



NWS Hydrology Forecast

Verification Team:

7th Meeting

06/24/2008 – 2pm EST



Outline

- CNRFC verification case study
- Update on archiving requirements and issues
- Other issues (EVS, COMET module,...)
- Next meetings



CNRFC Case Study



Archiving System: High Priority

- **Verification System Capabilities: Available Tools**

1. **Data archiving** ➔ *IHFS db, Archive db, Files, WR website*

2. **Computing metrics**

3. **Displaying data & metrics**

} *IVP ob8.3, EVS,
WR website*

4. **Disseminating data & metrics**

5. **Real-time access to metrics**

} *Stats on demand,
WR website*

6. **Uncertainty analysis**

➔ *Studies w/ Hindcaster*

7. **Performance measure tracking**



Archiving Requirements: Status

- OSIP Project RFC Archive Server Technology Refresh Initiative
 - IWT Members: **Julie Meyer**, Julie Demargne, Jim Lane, Russ Erb, Alan Darling, Randy Rieman, Robin Radlein, Arleen Lunsford, Scott Dummer, Jeanne Wallace, James Paul, Marylin Andre
 - Project in **OSIP Stage 3**
 - **Archiving survey** to be filled out by each RFC by ~08/01/2008 on non-hardware needs
 - By the end of OSIP Stage 3:
 - **final technical archiving requirements**
 - **business case**
 - **implementation plan**



Archiving Requirements: Status

- Current archiving requirements: 10-911 Directive
- HEP group report, “Data archiving requirements for forecasting and verification purposes”
 - includes archiving survey results from NWS Verification Team
 - requirements to support CHPS/FEWS and XEFS
 - for single-valued and probabilistic forecasting, hindcasting and verification
- Other OSIP projects working on archiving system:
 - CHPS Infrastructure project
 - RFC AWIPS Configuration project
 - AWIPS Extended project



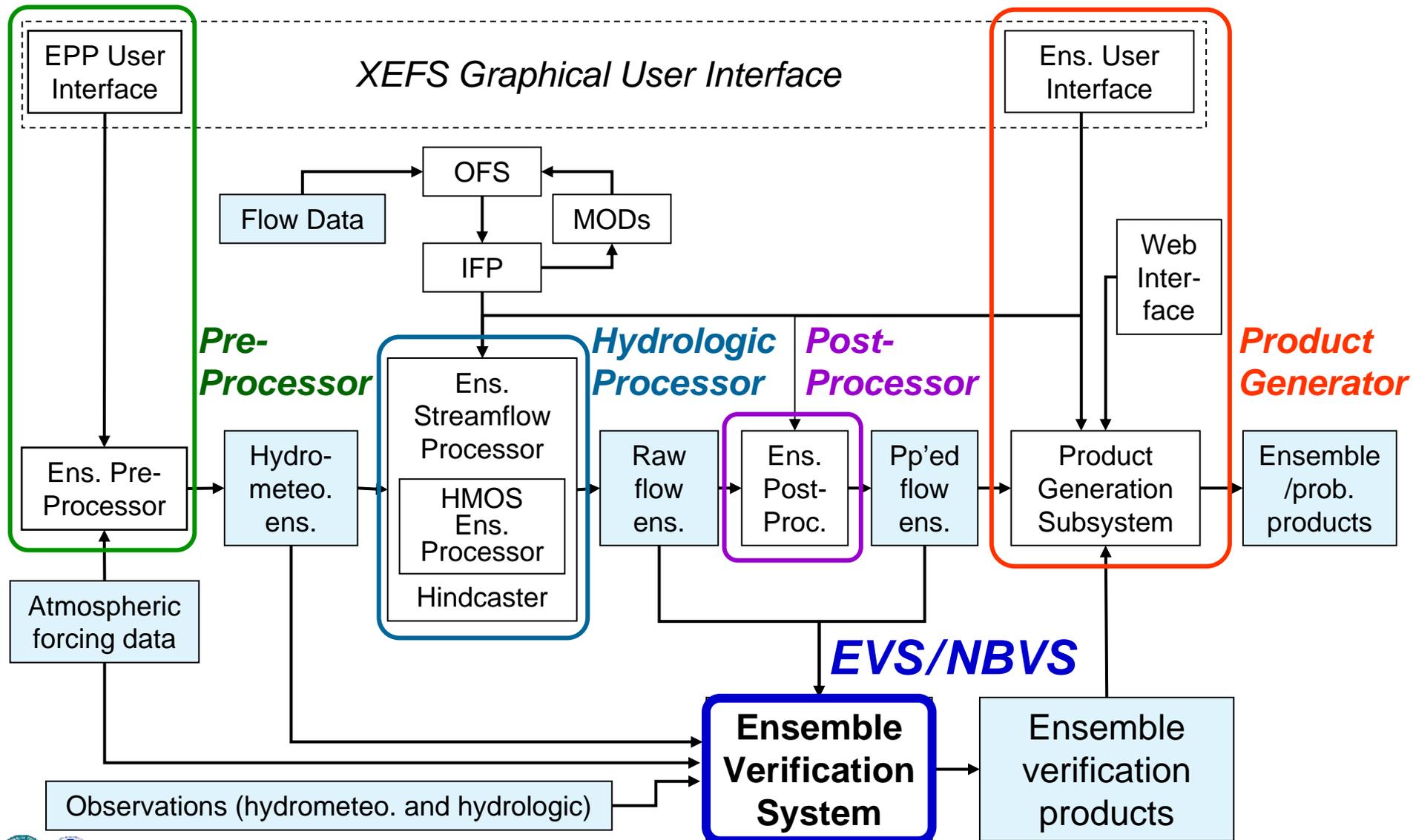
Archiving Requirements: Status

- Tasks to be performed
 - Importing/storing data and metadata
 - Display/quality control of archived data
 - Exporting archived data
 - Model(s) calibration
 - Forecaster training, case studies
 - Development activities
 - Hindcasting (re-forecasting)
 - Display and statistical analysis of input and output data
 - Real-time forecast verification
 - Forecast verification with the National Baseline Verification System (NBVS)
 - Generation of user specified products
 - Others?



Data Archiving Requirements

- Data for Experimental Ensemble Forecast System (XEFS)



Data Archiving Requirements: High Priorities

- Observations w/ metadata (6/24-hr or less)
 - MAP, MAT, other forcing inputs, flow, stage
- Forecasts w/ metadata (6/24-hr or less)
 - FMAP, FMAT, other forcing inputs
 - PQPF, PQTF, other forcing inputs
 - flow or stage: raw and MOD-ed forecasts, simulations
 - Flow or stage probabilistic/statistical forecasts
- Rating curves and other model parameters
- Initial conditions: raw and operational
- Verification info to run IVP and EVS
- Metadata for all archived data: date, time, location, time step, scale, grid resolution, units, how data/product was generated



Archiving System: Next Steps?

- Get **form-fit-function upgrades** and assess impact on system performance
- Continue to **document deficiencies** of current system
 - Provide feedback to **RFC Archive Team**
- Find **ways to archive high priority data for verification**
 - Observations for all forcing inputs, flow, stage
 - Deterministic forecasts for all forcing inputs and flow/stage (w/ MODs)
 - Rating curves (past and current)
 - Metadata

At least



Archiving System: Status at all RFCs

Form-fit-function upgrades?

Solutions to archive high priority data?

- ABRFC
- APRFC
- CBRFC
- CNRFC
- LMRFC
- MARFC
- MBRFC
- NCRFC
- NERFC
- NWRFC
- OHRFC
- SERFC
- WGRFC



Any Other Issues?

- EVS package to be retrieved from ftp site
- 3 EVS exercises
- COMET verification training module

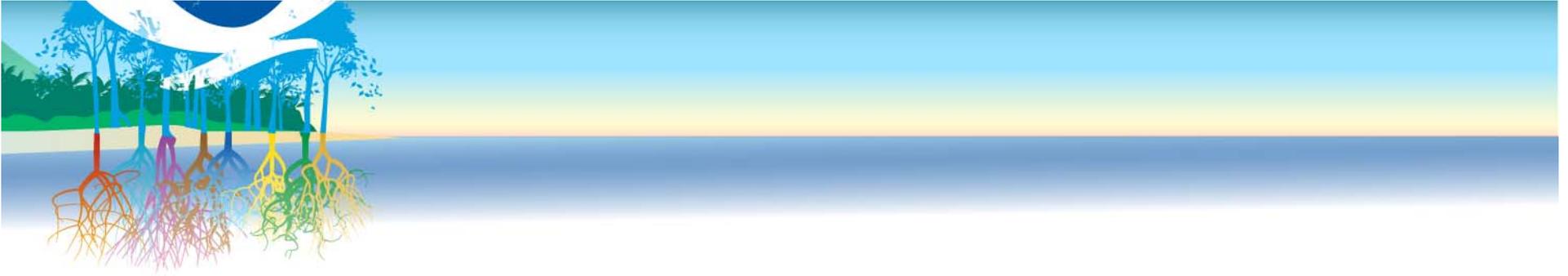
- Other issues?



Next meetings

- **8th meeting** on 07/10/08 at 1pm EST:
 - Review the EVS exercises
 - Discuss the COMET verification training module
- **Following meetings** in Summer-Fall 08:
 - Case studies with IVP: NERFC, OHRFC, NCRFC, NWRFC, MBRFC, SERFC, LMRFC, and APRFC
 - Case studies with EVS: MARFC and ABRFC
- **2nd RFC verification workshop** on Nov. 18-20, 2008
 - Location to be determined: MBRFC? CBRFC? WGRFC?





Thank you!

Questions?

