The COMET Program

Lee-ann Simpson** & **Frank Brody
The COMET Program

April, 2025

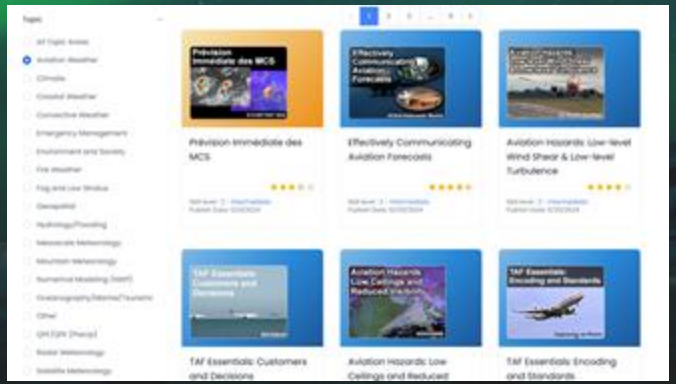
Brief Overview

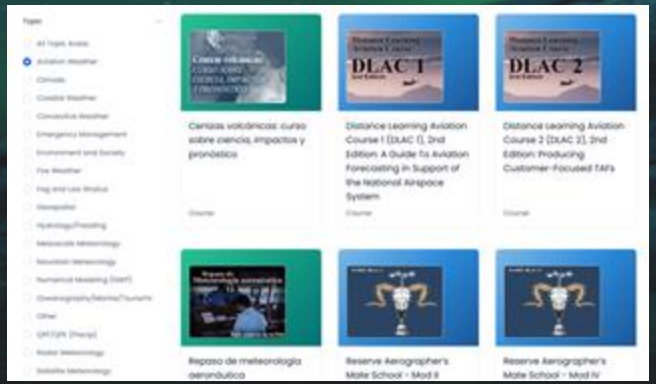
1. COMET’s aviation program
2. Meted courses and lessons
3. Updated DLAC course
4. Looking ahead

Aviation at COMET

1. “West Coast Fog” was published in September 2000
2. 73 aviation-focussed lessons published (excluding translated material)
3. Respond to requests for training material
    a. Program manager
    b. Project leads
    c. Instructional designers
    d. Media development group
    e. Subject matter experts

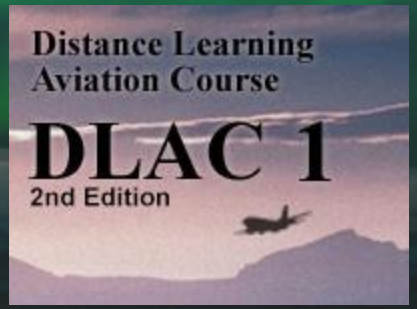
www.meted.ucar.edu

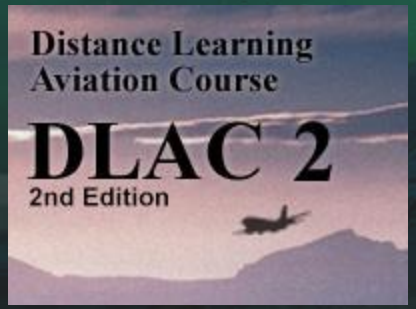




What is Available on Meted?

- 10 Aviation lesson published online since 2023 (excluding translated lessons)
- 2 Distance Learning Aviation **Course** (DLAC) Updates
  - DLAC 1: A Guide To Aviation Forecasting in Support of the National Airspace System
    - Updates started in 2020
    - 2 new TAF lessons
  - DLAC 2: Producing Customer-Focused TAFs
    - Older course

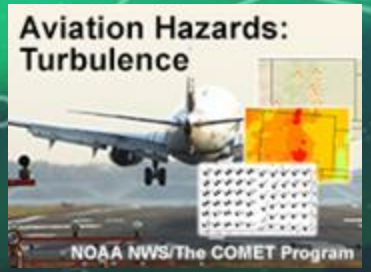




DLAC 1: A Guide To Aviation Forecasting in Support of the National Airspace System

5 Foundation Lessons

6 Weather Hazard Lessons



What is your current experience with the DLAC 1 Updated lessons

This is the first time I have heard about the DLAC courses

0%

I have heard about the DLAC course but I have never taken any of the lessons

0%

I have enrolled in the course and taken a few of the lessons

0%

DLAC 1: A Guide To Aviation Forecasting in Support of the National Airspace System

1. Primary Audience = Aviation forecasters
    a. NWS Aviation Meteorologist Training and Competencies Instruction Directive (NWSI 10-185) mandatory training
2. Secondary Audience = Aviation operations, weather-aware persons, undergraduate and graduate students in meteorology or atmospheric science
3. 12 -15 hours to complete all 11 lessons
4. “Foundation” lessons are prerequisite knowledge for the “Hazard” lessons

- Broad understanding of the NWS aviation program structure and functions
- Focus on roles and responsibilities of operational units providing aviation forecasts and decision support.

The methodology used is that of a Jeopardy-style game
https://www.meted.ucar.edu/education_training/lessons/10067

- Provides foundational knowledge about a select list of tools and observations
- Information about how tools can best be used within the aviation space.
- Topics covered include: METARs, PIREPs, satellite imagery, Multi-Radar Multi-Sensor (MRMS) system, and the Offshore Precipitation Capability.

https://www.meted.ucar.edu/education_training/lessons/10043

- TAFs are a critical product in decision making and flight planning for all aircraft movement and safety.
- All TAFs must be prepared, issued and distributed according to the requirements of the FAA and ICAO

https://www.meted.ucar.edu/education_training/lessons/10114

- Provides foundational knowledge about a select list of analysis and forecast tools
- Information about how tools can best be used within the aviation space.

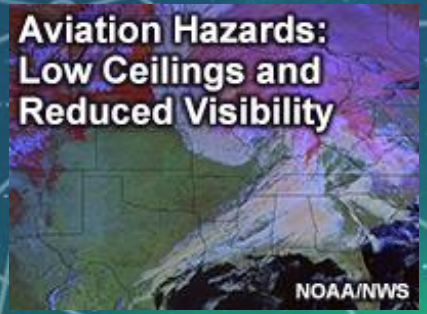
https://www.meted.ucar.edu/education_training/lessons/10164

- Introduces aviation forecasters to how to interpret, encode and issue Terminal Aerodrome Forecasts (TAFs)

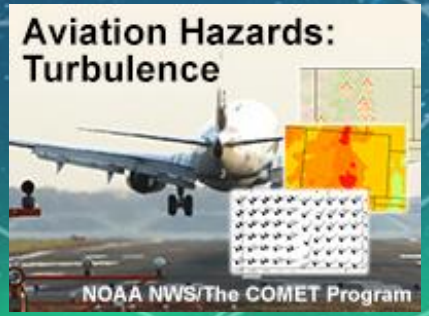
https://www.meted.ucar.edu/education_training/lessons/10238

DLAC 1: Weather Hazards

https://www.meted.ucar.edu/education_training/lessons/10180



https://www.meted.ucar.edu/education_training/lessons/10183



https://www.meted.ucar.edu/education_training/lessons/10181

https://www.meted.ucar.edu/education_training/lessons/10185

https://www.meted.ucar.edu/education_training/lessons/10182

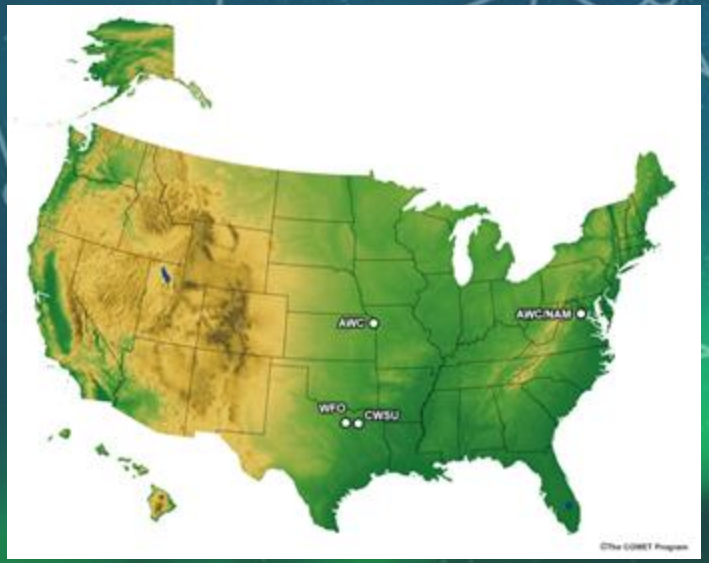
- Assess a real forecast situation
- Apply knowledge of observations and forecast tools to follow the forecast products through the communication chain.

DLAC 1: Weather Hazards Continued

https://www.meted.ucar.edu/education_training/lessons/10184

- Explore the definitions of LLWS and LLT, the differences between their impacts, and analyze, interpret, and forecast both.

Lesson Demonstration: Hazards



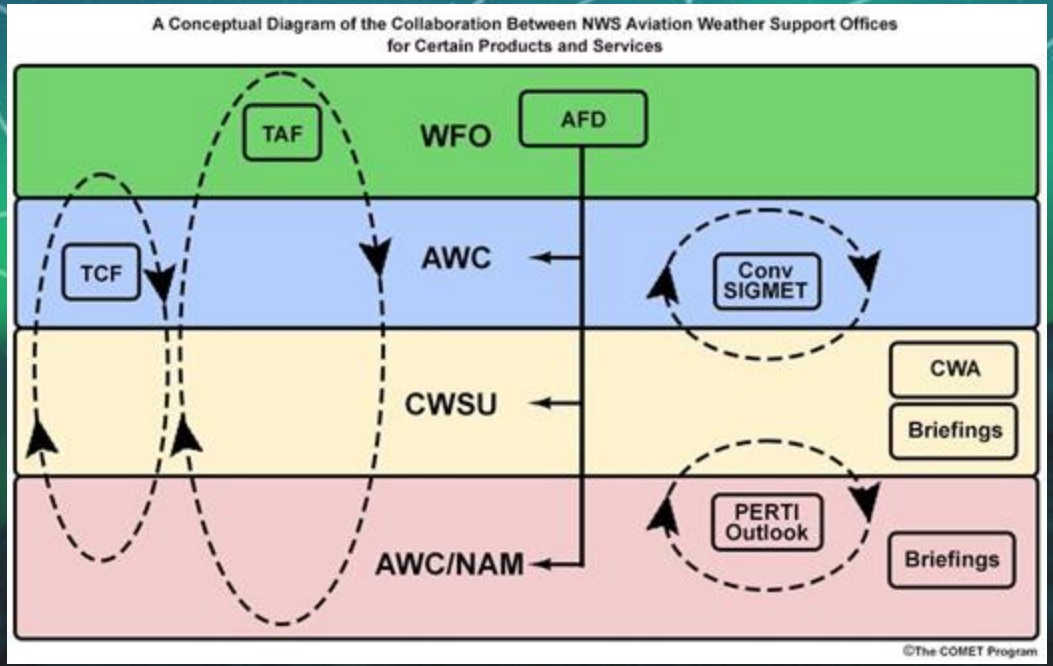
Overview & Challenge

Tools and Processes

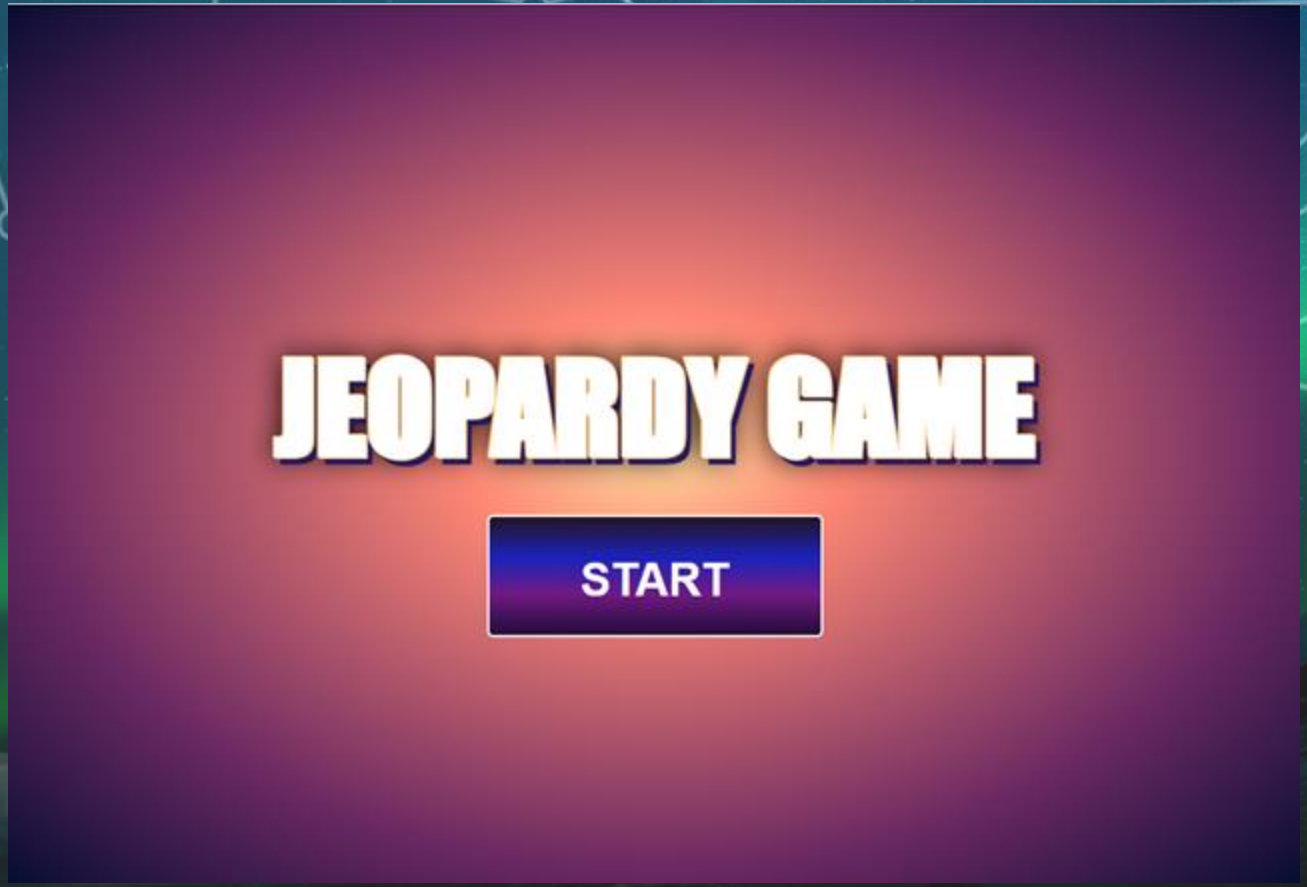
Impacts Exercise

Wrap-up

Impacts Exercise



Lesson Demonstration: Structure of the NWS Aviation Program



Jeopardy

Key Takeaways

1. The “TAF Essentials” lessons include how to encode and create a TAF and understanding user needs.
2. Understanding the NAS and FAA operations is essential for aviation forecasters
3. Each of the “Hazards” lessons puts the learner in the role of a forecaster, to simulate operational duties and processes.
4. Key outcomes of all lessons include the importance of **collaboration** and **coordination**.
5. Critical to understand user needs and decision making methods and timelines.
6. Each lesson includes recent case studies, relevant datasets and applicable software visualization to add to the reality of the workplace.

DLAC 2: Producing Customer-Focused TAFs

5 Core Topics

DLAC 2 helps aviation forecasters practice writing clear, concise TAFs that convey relevant hazards to aviation forecast customers.

DLAC 2 lessons focus on issues such as:

- How TAFs impact aviation forecast customers
- The importance of effective communication between the forecaster and customers
- The need for collaboration and coordination with other offices issuing aviation forecasts, and,
- How to create TAFs that maximize the usefulness of NWS forecasts to the customer

DLAC 2: Producing Customer-Focused TAFs

1. Primary Audience = Aviation forecasters
2. 10 -13 hours to complete all 5 lessons
3. Slightly older lessons but still applicable

DLAC 2 helps aviation forecasters practice writing clear, concise TAFs that convey relevant hazards to aviation forecast customers.

DLAC 2 lessons focus on issues such as:

- How TAFs impact aviation forecast customers
- The importance of effective communication between the forecaster and customers
- The need for collaboration and coordination with other offices issuing aviation forecasts, and,
- How to create TAFs that maximize the usefulness of NWS forecasts to the customer

Which aviation topics would you like to see addressed in future COMET offerings?

Nobody has responded yet.

Hang tight! Responses are coming in.

Looking Ahead

1. Continue to provide the aviation weather community with effective, interactive and engaging training solutions
   a. Online
   b. Hybrid
   c. In person
2. Include non-meteorologist aviation users and partners in training solutions

3-Question Survey

Contact Us

1. www.meted.ucar.edu for the online catalogue of lessons
2. Email lsimpson@ucar.edu or fcbrody@ucar.edu for ideas and questions