Experimental Products Development Team (EPDT) Supporting New AWIPS II Capabilities

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32st Environmental Information Processing Technologies Conference / 96th AMS Annual Meeting (2016) in New Orleans, LA
Session: "AWIPS II System Update Part II"

Origins of EPDT

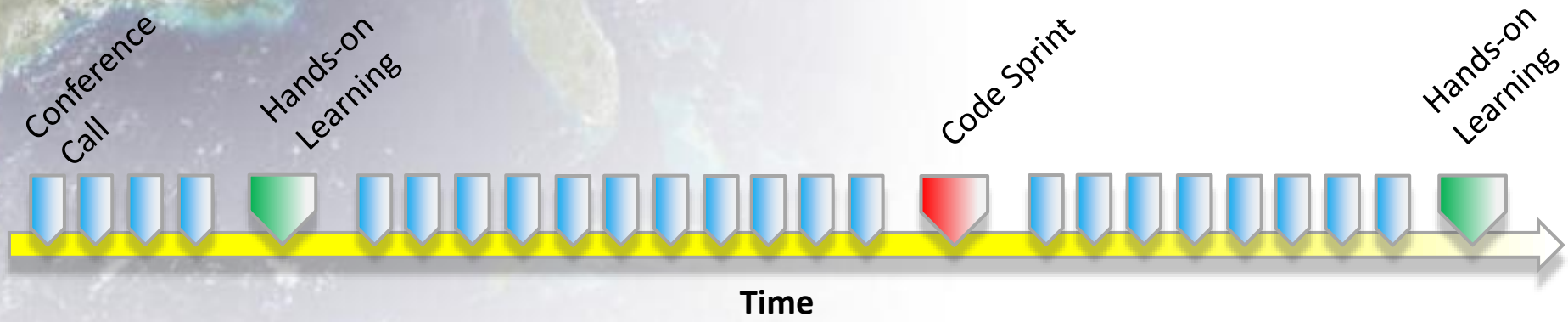
- Originally SPoRT formed EPDT internally to focus on:
  - Creating advanced display capabilities for NASA research data in AWIPS II environment
  - Create training for AWIPS II development
- General need for AWIPS II development training within community
- Expanded EPDT out into the community
- Funded jointly by GOES-R Proving Ground, and NASA SPoRT
- Support from the National Weather Service

GOES-R/JPSS Proving Ground EPDT

Objectives:

- Create a community environment to share AWIPS II development knowledge
- Develop technical expertise of AWIPS II within NASA, NOAA's CIs, and NWS
- Create AWIPS II plug-ins for GOES-R proxy and JPSS data
  - Ingest
  - Analysis
  - Display
- Provide feedback to NWS on:
  - External development process
  - Governance of locally developed AWIPS II software

Learning Structure



- Conference Calls
  - Prepare for initial hands-on learning
  - Supplemental topics
- Hands-on Learning
  - Classroom setting learning
  - Learn to develop a plug-in from ingest to display
- Code Sprint
  - Participants pick project and “learn by doing”
  - Work on projects in small groups
  - Groups help each other

Hands-on Learning Training

- Topics covering:
  - Ingest Plug-in EDEX (Day 1)
  - Data Model Plug-in (Day 1)
  - Visualization Plug-in CAVE (Days 2-3)
- Hands-on exercises
- Training was recorded and provided back to NWS

Code Sprint Training

- Team broken into small groups
- Groups actively develop project during sprint
- “Learn by doing” something meaningful
- Produce working AWIPS II feature by end of code sprint
- Continue working on feature after code sprint ends

Previous Groups

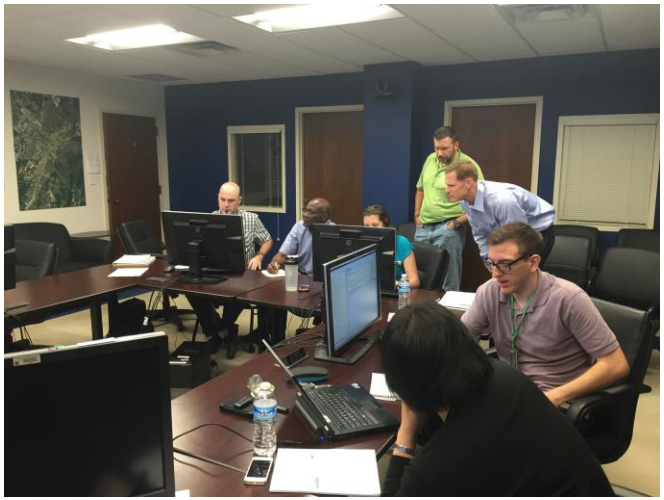
- Group A (14 Participants) 2013
- Group B (14 Participants) 2014
- Group C (15 Participants) 2015
- Group D (??) 2016
  - Hands-on Training Spring 2016
  - Code Sprint Fall 2016

Participant Breakdown

- Limit size to facilitate group learning and development activities
- Participants are nominated by organizational leaders
- One representative from:
  - NWS Regions
  - Each NOAA Cooperative Institute (and SPoRT)
  - MDL and GSD
  - Raytheon
  - NWS SEC
  - GOES-R PG AWIPS II developer
- **Team Lead/Instructor:** Jason Burks (NASA SPoRT)
- **Instructor:** Max Schenkelberg (Raytheon)
- **Advisor:** Ed Mandel (NWS/OST SEC Development Branch Chief)

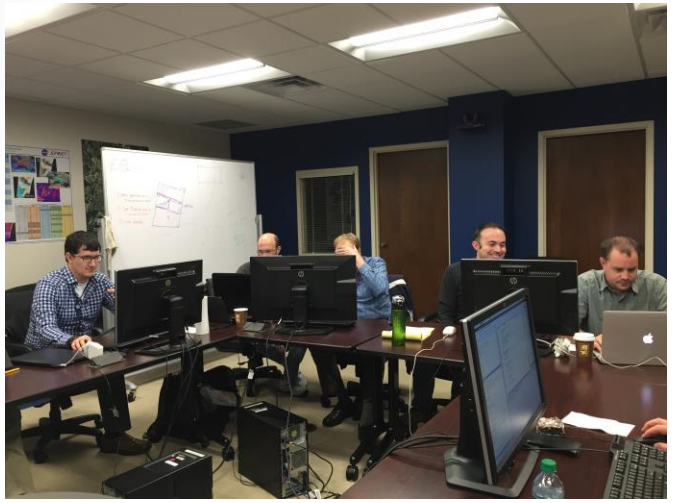
Code Sprints 2016

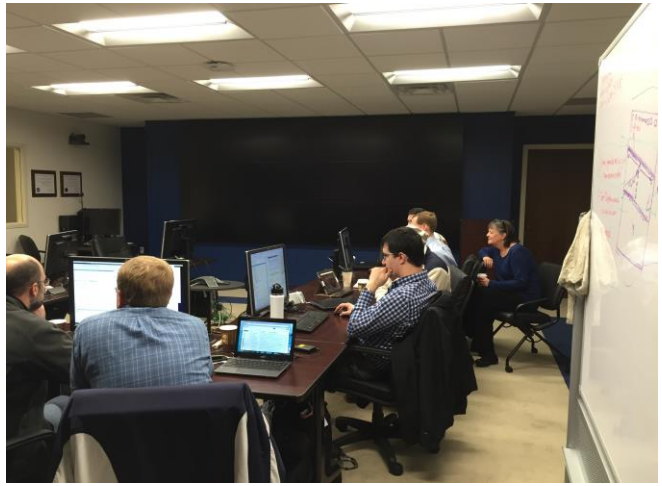
- GOES-R Code Sprint Nov 3-5
  - TOWRDoc Integration for GOES-R products
    - Lee Byerle, Matt Comerford, Matt Ikemayer
  - Loop and missing tile issues
    - Tiffany Meyers, Tom Filiaggi, Ama Ba, Eric Holweg



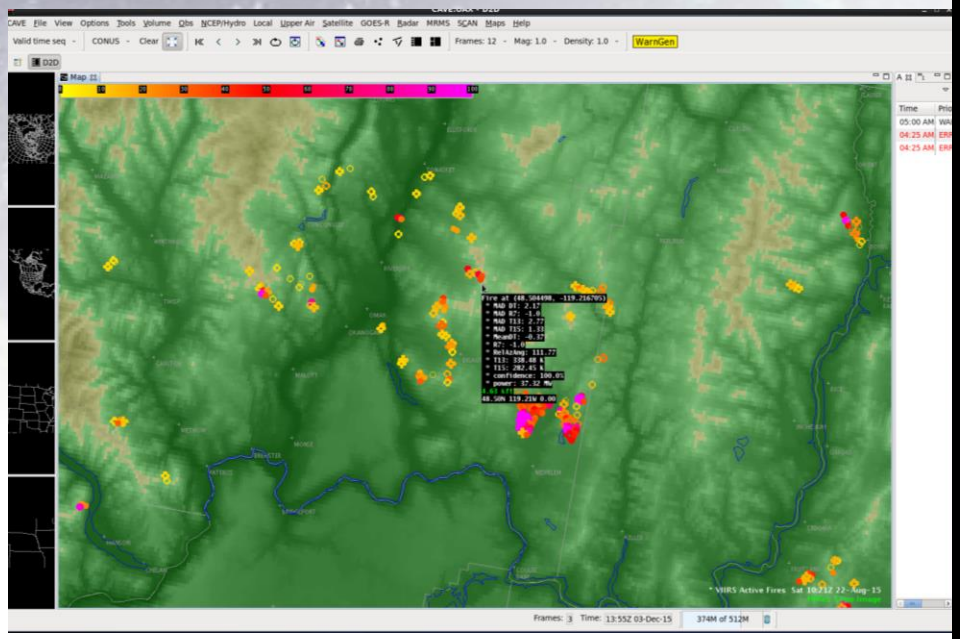
Code Sprints 2016

- JPSS Code Sprint Dec 1-3
  - VIIRS Active Fires Plugin
    - Darrel Kingfield, Lingyan Xin, Kaba Bah, Jordan Gerth
  - NUCAPS Gridded Planar Display
    - Matt Foster, Aaron Anderson
  - Documentation of pointsetplugin
    - Evan Polster, Nate Smith
  - Integration of JPSS Products
    - Kevin Mcgrath, Scott Longmore
  - Localization file creation for JPSS products and intergration into TOWRDoc
    - Matt Comerford, Lee Byerle, Matt Smith
  - Image and Looping Tools
    - Jason Burks, Deb Molenar

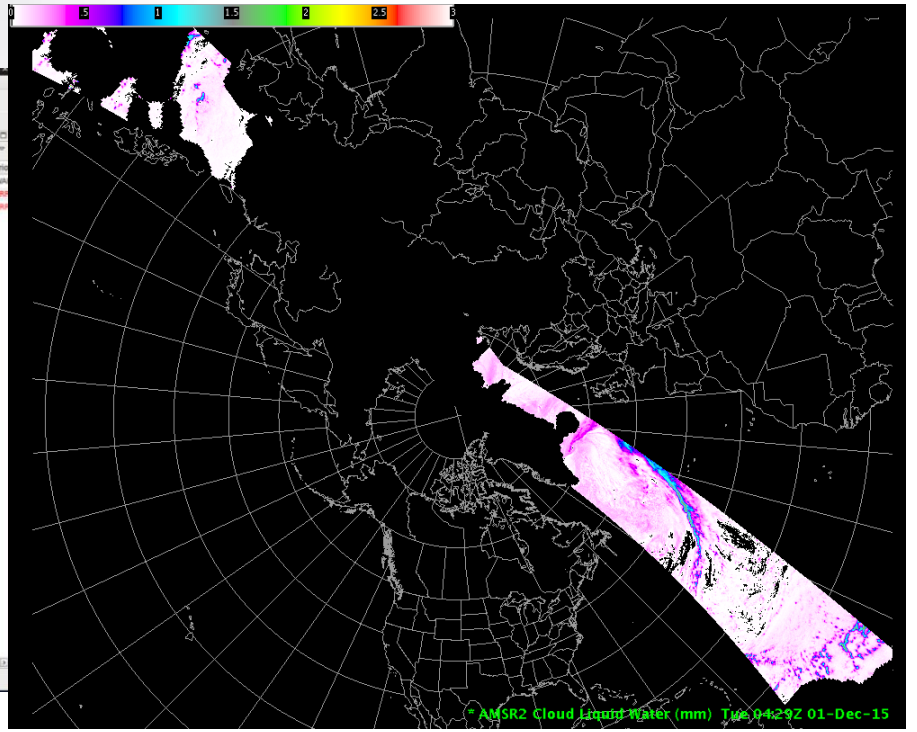




EPDT Code Sprint Products



VIIRS Active Fires



AMSR2 Cloud Liquid Water

Future EPDT

- Group D in Spring/Fall 2016
- Adapt to latest build of AWIPS II available
- Previous EPDT Members continue to work on AWIPS II
- Previous EPDT members have real world experience troubleshooting problems in AWIPS II

Questions