

Checklist? Flow? Or Memory?

Unintentionally, perhaps, most of us aren't using a formal checklist. Sure; we'll pull out the list of tasks found in the aircraft's AFM/POH for our walkaround, for engine-starting and for pre-takeoff checks. But after we're airborne, pulling out that binder and thumbing through it for recommendations from the manufacturer's legal team isn't the norm.

Even when the manufacturer's checklist is safely stowed, we might pull out a custom list, or one of the store-bought versions like the Check-Mate products pictured on the opposite page. Once we're airborne, we often rely on a flow check to verify things like cruise power settings or the mixture, or ensuring the aircraft is properly configured and ready to land.

"What about emergencies?" you ask. Well, they're sufficiently rare that you'll likely end up using a combination of memory items and a formal checklist. For example, if an engine begins to lose power, it shouldn't require a checklist to remember to switch tanks, turn on the boost pump, if any, adjust the throttle, mixture and prop controls, and activate carburetor heat or alternate air, as applicable.

Once those tasks are accomplished and verified, and presuming there's time, *then* pull out a formal checklist and run through it if the problem isn't resolved.

Other emergencies can demand use of a published checklist. A great example is an emergency landing gear-extension procedure: On some airplanes, if the steps aren't performed in the specified order, it may be impossible to extend the gear.

An example of an engine-out or engine-roughness flow is presented below, using an image of a G1000-equipped Cessna 172's panel. In this example, start with the magneto switch, then work right to alternate air, throttle and mixture. (Not pictured is the fuel selector, so we omitted that step, but you shouldn't.) Complete the process by scanning the instruments for proper fuel flow and to ensure the tanks have something in them. Those are the memory items, and once they're complete, then pull out the book.