# SDI-104 Status

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# Overview

- SDI Design
  - Hardware configuration
  - Software configuration
- Satellites signals and SDI-104 availability

# Hardware Configuration

- PC/104-Plus
- 1 GHz CPU
- Boot from compact flash
- Ethernet: 10/100/1000 BaseT
- Connectors for monitor and keyboard
- Mounted in 2U rack box

# Hardware Configuration

Data rates up to 30 Mbits/s

- Connectors:
  - D15P
  - BNC
- Configuration:
  - Single ended (TTL)
  - RS422 (differential)
- Data types
  - NRZ-L, NRZ-M, NRZ-S
  - Jumper configurable

# Software Configuration

- Linux:
  - Moving from DSL to Knoppix (Debian) in 2011*
- Ingestor software modified slightly from previous SDI systems
- ADDE server software is unchanged
- Can be configured as a standalone ingestor/server, or to write data to an external disk* (via NFS, for example)

# Event Notification

- Notifications are dependent on signal type:
  - Image start (not for POES)
  - Image end (not for GVAR Imager)
- Three types of notifications:
  - Send an email
  - Write notification to a file (log messages)
  - Run a program or script

# SDI-104 Status for Current Satellites

- GOES: up-to-date for all satellites
  - Server changes were required to account for GVAR block changes for GOES-14 and -15
- MTSAT: up-to-date for both satellites
- POES:
  - Up-to-date for all satellites
  - Unable to test direct reception, although a system is running in Hawaii

# SDI-104 Status for Current Satellites

- FY-2C: Chinese geostationary
  - Ingestor in use in Japan
- MSG:
  - Not available, although it is under consideration
- Metop
  - Current satellite does not have direct broadcast in our area
  - SSEC does not have a direct readout station, but we may in the future

# SDI-104 Status for Current Satellites

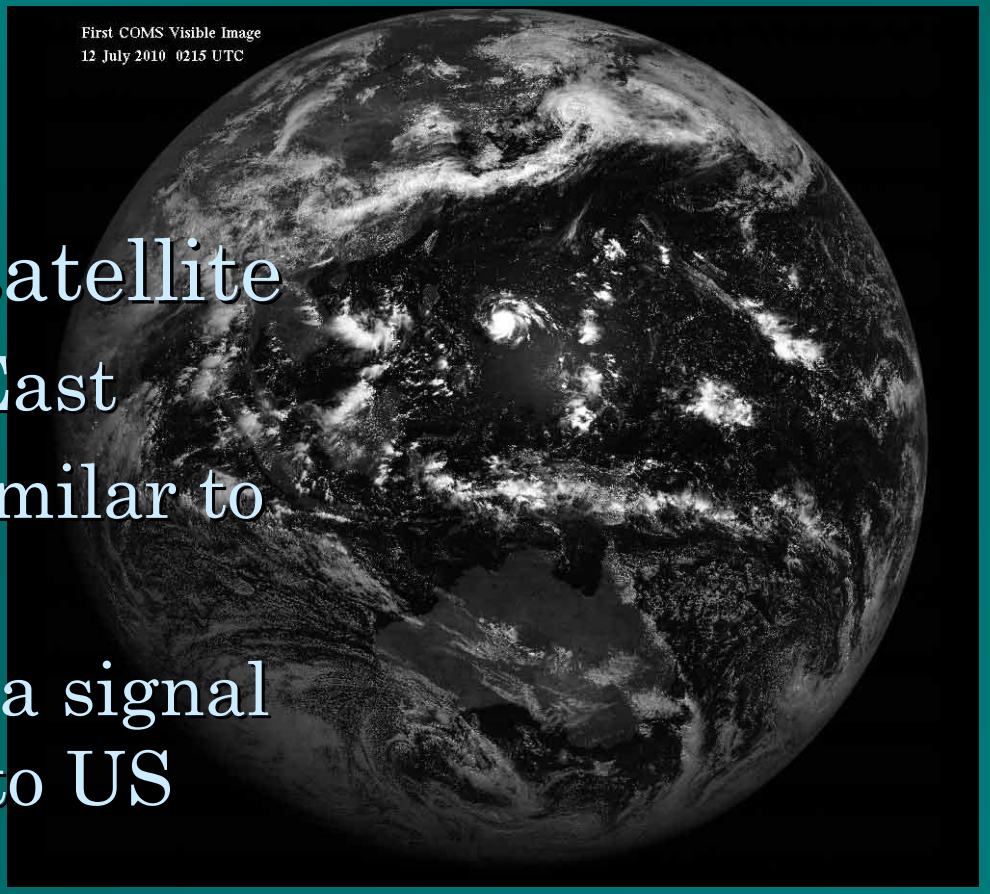
- Meteosat-5 and -7: not available
- DMSP: not available

# Future Polar Satellites

NPP and JPSS:

We are monitoring the status and data delivery of these future polar orbiting satellites. We expect them to have a Direct Broadcast mode and are investigating having SDI-104s available.

# Future Geostationary Satellites




- COMS: Korean satellite
  - Subpoint: 128º East
  - HRIT format (similar to MTSAT)
  - We don't expect a signal to be broadcast to US

# Future Geostationary Satellites

- GOES-R:
  - Expect an industry-standard delivery (such as CCSDS)
  - SDI-104 is designed and tested for data rates up to 30 Mbits/s.