

Title: Aviation Safety Inspector (ASI) Training for Technically Advanced Aircraft

Sponsor Organization: AFS

TCRG Lead: Michael Brown

Description of Requirements:

Recently, there has been an emergence of technically advanced (i.e., glass cockpit) aircraft (TAA) within general aviation. Aside from technical challenges presented by the design of these advanced avionics systems, there are difficulties in acquiring a conceptual understanding of the functions offered by the avionics, developing system monitoring skills and habits, developing mode management and awareness skills, understanding when and when not to use automation, and maintaining manual flying skills. Operating aircraft with advanced avionics requires an additional set of knowledge elements and skills. Currently, FAA aviation safety inspectors (ASIs) are required to inspect technically advanced aircraft, check certified flight instructors, and conduct surveillance of designated pilot examiners who are certifying pilots operating technically advanced aircraft. However, many of the aviation safety inspectors within the FAA workforce completed flight training prior to the entry of advanced avionics.

Background:

Technically advanced aircraft are becoming more prevalent in the General Aviation fleet. Recently, there has been an emergence of technically advanced aircraft, "glass cockpit", within general aviation. Aside from technical challenges presented by the design of these advanced avionics systems, there are difficulties in acquiring a conceptual understanding of the functions offered by the avionics. General Aviation ASIs need to be more knowledgeable of the capabilities, limitations, and the normal and emergency operating procedures in these aircraft so that they may safely and competently perform their inspection, checking, and surveillance function for general aviation operators who have these types of aircraft. ASW-260 has been tasked to develop a four day "Qualification Course for Technically Advanced Aircraft" and two-day "Evaluation Course for Technically Advanced Aircraft" for ASIs. The proposed Qualification course will be a total of four days of which two days will be ground school and 8 hours of flight instruction. The ground school syllabus will concentrate on automation given the advanced avionics of TAA. At the completion of the course, ASIs will be qualified to fly Cirrus aircraft. The two-day Evaluation course will instruct ASIs on how to evaluate pilots and DPEs who operate a TAA. The course will assist ASIs as to what are the minimal proficiency standards required to operate a TAA.

Output:

Identify the skills necessary for ASIs to inspect TAA, check certified flight instructors, and conduct surveillance of designated flight instructors who are certifying pilots operating these aircraft. Guidance will include: a) assess the operation of technically advanced aircraft under normal and emergency procedures; b) administer flight checks using the features of these aircraft; c) evaluate the display and control differences between various models of “glass cockpit” technologies.

Regulatory Link:

Part 61, Part 141, Part 142