

FAA REDAC Subcommittee on Environment and Energy

Findings and Recommendations
September 2020

E&E REDAC Subcommittee

- September 16 – 17, 2020 Second 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: Despite the challenges associated with the pandemic, the AEE team produced outstanding updates/presentations. They are doing a very good job maintaining a balanced portfolio; FAA's global impact at ICAO CAEP; Public Private Partnerships; Sustainable Aviation Fuels; Noise threat;
 - Maintaining Global Leadership position at ICAO CAEP still very important.
 - Public Private Partnership programs are very important to maintaining research efforts during this pandemic.
 - Noise still viewed as a 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).
 - Very happy to learn about the filling of vacant AEE positions.
 - Collaboration between FAA and NASA is critical for success.

E&E Findings & Recommendations (1)

- It is evident that the FAA AEE currently maintains 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 scarce resources. The Subcommittee believes that the close collaboration between NASA and the FAA is invaluable.

E&E Findings & Recommendations (2)

- 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. The maturation of new technologies has delivered improved environmental performance and has enabled aviation system growth and associated positive economic impacts.
- The Subcommittee continues to endorse Public Private Partnerships like the CLEEN, CAAFI and ASCENT programs to leverage resources and recommends that FAA should continue to allocate robust funding for these programs.

E&E Findings and Recommendations (3)

- Significant gains have been realized in the Alternative Jet Fuel (AJF) Program (including efforts in the Commercial Aviation Alternative Fuels Initiative (CAAIFI), CLEEN and ASCENT). Sustainable Aviation fuels (SAFs) are a critical component of the industry's emissions reduction strategy and must be developed if industry is to get to their carbon neutral growth goals after 2020 and their emissions reduction goals in 2050. 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 believes that the work on Sustainable Aviation Fuels is critical to the U.S. industry and 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 continues to allocate funds for the continuation of research on SAFs.

E&E Findings and Recommendations (4)

- Aviation noise continues to be an issue that requires ongoing research. The Subcommittee realizes that there is much research that is still necessary to address the ongoing topic of aviation noise. 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 launched an initiative to partner with airports to gather more noise data resulting from noise complaints.
- 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.