Issues for Swath Data in CF

2017 EarthCube netCDF-CF Workshop









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What We Call Swath Data?

- - of the electromagnetic spectrum
- Data collected by instruments on satellites, airplanes, and unmanned aerial systems
- Original instrument viewing geometry





Electromagnetic radiation collected from a specific direction into a solid angle and then measured at a number of intervals

Issue #1: Storing Lat/Lon and Projection Coords

- Current CF convention seems to require providing lat/lon coordinates in addition to any other type of coordinates
- Such swath files may be very large, precluding efficient distribution
- Suggestion: Relax the CF requirement to only one geocoordinates of any type (lat/lon or projection)





Issue #2: Groups in Swath Data Files

- Many swath files use groups
- CF does not support groups
- Many swath data providers are forced to guess/improvize what is the best practice for using groups
- groups and if they work use them







Common approach: Test your software tools with files with

Issue #3: Subsampling Lat/Lon Coordinates

- NOAA Level 1B or HDF-EOS formats allow this
- More applicable and safer to use for swath data with small geospatial extent (airborne, unmanned aerial system)

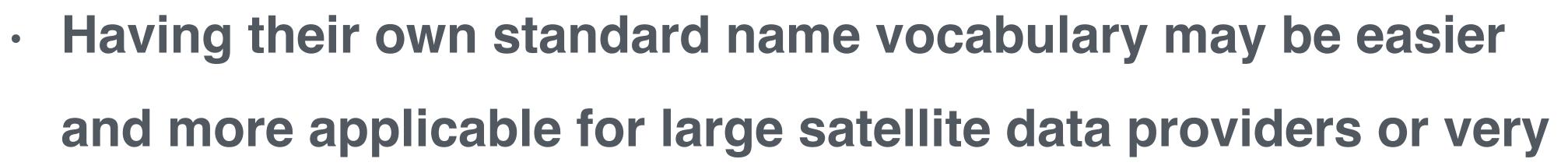




Issue #4: Different Standard Name Vocabularies

- specialized communities
- Avoids There Can Be Only One (Vocabulary) issue
- What is needed is mix-and-match capability (per variable)





CF already can support one vocabulary different from its own

