FAA
Portfolio Management & Technology Development Office
Aviation Weather Division

Aviation Weather Research Program
Clouds, Cloud Ceiling, and Visibility (C&V) Technical Exchange Meeting

Wednesday, July 13, 2022
National Center for Atmospheric Research
NCAR / UCAR - Center Green Campus – CG1 South Auditorium
3090 Center Green Dr. Boulder, CO 80301

This meeting will be held in-person and virtually through Zoom. In-person participants must register to attend.

Zoom Information: https://us02web.zoom.us/j/85351278686

Register Today (required for in-person attendance) at https://ral.ucar.edu/events/2022/aviation-weather-technical-exchange-meeting

All times listed are Mountain Time (MT).

8:00-10:00 Panel on Importance of C&V for Aviation

8:00 Welcome – **Jenny Colavito**, FAA

Virtual **8:10** Importance of C&V for aviation – **Don Eick**, National Transportation Safety Board (NTSB)

8:30 Panel Introductions

Panel Members will introduce themselves and briefly describe their role related to C&V and aviation (5-minute limit).

Tom George, Alaska Regional Manager, Aircraft Owners & Pilots Association
Matt Johnson, Check Airman, Instructor & Weather Focal Point, Metro Aviation Incorporated
Virtual **Nathan Polderman**, Senior Manager for Meteorology and Dispatch Operations, United Airlines
Virtual **Don Berchoff,** CEO Truweather Solutions
Virtual **Ken Venzke,** Meteorologist In Charge, Oakland California Air Route Traffic Control Center (ZOA), Center Weather Service Unit (CWSU), National Weather Service (NWS)
Virtual **Don Eick,** NTSB Accident Investigator

9:00-10:00 Panel question & answer session led by **Jenny Colavito**, FAA

10:00-10:15 Break

10:15-12:00 Use of Satellites

Speakers will give 15-minute presentations followed by 5 minutes for questions.

10:15 Overview of Cooperative Institute for Research in the Atmosphere (CIRA) satellite research with focus on cloud & aerosol topics related to aviation and visibility – **Steve Miller**, Colorado State University

10:35 Satellite-based 3D cloud structure and interactions with aviation users – **Yoo-Jeong Noh,** Colorado State University

Virtual **10:55** Satellite cloud mask – **Michael Foster,** University of Wisconsin - Madison

11:15 Mini Break (5 minutes)

Virtual **11:20** Aviation Weather Center (AWC) use of satellite cloud data – **Ty Higginbotham**, Colorado State University

11:40 LAMP Developments: use of satellite data for improving LAMP between the stations – **Allison Layne**, NWS Meteorological Development Laboratory (MDL)

12:00-1:15 Lunch

1:15-2:15 Use of Surface Observation:

Speakers will give 15-minute presentations followed by 5 minutes for questions

1:15 Overview of Visibility Estimation through Image Analytics (VEIA) on FAA Weather Camera website, operational transition process, and what's coming next – **Michael Matthews**, Massachusetts Institute of Technology, Lincoln Laboratory

1:35 Overview of FOGMAP: Using targeted observations with UAS to improve local fog predictions – **James Pinto**, NCAR

1:55 Ceilometer backscatter profile use for C&V – **Josh Lave**, NCAR

2:15 Mini Break (5 minutes)

2:20-3:20 Display of C&V for Users:

Speakers will give 15-minute presentations followed by 5 minutes for questions

Virtual **2:20** Cloud layers and the presentation of C&V info to users – **Austin Cross and Rob Hepper**, AWC

2:40 LAMP prototype displays for the onset and cessation of flight categories – **Andrew Kochenash and Judy Ghirardelli**, MDL

3:00 Weather Technology in the Cockpit (WTIC) – **Gary Pokodner**, FAA

3:20-3:35 Break

3:35-4:35 Improving Models for C&V

Speakers will give 15-minute presentations followed by 5 minutes for questions

Virtual **3:35** 3D Real Time Mesoscale Analysis (RTMA) – **Manuel Pondeca**, NWS Environmental Modeling Center (EMC)

Virtual **3:55** Cloud assimilation and representation in the Rapid Refresh Forecast System (RRFS) and 3DRTMA – **Terra Ladwig**, NOAA Global Systems Laboratory (GSL)

4:15 Increasing the temporal resolution of LAMP C&V – **Phil Shafer**, MDL

4:35 Mini Break (5 minutes)

4:40-5:00 Wrap-Up