

Leadplane Training Lesson Plan

Single Pilot Resource Management

04-02-N9065-HO

Objective:

To familiarize the student with single pilot resource management (Phase 1).

To develop the student's proficiency with single pilot resource management (Phase 2).

Content:

The FAA uses the 5P approach to single pilot CRM or single pilot resource management (SRM).

Single-pilot resource management is the art of managing all onboard and outside resources available to a pilot before and during a flight to help ensure a safe and successful outcome.

To get the greatest benefit from SRM, the pilot needs a practical framework for application in day-to-day flying. One such approach, the 5P's, involves regular evaluation of: Plan, Plane, Pilot, Passengers, and Programming.

Plan

The plan includes the basic elements of cross-country planning: weather, route, fuel, current publications, etc. The plan also includes all the events that surround the flight and allow the pilot to accomplish the mission. The pilot should review and update the plan at regular intervals in the flight, bearing in mind that any of the factors in the original plan can change at any time.

Plane

The plane includes the airframe, systems, and equipment, including avionics. The pilot should be proficient in the use of all installed equipment as well as familiar with the aircraft/equipment's performance characteristics and limitations.

Pilot

The pilot needs to pass the traditional "IMSAFE" checklist (see below). This part of the 5P process helps a pilot identify and mitigate physiological hazards at all stages of the flight.

Passengers

Normally there will not be a passenger during leadplane operations. At times there have been waivers for passengers to observe leadplane operations. There can be approved personnel during refresher training, and there are evaluators during initial training. Passenger needs — e.g., physiological discomfort, anxiety about the flight, or desire to reach the destination — can create potentially dangerous distractions. If the passenger is a pilot, it is also important to establish who is doing what.

Programming

The programming can refer to both panel-mounted and hand-held equipment. Today's electronic instrument displays, moving map navigators, and autopilots can reduce pilot workload and increase pilot situational awareness. However, the task of programming or operating both installed and handheld equipment (e.g., tablets) can create a serious distraction from other flight duties. This part of the 5P approach reminds the pilot to mitigate this risk by having a thorough understanding of the equipment long before takeoff, and by planning in advance when and where the programming for approaches, route changes, and airport information gathering should be accomplished, as well as times it should not be attempted.

I'M SAFE Checklist

Illness: Do I have any symptoms?

Medication: Have I been taking prescription or over-the-counter drugs?

Stress: Am I under psychological pressure from the job? Am I worried about financial matters, health problems, or family discord?

Alcohol: Have I been drinking within 8 hours?

Fatigue: Am I tired and not adequately rested?

Emotion: Am I emotionally upset?

During leadplane operations there is a high work load placed upon the pilot. Having an intimate understanding of the tasks associated with the leadplane mission is critical to reducing work load and the successful outcome of the mission. Like in all flying, it is imperative that the pilot think ahead of where the aircraft is presently and project into the future for possible upcoming tasks. It is easy for the pilot to get overloaded with tasks if the tasks are not taken care of in a timely manner.

The following are mission recommendations for SRM and reducing time on any one task.

Be able to program an FM radio frequency, tone, and band with no hesitation.

Know the checklists and perform them as early as practical.

Know the communication scripts, found in the NWCG SAS, and be able to perform them with no hesitation.

Be intimately knowledgeable in the use of the TCAS and GPS.

Practice brevity at all times. Communications is a large distractor from flying the aircraft and increases work load.

An organized knee board will aid in keeping track of resources.

Keep additional documentation within reach of the cockpit.

Completion Standards:

The lesson is complete when the student can demonstrate single pilot resource management in a training environment for Phase 1 and in a fire environment for Phase 2. Safety will never be in question and the SRM will be accomplished without the reliance on the evaluator.