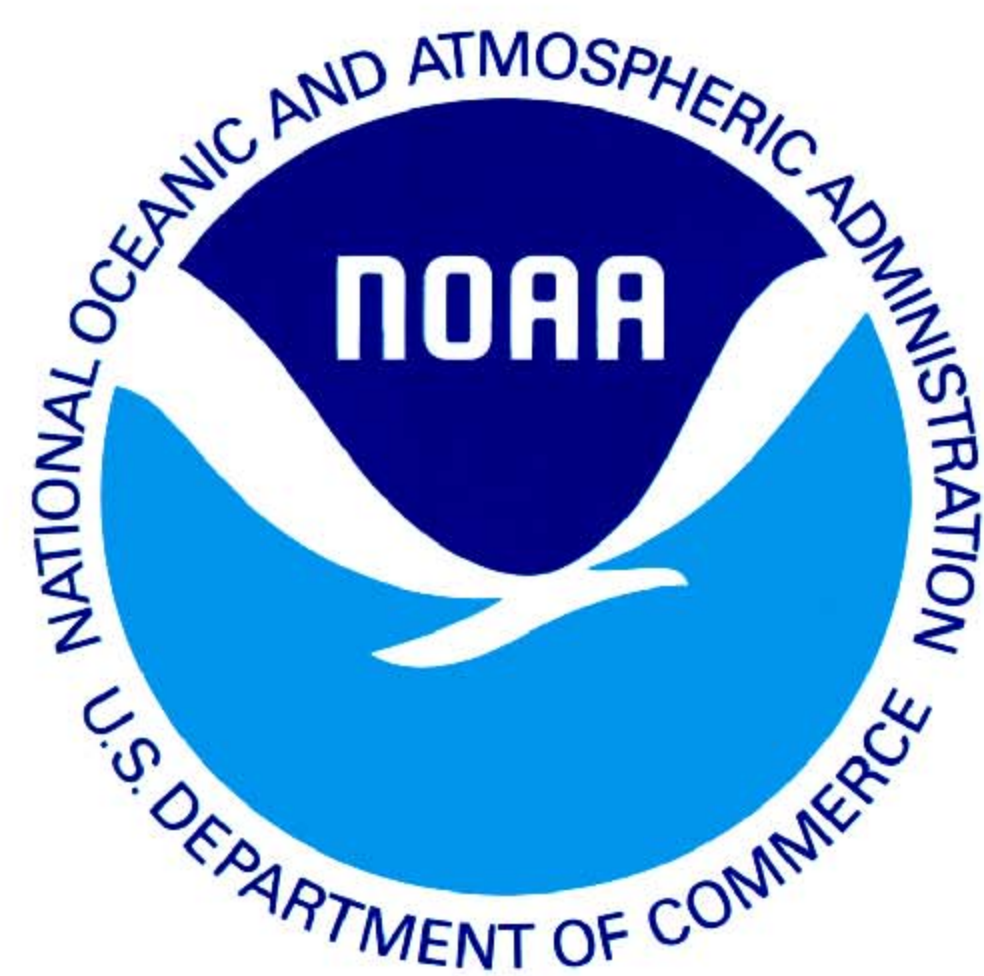




#361

AWIPS II Extended Task – Data Delivery Paradigm

Joanne Edwards, James Fluke, and Bryon Lawrence

NOAA – Earth System Research Laboratory – Global Systems Division

Sponsored by the National Weather Service/Office of Science and Technology

Steve Schotz



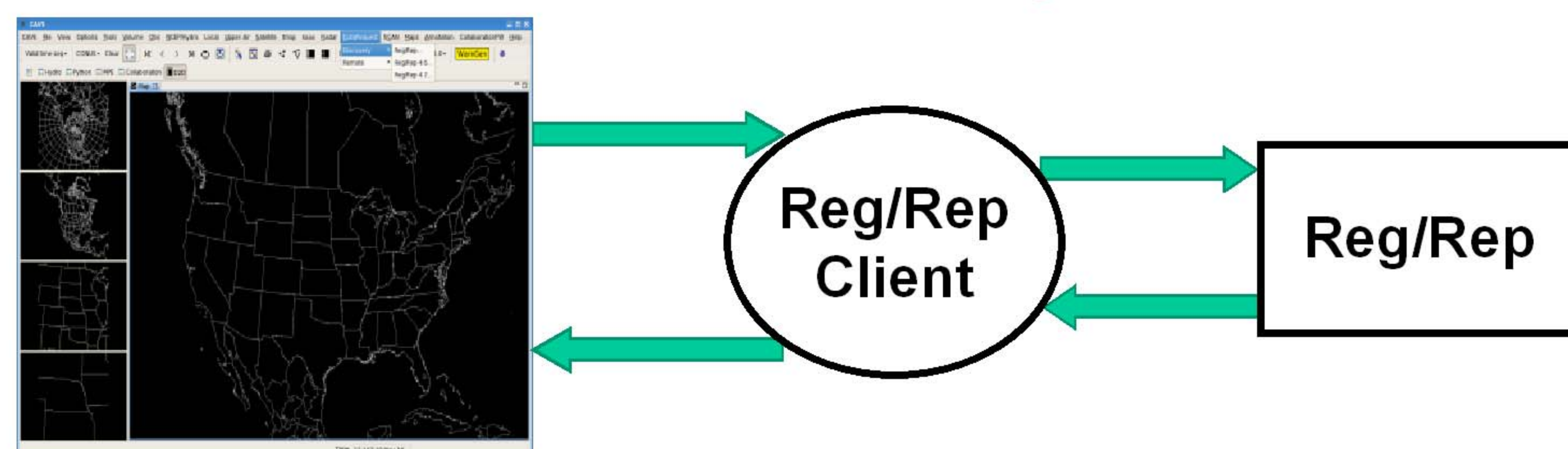
Data Delivery System Objectives

- Enable remote data access using web services – Web Coverage Services (WCS), Web Feature Services (WFS), Joint Metoc Broker Language (JMBL)
- Enable users to request only data they need
- Provide data discovery services
- Provide spatial, temporal, parametric sub-setting
- Provide data transformation capabilities
- Offset load on Satellite Broadcast Network (SBN)

Approach to Accomplish Objectives

- Technology evaluation and prototype development
- Three prototypes developed in 2010, featuring:
 - CAVE Graphical User Interface
 - Data discovery using registry/repository
 - WCS, WFS, JMBL data access
 - subscription capabilities

Data Discovery

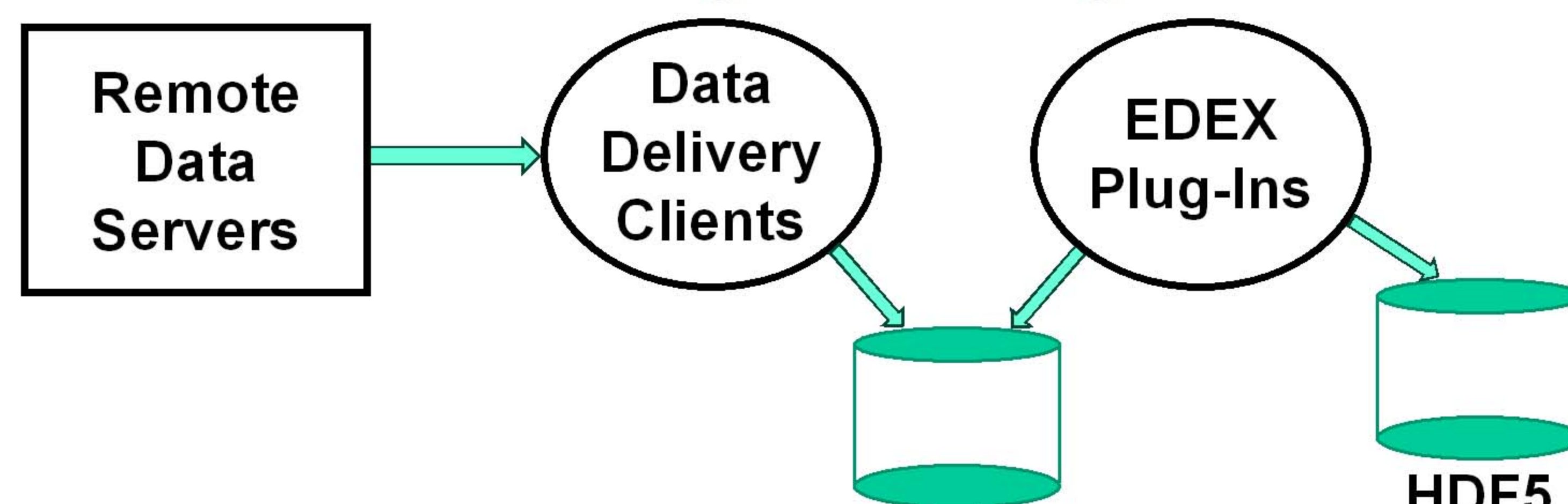


Data Request



Data request (ad hoc or subscription) allows spatial, temporal, and parametric sub-setting

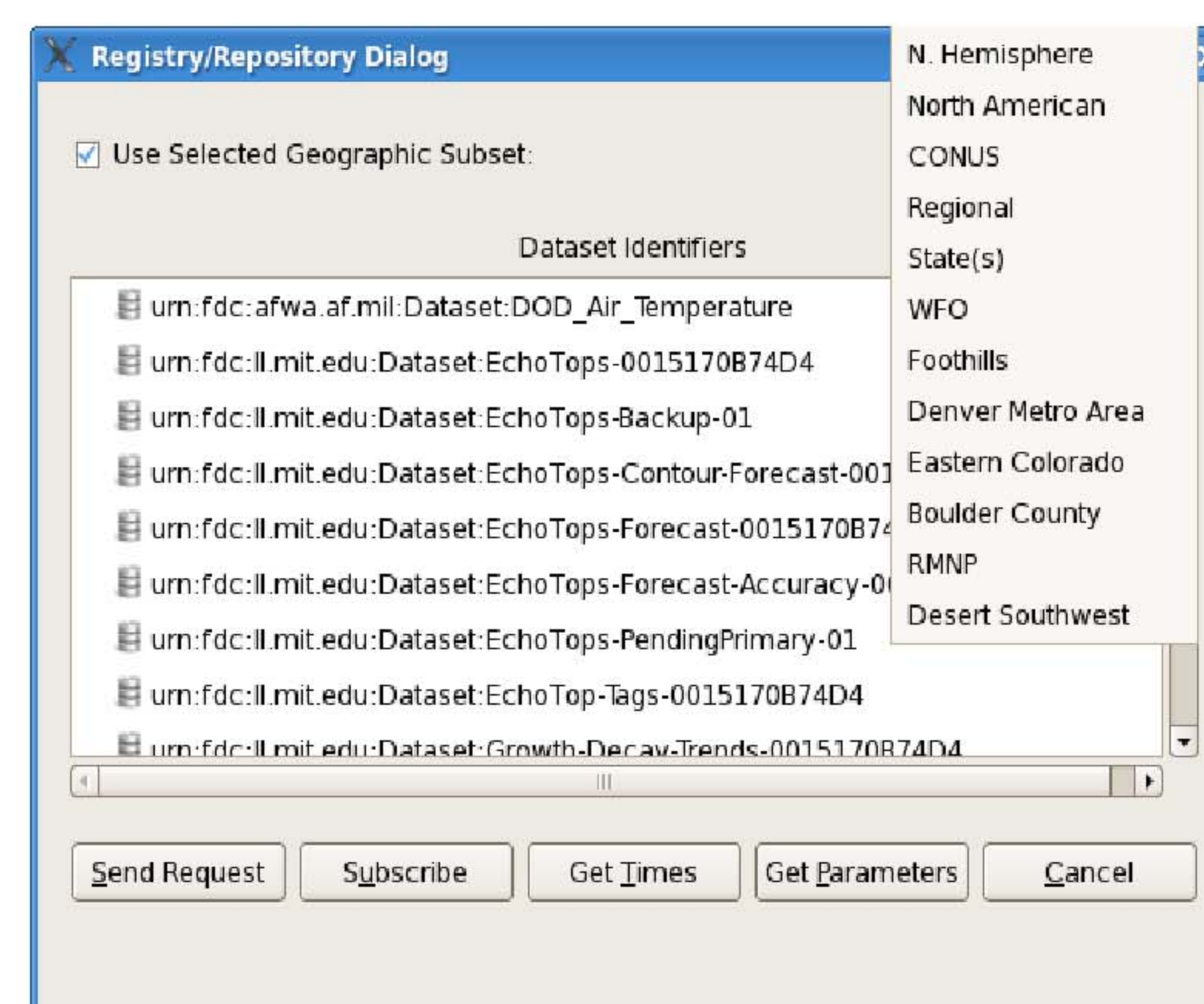
Data Ingest/Storage



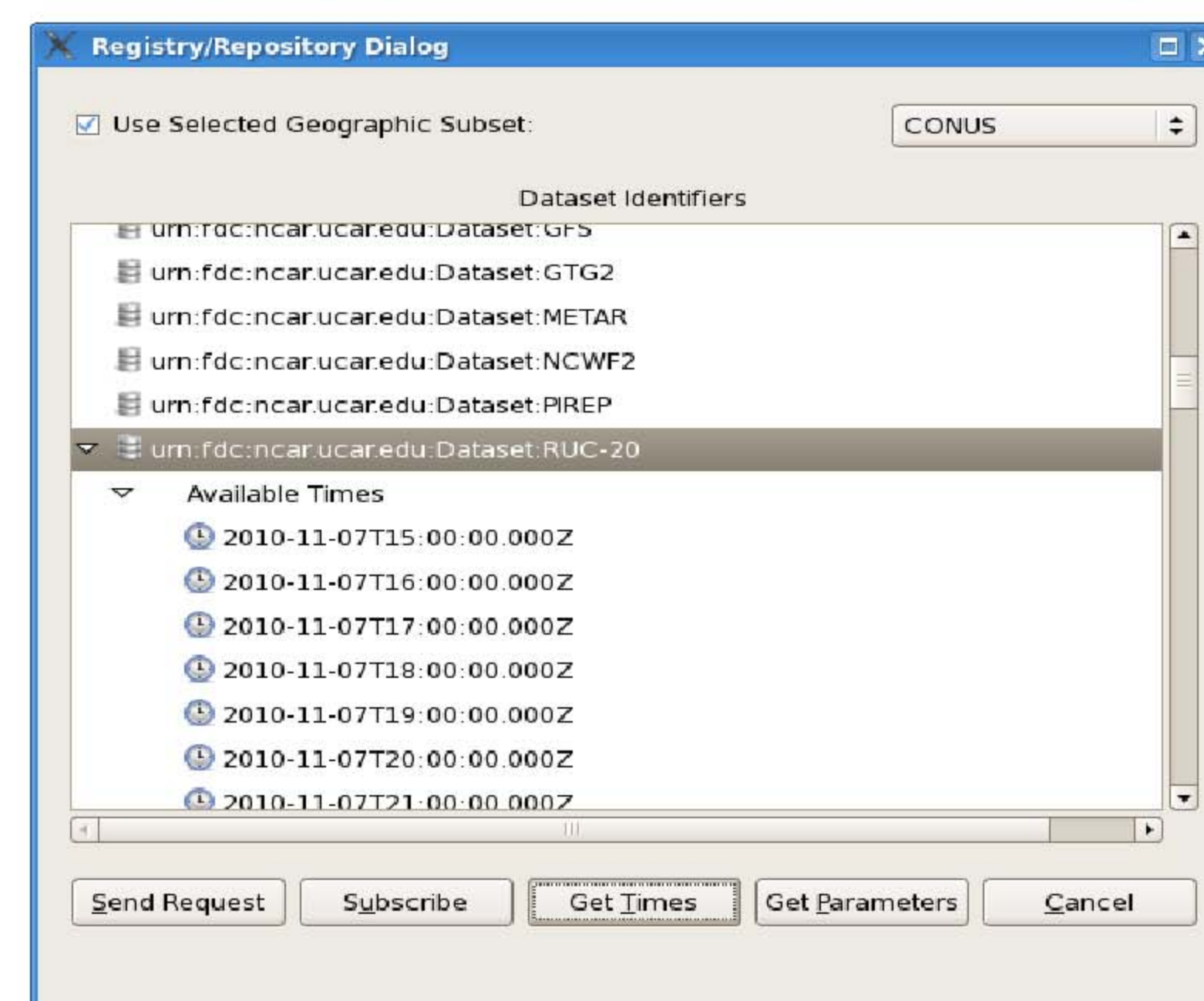
- Data servers deliver requested data to clients
- Data delivery clients store data in receipt format
- EDEX plug-ins store data into AWIPS II format – HDF5

CAVE Interfaces

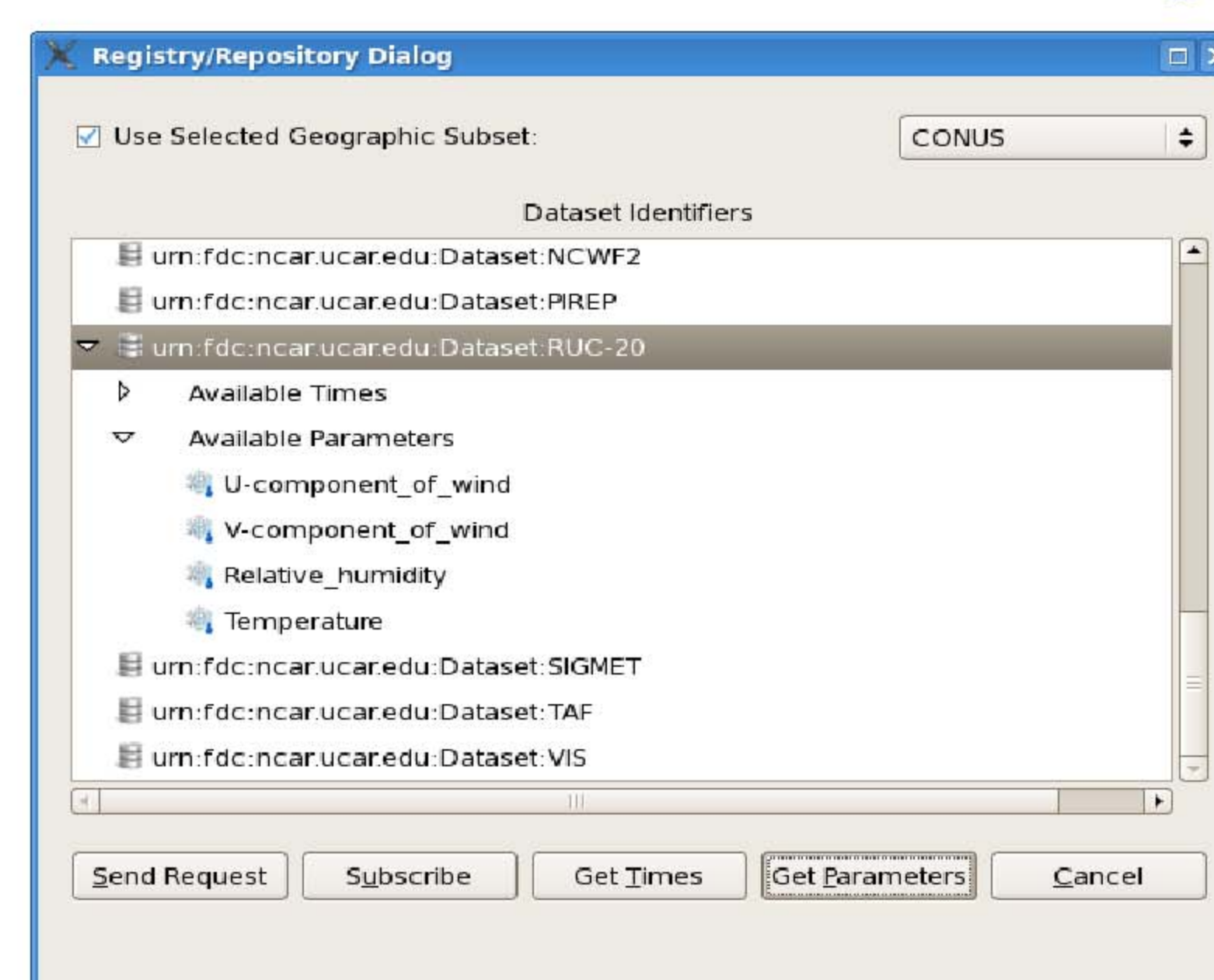
Spatial Sub-Setting



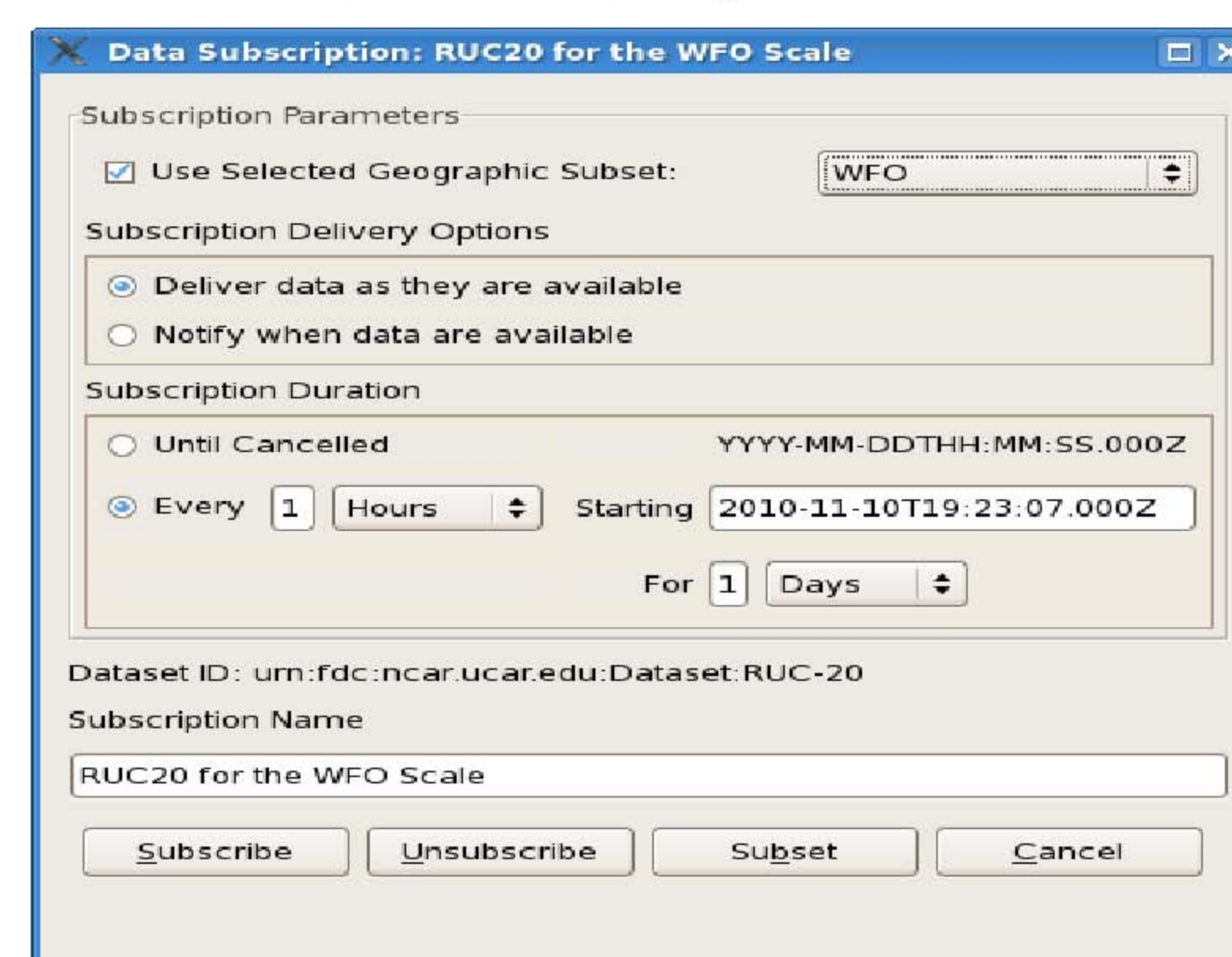
Temporal Sub-Setting



Parametric Sub-Setting

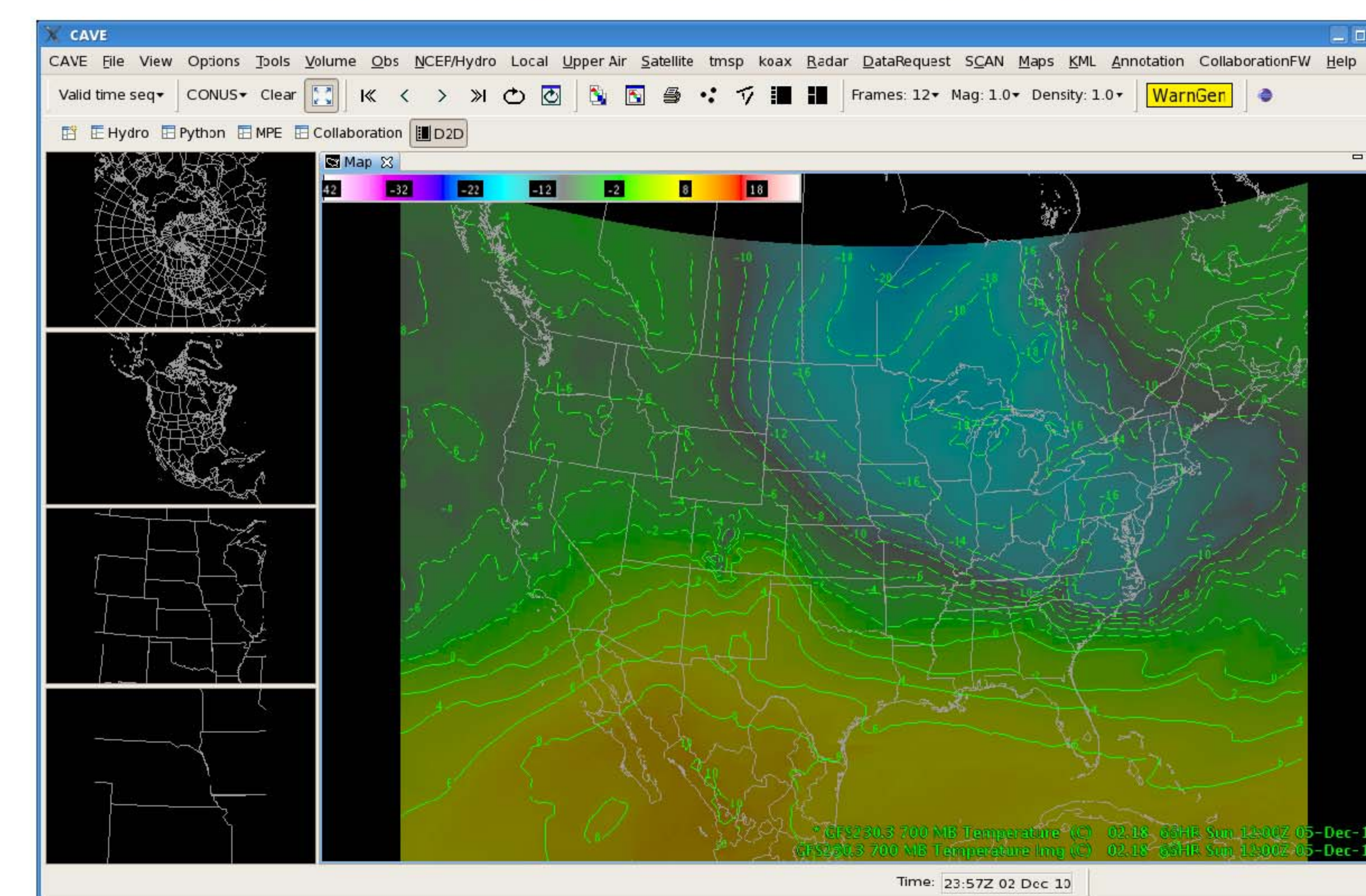


Subscription

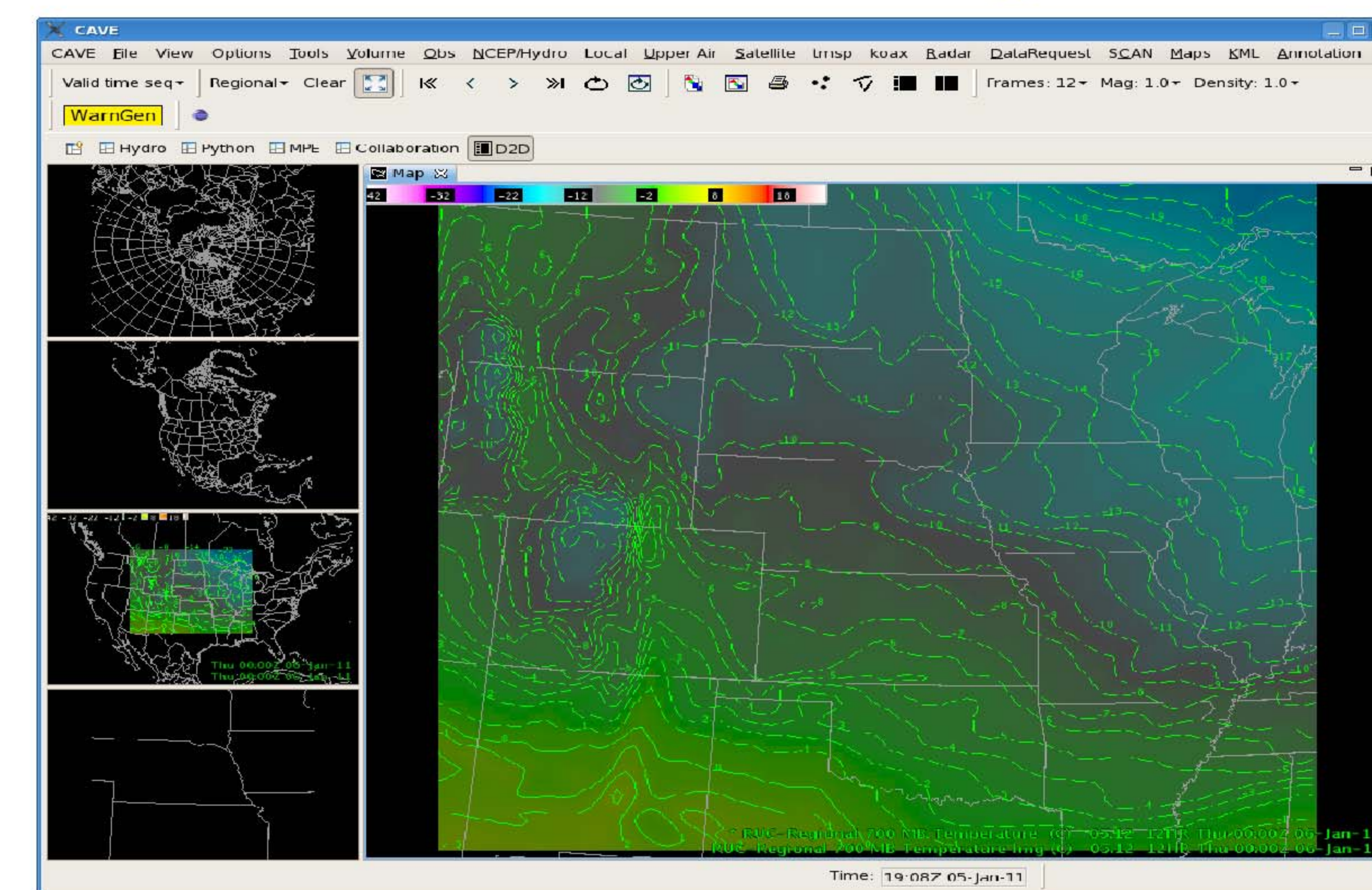


Data Display

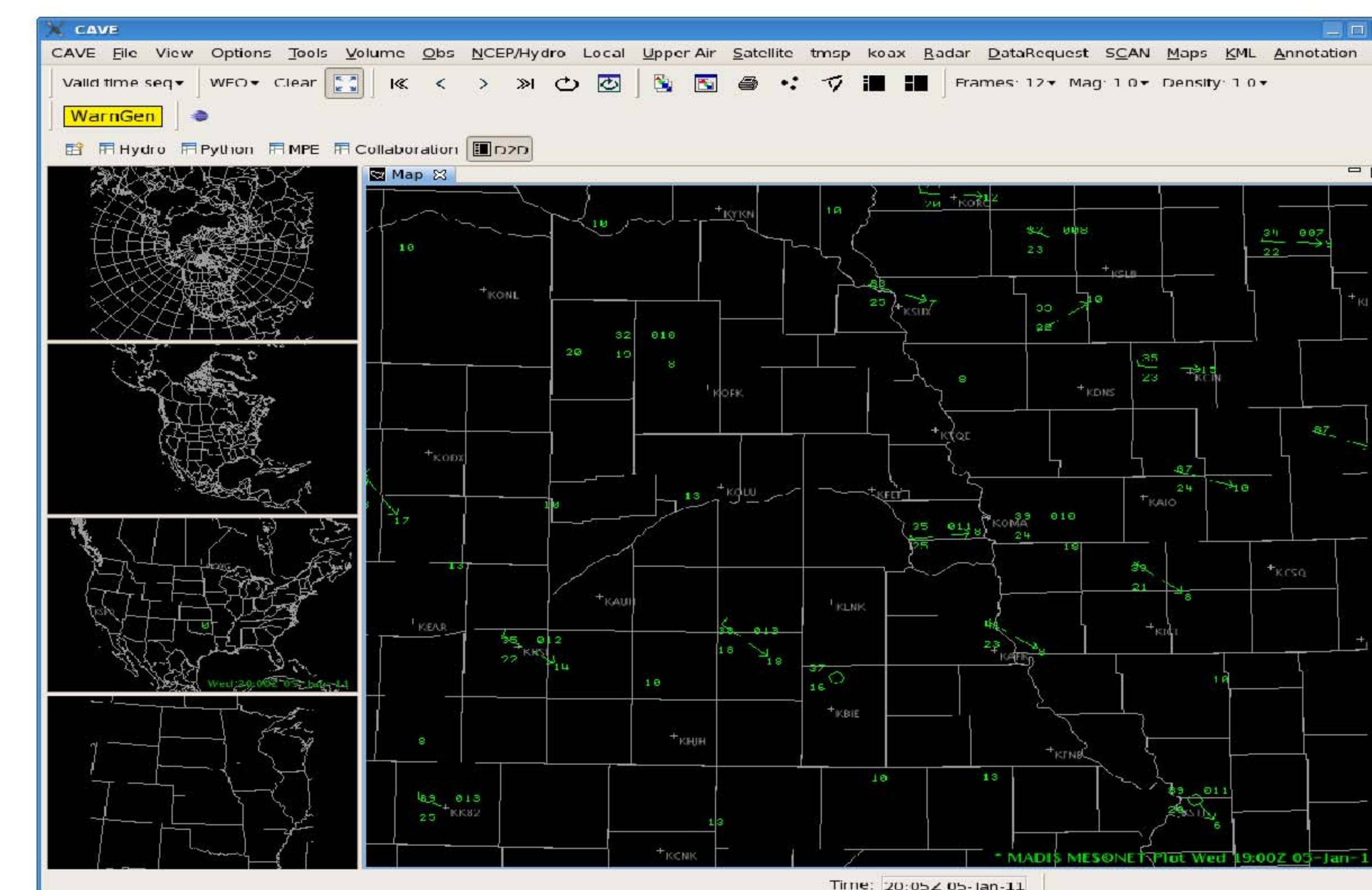
GFS Data on CONUS Scale



RUC-20 Data Sub-Set on Regional Scale



MADIS MESONET Data Sub-Set on WFO Scale



Initial Operating Capability (IOC)

IOC for AWIPS II scheduled for 2013, with MADIS and NOMADS as data providers