

# Polar Station NetRS Receiver and Iridium Modem Configuration

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## Polar Station NetRS Receiver and Iridium Modem Configuration

### Iridium Modem

- A3LA-SA Remote Modem:
  - AT&F0: Reset to factory defaults
  - AT&D0: Ignore DTR input
  - AT&K0: No flow control
  - AT+IPR=6,0: Set baud rate to 19200 and disable Autobaud feature
  - ATS0=1: Answer on first ring
  - ATQ1: Quiet mode
  - AT&W0: Write settings to memory register 0
  - AT&V: View current configuration if desired
- A3LA-MPT Base Modem:
  - AT&F0: Reset to factory defaults
  - AT&D0: Ignore DTR input
  - AT&K0: No flow control
  - AT+IPR=6,0: Set baud rate to 19200 and disable Autobaud feature
  - AT&W0: Write settings to memory register 0
  - AT&V: View current configuration if desired

### NetRS GPS Receiver

UNAVCO Polar standard configuration settings for Iridium-equipped sites are listed below. Individual settings may vary depending on specific application and/or project PI request.

**Commonly modified settings are highlighted in red.**

As of April 2009, UNAVCO uses NetRS Firmware 1.1-5 for Polar applications.

- Receiver Status:
  - Identity: **Set System Name**
- Satellites:
  - GPS Enable/Disable: All Enabled
  - WAAS Tracking: Off

Data: N/A

- Data Logging:

Primary Session: ENABLED

Select Session: 60min, Enabled: Checked

Schedule:

Continuous Logging: Checked

File Durations: 60 minutes

Data Format: T00

T00 Options:

**Measurement Interval: 30 Sec**

Position Interval: 5 min

Smooth Code Phase: NOT Checked

Smooth Carrier Phase: NOT Checked

File Naming:

'S' (The Session Identifier) is: a

Directory Options:

Create Per-Day Subdirectories: Checked

Secondary Session: NOT ENABLED

Select Session: 1Hz\_1hr, Enabled: NOT Checked

Schedule:

Continuous Logging: Checked

File Durations: 60 minutes

Data Format: T00

T00 Options:

Measurement Interval: 1 Sec

Position Interval: 5 Min

Smooth Code Phase: NOT Checked

Smooth Carrier Phase: NOT Checked

File Naming:

'S' (The Session Identifier) is: b

Directory Options:

Create Per-SessionId Subdirectories: Checked

AutoDelete:

Reserved Space: **AutoDelete: NOT Checked.** (AutoDelete may be desirable for certain applications; consult UNAVCO).

Session Pools: None Defined

Power Saving:

Power Down Between Sessions Mode: No

Failsafe Wakeup Alarm: Yes, for 10 minutes every 24 hours

- Receiver Configuration:

Antenna: **Enter site-specific antenna parameters**

Clock Steering: Enabled

Multipath: Disabled

L2C Tracking: Disabled

Masks:

Elevation Mask: 7

PDOP Mask: 99

One Pulse Per Second: Disabled

Reference Frequency: Internal

Configuration Files: After receiver has final configuration, create a configuration file named "NAME\_config\_mm-dd-yy.txt" and download copy to a separate computer.

Shutdown Voltage: 10.680

System Reset: N/A

- Internet:

Ethernet:

Static IP:

IP Address: 192.168.1.2

MTU: 1500

Netmask: 255.255.255.0

Gateway: 192.168.1.1

HTTP:

HTTP Standard Port 80: Enabled

HTTP Alternate Port 8080: Disabled

HTTPS Standard Port 443: Enabled

HTTPS Alternate Port 8443: Disabled

IP Filtering: Disabled

FTP:

Anonymous FTP: Enabled without Delete

Named FTP: Disabled

Administration FTP: Disabled

FTP Server Port: Use Standard Port

NTP Client: Disable using NTP time servers

- I/O Configuration:

Port Configuration, Serial Port 2: ENABLED

Service: PPP

Baud: 19200

Flow Control: None

Parameters for PPP mode:

Local IP Address: 192.168.xx.2 (xx is two digit number, unique to each site)

Remote IP Address: 192.168.xx.1 (xx is two digit number, unique to each site)

Connection: Direct

Port Configuration, Serial Port 4: ENABLED (optional)

Service: Met-Tilt

Baud: 19200

Parity: None

Flow Control: None

Parameters for Met-Tilt mode:

Command: 0R0

Schedule: 30 minutes

Reference Station: N/A

Client Authentication: N/A

Port Advertising: Disabled

PPP Dialout: N/A

- Security:

Access:

System Controls: Unrestricted

GPS Controls: Unrestricted

File Access: Unrestricted

Accounts: N/A

Change Password: N/A

- Firmware: 1.1-5

- Programmatic Interface: N/A

Online URL:

<https://kb.unavco.org/article/polar-station-netrs-receiver-and-iridium-modem-configuration-508.html>