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

      <u>Masks</u>:
          Elevation Mask: 7
          PDOP Mask: 99
      <u>One Pulse Per Second</u>: Disabled
      <u>Reference Frequency</u>: Internal
      <u>Configuration Files</u>: After receiver has final configuration, create a configuration file named "NAME_config_mm-dd-yy.txt" and download copy to a separate computer.
      <u>Shutdown Voltage</u>: 10.680
      <u>System Reset</u>: N/A

- Internet:
      <u>Ethernet</u>:
          Static IP:
              IP Address: 192.168.1.2
              MTU: 1500
              Netmask: 255.255.255.0
              Gateway: 192.168.1.1
      <u>HTTP</u>:
          HTTP Standard Port 80: Enabled
          HTTP Alternate Port 8080: Disabled
          HTTPS Standard Port 443: Enabled
          HTTPS Alternate Port 8443: Disabled
      <u>IP Filtering</u>: Disabled
      <u>FTP</u>:
          Anonymous FTP: Enabled without Delete
          Named FTP: Disabled
          Administration FTP: Disabled
          FTP Server Port: Use Standard Port
      <u>NTP Client</u>: Disable using NTP time servers

- I/O Configuration:
      <u>Port Configuration, Serial Port 2</u>: 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
      <u>Port Configuration, Serial Port 4</u>: 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