

**DEDICATED TO PERPETUATING AN  
ECONOMICAL AND EFFICIENT  
PROGRAM IN RESOURCE  
MANAGEMENT AVIATION**

## IANRP ANNUAL WORKSHOP N'Awlins Update...

Dave Younkin

ASSOCIATION OBJECTIVES:

- A. To promote the recognition of the importance of sound aviation practices in resource management, with safety as the paramount factor.
- B. To encourage and develop the educational, social, and economic interests of aviation in resource management.
- C. To exchange information on operational techniques and procedures.
- D. To utilize member experiences to develop and distribute reference materials of aviation interest to the Association.
- E. To coordinate, research, and promote new techniques and equipment.
- F. To take all action necessary to further the use of aircraft in natural resource management.

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**All IANRP members:**



This is an update that hopefully will help you with the workshop in New Orleans. The workshop is in conjunction with The Department of Interior's symposium in New Orleans, January 31st through February 4th at The **Le Pavillion Hotel**. Their agenda is on the web at:

<<http://www.oas.gov>> (not case sensitive).

In addition, I've asked for a room to conduct our business meeting at 1:30 P.M. on Monday the 31st, which will involve the usual business and some amendments to our by-laws. The proposal for amendments will be forwarded as soon as I have time to type them. I have also asked for a room on February 1st for presentations of interest to all IANRP attendees.

I've asked for volunteers for anything from slide presentations, movies, speeches, to comedy acts. To date have a one hour presentation by Eric Trembly about their Conservation program and officer selection and training in Ontario. I've asked **G.B.Courtney** to help organize some so-

cial activities. We will advise the membership as soon as details are confirmed. I'm suggesting a registration fee of \$75.00 to offset our specific costs. I believe that George will come up with a dinner and/or cruise for one of the evenings.

I'm asking all members who plan to attend to please confirm with me, and advise me as to what arrival and departure dates are planned, so as to better facilitate some planning for conducting our meetings and presentations.

**-Dave Younkin, President**



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and the freshness of its food and beverage offerings. New Orleans and the grand Le Pavillion Hotel, "The Belle of New Orleans", awaits your arrival.

### SAFETY CORNER

## Baby, It's Cold Outside!

Dennis Dura, D.P.E.



Since we are in the winter months of the year, it might be interesting to review what cold temperatures do to aircraft performance:

Given a constant pressure altitude, as the temperature decreases, the density altitude decreases. As the density altitude decreases, the density of the air increases. As the density of the air increases, lift and drag increase, propeller efficiency increases, and true airspeed decreases. As true airspeed decreases, the power required to maintain a constant indicated airspeed decreases. That is why our normal indicated takeoff speeds require less power in cold temperatures. If we apply takeoff power in cold temperatures, we will accelerate to takeoff speed quicker, requiring less takeoff distance compared to higher temperature conditions present we see during other seasons. Landing distances will also be shorter in cold temperatures because the true airspeed is lower than the indicated Vref for an given airplane.

As the temperature decreases, the speed of sound decreases. This

allows the tips of helicopter blades to operate higher in the transonic region (Mach 0.75 to 1.20). The compressibility effects on the tip of a helicopter's advancing blade generate a louder noise signature in colder temperatures than it does during warmer periods.

Because cold air settles, as the temperature gets colder, an aircraft will be lower than the altimeter indicates. Be careful in executing an instrument approach in very cold temperatures. You will be lower than indicated at MDA or DH and will not have the required obstacle clearances.

There are four rates of ice accumulation: trace, light, moderate and severe. There are also three types of ice formation that affect an aircraft: clear, rime and mixed. Since you don't know how bad the icing condition can get, once an aircraft starts to acquire ice, the pilot should take immediate action to exit the icing. Depending upon the situation, usually an altitude change of a few thousand feet will exit

*(Continued on page 3)*

## MISSION ANECDOTES

### I Love My Job...

Trooper Jim Low, Fish & Wildlife Protection, AK

**In the spirit of Christmas maybe a few of us could post some of our fun stories about work for the rest to read:**

**Salcha River, Alaska:** In July of 1998, I was hauling gas in the Super Cub upriver to a gravel bar so the airboat could run up there during the next couple of days and have the gas needed to refuel. On final approach I saw four people in the river, two of them with fishing poles. I carried the gas to a place where I could hide it, took a GPS reading, and diagrammed a little map of where the gas was stored. Then I walked upstream to where the people had been fishing. Not knowing what they would do out in the woods, (if I made noise they might think it was a bear and shoot or something) I put the mosey on them and eased through the willows on the bank of the river.

The day was picture perfect and the two fishermen were out in the middle of the river. One of them had just caught a fish. He turned to the other one and said: "Hey, this is a lot of fun! I'm going to have to get a license..." With that he turned and started walking towards the bank where I was standing. He saw me and about lost his footing in the river, turned a number of shades of red, and said to me "I suppose that you heard that?" Neither fishermen had licenses, and both were issued citations.



I wish I'd had my camera with me to capture their expressions when they first saw me. It was priceless!



**Trooper Jim Low  
Fish & Wildlife Protection  
Fairbanks, AK.**

(Trooper Low retires this month with 21+ years and 2000+ flight hours!)

#### Why not send us your anecdote?

Every now and then we receive interesting anecdotes from our readers. We enjoy sharing them with the membership. With the thousands upon thousands of hours of flight experience out there, we know that our members have many anecdotes worth retelling. Please send us one of your war stories. We all can look back and laugh at the follies and frustrations we have experienced over the years. Why not share them with our readership. There are many lessons learned which can be passed on to others. Don't let a "pearl of wisdom" retire with you. Help us pass on your experiences to those younger pilots who will follow in the wake of your aviation adventures.

## ENFORCEMENT ACTIVITIES

### A Matter of Honor...

Courtesy of Utah Wildlife News – Forwarded by Curly Satterlee

#### High Profile Poachers Handed Stiff Penalties

**Price, Utah** early 1998: Two self-styled "hunters" from Carbon County, Utah needed something to do. Both men were unemployed and had plenty of time to kill. Unfortunately, they killed much more than time. As both men admitted, they took multiple excursions into the hills to kill buck deer. Over several months, the twosome, armed with .22 rifles, took pot shots at any deer they saw. On one occasion, they "opened up" on a group of five bucks, hitting most, if not all of them. Tragically, a .22 round rarely kills cleanly. Many animals were mortally injured and left to die a lingering, painful death. No one knows how many deer fell to their insane pastime.

In February of 1998, Utah Division of Wildlife Resources conservation officers received word from a cougar hunter that there were a number of dead bucks afield. Division Southeastern Region Sergeant Carl Gramlich and Investigator Roger Kerstetter followed up on the report and found nine dead bucks and one dead fawn. Three of the nine bucks were trophy size. With one exception, only the antlers and heads had been retrieved. Carcasses had been left to rot.

Gramlich and Kerstetter collected bullets from the carcasses and discovered that only two rifles were responsible for the carnage. However, without a lead on a suspect, the case was going nowhere. Gramlich appealed to the news media and the general public for help. After news reports went out, sportsmen were outraged and demanded action. The Rocky Mountain Elk Foundation, Sportsmen for Fish and Wildlife, and the Division's law enforcement group teamed up to post a \$2,000 reward for information leading to the arrest and conviction of the persons involved.

Tips began to trickle in. One tip led to a house and suspect in the old



mining community of Kenilworth, near Price. Gramlich and Kerstetter interviewed the suspect, who confessed to the killings and divulged the names of other individuals. Subsequent interviews revealed that a total of four people were responsible. Sentencing was completed in late November 1999 for the two primary defendants in the case.

The District Court in Price had previously received letters and verbal testimony from area sportsmen who, in light of the circumstances of the case, pled for severe penalties. The presiding judge did not disappoint them.

The first defendant was sentenced to 120 days in jail, fined \$2,500, and charged \$11,500 in restitution. He also forfeited his 1973 Chevrolet pick-up and .22 caliber rifle. He will be on probation for 36 months and may not own or possess a firearm during his probation, or associate with anyone who does. The second defendant was sentenced to one year in the Carbon County Jail with all but 45 days suspended. He was fined \$2,000 and ordered to pay \$4,800 in restitution. He forfeited his .22 rifle, and was placed on 36 months probation. Both "gentlemen" still face revocation of hunting privileges for years to come. Two minor defendants have yet to be sentenced by the court, but must now feel the gravity of their situations.

"Don't make the same foolish mistake," Gramlich warns. "You could end up paying dearly, losing your vehicle, firearm and thousands of dollars -- not to speak of jail time." Gramlich credits the successful prosecution of the case to sportsmen who got involved. "We wouldn't have received those penalties had sportsmen not become involved and expressed their outrage. We are grateful for their help."

## COLD WX SURVIVAL TIPS Survival of the Fittest...

By Pete Hobstetter

*You're OK! You rub your arm. It hurts, but you're OK. Your plane isn't. It's tail rises at an awkward, broken angle above the snow. What the hell went wrong? How did you crash? How did you ever get into this mess? Brrr...it's cold!*

Every second you spend now wondering what happened to you is a second wasted, and time and the elements are your new adversaries. You have been, quite suddenly, thrust into a cold weather survival crisis, and every decision you make during the next few hours can mean the difference between life and death.

The secret to your survival will rest in your ability to recognize and prioritize the threats you now face. They will generally be of two types: physical and environmental. Assess them in terms of time. Remember that you and any threat you face must meet at an exact moment in time in order for the threat to become an event.

Physical threats, such as predators, may or may not exist. If they do, prioritize them in terms of distance. (Is the cliff behind you closer than the bear in front of you?) The greater the distance you can put between yourself and any threat, the farther you will be separated from it in terms of time, and the less risk it will pose to you.

Environmental threats, on the other hand, are most assuredly present. The three main types you will face are, in order of time: hypothermia, dehydration, and starvation. Your body needs nourishment for sure, but you can survive for weeks without any food at all. Dehydration, on the other hand, can kill you in a matter of days. However, the major and most immediate threat to you is hypothermia. Under the right circumstances it can kill you in a matter of minutes.

Physical threats are usually the closest to you in terms of time, and therefore will need to be dealt with first. The most likely of these will



be injuries requiring immediate attention and ensuing shock. After dealing with them turn your attention to hypothermia. Regardless of the temperature, your survival will depend upon you're your ability to stay dry and out of the wind.

If somebody knows you're missing and you know they are looking for you, then you might want to try your radio or build a signal fire, but don't waste your time if the sun is on the way down. They can rescue you tomorrow only if you survive the night. Devote all your time to building a shelter before the sun can set. Pace yourself! This is critical if you want to stay dry. As you work remove layered clothing in order to minimize sweating. Think of your body as a steam locomotive. Exercise is akin to stoking the boiler. Work at a pace that will keep the fire from going out, but not at a pace that will vent steam (sweat). Once your clothes are saturated with moisture your survival is in jeopardy.

There are many options for shelters: snow shelters, shelters made from tree limbs, the aircraft, or survival gear that may be onboard. Build yours away from areas where avalanches may occur. A well-constructed shelter must do two things: isolate you from the wind, and insulate you from the cold. Locate the entrance away from the wind, and prepare some sort of bed that will insulate your body from the earth. If you build a fire, you will need to find bare ground, or build a makeshift hearth to isolate it from the snow.

Once the shelter is complete start to look for a source of water. Fresh running water is preferable, but ice or snow will suffice. Old sea ice, recognizable by its bluish color, will be free of salt. Whatever the source, make sure to reduce it to a liquid state before consuming it.

If rescue is not imminent, your final challenge will be finding food. In a cold weather environment your two best options most likely will be trapping small animals and catching fish. Whatever the food source may be, cook it thoroughly. Trichinosis may be present in any wild game. Also, the livers of certain large mammals are toxic, so they should be discarded. Eat only a little bit of food at first, and wait several hours to make certain it doesn't make you ill.

All of these common-sense tips can help you in a survival situation, but you will be way ahead of the game if you have a complete survival kit on board the aircraft. Make sure your kit includes a good survival manual as well. It may become the best book you have ever read...

### (SAFETY CORNER Continued from page 1)

icing conditions. If you do accumulate ice on the airplane, the airfoils will be contaminated resulting in a higher than normal stall speed. Because of the distortion of the wing airfoil caused by the ice accumulation, stall warning devices are not accurate and should not be relied upon. You should consider using a higher than normal approach speed with zero or partial flaps. An airplane should climb at a reduced angle and higher airspeed to reduce the possibility of accumulating ice on the lower surfaces.

With a load of ice on a helicopter, the increase in drag and weight will require more power to maneuver. Further more, the autorotational capability of the helicopter may be affected adversely. Ice will form on the inner portion of the main rotor disc increasing the drag and degrading stabilized autorotational rpm.

As air is ingested through the engine intakes, the moisture inside the induction system or carburetor can freeze and restrict the flow of air into the engine. Alternate air controls or carburetor heat should be applied immediately if an engine starts to lose rpm or run rough in icing conditions. Keep in mind that anti-ice devices should be on before entering icing conditions, whereas, deice devices are used to get rid of accumulated ice.

If the static ports become blocked with ice, the VSI and the altimeter will cease to detect altitude changes. The airspeed indicator will decrease during a climb and increase during a decent. A blocked pitot tube will result in an airspeed indicator reading zero, however the altimeter and VSI should not be affected.

Each season has its own challenges and winter flying can have its surprises for the unwary. – **Dennis Dura, D.P.E.**

## PRODUCT REVIEW

### Found Bush Hawk Update

**Perry Sound, Ontario:** Found Aircraft Canada Inc. has moved into its new manufacturing building at Pany Sound Airport near Toronto, Canada. The company has received a Production Certificate from Transport Canada, for manufacture of the Bush Hawk utility airplane. The first production aircraft from the new facility will be flying in February, 2000. A production rate of one per month will be reached in June. Reinstatement of the FAA Type Certificate A7EA, which will include the FBA-2C1 Bush Hawk, is expected in January, 2000.

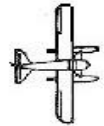
On-going development programs are continuing, and the prototype Bush Hawk has been fitted with Aerocet 3500 floats (Edo 3430). Take off performance with a Lycoming 10-540-D4A5, 260-hp engine indicates a 30 second lift off at gross weight with 1200 lb. disposable load, and a climb rate in excess of 700 PPM. The aircraft was successfully spin tested with Aerocet floats over 60 times at gross weight in both forward and aft C.G. configurations. The Bush Hawk has demonstrated a 1000 mile range along with the ability to climb steadily from take off to 9800 ft. See the IANRP Web Page for more details.

# Con Aero Newsletter

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### Calendar of Events

- 01/24/00 Heli-Expo 2000  
Las Vegas, Nevada
- 01/31/00 IANRP Workshop 2000  
New Orleans, Louisiana
- 02/12/00 NASAO Legislative Conference  
Washington, D.C.
- 02/29/00 Tennessee DOT Aviation Conference  
Nashville, Tennessee
- 03/24/00 NA Wildlife & Nat'l Res Conference  
Chicago, Illinois

See Details on the IANRP Web Page

### IANRP WEB PAGE

The IANRP Web Page is now on line.  
The formal address is:  
<http://IANRP.org>



### CLASSIFIED ADVERTISEMENTS

#### POSITION WANTED: PILOT/BIOLOGIST

**Stephen D. Earsom**

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(Resume available on the IANRP Web Page)

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I herewith petition the Executive Committee of the International Association of Natural Resource Pilots for Membership.

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