

Interagency Aviation TECH BULLETIN



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SUBJECT: CHECKLIST DISCIPLINE

As long as you are involved in aviation, a recurring admonition you will hear regarding good flight discipline is "checklist, checklist, checklist!" Checklists provide a logical and standardized method of conducting efficient and safe flight operations. In addition to helping us properly prepare or configure an aircraft for a phase of flight, good, structured adherence to aircraft and procedural checklists also aids in other ways. It helps with workload management, transition to different aircraft, decision making processes, and the establishment of personal minimums.

The FAA states, "examiners shall place special emphasis upon areas of aircraft operations considered critical to flight safety. Among these are:checklist usage." In fact the word 'checklist' appears 76 times in the Instructor Practical Test Standards (PTS); 50 times in the private pilot PTS, 48 times in the Commercial PTS, 35 times in the ATP PTS, and 19 times in the instrument PTS. Think checklist discipline is important to the FAA?

Pick out any PTS and you will find, "Throughout the practical test, the applicant is evaluated on the use of an appropriate checklist. Proper use is dependent on the specific TASK being evaluated. The situation may be such that the use of the checklist, while accomplishing elements of an Objective, would be either unsafe or impractical, especially in a single-pilot operation. In this case, a review of the checklist after the elements have been accomplished would be appropriate. Division of attention and proper visual scanning should be considered when using a checklist." So, different situations require different approach to the checklist – how you use it.

There is more than one way to use a checklist. The "read-and-do" method is the method used in most military flight-training operations. The "do-and-verify" method is the option used by many airlines, and some pilots also read the next expected checklist as a "preview" of what is to come.

The "read-and-do" method is easy to start. Just read the step and do the action. It provides a sequenced order and immediate feedback. Excellent for learning, but sometimes slow and cumbersome – practitioners often 'graduate' to grouping and verifying.

The "do-and-verify" method requires the pilot to learn a flow pattern and then follow up with the checklist. While a bit harder initially, it provides two opportunities to confirm accomplishment of each checklist step. The "preview" method is reverse "do-and-verify." Read the whole checklist, and then do the items. While there are differences in opinion concerning which method is better, checklist discipline is the key to success.

Whichever checklist method a pilot chooses; actions should always be based on a specific sequence of written guidance. Why? Because the establishment of good procedures will help make a flight's progress and thus outcome "predictable." Each checklist is accomplished at a specific point during the flight sequence. After it is accomplished, that step of the flight is over and the pilot is led into the next (on a long flight cruise should be reviewed periodically to confirm all is in order). The checklist helps pace the pilot's workload and gives a good indication of the aircraft's status during each phase of flight as well.

While important during normal operations, maintaining good checklist discipline and following established flight procedures are essential when unexpected situations arise, our routine is broken, or a procedure is interrupted. Since we are creatures of habit, a disruption of our normal habits is an invitation to forget something. Without proper checklist discipline, the forgotten may not ever get done. Good checklist discipline provides a way to ensure that the forgotten gets remembered. When distracted, **GO TO THE CHECKLIST!**

What about immediate action items or 'boldface?' The pilot must memorize these checklist items and doesn't have time to reference the checklist before accomplishing them (maintaining aircraft control is critical so referencing the checklist would be an unwanted distraction). Referring to the checklist and ensuring completion after the fact is a vital part of checklist discipline. Many immediate action items are just the first steps in the checklist. Often there is more to do and the checklist will provide that guidance. Not only does it ensure the immediate action items were completed, it also gives the pilot the opportunity to finish the entire checklist.

Appropriate checklists are printed for each aircraft. These checklists are sequenced and provide guidance for each phase of flight. Use the written checklist for each phase of flight: preflight inspection, pre- departure, takeoff, climbout, cruise, pre-landing, after-landing (after clearing the runway!!!), engine shutdown and securing the aircraft. Even during emergencies, once the immediate-action items have been completed, review the written checklist to ensure you've taken care of everything. Bottom line.....

USE THE CHECKLIST!!! FLY SAFE!

This is reprinted with permission from the USAF Flight Training Centers – SAFETYGRAM (June 06). We could not have said it better.

/s/ Allen P. Rice

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