

# Leadplane Training Lesson Plan

## TCAS

12-07-N9065-HO

### **Objective:**

To familiarize the student with the use of the TCAS during the leadplane mission (Phase 1).

To develop the student's proficiency with the TCAS during the leadplane mission (Phase 2).

### **Content:**

A traffic collision avoidance system or traffic alert and collision avoidance system (both abbreviated as TCAS) is an aircraft collision avoidance system designed to reduce the incidence of mid-air collisions between aircraft. It monitors the airspace around an aircraft for other aircraft equipped with a corresponding active transponder, independent of air traffic control, and warns pilots of the presence of other transponder-equipped aircraft which may present a threat of mid-air collision.

TCAS is a valuable tool during the leadplane mission and should be incorporated into a pilot scan. It should not replace heads out active scanning and see and avoid. TCAS can help to confirm the mental picture a leadplane pilot has of the aircraft within the FTA. The TCAS will not show aircraft without a transponder or aircraft that do not have their transponder on.

TCAS is helpful in confirming aircraft that are inbound to the FTA and is a valuable aid in determining distance during join ups. This is especially true when learning the sight picture for join ups. With the drastic size difference in tankers, determining distance can be deceiving.

During operations, a leadplane pilot should be familiar with zooming in and out on the TCAS and incorporating the TCAS into their scan.

### **Completion Standards:**

The lesson is complete when the student can demonstrate proficiency with the TCAS during the leadplane mission. Safety will never be in question and the use of the TCAS will be accomplished without the reliance on the evaluator.