# 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

ATO1: Quiet mode

<u>AT&W0</u>: Write settings to memory register 0 <u>AT&V</u>: 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

<u>AT&W0</u>: Write settings to memory register 0 <u>AT&V</u>: 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

<u>Clock Steering</u>: Enabled <u>Multipath</u>: Disabled <u>L2C Tracking</u>: Disabled Masks:

Elevation Mask: 7 PDOP Mask: 99

<u>One Pulse Per Second</u>: Disabled <u>Reference Frequency</u>: 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