

Factual Report – Attachment 20

Trip Summary

METEOROLOGY

WPR18FA073

Date: July 9-11, 2018
Location: Boulder, Colorado
Present: Paul Suffern – National Transportation Safety Board (NTSB); Scott Birch – National Weather Service (NWS); Andrea Smith – Cooperative Program for Operational Meteorology, Education, and Training/University Corporation for Atmospheric Research (COMET/UCAR); Tim Alberta – COMET/UCAR; and FAA Aviation Weather Research Program (AWRP) meeting
Investigator: Paul Suffern

During the investigative trip to Boulder, Colorado, the meteorology group ascertained the following during meetings with COMET and the AWRP meetings:

On July 9, the meteorology group had a meeting with 2 individuals from COMET who are in charge of developing aviation related training courses. During the meetings, the individuals from COMET mentioned that COMET had developed over 800 hours of education material including weather related topics all over the world and about 40 percent of the COMET users are from universities. COMET, through NWS funding, is currently updating old aviation weather training. They are updating the “Forecasting Mountain Wave Course” and the “Volcanic Ash Course”. It is anticipated that COMET will receive funding to update the Distance Learning Aviation Course (DLAC) this upcoming year and with that funding COMET plans to update the DLAC material to include Geostationary Operational Environmental Satellite (GOES)-16 cases and datasets. Some of the courses anticipated to be updated include courses on clear-air turbulence, enroute icing, and mountain wave turbulence. As discussed during the meeting on July 9th, the NWS uses an aviation professional development series (PDS)¹ to keep the NWS forecasters (including Aviation Weather Center, AWC, and Center Weather Service Unit, CWSU, forecasters) updated and trained on the latest aviation weather technological and educational advances. The NWS keeps the aviation PDS organized into many professional competency units (PCU)s which allow for specific instruction on different aviation topics.² The aviation related PCUs are currently in a simplification and review process. It was discussed that the factual data from NTSB related enroute icing cases with GOES-16 data would be valuable for the new or updated aviation related COMET courses, especially with the new datasets and imagery available on GOES-16. No current COMET or NWS related training with GOES-16 data includes material on enroute icing.³

During the FAA AWRP meetings on July 10 and 11, many individuals discussed the latest GOES-16 and other satellite and weather related research. The satellite and weather related material included many topics and points of discussion including, the FAA doing risk assessment and trying to provide better guidance for airport ramp closures due to lightning at airports, which includes trying to find best mix of safety and efficiency in the national airspace (NAS). The offshore prediction capability (OPC)⁴ developed by FAA is now using GOES-16 data as input. The FAA is working on helping mountain west regions (in the United States) and areas with worse WSR-88D radar coverage to be able to use OPC as a supplemental dataset. The developers of the Current

¹ <https://training.weather.gov/aviationPDS.php>

² <https://training.weather.gov/aviationPDS.php>

³ COMET MetEd and NWS course material reviewed through July 2018

⁴ https://www.faa.gov/nextgen/news_reports/opc/

Icing Potential (CIP) and Forecast Icing Potential (FIP) products⁵, which are currently only available in the contiguous United States, are working on developing similar CIP and FIP products for an Alaska specific region. These Alaska specific CIP and FIP like products are currently in a trial period at the Alaska Aviation Weather Unit (AAWU). Some discussion took place on the FAA's ICICLE (the In-Cloud ICing and Large-drop Experiment) project in which the field phase of the project is scheduled to begin in early 2019.⁶

⁵ <https://aviationweather.gov/icing/fip>

⁶ <https://ams.confex.com/ams/98Annual/webprogram/Paper335322.html>