

# 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

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