NCAR: Users Needs for CFSR

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How CFSR is Used

- Force a wave model
- Force MITgcm and other ocean models
- Initialize WRF
- Regional modeling over Africa
How CFSR is Used

- Investigating water budget closure of this reanalysis
- Wind energy research
- Storm tide study

- Terms of Use?
  - Request information on how data will be used
Data That Users Need

- Analyses that don’t currently exist
  - 2m temperature
  - 10m winds
    - or good explanation of how already existing products fit the need
- “Hub-height” winds
- Highest available resolutions
Information That Users Need

- Model/science questions
  - “What is hybrid level 1?”
  - “How is ocean heat content calculated?”

- Technical questions
  - “The gridcell centered at 90N covers 88.75 to 91.25. Isn’t this awkward?”
Meeting the Need

- Authoritative consultation
  - Who to contact?
    - we can answer the technical, not so much the model questions
    - rapid response is an expectation
  - Centralized clearinghouse
    - FAQs, discussion forums
  - RSS feeds, etc.
    - push information about new data events to users
Access That Users Need

- Subsets of the data
  - I just want
    - these parameters, this date range, this area of the globe
  - Timeseries of single grid point
- Formats that work with my tools
  - e.g. – netCDF
  - GrADS
Meeting the Need

- Methods for subsetting/conversion
  - Interfaces that allow fast and easy selections
  - Scripts that can be embedded in programs

- Computing/databases
  - Make data available quickly (instantaneously to few hours)

- Accurate/standard content metadata
Access That Users Need

- Ability to discover and access the data for a long time
  - Data will be referenced in publications
Meeting the Need

- Digital Object Identifiers (DOIs)
  - Assign to each version
  - Reference-able
  - Traceable

- Archive best practices
  - Good metadata
  - Backups
  - Records of data requests – re-creation
http://dss.ucar.edu/pub/cfsr.html