McIDAS-XCD Future

2010 MUG Meeting

Jerrold Robaidek

What is McIDAS-XCD?

McIDAS-XCD

McIDAS X

Conventional

data Decoder

McIDAS-XCD files, decodes and indexes the NOAAPORT data stream (or other data streams) into formats that can be served by McIDAS-X ADDE servers.

Output formats include McIDAS MD files, text files, McIDAS GRID files, GRIB and GRIB2 files, NEXRAD files, and GINI files.

McIDAS-XCD History

- Before 1994, conventional data was decoded on IBM mainframe (Whittaker)
- Early 1990s moved to a distributed system. Prototypes developed for McIDAS-OS2 (PC McIDAS) Called McIDAS-OCD (Pyeatt)
- 1994 first version on Unix. Required McIDAS-X. Named McIDAS-XCD (Pyeatt)
- Data came in on a Central Data Card via the Family of Services.
- NOAAPORT certified operational on November 25, 1998 data broadcast over L-Band ingested by SSEC SDI

NOAAPORT Channels

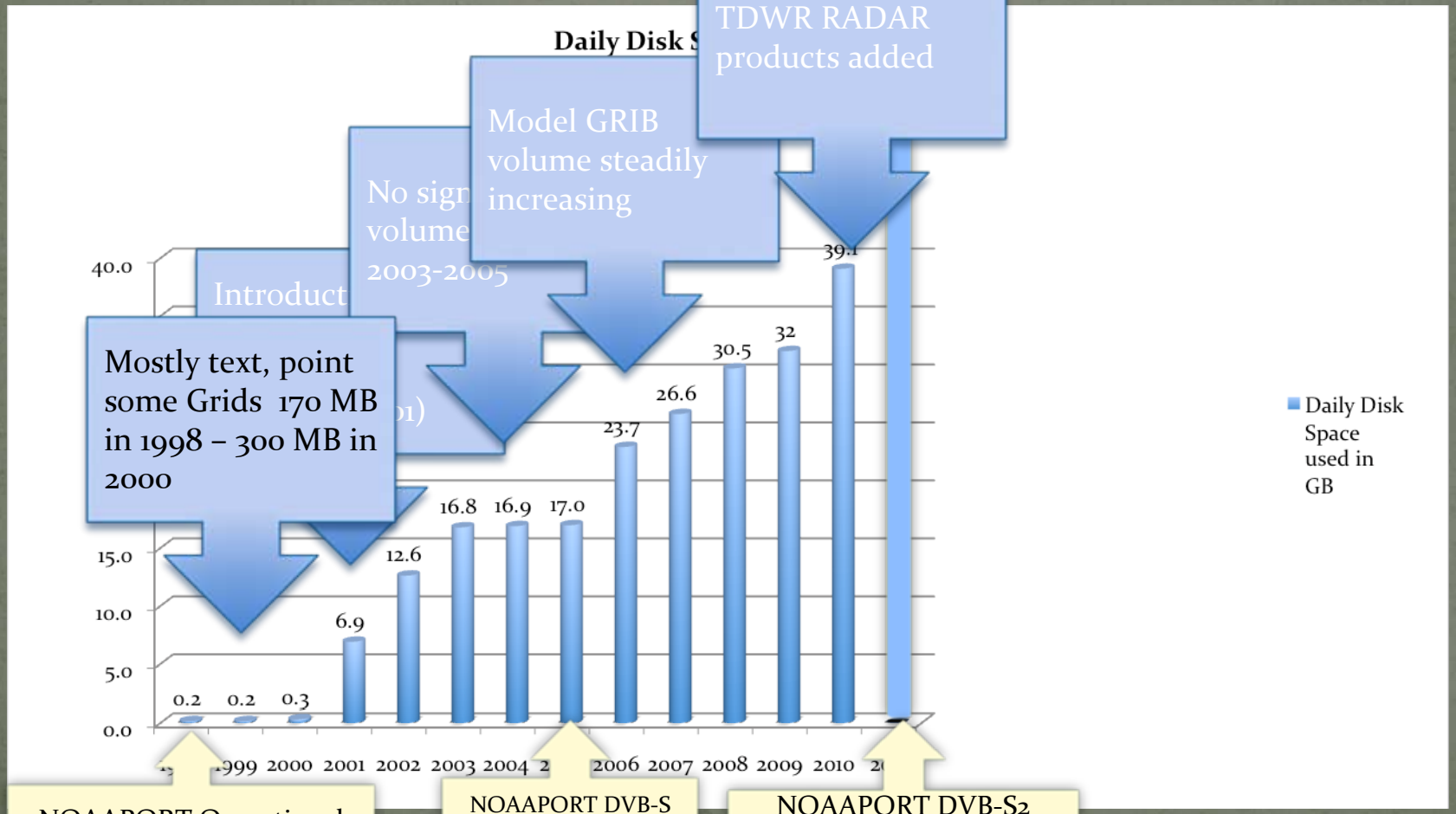
- **GOES Channel**
  - GOES East visible, infrared, and water vapor for the Eastern Conterminous United States (CONUS), Puerto Rico, supernational composites, and Northern Hemisphere (NH) composites
  - GOES West. visible, infrared, water vapor for CONUS, Alaska, and Hawaii; supernational composites, and NH composites.

- ***NCEP/NWSTG Channel (NWS Telecommunications Gateway)**
  - model output from the National Centers for Environmental Prediction (NCEP)
  - observations, forecasts, watches and warnings produced by NWS Forecast Offices
  - WSR-88D radar products
  - most observational data over North America.

- ***NCEP/NWSTG2 Channel**
  - supplements the NWSTG channel.

- **Non-GOES Imagery/DCP Data Channel**
  - GOES DCP data
  - MTSAT/GOES-West/GOES-East/METEOSAT-7/METOSAT-9 composites for visible, IR, and water vapor products (every 3 hours)
  - OCONUS grids.

XCD Data Volumes

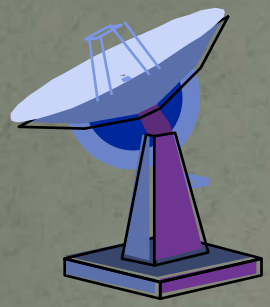


NOAAPORT Data flow into SSEC

Currently we get NOAAPORT data in two ways

1. Directly from DOMSAT via DBS using NOVRA S75
2. Over the Internet via LDM

NOAAPORT Data Flow into SSEC



Ssec ldm

LDM

XCD

Internet

Site 1
ldm

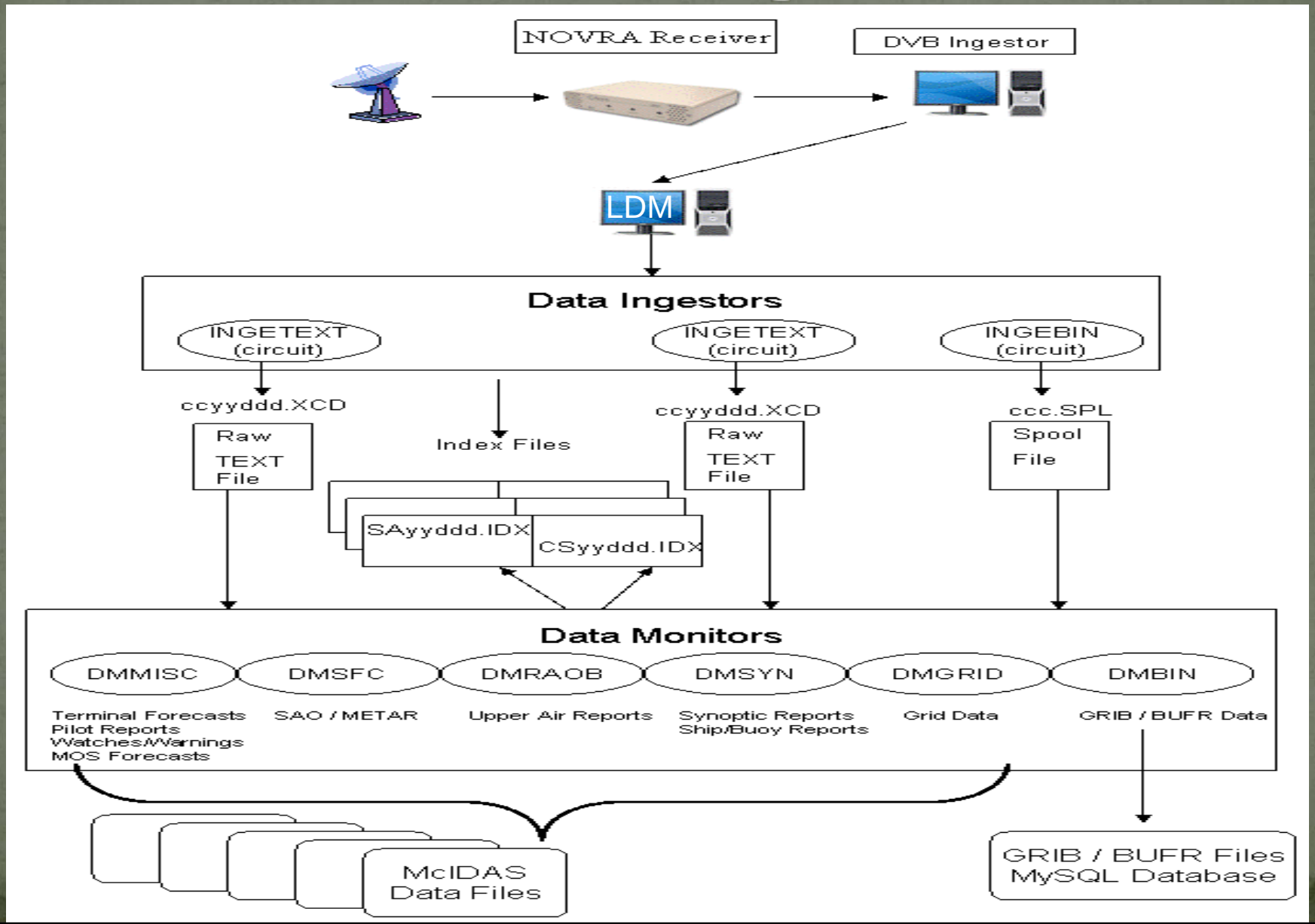
Site 3
ldm

Site 2
ldm

Ssec ldm

Ssec ldm

Local NOAAPORT Reception



What McIDAS-XCD does well

- Filing and indexing text data
- Filing and indexing point/MDXX
- Data management for NEXRAD
- Can incorporate local data feeds

McIDAS-XCD Criticisms

- Installation/upgrades are difficult (many steps, prone to user error)
- System is complex, large learning curve for operators, and very large learning curve for new programmer
- Performance can be an issue
- Data stored in format different than incoming format
- Can't handle BUFR (except for filing)

What's next for McIDAS-XCD

- McIDAS-XCD Survey (sent out immediately following this meeting)
  - Find out what users like/don't like
  - Find out what parts of McIDAS-XCD are used
  - Solicit input on the future directions
- Does McIDAS-XCD need to change?
- If yes, how?
  - Stand alone decoders?
  - LDM decoders?
  - ADDE servers?
  - Other server model? THREDDS? RAMADDA?