# McIDAS-XCD Status

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# NOAAPORT DVB Upgrade

- DVB-S = Digital Video Broadcast by Satellite
- NWS changed to this system in March 2005
- Software supplied by SSEC in conjunction with Unidata
- Version 1.1.3 of the DVB reader software is available at: http://www.ssec.wisc.edu/mcidas/software/xcd/dvb/reader_upgrade.html
- Root password privileges required at ‘sudo’ step (others require you to be user ‘ldm’ on NOAAPORT ingestor computer)

# McIDAS-XCD 2006 Updates

- Various modifications made to the GRIB filer that writes to the MySQL database to aid debugging the new GRIB server
- Updated the maximum number of grids that can be contained in a McIDAS grid file
- Determined that XCD already contained enough levels to successfully decode GPS radiosonde levels to be added using the Radiosonde Replacement System
  - TTBB will have 135 Levels, TTDD 40 Levels

# McIDAS-XCD 2006 Updates
**(continued)**

- Added designations for stitched-together ECMWF global grids – 14912 and 5678
- Fixed bugs in Synoptic Decoder which resulted in incorrect Antarctic ceiling and visibility values being placed into the real-time synoptic MD files
- Working on implementing METAR FEW designation into the METAR decoder

# To Z or not to Z

- Designation for GRIB parameters in XCD allows for duplicate designations
  - in gbtbpds001.2v3 file, ‘Z’ has the following designations:
    - ICAO Standard Atmosphere Ref Height
    - Geopotential Height
    - Geometrical Height
    - Geopotential Height Anomaly
    - 5 wave geopotential height
  - other duplicated parameters include P, U, V, W

# The Issue of Multiple Parameters

- Occurs when using McIDAS GRID commands; specifically, the PAR= keyword
  - for example, if PAR=Z in the GRDLIST command, McIDAS will select the first grid with Z specified in the gbtbpds001.2v3 file - which is actually “ICAO Standard Atmosphere Ref Height” !!!
  - most users would expect Z to be “Geopotential Height”, so there is a potential for users to be looking at something they did not request

# The Solution?

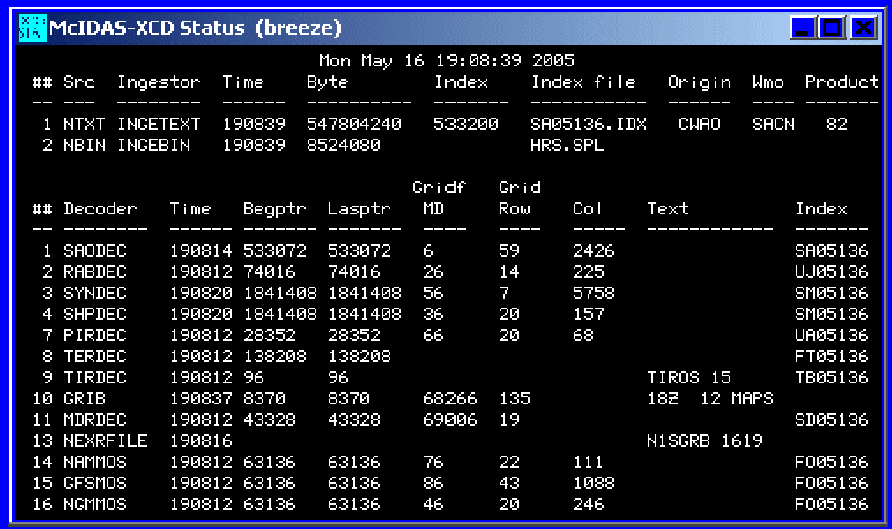
- After consulting by email to the *mcidas.users* list, it was determined that
  - we will use the traditional definitions of the duplicated parameters, e.g., Z will be identified as geopotential height
  - the remaining parameters will be changed to something more appropriate, perhaps something along the lines of the NCEP table at http://www.nco.ncep.noaa.gov/pmb/docs/on388/table2.html
- Note that if we use the NCEP table's parameter names, HGT will be geopotential height and Z will disappear - resulting in possible confusion and angst ☺

# Missing GRIB Table Parameters

- GRIB table gbtbpds001.2v3 also is missing certain parameters; these are represented by ‘x’ in the table
- We will replace these with something appropriate, most likely based on the NCEP table; this solves the problem of GRDLIST returning ‘x’ values that the user has no idea what the grid is for (first found for Wind Gust grid)

# xcdadmin Script

- Streamlines certain repetitive XCD tasks
- Included in the McIDAS-XCD 2005 upgrade
- *"xcdadmin statdisp"* shows the XCD status display window:



# xcdadmin Script
## (continued)

- *"xcdadmin log –r"* rotates the current log file out and creates a new one – useful for isolating current XCD behavior
- *"xcdadmin status"* is similar to "*statdisp*", but is more text based
- And finally, the most important options:
  - *start* and *stop*
    (if you're really frustrated with XCD, *stop* has a *now* option ☺)
- Feel free to suggest any additions to this script to consider for inclusion in a future release