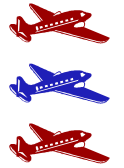


# Dayton Pilots Club



Fourth Quarter 2007  
www.daytonpilotsclub.org

Next Meeting Wednesday, Dec. 19, 2007  
Dayton Wright Brothers Airport at 7:00 PM

Mike Nolan, Editor

## Holiday Edition

Well, fellow pilots, it is hard to believe that another year has rolled by. But this one has been a doozy. If you recall, I lost my mother in January and now have lost my father the week before Thanksgiving. So my plans to fly 78X to Mississippi for the holidays got changed.

But, all is not lost. I was able to make that trip on December 9th thus keeping my promise to my younger daughter.

Now for the important stuff. A good friend of mine had a portable GPS that included satellite weather as well as many other touch screen capabilities. And did it ever come in handy.

Although there were no thunder storms lurking around the intended flight path, there were some serious rain cell with moderate to heavy precipitation. The satellite weather depicted on the screen allowed us to make an educated request for a course change to minimize the danger.

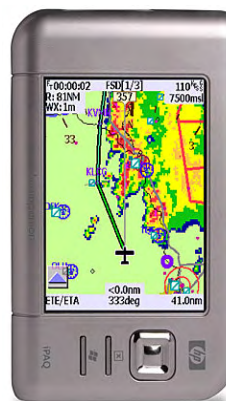
This HP Anywhere Map GPS unit sells for less than half of the fancy Garmin units and except for the smaller screen, is just as functional. Just ask Terry Brill the owner.

So, for you pilots who need to tell their sig-

nificant other what great gift they would like so you don't end up with an ugly tie or cologne will never wear, it is an idea.

My other idea for a "to me from me" gift is very affordable. The SP-200 Hand-Held Radio is \$279.00. If you have ever lost your radios, I have (but not in a DPC aircraft), you would give three times that amount to get in touch with somebody. This is such a reasonable price that for safety reasons, you should get one.

Now, if I haven't given you any good ideas, check your Google tab on your computer and start surfing.



The HP Anywhere Map and the SP-200 radio make great gifts...even if you give them to yourselves.

## On a Mission: Managing Ice

The techniques with which mission-oriented operators using smaller aircraft stay out of ice are the same ones you'll use this winter.

By Thomas P. Turner *Aviation Safety Magazine*

Aircraft utility can go down significantly in cold weather. Adverse weather is more common and tenacious than in warmer months, and along with the fog, low clouds and wind, there is often the threat of airframe ice. Yet we still want, and sometimes feel we need, to fly.

How can we balance the possibility of airframe ice with the utility of our airplanes? How do the experts—those "on a mission" with their airplanes—predict, avoid and escape airframe ice? To answer these questions I spoke with professionals who slog through the weather every day (and night), flying high priority aeromedical, charter and air cargo in piston, turboprop and small jet aircraft.

### Mixed Fleet, Common Rules

Marvin Heskett is chief pilot for Midwest Corporate Aviation in Wichita, Kan., an air charter operation that also has serviced aeromedical flight contracts. The MCA fleet includes a mix of Beech Barons, King Airs and Learjets, but similar rules for flying in ice apply to each.

Forty years ago Marvin flew mail between Reno and Las Vegas in a Piper Aztec. He turned around or landed at an alternate often in wintry night skies, "maybe more often than the Post Office liked," because of ice. The first ice trick he learned was to turn on the airplane's landing lights in cold IMC. "If snow doesn't sparkle in the lights," he quips, "it was going to stick" to the airframe. He still uses this technique in Barons to Learjets, and teaches his new hires to do the same.

Marvin emphasizes aircraft manufacturer's data for making ice-related decisions. Some of his Barons are certified for flight in icing conditions (so-called "known ice"). The King Airs and Learjets of course carry "known ice" certification. All have limitations on operable equipment, minimum airspeeds in ice and the type and amount of ice, in which each is certified to fly. The King Airs, for instance, are certified for continuous "trace" to light icing in cruise flight, and moderate icing in short climbs or descents at the published minimum ice penetration airspeed. Marvin's pilots "dig into the manuals" because "each airplane has its quirks" about ice certification. "We tend to cancel a lot of trips in the King Airs and Barons because of ice," Marvin says.

Even in the jets, "avoidance is our main key." Marvin teaches pilots to "believe the forecast" but "call ahead" to confirm conditions and talk to pilots who have just landed. He doesn't see a lot of correlation between online Forecast Icing Potential (FIP) charts and actual icing conditions he encounters, but puts great store in pilot reports (Pireps) from other pilots, knowing the freezing level and the weather-producing mechanism before taking off.

Marvin plans alternate airports short of his destination near his route of flight so he doesn't have to continue beyond his goal if he encounters ice. He disciplines his pilots to "do what our training tells us to do"—for instance, avoid temptation to launch in the Baron or King Air when cloud tops are at 3000 feet, sky clear above, but moderate ice is reported in the clouds. "You never know how long you might have to be down in it." Further, there is great "distraction when on the approach, flying dirty, low and slow," distraction that may prevent a pilot from noticing ice accumulation or its aerodynamic effects. Marvin insists his pilots turn on all anti-ice equipment on all flights, year 'round. "It's easier to stay in the habit of using ice protection summer or winter, so you won't forget it on a cold, dark night."

Regardless of the airplane, Marvin's rule is "do not stay in sustained ice" accumulation. Not only are the airframe effects hazardous, but antenna ice and static electricity build-up affects communications and navigation radios. "Use your thermometer, landing lights and eyeballs" to detect and avoid ice, he says, and "know your escape plan before you go" into potential icing conditions.

Does this 40-year veteran of ice encounters have some limitations on where he'll take an ice-certified airplane? Absolutely, he says.

"We don't go anywhere near anything to do with freezing rain. Don't count on being able to outclimb freezing rain" into warmer air. "You may think you can climb out but you'll likely get too heavy, fast. Use your time instead to turn around, and land and wait it out if you

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**Newsletter articles Due by January 10, 2007**

## Around the Hanger

Send your Check Outs, Medicals, and Safety meeting's to Tim Smith, P.O. Box 1144, Waynesville, Ohio 45068-1144 or e-mail: [arrowsmith@woh.rr.com](mailto:arrowsmith@woh.rr.com)

**Schedule your check-ride with the new Zodiac as soon as you can get with your instructor.**

**Pizza Party on December 19, 2007 after meeting**

have to."

Marvin also strongly recommends staying on top of cloud layers as long as possible, then making a straight-in, "penetrating" descent. Do not to accept long vectors in IMC when the air is cold, and decline approaches requiring procedure turns or course reversals. Tell, don't ask, ATC to let you stay above clouds as long as possible.

Also, decline circling approaches in potential icing conditions. "The worst ice I ever had was in a Learjet on a circling approach in relatively benign winter weather," he says.

Marvin's final bit of advice applies beyond just ice avoidance. "Every airport has a road," he reminds us. "Drive down that road and eventually you'll get to another airport." His point is that there are conditions, notably ice, when driving is far preferable to flying.

### Great Lakes Charter

Lee Cobb has flown charter out of Macomb, Ill., since 1981. He currently flies King Air 200s and employs five pilots. Like Marvin Heskett, Lee thinks Pireps are the best possible briefing product for ice avoidance. He especially likes "early morning Pireps" because they may indicate the general tone of weather for the day. Lee expects his pilots to be students of weather, to understand not only what the weather is, but what it'll become and why it will be that way. He eschews hard-and-fast icing rules, because "every day is different...what worked yesterday might not work today." He often sees what he considers "unacceptable risks" taken by pilots in ice, and offers this advice:

- Know the freezing level in your area at all times.
- Pop the boots (or activate other deicing equipment) just

prior to the final approach fix (FAF) inbound.

- Fly a stabilized approach from the FAF to the runway or missed approach point.
- Do not attempt multiple approaches in icing conditions. If you miss an approach, proceed directly to an ice-free alternate.

### Highest Priority

"It's a mistake to say fixed-wing aeromedical flights are high priority," says Harrel Timmons, who owns an air taxi/aeromedical system in Galesburg, Ill. His three-FBO network flies Cessna 310s, 303s, 401s, Citations and a Lear 35. "Fixed-wing patients aren't flown until they're stable." The highest-priority flights, Harrel says, are those carrying organs for transplant. In the icy Great Lakes region, "organ flights are the biggest part of our business," he reports.

"If you fly a lot you will get into icing." But Harrel is not cavalier about the threat. "If you get into ice," he continues, "you will also remember the date, the hour and the location of your worst ice encounter." The best defense against ice is knowledge. "Below 40 deg. F," Harrel says, "all forecasts say 'icing.' They err way on the side of caution." This creates a "handicap to trying to use the system effectively." The "absolute best protection" for a pilot is to "know the weather system, what causes ice, and know a way out" before ever taking off.

Harrel's advice: "I don't care if you're in a known-icing airplane or not, the best thing to do is escape." Even with top-of-the-line deicing equipment "you're going to get performance degradation." The worst icing conditions, according to Harrel, are in stationary fronts. Maximum icing, in his experience, happens between 34 deg. F and 25 deg. F; in stable air below about 15 deg. F to 20 deg. F he says ice will "sublimate as fast as it accumulates." As soon as ice begins to form, Harrel says, "go up"—you'll climb out of icing conditions, on top of clouds, or into air that's outside the icing temperature range.

Harrel continues: "You're not going to know the full [weather] situation from weather reports." A good weather pilot needs to know what causes ice to form, and characteristics of transfer of energy as water changes from liquid to solid and back again. "The number one rule is 'don't panic,'" the fastest avoidance is to "turn 90 degrees" to the threat. "I could talk for hours about avoiding ice," Harrel exclaims—and I believe him.

## A Message From Your President

Winter is here and we will now keep the hangar doors open and the engine heaters plugged in

Don't forget our traditional December social meeting on 'Wednesday, the 19th. We will keep the business meeting brief and have pizza and soft drinks to enjoy, along with good company and some hanger flying.

This will be the last monthly DPC newsletter by our editor, Mike Nolan. We will be making changes in the newsletter by only publishing a newsletter once each quarter period and making it a section or our link to our DPC website. Reiff Lorenz will take over the reins so be sure to forward any worthy news or aviation articles you may come by to Reiff's attention. Many thanks to Mike Nolan for several years of getting the newsletter out month after month, with great stories and interesting articles.

Safe flying,  
Greg Halderman

(Continued from page 3)

Ice is that last great weather unknown. Until we have an ice-detection equivalent of a StormScope or Strikefinder, we're at the mercy of the weather briefing system, our airplane's design capabilities and our own weather education. To increase your icing knowledge, take the advice of pilots "on a mission" to fly in potential icing conditions.

*Tom Turner is a CFII-MEI who frequently writes and lectures on aviation safety.*



### November 2007

		Current Month		Current Year	
		Prior Fiscal Year			
Aircraft	Hrs	888	YTD Hrs	YTD 888	YTD Total
4506W	13.33	0.00	146.78	0.17	146.95
	9.34	0.00	164.39	0.69	165.08
701DP	11.30	0.00	131.00	12.50	143.50
	14.70	1.20	46.90	1.30	48.20
8078X	14.80	0.10	141.30	1.10	142.40
	13.70	0.00	160.00	1.30	161.30
Totals:		39.43	0.10	419.08	13.77
		37.74	1.20	371.29	3.29

### October 2007

		Current Month		Current Year	
		Prior Fiscal Year			
Aircraft	Hrs	888	YTD Hrs	YTD 888	YTD Total
4506W	26.09	0.00	133.45	0.17	133.62
	14.39	0.05	155.05	0.69	155.74
701DP	14.90	0.00	119.70	12.50	132.20
	19.70	0.00	32.20	0.10	32.30
8078X	26.10	0.00	126.50	1.00	127.50
	10.20	0.40	146.30	1.30	147.60
Totals:		67.09	0.00	379.65	13.67
		44.29	0.45	333.55	2.09

### September 2007

		Current Month		Current Year	
		Prior Fiscal Year			
Aircraft	Hrs	888	YTD Hrs	YTD 888	YTD Total
4506W	18.72	0.00	107.36	0.17	107.53
	14.67	0.16	140.66	0.64	141.30
701DP	15.60	5.80	104.80	12.50	117.30
	12.50	0.10	12.50	0.10	12.60
8078X	16.50	0.00	100.40	1.00	101.40
	15.30	0.00	136.10	0.90	137.00
Totals:		50.82	5.80	312.56	13.67
		42.47	0.26	289.26	1.64