

CF Conventions for netCDF: Support for Data Access, Analysis, and Visualization

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Start Using CF

CF Web Page

- <http://cfconventions.org/>

Questions and General Discussion

- <https://github.com/cf-convention/discuss>

Make specific proposals for changing or extending the CF conventions

- <https://github.com/cf-convention/cf-conventions>

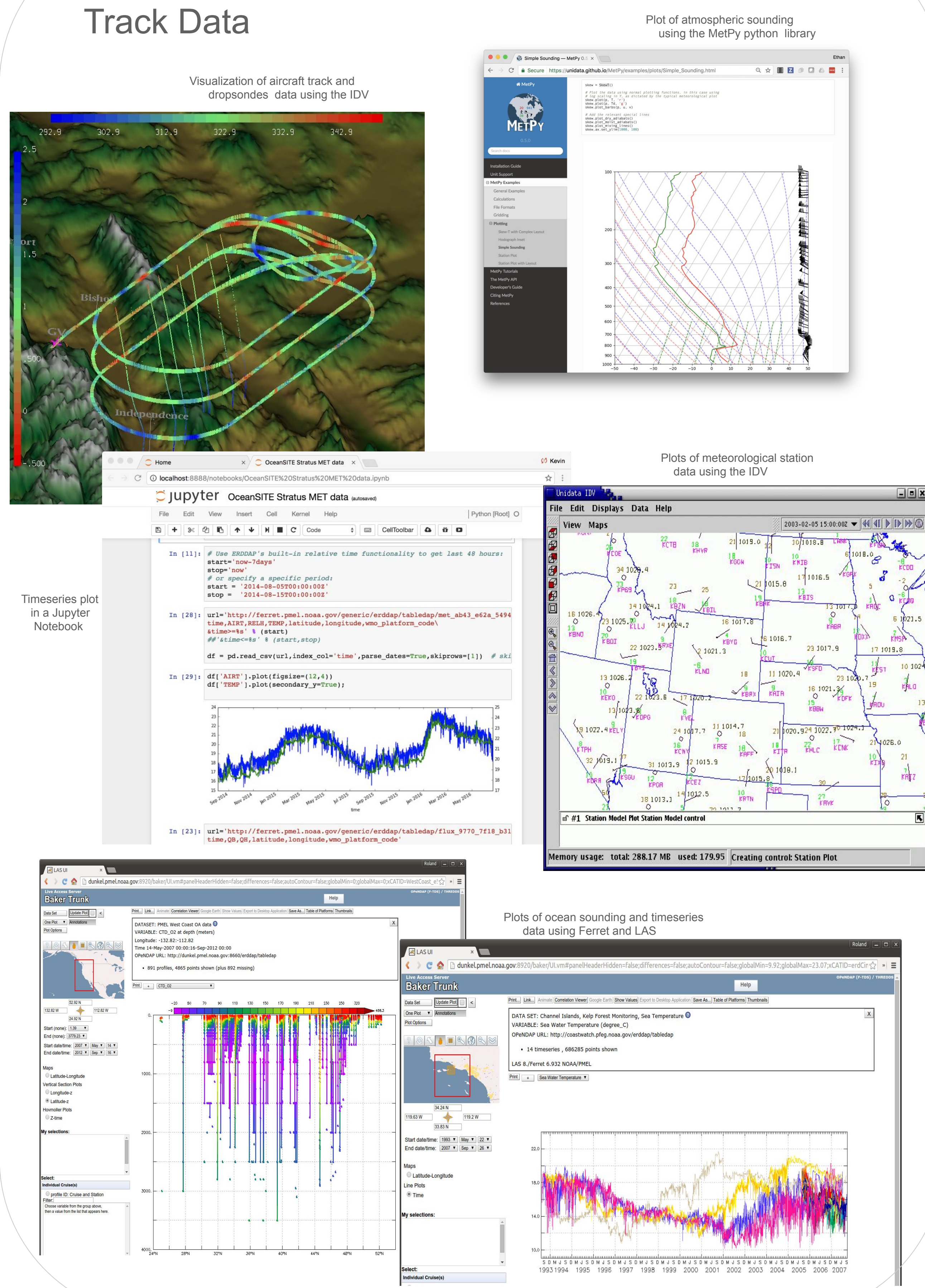
NetCDF-CF: Geoscience data can be complex. Using it shouldn't be.

Data written using the CF Conventions for netCDF can be explored, analyzed and visualised with many commonly used FOSS and commercial software tools.

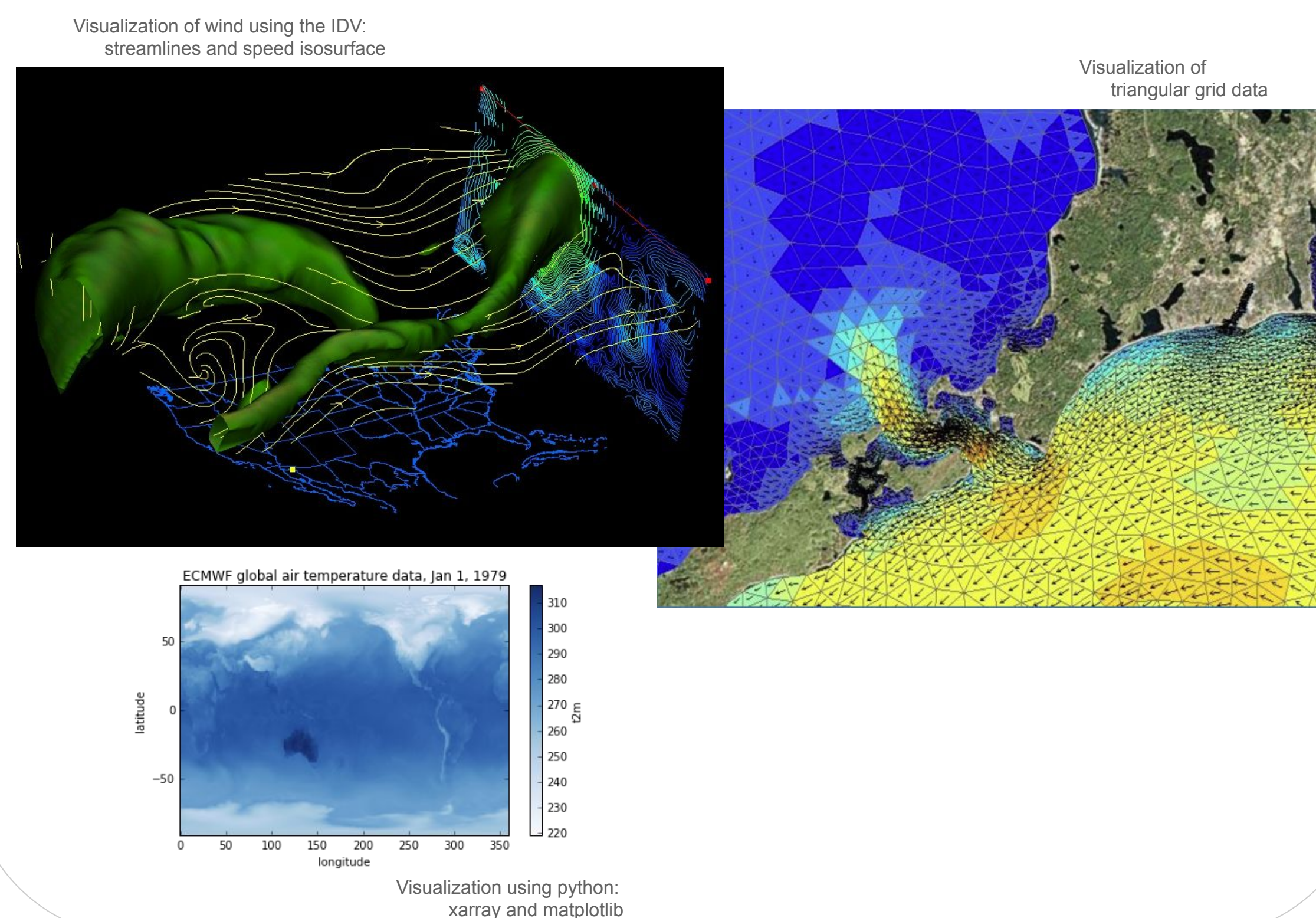
CF is a community-developed convention for storing and describing earth system science data in the netCDF binary data format.

- It is widely used with numerous existing FOSS (Free and Open Source Software) and commercial software tools which can explore, analyze, and visualize data that is stored and described as netCDF-CF data.
- The CF community holds annual workshops to develop, refine, and review enhancements to the CF convention and to manage the CF governance and processes.

NetCDF-CF: Station, Timeseries, Profile, and Track Data

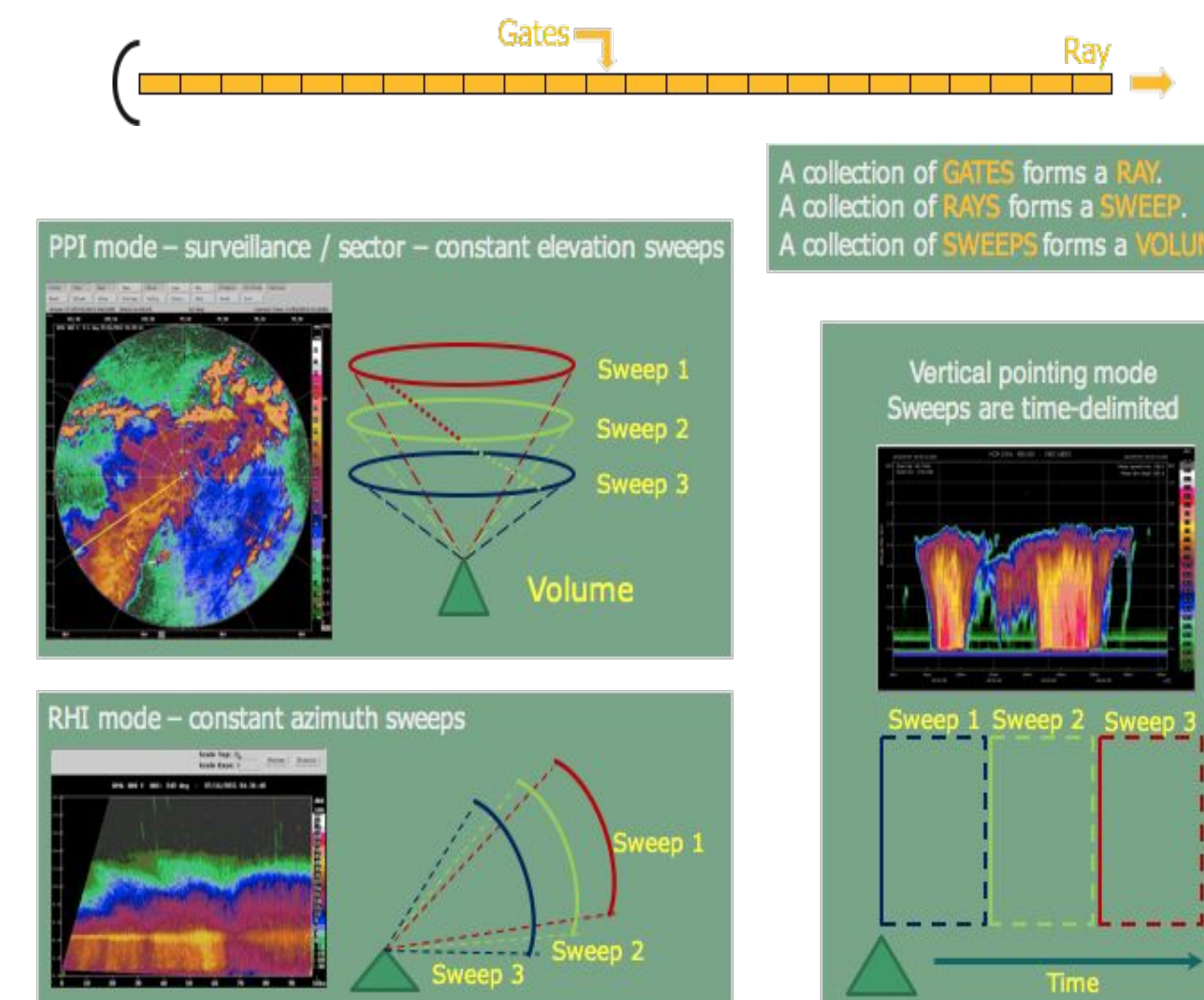


NetCDF-CF: Gridded Data



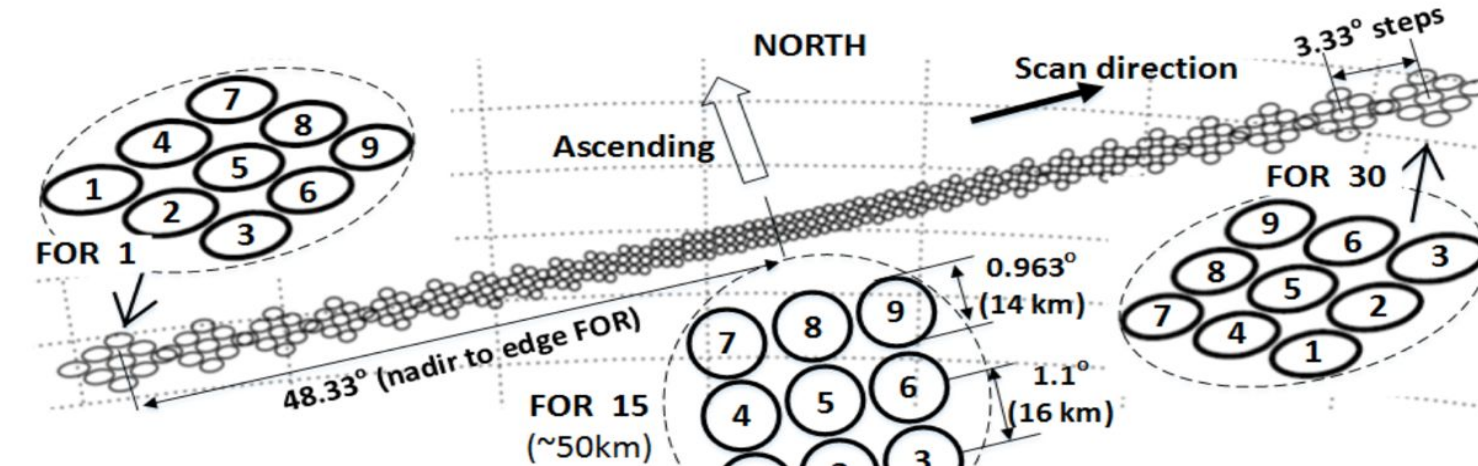
CF-Radial

Represent data from pulsed instruments – RADARs and LIDARs – in their native polar coordinates

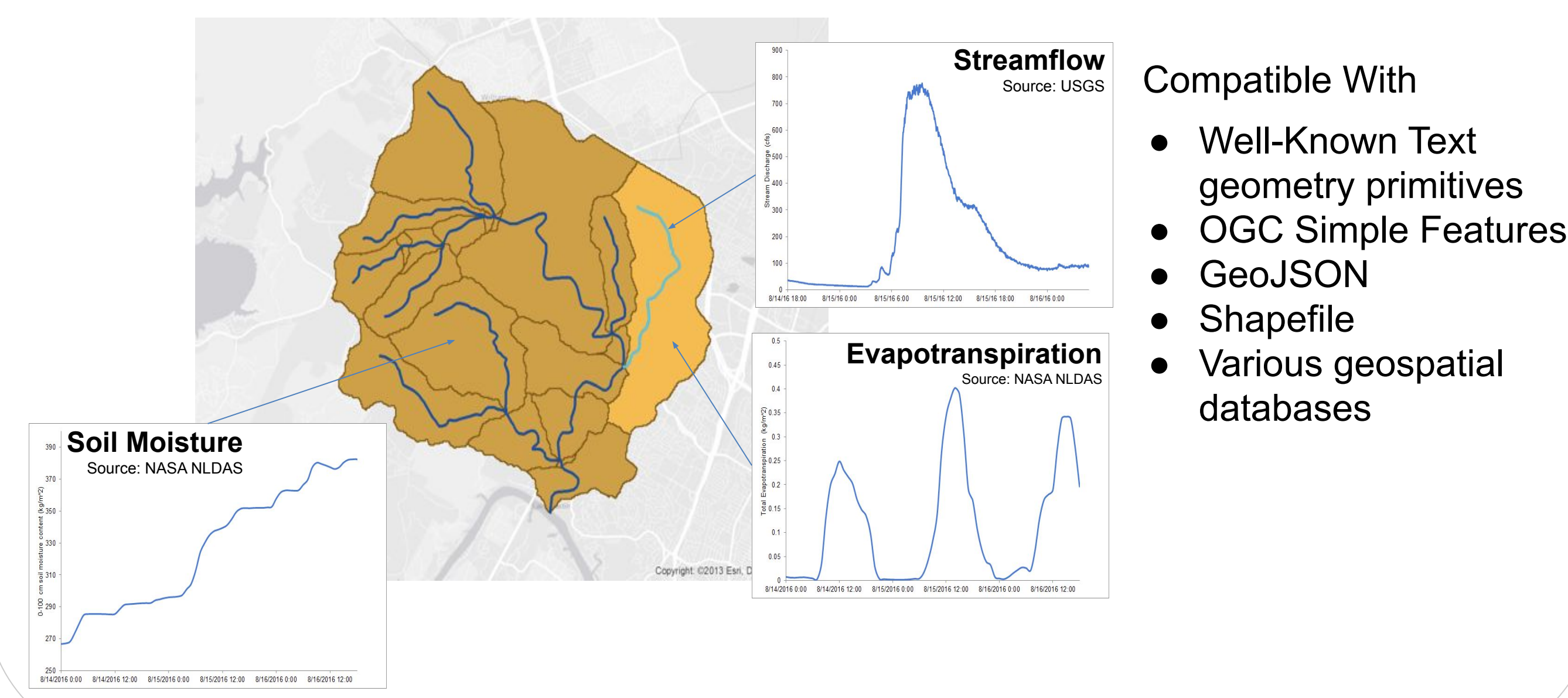


NetCDF-CF: Satellite Swath Data

Data collected by instruments on satellites, airplanes, and unmanned aerial systems



NetCDF-CF: Geometries (Polylines & Polygons)



Earth System Science Data Types Supported by CF

Ready to use:

- Gridded data
- Timeseries, soundings, aircraft tracks
- Unstructured grids (e.g., triangular mesh)
- CF-Radial: Radial data for radar and lidar
- Timeseries for a polyline or polygon (aka Geometries)
- Groups (hierarchical structure)

Proposed, with prototype software:

- Satellite swath data
- Linked Data with netCDF

Under development or planned:

- Quantification of uncertainty
- Climate indices and derived statistics
- Corridor (aircraft track with volume)

- 1 UCAR Unidata
- 2 Scripps Institution of Oceanography
- 3 Univ. of Reading and NCAS
- 4 NASA JPL / PO.DAAC
- 5 The HDF Group
- 6 EUMETSAT
- 7 Univ. of Washington/JISAO and NOAA/PMEL

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