



U.S. Department
of Transportation
**Federal Aviation
Administration**

Memorandum

Subject: ACTION: Review and Concurrence, Equivalent Level Of Safety for Federal Aviation Regulations (FAR) 23.677(a) ; ACE-00-03
Date: February 4, 2000

From: Manager, Airplane Certification Office, ASW-150
Reply to Attn. of: Cliff Meadows, (817) 222-5152

To: Manager, Project Support Section, ACE-112

Issue: Request for an equivalent level of safety finding to FAR Part 23.677(a) for the Air Tractor Inc. Model 602 airplane.

Background: Air Tractor Inc. is in the process of certifying a new Aileron Trim System on the Model AT-602. FAR 23.677(a) requires a means to indicate to the pilot the position of the trim device with respect to the range of adjustment. This normally is accomplished with an aileron trim indicator in the cockpit. An aileron position indicator is not provided.

Discussion: This installation is identical with the aileron electric trim system, which was approved by Equivalent Level Of Safety for Air Tractor Inc. Model AT-802/802A except that the 20911-5 and the 20914-6 pushrods are shorter due to the smaller aileron. Also the 20974-1 and 20981 brackets that stiffen the lower aileron skin are shorter than the similar parts used on the AT-802/802A. Therefore, the aileron control forces with the aileron trim tab fully deflected are well within the temporary limits for a stick control airplane (30 pounds) as presented in Snow Engineering Flight Test Report 1131. The final FAA approved Flight Manual would state in the Emergency Procedures Section to reduce airspeed to a maximum of 140 mph Indicated Air Speed (IAS) following a runaway aileron trim.

In view of the above, we recommend that the electric aileron trim system be approved without an aileron trim position in the cockpit and that an equivalent level of safety finding be granted.

For further information, please contact Mr. Cliff Meadows at (817) 222-5152.


for Michele M. Owsley

Concurrence:


Michael Dahl
Manager,
Standards Office, ACE-110


Michael Gallagher
Manager,
Small Airplane Directorate, ACE-100