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## Great Getaways



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# P&E

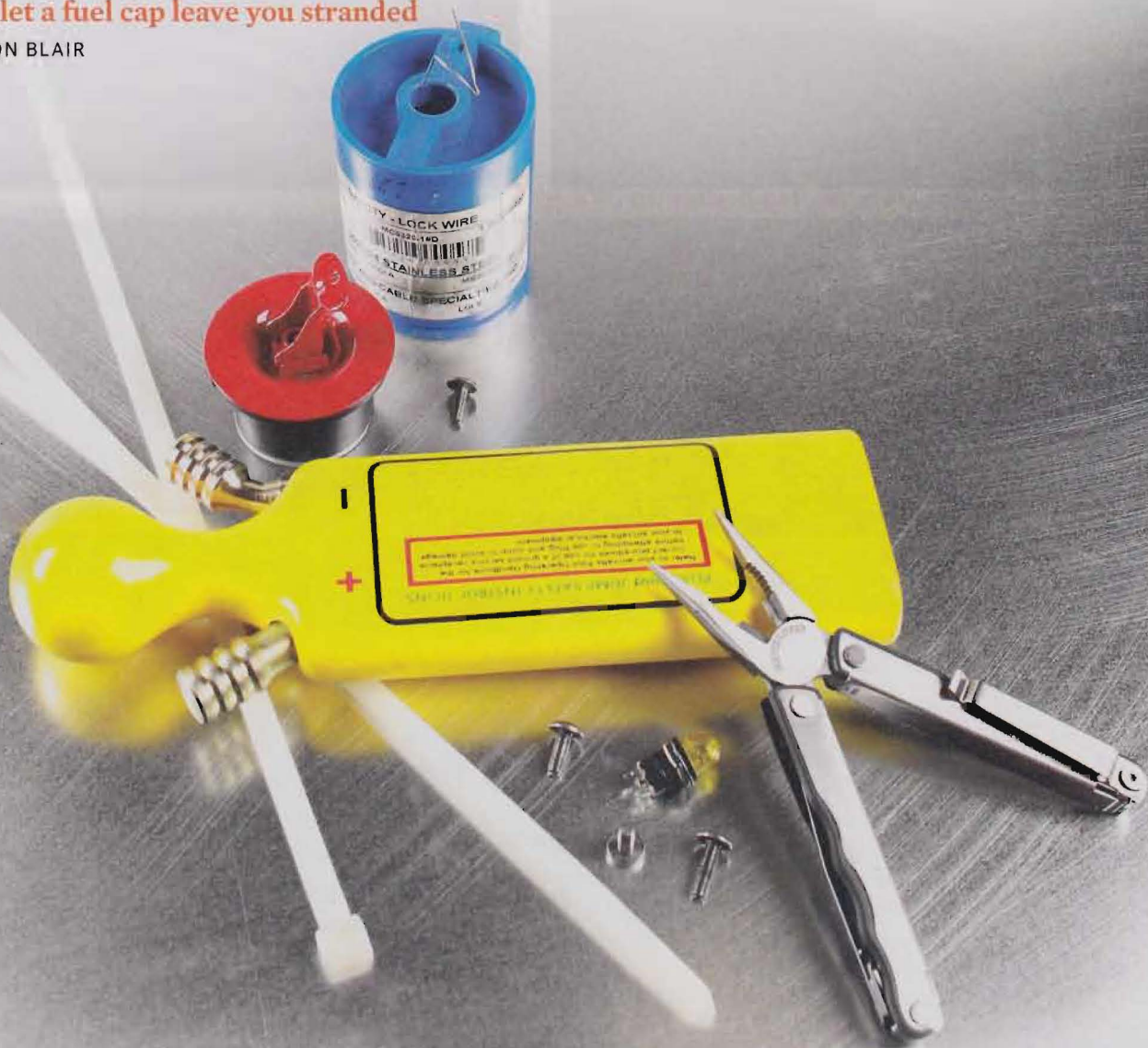
» ALASKA STATE LAW requires pilots to carry emergency equipment including rations, an axe or hatchet, and one mosquito headnet for each occupant.



## Things an airplane should carry

Don't let a fuel cap leave you stranded

BY JASON BLAIR





**A FRIEND AND I RECENTLY** flew his friends to a special anniversary dinner on Mackinac Island. We didn't notice on the way up that a passenger had left the over-door cabin light on. The light does not shut off when the master switch is off, so while we waited for them to have their dinner, our battery slowly drained. When it came time to depart, we were unable to start the airplane.

The Michigan island's airport doesn't have an FBO. There are no cars to jump-start from because no vehicles are allowed on the island—and a horse just won't jump-start an airplane. It was late in the season when most services on the island are closed anyway. But we came prepared: A quick plugging in of the Piper Plug and Jump adapter and attaching a small portable, rechargeable jump pack, and the airplane was started. Without these two tools, we would have been stuck.

Aircraft owners regularly think to carry charts, a handheld radio, batteries for a headset, oil, rags, emergency gear (depending on the terrain), a multi-function tool (something that has pliers, Phillips and flathead screwdrivers, and a wire cutter), a tire pressure gauge, safety wire, or the obvious duct tape. Here are a few less common items that every airplane should carry to allow you to get home when you might otherwise be stranded.

**Jump plug adapter for the airplane.** I have seen a dead battery with no way to provide external power to jump it

absolutely kill a flight. Something as simple as a passenger leaving an entry door light on or forgetting to shut off a master switch can quickly drain a battery. Many aircraft do not allow traditional jumper cables to be attached to provide external power. A quick look at aviation suppliers such as Aircraft Spruce or Sporty's will find plug adapters for sale for less than \$100. These plugs stick into the special power port on the side of your airplane and allow traditional jumper cables to be attached to that plug and your aircraft to be jump started. If your aircraft is 12 volt, this could even allow it to be jumped from a car in many cases.

There are some great rechargeable power packs (and some very compact USB rechargeable ones) that you could also take with you to be self-sufficient if you are going to be at airports with limited services. Make sure you follow the proper external power starting procedures as described by your aircraft manufacturer (typically this is in the pilot's operating handbook), but having the ability to attach power at all can get you home when you otherwise would be seeking a hotel.

**Extra light bulbs.** FAR 43 Appendix A, section (c) spells out a list of things that pilots can do as "preventive maintenance" on their aircraft. This includes changing light bulbs. In many general aviation aircraft this is a pretty simple task. Many airports will not have these items

### The basic tools every pilot should carry

The "tools" in this article are some of the less common ones pilots think to carry. Every pilot (even a renter) should carry the following (some of these can be combined by carrying a multitool such as a Leatherman):

- Phillips screwdriver (multiple sizes of tips is a good idea)
- Flathead screwdriver
- Needle-nose pliers
- Adjustable crescent wrench
- Safety wire and safety wire pliers

—JB

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in stock, and at 9 p.m. in the dark when you are trying to get back home with a burnt-out landing or navigation light, it could prevent your flight from being able to be completed in accordance with regulations. An extra landing light, an extra beacon bulb, and bulbs for your navigation lights (and knowing how to change them) can enable a quick swap and a successful flight.

Safety is obviously a concern in having lights on so other aircraft can properly identify your direction of flight, but having the extra bulb will also keep you legal and help you avoid the temptation to “just fly home with it burnt out.” I can remember a return trip from Meigs Field

Purchasing an extra fuel cap is not terribly expensive, and one would even fit in a glove compartment in the airplane. If your luck is anything like mine, there is very little chance, even after long and thorough searches of the ramp, taxiway, runway, and all the weeds around the airport, that you will find the fuel cap you lost. That extra one you packed will get you home.

**Cowling screws.** For most models, there is a minimum number of cowling screws that must be in place for an aircraft to be flown. Vibration and rattles shake a few loose sometimes. A few extra screws in a plastic bag are great to include in your “save a flight” kit that can easily be installed with a multi-tool screwdriver on a preflight. It’s safer to

**If you don’t have the needed items and the FBO doesn’t stock them, a minor fix may become a major delay and inconvenience.**

in Chicago when we noticed a left navigation light had burned out and made what I now look back on as a poor decision to go anyway and just hoped the tower didn’t notice or say anything.

**Extra spark plugs.** Have you ever fouled a spark plug? How about had one crack? Just one extra set of plugs in your airplane doesn’t take up much space and can be a simple solution to this potential maintenance problem. Per FAR 43, you aren’t supposed to change these on your own (an A&P or IA certificated mechanic is supposed to do it), but by carrying the parts you take away half of the unknown when away from home base.

**Extra fuel cap.** A loose fuel cap after refueling (I know you would never do it, but a line guy might, right?) can easily fall off during a taxi, runup, or takeoff. Having an extra fuel cap for your aircraft is a simple fix to a problem that can leave you stranded. Obviously we can’t fly without a fuel cap (for spilling and fuel flow reasons, to name only a couple), so if you happen to lose a fuel cap, you may be stuck waiting for one to arrive days later.

replace missing screws when noticed than to fly with fewer than the desired full number.

Each of these items is something that many aircraft owners do not carry with them. They are all small in size, and their acquisition cost is relatively minimal. They aren’t all tools that the pilot will use, but may be tools that a mechanic will need to fix your airplane (spark plugs are a good example).

FAR 43, Appendix A, section (c) gives a list of preventive maintenance tasks a pilot can do on his or her own—assuming some basic knowledge. If you don’t have the needed items and the FBO doesn’t stock them, a minor fix may become a major delay and inconvenience. Comparing the cost of these items with paying for a hotel, shipping, service, and other expenses you could otherwise have avoided, it is a small price to pay to acquire these few things and add them to the baggage compartment of your airplane. **AOPA**

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