

Automated Flight Following System: Safety for Everyone

The Challenge

Following the flight of a project aircraft is an agency aviation policy and a safety discipline. It is a part of every flight mission. Until recently, this task was accomplished by a radio check every 15 minutes from the aircraft to a dispatcher who tracks the flight on a prepared map illustrating the flight routes and project site. The variable terrain found in the Northeast, from the Appalachian Mountain range to the Allegheny plateau to the Ohio Valley, is very challenging. Radio signals may not be consistent enough to follow the aircraft carefully.

In the event of an aircraft mishap, emergency resources are sent to the site upon location of the wreckage. However, an aircraft traveling 100-140 miles per hour can cover a lot of terrain in 15 minutes, and locating the aircraft can take beyond the "Golden Hour." A more effective way of flight following was needed.

The Solution

Automated flight following (AFF) is a result of advanced communication technology available and affordable to users, contractors, and governmental units using aircraft on special-use missions. The technology links the aircraft to a computerized tracking and communications system, via a satellite, on a computer screen in the dispatcher's office in real-time. This provides a dispatcher with the status of the flight and the location of the aircraft at all times. Satellite-supported voice communication systems provide the pilot or aerial observer with the ability to call the dispatcher or project personnel on the ground at any given time.

All Northeastern Area (NA) field offices have this advanced tracking technology. The application of AFF places all personnel affiliated with these special-use projects in a safer mode of operation in regard to ongoing tracking, communications, and safety.

Using a more efficient real-time communication and tracking system, safety is enhanced on all aviation missions in the Northeastern Area.



Preparing for its mission, the Air Tractor AT 400 turbo-prop owned and operated by Al's Aerial Spraying of Ovid, MI, will be monitored in flight by the automated flight following system. (Photo credit: Dan Zimmerman)

Resulting Benefits

The benefits of AFF can be measured on a scale from life to death. The ability of a dispatcher to track the project aircraft in real-time provides a greater opportunity to observe the flight, ensure the safety of the personnel onboard, and assist in any emergencies occurring during flight. The technology is affordable for small business aviation contractors and reduces the critical time needed to send emergency support.

Sharing Success

Success for applying AFF technology can be shared locally, regionally, and nationally. NA shares this success through the 3 field offices, all 20 of the states it serves, and the Eastern Region National Forests. All forest health management missions on all public and private lands use AFF technology and interface with the national contractor for flight following systems. This allows any aircraft used in the NA to be mobilized to another location within the United States and interface with a local AFF system in the area.



USDA Forest Service
Northeastern Area
State and Private Forestry

For more information, contact:

Kathryn P. Maloney, Area Director
11 Campus Blvd., Suite 200
Newtown Square, PA 19073
Phone: 610-557-4103
Email: kmaloney@fs.fed.us

Billy Terry, Assistant Director
11 Campus Blvd., Suite 200
Newtown Square, PA 19073
Phone: 610-557-4145
Email: bterry@fs.fed.us