



Packet Type III Part B



Santa Clara County ARES®/RACES/ACS
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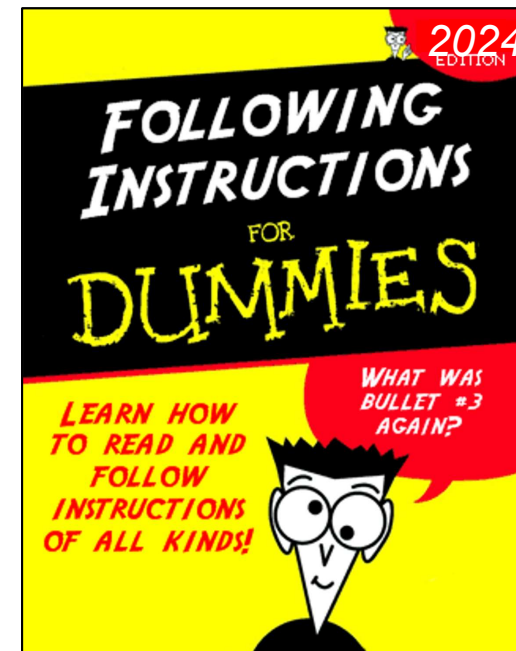
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Housekeeping

- Introductions
- Pen/pencil & paper
- Cell phones on silent or vibrate
- Side conversations
- Questions
- Breaks (code: 9033)
- Restrooms
- In case of emergency
- No wandering or exploring other areas of the building.



Overview: Packet Classes

Packet Type III, Part A

- Role of the Packet Operator
- Packet Network Overview
- Packet Network Components
- Packet Station HW & SW
- Accessing the Network
- Standard Workflow

Packet Type III, Part A+

- Packet Operations Self-Paced Exercise workbook

Packet Type III, Part B

- Packet Operations
- Diagnosing Setup Problems
- Selecting a BBS
- Creating Messages
- Event Documentation
- Productivity Hints
- Exercise

Packet Type II: Advanced Techniques, such as County EOC Packet Station Setup & Operations, Operating without Outpost.

Learning Objectives

At the end of this class, you should know how to:

- Verify the setup of an existing packet station
- Select a BBS and connect to it
- Create a message with Outpost and PackItForms
 - Properly format the subject line
 - Send a proper check-in message
- Retrieve SCCo notices and send local notices
- Produce event documentation for archiving
- Conduct packet messaging field operations

Fictitious Examples

- We use fictitious call signs in this presentation to avoid SPAM

- W6XRL4: Herman Munster



- XNDEOC: City of Xanadu Emergency Operations Center





**I figured by not doing my packet assignment
I'd lighten your workload by giving you one
less bunch of messages to check.**

PACKET IIIA HOMEWORK AFTER-ACTION

Type III Part A Homework observations

- We had 85% of the class complete the assignment.
- For the most part, everyone did quite well.
- Held 2 office hours; 5 folks checked in with various questions on the homework and BBS access in general.

Type III Part A Homework observations

What happened to the Message ID?!

- *This is a reoccurring issue*
- *Reminder: Subject Line prefix from the Station ID menu...*
- *If you see this field blank, then fill it in!*

Station ID is KN6PE as XND099

Identification | BBS Logins | Signatures |

Current Profile: Outpost

Legal

User Call Sign: KN6PE

User Name: Jim Oberhofer

Message ID Prefix: 6PE (3 Characters max)

Transmit PST:

Tactical

Use Tactical Call for all BBS interaction

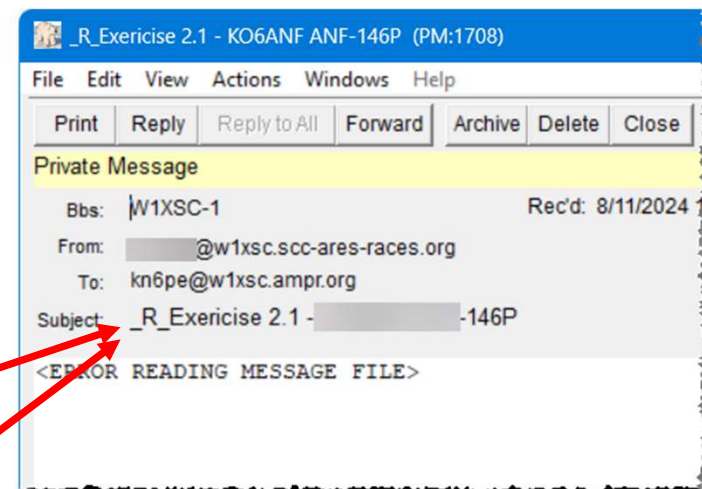
Tactical Call Sign: XND099

Additional ID Text: XND Packet 3A HW

Message ID Prefix: X99 (3 Characters max)

Show this form on startup

OK



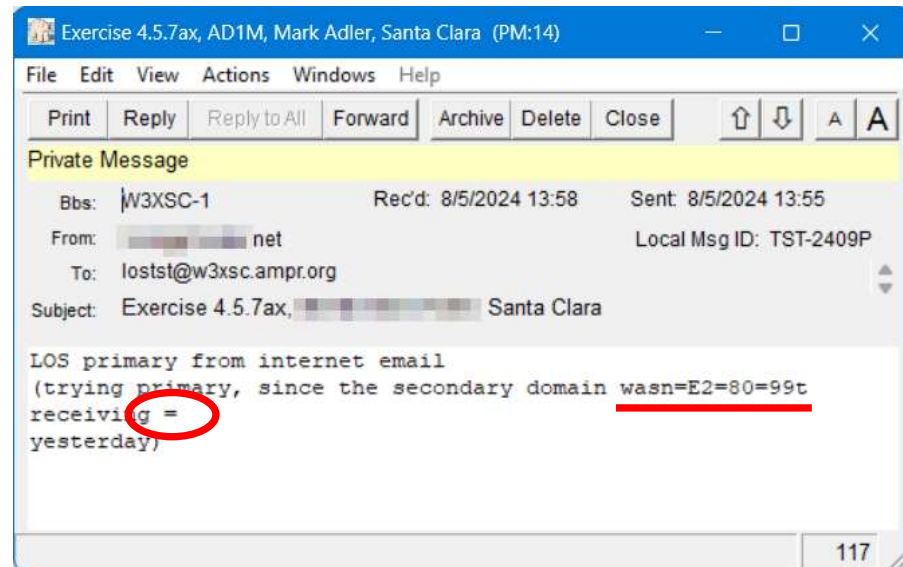
Type III Part A Homework observations

Problems with messages from the Internet

- Original message:
 - LOS primary from internet email
 - (trying primary, since the secondary domain wasn't receiving yesterday)
- The word of interest is: "wasn=E2=80=90t"
- =E2=80=90 encodes to a right single quotation mark (') in UTF-8; was likely intended to be an apostrophe (').
- Equal sign (=) points to quoted-printable format
- And the source?

- Who supports what format?

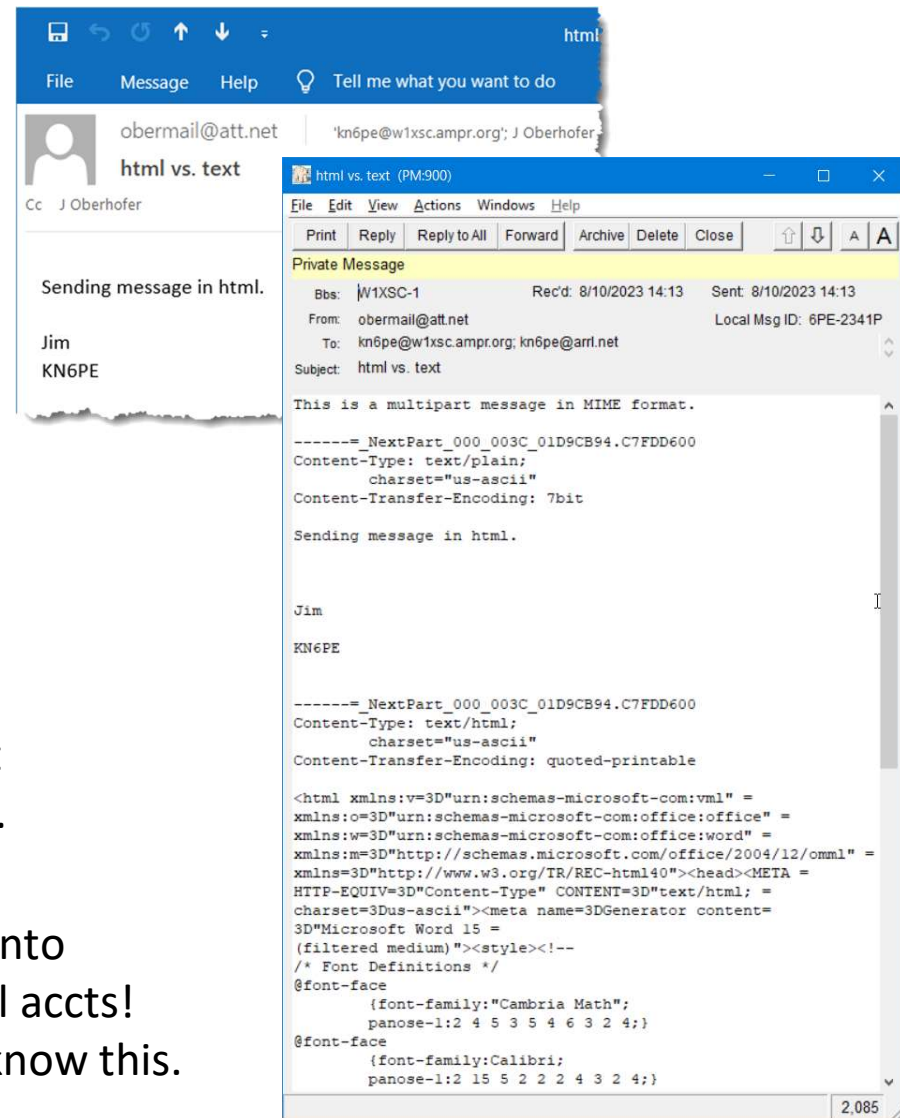
Mail Client	Default	Others
Outlook	HTML	plain, rich text
Thunderbird	HTML	plain, rich text
Gmail	Rich Text	plain, some HTML
Yahoo	Rich Text	plain text
IOS Mail	emlx	plain, rich text
Others?		



Type III Part A Homework observations

Problems with messages from the Internet

- The cost of HTML Text email.
 - A few class members saw firsthand how to turn a 40 character message...
 - ... into a **2085-character message!**
 - More than a 50X size increase in the text to be transmitted!
 - Both plain text and HTML text are sent in the same message.
- Bottom Line:**
- Be careful sending messages into the packet system from email accts!
 - Make sure non-packet users know this.





PACKET FIELD DEPLOYMENT

Packet 3A recap

- Packet Network Overview and Components
- Packet Station HW & SW
- Accessing the network
- Standard workflow
- Working with messages
- Customizing message handling
- Miscellaneous Outpost settings
- Localizing packet



How does this all fit together during a field deployment?

Thinking in terms of a Packet Field Deployment

1. **First shift...** when assigned to start up a station
2. **Initial station setup...** equipment check-out
3. **Packet operations...** managing the message flow
4. **Incoming shift change...** if you are relieving someone else
5. **Outgoing shift change...** if you are being relieved
6. **Securing operations...** when directed to shut down

1. First Shift

Packet Field Deployment Process

1. First Shift: Establishing a packet station

- _____ 1. Inform Resource Net Control that you have arrived. Check out of the Resource Net before you leave your car.
- _____ 2. Check into the assigned voice net before you leave your car. Start an ICS 309 Comm Log for the voice net.
- _____ 3. Make an ICS 214 Unit log entry.
- _____ 4. Sign in on the site's ICS 211 Check-in sheet.
- _____ 5. Find the supervisor and inform them of your arrival.
6. Request a safety and assignment briefing; get details on any site- or event-specific conditions that exist. You need to know:
 - a. Supervisor's Name
 - b. Activation Number
 - c. Operational Period
 - d. ICS Location
 - e. Your Tactical Call and Message ID Prefix
 - f. BBS to use
 - g. Band and frequency
 - h. Primary and secondary packet addresses for any preferred destinations
- _____ 7. Find and establish the workspace to set up packet operations.

2. Initial setup

Packet Field Deployment Process


2. Initial setup: Equipment check-out


- 8. Find, assess, and setup the packet radio equipment
(see *Section 3, Packet Startup Procedure*)
- 9. Confirm or set your User Identification (FCC Call Sign) and
Tactical Call for the assigned agency.
- 10. Check settings before transmitting:
 - Correct BBS in Outpost
 - Correct Interface in Outpost
 - Correct radio frequency
- 11. Begin packet operations. Make ICS 214 Unit log entry.


3. Packet Operations


Packet Field Deployment Process


3. Packet Operations: Managing the message flow


- 


 12. Download all notices to ensure you have the latest; read them.
- 

 13. Set up a folder named "SCC Notices" (**Tools > General Settings, Startup** tab) and move all notices to this folder.
- 

 14. Send a test message to yourself to confirm you can create, send to, and receive from the assigned BBS.
- 

 15. Create a Check-In message to your assigned agency using your Tactical Call sign (see *Section 9 Check-in, Check-out Message*).
- 

 16. Send, receive, log and process packet messages. To only send a message as soon as it is created, use **Actions > Send Only**
- 

 17. Manually initiate an Outpost Send/Receive at least every 10 minutes.
- 

 18. If a message was not acknowledged:
 - a. Check the message address and BBS
 - b. Resend the message if needed
 - c. Let your supervisor know

... more

3. Packet Operations (continued)

Packet Field Deployment Process

3. Packet Operations: Managing the message flow

- 19. If new notices are retrieved, follow any new instructions.
- 20. Maintain voice radio contact on the designated voice net.
- 21. Make ICS 214 Unit log entries as appropriate.
- 22. Report any issues or problems to your supervisor in person or over the voice net (if remote).

4. Incoming Shift Change

Packet Field Deployment Process

4. Incoming Shift Change: If you are relieving someone else, do the following:

- 23. Inform Resource Net Control that you have arrived. Check out of the Resource Net before you leave your car.
- 24. Sign in on the local ICS 211 Check-in sheet.
- 25. Find the supervisor and inform them of your arrival.
- 26. Request a safety and assignment briefing; get details on any site- or event-specific conditions that exist.
- 27. Find the person you are relieving and receive a shift change briefing (see *Shift Change Information* below).
- 28. Make packet system updates – Station ID, Tactical Call, etc.
- 29. Make all relevant shift change entries in your ICS 214 Unit log.

5. Outgoing Shift Change

Packet Field Deployment Process

5. Outgoing Shift Change: If you are being relieved, do the following:

- 30. When contacted by your replacement, provide a shift change briefing (see *Shift Change Information* below).
- 31. Generate and sign a packet ICS 309 Comm Log for your shift.
- 32. Generate all event packet documentation for your shift and deliver as instructed (see *Section 11 Archiving Event Documentation*).
- 33. Turn over all assigned equipment to your replacement.
- 34. Find your supervisor and inform them of the shift change and your departure.
- 35. Make the appropriate shift change entries in your ICS 214 Unit log. Complete and sign the form.
- 36. Turn in all paperwork to your supervisor.
- 37. Sign out on the site's ICS 211 Check-in sheet.
- 38. Check into the Resource Net. Inform Net Control what you plan to do (go home, return to EOC, etc.).

6. Securing Operations

Packet Field Deployment Process

6. Securing Operations: when you are directed to shut down, do the following:

- 39. Get permission from your supervisor to shut down.
- 40. Create a Check-Out message to your assigned agency using your Tactical Call sign (see *Section 9 Check-in, Check-out Message*).
- 41. Generate and sign a packet ICS 309 Comm Log for your shift.
- 42. Generate all event packet documentation for your shift and deliver as instructed (see *Section 11 Archiving Event Documentation*).
- 43. Complete and sign your ICS 214 Unit log.
- 44. Shut down and pack up all assigned equipment.
- 45. Turn in all paperwork to your supervisor.
- 46. Sign out on the site's ICS 211 Check-in sheet.
- 47. Check out of the assigned voice Net and check in with the Resource Net. Inform Net Control what you plan to do (go home, return to EOC, etc.).

Amateur Packet Radio Field Reference, Type III

What is it

- Provides a reminder (job aid) for how to perform tasks that need to occur during a packet field deployment.
- Helps ensure task consistency, completeness, and operational alignment with SCCo RACES policies and procedures.

What it is not

- the only source of information on which you should rely.
- an official SCCo RACES deliverable.

Amateur Packet Radio Field Reference, Type III

For SCCo RACES Responders

October 2023



Initial Setup – Scenario

- Upon arrival at your assignment, your supervisor explains that someone from the local ham club tried to get the packet station working. They were unsuccessful and had to leave.
- He takes you over to the hardware:



No Problem! ... Right?

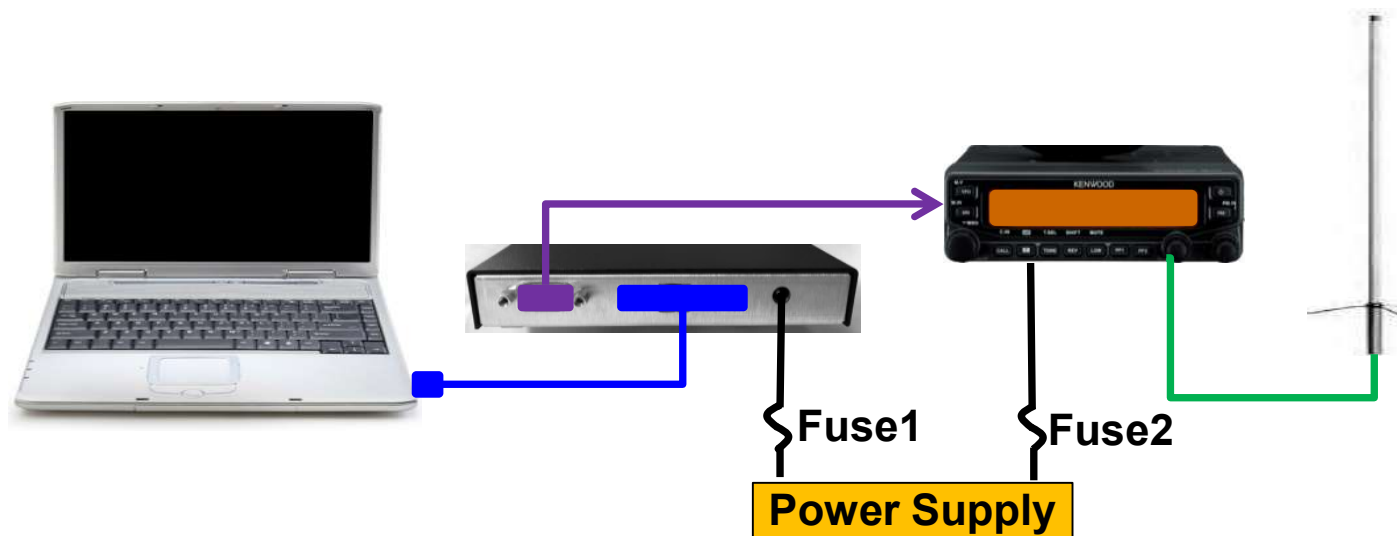
- Assembling and configuring a packet station is simple
- And problems are rare, especially for regular users
- But at some point ...
 - ... especially when using someone else's gear,
 - ... you may face at least one of these problems
- Use a logical process to find and resolve problems

Verifying Packet Station Readiness

1. Connections
2. Initial power-up
3. Equipment settings
4. Application settings



1. Connections



PC/Laptop

- Comm Port, or
- USB port and a USB-to-Serial adaptor
- ***Windows USB Driver***

TNC

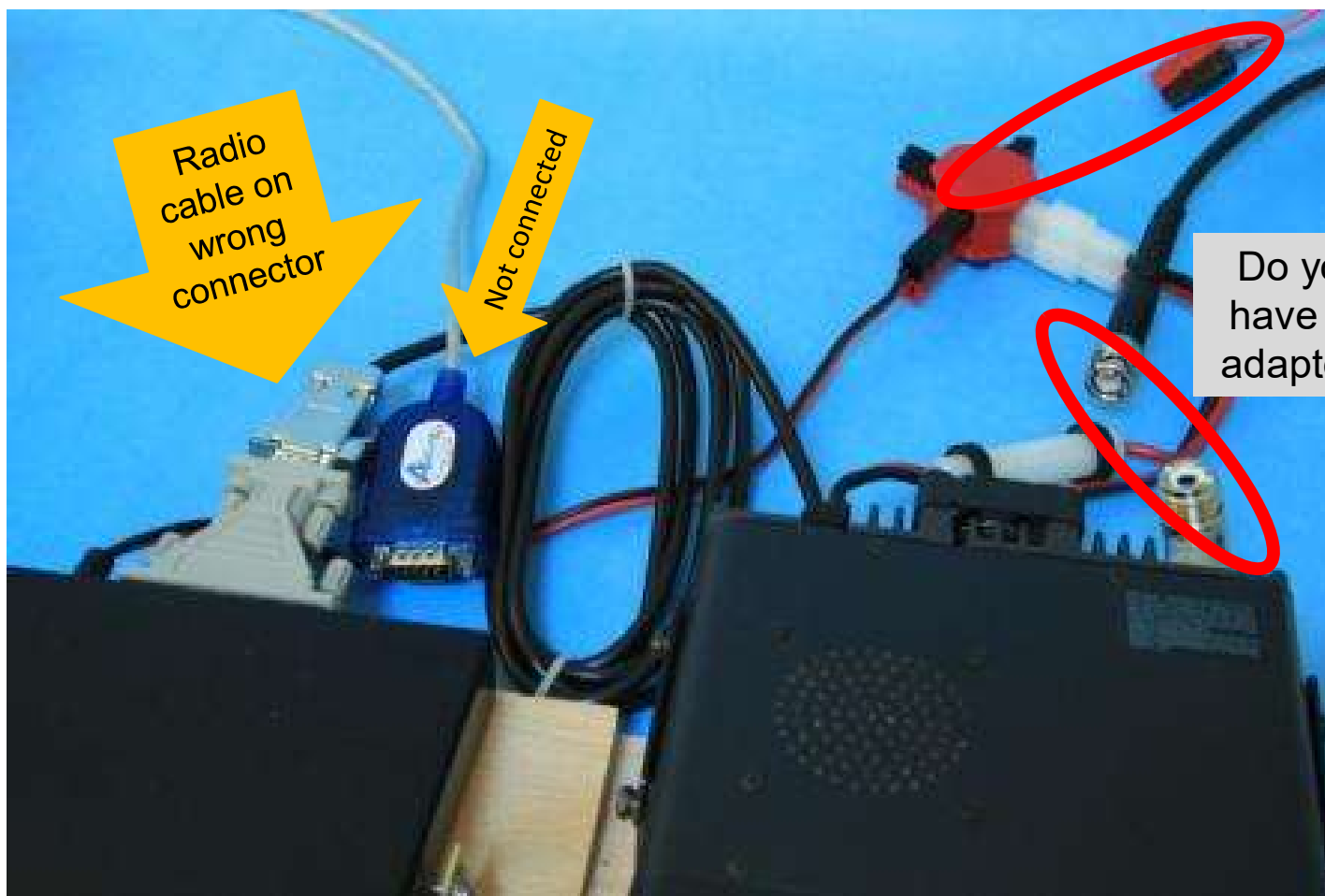
- Serial (or USB) cable
- ***Custom*** TNC/radio cable
- Power cable, fused, to power supply or battery
 - Fuse1 = 1A (typical)

Radio

- Antenna coax connected
- Power cable, fused, to power supply or battery
 - Fuse2 = 15-20A (typical)

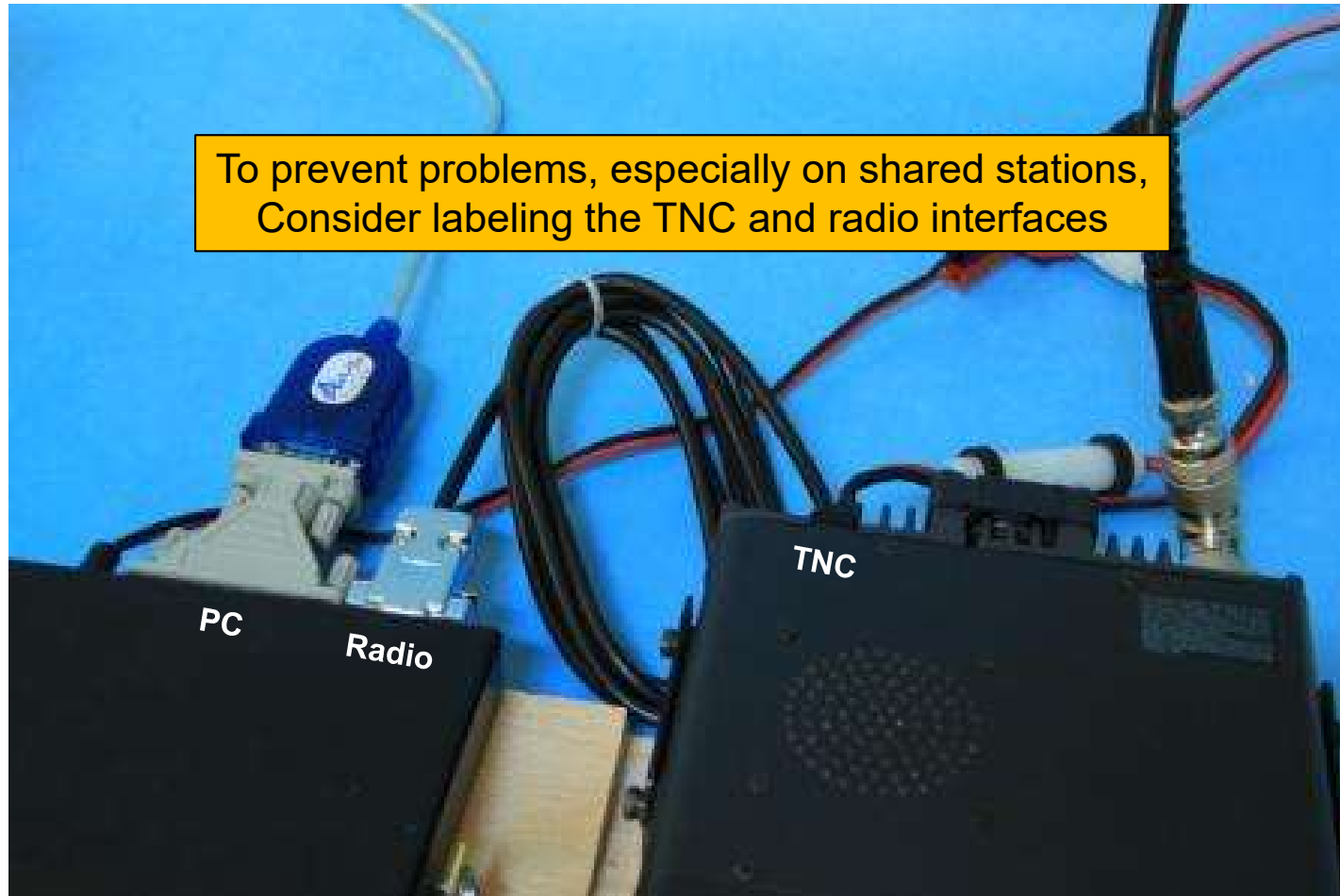
1. Connections – What You May See

Here is what you see when you find the hardware...

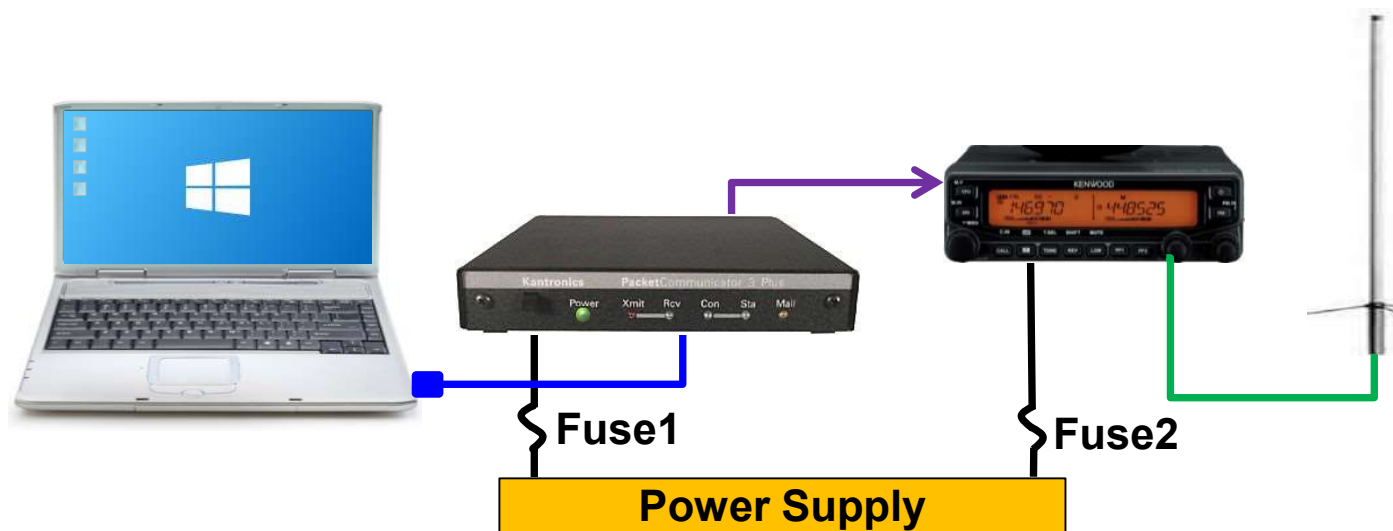


1. Connections – After Correct Assembly

You've straightened out the hardware and cabling



2. Initial Power-up



PC/Laptop

- Battery is charged, or a power adaptor is plugged in
- Laptop boots up

TNC

- Apply power
- Power LED lights up

Radio

- Apply power
- Radio turns on correctly

2. Initial Power-up - TNC

- **IF:** TNC power cable is plugged directly into a RigRunner



- **AND:** TNC's power light is on
 - You may or may not notice that it appears a little dimmer than usual.

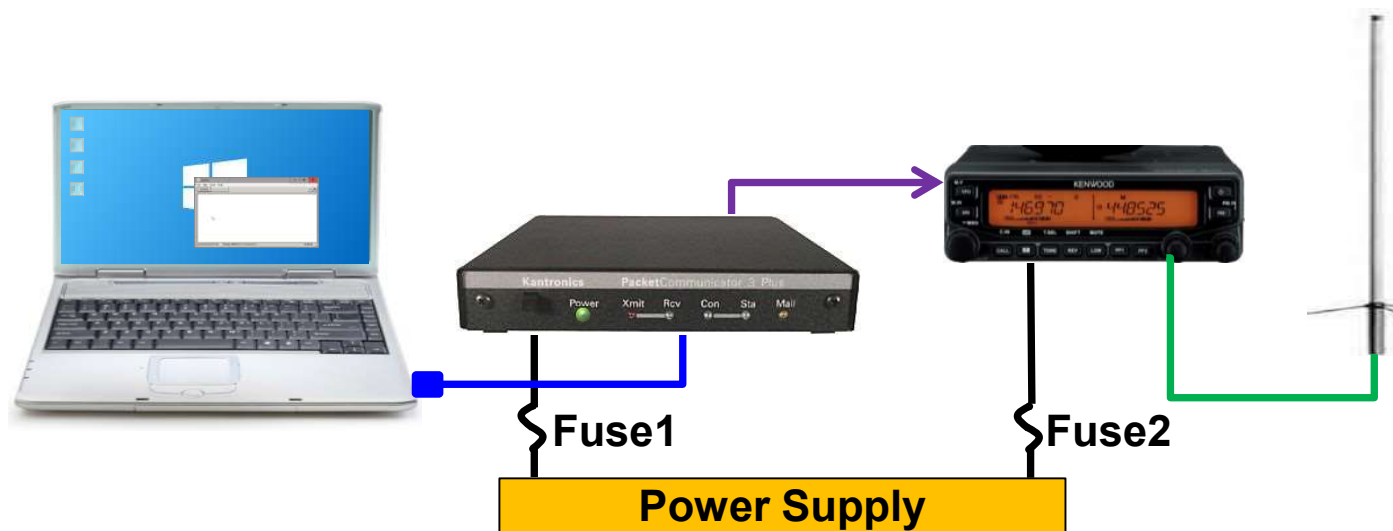


- **BUT:** No response from the TNC via a serial connection; it behaves like it's turned off.

2. Initial Power-up - TNC

- **THEN:** It probably *IS* off!
- Check the RigRunner. Is there a red light on behind the fuse?
 - Replace the fuse
 - RigRunner lights an LED behind the fuse when the fuse is burned out
 - But the current needed to power the fuse LED is just barely enough to light the power light on the TNC (dimly)!
- Or, try another port on the RigRunner.
 - Your model may not have an LED light or it may not be working
- Or, try another power cord
- Avoid blowing a fuse:
 - ALWAYS plug the power cord into the TNC first, then into the power source.
 - This avoids the chance of the TNC power connector plug tip touching the TNC chassis, thereby shorting positive to ground, and blowing the fuse

3. Equipment settings



PC/Laptop Settings

- Terminal Program:
 - Comm Port Setting
 - Com Port #
 - 9600 baud
 - 8 data bits
 - No parity
 - 1 stop bit
 - RTS/CTS flow control

TNC Settings

- Comm Port Settings
 - 9600 baud
- Other KPC-3s default to 8-N-1
- Carrier Detect settings
 - INTERFACE TERMINAL
 - CD SOFTWARE

Radio Settings

- Correct frequency
- No Tone
- No offset
- Squelch open
- High power
- Correct 'side' of radio is selected for packet

3. Equipment settings – TNC

What could go wrong?

Meaning, what are the symptoms?

1. Can't find the Com Port for my USB-Serial adaptor
2. TNC is stuck in Autobaud routine
3. When I type something, I see *garbled* text
4. Can't communicate with the TNC at all
5. Wrong audio output level

If you are stuck here and cannot 'talk' to the TNC, do not even try to proceed to the next step!

3. Equipment settings – TNC

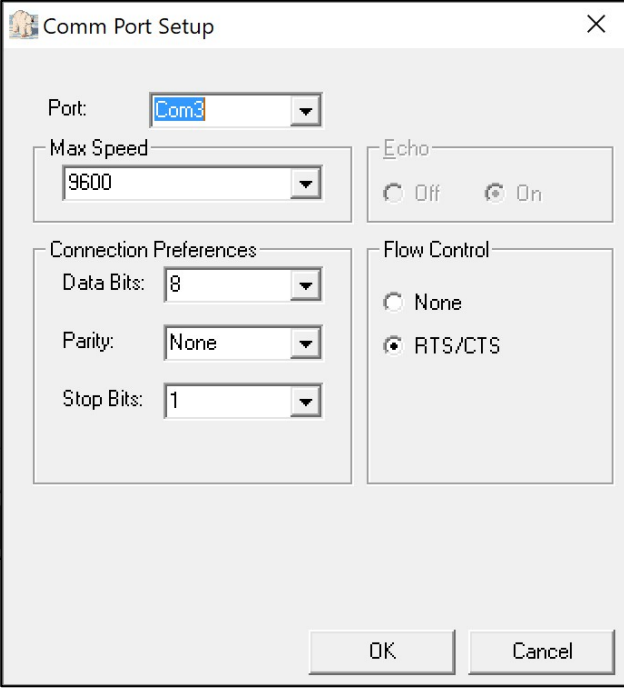
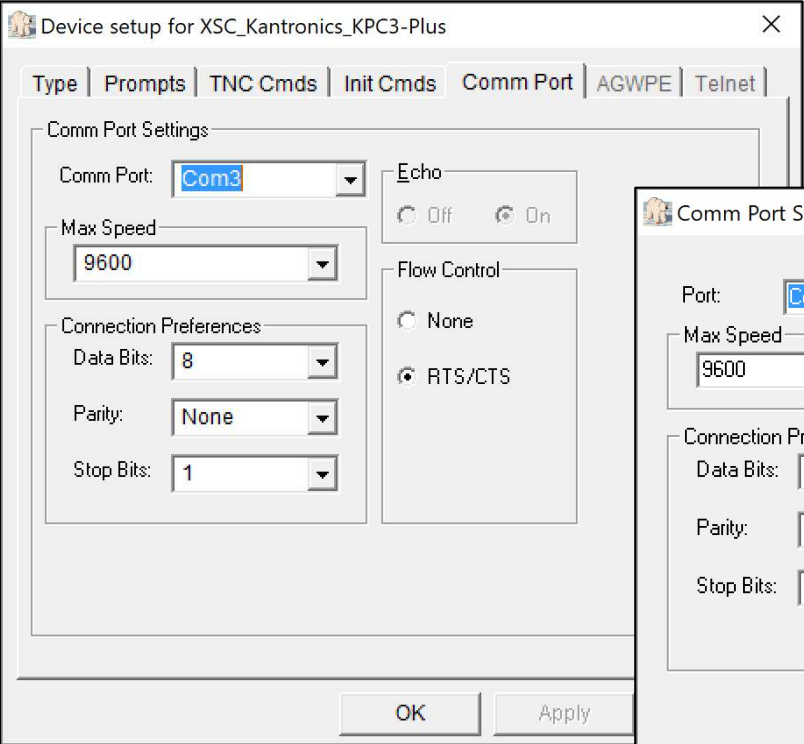
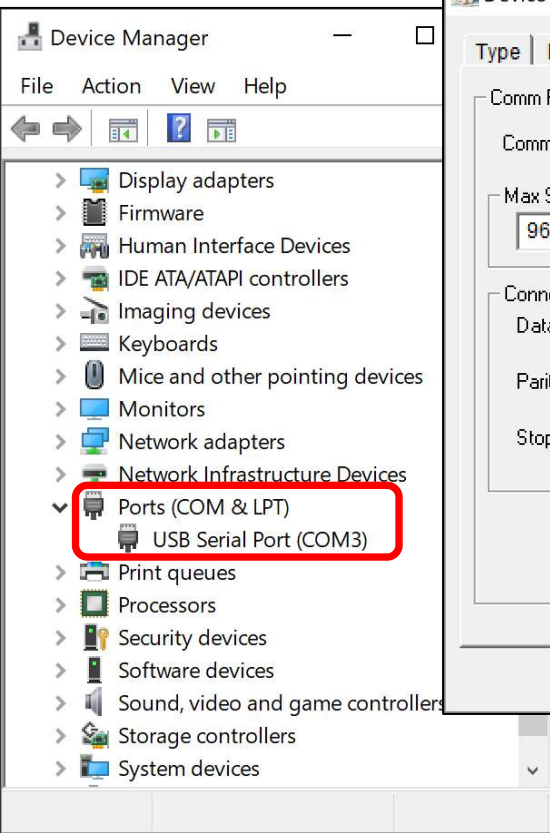
3.1 USB-Serial adaptor problems/missing PC Com Port

Most TNCs use: 9600 baud, 8-N-1, RTS/CTS

Outpost:
Setup > Interfaces ... > [Choose TNC] > Comm Port

Ipserial:
Setup > Comm Port Settings

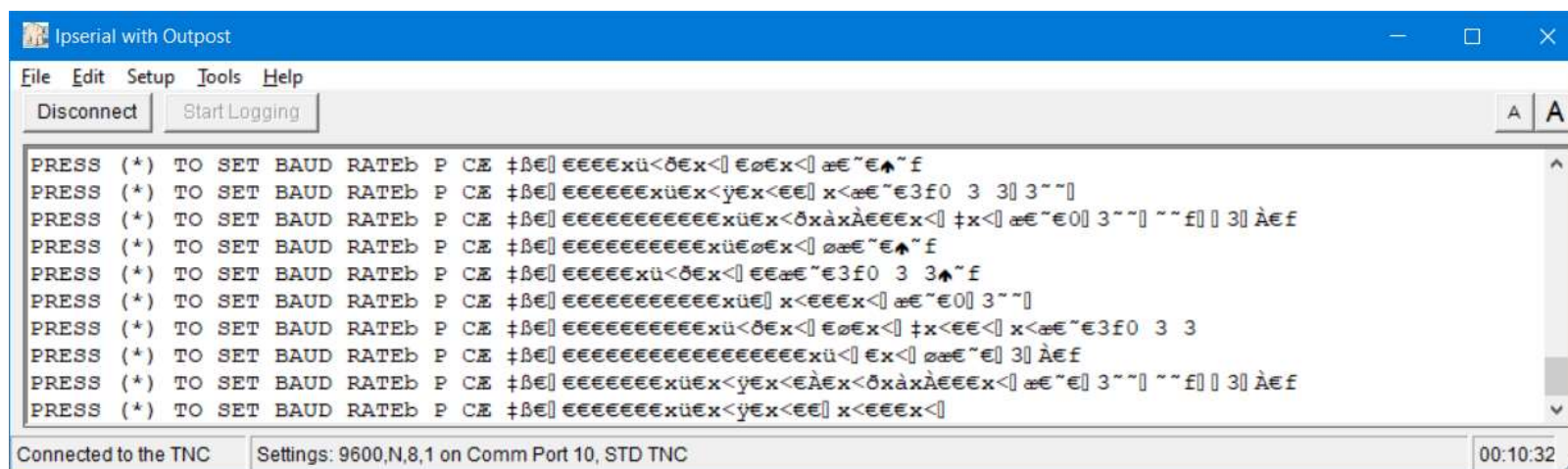
Windows:



3. Equipment settings – TNC

3.2 KPC-3's Autobaud Routine

- With everything properly connected and powered on, you might see this...



- This is the **KPC-3 Autobaud** routine that assures that the KPC-3 Plus baud is the same for the communication software you are using.
- AUTOBAUD sends and resends the message “PRESS (*) TO SET BAUD” at one baud after another.
- When the KPC-3 baud matches that of your terminal program, you can read the text.
- When the two bauds do not match, the message appears garbled, if it appears at all.

3. Equipment settings – TNC

3.2 KPC-3's Autobaud Routine

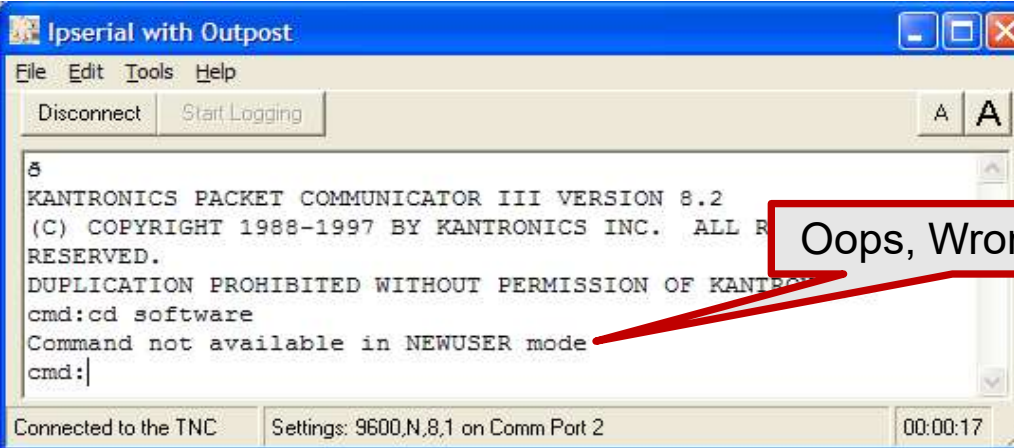
- **WHEN** does this occur:
 - **The first time** your KPC-3 Plus is ever used (from the factory)
 - **Dead TNC memory battery**
 - User performs a **hard reset** with the `RESTORE DEFAULT` command
- **HOW** to fix:
 - *Get ready...* when you clearly see the `PRESS (*) TO SET BAUD RATE` text, immediately press the "*" key.
 - Then, enter the following commands:
 - `ENTER YOUR CALLSIGN=> W6XRL4` (your call sign or tactical call)
 - cmd: **INTERFACE TERMINAL** (enables the full TNC command set)
 - cmd: **CD SOFTWARE** (TNC Carrier Detect is performed in software; lets you keep the radio squelch open)

3. Equipment settings – TNC

3.2 Some more on the *Interface Terminal* command

Full Command Set

- After a hard reset, the Kantronics TNC puts you in **NEWUSER** mode.
- NEWUSER mode allows only the most basic commands. As a result, you might see this:



```

Ipserial with Outpost
File Edit Tools Help
Disconnect Start Logging
8
KANTRONICS PACKET COMMUNICATOR III VERSION 8.2
(C) COPYRIGHT 1988-1997 BY KANTRONICS INC. ALL RIGHTS
RESERVED.
DUPLICATION PROHIBITED WITHOUT PERMISSION OF KANTRONICS
cmd:cd software
Command not available in NEWUSER mode
cmd:|
Connected to the TNC Settings: 9600,N,8,1 on Comm Port 2 00:00:17
  
```

To fix, at the cmd: prompt, you type:

cmd: **INTERFACE TERMINAL** (allows all commands)

cmd: **CD SOFTWARE**

- Now, the RCV light only lights when the TNC hears packets

3. Equipment settings – TNC

3.2 More on the *TNC Carrier Detect* command

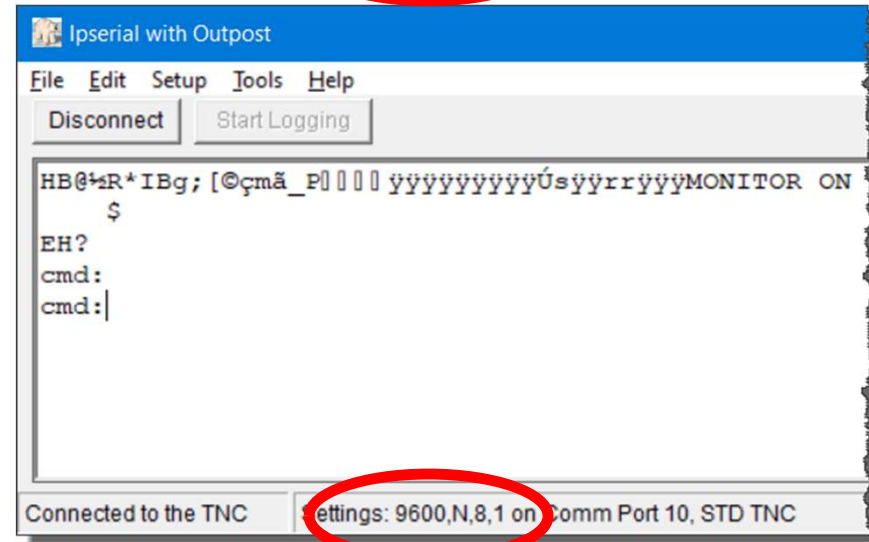
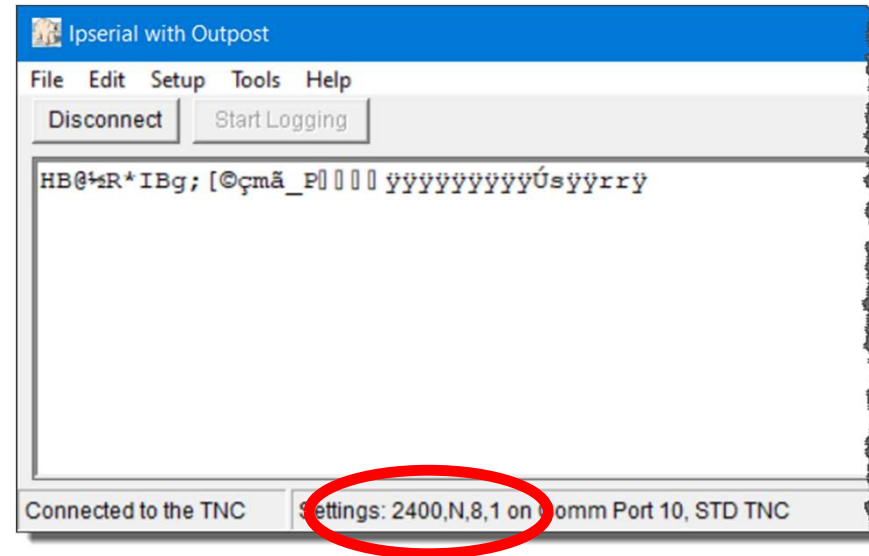
- We recommend operating the packet station with the squelch on the radio fully open (static/hiss all the time)
 - Allows the TNC to receive the weakest of signals
 - Unaffected by poorly chosen squelch level on the radio
- If squelch is open and the TNC’s “Receive” light is on all the time, then the TNC’s carrier detect mode is incorrectly set
- After setting **CD SOFTWARE**, the TNC’s “Receive” light is only on when packets are heard
- To do that for a Kantronics TNC, at the TNC Prompt, enter:
 - cmd: **CD SOFTWARE**
 - Carrier Detect performed by the TNC software, not squelch-dependent
 - Other TNCs default to this option (Timewave) or have a different command for this option; check your TNC manual

3. Equipment settings – TNC

3.3 Garbled text

Back at Ipserial.exe...

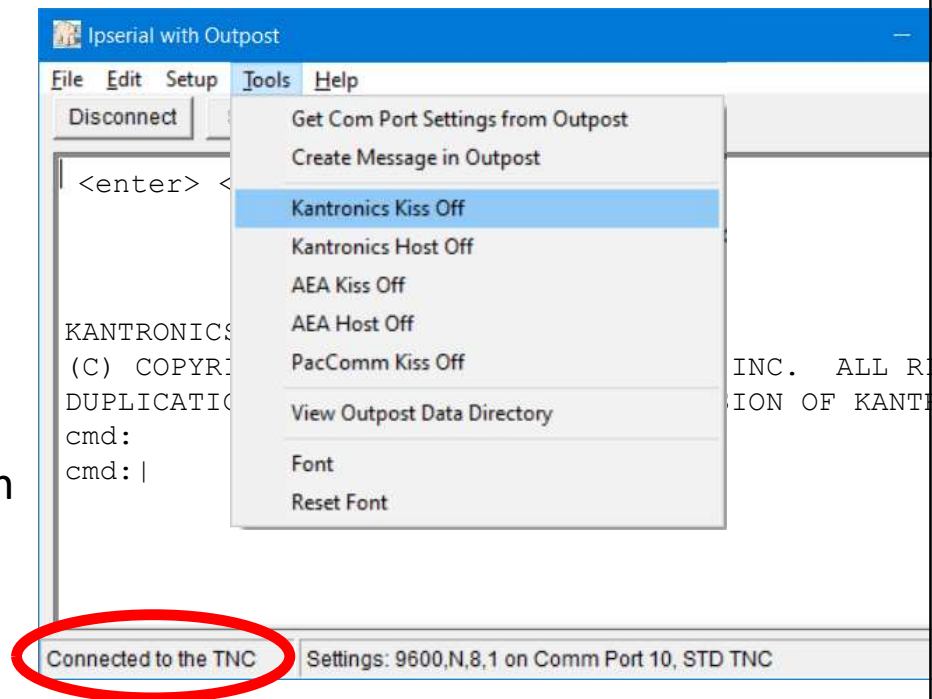
- **What you see:**
 - Press a key, see garbled text.
- **WHEN** does this occur:
 - TNC previously worked great!
 - But someone changed the program's baud rate
- **HOW** to fix:
 1. TNC baud is likely 9600
 2. **Change** the program baud **Setup > Com Port Settings**, change baud to 9600...
 3. **Disconnect, Reconnect, press** any key.
 4. Try other baud rates if this does not fix it.



3. Equipment settings – TNC

3.4 Can't communicate with the TNC (#1)

- **What you see:**
 - TNC previously worked great!
 - The cable, USB drivers, and power are good, and no blown fuse
 - But Press any key and I get no reply
- **WHEN** might this occur:
 - Someone or some program put the TNC in **KISS mode**
- **HOW** to fix:
 1. Start Ipserial
 2. Verify the TNC Com Port and baud rate
 3. Verify Com Port Connect, then
 4. **Tools > Kantronics Kiss Off**
 5. TNC is restored to **TERMINAL** mode



3. Equipment settings – TNC

3.4 Can't communicate with the TNC (#2)



If you have a **USB-Serial Adaptor**, it is likely to be a problem with the **USB-Serial Adaptor Driver**.

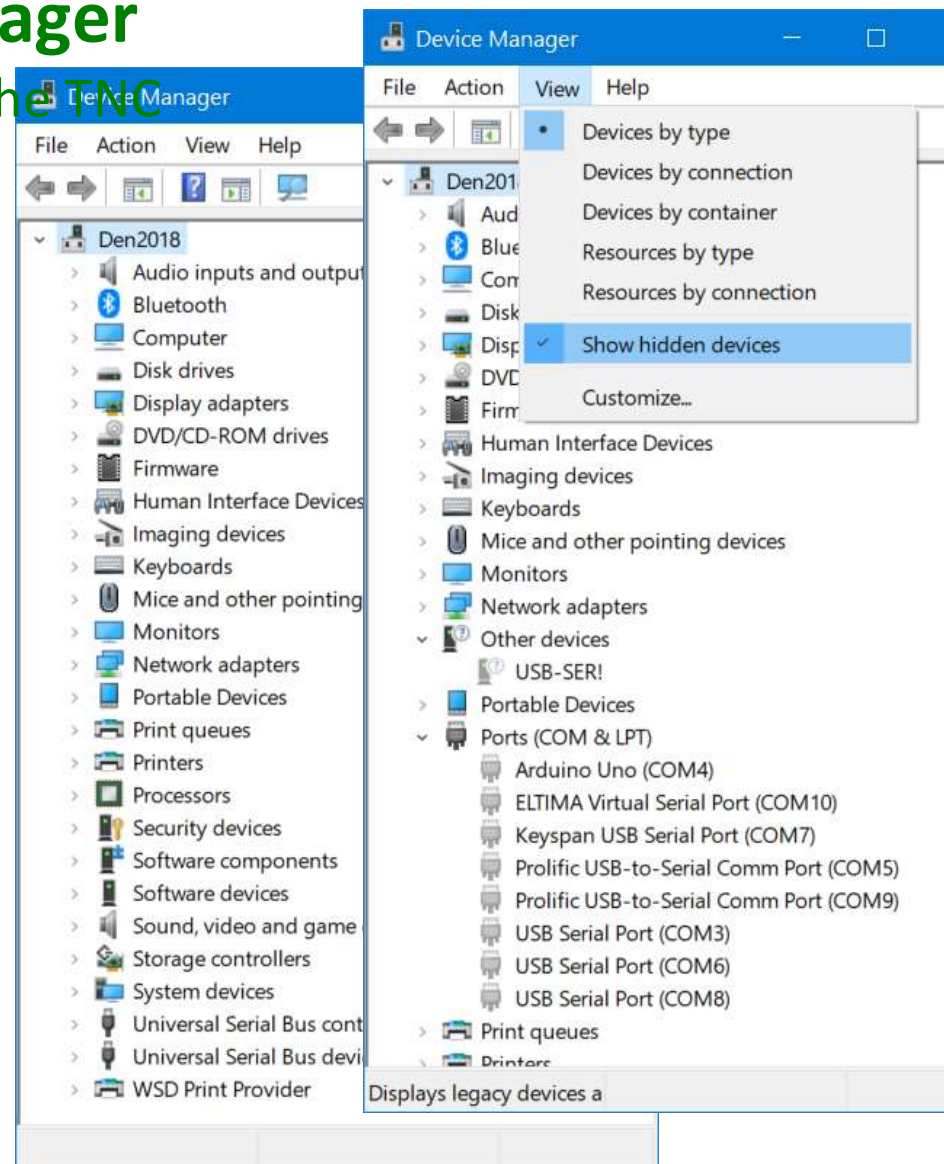
Windows Device Manager is next.

- Device Manager is a Microsoft Windows O/S tool.
- It allows users to view and control the hardware attached to the computer.
- When a piece of hardware is not working, the offending hardware is highlighted for the user to deal with.
- To run Device Manager...
 1. Press **Windows** key + **R** key together to open a Run box.
 2. Type **devmgmt.msc**, press **OK**. Device Manager opens.
 3. Or, enter **device manager** in the Windows Search field on the task bar... Device Manager opens.

Windows Device Manager

3.4 Can't communicate with the TNC

- Find and expand the **Ports (COM & LPT)** dialog.
- Don't see it? Then check:
 - USB-Serial connector is attached to the PC
 - For KPC3+ USB, make sure KPC3 is powered on
- Also, try
 - **View > Show hidden devices**



Windows Device Manager

3.4 Can't communicate with the TNC

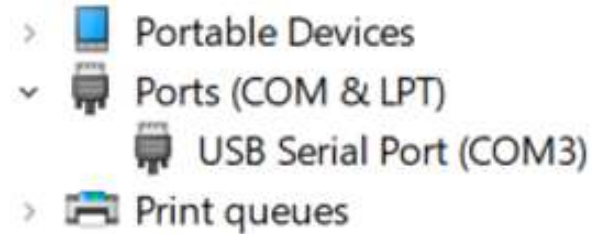


1. Find and expand **Ports (COM & LPT)** dialog.

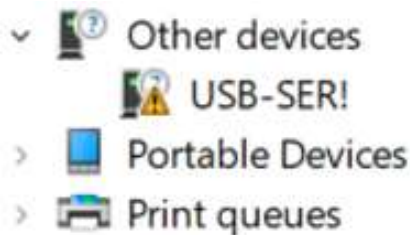
2. You should see something like this...



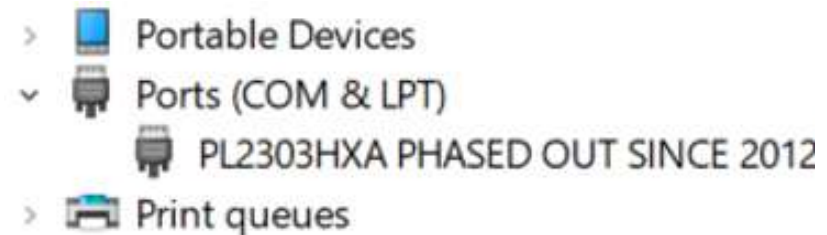
...Or...



3. You do not want to see anything like this...



...Or...



!!! These are not all the problems you might see.

Yes, you have a problem... now what?

3.4 Can't communicate with the TNC



- Troubleshooting USB-Serial driver problems is a class by itself... we do not have time to cover it here.
- However, here are 5 (not all) things you can do:
 1. Review the SCCo RACES USB-to-Serial Adapter page... **Data Networking > AX.25 over VHF > Equipment and Software > [USB-to-Serial Adapter](#)**
 2. Post your problem or questions to the packet email list. It is likely there is an SCC RACES packet op who has encountered and solved this problem before.
 3. If you know the USB-Serial adaptor chipset, try searching, downloading, and installing its Windows driver.
 4. Buy yourself a new USB-Serial Adaptor, then label it, practice with it, get comfortable with it, put it in your packet kit, and deploy with it.
 5. Lastly, if you have a bunch of old, unknown, or confirmed non-working USB-Serial Adaptors in your junk box, then throw them out NOW and save yourself from future headaches.

3. Equipment settings – TNC

3.5 Wrong audio output level

- The TNC sets the audio output level (transmit drive audio) for your radio.
- The transmit drive level can be set from the command line, but it implies you know to what value it should be set.
- While calibrating the drive level is beyond the scope of this course, being able to view and set a previously determined value is in scope.

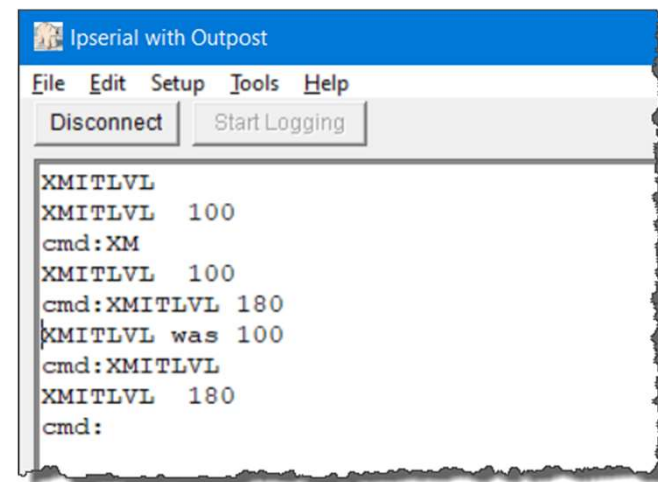
- To view the currently set transmit drive level:

```
cmd: XMITLVL          (XM for short command)
XMITLVL  100          (displays the value. Default=100, range is 0 to 502)
```

- To set the transmit drive level:

```
cmd: XMITLVL 180 (example)
XMITLVL was 100
```

- Most packet station owners will have the XMITLVL written down. If you cannot find it, ask your Shift Supervisor.



The screenshot shows a terminal window titled "Iperserial with Outpost". The window has a menu bar with "File", "Edit", "Setup", "Tools", and "Help". Below the menu bar are two buttons: "Disconnect" and "Start Logging". The terminal output shows the following sequence of commands and responses:

```
XMITLVL
XMITLVL  100
cmd: XM
XMITLVL  100
cmd: XMITLVL 180
XMITLVL was 100
cmd: XMITLVL
XMITLVL  180
cmd:
```

3. Equipment settings – Radio Frequency

- Use the correct frequency for your primary or secondary BBS

Call Sign	AX.25	User Access	BBS-BBS	Location
W1XSC	W1XSC-1	145.750, 223.620, 433.570		Santa Clara Co Office Bldg (San Jose)
W2XSC	W2XSC-1	145.730, 223.560, 433.590		Crystal Peak (South County)
W3XSC	W3XSC-1	144.310, 223.540, 433.450		Palo Alto
W4XSC	W4XSC-1	145.690, 223.600*, 433.550	223.600	Frazier Peak (above Milpitas)

<http://www.scc-ares-races.org/freqs/packet-freqs.html>

- The same information is available as a packet notice

```

Frequencies are in MHz.

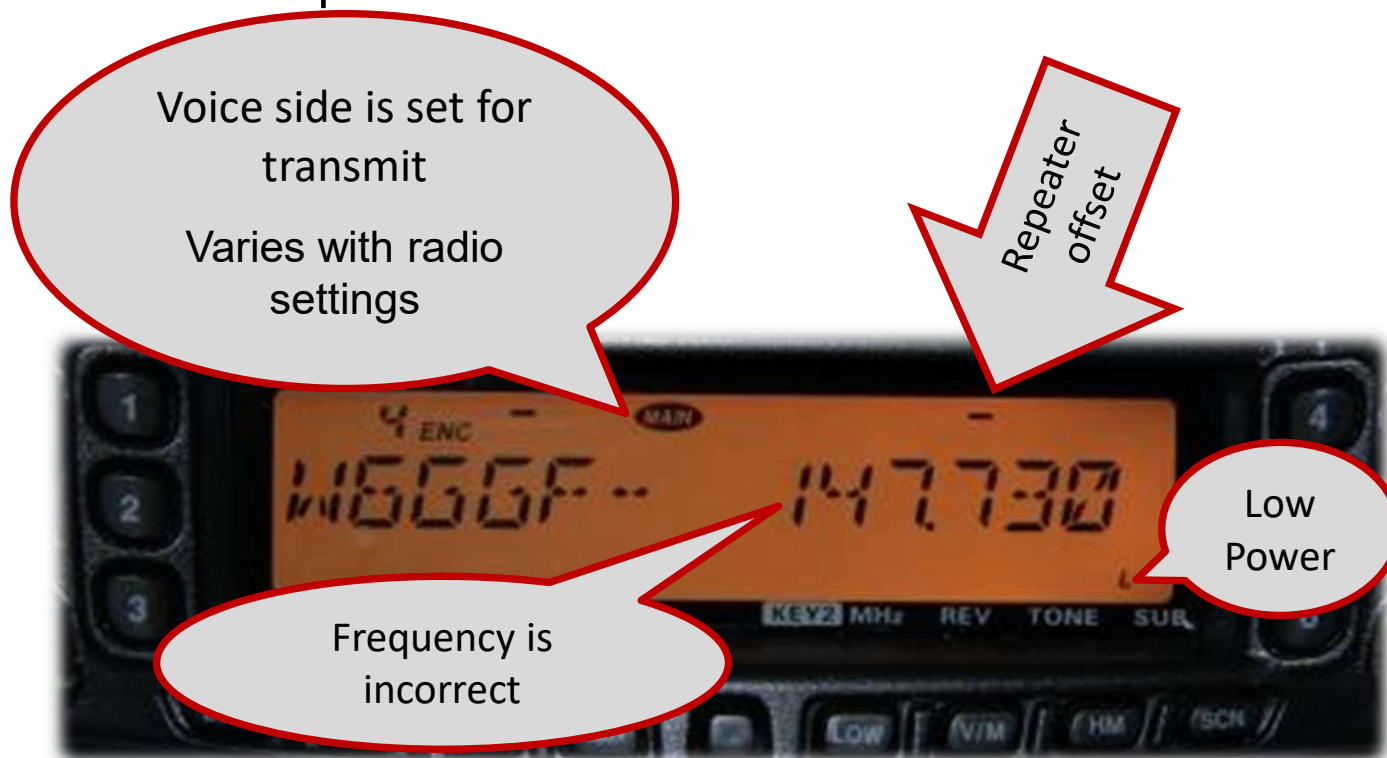
Call Sign  AX.25 Connect  User Access  BBS-BBS Forwarding
-----
W1XSC      W1XSC-1      145.750, 223.620, 433.570
W2XSC      W2XSC-1      145.730, 223.560, 433.590
W3XSC      W3XSC-1      144.310, 223.540, 433.450
W4XSC      W4XSC-1      145.690, 223.600*, 433.550  223.600

*223.600 is primarily for BBS forwarding; user access should be limited to
emergency/backup situations.  Interference to/from other BBSs will be significant.
    
```

3. Equipment settings – Radio Settings

What you see... and (not) hear:

- Everything is now on. You are supposed to use the W2XSC BBS. But no packets are heard.

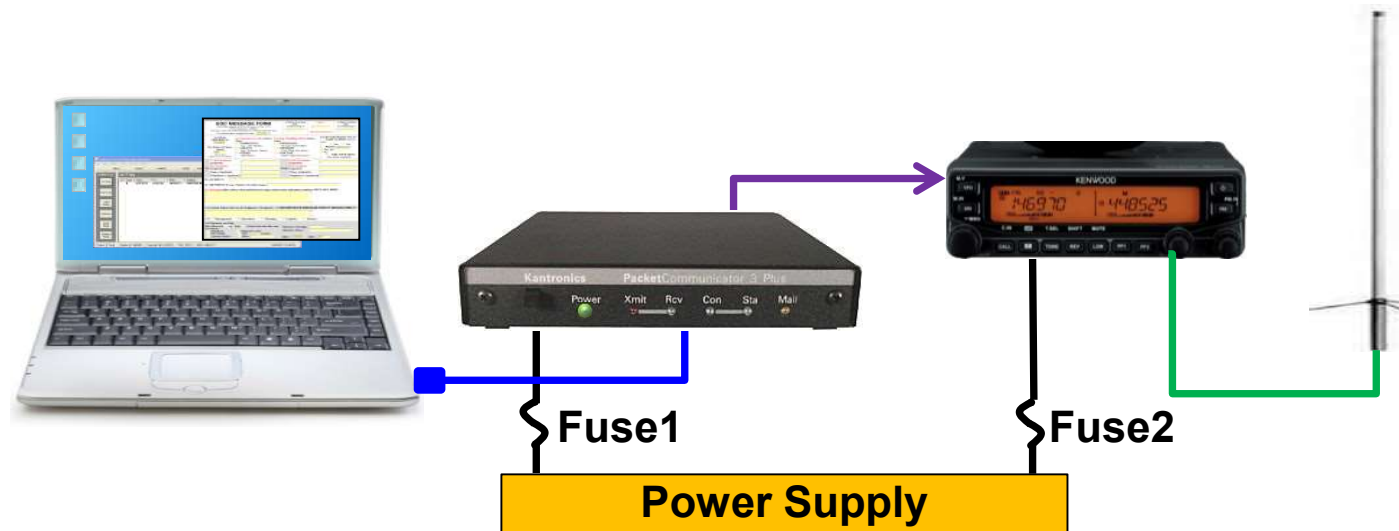


3. Equipment settings – Radio Settings

- You change the radio settings
 - High Power
 - Correct Frequency
 - Squelch is open (BUSY)
 - Correct side is set for packet (dual rcv/xmt radios, only)
 - Some radios “force” packet to a particular side



4. Application settings



Application Settings

- Station ID
- Tactical Call
- PC Time
- BBS
- TNC
- Other Outpost configurations

Starting Outpost > Station ID

- You get to the Outpost Station ID screen....

Station ID is W6XRL4 as XNDEOC

Identification | BBS Logins | Signatures

Current Profile: Outpost

Legal

User Call Sign: W6XRL4

User Name: Herman Munster

Message ID Prefix: HXM (3 Characters max)

Tactical

Use Tactical Call for all BBS interaction

Tactical Call Sign: XNDEOC

Additional ID Text: Xanadu EOC

Message ID Prefix: XND (3 Characters max)

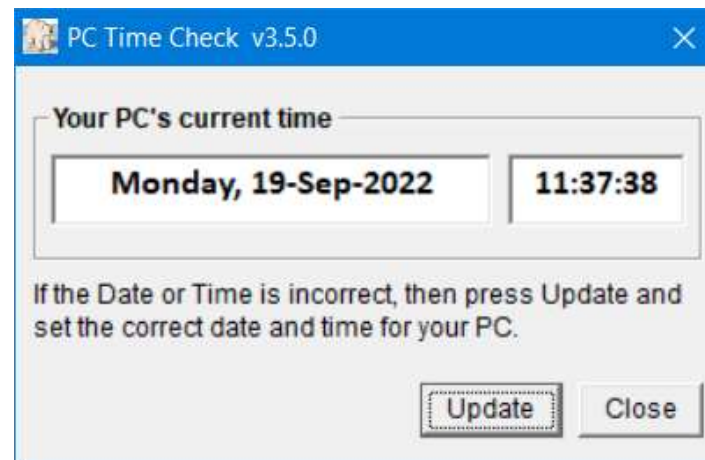
Show this form on startup

OK Apply Cancel

Have you been
assigned a tactical
call sign?

Is this your call sign,
name, initials?

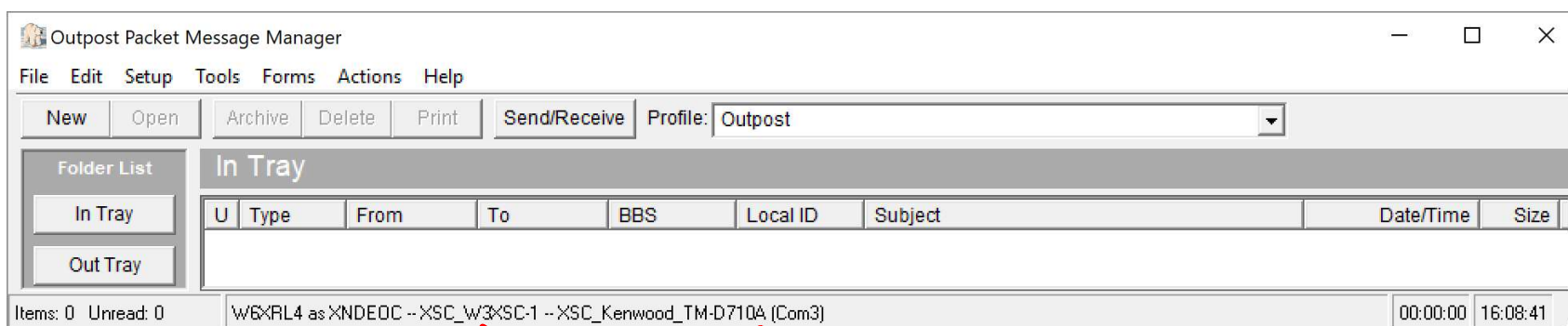
Outpost PC Time Check



Is the date and time correct?

Correct date and time is important!
It will be used in a variety of places.
Verify each time you start up.

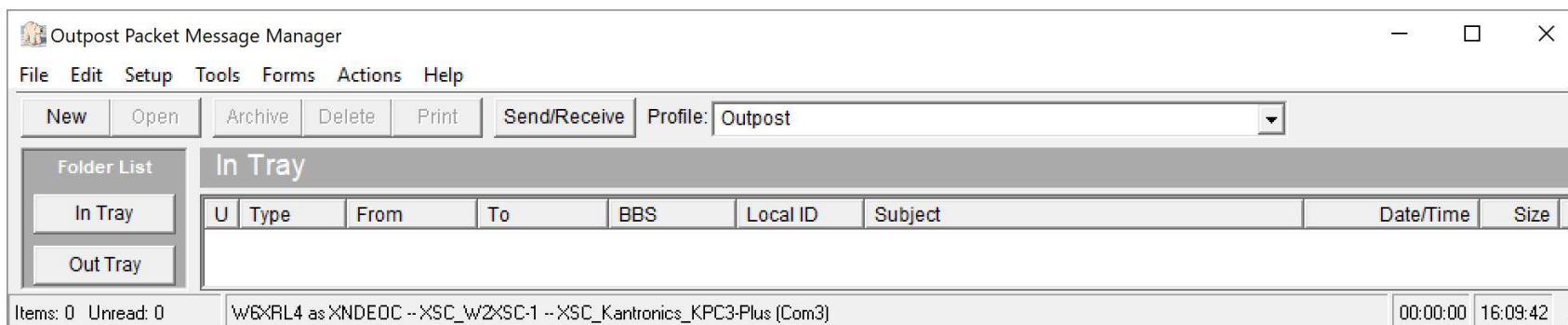
Checking the BBS and TNC settings



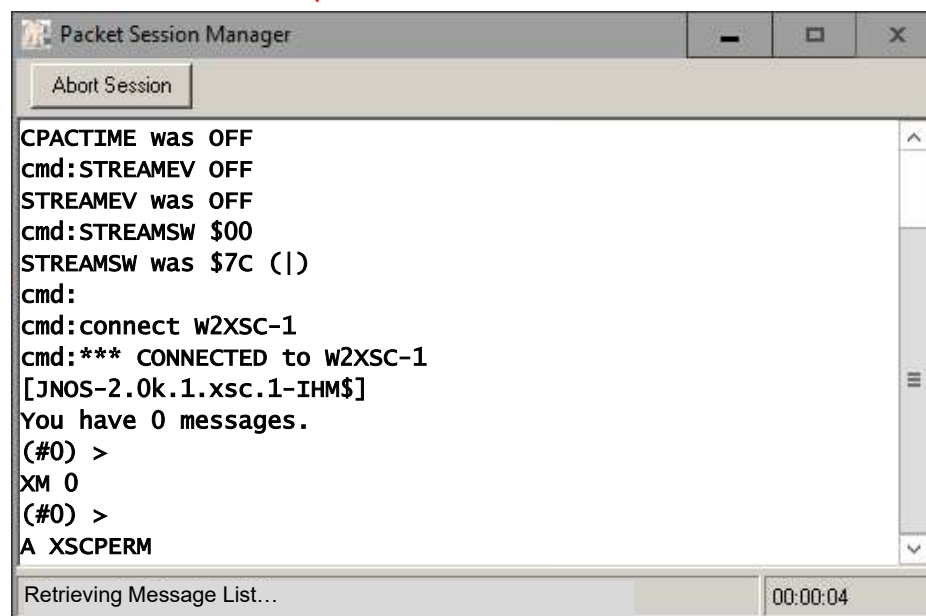
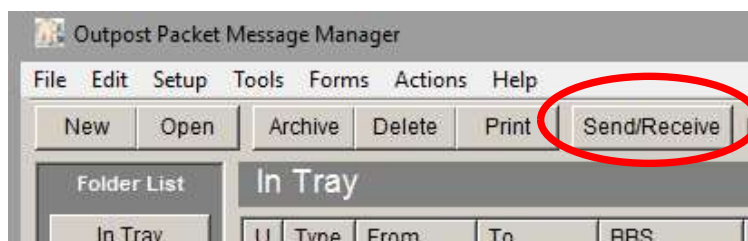
... but you were assigned to W2XSC

... and you have a KPC-3+ TNC

- After setting the BBS and TNC, we are ready to go.



Best Test? – Press Send/Receive



You are talking to the TNC!
TNC prompt = cmd:

You are talking to the BBS!
JNOS BBS prompt = '>'

W1XSC

W2XSC

W5XSC

W3XSC

W4XSC

Where should I connect?

SELECTING A BBS TO USE

Selecting a BBS

- Santa Clara County ARES/RACES operates six BBSs
 - FCC Call Signs: W1XSC, W2XSC, W3XSC, W4XSC, W5XSC, W6XSC
- All six are identical in function but operate independently to maximize survivability during disasters
- All six have appropriate addresses for AX.25 packet radio, the Internet, AMPRnet, BBS Network and NetROM

Call Sign	AX.25	Internet/AMPRnet	BBS Network	NET/ROM Alias
W1XSC	W1XSC-1	w1xsc.ampr.org	w1xsc.#nca.ca.usa.noam	XSCBB1
W2XSC	W2XSC-1	w2xsc.ampr.org	w2xsc.#nca.ca.usa.noam	XSCBB2
W3XSC	W3XSC-1	w3xsc.ampr.org	w3xsc.#nca.ca.usa.noam	XSCBB3
W4XSC	W4XSC-1	w4xsc.ampr.org	w4xsc.#nca.ca.usa.noam	XSCBB4
W5XSC	W5XSC-1	w5xsc.ampr.org	w5xsc.#nca.ca.usa.noam	XSCBB5
W6XSC	W6XSC-1	w6xsc.ampr.org	w6xsc.#nca.ca.usa.noam	XSCBB6

This information is also available as a packet notice in the xscperm area

<https://www.scc-ares-races.org/freqs/packet-freqs.html>

Selecting a BBS

- Each city/agency has a “primary” and “secondary” BBS
 - Minimizes hidden nodes
 - Distributes load on our radio channels
 - Eliminates BBS-to-BBS forwarding for messages within a single agency
 - Makes it easy to know where to send messages

#	Agency	Prefix	Primary BBS	Secondary BBS
Santa Clara County Cities and Agencies				
1	American Red Cross	ARC	W1XSC	W4XSC
2	CAL FIRE VIPs - Santa Clara Unit	SCU	W2XSC	W1XSC
3	Campbell, City of	CBL	W1XSC	W4XSC
4	Cupertino, City of	CUP	W1XSC	W4XSC
5	Gilroy, City of	GIL	W2XSC	W1XSC
6	Hospitals (all SCCo) & MHJOC	HOS	W2XSC	W1XSC
7	Loma Prieta Region	LMP	W2XSC	W1XSC
8	Los Altos, City of	LOS	W3XSC	W1XSC

This information is also available as a packet notice in the xscperm area

<https://www.scc-ares-races.org/freqs/packet-freqs.html>

Selecting a BBS

- Connect to the primary BBS whenever possible
- Otherwise, connect to your secondary BBS
- Otherwise, connect to whatever BBS you can reach
- Access frequencies
 - EOCs should use 1.25m (220) whenever possible, because ...
 - Most individual users will be on 2m or 440
- Action Items
 - Print out and keep a copy of the Packet Frequencies and BBS Listing page in your go kit (maps cities to Tactical Calls to BBSs)
 - Keep a copy of the equivalent packet notices in an Outpost folder
 - Know your own primary and secondary BBS call signs!

BBS Connect Names for AX.25 Packet Radio

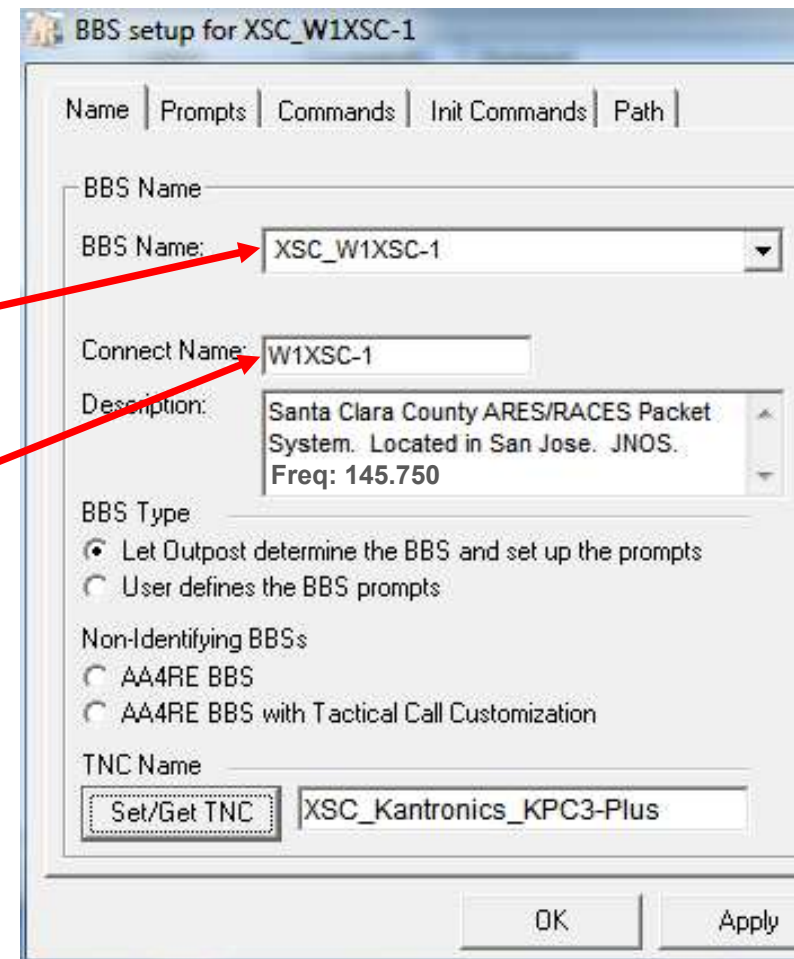
Call Sign	AX.25	User Access	BBS-BBS	Location
W1XSC	W1XSC-1	145.750, 223.620, 433.570		Santa Clara Co Office Bldg (San Jose)
W2XSC	W2XSC-1	145.730, 223.560, 433.590		Crystal Peak (South County)
W3XSC	W3XSC-1	144.310, 223.540, 433.450		Palo Alto
W4XSC	W4XSC-1	145.690, 223.600*, 433.550	223.600	Frazier Peak (above Milpitas)
W5XSC	W5XSC-1	varies	varies	Training, events, backup
W6XSC	W6XSC-1	varies	varies	Testing, backup

<https://www.scc-ares-races.org/freqs/packet-freqs.html>

- The AX.25 protocol uses an SSID (Secondury Station Identifier):
 - The “-1” following the call sign... W1XSC-1
 - Allows more than one device, or more than one service on a device, to use the same FCC call sign on the same frequency
- The BBS mailbox function on all SCCo BBSs uses an SSID of 1
- To connect to your mailbox on an SCCo BBS using AX.25 packet radio, you connect to:
W1XSC-1, W2XSC-1, W3XSC-1, W4XSC-1, W5XSC-1 or W6XSC-1

Selecting a BBS in Outpost

- Setup > BBS ...
- The SCCo Installer includes setups for all SCCo BBSs
- All SCCo-supplied setup names start with "XSC_"
- For the W1XSC BBS, you will connect to W1XSC-1
- Then tune your radio to the proper frequency from your BBS frequency list





CONNECTING TO YOUR MAILBOX

Call Sign Determines your “Login” and Mailbox

- BBS “logins” are based on the call sign used by the connecting station
 - Defined by the TNC’s “mycall” setting
 - Outpost sets this automatically based on information in **Setup > Station ID...**
- The call sign can be either an FCC or tactical call sign
 - FCC call sign: W6XRL4 (Herman Munster)
 - ✓ Tactical call sign: XNDEOC (Xanadu EOC)
 - ✓ Additional ID Text: where you are located
 - ✓ Message ID Prefix: unique identifier

Setup > Station ID ...

Station ID is W6XRL4 as XNDEOC

Identification | BBS Logins | Signatures |

Current Profile: Outpost

Legal

User Call Sign: W6XRL4

User Name: Herman Munster

Message ID Prefix: HXM (3 Characters max)

Tactical

Use Tactical Call for all BBS interaction

Tactical Call Sign: XNDEOC

Additional ID Text: Xanadu EOC

Message ID Prefix: XND (3 Characters max)

Show this form on startup

OK

NOW REQUIRED!

Tactical Call Signs

- Tactical call signs are *pre-defined* before use
 - Your City/Agency EC/AEC can request tactical call signs as needed
<https://www.scc-ares-races.org> > Packet BBS > How to Request Tactical Calls
- You can connect to any SCCo BBS using any valid tactical call sign, but:
 - You should only do so when assigned by your city/agency
 - You should use the primary BBS for your agency
 - You should only use another BBS if authorized by your city/agency



CHECK-IN/OUT MESSAGES

Check-In/Out Messages

- Properly formatted Check-In/Out messages are important
 - Recipient can easily find them among other messages in the In Tray
 - This informs the EOC which stations are ready
 - They are part of DSW supervision
- General rules during field assignments
 - Check in and out using your assigned Tactical Call, not your FCC call
 - Check-in as soon as your station is ready
 - Check-out using your *Tactical Call* before shutting down the station
 - Always sent as a plain text message; use PackItForms makes it easy.
 - Always uses [HandlingOrder] = “_R_”
 - Handling Order = R (Routine)
 - Always follows the standard subject line format
 - With specific check-in/out details for subject and message body

Check-In/Out: PackItForms

- PackItForms includes a Check-In/Out message form
 - Option for both check-in and check-out messages
 - Handles FCC call signs and Tactical Calls
 - Correctly formats the subject line and message body

Station ID is W6XRL4 as XNDFS1

Identification | BBS Logins | Signatures |

Current Profile: Outpost

Legal

User Call Sign: W6XRL4 New

User Name: Herman Munster Delete

Message ID Prefix: RL4 (3 Characters max)

Tactical

Use Tactical Call for all BBS interaction

Tactical Call Sign: XNDFS1 New

Additional ID Text: Xanadu Station 1 Delete

Message ID Prefix: FS1 (3 Characters max)

Show this form on startup OK Apply Cancel

← → ↻ 🏠 127.0.0.1:56732/form-2

Submit to Outpost Submit via Email Reset Form

Message number: FS1-1772P

Check In Check Out

Your Call Sign: W6XRL4 Name: Herman Munster

Use Tactical Call: XNDFS1 Name: Xanadu Station 1

FS1-1772P_R_Check-In XNDFS1, Xanadu Station 1 (PM:342)

File Edit Actions Window Help

Send Print Save Delete Close Urg Pvt Bul NT

Private Message

Bbs: W1XSC-1

From: XNDFS1

To... XNDEOC@W1XSC

Subject: FS1-1772P_R_Check-In XNDFS1, Xanadu Station 1

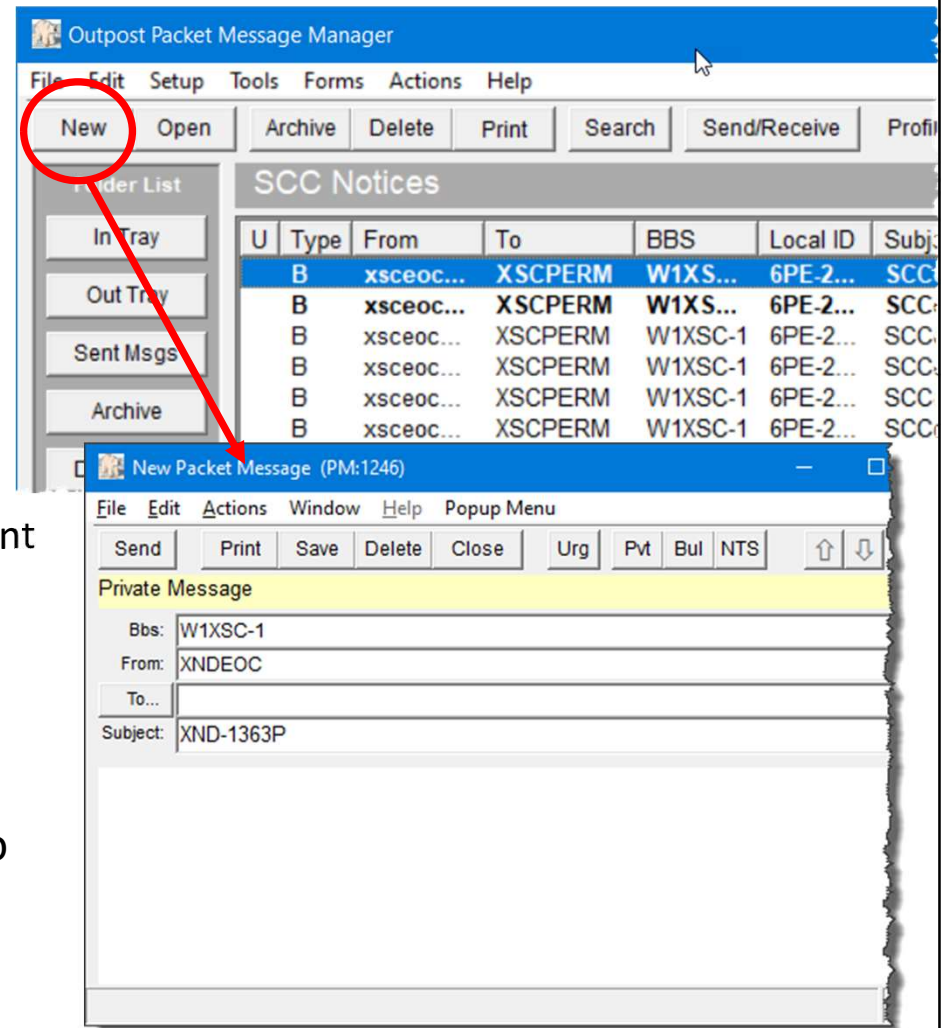
Check-In XNDFS1, Xanadu Station 1
W6XRL4, Herman Munster|



CREATING A MESSAGE

Creating Messages with Outpost

- Start a new message:
 - Press **New**
 - Fill in all remaining fields
- Multiple source options
 - Free-form plain text
 - Supports TAB characters, reducing the character count
 - Cut and Paste from other apps, like Word, Excel
 - **File > Open a File**, then choose a .csv file
 - Import text files directly into the message form
- Press Send
 - Message goes to Out Tray



Outpost Message Window Details

The screenshot shows a window titled "XND-1363P_R_JellyDonut Request - Packet Message". The menu bar includes "Actions", "Window", "Help", and "Popup Menu". The toolbar contains buttons for "Print", "Save", "Delete", "Close", "Urg", "Pvt", "Bul", "NTS", and font controls. The message header is highlighted in yellow and includes:

- To:** W1XSC-1 (Autofilled from Setup > BBS)
- From:** W6XRL4 (Autofilled from Setup > Station ID)
- To...:** yndeoc@w2xsc.ampr.org (Filled in by you)
- Subject:** XND-1363P_R_JellyDonut Request (Filled in by you or autofilled by PackItForms)

The message body contains the text: "Please pick up 1 dozen jelly donuts. Thanks. Herman". A callout indicates this text is "Filled in by you or autofilled by PackItForms".

A separate callout points to the "To:" field, stating it is "Autofilled from Tools > Report Settings > Next Msg Number".

Message Prioritization

- Prioritize according to handling order, then date/time
 - Handling order: Immediate, Priority, Routine
 - Use Date/Time to prioritize between same handling order
 - Ultimately, the served agency decides the order

Santa Clara County EOC Resource Request Form 213RR				Version: 8/17 PIF: 2.3
Message Numbers:	Origin: FS1-1779P	Destination:		
Date: 09/19/2022	Time: 19:44	Handling:	<input type="radio"/> Immediate (ASAP) <input type="radio"/> Priority (<1 hr) <input checked="" type="radio"/> Routine (<2 hrs)	
T O	ICS Position: Planning Section	F R O M	ICS Position:	
	Location: County EOC		Location:	
	Name:		Name:	
	Contact Info:		Contact Info:	

Standard Packet Subject Line

[OriginatorMsg#]_[HandlingOrder]_[Subject]

Example: XND-200P_R_Packet 3B Class Exercise Instructions

[OriginatorMsg#]

- 3-character message prefix for the originator, a hyphen, followed by a message number.
- Generated by Outpost with a P suffix

[HandlingOrder]

- 1-letter indicator as follows:
 - **I = Immediate**
 - **P = Priority**
 - **R = Routine**
- Autofilled by PackItForm or entered by you.

[Subject]

- Short description of the contents of the message
- Autofilled by PackItForms or entered by you

NOTE on Immediate messages:

Immediate messages are usually sent by voice. But, if an **Immediate** is sent by packet, then send it immediately and then contact the TO: party by a voice net (**1st... command net**, **2nd... message net**) to let them know an **Immediate** message is coming their way by packet.

Why The Subject Line Matters

- The receiving station must process messages according to handling order, then date/time
 - Must be able to easily scan the subject lines
- Which is most important? What is handling order?

Subject
PTS-834P Urgent: Need bulldozer
PTS-835P Water distribution
PTS-836P Barricades

- How about now?

Subject
PTS-834P_P_Urgent: Need bulldozer
PTS-835P_P_Water distribution
PTS-836P_I_Barricades

Even a large In Tray is easily scanned

PackItForms

Submit to Outpost Submit via Email Reset Form = required Show Text Message

Message number: 6PE-618P

Check In Check Out

Your Call Sign: Submit to Outpost Submit via Email Reset Form Show PDF = required Show Text Message

Use Tactical

MESSAGE FORM Origin Mes # 2 Destination Mes # 3

SCCo ICS F /2022

Date 1: 07/23/2022

Santa Clara County EOC Resource Request Form 213RR Version: 8/17 PIF: 2.4

Message Num: Date: 06/21/ ICS Posit Location: Name: Telephone: Subject: 10 Reference: 11 Message: 12

Santa Clara OA Jurisdiction Status WebEOC: 20190327 PIF: 2.2

Message Num: Date: 06/21/ ICS Posit Location: Name: Telephone: Subject: 10 Reference: 11 Message: 12

Santa Clara OA Shelter Status WebEOC: 20130814 PIF: 2.3

Message Num: Date: 06/21/ ICS Posit Location: Name: Telephone: Subject: 10 Reference: 11 Message: 12

Allied Health Status Report Short Form (DEOC-9) Version: February 2018 PIF: 2.3

Message Num: Date: 06/21/ ICS Posit Location: Name: Telephone: Subject: 10 Reference: 11 Message: 12

Santa Clara County RACES -- Mutual Aid Request Version: 20220129 PIF: 2.4

Message Numbers: Origin: RL4-2246P Destination:

Date: 06/21/2023 Time: hh:mm Handling: Immediate (ASAP) Priority (<1 hr) Routine (<2 hrs)

ICS Position: RACES chief Radio officer ICS Position:

Location: County EOC Location:

Name: Name:

Contact Info: Contact Info:

Agency Name:

Event / Incident Name: Number:

Assignment duties, conditions, equipment, shift times

Amateur Radio Resources Requested	Qty	Role	Position	Preferred Type	Minimum Type
			for example, Checkpo...		

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Creating a PackItForms

- Select the form on Outpost's **Forms** drop down menu
 - Default web browser will start
 - Form will be displayed with fields to be completed
 - Note the items highlighted in RED... these are all *required fields*.

The screenshot shows the 'Outpost Packet Message Manager' interface. The 'Forms' menu is open, listing various forms such as 'ICS 309 Communications Log', 'XSC Check-In/Out Message', and 'XSC ICS-213 Message'. A red arrow points to 'XSC ICS-213 Message'. Below the menu, the 'MESSAGE FORM' is displayed. The form includes fields for 'Date', 'Time', 'Handling', 'Origin Msg #', 'Destination Msg #', 'ICS Position', 'Location', 'Name', 'Telephone #', and 'Subject'. Several fields are highlighted in red, indicating they are required: 'Date', 'Time', 'Handling', 'ICS Position', 'Location', 'Name', 'Telephone #', and 'Subject'. The 'Handling' field has radio buttons for 'Immediate (ASAP)', 'Priority (<1 hr)', and 'Routine (<2 hr)'. The 'Take Action' and 'Reply' fields have radio buttons for 'Yes' and 'No'. The 'Subject' field has a red border and a red highlight. The 'Reference' field has a red border and a red highlight. The 'Form' label is also highlighted in red.

Address it to whom?

- SCCo ARES/RACES Recommended Form Routing Cheat Sheet
- PackItForms now auto-fills most forms with the
 - *Handling Order*
 - *To Location*
 - *To ICS Position*

Form Type	Handling	To Location **	To ICS Position **
General EOC			
ICS-213 Message Form	Author defined	Author defined	Author defined
EOC-213RR Resource Request	If "Priority" (Field 11) is:	Then "Handling" is:	County EOC Planning Section
	Now	Immediate (ASAP)	
	High (0-4 hrs)	Immediate (ASAP)	
	Medium (5-12 hrs)	Priority (<1 hr)	
	Low (12+ hrs)	Routine (<2 hrs)	
OA Jurisdiction Status	Immediate (ASAP)	County EOC	Situation Analysis Unit Else: Planning Section
OA Shelter Status	Priority (<1 hr)	For city-managed: City EOC For county-managed: County EOC	Mass Care and Shelter Unit Else: Care and Shelter Branch Else: Operations Section

<https://www.scc-ares-races.org/> > Forms & Signs > Go Kit Forms

Submit the PackItForm to Outpost

- Operator info is filled in automatically
 - Operator call sign and name
 - “Sent” by “Packet”
 - Date and Time (when Submit button is pressed)
- Click the Submit button to send to Outpost

The screenshot shows the PackItForm interface. At the top, there is a green bar with four buttons: "Submit to Outpost" (highlighted with a red box), "Submit via Email", "Reset Form", and "Show PDF". Below this is the "MESSAGE FORM" section, which includes fields for "Origin Msg #:" (FS1-1780P) and "Destination Msg #:". The form also has sections for "Date", "Time", and "Handling" (with "Routine" selected). A "Take Action:" section has "Yes" and "No" options. Below that is a "CC:" section with checkboxes for "Management", "Operations", "Planning", "Logistics", and "Finance". The "Operator Use Only:" section contains fields for "Relay:", "Rcvd:", and "Sent:". The bottom section, highlighted with a red box, contains "How Received" or "Sent" options (with "Sent" selected), "Operator Call Sign:" (W6XRL4), "Operator Name:" (Herman Munster), and "Date:" and "Time:" fields.

Submission Successful

- Form is transferred to Outpost; OK to close this form

MESSAGE FORM SCCo ICS Form 213 (01/19/2022) PIF 2.2		Origin Msg #: ² FS1-1780P	Destination Msg #: ³
Date ¹ : 09/19/2022	Time (24hr) : 20:13	Handling ⁵ : <input type="radio"/> Immediate (ASAP) <input type="radio"/> Priority (<1 hr) <input checked="" type="radio"/> Routine (<2 hr)	
This message requests you to ⁶ :			
Take Action: <input type="radio"/> Yes <input type="radio"/> No			
Reply: <input type="radio"/> Yes, by <input type="text"/> <input type="radio"/> No			
ICS Position: ⁷ Planning		ICS Position: ⁸ Radio Operator	
Location: ⁹ Xanadu EOC		Location: ⁹ Xanadu Station 1	

Message Progression

Did you see what happened?

- **Incomplete Message;** controls are grayed out, required fields in Red, gray banner

File Edit View History Bookmarks Tools Help

FS1-1780P_R_ICCS213_sss XSC ICS-213 Message +

127.0.0.1:56732/form-8

Submit to Outpost Submit via Email Reset Form Show PDF = required

MESSAGE FORM
SCCo ICS Form 213 (01/19/2022) PIF 2.2

Origin Msg #: ² FS1-1780P Destination Msg #: ³

Date ¹: Time (24hr): Handling ⁵: Immediate (ASAP) Priority (<1 hr) Routine (<2 hr)

- **Complete Message;** controls are enabled, ready to send, green banner.

File Edit View History Bookmarks Tools Help

FS1-1780P_R_ICCS213_sss XSC ICS-213 Message +

127.0.0.1:56732/form-8

Submit to Outpost Submit via Email Reset Form Show PDF

MESSAGE FORM
SCCo ICS Form 213 (01/19/2022) PIF 2.2

Origin Msg #: ² FS1-1780P Destination Msg #: ³

Date ¹: Time (24hr): Handling ⁵: Immediate (ASAP) Priority (<1 hr) Routine (<2 hr)

- **Submitted Message;** controls are removed; displayed success status, purple banner.

File Edit View History Bookmarks Tools Help

FS1-1780P_R_ICCS213_sss +

127.0.0.1:56732/form-7

The message has been submitted to Outpost. You can close this page.

MESSAGE FORM
SCCo ICS Form 213 (01/19/2022) PIF 2.2

Origin Msg #: ² FS1-1780P Destination Msg #: ³

Date ¹: Time (24hr): Handling ⁵: Immediate (ASAP) Priority (<1 hr) Routine (<2 hr)

Error During Submission

But then, you see this...



File Edit View History Bookmarks Tools Help

Problem x +

127.0.0.1:60300/submit-3

Something went wrong.

This information might help resolve the problem:

Opdirect isn't running, it appears.

```
Error: connect ECONNREFUSED 127.0.0.1:9334
{"method":"POST","host":"127.0.0.1","port":9334,"path":"/TBD"}
{"addon_name":"SCCoPIFO", "addon_version":"2.17", "message_status":"new",
"MSG_NUMBER":"XND-1194P", "operator_call_sign":"W6XRL4", "operator_name":"Herman
Munster", "ADDON_MSG_TYPE":"form-ics213.html",
"SETUP_BBS_CONNECT_NAME":"W1XSC-1", "emailURL":"/email-3",
"submitURL":"/submit-3", "saveURL":"/save-3", "subject":"XND-1193P_R_IC213_jhg"}
log file C:\PackItForms\Outpost\SCCo\logs\2019-09-05-server-60300.log
```

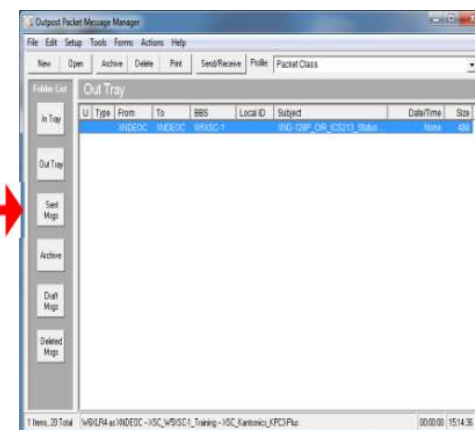
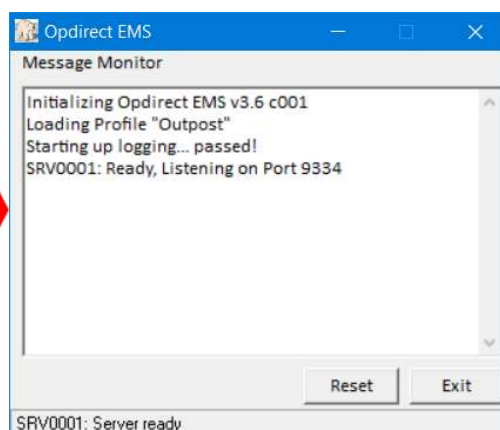
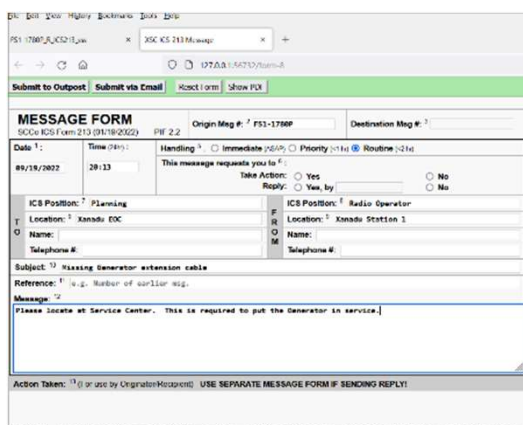
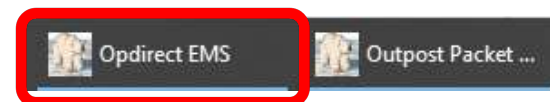
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Correcting Submission Errors

- Is Opdirect running?
 - Opdirect interfaces PackItForms to Outpost

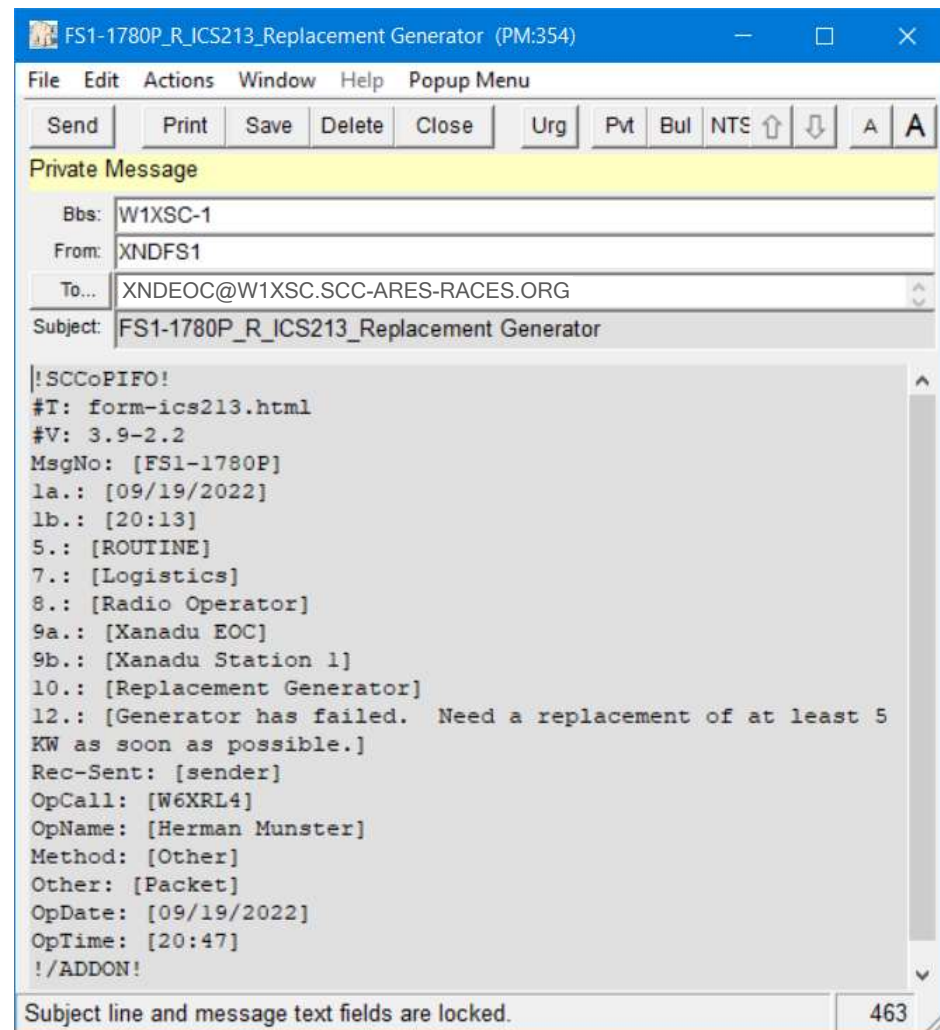
Windows Taskbar



- If you do not see Opdirect listed in the taskbar...
 - In Outpost: **Tools > Message Settings, Adv Tab;**
 Automatically Start Opdirect...
 - Press OK, and Restart Outpost. Verify Opdirect is running
 - Press “Back” on web browser
 - Click “Submit” button again

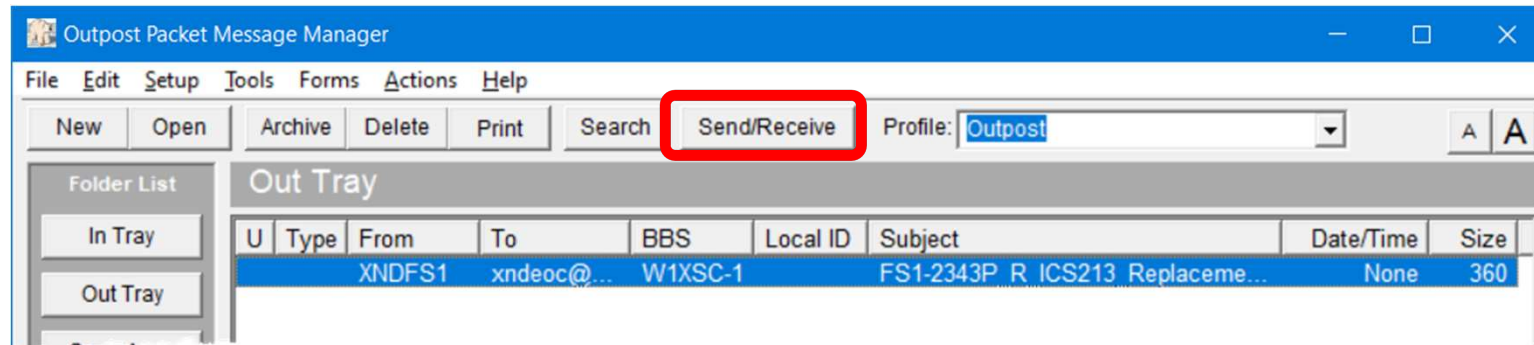
Enter the “To” Address

- An Outpost message window appears, containing a condensed and formatted message
- Subject line is correctly formatted
- Enter the “To:” address
 - More on this in a bit!
- Click “Send”



Press Send/Receive

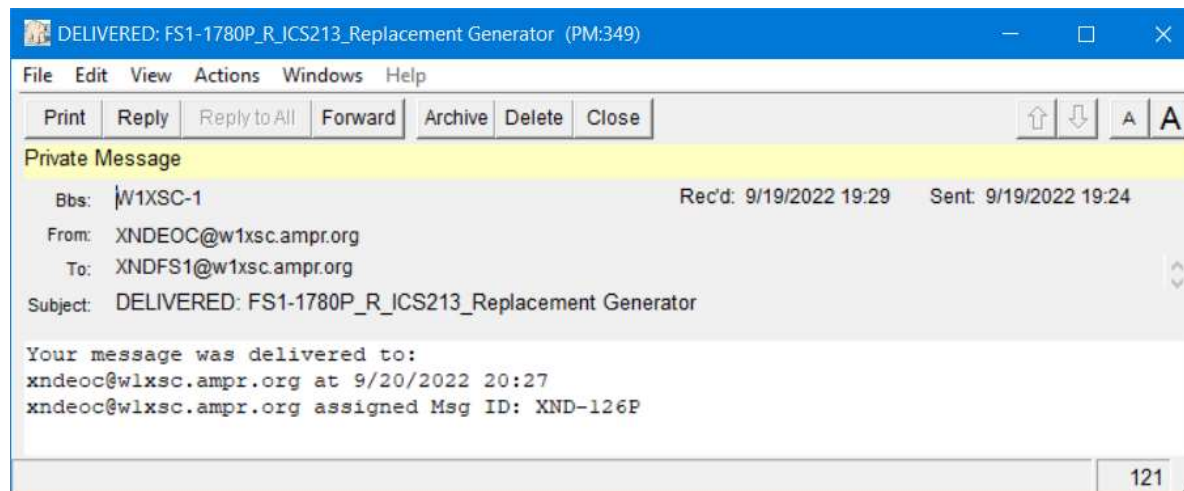
- Message is in the Out Tray
- Press “**Send/Receive**”
- Messages will be sent if...
 - message is from the currently configured user (Setup > Station ID), and
 - message is being sent to the currently configured BBS (Setup > BBS), and
 - message is not a DRAFT message (meaning, you pressed **Send** on the message form)

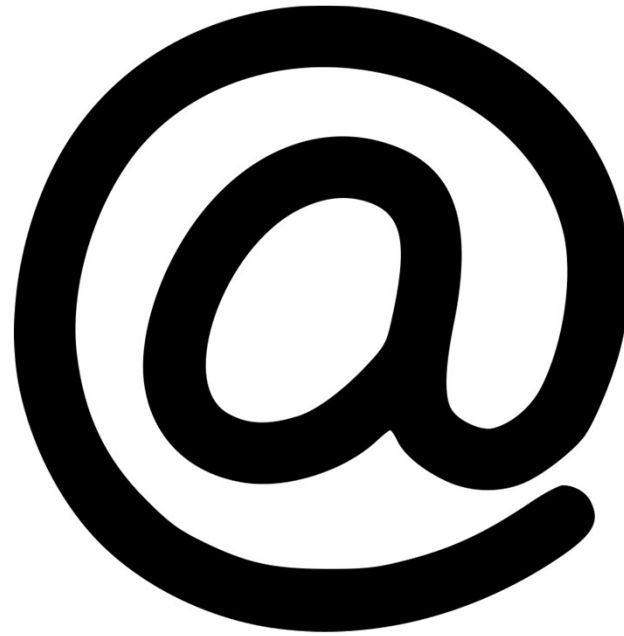


Delivery Receipts



- Message Recipient
 - When you receive a message, Outpost generates a delivery receipt
 - Receipts are sent during the same Send/Receive session that retrieved the message
- Message Originator
 - Receives receipt with Subject line: “DELIVERED: <original subject>”
 - Message contents: the date and time downloaded by **Outpost** by recipient
 - Eliminates the need to ask “Did you get my packet message?”





ADDRESSING RECAP

Top 5 Addressing Take-aways



5. Addresses within the SCCo packet network use the standard Internet-style username@domain address format : **usercall@bbscall.scc-ares-races.org**
 examples: **W6XRL4@w2xsc.scc-ares-races.org**
XNDEOC@w4xsc.scc-ares-races.org
4. Three different addressing formats for sending messages:
 - To: **W6XRL4@w2xsc.scc-ares-races.org** ... *Full address always works!*
 - To: **W6XRL4@w2xsc** ... *At least* always add the **bbscall** sign
 - To: **W6XRL4** ... **NEVER use this shortcut**
3. Always send to the user's **Primary BBS**, unless
 - a) that BBS is down (then, use their **Secondary BBS**), or
 - b) that user cannot reach his/her primary BBS (bad location), or
 - c) you are told to use a different BBS
2. When sending from email to a packet address, send as a plain text e-mail
1. Read and understand the ***Packet Network Addressing Guide!***
<http://www.scc-ares-races.org/data/packet/packet-addressing.html>

Complete Addressing Guide Available Online

- Quick Reference
- Network Types
- Sending Private Messages
 - Within our network
 - To other networks
 - From other networks
- Sending NTS Traffic
- Sending Notices
- Sending Bulletins

Santa Clara County ARES/RACES

Home | Operations | Data > Packet | Training and Events | Reference | FAQ | September 19, 2022

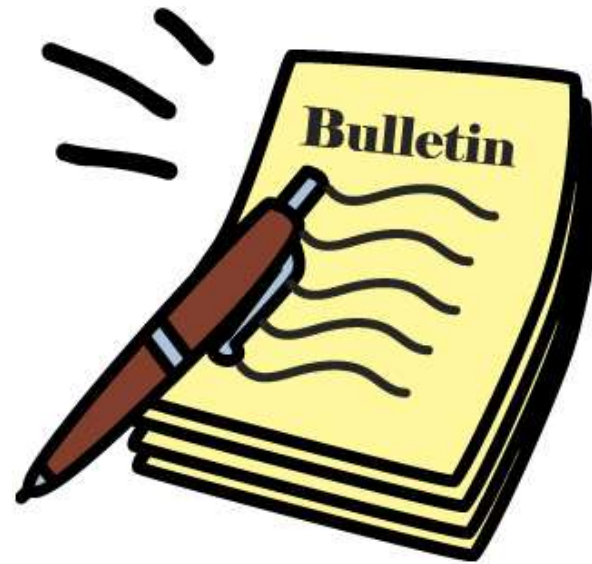
Packet Network Addressing

TOC | Quick Reference | Network Types | Private Messages | NTS Traffic | Bulletins

Table of Contents

- Quick Reference
 - Sending TO a Call Sign on any Santa Clara County BBS
- Network Types
 - AMPRnet
 - BBS Network
 - Winlink 2000
 - Internet E-mail
- Sending Private Messages (SP)
 - Sending Private Messages **WITHIN** the Santa Clara County Network
 - Sending Private Messages **TO** Santa Clara County Users
 - Sending Private Messages TO Santa Clara County Users FROM the AMPRnet
 - Sending Private Messages TO Santa Clara County Users FROM the BBS Network
 - Sending Private Messages TO Santa Clara County Users FROM Winlink 2000
 - Sending Private Messages TO Santa Clara County Users FROM Internet E-mail
 - Sending Private Messages TO Santa Clara County Users FROM SMS/Text
 - Sending Private Messages **FROM** the Santa Clara County Network
 - Sending Private Messages FROM the Santa Clara County Network TO Any AMPRnet User
 - Sending Private Messages FROM the Santa Clara County Network TO Any BBS Network User
 - Sending Private Messages FROM the Santa Clara County Network TO Any Winlink 2000 User
 - Sending Private Messages FROM the Santa Clara County Network TO Any Internet E-mail User
 - Sending Private Messages FROM the Santa Clara County Network TO Any SMS/Text User
- Sending NTS Traffic (ST)
 - NTS Address Format
 - NTS Traffic Handling
 - Additional NTS References
- Sending SCCo Notices
 - Notice Address Format
 - Notice Areas
 - Reading Notices
- Sending Bulletins (SB)
 - General Bulletin Address Format
 - Categories
 - Distributions
 - Bulletin Areas
 - Reading Bulletins
 - City-specific Bulletins

<https://www.scc-ares-races.org/data/packet/packet-addressing.html>



Distributing network-wide messages

NOTICES AND BULLETINS

Notices and Bulletins: Overview



- Bulletins are messages intended for a broad audience
 - They are a great way to get information out to everyone
 - Better than a mailing list; no need to know all the desired addresses
 - When configured, Outpost will take care of retrieving them for you
- The SCCo BBSs support two types of bulletins
 - **SCC Notices** are a special type of bulletin specific to Santa Clara County BBSs
 - Only distributed to SCCo BBSs (W*XSC)
 - Simple to address
 - SCCo uses 3 special **Notice** categories
 - General bulletins are used for wider (local to worldwide) distribution
 - Organized by general *categories* (e.g.: “quake”, “ARES”), and
 - *Distribution* ID defining how widely it is distributed (e.g.: “XSC”, “BAY”, “NCA”, etc.).
 - Outside the scope of this class (will cover in the Packet Type 2 Class!)
- Regardless of the bulletin type, when configured in Outpost, they will automatically be downloaded

SCCo Notice Areas

NOTICE

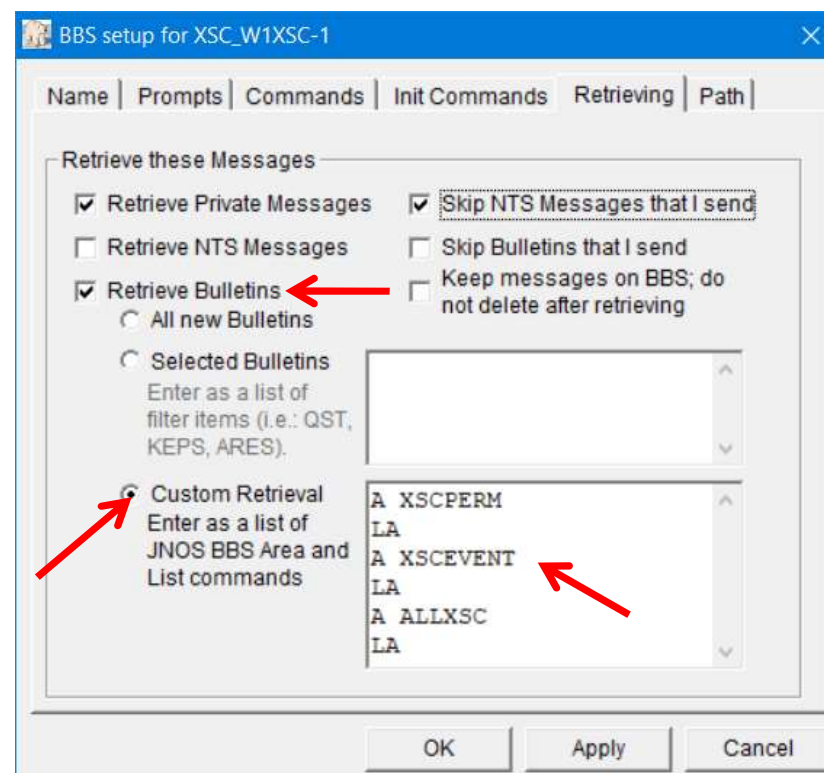
- SCCo ARES/RACES has four special notice categories:
 - xscperm
 - Used for notices that do not expire
 - examples: standard county procedures
 - xscevent
 - Notices posted here automatically expire after 8 days
 - examples: Drills, public service events, incidents, other activations
 - xsctest
 - allxsc
 - Where you can write city and jurisdiction notes
 - Notices posted here automatically expire after 8 days
- Advantages
 - Limits on-air time required to check bulletins
 - Focuses readership so important information is not missed
 - Outpost only downloads a notice once

Outpost is Pre-Configured for SCCo Notices

- The SCCo Packet Installer pre-configures Outpost to download SCCo notices
 - XSCPERM
 - XSCEVENT
 - ALLXSC
- In Outpost:
 - Setup > BBS, Retrieving Tab
 - Check “Retrieve Bulletins”
 - Check “Custom Retrieval”
 - Custom Retrieval:

```

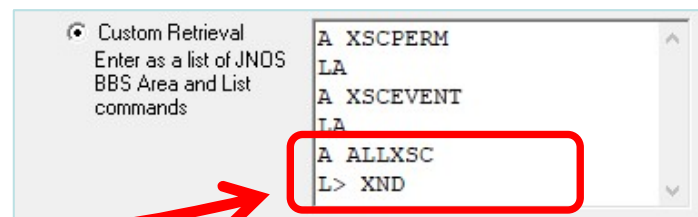
A XSCPERM      (Area)
LA              (List All)
A XSCEVENT     (Area)
LA              (List All)
A ALLXSC       (Area)
LA              (List All)
    
```



Using City Bulletins

Setup

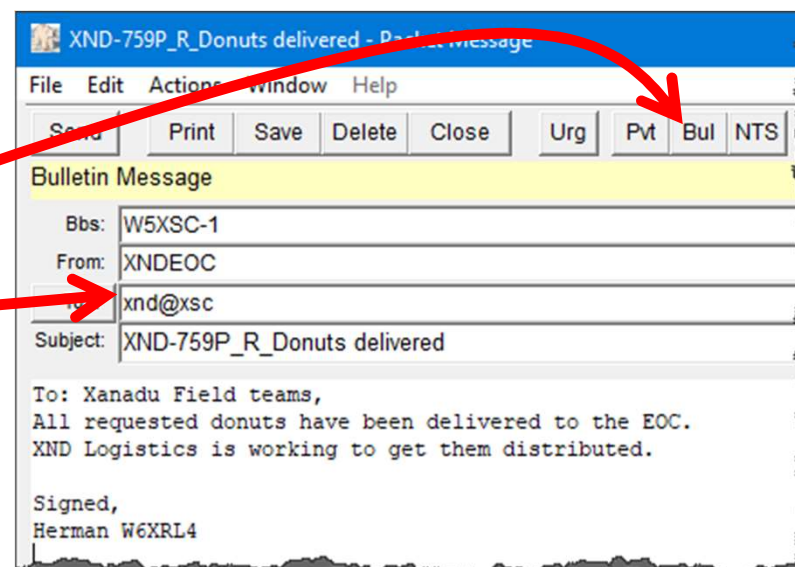
- Setup > BBS > Retrieving
- Change to your city's three char prefix (ex: "XND", "SJC", "MTV", etc.)



NOTE: only one City entry is allowed.

Create, send a city bulletin

- Start a new message
- Click the "Bul" button
- Address it to "xnd@xsc"
- Enter your message and click Send
- Addressing it to @xsc distributes to all XSC (Santa Clara County) BBSs.



See the details here...

<https://www.scc-ares-races.org/data/packet/packet-addressing.html#bull-city>



EVENT DOCUMENTATION

Accuracy and Completeness

Updated for the 2017 report



FEMA

Excerpts from the FEMA | Office of Inspector General report titled ***“Summary of Key Findings of Fiscal Year 2017 FEMA Disaster Grant and Audits”***

- *“In FY 2017, we identified \$2.08 billion in questioned costs, which represents 96 percent of the \$2.16 billion audited.”*
- *“... questioned costs that included Ineligible Work and Costs and Unsupported Costs, which we recommended FEMA disallow.”*

In cases where FEMA payments were made and claims later disallowed, recipients were required to repay these payments, with audits sometimes taking place years later.

Because our documentation could be used as part of the City’s justification for either an expense reimbursement or cost recovery request, ensuring the accuracy and completeness of what we submit is critical.

Ref: <https://www.oig.dhs.gov/sites/default/files/assets/2018-09/OIG-18-75-Sep18.pdf>

Archiving event documentation

Introduction

- The job is not done until the paperwork is complete... and submitted.
 - Every scrap of paper used during an activation is part of the event or incident and goes to the Documentation Unit (or your Supervisor)
 - It must be legible (print)
 - Use one side only
 - These are legal documents that may be needed to defend decisions
 - Most of this documentation is 'discoverable'
 - If it is not in the documentation, then it did not happen
 - Some documentation is specifically created after the event or incident, such as the After-Action Report
- And, all this applies to our packet operations

Archiving event documentation

Introduction

- During a Packet Deployment, you will produce the following:
 1. ICS 214-SCCo Unit Activity Log
 2. ICS 309-SCCo Communications Log (if participating on a voice net)
 - ✓ 3. ICS 309 Communications Log (packet)
 - ✓ 4. All third party sent & received PackItForms and plain text messages
 - ✓ 5. All sent and received operator to operator packet messages
 6. Any *Form 1* / hand-scribbled / sticky notes, documentation.
- Whether it be an exercise or a real activation, when your shift is over, your supervisor will provide instructions on wrap-up tasks that need to be done. These can include:
 - Submitting all documentation (to whom and how)
 - Preparing the packet station for the next use, including archiving your shift or the event

Archiving event documentation

ICS 309 Communications Log (packet)

1. Create the ICS 309 Comm Log

- From Outpost, **Tools > Report Settings**, 3rd tab, "ICS309." Enter all fields.
- Select **Forms > ICS 309 Comm Log**.
- Enter the **Operational Period** (manual).
- Select **Period** Tab. Select **Range**, set the **From:** and **To:** to the date/time range for when *your shift* (or event) occurred.
- Select **Content** Tab. Do not exclude anything!
- Select **Output** Tab. Check output options.

NOTE: If you do not have a printer, then try the default *Microsoft Print to PDF* printer.
- Select the Signature Tab.
- Press **Build Data Set**, then press **Print**.
- Sign any paper-printed ICS 309 form that are not e-signed.
- Deliver this report to your supervisor.**

ICS 309 Comm Log Builder

File Edit Help

Build Data Set Print Exit

Activation Number: CUP-23-16T Date/Ti: 8/10/2

Operational Period: 08/01/2023 00:00 to 08/08/2023 19:00 Incident Name: Prospect "Heights" Earthquake

Radio Operator Name: Herman Munster Station ID / Call Sign: W6XRL4

Period Content Sort Layout Output e-Signature

Reporting Period

Today (8/10/2023 21:31)
 Since last report run (8/7/2023 19:14)
 All (2/4/2019 15:45 to 8/10/2023 21:31)
 Range

From Date: 3 / 1 / 2
From Time: 12:00
To Date: 8 / 10 / 2
To Time: 23:00

Preview

Date/Time	From	To	Msg ID	Local ID	Subject
8/4/2023 14:22	KN6PE	KN6PE	6PE-2024P	6PE-2024P_R_#1722, #170	
8/4/2023 14:22	KN6PE@W1XS-	KN6PE	6PE-2024P	6PE-2025P	6PE-2024P_R_#1722, #170
8/4/2023 14:22	KN6PE	KN6PE@W1XS-			DELIVERED: 6PE-2024P_R_#
8/5/2023 13:42	KN6PE	KN6PE	6PE-2030P		6PE-2030P: ADDR: DL_CARE
8/5/2023 13:43	KN6PE	KN6PE	6PE-2030P	6PE-2031P	6PE-2030P: ADDR: DL_CARE
8/5/2023 13:43	KN6PE	KN6PE			DELIVERED: 6PE-2030P: AD
8/6/2023 13:50	KD6ARC	KN6PE			Test Outpost 3.7 - Messa
8/6/2023 13:56	KD6ARC	KN6PE			Test Outpost 3.7 - Messa
8/6/2023 14:17	KD6ARC	KN6PE			Test Outpost 3.7 - Messa
8/8/2023 16:47	KD6ARC	KN6PE			Test Outpost 3.7 - Messa

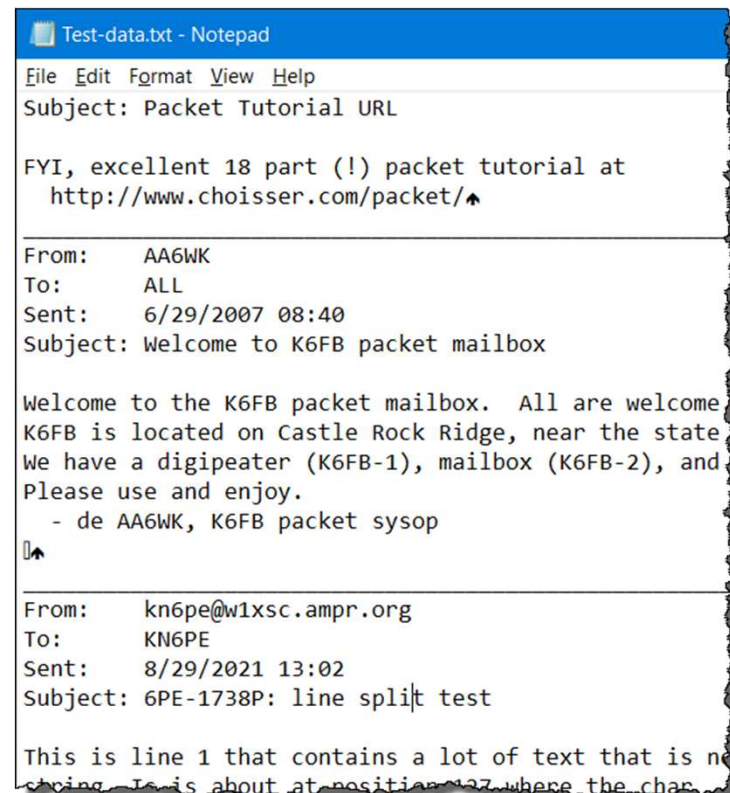
493 messages found for reporting

Archiving event documentation

Printable Message Listing

2. Create a printable message listing

- a) From Outpost, **File > Save All**.
- b) This will create an Ascii-formatted file of all messages in the current folder with a **Page Break** between each message. Use meaningful file names.
- c) Repeat this step for any other folder where event messages were stored.
- d) Later, this file could be printed to generate one message per page. Or, because the messages are in a .txt file, any message could be copied and pasted into another note pad, and printed for reference.
- e) ***Deliver this file to your supervisor.***



Test-data.txt - Notepad

File Edit Format View Help

Subject: Packet Tutorial URL

FYI, excellent 18 part (!) packet tutorial at
<http://www.choisser.com/packet/>

From: AA6WK
 To: ALL
 Sent: 6/29/2007 08:40
 Subject: Welcome to K6FB packet mailbox

Welcome to the K6FB packet mailbox. All are welcome
 K6FB is located on Castle Rock Ridge, near the state
 We have a digipeater (K6FB-1), mailbox (K6FB-2), and
 Please use and enjoy.
 - de AA6WK, K6FB packet sysop

From: kn6pe@w1xsc.ampr.org
 To: KN6PE
 Sent: 8/29/2021 13:02
 Subject: 6PE-1738P: line split test

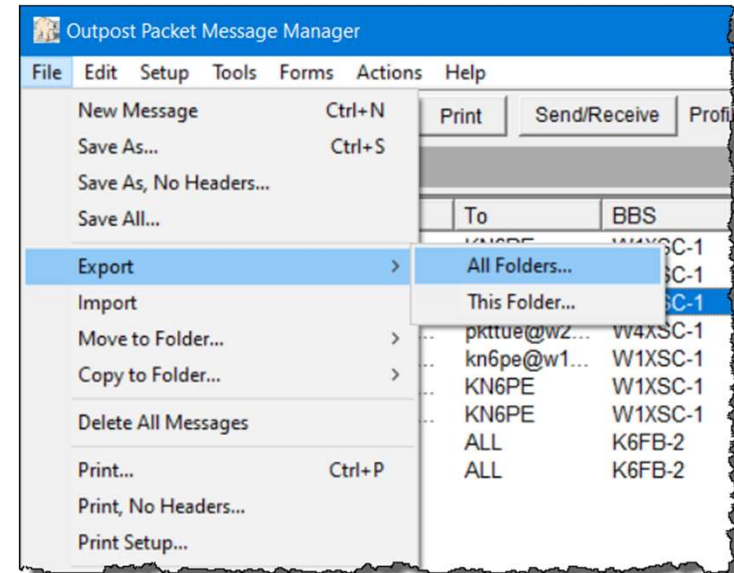
This is line 1 that contains a lot of text that is ne
 string. It is about at position 127 where the char

Archiving event documentation

Message Archive

3. Create a Message Archive

- a) From Outpost, **File > Export**, then select **“All Folders”** (for your entire system).
- b) Use meaningful file names.
- c) The Export process will create an Outpost Archive File (.oaf).
- d) This file later can be imported back into Outpost to restore the archived messages to their original folders.
- e) ***Deliver this file to your supervisor (email or USB).***



Archiving event documentation

Reset Outpost for the next event

4. Reset Outpost for the next event (delete all messages)

STOP!

Do not proceed until you have created a **Message Archive>All Folders** first.

STOP!

Do not proceed until you have permission from your supervisor.

- a) If not already done, set up the SCC Notices message folder
 - a) **Tools > General Settings, Start** tab.
 - b) Set the name of one of the folders to **SCC Notices**.
 - c) Move or drag all SCC Notices into this folder.
- b) Export (backup) the SCC Notices folder:
 - a) click on this folder. Then **File > Export**, select **This Folder**
 - b) Give it a name, like "SCC_Notices-yymmdd". Press **OK**.
 - c) Verify that all messages (6 today) were exported.
 - d) FYI... your file is in the **C:\SCC Packet\archive** directory

Archiving event documentation

Reset Outpost for the next event

4. Reset Outpost for the next event (continued)

- c) Delete all Outpost messages:
 - a) Go to **File > Delete All Messages**, answer **Yes** at the prompt.
All your files are deleted.
- d) Restore the SCC Notices:
 - a) **File > Import**, select the file, press OK
- e) You now have a clean system for the next event or incident.
- f) Inform your supervisor that this task is complete.



OUTPOST TIPS

Resend option

You did what?!?!?

- You just sent a message, but ...
 - it was addressed incorrectly, or
 - it was sent to the wrong BBS, or
 - you forgot to include all recipients, or
 - it was incomplete, or
 - it was the wrong message, or
 - any number of other problems!

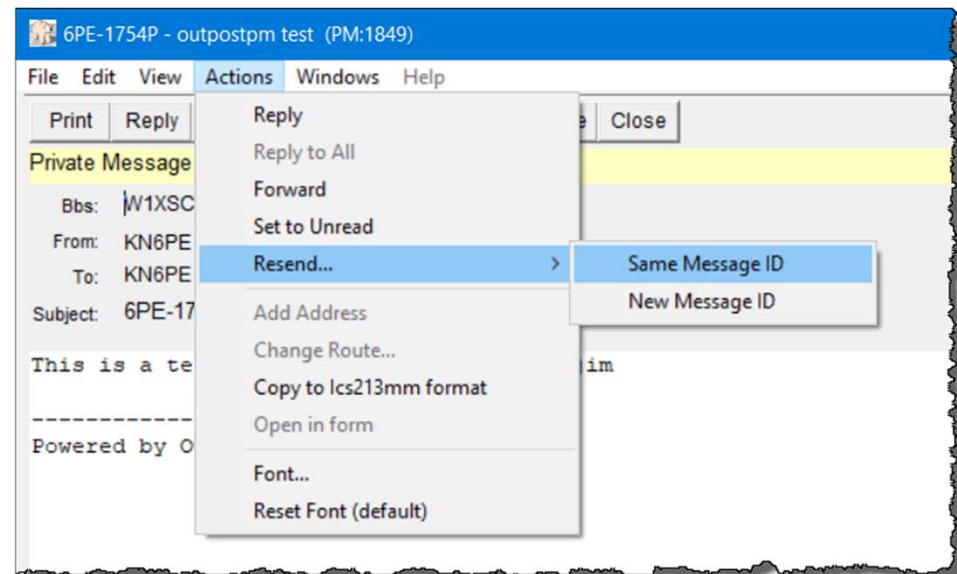
And, you don't want to type it all back in! What now?



Resend option – Text Messages

Outpost's *Resend* option lets you resend a message previously sent. For Text Messages...

- From the **Sent** folder, open the message
- Click on **Actions > Resend...** choose either option
- The message then opens in edit mode.
- Make whatever changes you need to make, then
- Press **Send**, then **Send/Receive** as usual.



NOTE! If you select **Resend, Same Msg ID**, then manually change the Message ID -###P to -###R for Resend. This ensures no duplicate message confusion.

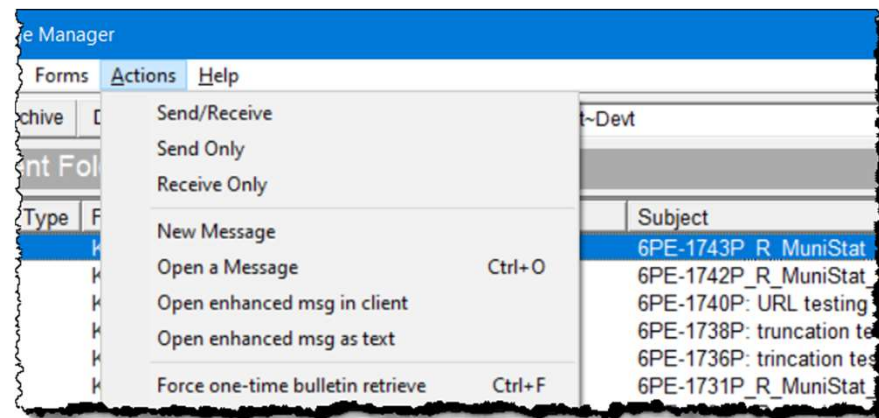
Resend option – PackItForm Messages

Resending *PackItForm Messages* depends on your option.

For *Same Message ID*...

- From the Sent folder, **single-click** on the message to highlight it (not open it)
- Select **Actions > Open enhanced msg as text**
- Once the text version of the form opens, click on **Actions > Resend...** choose **Same Message ID**
- The PackItForm will open as a new copy of the message in the Browser, just as if it was a new message for editing.
- Make other changes and continue as usual.

NOTE! If you select **Resend, Same Msg ID**, then manually change the Message ID -###P to -###R for Resend. This ensures no duplicate message confusion.

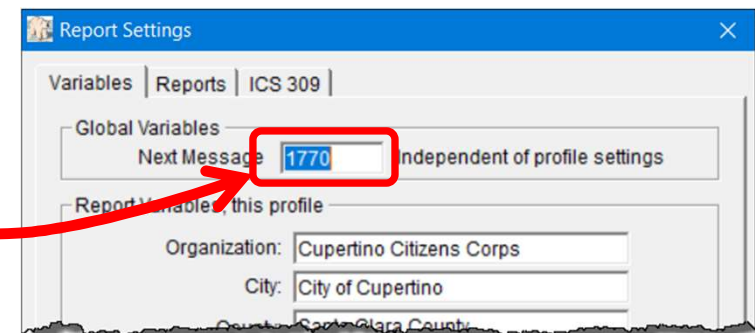


Resend option – PackItForm Messages

Resending *PackItForm Messages* depends on your option.

For *New Message ID*...

- First get the Next Message Number
 - In Outpost, **Tools > Report Settings**
 - Note the **Next Message** value. This is the number to use. *Do not change it!*
- Then, from the Sent folder, **single-click** on the message to highlight it (not open it)
- Select **Actions > Open enhanced msg as text**
- Once the text version of the form opens, click on **Actions > Resend... New Message ID**
- The PackItForm will open in the Browser.
- Manually replace the PackItForm **Origin Message Number** with the number you noted above.
- Make other changes and continue as usual.





FIELD PACKET DEPLOYMENT

Putting it all together

1. **First Shift...** when assigned to establish a station
2. **Initial station setup...** equipment check-out, and check-in
3. **Packet Operations...** managing the message flow
4. **Incoming Shift Change...** if you are relieving someone else
5. **Outgoing Shift Change...** if you are being relieved
6. **Securing Operations...** when directed to shut down

Field Reference

Table of Contents

- 1 QUICK REFERENCE.....**
- 2 INTRODUCTION.....**
 - 2.1 PURPOSE.....
 - 2.2 HOW TO USE THIS HANDBOOK.....
- 3 PACKET OPERATOR CHECKLIST.....**
- 4 PACKET STARTUP PROCEDURE.....**
- 5 CLIENT SOFTWARE.....**
- 6 PACKET MESSAGING.....**
 - 6.1 PACKET MESSAGING BASICS.....
 - 6.2 FREE FORM (PLAIN TEXT) MESSAGE.....
 - 6.3 SENDING A SPREADSHEET .CSV FILE.....
- 7 MESSAGE ADDRESSING.....**
- 8 STANDARD SUBJECT LINE FORMAT.....**
- 9 CHECK-IN, CHECK-OUT MESSAGE.....**
- 10 RECOMMENDED FORM ROUTING CHEAT SHEET.....**
- 11 ARCHIVING EVENT DOCUMENTATION.....**
 - 11.1 CREATE THE ICS 309 COMMUNICATION LOG.....
 - 11.2 CREATE A PRINTABLE LIST OF YOUR MESSAGES.....
 - 11.3 CREATE AN ARCHIVE OF YOUR MESSAGES.....
 - 11.4 RESET (CLEANUP) OUTPOST FOR THE NEXT EVENT.....

Amateur Packet Radio Field Reference, Type III

For SCCo RACES Responders

October 2023



WRAP UP

Final Assignment

- Online Class Evaluation
 - Log into <https://www.scc-ares-races.org/activities/events.php>
Click “Submit Class Evaluation” in Events

The screenshot shows the website interface with a left-hand navigation menu and a main content area titled 'Calendar of Events'. The navigation menu includes links for Home, Log Out, Activities Home, SCC ARES/RACES Home, Comments/Bugs, Events, List Events By Date, List Events I Joined, Create a New Event, Modify an Event, Delete an Event, List/Print an Event Roster, Log Event Participation, Submit Class Evaluation, and My Profile. A red arrow points to the 'Submit Class Evaluation' link. The main content area shows a table of events with columns for Date, Start, Type, and Credit. The first event is 'Packet Operations Type III, Part B' on 10/05/24 at 9:00 AM, County Training, with a credit of Yes. The second event is '2024 Bike to the Future' on 10/06/24 at 7:00 AM, Public Service, with a credit of No. The third event is 'Pancake Breakfast Fundraising Event'.

- Submit your evaluation as soon as possible... after 1 week, the form will no longer be available for this class!

Homework

- Please sign up for the **Monthly Packet Message Passing Exercise** planned for Wednesday 16-Oct-2024.
- These exercises simulate participating in a real event as an experienced county packet operator who has been assigned for mutual aid support for Xanadu County and City.
- You will be asked to pass at least two 3rd party messages in each direction (PacketItForm) and at least two operator-to-operator messages in each direction.
- The exercise lasts for one week, starts at 09:00 on Wednesday 16-Oct-2024 and ends a week later on 23-Oct-2024 at 17:00. A zoom debrief follows.
- Please register for this event here:



<https://www.scc-ares-races.org/activities/eventdetail.php?id=1491>

Thank You!

Please complete the Course Evaluation
on or before next Saturday 12-October!

Please complete the Assignment
by **Wednesday 23-October!**

If you have questions or feedback about this or other training activities,
you can join our Training discussion group.
<https://scc-ares-races.groups.io/g/packet>

Make sure you're signed up for the next part:
Packet Type II

Questions, comments, suggestions?
kn6pe@arrl.net