Asheville AMS
Minutes of Meeting
19 October 2006

1. The second meeting for 2006-07 of the Asheville American Meteorological Society (AMS) chapter was held in Room 400 of the Veach-Baley Federal Building in Asheville, NC on October 19, 2006. There were 20 persons in attendance.

2. The speaker for the meeting was Mr Axel Graumann, meteorologist with the National Climatic Data Center (NCDC) in Asheville. Mr Graumann is the project lead and customer service interface for the Comprehensive Large Array-data Stewardship System (CLASS) and for other satellite data services from NCDC.

3. Mr Graumann works in the Remote Sensing and Applications Division at NCDC. He stated his division handles about 700 requests per year and fills approximately 200 orders annually.

4. Mr Graumann discussed the 3 nodes for the current CLASS IT system configuration. Node 1 is located at the National Environmental, Satellite, Data and Information Service (NESDIS) in Suitland, MD. Node 2 is located at NCDC and Node 3 is being built at the National Geophysical Data Center (NGDC) in Boulder, CO. Once the NGDC node is completed sometime in 2007, the responsibilities of the CLASS-Suitland Node will be reduced to data ingest, which is conducted on a LAN, and to subscription services. The Suitland site was chosen to maintain those functions at a node closest to the data source, while the NCDC and NGDC nodes will be responsible for data preservation and delivery of archived data. Mr. Graumann then reviewed a short history of CLASS. It began as the Satellite Active Archive in 1994 with just POES data. The original goal was to get satellite data out to the greater user community.

5. Mr Graumann said the CLASS system creates and retains browse imagery from the Geostationary Operational Environment Satellite (GOES) and the Polar-orbiting Operational Environmental Satellite (POES) systems.

6. Other services outside of CLASS that the NCDC is responsible for include the production and archive of special event imagery, facilitated by a quick search capability, custom image products for forensic meteorologists and insurance firms, and derived scientific data products produced with NCDC. The derived products include Blended Sea Winds since July 1987, High Resolution IR Sounder from 1978 to present, and the International Satellite Cloud Climatology Project B1 Rescue data, which contains radiance data at 10 km resolution every 3 hours from 1983 to present.

7. He also gave examples of poster products created by his team. Example shown, include 2005 Significant Hurricane Strikes Poster, 2005 Atlantic Hurricanes Poster, and the Landfalling Hurricanes Poster, which shows locations and strengths of all landfalling hurricanes on the continental U.S. since 1950. Other products archived at NCDC are global vegetation indices on a 16 km mapped grid, , sea surface temperatures, ozone,

aerosol/optical thickness, and gridded SSM/I products including precipitation, snow cover and sea ice.

8.. Axel then stated there were three levels of CLASS service. These included the web access for the one time orders, bulk orders for high volume requests, and subscription services which are automated near real-time .ftp push or pull.

7. As far as contents of the 35 basic data sets in CLASS they are grouped into:

a. Raw-- including POES, GOES, and DMSP.

b. Derived satellite products- including aerosols, sea surface temperatures, heat budget, ozone, etc.

c. Coming soon will be data from MetOp-2 (the first European polar-orbiting weather and climate with advanced instruments to help monitor climate and weather in three dimensions) followed by data from the NPP and NPOES projects .

d. Model data and NEXRAD (radar) is being looked at for potential future storage.

8. Throughput and storage to the CLASS system consists of 4Tb per month through the web interface. Over 400K files are delivered to the CLASS each month. Future challenges will include the handling of a 10-fold increase of data during the next 10 years and to build a new interface to enable users to successfully locate and request large volumes of data. The overall goal is to establish a Global Earth Observation – Integrated Data Environment (GEO-IDE) interface/database which will tie together 90 plus environmental observation systems, in a virtual web services oriented architecture transparent to the user. Design goals are inter-operability by 2015 in standardized GIS formats which are platform and language independent.

9. URLs of associated websites are: www.ncdc.noaa.gov , www.class.noaa.gov and www.ncdc.class.noaa.gov .

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