Polar Station NetRS Receiver and Iridium Modem Configuration

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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