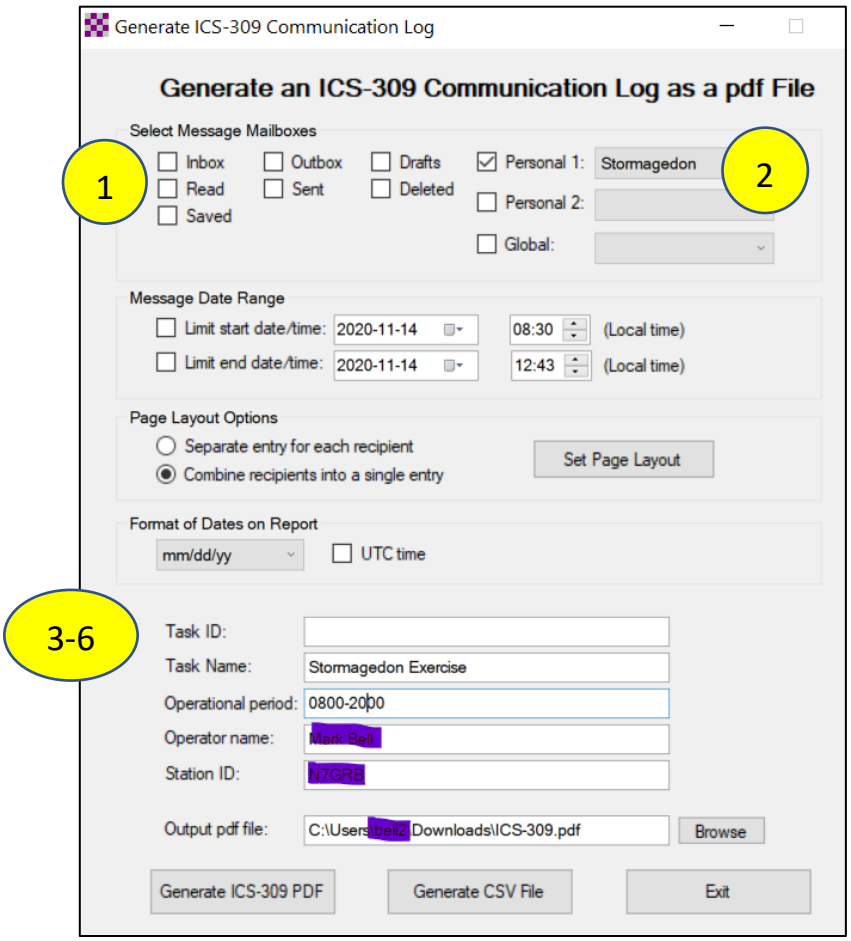

Figure 12 Generate an ICS-309 Communication Log as a pdf File

In the Select Message Mailboxes section:

1. Uncheck all mailboxes.
2. Check “Personal 1” then in the dropdown select Stormageddon.

Leave the Manage Date Range boxes unchecked. We want a report with all the traffic in the Stormageddon personal folder regardless of dates of the traffic.

Below the Format of Dates on Report:

3. Enter task name: Stormageddon Exercise.
4. Enter the operational period for the exercise: 0800 to 2000
5. Enter your name.
6. Enter your station call sign.

Press Generate ICS-309 PDF and an ICS-309 is created.

The operator is asked to email the completed ICS-309 to their NCS or otherwise retain for their records.

Need more help?

View the San Diego ARES YouTube video: *How to create an ICS-309 Comm Log using Winlink Express software*.

EXERCISE SESSIONS

The exercise sessions are based on a scenario theme presented in an Incident Command System ICS-201 Incident Summary Plan format. The theme is "Stormageddon" as described in ICS-201 section 5: **Situation Summary and Health and Safety Briefing**.

Stormageddon is broken into four distinct basic skills sessions (B1, B2, B3 and B4). At the start of each session the operator sends a Winlink Express check in message to the net control station (the Elmer or instructor), simulating checking in from a station involved in the Stormageddon incident. At completion of each session the operator checks out utilizing the associated Winlink Express form. If the operator combines two or more sessions into one sitting, it is only necessary to report the beginning session check in and the last session check out. For example, if doing sessions B1 and B2 in one sitting, report check in at start of B1 and check out at end of B2.

WINLINK STANDARD TEMPLATES

Throughout the session exercises the operator is referred to Winlink message forms located in the **Standard Templates** folder. These forms are maintained by the Winlink Development Team (WDT) and periodically updated.

> Important note:
>
> Always maintain an up to date Winlink Express application and Standard Templates. Overtime the forms change both in what is seen in the browser view of a form's HTML page and internally. In rare cases a form update may not be compatible with its older version. In such cases the form may not display correcting in the HTML view or worse, not display portions of the message information.

When creating a new message based on one of the many **Standard Templates** follow steps one through four in the below new message procedure.

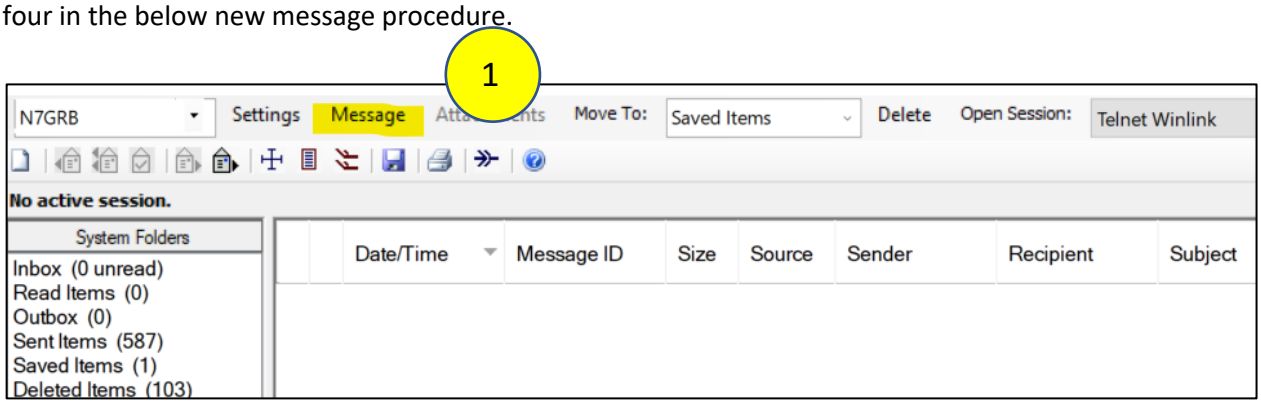

Figure 13 Message Menu Access

1. In the main Winlink window select **Message** (Figure 13 Message Menu Access).

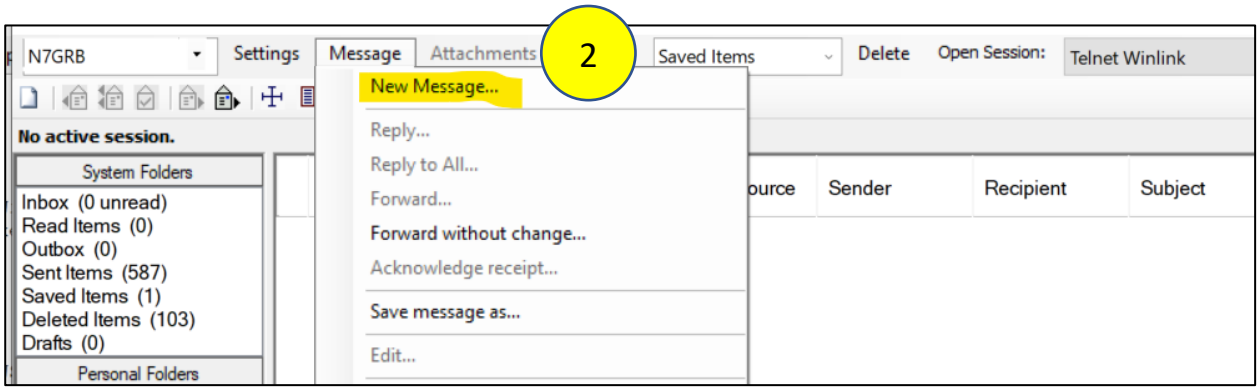

Figure 14 New Message Menu

2. In the Message menu select New Message … (Figure 14 New Message Menu).

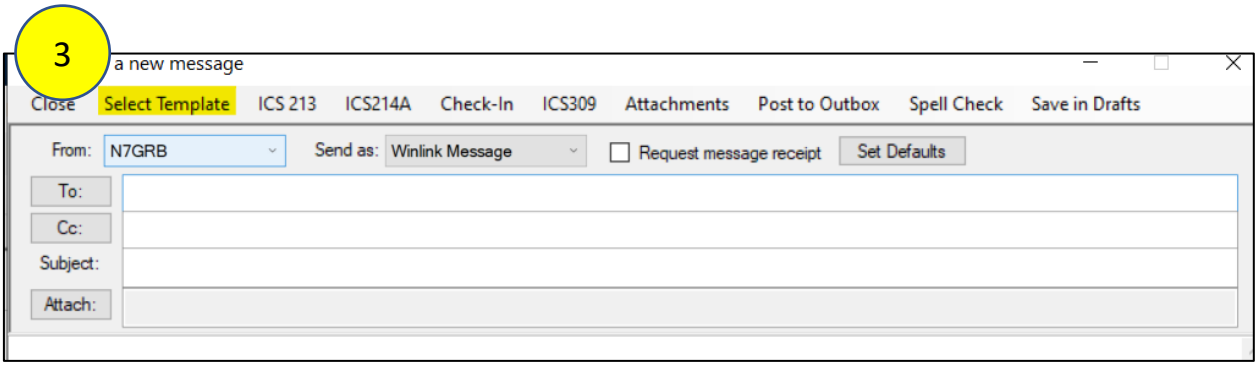

Figure 15 New Message Window Select Template

3. In the new message window choose Select Template (Figure 15 New Message Window Select Template).

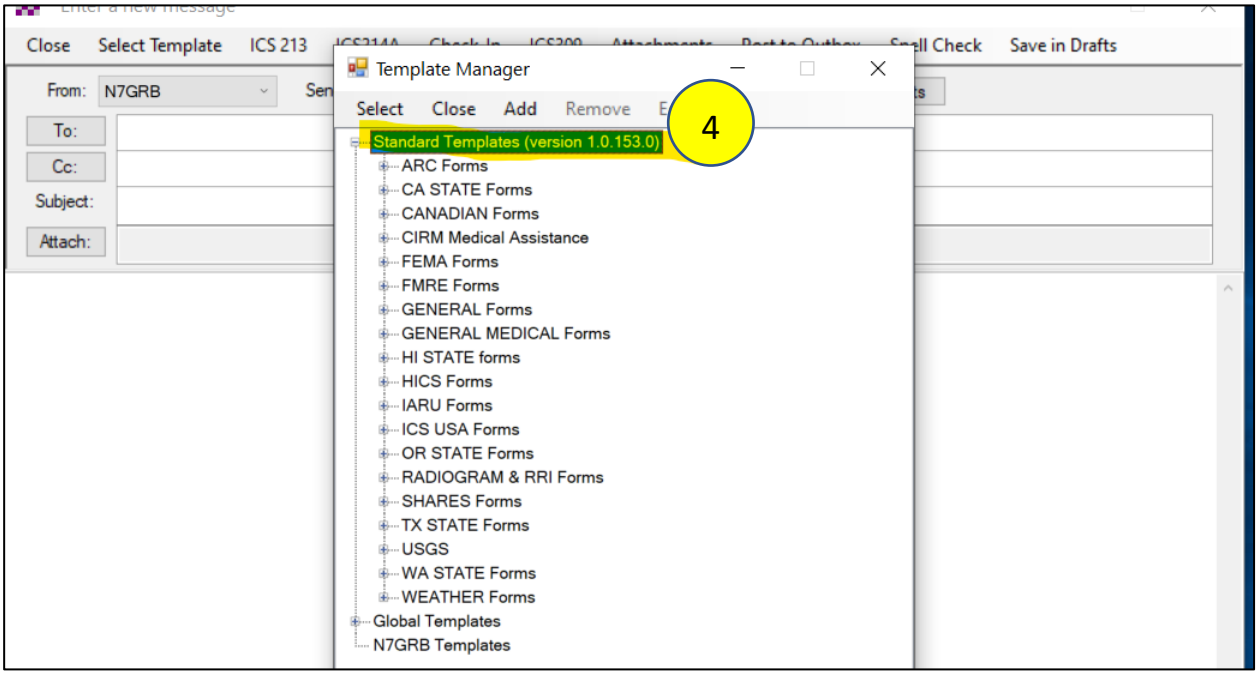

Figure 16 Standard Templates Category List

4. There are several message categories in the Standard Templates list (Figure 16 Standard Templates Category List). For exercise sessions B1 through B3 the operator is introduced to message forms in the categories: **GENERAL Forms**, **ICS USA Forms** and **WEATHER Forms**.

The ICS USA Forms are frequently used in both training exercises and actual incidents. To open a template form the operator double-clicks on the form of choice.

In the Stormageddon exercise sessions the operator is introduced to the ICS forms:

- ICS-213 General Message
- ICS-213 RR Resource Request
- ICS-214 Activity Log (group log)
- ICS-214A Individual Activity Log
- ICS-309 Communications Log

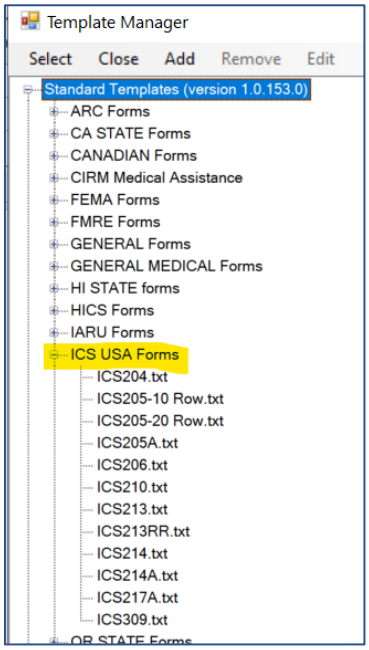

Figure 17 ICS USA Forms List

SESSION B1

Exercises for this session are defined in the document: *Basic Winlink Proficiency Session B1.*

Session B1 opens with a *Winlink Express Check-In* message simulating the opening of the station for operations.

This session focuses on the creation and send of the basic *Winlink Express ICS-213 General Message*. For repetition two agency messages are provided for operator action. The *ICS-309 Communications Log* and the *ICS-214 Activity Log* are introduced to the operator.

End of session closes with a *Winlink Express Check-Out* message simulating close of station operations.

Success is measure by:

- Transcription error free messages successful sent thru an RMS gateway to the NCS.
- Message traffic logged in ICS-309.
- Station open, simulated hand receipt of message from the local agency representative and station close logged in ICS-214.

SESSION B2

Exercises for this session are defined in the document: *Basic Winlink Proficiency Session B2.*

As with the earlier session B1, this session opens with submission of a Winlink Express check in form and completes with the Winlink check out form.

This session introduces the concept of replying to a message and forwarding a message. An agency reply is provided for operator action. The Elmer or instructor sends an ICS-213 to the operator, the operator in turn transcribes a reply and sends to the NCS.

Success is measured by:

- Transcription error free reply message successful sent thru an RMS gateway to the NCS
- Received message successfully forward to NCS without loss or modification to original message content
- Message traffic logged in ICS-309
- Station open, simulated hand receipt of message from the local agency representative and station close logged in ICS-214

SESSION B3

Exercises for this session are defined in the document: *Basic Winlink Proficiency Session B3.*

Session B3, as with earlier sessions, opens with submission of a *Winlink Express Check-In* form and completes with the *Winlink Check-Out* form.

This session introduces the *ICS-213RR Resource Request* form. In keeping with the spirit of the scenario the operator is requested to provide a local weather report

Success is measured by:

- Transcription error free resource request message successful sent thru an RMS gateway to the NCS.
- Weather report created and sent to NCS.
- Message traffic logged in ICS-309.
- Station open, simulated hand receipt of message from the local agency representative and station close logged in *ICS-214A Individual Activity Report*.

SESSION B4

Exercises for this session are defined in the document: *Basic Winlink Proficiency Session B4.*

In Session B4 Winlink Check In and Check Out messages are optional. Focus in B4 is Peer-to-Peer (P2P) operation. The *ICS-213 General Message* is used for both origination and reply.

Success is measured by:

- Transcription error free messages successful sent P2P to the NCS.
- Message traffic logged in *ICS-309 Communications log*.
- Station open, simulated hand receipt of message from the local agency representative and station close logged in *ICS-214A Individual Activity Report*.

MESSAGE CHECK POINTS AND REVIEW

Recommendation for operators: Print this page and use for review while executing exercises.

Agency message traffic handling requires attention to detail in both the transcription of messages to / from electronic format (Winlink Express), the documentation of traffic passing thru the station and agency interaction. Messages and the associated handling documentation (communication and activity logs) are considered legal records. When operating for an agency these records are reviewed and archived by the incident command's Documentation Unit.

MESSAGE HANDLING

1. Document in *ICS-214 Activity Log* (or *ICS-214A Individual Activity Log*) receipt or delivery of a message with agency representative.
2. Transcribe the message exactly as written by the agency.
   - Do not add extra language.
   - Do not expand an abbreviation or abbreviate a word/phrase.
   - Do not correct spelling or grammar.
3. If you believe there is an error, check with the agency message originator.
4. Document the message transmission (both received and sent) in *ICS-309 Communications Log.*
5. Save copies of the transmitted message (legal record) for station records and the Documentation Unit.

MESSAGE CHECK POINTS

1. "To" and "From" (name / position) are as written by the agency staff (not the radio operator).
2. "Date" and "Time" are as written by the agency on their originating message (not the date and time of message transmission).
3. Message is approved by an authorized agency representative (not the operator).
4. A written signature block in the Winlink form is not expected nor supported since these forms are primarily for radio delivery. A typed in name will suffice or alternatively typed name followed by "**/s/**" if the original agency message is physically signed.
5. Review the transcribed message (as seen in the Winlink Express form) with the agency's original message for accuracy.

POST EXERCISE SESSIONS QUIZ

Below is an operator proficiency quiz to be completed after performing the three exercise sessions.

QUIZ

You receive a completed, written ICS-213 from your served agency staff to transcribe into the Winlink Express ICS-213 form.

Answer the following questions:

1. [TRUE / FALSE] Make note of the time and short description of message received from agency representative in the ICS-214 activity log.

2. [TRUE / FALSE] The Date and Time fields (sections 5 and 6) in the ICS-213 are the date and time the operator sent the agency message.

3. [TRUE / FALSE] The agency ICS-213 message is approved (section 8) by the operator.

4. [TRUE / FALSE] The operator makes an entry in the ICS-309 communications log when the agency message is sent. The log time field is the time when the station sent the message.

5. [TRUE / FALSE] The operator may expand abbreviations used in the message body.

6. [TRUE / FALSE] A Peer-to-Peer (P2P) message will send to a Radio Message Server (RMS) gateway.

7. [TRUE / FALSE] The receiving P2P station call sign must match the call sign in the sending station's P2P message **To:** field.

CHANGE LOG	
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6/16/2021	Minor edit deleted duplicate bullet

Quiz Answers:

1. [TRUE] Activities described in the ICS-214 may include notable occurrences or events such as task assignments (agency gives operator a message to send), task completions, injuries, difficulties encountered, etc.

2. [FALSE] The Date and Time fields (sections 5 and 6) in the ICS-213 are the date and time as recorded on the ICS-213 by the agency, not the date and time of the operator message transmission.

3. [FALSE] Agency messages are approved by an authorized agency representative, not the operator. The agency representative should sign or initial the message.

4. [TRUE] The ICS-309 time field is the time of the message radio transaction (sent or received) from the remote station.

5. [FALSE] The operator transcribes the agency message "as written". Any error corrections or changes to the message requires the approval of the agency representative. Recommendation: Have the agency representative initial each change.

6. [FALSE] A Peer-to-Peer (P2P) message <u>will not</u> send to a Radio Message Server (RMS) gateway. Both the sending and receiving stations must be using the same P2P session method.

7. [TRUE] The receiving P2P station call sign must match the call sign in the sending station's P2P message **To:** field. If they do not match, the P2P message remains in the sending station's outbox.