



CONDUIT and NAWIPS Migration to AWIPS II Status Updates

2014 Unidata Users Committee

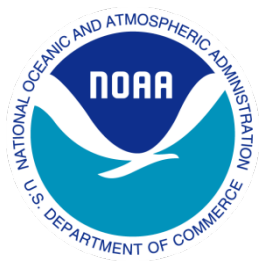
NCEP Central Operations
September, 2014



AWIPS Status



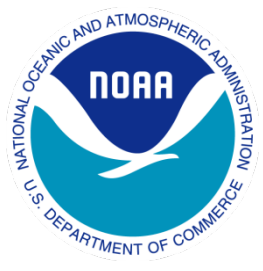
- NWS/WFO AWIPS II Deployment well underway
 - Groups 4 and 5 scheduled for this CY.
- NCEP Schedule tracking well, only minor delays to Centers' planning
 - SDMs and CPC scheduled to enter FOTE later this month or October
 - Remaining Centers could enter FOTE in FY15 if their resources allow
- Rapid builds of NCEP software now being performed in Silver Spring
 - Allows much faster turnaround for testing
- Our focus:
 - Preparing Centers for exiting SOTE and entering FOTE
 - Fixing Critical, High, Major bugs and streamlining functionality
- Participating in AWIPS Re compete contract as Tech Team representatives
 - David Plummer and Scott Jacobs



Latest Developments National Center Perspective



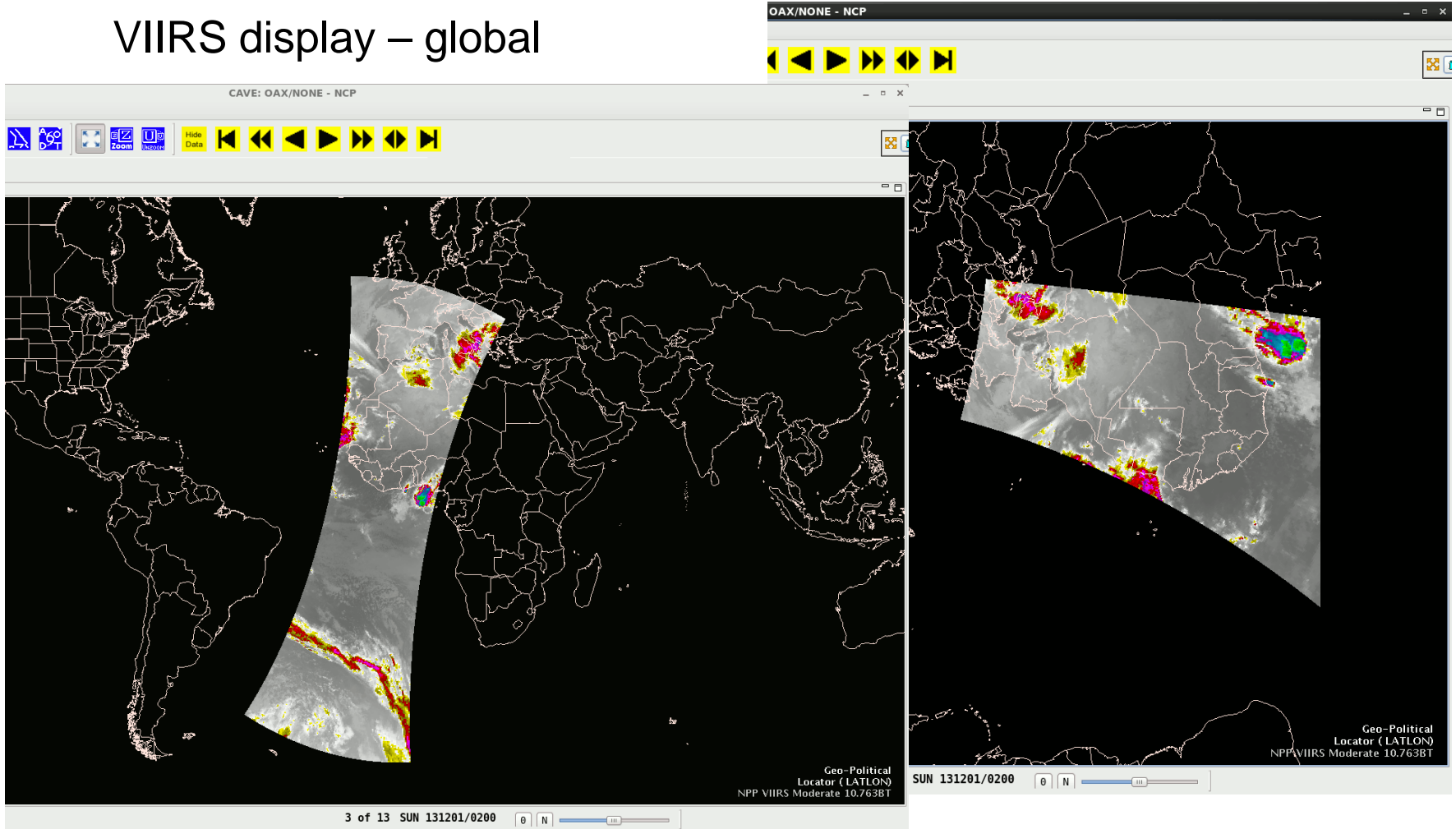
- Power Legend
 - Allows for maximum data loading within a single CAVE footprint
 - Users can group Resources within a single Display
 - Groups considered equivalent of NMAP “loops”
 - Tied to hotkeys
 - Goal: 1 CAVE per monitor
 - Future expansion for managing Ensemble members / clusters
- SWPC High-cadence time series displays
 - Groundwork for future earth-based
- Work underway
 - PGEN across all CAVE Perspectives



Latest Developments NCP – Imagery Display



VIIRS display – global





Latest Developments Space Weather



- Magnetometer Plot, Kp Monitor

The screenshot shows the CAVE software interface for monitoring space weather. The main window displays a world map with Kp indices plotted as colored markers. A settings dialog titled "Edit Mag Activity Attributes..." is open, allowing users to customize the colors and text for different Kp index levels. A table titled "Recent Kp Estimates" shows the latest data points. At the bottom, a "Recent Station K/Gamma Values" table provides detailed data for various stations.

Time	Kp	Gamma	Estimate	Station
16:13	3-	2.67	2	
16:14	3-	2.67	2	
16:15	3-	2.67	2	
16:16	3-	2.67	2	
16:17	4-	3.67	1	
16:18	4-	3.67	1	
16:19	4-	3.67	1	
16:20	4-	3.67	1	

Time	CNB*	FRD*	HAD*	MEA*	NGK	OTT*	SIT*	WNG*	Kp	<Ks>	N
16:3	1.73/7	3.47/29	2.36/13	2.88/56	0.93/4	1.43/10	1.95/19	2.73/17	2-	1.52	7
16:4	1.73/7	3.49/29	2.37/13	2.91/57	0.93/4	1.43/10	1.94/19	2.74/17	2-	1.52	7
16:5	1.73/7	3.52/30	2.37/13	2.93/57	0.93/4	1.43/10	1.94/19	2.74/17	2-	1.52	7
16:6	1.74/7	3.57/31	2.37/13	2.90/57	.....	1.43/10	1.93/19	2.74/17	2-	1.52	7
16:7	1.75/7	3.62/32	2.36/13	2.96/58	.....	1.43/10	1.92/19	2.76/17	2-	1.52	7
16:8	1.76/7	3.63/32	2.36/13	.....	.....	.....	1.90/18	2.76/17	2-	1.67	5
16:9	1.76/7	3.70/33	.....	.....	.....	.....	.....	2.76/17	2+	2.22	3
16:10	1.76/7	3.73/34	.....	.....	.....	.....	.....	.....	3-	2.67	2
16:11	1.77/7	3.72/34	.....	.....	.....	.....	.....	.....	3-	2.67	2
16:12	1.78/7	3.74/34	.....	.....	.....	.....	.....	.....	3-	2.67	2



GEMPAK and AWIPS II



- Functionality was added to the Data Management level of the file access which made it available to all GEMPAK programs that read data (writing back to the AWIPS database is not supported)
- A new library of C source code for Data Access was added which calls Python scripts (`$NAWIPS/scripts/python`) to interface with the THRIFT request services and put the resulting information into GEMPAK data management arrays
- The information to request for a particular data type is controlled by an XML table (`$GEMTBL/data-access/*.xml`), which specifies the Python script and the database query constraints
- For more information:
http://www.nco.ncep.noaa.gov/sib/nawips/GEMPAK_AWIPSDB_Notes.pdf



Priorities in FY15

- Shepherd remaining Centers into and through Field OT&E
 - Address issues and streamline functionality as needed
 - On their schedule
- NCEP-focused software releases supported by Raytheon expected through FY15
 - Frequency as needed
- Continue new development projects
 - SWPC migration
 - WPC "MasterBlender" Ensemble implementation in NCP
 - Migration of ATCF to AWIPS2
 - Hazard Mapping Service migration (NESDIS)
 - Dvorak Technique
 - Ecological (NOS HAB) and Arctic Data and Techniques (VIIRS)



NCEP / Unidata Partnership



- For many years NCEP has partnered with Unidata to provide and support NCEP software and data to the weather academia/research community
- NCEP would like to explore collaboration projects with Unidata in FY15
 - *How can we work together to enhance the AWIPS experience at the Universities?*

**NCEP continues to view Unidata as a critical partner
for NCEP's total mission**

