

AFPS Quarterly Report

FY93 Q2: January - March 1993

1. Introduction

The AWIPS Forecast Preparation System (AFPS) is being developed by the Enhanced Forecaster Tools (EFT) Branch of the Forecast Systems Laboratory (FSL) Modernization Division and some of the staff of the Techniques Development Laboratory (TDL).

As in previous reports, only FSL work is reported herein. Information on TDL's work is included in the TDL Quarterly Report. The use of "we" below refers to FSL staff.

2. Accomplishments

Significant progress was made toward the completion of our Level 0 prototype. A pre-prototype demonstration was given at the 9th IIPS conference (Anaheim) in January, and the partially-complete prototype was demonstrated at the NWS Field Managers' Meeting (Boulder) in March. In addition, we

- Completed the final draft of the AFPS development plan.
- Learned how to work effectively as a team, developing code in a shared environment.
- Completed the low-level design of the Level 0 prototype, and wrote most of the code implementing it.
- Began to work on time series display and editing. This will be used in the Level 1 prototype.
- Continued work on data and graphical forecast editor requirements.

3. Presentations/Visitors/Travel

- Dave Ruth, Mark Leaphart, and Greg McFadden visited from TDL for discussions on contour editing and SIRS (Ruth's Systematic Interpolative Radial Search, a method for recovering grids from contours).
- As noted above, Joe Wakefield attended the AMS conferences in Anaheim in January. The pre-prototype demo (including contour editing, user-selected area change, area move/copy, and new-contour insertion) was set up at the NOAA booth in the exhibit hall. Joe also gave a poster session.
- FSL hosted the first meeting of the AFPS Forecaster Working Group (AFWG) in late February. The group's charter is to provide operations-based hydrometeorological expertise to AFPS developers.

- We presented an overview of our plans and current work to two sets of visitors from the AWIPS Program Office.
- We welcomed a new long-term visitor, Niu Congxiao, from the Telecommunications Division of the Chinese NMC, Beijing. Mr. Niu has experience with VMS and UNIX, and has programmed in C and C++. He will be with us until March, 1994.
- Joe Wakefield traveled to NWS HQ to discuss AFPS - OH interaction.
- Matt Peroutka of TDL attended the AFWG meeting, then stayed on to discuss initialization and database issues.
- We set up one of our development computers at the NWS Field Managers' Meeting. Demonstrations of our pre-prototype and partially-completed Level 0 prototype were given to nearly 50 NWS managers. Many informal discussions on AFPS issues were held with attendees.

4. Plans for the next quarter

- We will present an FSL Technical Review on 13 April. This review, for FSL and other interested staff, will outline our current progress and schedules, and review our development procedures. It will include a demonstration of the completed Level 0 prototype.
- A final version of the AFPS development plan will be distributed to members of the AFWG, the ARTT Working Group on Deferred Capabilities (AWDC), NWS management, WSFOs and future WFOs, and other interested parties.
- We will complete Level 0 prototype documentation and begin design of a Level 1 prototype. The Level 1 system will include a full suite of graphical forecast editors, and is scheduled to be completed in late 1993. The following features of the Level 1 prototype are expected to be designed and partially implemented during the next quarter:
 - distributed database for handling multiple concurrent editing sessions
 - additional spatial editing tools (e.g., move area)
 - temporal presentation (view only)
 - interactive sample tool
 - interaction between multiple editors on a workstation
 - enhanced user interface features
- We plan to evaluate the development methodology used for the Level 0 prototype, and the design of the prototype.
- We will continue to coordinate with TDL in defining database contents and initialization techniques.