



The WAA Newsletter

Cockpit Corner

My Cockpit Essentials

By Dan Shamir - WAA Board member

I don't own an airplane but my friend has an airplane. I get to fly his airplane. I like having friends with airplanes! That said, my friend's Cessna is not my dream airplane, but any airplane that you can borrow or rent for cheap that can get you safely into the sky and back is a wonderful thing. The airplane I get to use is a 1978 Cessna 172N model with an upgraded new 180hp new engine. The panel has a non-WAAS Garmin 530 GPS along with its standard 1978 panel furnishings and hasn't been upgraded yet for the 2020 ADS-B mandate but the airplane is IFR certified.

We live in an exciting time of technology when it comes to flying. Whether an airplane has had a full panel upgrade with touchscreen avionics or contains add-on



iPad mini on a Ram mount

equipment that can give you XM weather and ADS-B traffic in the cockpit on an iPad, we've come a long way from how a 40-year-old aircraft used to be flown when it came off the production line.

I began my GA flying at a time before there were iPads and inflight weather with traffic. There was definitely value to learning the basics without the aid of too much technology in the cockpit. I've since upgraded the equipment that I take along to use on almost every flight, which I consider my "cockpit essentials".

My first essential is my iPad mini. With my young kids and a tech-savvy wife in the family, we have just about every size, shape and age of iPads out there. I've tried flying with the 9.7 inch iPad Pro and even a mounted iPhone 6 on the yoke, but I have finally settled on the iPad Mini model as my ideal size. It feels just right in a smaller Cessna type cockpit. I prefer it mounted on the window with a ram mount, but its size makes it easy to use as a high-tech knee board or even to just keep loose in the side pocket to reference in cruise when needed. The screen is big enough to see things clearly without being too bulky or obtrusive and the cellular option that I opted to pay more for allows me to utilize the built-in GPS receiver. This gives me the ability to display my aircraft's position on top of a digital sectional map when I'm not using another GPS source.



The Stratus 2s by Appereco

My next essential is my subscription to ForeFlight. There are a bunch of great iPad apps for flying out there but I happen to love the functionality and ease of use that ForeFlight provides at a reasonable subscription price. I pay for the Pro Plus package which gives me the synthetic vision option among other features.

Next on the list is a Stratus 2S ADS-B receiver. When I first saw a demo of this product at Oshkosh AirVenture a few years ago, I was amazed and hooked. For those of you who don't know what the Stratus does, it is basically a portable attitude and heading reference (AHRS) unit

combined with a GPS receiver, ADS-B traffic and weather receiver built into one unit. All of these features are portrayed onto the ForeFlight app on an iPad or iPhone. Even though the traffic capability is limited on the Stratus due to not having an ADS-B out solution yet, flying in the NY area with all of the other ADS-B equipped airplanes keeps much of the relevant traffic displayed on my iPad. The AHRS feature with synthetic vision, which I consider a backup to the aircraft's built-in attitude indicator, is a very comforting piece of equipment to have, especially when flying in IFR conditions with an old steam gauge panel.

One last cockpit essential is a portable charger battery. Again, there are many brands to choose from, but I like the Jackery 12000 mAh lithium battery option. It keeps a charge for a long time (months) when not in use and I'm confident in its ability to power all of my other essentials for many hours. I like this option as opposed to using the 40-year-old 14 volt aux power outlet of the airplane.

So there you have an idea of what my cockpit essential equipment is and although it may seem like a lot, it all fits easily into my small flight bag with plenty of room to spare. Technology has brought us many advances in weather, traffic and navigation, but it is imperative that these new equipment options don't deter from flying the airplane safely. Always keep your head up scanning for traffic as much as possible and fly the airplane!

Fly safe!



Don't get distracted!