

# Generate Effective TAF From Digital Data

Bailing Li

# Digital Data Sources

- Models and guidance
  - At grids or stations
  - 3-h resolution
  - Categorical data
  - Missing certain forecast elements
- Archived climatology data
  - At stations
  - 1-h resolution
  - 30 year data

# TAF Generator

- Generate TAFs on any given data, regardless resolutions and incomplete element sets.
- Use the 'practical' effective TAF approach

# The "Practically" Perfect TAF approach

- Based on the training module of 'Writing Effective TAFs' at [ucar.edu](http://ucar.edu). Major steps:
  1. Identify the flight categories first
  2. Add specific ceiling and visibility details for first 6 hours only (the critical TAF period).
  3. Limit the use of TEMPO groups to the first 6 hours and avoid the use of PROB groups.
  4. Review for consistency and make sure you have addressed the expected flight category changes.

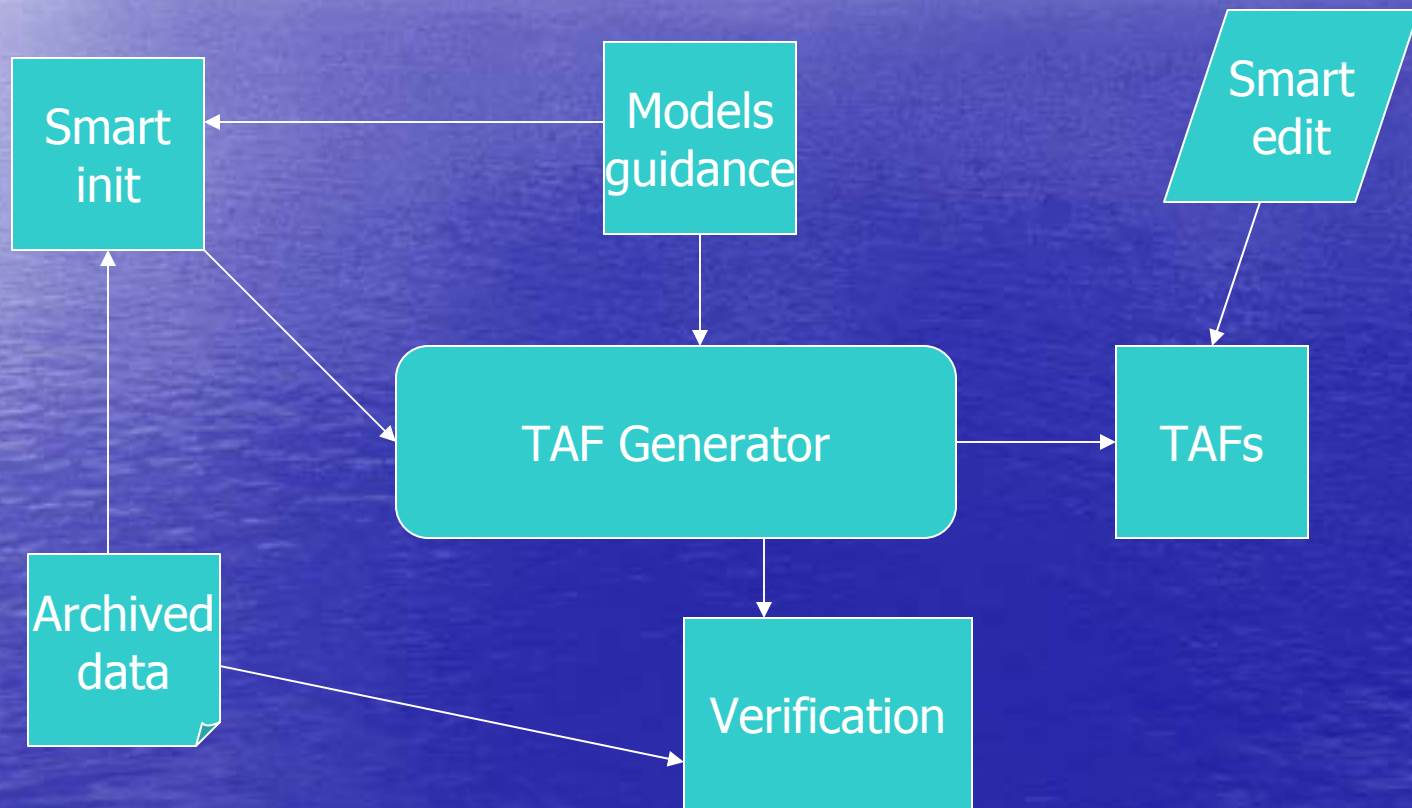
# Smart init and editing tools

- These tools prepare data for the TAF generator or edit any existing TAF
- Smart init (prepare data for TAF generator)
  - derive finer resolution data
  - Combine models and latest METAR
  - Fill in any missing elements:
    - Combine two models
    - Use conditional climatology
    - Fuzzy logic and all other s.....
- Smart editing:
  - Merge or blend TAFs from different sources

# Algorithm Verification

- use the archived data and TAF generator to verify data initialization algorithms
- Only verify TAF elements

# The generator and others



# How to fit in avnfps

- Smart init tools will be put in the lower pane of the TAF editor where models and MOS are shown.
- TAF generator can be set up as a button in the lower pane as well. The generator will generate TAF from the next hour or any time period where it is highlighted.
- Smart editing tools can be included in the current tools' draw down menu. But the TAFs need to be labeled for different data sources. A smart blending tool would look like the model blending bar in Slider.



# continued

- Can do something like in GFE where you can highlight the grids and do interpolation.