



## MIKE BUSCH

HANDS ON / SAVVY AVIATOR



# OIC

Becoming a better owner in command

BY MIKE BUSCH

**EVERY PILOT UNDERSTANDS THE** notion of pilot in command (PIC). That's because we all had some certificated flight instructor (CFI) who mercilessly pounded this essential concept into our heads throughout our pilot training.

As PIC we are directly responsible for, and the final authority as to, the operation of our aircraft and the safety of our flight. Our command authority is so absolute that in the event of an in-flight emergency, the FAA authorizes the PIC to deviate from any rule or regulation to the extent necessary to deal with that emergency. (14 Code of Federal Regulations [CFR] §91.3)

In my 45 years of flying, I've overheard quite a few pilots dealing with in-flight emergencies and have dealt with a few myself. It makes me proud to hear a fellow pilot who takes command of the situation and deals with the emergency decisively. Such decisiveness is "the right stuff" of which PICs are made, and what sets us apart from nonpilots.

### OWNER IN COMMAND

When a pilot progresses to becoming an aircraft owner, he takes on a great deal of additional responsibility and authority for which his pilot training most likely did not prepare him. Specifically, he becomes primarily responsible for maintaining his aircraft in airworthy condition, including compliance with all applicable

airworthiness requirements including airworthiness directives. (14 CFR §91.403)

Too many aircraft owners fail to comprehend or appreciate fully their weighty and complex owner-in-command (OIC) responsibilities. They put their aircraft in the shop, hand over their keys, and tell the mechanic to call them when the airplane is ready to fly. Often, owners give the mechanic *carte blanche* to "do whatever it takes to make the aircraft safe" and don't even know what work is being performed or what parts are being replaced until they receive a maintenance invoice. In short, most owners seem to act as if the mechanic is responsible for maintaining the aircraft in airworthy condition. But that's wrong. In the eyes of the FAA, it's the owner who is responsible. The mechanic is just hired help.

I find it helpful to compare the proper role of the aircraft owner in maintaining an airworthy aircraft to that of a general contractor in building a house. The general

contractor needs to hire licensed specialists—electricians, plumbers, roofers, masons, and other skilled tradesmen—to perform various tasks required during the construction. He also needs to hire a licensed building inspector to inspect and approve the work that the tradesmen have performed. But, the general contractor makes the major decisions, calls the shots, keeps things within schedule and budget constraints, and is held primarily accountable for the final outcome.

Similarly, an aircraft owner hires certificated airframe and powerplant (A&P) mechanics to perform maintenance, repairs, and alterations; certificated inspectors (IAs) to perform annual inspections; and other certificated specialists (e.g., avionics, instrument, propeller, and engine repair stations) to perform various specialized maintenance tasks. But, the owner is responsible for hiring, firing, and managing these various “subcontractors,” and has primary responsibility for ensuring the desired outcome: a safe, reliable aircraft that meets all applicable airworthiness requirements, achieved within an acceptable maintenance budget and schedule.

#### WHO'S THE BOSS?

The essence of the OIC concept is that the aircraft owner needs to remain in control of the maintenance of the aircraft, just as the pilot needs to remain in control of the operation of the aircraft in-flight. When it comes to maintenance, the owner is supposed to be the head honcho, make the major decisions, ride herd on time and budget constraints, and generally call the shots. The mechanics and inspectors and repair stations he or she hires are “subcontractors” with special skills, training, and certificates required to do the actual work.

Since most owners have not received training in how to act as OIC, many of them are overwhelmed by the thought of taking command of the maintenance of their aircraft. “I don’t know anything about aircraft maintenance,” they sigh. “That’s way outside my comfort zone. Besides, isn’t that my mechanic’s job?”

Such owners often adopt the attitude that it’s their job to fly the aircraft and the mechanic’s job to maintain it. They leave the maintenance decisions up to the mechanics, and then get frustrated and angry when squawks don’t get fixed and maintenance expenses are higher than they expected.

But think about it: If you were building a house and you told your plumber or electrician or roofer “Just do whatever it takes and send me the bill when it’s done,” do you think you’d be happy with the result?

No one would do that, of course. If you were hiring an electrician to wire your house, you’d probably

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start by giving him a detailed list of exactly what you wanted done—what appliances and lighting fixtures you want installed in each room, where you want to locate switches, dimmers, convenience outlets, thermostats, telephone jacks, Ethernet connections, and so forth. You’d then expect the electrician to come back to you with a detailed written proposal, cost estimate, and completion schedule. After going over the proposal in detail with the electrician and making any necessary revisions, you’d sign the document and thereby enter into a binding agreement with the electrician for specific goods and services to be provided at a specific price and delivery date.

You’d do the same with the carpenter, roofer, drywall guy, paving contractor, and so forth.



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#### CARS VERSUS AIRPLANES

When I take my car to the shop for service, the shop manager starts by interviewing me and taking notes on exactly what I want done—he asks me to describe any squawks I have to report, and he checks the odometer and explains any recommended preventive maintenance. Once we arrive at a meeting of the minds about what work needs to be done, the shop manager writes up a detailed work order with a specific cost estimate, and asks me to sign it and keep a copy. In essence, I now have a written contract with the shop for specific work to be done at a specific price.

The service manager doesn't do this solely out of the goodness of his heart. He's compelled to do so. In California, where I live, state law provides that the auto repair shop is required to provide me with a written estimate in advance of doing any work, and it may not exceed the agreed-to cost estimate by more than 10 percent unless I explicitly agree to the increase. If the shop doesn't follow these rules, I can file a complaint with the State Bureau of Automotive Repairs, and it'll investigate and take appropriate action against the shop. Most states have similar laws.

Figure 1—Aircraft owners should insist on receiving a detailed written work statement and cost estimate like this one before authorizing any mechanic or shop to perform repairs or install replacement parts.

Unfortunately, there are no such laws requiring aircraft maintenance shops to deal with their customers on such a formalized and businesslike basis, even though the amounts involved are usually many times larger. Aircraft owners routinely turn their airplanes over to a mechanic or shop with no detailed understanding of what work will be done, what replacement parts will be installed, and what it's all going to cost. All too often, the aircraft owner only finds this out when he or she picks up the aircraft and is presented with an invoice (at which point it's way too late to influence the outcome).

It always amazes me to see aircraft owners do this. These are intelligent

Figure 1

people who would never consider making any other sort of purchase of goods or services without first knowing exactly what they were buying and what it costs. Yet, they routinely authorize aircraft maintenance without knowing either.

Often, the result is sticker shock and hard feelings between the owner and the shop. There's no State Bureau of Aircraft Repair to protect aircraft owners from excessive charges or shoddy work. The FAA almost never gets involved in such commercial disputes. A few owners even wind up suing the maintenance shop, but generally the only beneficiaries of such litigation are the lawyers.

**TRUST, BUT VERIFY**

I hear from lots of these disgruntled aircraft owners who are angry at some mechanic or shop. When I ask why they didn't insist on receiving a detailed work statement and cost estimate before authorizing the shop to

**Aircraft Inspection Report and Repair Estimate**

1. Annual inspection and service (flat rate).....	\$1,500.00
10 quarts Aeroshell 15W50 @ \$5.10/quart .....	51.00
1 Champion CH48109-1 oil filter .....	26.55
Miscellaneous parts and shop supplies.....	25.00
<b>TOTAL.....</b>	<b>\$1,602.55</b>
2. Oxygen cylinder beyond 24-year service life limit	
1 serviceable cylinder .....	750.00
4.0 hours to remove and install .....	320.00
Sales tax @ 7.50% .....	54.38
<b>TOTAL.....</b>	<b>\$1,124.38</b>
3. RH fuel gauge stuck, fuel quantity transmitter leaking fuel (UNAIRWORTHY)	
1 overhauled/exchange transmitter .....	175.00
3.0 hours to drain fuel, install transmitter, refuel.....	240.00
Sales tax @ 7.50% .....	17.70
<b>TOTAL.....</b>	<b>\$432.70</b>
4. Right main landing gear tire worn, flat-spotted	
1 6.00x6 8PR Goodyear Flight Custom III tire.....	244.00
.6 hour to install .....	48.00
Sales tax @ 7.50% .....	17.69
<b>TOTAL.....</b>	<b>\$309.69</b>
5. Left fuel tank quick drain leaking fuel (UNAIRWORTHY)	
1 quick drain.....	25.00
3.0 hours to drain tank, access fuel bladder, install new drain, refuel.....	240.00
Sales tax @ 7.50% .....	1.81
<b>TOTAL.....</b>	<b>\$266.81</b>
6. Cabin door hard to close	
1.0 hour attempt to adjust.....	\$80.00
7. Starter motor sounds rough due to bad bearings	
1 overhauled/exchange starter motor .....	300.00
.5 hour to replace .....	40.00
Sales tax @ 7.50% .....	21.75
<b>TOTAL.....</b>	<b>\$361.75</b>

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work on their aircraft, I often receive a deer-in-the-headlights look, followed by some mumbling to the effect that, "I've never had a problem with them before," or "You've got to be able to trust your A&P, don't you?"

Sure you do...and you've got to be able to trust your electrician, plumber, and auto mechanic, too. But that's no excuse for not dealing with them on a businesslike manner. Purchasing aircraft maintenance services is a big-ticket business transaction, and it should be dealt with as you would deal with any other big-ticket business transaction. The buyer and seller must have a clear mutual understanding of exactly what is being purchased and what it will cost, and that understanding must be in writing.

In coming issues of *EAA Sport Aviation*, I'll explain exactly how this should be accomplished. I'll talk more about how owners and mechanics can work as a team to achieve better maintenance at lower cost and suggest various money-saving maintenance strategies. I'll also discuss the owner's role in troubleshooting and maintenance decision-making.

In the final analysis, however, the most important factor that sets maintenance-savvy aircraft owners apart from the rest of the pack is their attitude about maintenance. Savvy owners understand that they have primary responsibility for the maintenance of their aircraft, and that A&Ps, IAs, and repair stations are contractors whom

they must manage. They deal with these maintenance professionals as they would deal with other contractors in other business dealings. They insist on having a written work statement and cost estimate before authorizing work to proceed. Then, like any good manager, they keep in close communication with the folks they've hired to make sure things are going as planned.

If your mechanic or shop resists working with you on such a businesslike basis, you probably need to take your business elsewhere. *EAA*

**Mike Busch**, 2008 National Aviation Maintenance Technician of the Year, has been a pilot for more than 44 years and has logged more than 7,000 hours. He is a certified flight instructor and an airframe and powerplant mechanic with an inspection authorization. Questions for Mike, EAA 740170, may be e-mailed to [mike.busch@savvyaviator.com](mailto:mike.busch@savvyaviator.com).

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