



# When You're Down, You're Not Out

*Survival training can make the difference*

BY ROGER ROZELLE

AOPA 537321

"Junk is an important part of the concept I teach in survival training," said Ken Burton, an instructor for the AOPA Air Safety Foundation's Survival Training Course.

Think he's kidding? Don't. The 43-year-old Burton takes survival seriously, and when he explains the rationale behind his "junk" concept, it makes good sense.

"Imagination has to prevail when a pilot finds himself forced down in a hostile environment," he explained. "I impress upon my students that mangled aluminum and wire bundles are not just useless pieces of junk. The innovative pilot will see those items as heat reflectors and rope.

"My course is aimed at providing a pilot with a resource of knowledge to build a level of confidence that won't leave a feeling of helplessness in a real

emergency. In effect, it is crisis management."

Burton, who taught survival training in the U.S. Air Force for 21 years, recognizes that it is approached all too often with a negative attitude; people have too many reasons not to learn survival techniques. As a result, he is especially appreciative of people who take his training.

"I like to think of the students who sign up for my course as being very special," said the instructor, who also teaches the subject at the Gulf Coast Community College at Panama City, Fla. "They have taken that one extra step toward ensuring a safe flight, just as they do by checking the weather and preflighting their airplanes. Keep in mind that this kind of training isn't just for pilots. Anyone can benefit from survival training.

"Unfortunately, too many pilots pooh-pooh survival training. Some don't want to spend the time learning something they are sure that they will never use. Others believe that since most of their flying is over populated areas, there is no need for survival training.

"But just imagine surviving a forced landing where rescue is guaranteed in 30 minutes. If the pilot or a passenger is bleeding profusely from an open wound, death might arrive before the rescuers. Yet, basic first aid is a simple thing to learn and part of survival training."

Burton's approach isn't intended to whip students into shape with 10-mile marches through swamps or to teach them the gastronomic delights of eating grubs and tree bark. He approaches survival training as a creative adven-





*A plastic garbage-bag serves as a flotation device, one of several resourceful "junk" survival techniques taught by Burton.*

ture, not a last-ditch stand against the environment.

"I don't try to motivate my students by making them suffer," he said. "Evenings are usually left open so they can enjoy themselves at whatever location the course may be conducted. And we aren't camping out, although I hope to develop an extension of this course where students would spend a night or two in the field."

"I want people to recognize that nature has everything necessary to survive. They only have to know how to use what is available. I tell my students to be prepared to spend a week awaiting rescue, and be a little disappointed if they are picked up in an hour."

Burton, who trained thousands of military personnel in survival, readily admits that his 16-hour course can only highlight the subject. But he contends that is sufficient for a pilot to be able to survive in an inhospitable environment.

"This course can't pretend to teach a person everything that is available to make survival more likely," he said. "I could devote the entire course to just one area, such as first aid."

"However, it is important because it encourages the students to think and provides them with basic starting points. Just imagine how important it would be for a pilot to be able to start a fire in the wilderness without a lighter or matches."

That kind of knowledge seemed especially noteworthy when Burton opened the three-pound package that

each student received in the course. Most of them admitted that they would need a package that size just to hold the paraphernalia needed to get a barbecue fire lit back home — and the package didn't even include charcoal.

"This is a good basic kit," claimed the instructor, who pulled a wire saw, compass, flares, signal mirror, tube tent, reflective blanket and a host of other items from the small package.

"It has the tools necessary to set up an entire camp and provide a fair amount of comfort for two persons, maybe four in a pinch."

Several hours were spent demonstrating to students how the survival tools should be properly used, as well as in discussions devoted to shelter construction, edible plants and signaling. First aid was one area that the former Master Sergeant spent considerable time discussing with the students.

"Knowing all the survival tricks in the book won't do a person any good if he doesn't know basic first aid," emphasized Burton. "If a person knows the basics — how to handle bleeding, breathing and shock problems — he can save just about anyone, maybe including himself."

Much of the class discussion was spent dealing with "what if" questions. The answers were intended to encourage the student to assemble their own first aid and survival kits.

"A lot of store-bought first aid kits have a few Band-Aids and iodine in them," explained Burton. "Well, a

Band-Aid might easily be swallowed up by a wound caused during a forced landing, so I encourage students to add large bandages and compresses to their own kits. Of course I also offer suggestions on how clothing can be used for bandages too."

"As for iodine, it should never be applied directly to a wound, since it is a caustic agent and can destroy tissue."

Burns, fractures, and insect bites were covered too. And snakebites.

Said Burton: "Creepy crawlers and snakes probably concern people more than anything else. Yet they present a low risk factor to the victim of a forced landing, in view of all the other problems that must be coped with."

That concern offered the instructor an opportunity to dispel some long-held beliefs about snakebites.

"You don't start cutting X's with a knife on the fang marks," explained the instructor, who has treated numerous snakebites in the military. "The value of such a procedure is questionable and the danger of infecting the wound or cutting a blood vessel adds additional risk."

"If a poisonous snake has bitten you, a burning sensation, pain and bluing of the skin will verify it. Get ready for some nausea and perhaps some delirium, but the likelihood of survival is pretty good by doing nothing."

Burton urged that a downed pilot stay with his airplane, especially in wild or uninhabited territory. He said that the aircraft, rather than a man on foot,



is more likely to be seen by aerial searchers, and it is a storehouse of survival resources.

"The smart pilot, who files a flight plan, is going to stand a better chance of being found with his airplane, than if he attempts to leave it and walk out," he said. "Sure, there may be exceptions to the rule, but in most cases, it is best to stay with the airplane.

"It can provide shelter from the rain or sun, especially if the wings and cabin are intact. Upholstery can be torn from the seats and carpet can be pulled from the floor to provide warmth.

"Excellent signal flares can be made by deflating the tires and pulling them off the wheels. Pouring oil — not gasoline — on them and igniting it will make a very visible smoke signal."

Burton cautioned his students against using gasoline to fuel a fire, since the volatile fumes could cause an explosion and injure the pilot. He offered several means of starting a fire, including the aircraft battery.

"Short out a wire across the battery terminals and you are going to have one heck of a spark," he said.

"The person who knows how to use that spark to start a fire is one jump ahead of someone who doesn't. And a fire provides light, warmth and comfort against 'unknowns' in the darkness."

Once the classroom work was completed, Burton saw to it that the students were given the opportunity to implement many of the things that they had discussed.

"I turn them loose and within an hour four or five students can have a complete campsite set up by using only the basic survival kits provided in the course," said Burton. "They usually surprise themselves with how much they have learned."

Carol-Ann Zihal, a nonpilot from New York City, was one of 10 persons who attended a recent survival course at Callaway Gardens in Pine Mountain, Ga. "I can't believe that it was so easy to build a fire without matches," explained Zihal, a banking officer. "I do a lot of backpacking and took the course because I thought it might be helpful to me. It was. And I'm going to feel a lot more secure because I know more about taking care of myself."

Zihal's reaction was not unique. In fact, Burton emphasized that the course served as a powerful confidence builder.

"My 'show and do' approach allows people to participate and learn that there is no magic to survival training, just knowledge," he said. "The first-hand experience of setting up a camp, building a fire, or constructing a solar still is a strong foundation for confidence."



*Learning to use a signal mirror, a simple rescue tool, is part of the course.*



*First-hand experience convinces students that reflective blankets really work.*



Jim Billings (AOPA 61542), an attorney from Raleigh, N.C., can vouch for that.

"It is weird," said the 600-hour private pilot. "I didn't know that a hole in the ground covered with plastic could produce water. A solar still. I know if I ever have to make a forced landing in the wilds, I'll know how to get water."

The course is also directed at survival conditions where there may be too much water — an ocean or large lake. Burton expressed concern that some pilots may have water survival equipment but not know how to use it properly.

"Pilots flying to the Bahamas may rent overwater survival equipment from Florida FBO's," he said. "Unfortunately, many of them don't bother to find out how to use the gear. That

could be a real mess if the engine quit and the pilot had to make a water ditching.

Bill Thibadeau (AOPA 600495), a builder-developer from Atlanta, Ga., was especially impressed with the opportunity to use the water survival gear. The Callaway Gardens location included a lake and plenty of water for first-hand experience.

"I won't ever forget what I learned during this course," said Thibadeau, a 120-hour private pilot. "Reading about survival is one thing, but doing it is another. Now I know what it feels like to float in the water with a life vest.

"Frankly, this is one of the best instructional experiences I have ever had. And you can be sure that I'll have a survival kit with me the next time I go flying."

Genevieve Cameron (AOPA 503007), a medical technician from Wantagh, N.Y., shared the Atlanta pilot's sentiments. And had a few of her own.

"The course was really interesting, especially the part about garbage bags," laughed the woman, who has flown more than 400 hours. "I was surprised to see how many different ways they could be used — rain suits, sleeping bags, tents and water floats. He may call this 'junk' survival, but I think it is fantastic.

"I know I could survive if my airplane ever went down. I wouldn't give up. In fact, a lot of what I have learned would be useful if I ever find myself stuck in my car during a New York blizzard."

And that is music to Ken Burton's ears. □

## A SURVIVAL KIT: CHEAP INSURANCE

Ken Burton, an instructor for the AOPA Air Safety Foundation, suggests that pilots build their own survival kits. Some items may be added or deleted, depending on the terrain (water, mountain or desert), seasons (cold or hot) and the number of persons aboard the aircraft. He also recommends that the supplies be stored in a large plastic bag and carried in a pliable nylon or canvas sack. Listed below are the basic items recommended by the AOPA Air Safety Foundation that should make up a basic two-man/three-day survival kit.

### TOOLS

Hacksaw blades (2)  
Pliers — small  
vise grip (1 pair)  
Screwdriver with  
multiple tips (1 set)  
File — 4 in. flat (1)  
Fingertip saw — (1)

### FIRST AID

Small roll 1 in.  
adhesive tape (1)  
Knuckle bandaids (4)  
Bandage compress —  
2 in. × 2 in. (6)  
Gauze — 2 in. roll (6)  
Aspirin — small bottle (1)  
Betadine antiseptic  
swabs (small package)  
Antacid tablets  
(small package)  
Single-edge razor  
blades (small package)  
Antibacterial  
ointment — Bacitracin  
(1 tube)  
Tissue  
(3 small packages)  
Soap, small size (1)  
Premoistened towels  
(small package)  
Chapstick (1)

### SHELTERS

Space blankets (2)  
Tube tent (1)

### SIGNAL EQUIPMENT

Smoke flares (2)  
Aerial flares (1 package)  
Mirror (1)  
Whistle (2)

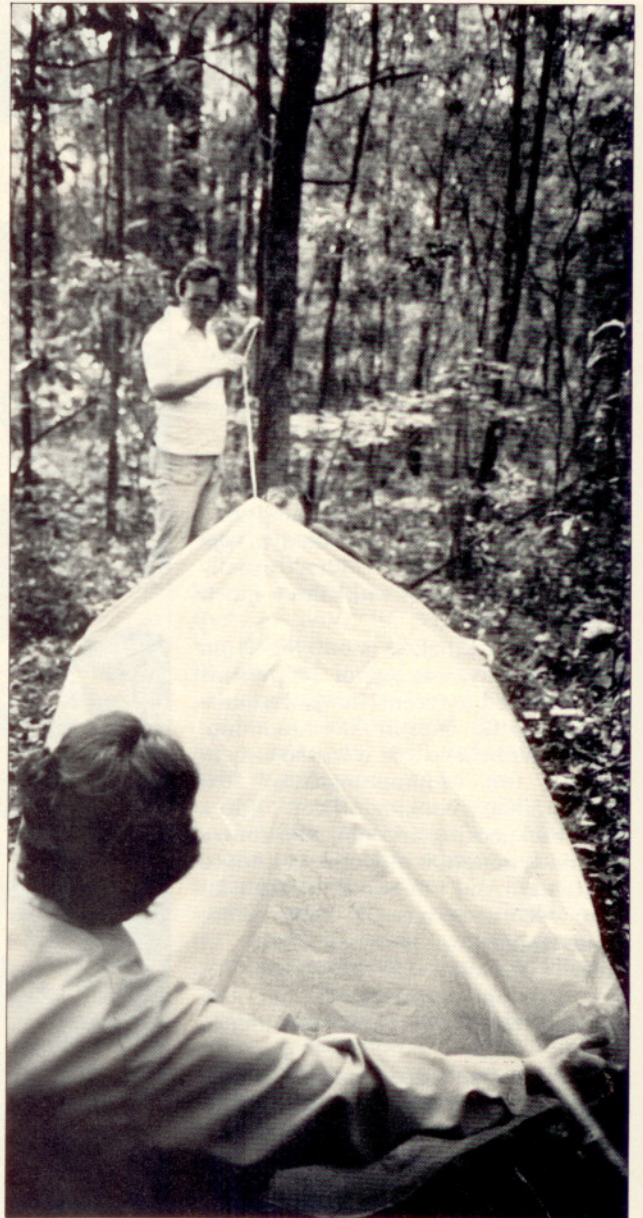
### FOOD

Packaged soup mix (6)  
Packaged salt (6)  
Beef logs (6)  
Meat bars (6)  
Instant coffee (6 packs)  
Freeze-dried tea (6 packs)  
Cubed sugar (20 cubes)  
Water purification  
tablets (2 bottles)

### LIFE SUPPORT

#### EQUIPMENT

Waterproof matches (50)  
Candle or firestarter (2)  
Lighter (1)  
Metal match (1)  
Plastic sheets —  
4 ft. × 4 ft. (2)  
Snare wire — .035 brass (25 ft.)  
Plastic garbage  
bags — 40 gal. (6)  
Positive-lock  
pocket knife (1)  
Compass (1)  
Fish hooks, assorted (10)  
Fishing lures, assorted (6)  
Fishing line — 10-lb. test (100 ft.)  
Fishing leader (10 ft.)  
Split-shot fish  
weights (10)  
1/8 in. nylon rope (50 ft.)  
Aluminum foil —  
24 in. × 6 in.  
Self-locking poly  
bags — quart size (3)  
Insect repellent  
(1 container)  
Foil cups (2)  
Surgical tubing (8 ft.)



A plastic tube tent could be a welcome home in an emergency.