

NOAA Procedure for Scientific Records Appraisal and Archive Approval

Example Test Cases

15 Step NOAA Procedure for Scientific Records Appraisal and Archive Approval

Step A – Identify

- A.1 Initiation of Request
- A.2 Receipt of Request

Step B – Appraise

- B.1 Designate a NOAA Appraisal Team
- B.2 Preliminary Records Appraisal
 - Can skip steps B.3 & B.4 when applicable
- B.3 Formal Records Appraisal (questionnaire)
- B.4 External Science Review
- B.5 Assemble Recommendations Package
 - Positive, Negative, No Decision with narrative to explain decision

Step C – Approve





- C.1 Receipt of Recommendation
- C.2 NOAA Office Director Decision:
 - Approve, Appraisal Team referral, Science Review, Line Office Coordination
- C.3 National Archives (NARA) Coordination
- C.4 Public Comment & Appeal Period
- C.5 NOAA Data Management Committee
 - Management & Reporting
- C.6 NOAA Observing System Council
 - Receipt of Periodic Reports

Step D – Implement Decision



- D.1 New records:
 - Notify Provider: decision & appeal process
 - Develop Submission Agreement
- D.2 Existing records: Keep, Destroy (donate)

Example Test Cases

- **New Records:**

- Box of 19th Century U.S. Signal Service weather logbooks (manuscripts)
-  – NCEP Climate Forecast System Reanalysis (multi petabytes)
- NASA's EOS archive (multi petabytes)
- Conductivity, Temperature, Depth (CTD) data from NOAA's National Ocean Service (megabytes)
- Combo data from Woods Hole Oceanographic Institute (gigabytes)
- Video data from NOAA's Ocean Exploration & Research (terabytes)
-  – RIDGE Weather Radar Mosaics (gigabytes)
-  – Aerial Photo Archive from Nat. Geodetic Survey: New Digital Data
-  – Aerial Photo Archive from Nat. Geodetic Survey : Historic Data

- **Existing Records:**

- 70,000 boxes of Surface Weather Observations (manuscripts)
- 1 Million Fischer-Porter rain gage autographic paper tape charts
-  – Historic, Analog, Seismic Reflection Profiles
-  – Multibeam Bathymetry from NOS Hydrographic Surveys and other sources

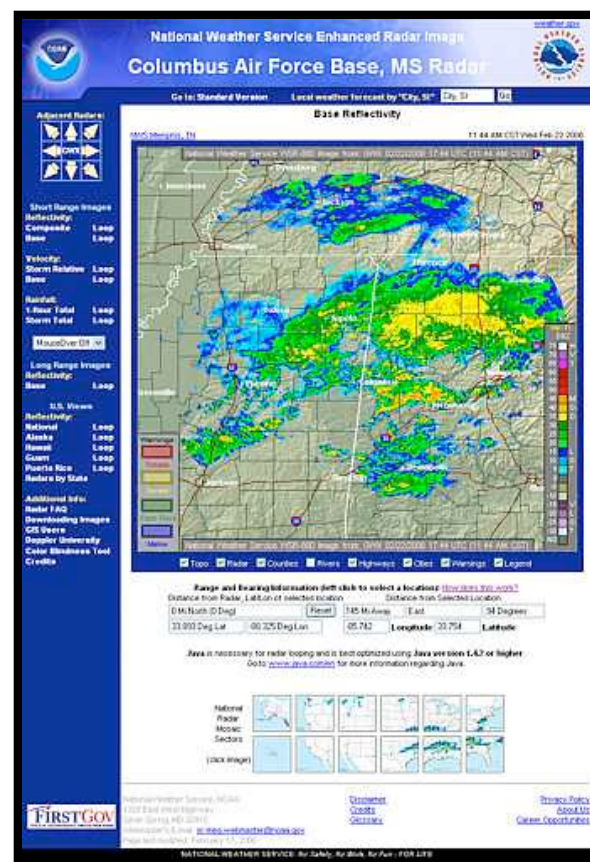
Background slides

National Weather Ser. RIDGE Weather Radar Mosaics

Radar Integrated Display with Geospatial Elements

The radar images can be layered with geospatial elements such as topography maps, highways, state/county boundaries and weather warnings.

- Products:
 - Short Range images (views out to 124 nmi)
 - N0R: Base Reflectivity
 - N0S: Storm Relative Motion
 - N0V: Base Velocity
 - N1P: One-Hour Precipitation
 - NCR: Composite Reflectivity
 - NTP: Storm Total Precipitation
- Long Range image (view out to 248 nmi)
- N0Z: Base Reflectivity
- Format: Gif images
- Size (Daily ingest all products) 60Megabytes



Climate Forecast System Reforecast and Reanalysis (CFSRR)

- Model-based output for 1979-present,
 - Run by NOAA Centers for Environmental Prediction (NCEP)
 - Total output >1 petabyte
 - 31-year period (1979-2009 and continued in NCEP ops)
 - Atmosphere
 - Ocean
 - Seaice
 - Land
- User input for variables for archive and access
 - Town Hall meeting at 2008 AMS Annual Meeting
 - EOS News item to describe process with web site and email address for user input on archive needs.
 - Plan to reduce NOAA archived volume from petabytes to ~400 terabytes.



National Geodetic Survey Aerial Photo Archive - Digital Data

Provider: NOS / National Geodetic Survey - Remote Sensing Division

Volume: 5 TB / yr

Format: RAW HiRes TIFF

Spatial Extent: Regional - Coastal

Temporal Range: 2008 on

Media: Hard Disks

Justification: Acquisition data from the Integrated Ocean Coastal Mapping project

Metadata: FGDC

Special Access Requirements: NONE

Notes: LiDAR, GIS data included in SIP that was collected during the field missions. CSC providing data discovery/distribution of geolocated products.



National Geodetic Survey

Aerial Photo Archive: Historic Data

Provider: NOS / National Geodetic Survey - Remote Sensing Division

Volume: 8-10 TB/yr for 8-12 years

Format: TIFF / JPG

Spatial Extent: Regional - Coastal & Airports

Temporal Range: 1943 - 2007

Media: Hard Disks

Justification: Provide pre-satellite terrain views prior to sustained earth and climate monitoring programs crucial for change analysis, e.g. shoreline migration, sea level changes, *etc.*

Metadata: FGDC

Special Access Requirements: GIS Search and Distribution Interface.

Notes: CDMP funded proposal 2008.



Historic, Analog, Seismic Reflection Profiles

Provider: USGS, MMS, Academic Institutions (e.g. UT, LDEO, SIO)

Volume: Digital: SEG-Y: 325 GB; SCAR CDs: 17 GB; LDEO negatives: 3,816 scanned negs—9 GB; scanned microfilm reels: 260 GB

Analog: 2,000 Multichannel Sections (1,700 meters² of imagery)

3,075 rolls of 35mm microfilm (1,600 meter² of imagery, half of which is scanned and digitized through CDMP)

Format: Digital: SEG-Y; Scanned: TIFF; Analog: microfilm, mylar, and paper

Spatial Extent: Global Oceans

Temporal Range: 1955-1985

Media: microfilm, DVD

Justification: Marine Geophysical Data agreement with NSF

Metadata: MGD77 Header

Special Access Requirements: NONE

Notes: While these data are easily superceded by modern re-collection, that process is largely constrained by current environmental concerns and required permitting for acoustic interference with marine mammals. Thus, historic data has unique value in regions where no subsequent data had been collected



Multibeam Bathymetry from NOS Hydrographic Surveys and other sources

Provider: NOAA: NOS / Hydrographic Surveys, NMFS, PMEL; Academic and Foreign Institutions

Volume: 35 TB in archive, anticipating 100 TB/year for the next few years

Format: Any format supported by MBSystem

Spatial Extent: Global Oceans

Temporal Range: 1975 to present

Media: DVD, Hard Drive, Network Attached Storage(NAS), Online

Justification: Predominantly NOAA / NOS data

Metadata: FGDC

Special Access Requirements: NOS Hydro—some restricted access

Notes: Security archive for initial, raw survey data, held until survey processing complete

