

Project: Federal Aviation Administration/Center of Excellence for General Rural Aviation

Executive Summary

The economic benefits that air transportation provides to rural communities is almost certainly underestimated due to the overwhelming qualitative benefits that include improved quality of life & health care and effective response to fires, disasters and emergencies. Currently no FAA Center of Excellence exists to address integrated solutions to rural aviation challenges, no FAA COE exists in Montana, Wyoming, Colorado, New Mexico and Nevada, and finally, no center integrates surface and air transportation solutions.

Background

According to the Western Governors Association, the West will add 42 million more people by 2030 with some of the fastest population growth expected to occur in Nevada, New Mexico, Idaho, Utah, Wyoming and Montana. These states are predominantly rural and face unique challenges, but “civil aviation has enabled small community and rural populations to enter the mainstream of global commerce by linking such communities with worldwide population, manufacturing, and cultural centers.” A 2003 study in New Mexico found the state’s 61 public-use airports produced \$2.3 billion in economic activity and a study of rural airports in the state of Washington found them essential to the health, safety and economic well being of the residents as well as critical for economic development.

The Western Transportation Institute at Montana State University is a national University Transportation Center (UTC) focused on multi-disciplinary solutions to rural transportation issues. By integrating surface transportation research and applications with the needs of the airspace system through the formation of a COE at MSU, WTI can become the first center to holistically and specifically address rural air *and* surface transportation challenges, including multimodal connections in rural areas.

WTI is nationally recognized for research in rural Intelligent Transportation Systems (ITS) applications, wildlife collision mitigation, winter maintenance, corrosion, etc all of which offer tremendous potential to rural airports. The multi-disciplinary and integrated nature of WTI’s approach to systems engineering ensures WTI will be able to provide the FAA with fully implementable solutions. WTI’s advanced laboratories, including the Corrosion and Sustainable Infrastructure Laboratory, the Systems Engineering Development and Integration Laboratory, and the TRANSCEND facility located at an active rural Essential Air Service airport in Montana, can be leveraged in its efforts to advance rural aviation.

The proposed FAA COE for General Rural Aviation at WTI would:

- Identify problems and research solutions for safe and efficient O&M of rural airports.
- Expand the current WTI education program of support for undergraduate and graduate students to include aviation in an effort to provide rural communities with well-rounded employees.
- Expand the current technology transfer activities at WTI to ensure aviation research is disseminated and implemented.
- Foster partnerships with other universities, agencies, and industry with the goal of becoming self-sufficient with respect to funding and foster better cooperation and integration between UTCs and COEs and avoid duplication of research, education, and technology transfer efforts.

Congressional Action Needed: Establish a Center of Excellence for General Rural Aviation at Montana State University Western Transportation Institute and provide funds in the amount of \$4 million over 4 years to support research, education, technology transfer, and administration activities.

Importance to Montana: The state of Montana has the most (8) airports in the continental US with Essential Air Service, is one of the lowest-ranking with respect to passenger departures, and ranks as the fourth highest for one-way fares, but is still representative of many regional rural states. COE activities at WTI would directly benefit aviation in Montana in addition to other rural states.

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Talking Points

- The economic benefits of air transportation within rural communities is almost certainly underestimated due to the overwhelming qualitative benefits that include improved quality of life & health care and effective response to fires, disasters and emergencies.
- No FAA Center of Excellence exists to address integrated solutions to rural aviation challenges
- No FAA COE exists in Montana, Wyoming, Colorado, New Mexico and Nevada, where significant population growth is expected
- The establishment of a FAA COE for General Rural Aviation at WTI will foster better cooperation and integration of COE and UTC efforts, both of which integrate research, education, and technology transfer activities.
- The integration of weather information into decision-making (a JPDO R&D need for NextGen) and intelligent transportation systems currently operational in surface transportation systems can be adapted to improve the air transportation system. WTI is nationally recognized for ITS research and applications.
- The multi-disciplinary and integrated nature of WTI's approach to systems engineering ensures WTI will be able to provide the FAA with fully implementable solutions.