

# The Art of Survival: A Real Science

By Floyd Allen

“Mayday, Mayday; this is 6-9-6-2 alpha. We have lost our engine and are going to have to set down west of Prescott in the Peacock Mountains. Mayday, Mayday; this is 6-9-6-2 alpha, and we are going down in the Peacock Mountains.”

“That,” Phil Sanders of Kingman, Arizona, said, “is a call I hope I never have to make.” As a pilot for nearly 40 years, however, Sanders knows that there is always the possibility that, some day, he will have to utter those very words. The question is, is he prepared to survive if he ever does have to make the call? An equally important question is, are you prepared if you should ever have to make that call?

“We have a survival kit,” Sanders shared, “which we keep in the back of the airplane at all times.” Like most pilots, Sanders has the basic necessities on board. This includes water and snacks, matches, a handheld GPS and handheld aviation radio, a



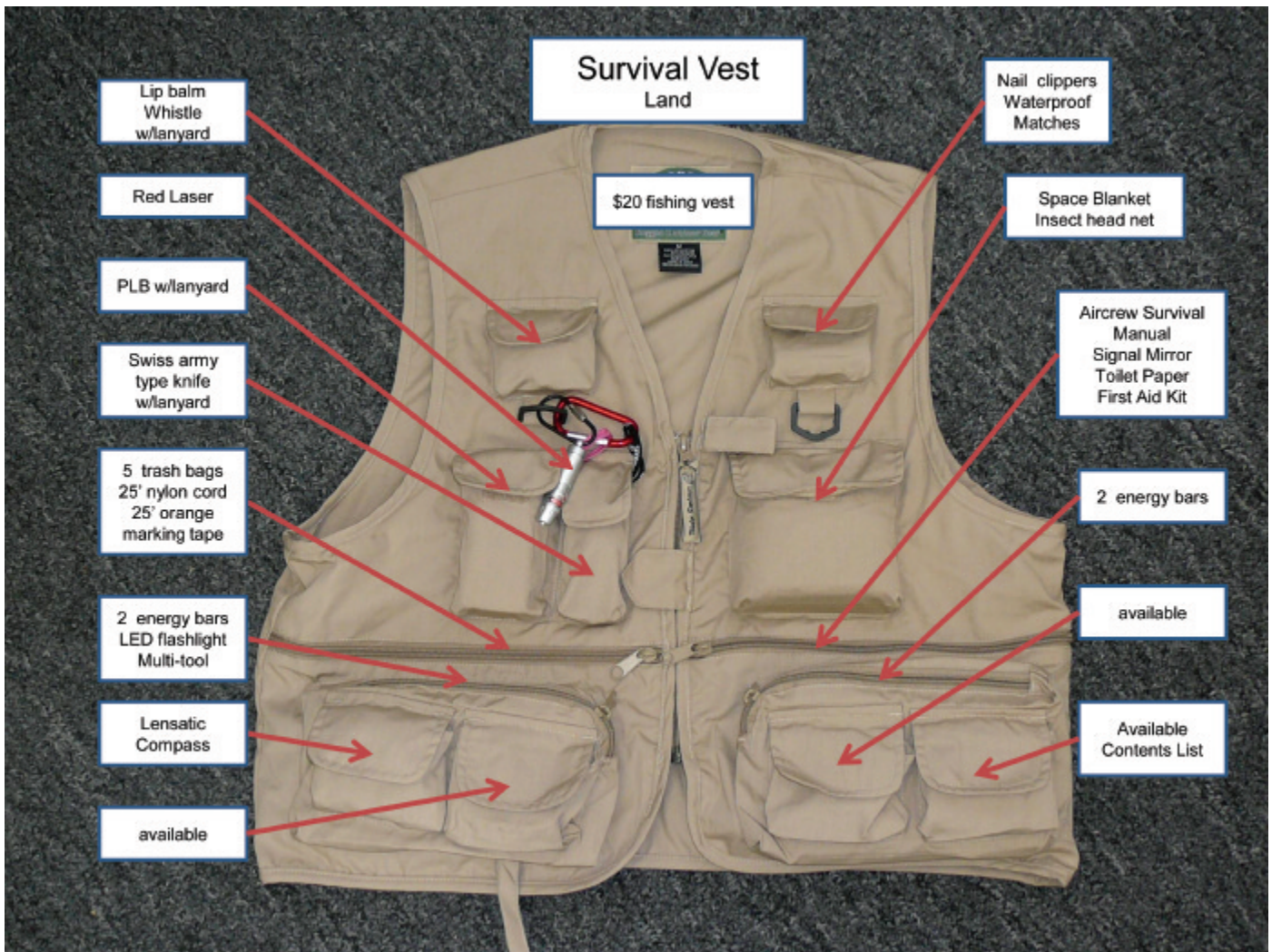
Chuck McGill is a CFI with SafeFlight International and a 22-year veteran of the Marines with extensive training in all forms of survival.



The survival kit in Phil Sanders' airplane includes water, snacks, jackets, blanket, tools, GPS, handheld radio, map, medicine pack with mirror for signaling, matches in water-proof container, pistol, rags, magazine to read while waiting for help or to start a fire, and toilet paper.

first aid kit, bailing wire, duct tape, and a blanket. “We make sure we dress warm when the weather calls for it,” Sanders added, “and usually have a Thermos of coffee with us when we fly.” Sanders also explained that when he flies, he requests a flight following from the center in Albuquerque, which adds greatly to his peace of mind. Although it appears that he has pretty much covered the basics, it might be wise to see what the experts say.

“I have found,” Chuck McGill, a CFI with SafeFlight International and a 22-year veteran of the Marines with extensive training in all forms of survival, began, “that there are two basic obstacles that pilots face where being properly prepared when survival is concerned. The first is that most people, including pilots, have never been in a situation where they really needed a will to survive. And that, the will to survive, is the real key to survival.”



A properly equipped survival vest.



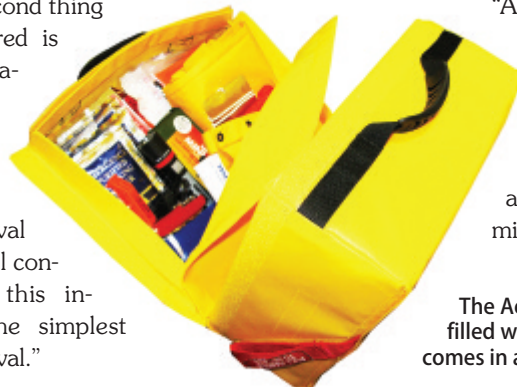
Emergency Beacon Corporation's EBC 406AF is an automatic fixed emergency locator transmitter that is installed in the aft or tail section of a fixed-wing aircraft.

McGill went on to explain that most of us, even those who prefer to fly, are accustomed to driving on roads that are, for the most part, devoid of threats. If a problem arises, we can pull over to the side of the road, call the auto club, and, within minutes, hours at most, be rescued from our dilemma. When you are flying over truly remote areas, however, that may not be the case. "If you want to survive under

adverse circumstances, regardless what they may be, you must be mentally prepared to over-come all obstacles, regardless of what they are," McGill explained.

"There is certainly something to that," Sanders interjected. "I have had to break a few broncos in my day, and, believe you me, a man concentrates a lot harder on staying in the saddle when there's a bunch of rocks on the ground around him!"

"Now, the second thing I have discovered is that the vast majority of people, again, including pilots, have had little or no survival training," McGill continued. "And, this includes even the simplest aspects of survival."



"At the very least," McGill shared, near exasperation in his voice, "take your survival items out of the retail packaging and become familiar with them. All too

The Aero Compact kit, which is filled with many emergency items, comes in an easy-to-store case.

often, pilots pack their survival items in the packaging they come in, and you need a tool just to get them out of their hard plastic casings. If you end up in a precarious position, having to struggle to get your tools out can become a challenge in itself.” McGill is a big proponent of a survivor’s vest, and he has his well stocked; it carries many items, which are easily accessible.

“As I mentioned,” McGill went on, “survival is very much a mind-set. If you do find yourself in a survival situation, you need to stay calm and use common sense. The first thing you need to do is assess your situation and proceed accordingly.”

“Chuck is absolutely right,” Dr. Brent Blue of Aeromedix out of Wyoming, agreed. “We have some pretty harsh conditions up here, and the mantra we teach people is ‘three hours without shelter, three days without water, and three weeks without food.’”

The agreed-upon consensus is that once you have assessed your situation, you need to attend to any medical situations/problems first, find/establish shelter, and then attend to the need for water and food. “While purification of water is important,” Dr. Blue shared, “your first concern needs to be hydration. You can fight bacteria, germs, or whatever at a later date, as long as you survive.”

Aeromedix has a number of items that the company places in its various medical kits, including, but not limited to, Kuik Clot, a powder used by the military that is sprinkled on wounds to stop bleeding; a headlamp; Safety Boy Rescue Cutters, a pair of scissors made of quality steel in Germany that may very well be the best survival scissors ever made; and Alok Saks, waterproof bags that food and fire-starting materials can be kept in. In addition, the kits feature an adventure medical kit (AMK) that has signal mirrors and a single-person shelter, which is about half the size of a Coke can, that reflects 90 percent of the person’s body heat



The Aero Elite is one of the best coastal life rafts available.

business for more than 40 years, Goodman alludes to the fact that not only does the company have a wealth of experience, but that it produces a product that possesses survivability in its own right, as all the electronics are encased. She is also quick to point out that not only are the materials of the highest quality, but that the units are completely produced here in the United States.

As we can all agree, preparing for survival is something none of us wants to think about, but all of us need to. “What every pilot should consider,” Jim Irwin, president of Aircraft Spruce & Specialty Company, shared, “is that what we need to do is to hope for the best and prepare for the worst!” Aircraft Spruce, which began in 1965 providing aircraft spruce lumber, now has a catalog of more than 800 pages, dozens of which are filled with either survival items or items that can be used in survival situations.

“What a pilot needs to remember,” Chuck McGill inserted, “is that as they prepare their survival gear, they should consider not only the conditions they are going to encounter on the ground, but the conditions they are flying over, as well.”

“Chuck is absolutely right,” concurred Doug Ranly, catalog manager of Sporty’s Aircraft Supply. “I recently read of a crash that took place on a glacier in Alaska. The survivors were dressed only in shorts and T-shirts, and they had neglected to take

any warmer gear along with them.” Ranly explained that Sporty’s provides survivor gear in three separate major categories: emergency survival kits, personal locator beacons, and life rafts and vests. “Many United States pilots fly over a lot of water, and yet they pay little attention to

back to them. “We also include a PLB in our packets, an item we feel to be vitally important.”

Joan Goodman couldn’t agree more. As president of Emergency Beacon Corp. in New Rochelle, New York, she and her employees focus on and specialize in emergency locator transmitters (ELTs). “We have two,” Goodman explained. “One is a fixed unit that is installed in the tail of the airplane, and the other is an automatic portable. The latter, which is the one I recommend, is a portable unit that ‘rides’ in the cockpit with you, and that can be removed when you exit the airplane to inspect for damage, or, if necessary, when you abandon the airplane.”

As well as the units themselves, Goodman’s company produces such accessories as replacement battery packs. In



A popular item with pilots who fly over lots of open water is the Aero Compact life raft.

being prepared in case their airplane should go down and end up in the drink,” Ranly pointed out.

“That’s what we often discover, too,” Pete Wolf, who works as advertising and marketing coordinator of Revere Survival, shared. Revere specializes in items for recreation, outdoor activities, and aviation. “For some reason, many people seem to think that they only need water survival gear if they are going over the ocean or the Gulf of Mexico. The reality is that the Great Lakes are certainly massive in nature, and, if you were to look at a map, virtually every state in the Union has a body of water large enough to mandate that a pilot be prepared should they be forced down into one of those bodies of water.

“We recommend both personal floatation devices and life rafts,” Wolf went on. “One of our best sellers, and a product we highly recommend, is our Aero Compact. It is basically a fully loaded raft, coming with a painter line; hand pump, which can be used for topping off the raft or replenishing floatability should the raft spring a leak; a sea anchor; raft knife; and a locator light. This is all packaged in a valise, of sorts, and readily stores on even small craft.”

One other product that we discovered that pilots might want to consider as part of their survival gear is produced by Oxy2go. “We actively

## Staying Alive with Aircraft Parts

Theoretically, you could find yourself in a situation where survival is a long-term undertaking. If that is ever the case, you may find yourself needing to use your airplane to keep you alive. Following is a list of aircraft parts and how they can be used in your survival efforts.

Part	Purpose
Air filters .....	Fire starter
Aluminum skin .....	Reflector for warmth from fire; signaling device; snow shovel; sled/stretcher
Battery.....	Fire starter
Battery box.....	stove or cooking container
Charts.....	Stuff in clothing for insulation
Control cables .....	Rope; snare wire; shelter binding
Doors.....	shelter; windbreaks
Fuselage.....	Shelter
Inner tubes .....	Canteens; black smoke when burned
Oil filter .....	Burn for black smoke
Propeller.....	Shovel; bracing for shelter
Prop spinner cone .....	Bucket; stove; funnel; scooping tool; pot for cooking
Rotating beacon lens.....	Drinking cup
Rugs.....	Ground pad, insulation clothing
Seats.....	Sleeping cushions; spinal injury back brace; fire starter; ground pad
Seat belts .....	Slings; bandages; binding material
Wheel fairing.....	Water storage or collection
Wing tips.....	Water collection and water carrier
Wiring .....	Binding and rope



An inflated SportMax PFD.

went after pilots when we began nearly five years ago,” Joe Lombardo, senior partner of Oxy2go, explained, “because our miniature tank is literally just what the doctor ordered!” The tank, which comes with a holster and back-up cartridge, provides 14 one-second blasts of oxygen, which basically is one deep breath. For those pilots flying between 10,000 or 12,000 feet, this can be a welcome relief, but Lombardo pointed out that it can be a real boon to survival, as well. “Often, the fact that you are in a survival situation means that you find



The CO<sub>2</sub> unit that inflates the SportMax PFD.

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yourself exerting a lot of energy. You may have to traverse difficult terrain, or you may need to help someone else to get to a safer locale. In those situations, a blast of oxygen can be literally a godsend!”

The miniature tank, with its spare cartridge, actually offers 28 one-second blasts, and it can be purchased for \$19.95. Oxy2go’s System II, however, is a bigger example of the same product. It can provide 180 three-second blasts, which, obviously, would last a lot longer. One of the beneficial side effects is that “blasts” of oxygen tend to help with clus-

ter headaches and, to some extent, migraines, as well.

“One thing I have discovered about pilots and their survival kits,” McGill offered, “is the fact that they tend to forget that their kits need to be renewed or revitalized. What I do is, each year my airplane goes in for its annual, I take my kit out and take care of the necessary updates. I replace all spare batteries, and the batteries in any items that need them. I check all meds to make sure they haven’t gotten so old that they are no longer potent, and make sure that all foods stuff is fresh enough to be



The Revere SportMax 22-pound inflatable PFD is a compact and inexpensive inflatable vest.

palatable, as well as nutritious.”

Good advice, good products, and safe flying. For, as Jim Irwin shared, we need to “hope for the best, but plan for the worst!” <sup>CO</sup>