Best Practices for Data Archive, Format and Delivery

Brian Nelson
Hilawe Semunegus
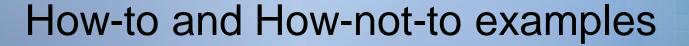**NCDC**

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Initial Operating Capability (IOC) recommendations for a NOAA CDR

- Software readiness (source code)
  - stability and reproducibility
  - portability (open source compiler preferred)
- Metadata
  - Collection level (FGDC or ISO standards)
  - netCDF-4 CF compliance at granular level
- Documentation (peer-review papers and ATBD)
- Follows Archive/Access guidelines
  - Submission Agreement (living document that connects Producer, Archive and key users)
  - Conforming file naming convention
  - THREDDS access
- Utility or application (user engagement)
  - Engage intended users

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How-to and How-not-to examples

- Software
  - No-no: Non-modular coding (e.g. more than 20,000 lines in one program)
  - Yes: Well-defined subroutines that can be referenced multiple times by other routines
- Filenaming convention
  - No-no: MonAvg_1980.dat
  - Yes: e.g. NCDC_ATMS_BT_V07R00_1980_MONAVG.nc
- Use of source code headers and comments
  - No-no: No code header and contains undefined coefficients that were passed as arguments
  - Yes: Use source code headers (e.g. robodoc) and explain steps within reasonable detail

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