

SPoRT AWIPS II Activities

<http://weather.msfc.nasa.gov/sport/>

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transitioning unique NASA and NOAA data and research technologies to operations



SPoRT AWIPS II Overview

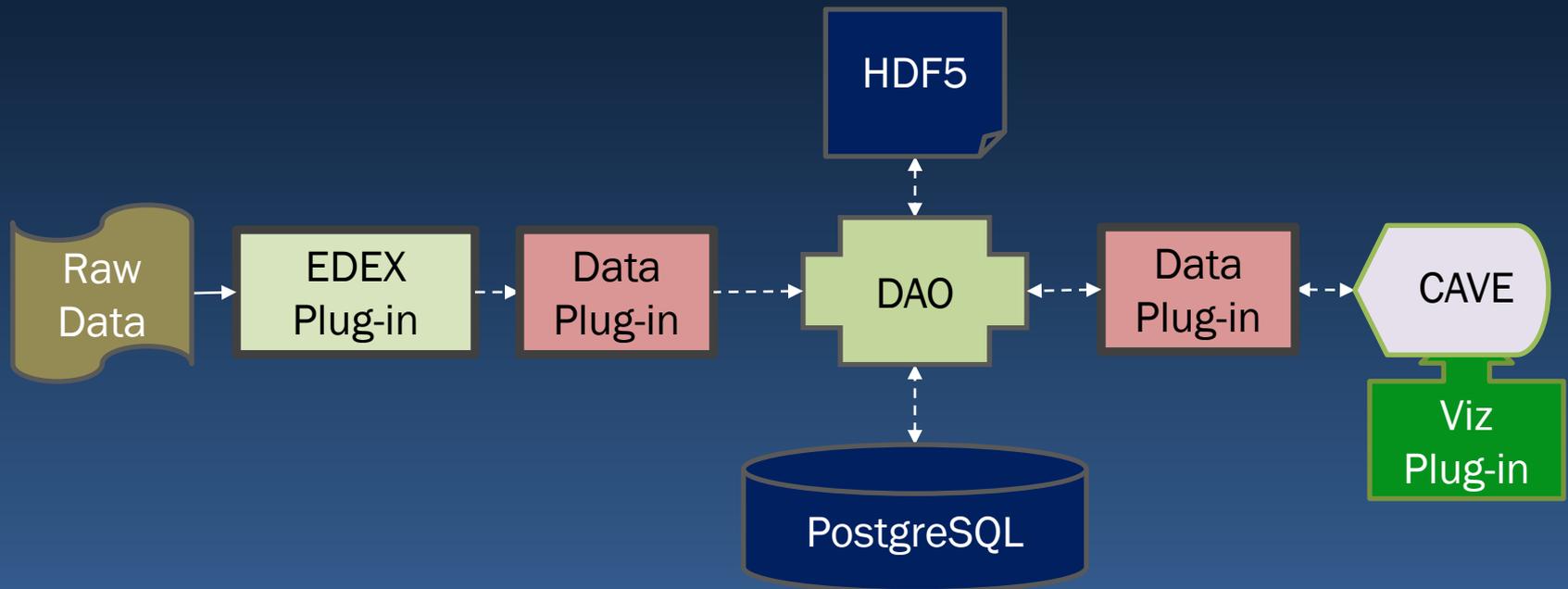
- Short-term Prediction Research and Transition Center
- NASA / MSFC Huntsville, AL
- Transition current AWIPS I to AWIPS II
 - All Product available in AWIPS I need to be migrated to AWIPS II.
 - Provide continuity to current AWIPS I users.
- With AWIPS II want to start developing new tools and displays now made possible through AWIPS II.



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AWIPS II Plug-in Architecture



- EDEX plug-in - handles data ingest/decoding.
- Data plug-in - Object Data Model
- Viz plug-in - communicates with DAO to retrieve data and provides visualization in CAVE.

AWIPS I to AWIPS II

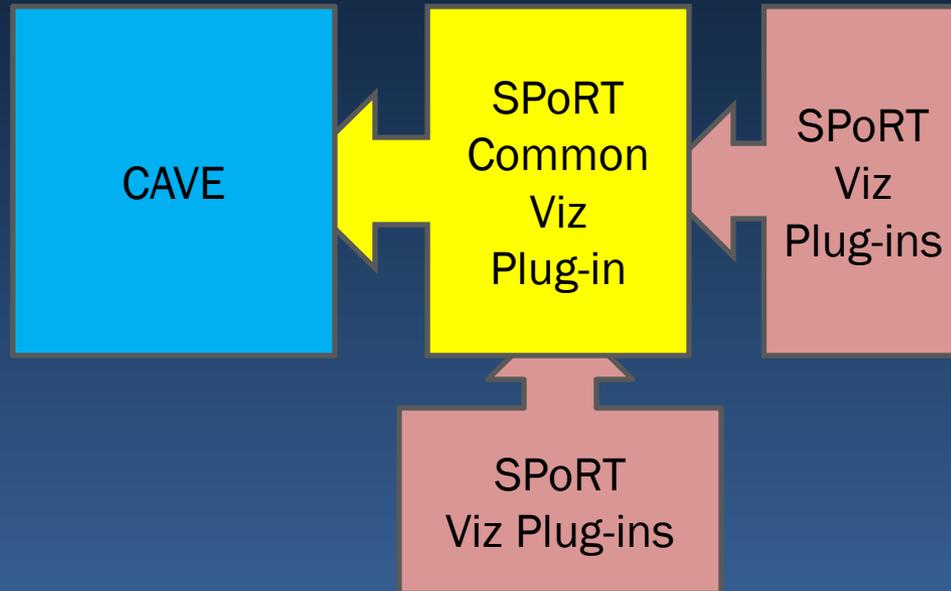
- NWS Moving to AWIPS II, SPoRT wants to provide data on native Decision Support System
- Assessment of Plug-ins needed at time:
 - MODIS data in McIDAS (image)
 - LMA data in NetCDF (image/3D)
 - Other unimplemented in AWIPS I
- Surveyed existing Raytheon Plug-ins
 - Satellite plug-in
 - Grib2 plug-in
- Require custom plug-ins.



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SPoRT Common Plug-in



- Discovered need for common architecture plug-in
- Adds stub menu structure
- Adds basic tools needed for plug-ins

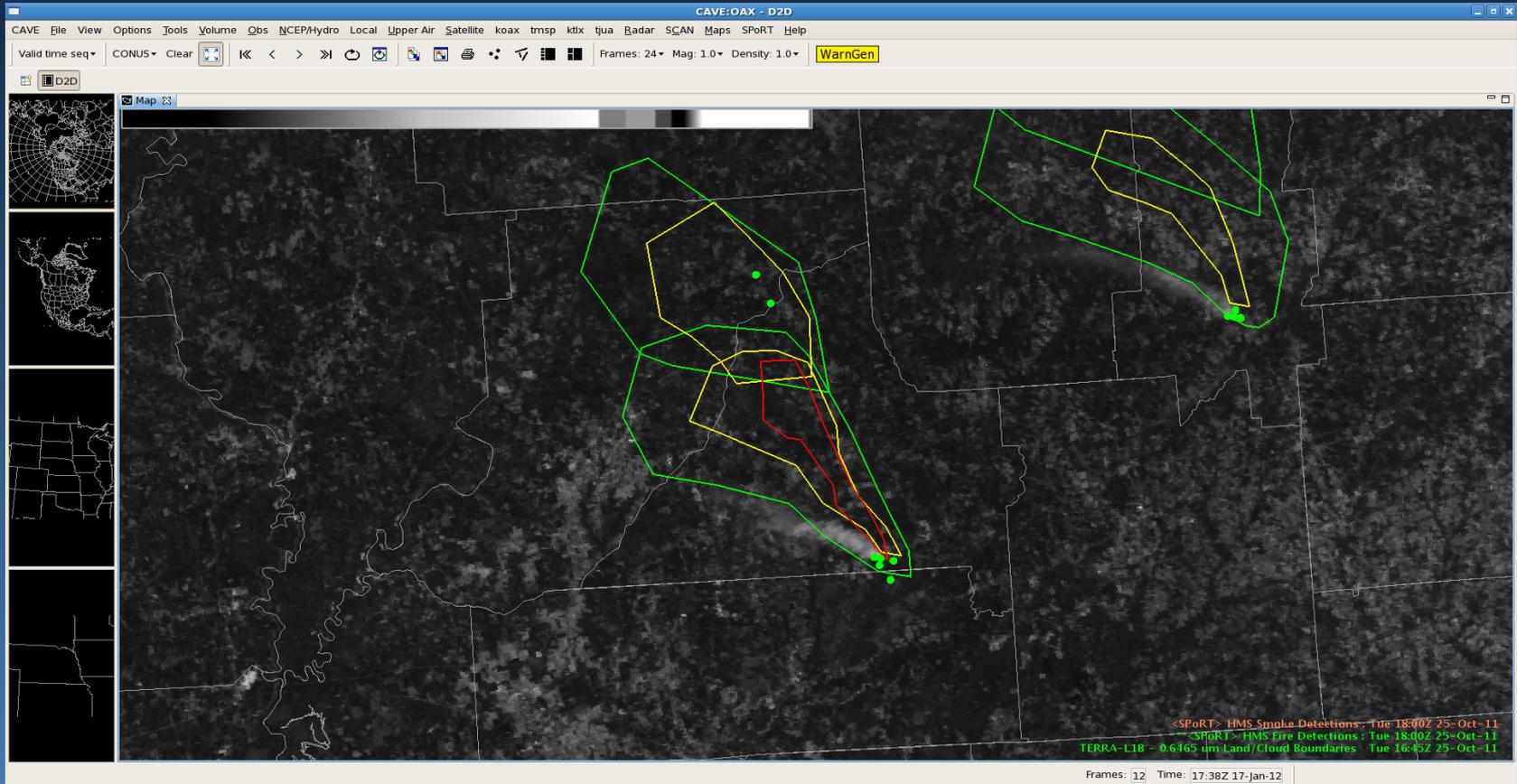
PRODUCT PLUG-INS



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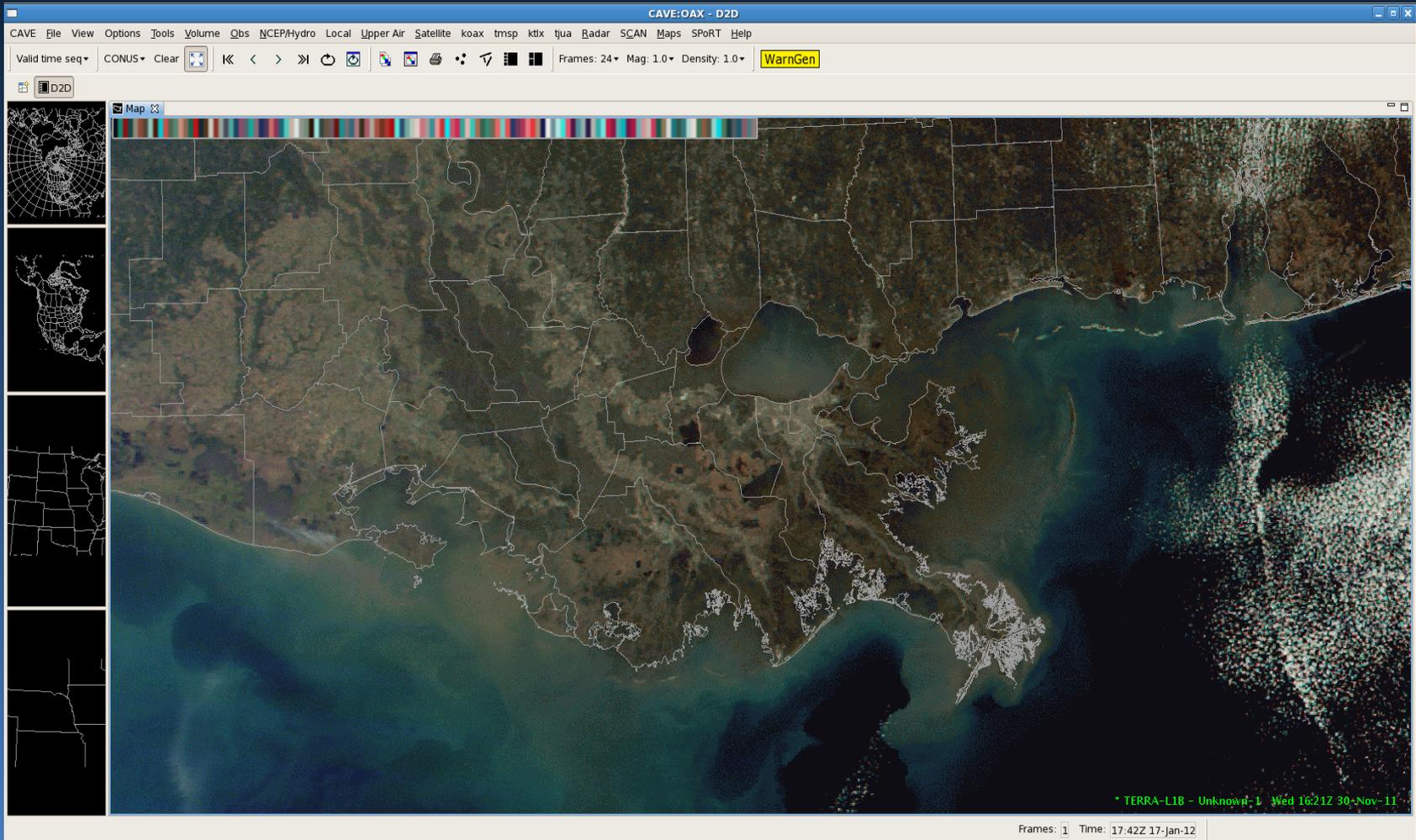
Hazard Mapping System, Smoke & Fire



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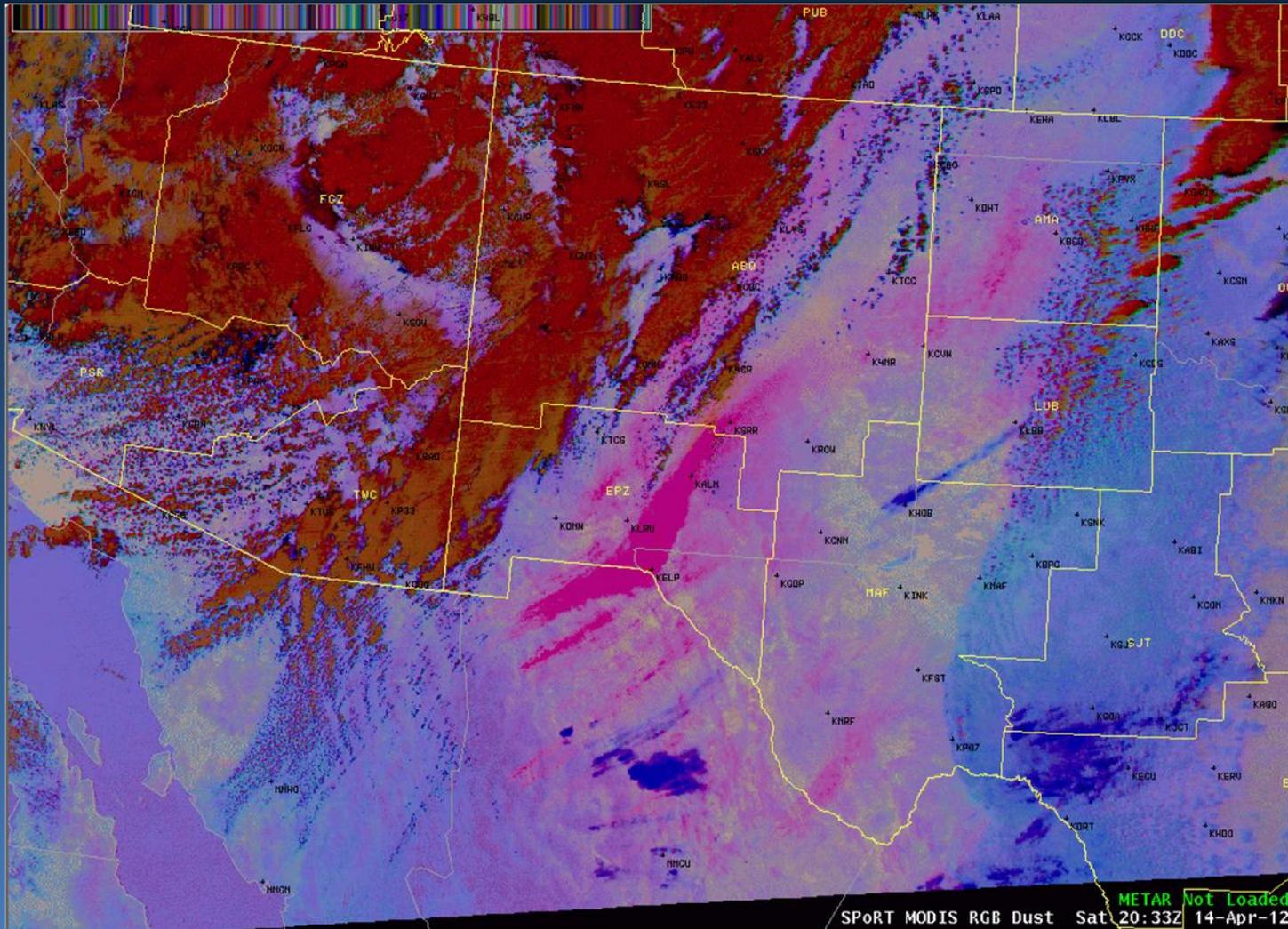
Satellite / McIDAS AREA



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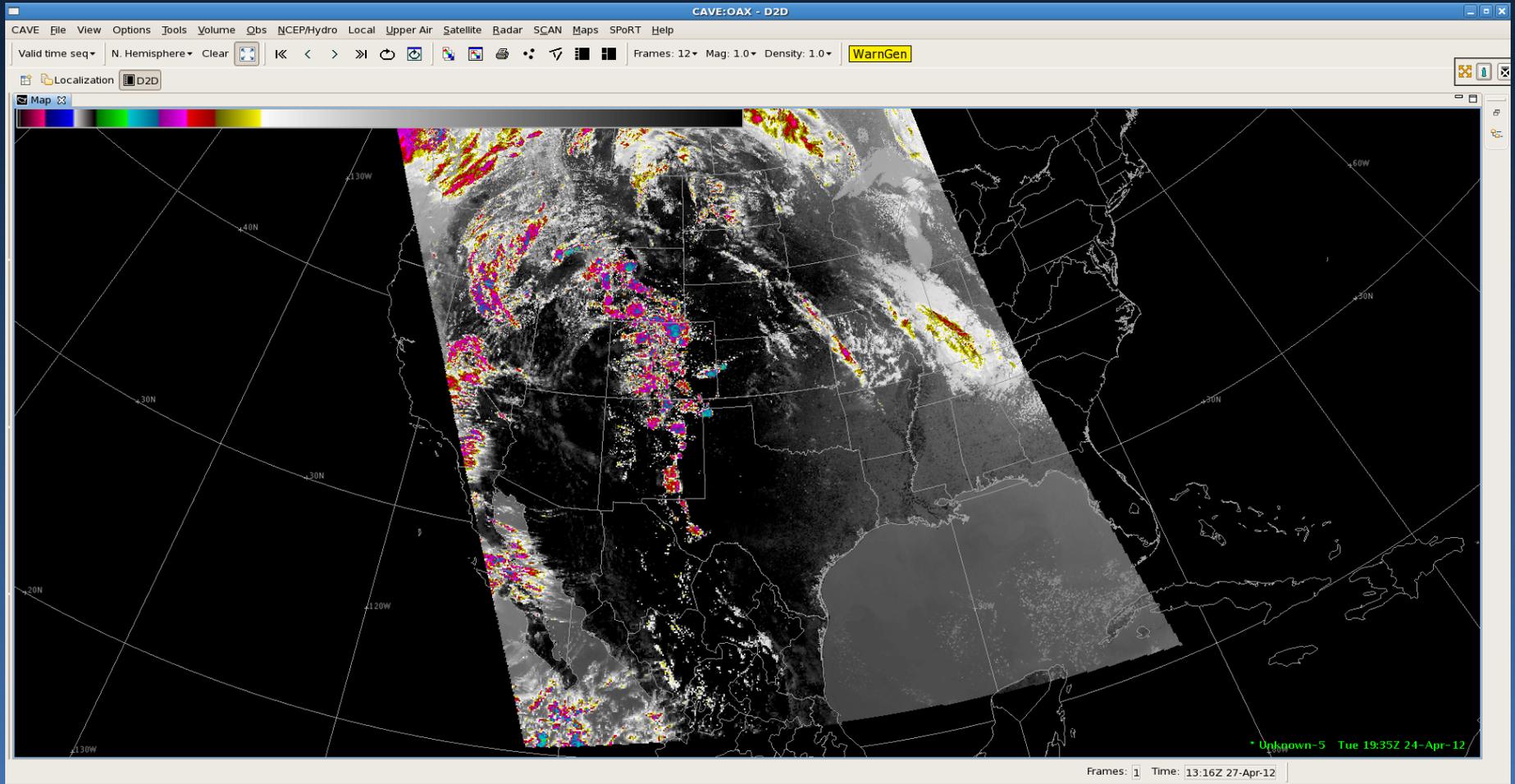
RGB Products



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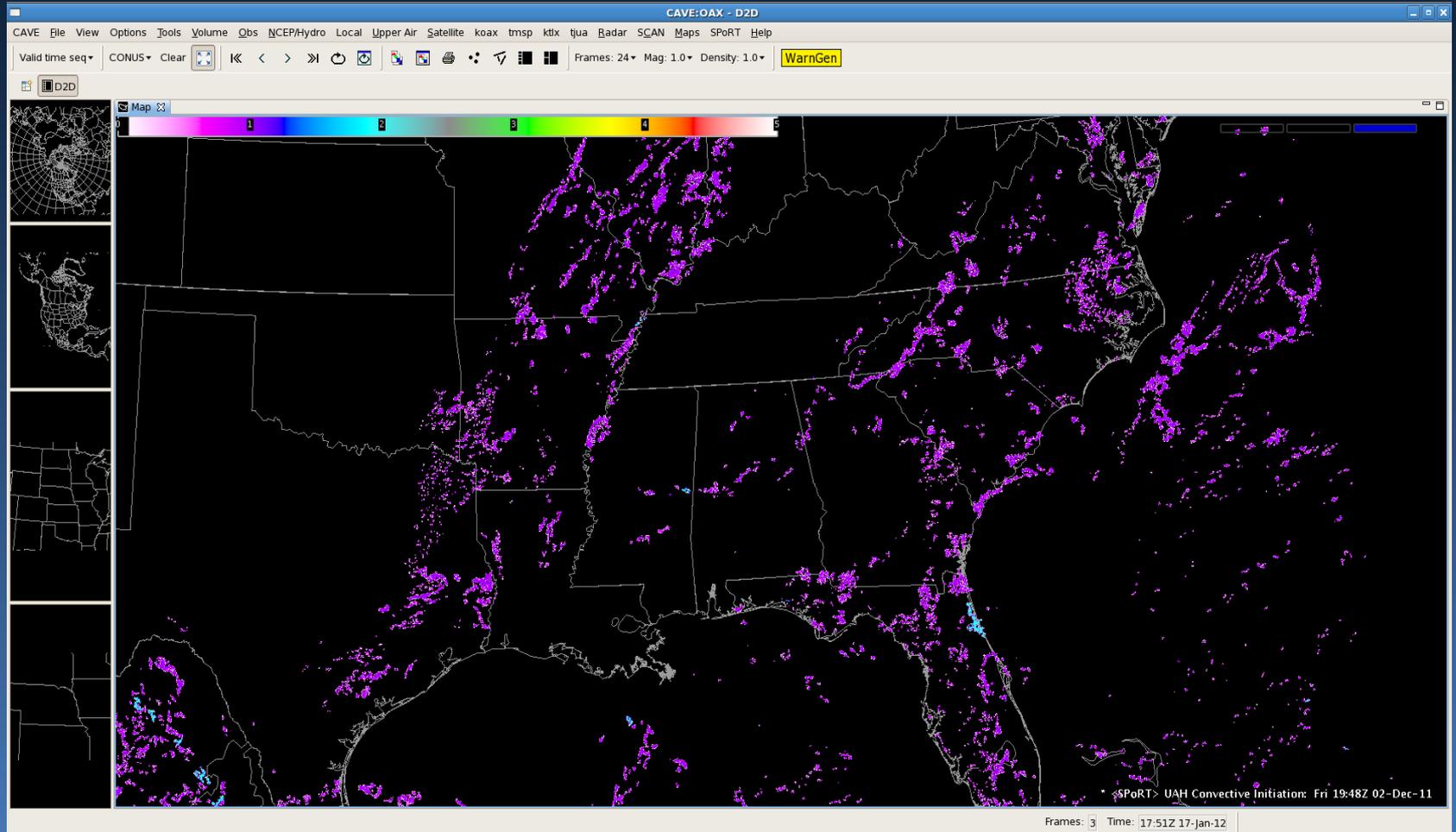
VIIRS



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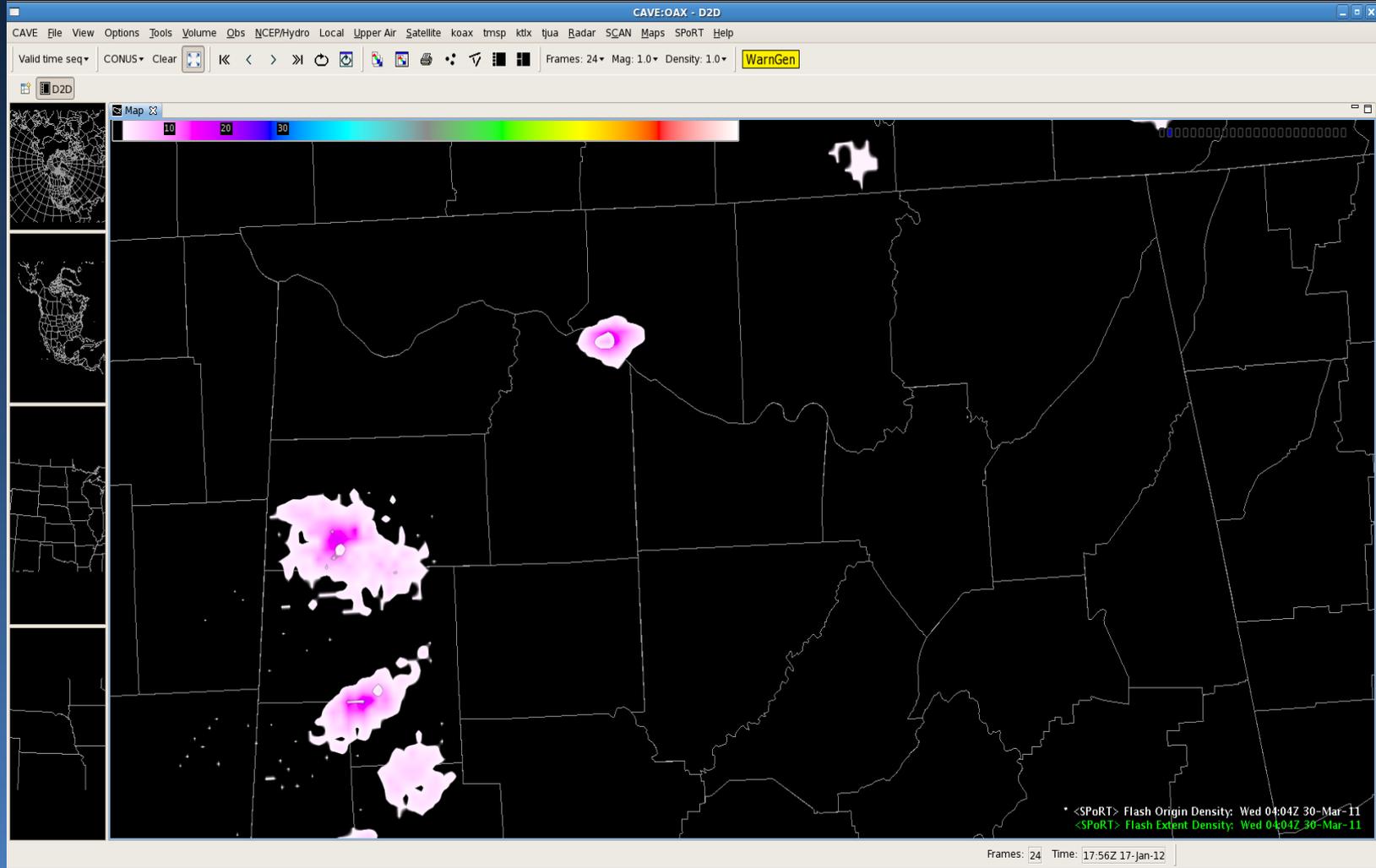
Convective Initiation



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Lightning Mapping Array



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Summary of data type plug-ins

Data Format	Data Name	Data Source
ASCII->NetCDF	LMA, LDAR, PGLM	NASA, OU, NMTech
ASCII	MODIS hotspots	UM FIRMS
ASCII	POES/GOES hotspots	NOAA Hazard Mapping System
ASCII (KML)	POES/GOES smoke plumes	NOAA Hazard Mapping System
NetCDF	Convective Initiation	UAHuntsville
McIDAS AREA	Satellite	NASA/SPoRT, UW/SSEC
Binary->NetCDF	WindSat	NRL/ SPoRT
Binary	Multi-byte	UW/SSEC, UAF, NRL, NESDIS, etc.



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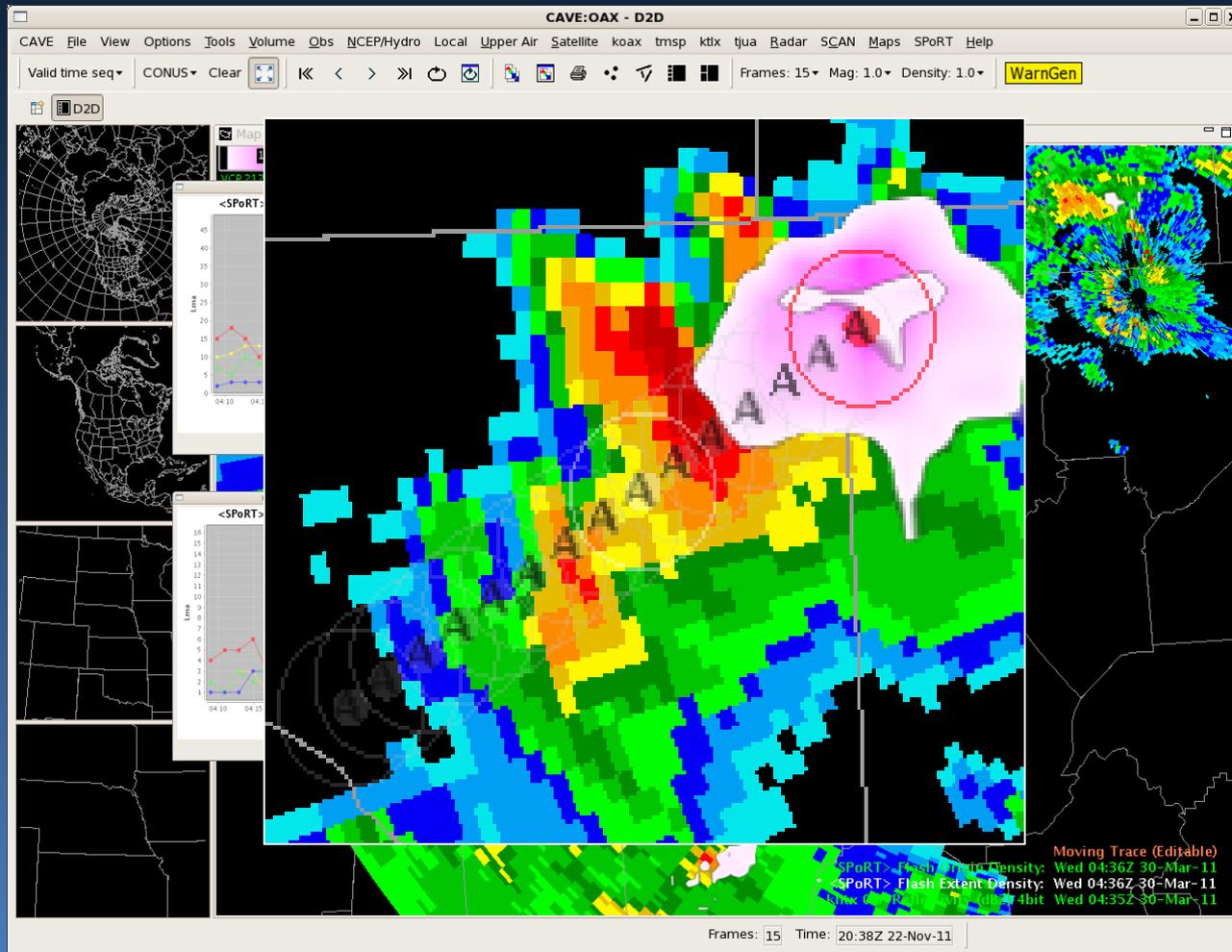
TOOL PLUG-INS



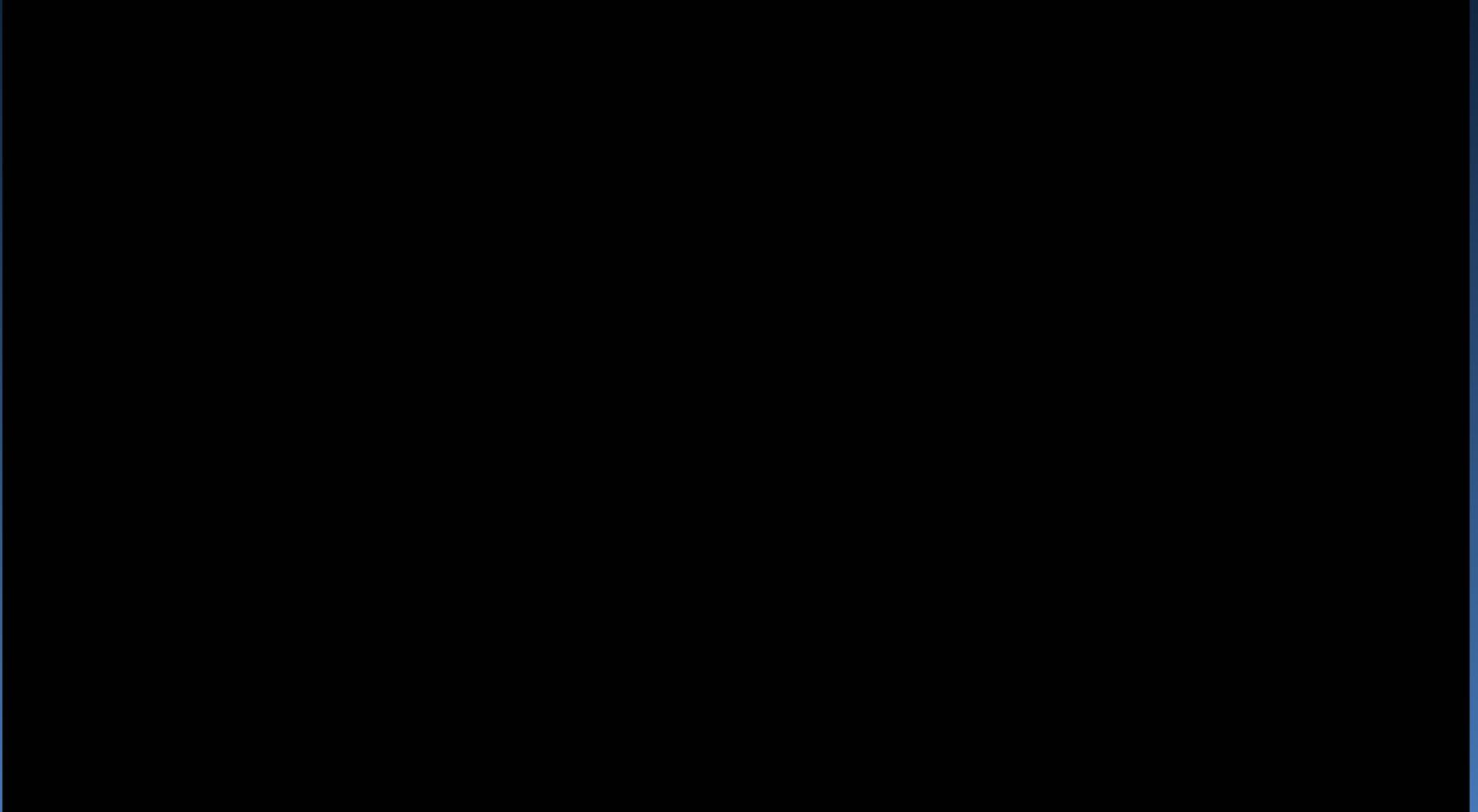
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Lightning Tracking Tool



Moving Trace Tool



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Current and Ongoing

- Developing methodology for plug-in delivery, using p2.build
- Defining revision control and versioning
- Successful CIRA visit to SPoRT in April 2012
 - Share AWIPS II development experiences
 - Discovered need for more formalized collaboration and developer training
- Forming of Experimental Product Development Team (EPDT) to address SPoRT and PG Applications
 - Possible Developer Workshop
 - ~13 people: Some from each NWS Region and Proving Ground Partners



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Future

- Further build out support in McIDAS plug-in
 - Additional projections
 - Additional products
- Implement various RGB approaches for display within the SPoRT data feed
- Develop more SPoRT unique tools and displays for interrogation of data
- 3D Lightning data, along with cross sections



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Questions?



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