Global leadership in aviation research-to-operations (R2O), operations-to-research (O2R), and forecasting

Collaboration with other testbeds, laboratories, and the FAA Aviation Weather Research Program (AWRP)
AWT Ensemble Work

High Resolution Ensembles (F00-F36)
- HREF and HRRRE have been evaluated in AWT
- Support Graphical Forecasts for Aviation enhancements
- NWS Evolve DAS Initiative
  - Require native vertical resolution 3D-cloud fraction from individual members on operational WCOSS
  - Flight Category (VFR, MVFR, IFR, LIFR)
  - TAF Board
- Traffic Flow Management Convective Forecasts (TCF) and Extended TCF enhancements
  - Echo Tops, VIL, Composite Reflectivity
  - Lean on SPC/HWT expertise with CAMs

Global Resolution Ensembles (through F240)
- Probabilistic Turbulence, Probabilistic Icing, and Global Convection
- GEFS and NAEFS are currently being evaluated in AWT
AWT Ensemble Work

High Resolution Ensembles (F00-F87)
● Support current and future decision support tools
  ○ Expand forecast valid time horizon for Graphical Forecasts for Aviation, and Digital Aviation Services, etc.
  ○ Maintain and upgrade capability of operational Aviation Winter Weather Dashboard, Extended Traffic Flow Management Convective Forecast (TCF) and extended TCF products
    ■ Increasing emphasis on communication hazards at an extended range (48-96 hrs)
    ■ Currently use SREF to F87
Global Resolution Ensembles (through day 12)
- Probabilistic Turbulence, Probabilistic Icing, and Global Convection
- Explore assorted decision support tools to be evaluated in AWT in collaboration with FAA

WAFC
- GEFS and MOGREPS blending of aviation en-route variables
  - Limited spread in early forecast hours still a concern
  - Potential for multi-ensemble