



National Weather Service

AWIPS Software Recommendation and Evaluation Committee (SREC) Monthly Status Meeting

November 27, 2006
Systems Engineering Center



Agenda



- **OB8 Planning**
 - **OB8.1**
 - *Remaining SREC Activities*
 - *Documentation Needed*
 - *OB8.1 Update*
 - **OB8.2**
 - *Process*
 - *Request Official Nominations*
 - *Current Candidate List*
- **Small Enhancements**
- **Next Meeting**
- **Action Item Review**



Remaining OB8 SREC Activates



- **Step 11: Prepared Change Requests for AWIPS CCB approval (August)**
 - *Responsibility: SREC Vice Chair (draft submitted for review)*



Documentation Needed for OB8.1 and OB8.2



- **Strategic**

- *(xx-xxx) OB8.1: Aviation Forecast Preparation System (Graf, Rood)*

- **A&C**

- *(06-040) OB8.2 NWRWAVE Enhancements (Browning, Nathan)*
- *(06-042) OB8.2: Add Lake Effect attribute to GFE (Stokols)*



SREC OB8.1 Update Status



- **Risk reduction Through GFESuite Pre-Releases – PR (Ward), ER (Novak)**
 - *Obtain LOE from development organizations*
 - *Status*
 - *Under review by Raytheon. Preliminary analysis looks promising. Complete this week.*



SREC OB8.1 Update Status



- **Clustered Pairs CONOPS**

- *Met October 3, 2006 to discuss the LOE estimates, availability of resources, release schedule, propose options with voting members, and recommend a change to OB8 baseline*
- *Voting members agreed to:*
 - *Move Next Generation Warning Tool (4 months for GSD) from OB9.X*
 - *Decrease AWIPS Evolution: Development Tool Kit Evaluation from 15 months to 10 months for GSD*
 - *Wait until the November 8 Corporate Board meeting before agreeing to any other reductions*
- *Corporate Board approval on November 8.*
- *Set up a meeting for December 4 with SREC voting members to finalize any changes to the OB8.1 baseline (Action: Mandel)*



SREC OB8.1 Update Status



- **Changes proposed by the development organizations**
 - ***Add to OB8.1***
 - *Decode and Display HPC QPF Grids*
 - **June 12, 2003 Corporate Board**
 - **Supports prototyping OB8.3 - NCEP Short/Med Range Models**
 - ***Remove from OB8.1***
 - *GFE (IFPS Server change GFETEST, Text Formatter - FWF Enhancements and Period Combining Refinement)*
 - **Fixed with local configurations per Mark Mathewson**
 - *Notification Server*
 - **Not a valid task**



SREC OB8.1 Update Status



- **Changes proposed by the development organizations (continued)**

- **Move from OB8.1 to OB8.2**

- *NWRWAVE Enhancements*

- **Development Organization (CR/OPS) is unable to complete this task within the OB8.1 timeframe. Need to transition the maintenance of this application to OPS prior to making the OB8.1 proposed changes**

- *Fog Monitor: Monitor Enhancements and Add statistical calculations for users*

- **Development Organization (MDL) is unable to complete this task within the OB8.1 timeframe**

- *SAFESEAS: Add NOS tide gage water depth values*

- **Development Organization (MDL) is unable to complete this task within the OB8.1 timeframe**

- *Gridded MOS (add data elements)*

- **Data not available from MDL**

- *Low Cloud Base Product*

- **Data not available from NESDIS, but will be ready for OB8.2**

- *Aviation Graphical Products on AWIPS*

- **Also move OB8.2 task to OB8.3**

- **Still working out requirement and working on getting prototype code from GSD**



SREC OB8.1 Update Status



- **Voting on OB8.1 – December 4, 2007**
 - **Field members**
 - *Eastern – Jeff Waldstreicher*
 - *Central – Greg Noonan*
 - *Southern – Eric Howieson*
 - *Western – Mark Mollner*
 - *Pacific – Bill Ward*
 - *Alaska – James Partain*
 - *NCEP – TBD*
 - **Integration Members**
 - *OCWWS – Leroy Spayd*
 - *OHD – Donna Page*
 - *OOS – Ashley Kells*



SREC OB8.2 Update Process



- **Request official nominations**
 - *November 28, 2006 to December 31, 2006*
 - *Submitted by SREC Voting Members*
 - *Need OSIP documentation for OB8.2 items by January 1, 2007*
 - *need at a minimum Gate 1 and 2 material (SON, Project Plan, CONOPS/ORD)*
- **Obtain LOE from development organizations**
 - *January 2, 2007 to January 26, 2007*
- **Evaluate and Recommend Changes**
 - *January 29, 2007 to February 16, 2007*
 - *Voting member meeting on February 5, 2007*
- **Present to full SREC**
 - *February 26, 2007*



Candidates



- **Requested for OB8.2**
 - (04-005) *Warning by Polygon – LSR changes for ASM (OSIP IWT)*
 - (SM) *Alaska Time Zone Change (AR)*
 - (04-005) *AWIPS Evolution: Performance evaluation and migration to new architecture (SEC)*
 - (06-084) *Blended Total Precipitable Water (TPW) and Percent of Normal Imergy*
- **Move from OB8.2 to OB8.3**
 - (06-042) *Add Lake Effect Attribute to GFE (Dev Org – ASM)*
 - (06-020) *GFE Formatter and Smart Tools for WFO Tropical Cyclone Hazard Graphics (Dev Org – ASM)*
 - *Smart Tools for Impact Graphics, Ingest and Display of Gridded Excessive Precipitation product from HPC and Gridded Probabilistic Storm Surge Products stay in OB8.2*
 - (06-019) *Incorporation of tropical cyclone conditional terms in selected public and marine products (Dev Org – ASM)*
 - (06-021) *Segmentation of the Hurricane Local Statement (Dev Org – ASM)*
- **Requested for OB8.3**
 - (xx-xxx) *Japanese High Density Winds from MTSAT (OCWWS)*
 - *NWS Request May 2004 (OCWWS)*
- **Move from OB8.3 to OB9**
 - (06-032) *Add Multisensor Precipitation Nowcaster to MPE (Dev Org - OHD)*
 - *Development Organization (OHD) is unable to complete this task within the OB8.3 timeframe*
- **Requested for OB9**
 - (06-010) *Autonowcaster – Requested for OB9 (OSIP IWT)*
- **Remove from OB8.3**
 - (05-058) *Improve Installation times (SEC)*



Candidates



- **No OB requested**

- *(xx-xxx) Develop procedures to allow WFOS providing service backup to automatically export Service Backup grid forecasts to NWS central server to avoid a single point of failure (*
- *(xx-xxx) Ensure AWIPS baseline applications can be executed by users who run Korn Shell (RFCs)*
- *(xx-xxx) Removing Redundant files from Shapefiles (SEC)*
- *(06-066) RUC13 Product Changes (add terrain height, CAPE and CIN)*
- *(05-082) Gridded Icing/Turb/CB products for World Area Forecasts*
- *(06-068) Higher Resolution QuikSCAT*
- *(xx-xxx) GMSRA product*
- *(06-073) Remove Obsolete Data sets*



Candidates



- **No OB Requested**

- *(xx-xxx) North Pacific Hurricane wave model during hurricane season out to 126-h at 6-h intervals (NCEP)*
- *(xx-xxx) Wave Steepness for all models (NCEP)*
- *(xx-xxx) RTG_SST_HR analysis done daily need to determine how to break into usable pieces for coastal and Great Lakes WFOs. (NCEP)*
- *(05-083) Great Lakes WW3 (NCEP)*
- *(xx-xxx) Real-Time Ocean Forecasting System (Atlantic): Surface heights and surface currents hourly; north wall of Gulf Stream; temperature, salinity, and currents at selected levels. All products out to 120-h at 24-h intervals, updated daily. (NCEP)*
- *(xx-xxx) Real-Time Ocean Forecasting System (West Coast, Hawaii, and Alaska)) Surface heights and surface currents hourly; temperature, salinity, and currents at selected levels. All products out to 120-h at 24-h intervals, updated daily. Products expected to be available FY 2008-2009 time frame. (NCEP)*
- *(xx-xxx) NAM & DGEX - horizontal resolution increase to ~8 km. (NCEP)*
- *(xx-xxx) SREF - horizontal resolution increases to have all members run at horizontal resolution closer to 32 km resolution. (NCEP)*
- *(xx-xxx) Reinstatement of Fire Weather / IMET Support runs - There has been discussion of having these runs distributed via AWIPS. (NCEP)*
- *(xx-xxx) HiResWindow - Horizontal resolution increase to ~4 km and synchronization with latest version of WRF being used in NAM and SREF and FWIS (NCEP)*



Small Enhancements



- **Definition**

- *A small enhancement is adaptive maintenance to the AWIPS software, files or scripts that change or expand previously accepted requirements or preventative maintenance that corrects potential failures or degradation of service levels. The small enhancement is not a correction to an approved requirement; that is a DR.*



Small Enhancements



- **The small enhancement must meet the following criteria:**
 - *Requirements are clearly and concisely documented so that there is little risk of the wrong change being made and the risk on forecaster operations at implementation is a small.*
 - *Requirements are validated by the development organization with the originator and other stakeholders.*
 - *Affects only one system (AWIPS)*
 - *Only AWIPS development and integration resources are required*
 - *Can be accomplished within one AWIPS Release*
 - *The guideline for development effort of a small enhancement is expected to be less than 80 hours*
 - *No direct cost for project implementation, minimal recurring cost, logistics or maintenance cost and no anticipated future replacement or upgrade cost.*
 - *A small enhancement is not required to meet OSIP requirements.*
- **Technical considerations:**
 - *No security impacts*
 - *Data is less than 50 mbytes/hr and familiar (low risk) data stream*
 - *Communication traffic volume will not impact terrestrial WAN or SBN*
 - *Utilization of CPU, RAM, disk I/O, Lan network I/O and disk storage likely to increase less than 1% of total available on target platform*
 - *No impact on existing critical interfaces*



Small Enhancements



- **Examples**

- ***D-2D menu item change (i.e., just change the menu label, nothing more)***
 - *Example, "Change 'QuikSCAT Winds' to 'Scatterometer Winds'*
- ***Change default color-enhancement table from the current table to another, pre-existing table.***
 - *Example, "Change the default radar reflectivity curve to use the pre-defined "mid-range enhanced" curve.*
- ***Change the D-2D color bar labels on the IR Cloud product to show values of 100 and 200 (which are currently hidden).***
- ***Change purging of METAR products to retain two additional hours (i.e., 38 hours instead of the current 36).***
- ***Change the NCF alarming associated with the RUC model from 65 minutes to 75 minutes. (The current 65 minute threshold is generating too many false alarms).***
- ***NESDIS recently added High Density Winds whose WMO patterns are JBCXxx KNES, and they are already on the SBN. These new products are identical to the other HDW in AWIPS and they are desired by all regions. Currently, the new products are being filtered/discarded on the DX, but they should be retained for decoding. This is a change to the acq_patterns.template.***



Small Enhancements



- **Tracking**

- *For now, a small enhancement will be documented and tracked via a DR set to OPR and Enhancement. After the Dimension 9 upgrade, SMS will look into creating new document type.*

- **Submission**

- *Field calls in TT, software or service organization reviews, determines it is a software change that modifies previous requirement, creates Small Enhancement DR (OPR and enhancement).*
- *The Software organization can also create a Small Enhancement DR to address requests from other groups (e.g. OOS, SEC, HSD, SST) and for preventative maintenance.*
- *Look and see what OSIP task could be candidate for Small Enhancements*

- **Documentation**

- *The existing DR form will be used for the Small Enhancement. It should include requirement, solution and test procedures. It should also include statements from originator and developer that the small enhancement meets the above criteria. Additional requirements and exact field mapping will be developed.*



Small Enhancements



- **Authorization**
 - *The Small Enhancement would be reviewed by the SREC for field consensus and prioritization.*
 - *The SMS Release manager and Government Release Focal Point will determine what process (DR or Small Enhancement) will be followed for any disputed changes.*
- **Prioritization**
 - *Good question- this needs to be discussed*
 - *Option 1: Include with OSIP tasks*
 - *Option 2: Set aside % of development for Small Enhancements*
 - *Either option will require that the originator clearly and completely state the requirements on the DR form.*
- **Assignment to Release**
 - *Government release managers will recommend a release for the small enhancements*
 - *Small Enhancements assigned to a release are considered a release requirement and will be included in the Release Baseline Document (RBD). If the release requirements have been based lined, the Release Adjustment process would be used to add a Small Enhancement to the Release; similar to adding a DR.*
- **Prototype**
 - *Add ZF+ to GFE*



Small Enhancements



- **Lifecycle**

- *The intent of the small enhancement process is to skip software development practices but to tailor them to match the size of the change being made.*
- *Peer reviews will be conducted as defined by the software organization.*
- *Will meet gates similar to the DCS:*
 - *Requirement, Design, User Interface review*
 - *done in one session – can be meeting, phone conference or email*
 - *attendees: requestor/originator, environment, cm, test*
 - *Completion of the review would be indicated in the DR text and any documentation would be checked into PVCS and related to the DR.*
 - *Functional testing*
 - *During Integration Handoff, the software organization will present a list of the Small Enhancements being delivered with a statement of reviews performed and related documentation.*



Next Meetings



- **Full SREC Regular meeting**
 - *January 29 at 2:00pm EST*
- **Voting member meetings**
 - ***SREC OB8.1 Updates***
 - *December 2, 2006 at 2:00pm EST*
 - ***SREC OB8.2 Updates***
 - *February 12, 2007 at 2:00pm EST*



Actions



- **Old Action Items**
 - *Review of Charter – Insure NCEP is a voting member. Get NWS management to review and approve SREC and DR team charters. (Mandel - in progress)*
 - *Insure that NWS CONOPS is provided the necessary resources to meet the objectives of the group (Mandel – in progress)*
 - *Get written confirmation letter from ECMWF (Mollner - in progress)*
 - *Set up meeting with NCEP and NESDIS to improve communication between the SREC and data providers (Mandel)*
 - *Provide a SREC Focal Point (NCEP)*
 - *Brent Gordon and Joe Carr (completed)*



Actions



- ***New Action Items***
 - ***Finalize AWIPS OB8 RC (Mandel)***
 - ***LOE for Risk Reduction through GFE Suite Pre Release (Raytheon)***
 - ***Get PRS documentation to NESDIS (Gockel)***
 - ***Send out email requesting OB8.2 SREC Update nominations (Mandel)***
 - ***Look and see what OSIP task could be candidate for Small Enhancements (Mandel, Woods, Romano)***
 - ***Notify IWT leads for OB8.1 and OB8.2 documentation needs (Mandel)***
 - ***Determine how to prioritize small enhancements (SREC)***