



NATOPS
FLIGHT MANUAL
NAVY MODEL
UC-12B

Where's the Challenge?

by LtCol. Peyton DeHart

“Checklists are a crutch,” I heard when I first started flying. The seasoned fleet pilots thought checklists weren’t cool. You don’t need a checklist to start a car. Starting an aircraft just didn’t seem that hard, but I eventually concluded that each flight would contain enough mistakes without my piling on the errors of leaving something on or off that was supposed to be off or on.

“Challenge and response” was usually mandatory, but reading aloud to myself, especially when on a ground turn or test hop, felt better. The rhythm made it easier to detect the false note of unusual occurrence. In Cobras, each seat had a copy of the checklist somewhere. Not so in the C-12. For some reason, the community standard is that the rightseater jealously guards the one copy of the checklist in the cockpit. The leftseater doesn’t touch it. This is supposed to reinforce the concept of challenge-and-response.

After a month of flying the UC-12B, I found myself on the second leg of a cross-country. That wintry day, the freezing level was low and the overcast thick. We had descended through the clouds to make the fuel stop at the FBO, picking up some light rime ice on the way down.

Starting an aircraft just didn't seem that hard..

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attitude gyro had failed? Airspeed is a backup pitch indicator.

I started pushing the nose down, but the airspeed didn't come back. Nose down some more...

At this point, the situation distracted the pilot in command from his coffee. He glanced at the instrument panel, looked around, yelled, "Yipes!" and quickly reached under my yoke to turn the pitot heat on. Pitot heat is part of the Hot Five, part of every experienced C-12 pilot's habit pattern and an item on which I had been challenged. But there I was, in the klag, suffering the loss of my airspeed indicator because my pitot tube was rapidly icing its way completely closed. All because I hadn't responded correctly, and the checklist reader didn't recognize that I hadn't.

What's the fastest way to gain airspeed in a non-afterburner-equipped aircraft? Melt the ice in the pitot tube. We gained 50 knots in a second.

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Both Navy C-12 FRSs operate with two sets of normal and emergency checklists in the cockpit, which are available to both pilots. The UC-12B NATOPS chapter on crew coordination directs that the pilot flying (PF) is responsible for calling for checklists and that the pilot not flying (PNF) read the checklists. All checklists are challenge-and-reply.

NATOPS Section 29.1.1 also says that doing the checklist "is a disciplined procedure requiring that pilots know their aircraft and that they accomplish its configuration methodically..." NATOPS also says that the PF should initiate the check and that the PNF should read each item aloud with the appropriate pilot doing the action and responding as he completes it.—LCdr. Mike Rogers, NSC UC-12 analyst. 🇺🇸

Twenty minutes later, with a full tank of gas, we did the start checklist. We'd been through the items once already that day, so they sounded familiar. After a long string of words, we finally got to the lineup checks, which are the last things before going down the runway.

The right-seat guy, who had the checklist, concluded, "... and you'll get the Hot Five and lights while I get..." The "challenge" part of the drill was trying to remember all the stuff I was supposed to do in the new-to-me cockpit and remember what he said. I finished by setting the lights to the correct position and announcing that fact.

Power levers pushed to maximum torque, we accelerated down the runway, pulled the nose up, raised the gear, hit IFR at 1,000 feet, and again noted the light rime ice attaching itself to the leading edge of the wing. At 10,000 feet, the NATOPS climb speed changes from 155 to 135 knots. There, I raised the nose and saw the airspeed fall off as it should. But it didn't stop falling at 135 knots; it kept winding down. I checked engines. They were good. The airspeed gauge kept unwinding. Nose attitude looked correct, but we were actual IFR. What if the