FAA REDAC Subcommittee on Environment and Energy

Findings and Recommendations

March 2022

E&E REDAC Subcommittee

- March 22 – 23, 2022 Fifth Virtual Meeting because of COVID-19
- Updates on major research components of the AEE's R&D Portfolio
- Successes realized locally and on the international front, directly linked to research that was completed by AEE
- Overview: **The current administration has made a commitment on Climate Change; Issued Executive Order 14008 on Tackling the Climate Crisis;** The AEE team produced outstanding updates/presentations. They are doing a very good job maintaining a balanced portfolio; Sustainable Aviation Fuels; Public Private Partnerships; FAA's global impact at ICAO CAEP; Noise threat;
  - Advance the development and deployment of SAR
  - Maintaining Global Leadership position at ICAO CAEP very important to U.S. mission.
  - Public Private Partnership programs are very important to achieving new U.S. goals.
  - Noise an ongoing threat to growth of U.S. Aviation.
  - Of note:
    - A number of new research programs added to address concerns of noise and new entrants (Commercial Subsonic, UAM/UAS; Supersonic Civil and Commercial space vehicles).
    - Collaboration between FAA and NASA is critical for success.

E&E Findings & Recommendations (1)

- The increase in productivity and deployment of Sustainable Aviation fuels (SAFs) has been identified as a critical component of the Administrations industry's emissions reduction strategy and must be developed if we are to get to their carbon neutral growth goals after 2020 and their emissions reduction goals in 2050. The establishment of the Sustainable Aviation Fuel Grand Challenge will ensure that the U.S. Government and the private sector are working together. This research has helped with the creation of a number of companies that have the potential to benefit the rural economies of several states and the U.S. Aviation industry. Recent support from a number of agencies, including the DOE will support SAF production.

- The Subcommittee agrees with the mandate proposed by the current administration that the work on Sustainable Aviation Fuels is a critical component for the reduction of aviation sector emissions. The FAA should maintain a leadership role in the development of SAFs to ensure that the rules to be considered will be beneficial to the U.S. industry. Since the maturation of the Alternative Jet Fuel program will be a major environmental benefit for the public, will create a new industry within the U.S. that benefits rural America, and will benefit the U.S. aviation industry, we strongly recommend that the FAA AEE use the increased funding from this administration to accelerate the research on SAF's.

E&E Findings & Recommendations (2)

- In order to accomplish the goals of this current administration, there will be an increased need to rely on the Public Private Partnerships that currently exist and the establishment of new partnerships. The leadership team at AEE has used their budgeted funds to conduct and coordinate the research necessary to produce informed, data driven policies, facilitate technological advances in the aviation industry and to produce models and data that have positioned the U.S. as both a State leader at ICAO CAEP and on the global aviation stage. The execution of this research portfolio has been accomplished by working collaboratively with private industry, major universities through the ASCENT Center of Excellence, other Federal Departments and Foreign Governments. The benefits of these partnerships has clearly been proven over time and is very apparent in most of the current projects. These partnerships have benefited universities, students and local economies through the creation of new industries.

- The Subcommittee continues to endorse Public Private Partnerships like the CLEEN, CAAFI and ASCENT programs to leverage resources and recommends that FAA continue to allocate robust funding for these programs. AEE should utilize additional federal funding to enhance and accelerate existing research to best address the federal mandates.

E&E Findings and Recommendations (3)

- This Administration had indicated its plan to maintain its leadership role at ICAO CAEP. The FAA AEE currently enjoys a leadership role in ICAO CAEP and has been the driving force behind the push for data driven rule making. Maintaining the U.S. global leadership position at ICAO CAEP is essential and advantageous to the U.S. aviation industry. Anything that jeopardizes ongoing research at AEE will impact the FAA/U.S. global leadership position at ICAO CAEP.

- The Subcommittee recommends the continuing strong support of all research efforts/programs that will allow the FAA and the U.S. to maintain its current global leadership position at ICAO CAEP. It is our belief that if the FAA/U.S. does not maintain its leadership position at ICAO CAEP it will not be able to influence policy/rulemaking and this could have a significant negative impact on the U.S. aviation industry. The Subcommittee continues to endorse the robust funding of Public Private Partnerships like CLEEN, CAAFI and ASCENT that leverage scares resources. The Subcommittee believes that the close collaboration between NASA and the FAA is invaluable.

E&E Findings and Recommendations (4)

- Aviation noise continues to be an issue that requires ongoing research. The Subcommittee realizes that there have been many improvements in technology that have resulted in more fuel efficient and quieter aircraft. We have learned a lot from the results of many research projects and there are a number of new research projects that have been added to address issues related to new entrants into the aviation system. There also have been significant upgrades made to the Aviation Environmental Design Tool (AEDT). FAA has also gathered additional noise information from recently completed noise surveys involving 20 airports.

- The Subcommittee strongly supports the prioritization of the noise research that will support informed decision-making, the introduction of new entrants to the national air space, and enable NextGen deployment.