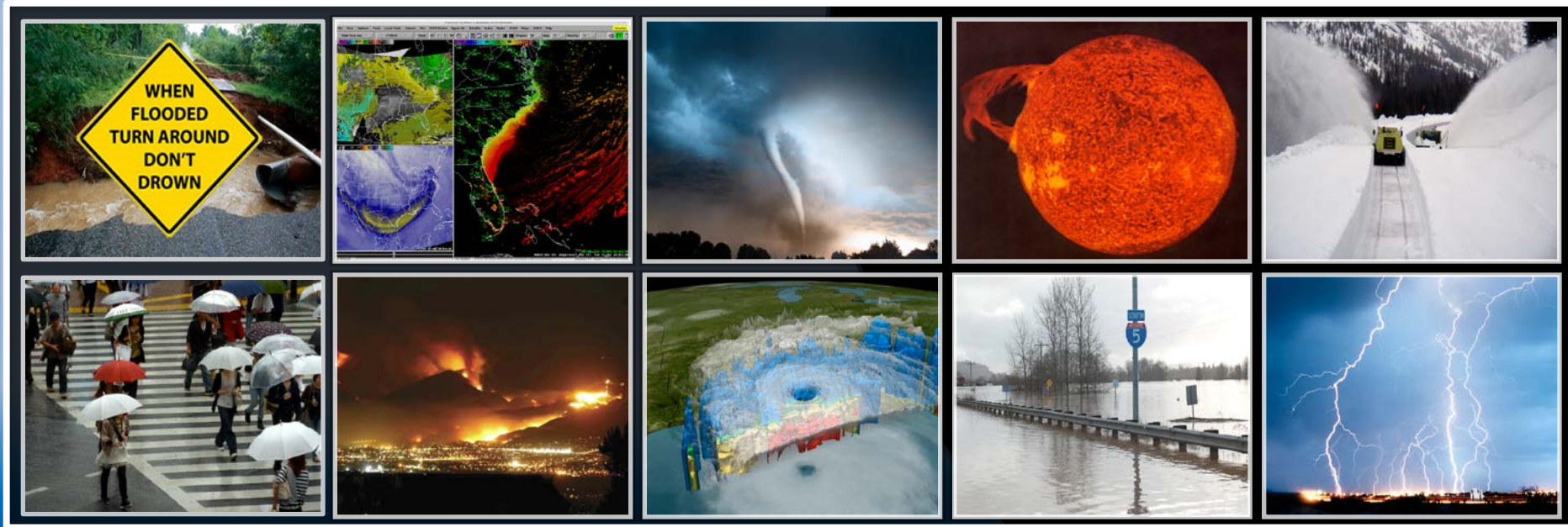


# NWS Central Processing Update

David L. Michaud, NWS Central Processing  
January 11, 2018 • Austin, TX



# NOAA's High Performance Computing Locations and Systems



**Boulder, CO**  
Development HPC  
• Jet (1,103 Tflops)



**Fairmont, WV**  
Development HPC  
• Theia (3,076 Tflops)



**Oak Ridge, TN**  
Research HPC  
• Gaea (4,020 Tflops)



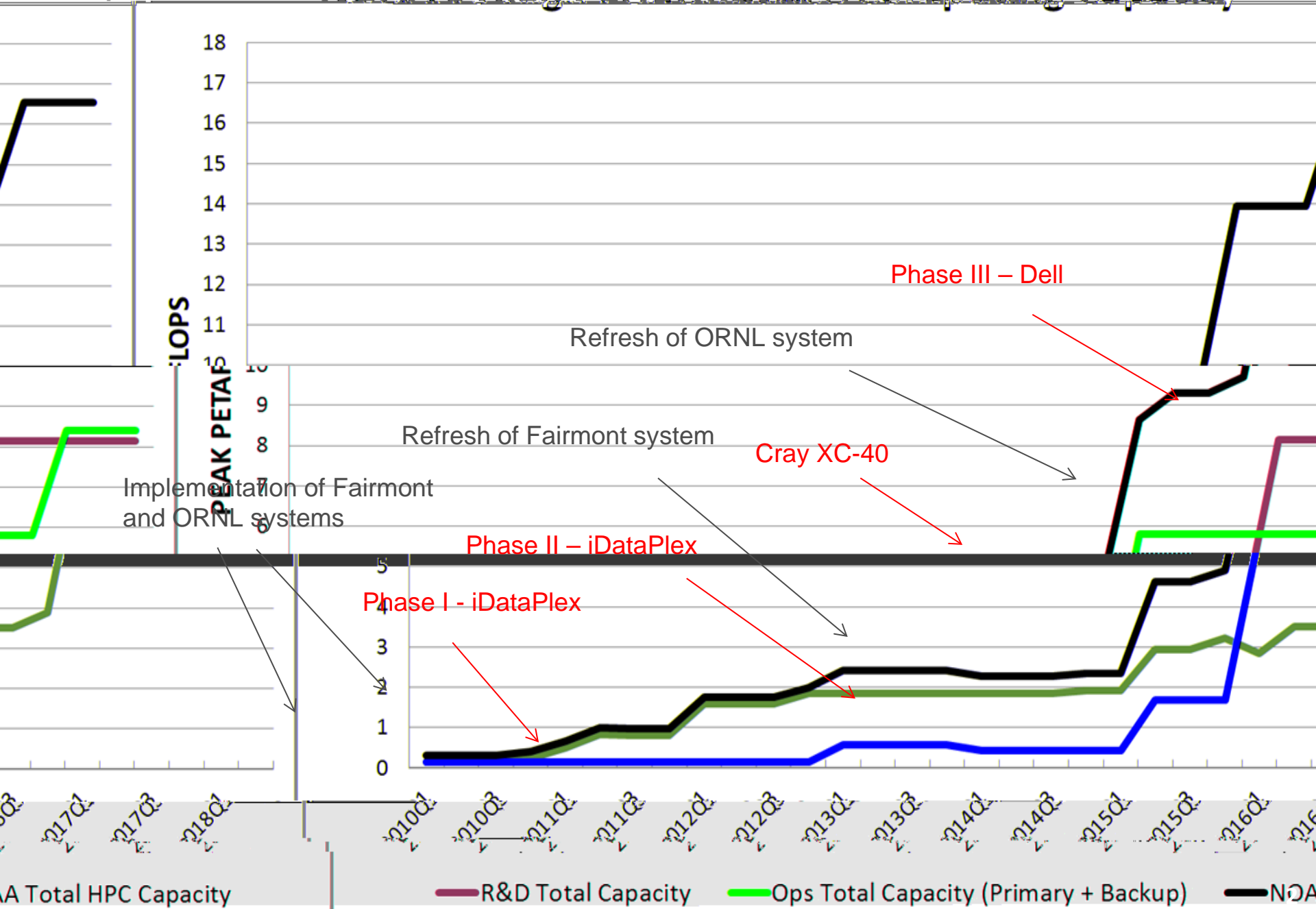
**Orlando, FL**  
• Backup/Development (4,200 Tflops)

**Princeton, NJ**  
Climate Post-Processing & Analysis

**Reston, VA**  
• Primary (4,200 Tflops)

- ☆ Operational HPC Systems
- Research and Development (R&D) HPC Systems

# NOAA's High Performance Computing Capacity



PFLOPS

PEAK PFLOPS

Implementation of Fairmont and ORNL systems

Refresh of Fairmont system

Refresh of ORNL system

Phase III - Dell

Cray XC-40

Phase II - iDataPlex

Phase I - iDataPlex

NOAA Total HPC Capacity

R&D Total Capacity

Ops Total Capacity (Primary + Backup)

NOAA





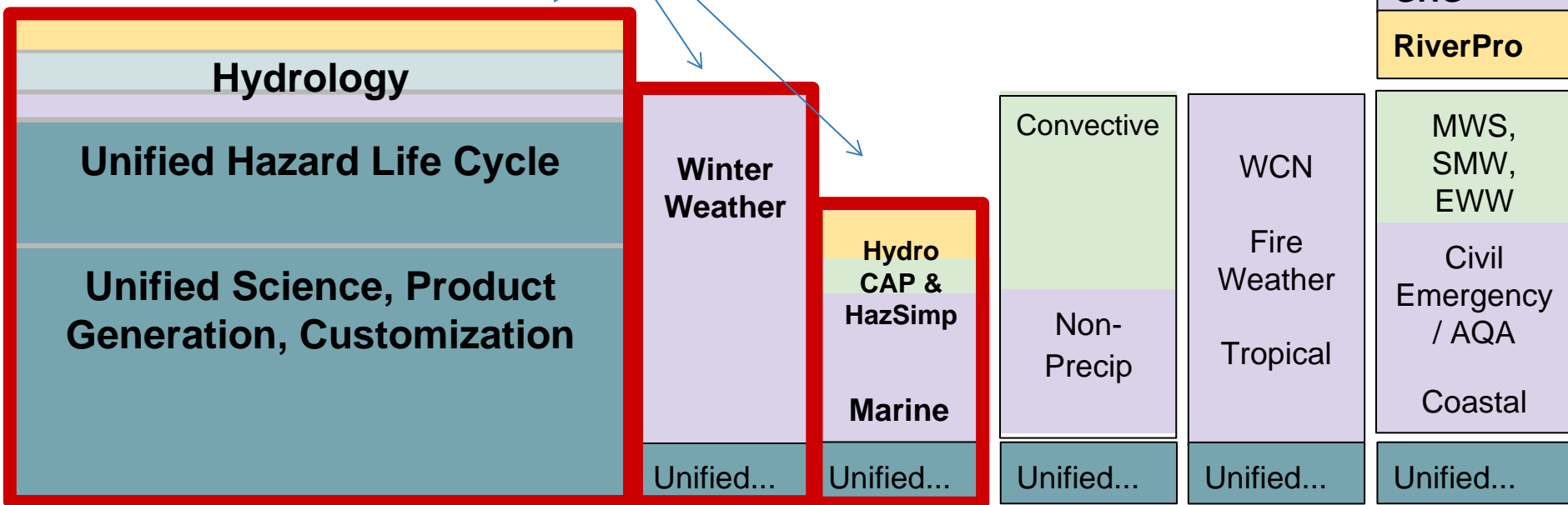


# AWIPS Improvements Hazard Services



## In Progress Now

For each hazard category, Recommenders, Meta Information, and Products need to be implemented.



Q3 FY17 - Q2 FY18

Q3 - Q4 FY18

Q4 FY18

Q1 FY19

Q2 FY19 - Q3 FY19



Regional Testing

NonOp Site Testing

Operations & Proving Ground

Op Site Testing

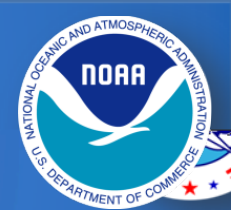
Deployment





# AWIPS Improvements

## National Centers Integration with AWIPS

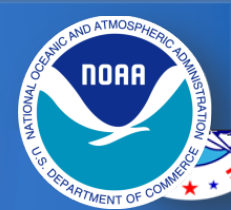


- Integrate capabilities between field and national offices
- Consolidate hardware and software baselines to create common operational picture enabling a fully integrated field structure



# AWIPS Improvements

## National Centers Integration with AWIPS



**Q2 FY18**

Complete assessment - AWIPS capabilities gap to migrate National Center processing

**Q3 FY18**

Initiate development - address capabilities gap

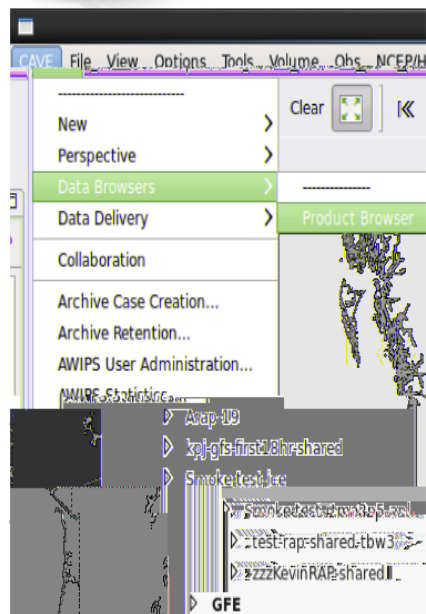
**Ongoing/Future Work -  
TBD on Outcome of Above**

Complete assessment & documentation - pre/post processing systems integrated with NAWIPS/AWIPS at National Centers

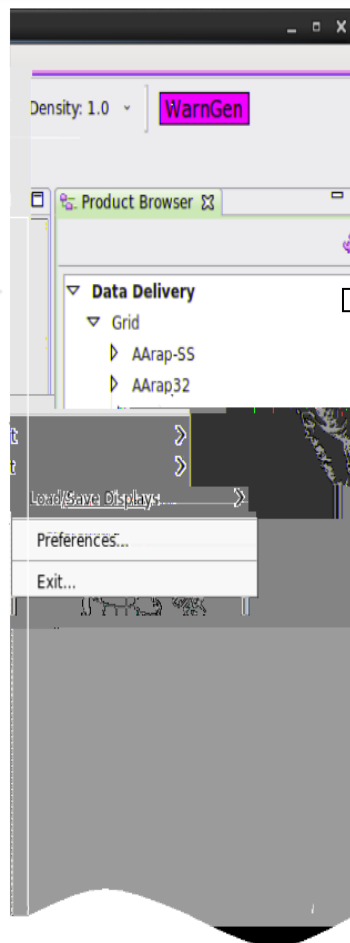
Document AWIPS requirements – National Centers Continuity of Operations systems & testbed activities

NAWIPS Merger: Analysis for functions performed by D2D, GFE, Hazard Services (Evolve Task)

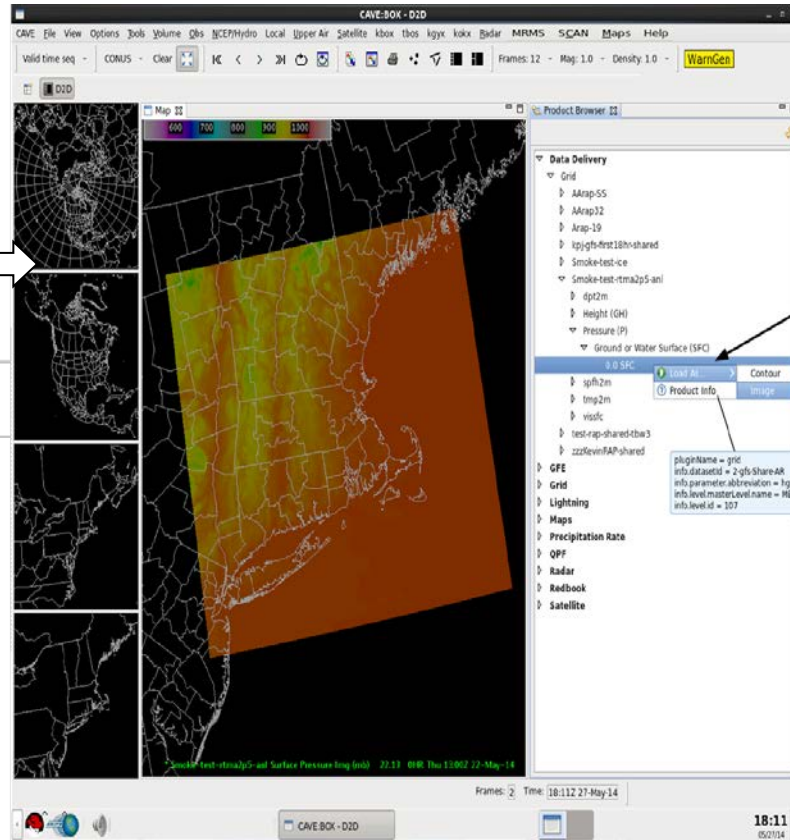
# AWIPS Improvements Data Delivery



Late Jan 18



Q2 FY18



Right click (B3) on desired product to open pop-up menu

Q3 FY18

- Local site testing with NOMADS
- OCLO developing training

MADIS data access to local sites

Satellite-derived products available





# THANK YOU!

