

Generating Aviation Forecasts from Available Guidance

Meteorological Development Lab

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Overview

- Background
- Requirements
- Data Flow
- Implementation Plan

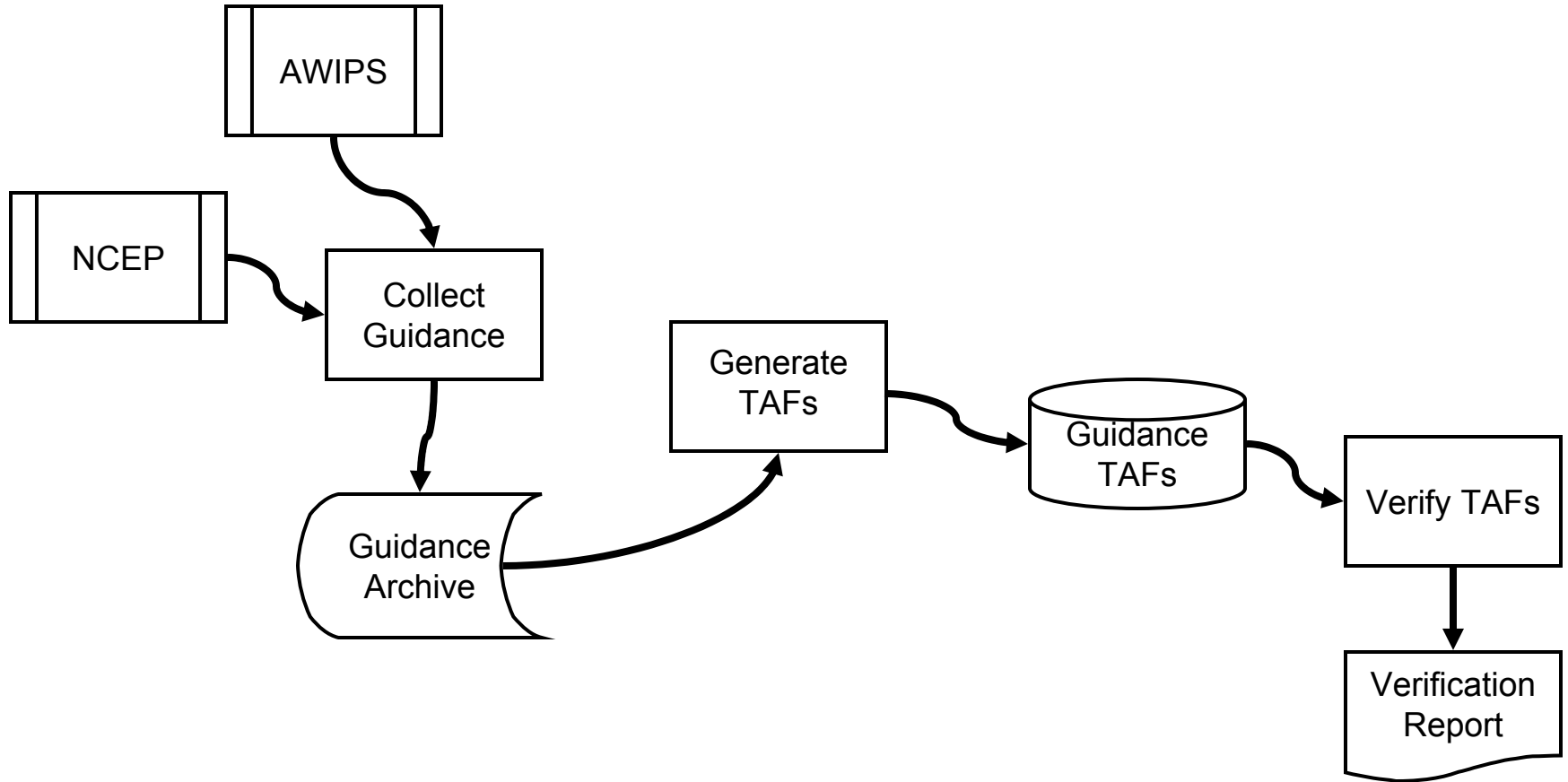
Background

- Long-standing desire to make aviation guidance directly usable to forecasters.
- Interest in guidance TAF capability from OCWWS and upper management.
- 4th Quarter milestone for OST.

Requirements

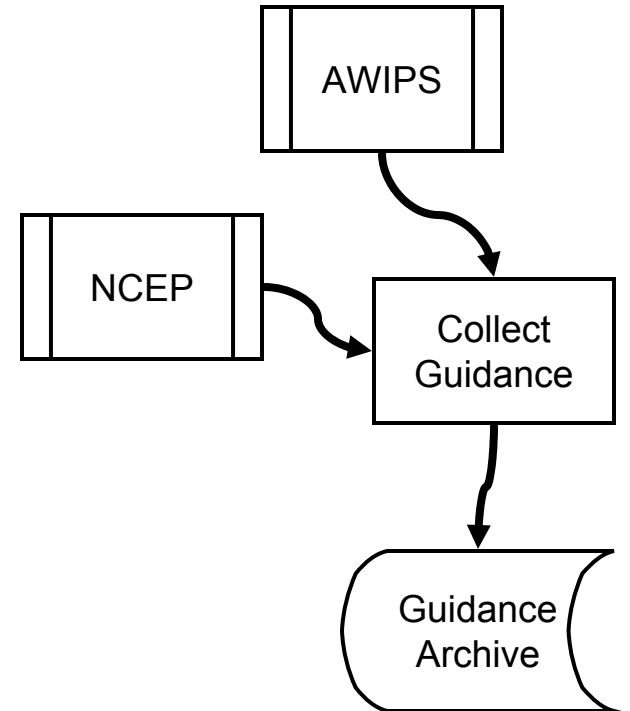
- Generate guidance TAFs that can be readily used by forecasters and pilots.
- Maximize code reuse.
 - Use existing techniques from AvnFPS.
 - Build new components that can be readily reused in AvnFPS.
- Leverage existing NWS TAF verification techniques.

Guidance TAF Data Flow



Guidance Archive

- Format for archive
- Guidance to be collected
- Collection techniques



Format for Archive

- Similar to AWIPS operational datasets.
 - Compressed NetCDF files.
 - Filenames based on forecast cycle.
 - Directory tree based on year and guidance source.

```
/usr/project/avnfps/guidance/  
  NGMLAMP/  
    2004/  
      20041104_0200.gz  
      20041104_0500.gz  
      20041104_0800.gz  
      ...  
  AVNMOS/  
    2004/  
      20041103_1200.gz  
      20041103_1800.gz  
      20041104_0000.gz  
      ...  
    2005/  
      ...
```

Collect NGM LAMP

- First guidance to collect and use for generating guidance TAFs.
 - Scientifically dated
 - Complete element set
 - Hourly resolution
 - Similarities to GFS LAMP
- ASCII file transfer
 - Generate files on NCEP system using existing TDLFS-to-ASCII dump utility.
 - Files transferred to MDL hosts.
- ASCII converted to netCDF for archive.