

Sourdough Notes



USDA Forest Service
Alaska Region Newsletter

Volume 3 Issue 4
Special Edition 2006



*Commemorating Ten Years
of Aviation Safety in the
Alaska Region*

ON THE COVER:

Forest Service Alaska Region Law Enforcement & Investigations Aircraft. Photo by John Liston.

SourDough Notes

Quarterly newsletter for the USDA Forest Service Alaska Region P. O. Box 21628 Juneau, AK 99802-1628 http://www.fs.fed.us/r10

Special Edition 2006

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Submissions: SourDough Notes is written for people interested in the Alaska Region. Your suggestions, articles, and photographs are welcome. Please contact:

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Articles should be no more than 800 words and may be edited. Submitted articles may not all be printed. Submitted digital photos should be sent as high resolution TIF or JPG. Please contact the Public Affairs Office if you have questions.

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COMPLACENCY BY LES C. HARTLEY Owner, Alesek Air Yakutat, Alaska

Complacency, complacency! Where are you? You're waiting, lurking in the shadows around the next bend. I know you well, but you're not my friend.

I've seen you sneak up and worm your way in. These eyes have seen you kill and maim again and again.

Oh Yes, at times I have let you into my life. You come sweet-talking and smiling. Hey! Don't bother with this, don't bother with that. Your ways are like the stalking of a jungle cat.

With you we must evade, struggle and fight. For if we don't you will take us by day or night.

We will continue to do battle and yes some of us will lose. But we will rally our forces, fight you off, die of old age of which we would choose.

So complacency go, go back to the shadows, back into your evil pit. We will be on guard and you can count on this. We shall never quit.

We Can't Get There From Here!

By Boyce Bingham, Regional Aviation Safety Manager

Everyone likes to think they are different. The nature of travel in our region is what makes us different. When someone asks, "How do I get there?" the answer is, "You can't get there from here." It sounds humorous, but in many cases, it is the truth.

Getting to remote parts of our region is a daunting task. For many of us, the ruggedness and splendor is what attracts us to this part of God's creation, but getting "out there" can be hazardous to our health, if not down right deadly. Life in Alaska is replete with true-life tales of how people are lost through careless acts or accidents. Newspapers often contain harrowing details of bear attacks, helicopter crashes, and missing airplanes.

One can seemingly disappear from the face of the earth, but in fact, be quite near. This happened to a Forest Service employee on a routine flight to look for a sunken vessel near Horse and Colt Islands. Years after his disappearance, his aircraft was found within six miles of the Juneau airport. Two years ago, seven people aboard a Beaver from Sitka to Baranof Hot Springs disappeared in bad weather. All aboard were presumed lost. Last year, a Yakutat district employee was mauled by a grizzly bear and narrowly escaped with his life. He had a few broken ribs and some scratches. Two years ago, three employees were swept away by raging water. One drowned, and the others narrowly escaped with their lives.

The theme of this special issue of *SourDough Notes* is our ten-year accident-free record in aviation. This is a major success that should not go unnoticed. It came through diligent hard work and adherence to



Boyce Bingham in the cockpit of a Firewatch Cobra I helicopter.

the policies and practices that have proven effective in safeguarding our employees and getting them home at the end of the day. We have shown that best aviation practices and policies contribute to safe outcomes.

We haven't always been able to make these claims. In 1969, we flew 2,647 flight hours in the region and reported 13 accidents. That equaled one accident for every 203 flight hours. In 1970, we had eight aviation accidents that resulted in 13 employee deaths. It was a tremendous price to pay. The rules, regulations, and procedures that make up our aviation program today came from the price paid by those employees. For example, in the mid-1980s, the body of an employee who drowned from a helicopter crash was never found. We now require day-glow orange flight suits for helicopter flights.

We soon realized that addressing problems after they happen is the least effective way of managing safety. As a result of our appalling

accident rate, we were determined to do business differently. We now have a very forward-looking systems approach to aviation safety. One example of a systems approach is our aviation user training. Every employee that participates in flight activities must take AUT once a year. Within the region, we expend a lot of time and travel funds to insure AUT is conducted each year. We make sure the employees know that they have the power to influence the outcome of every flight. Conducting business safely has become a natural way of doing our work. The last ten years of accident-free flying can be attributed to the involvement of our employees and vendors, their knowledge of our safety requirements, and their input into the decision-making process for each flight.

When the question is asked, "Can we get there from here?" we can answer, "Sure, but this is the way we do it." Let's make the next ten years just as safe as the past ten. Let's go for ten again!

A.U.T. for You and Me

By Bill Moulton, Aviation Safety Officer, Tongass National Forest

The employees of the Tongass National Forest live on shaggy, spruce-covered islands surrounded by wilderness areas and the jade-green waters of the Inside Passage. How do they get to the woods? They fly. They fly a lot. In 2005, they flew 3,562 hours in small, float-equipped aircraft, mostly Beavers and Cessna 185s. Contract MD500 helicopters flew them for 920.2 hours.

Southeast Alaska is known for hypothermic waters, heavy rain, constant fog and unforgiving weather. Safety is vital for survival here and safety starts with aviation user training. AUT is presented by the dedicated aviation officers, dispatchers, and helicopter managers of the Tongass National Forest.

AUT is the Alaska Region's take on *IAT: A-110*, the nationally recognized standard for basic aviation training. The Tongass Aviation Group gives this multi-media presentation all across Southeast Alaska, from the Yakutat Ranger District in the north to the Ketchikan Ranger District in the south. Last season, the group gave 23 public presentations within a four-month period, not to mention countless one-on-one sessions. The 211 students included Forest employees, regional office employees, forest science lab employees and cooperators.

Each presentation is fine tuned to the audience's needs. In addition to the formal Power-Point presentation, the training might include:

- Information on radio usage
- A recently updated training film
- A clip from a Hollywood film to test the audience's knowledge of the safety skills they've learned,
- A "walkaround" presentation with an actual helicopter or fixed wing aircraft
- Getting tossed into the local swimming pool during underwater egress familiarization.

Petersburg District Ranger Patty Grantham said this training is, "a critical piece of our overall safety program." She might be proved correct—this month, the Alaska Region celebrates ten years of accident free flying.



Top: Tongass Helicopter Manager Jeff Schlee gives a "walkaround" during a recent safety presentation. Photo by: Libby Dougan. Bottom: Employees Trina Ives, Alicia Stearns, Vivian Hjort, Bill Moulton,

Employees in the aviation program in 2006:

Tongass National

Libby Dougan	Terri Campbell	Yvonne Stanley
Mike Stacy	Rose Greenup	Cindy Vreeland
Trina Ives	Jeff Schlee	Patti Huddlestun
John Krosse	Bill Moulton	Vivian Hjort
Alicia Stearns		

Chugach National Forest

Dave Zastrow	(Safety) Dan Logan
Mike Stubbs	Pat Benning
Jennifer Troudeau	

Regional Office

Boyce Bingham
John Liston
Dave Galloway

We Take Juggling Seriously

By Ray Koleser, Pacific Northwest Research Station, Anchorage Forestry Sciences Lab

Employees in the Pacific Northwest Research Station's Alaska Forest Inventory and Analysis Program are celebrating 28 years of flying without an accident. FIA is a major user of aviation in the region, flying 250 hours of helicopter time each field season both on and off the national forests.

Since the late 1950s, FIA pioneered the use of aviation to conduct resource inventories. During the 60s and 70s, FIA worked pretty much on its own, completing aerial surveys and transporting crews all over the Interior using planes, helicopters, and boats to get people to the field. Due to the lack of communication in remote areas, we were only able to check in with the office twice a day using a single sideband radio.

In the 80s, we worked with regional dispatchers for morning and evening check-ins. We received oversight from the forest aviation officer, even though most of our work was in the Interior and not on national forest lands. In the 90s, we stepped up our operations in the coastal areas.

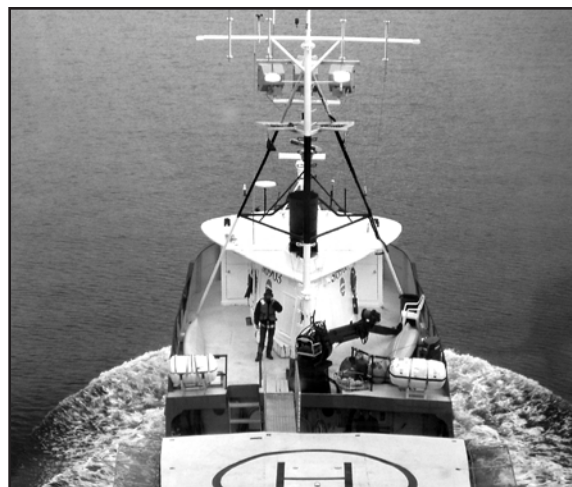
Since 1995, we have collected national inventory data (as mandated by Congress) along the coast of Alaska. We use an 86-foot work boat, the *Maritime Maid*, and a helicopter that sits on the back deck. This set up is a very efficient tool that enables us to work the 800 miles of coast from Ketchikan to Kodiak each year during a three-month field season. The boat allows us to move closer to our work, shortening the length of the helicopter flights, which increases safety and decreases cost. In the Lower 48, inventory crews work out of hotels and drive to most of their inventory plots. Our boat is our hotel and the helicopter is our pickup truck.

Today, FIA works as a separate aviation unit coordinating with the regional aviation group as well as the Tongass and Chugach national forests. These good working relationships have been instrumental in helping us get our job done. In the future, we will work in the Interior, as well, which will bring new challenges to our program. We will be operating two aircraft at the same time. With the advent of new technology such as automated flight following and satellite phones, working in remote areas can be done in a safe manner.

Flying for 28 years without an accident does not come easy. We invested large amounts of

time and money in new technology and communications. We are aware of the consequences of making a mistake; we tailor our plans to address the special considerations of the areas in which we work. We are able to hire good people who work very closely with the pilots and managers. We constantly train people to grow from crew members to helicopter manager trainees to helicopter managers.

While our missions are basically the same on a day-to-day basis, the conditions we work in are constantly changing. We conduct morning safety briefings to identify safety hazards. Everyone gets a chance to talk and voice concerns or suggestions about any aspect of the work, from aviation, to the boat operations, or to working in the woods. Being part of a research station, conducting inventories, and dealing with the aviation component of our job, has been a juggling act. We take the aviation component very seriously, and that is why we have done so well over the last ten years. Let's all keep up the good work, for the next ten years and beyond.



The Maritime Maid is an 86-ft work boat that shortens the length of helicopter flights and increases the safety margin for employees. Photos by Ray Koleser.



Retiree Scott Fairchild lives on the banks of the Skeena River in British Columbia.

Message from Scotty

By Scott Fairchild, Retired Regional Aviation Officer

Ten years of aviation accident free flying in the Alaska Region is a tremendous accomplishment! Many “old timers” can remember the pain and suffering the Forest Service family endured when this wasn’t the case. Successful aviation is the result of teamwork. It takes management to create the atmosphere and to provide the necessary tools. It is the aviation staff on the forests and in the regional office that provide program management and oversight.

Finally, it takes each and every employee to undertake the responsibility to make a difference, by taking aviation user training and ensuring the policies are in place and prac-

ticed at the flight level. It is truly a team effort and each of you can be proud of the Region’s accomplishment of ten years of accident free flying. Don’t let your guard down as the consequences can be devastating! Congratulations from someone who is very proud to have been part of the best region and best aviation program in the country.

Editor’s Note: Scott Fairchild was the recipient for the 2002 Chief’s Award for Excellence in Safety and Occupational Health for his leadership, innovations, and new policies that allowed the region to reach what was in 2002 an unprecedented safety record. His legacy continues.

A Just Cause

By Daniel M. Logan, Regional Safety and Occupational Health Manager

The Alaska Region has come a long way since the days when aviation accidents were looked at as a cost of doing business. Alaska Region aviation personnel, in concert with management, started creating a new culture over 15 years ago which has led to a much safer environment for employees.

Although it was not called risk management then, the new culture had all of the tenets of a risk management program. It had methods of identifying the risks, then assessing the risks in an effort to control or reduce the risk severity and exposure. This approach that starts with leadership has allowed employees to voice their concerns about particular jobs or hazards, even to the point of refusing or canceling a mission if controls are not deemed adequate to do the mission safely.

Although there is always room for improvement, I appreciate the

Alaska Region safety culture. It is a “Just Culture,” an atmosphere of trust in which people are encouraged, even rewarded for providing essential safety related information. In some places, leadership is not always pleased to hear “certain” information, thus creating an environment where the workforce is not eager to provide certain information. A just culture is one where leadership and employees are fairly clear about what is acceptable and unacceptable behavior. This allows for an effective reporting culture to develop and grow. This removes the “blame or no blame” culture. Most people desire some level of accountability when a mishap occurs. In a just culture, that culpability line is more clearly drawn.

A just culture supports learning from unsafe acts in order to improve the level of safety awareness, improves

recognition of safety situations, and helps to develop conscious articulation and sharing of information.

Risk is inherent in everything we do, especially in aviation operations. It is a misconception that safety is an overhead cost that cannot easily be afforded. An organization that effectively manages risk achieves greater goals with less cost. Numerous Fortune 500 companies rank highest in their industry for having fewer, less severe accidents and injuries. I have often heard that “accidents are unavoidable because we are human,” and to some degree I guess that is true. However, the Alaska Region has remained accident free for ten years now and has adopted a goal of “ten again,” shooting for another ten years of accident free flying. I applaud the hard work done to achieve this first ten and support the efforts of all to achieve the next ten.

Stikine Quest (A Day in the Life...)

By Bill Moulton, Aviation Safety Officer, Tongass National Forest

Two Forest Service workers failed to check-in on schedule. The last anyone knew, they were battling the dark waters of the swollen Stikine River, while warily watching the gusts of snow that hinted at the harsher weather to follow. This is a fictional account of their story, and their would-be rescuer, Earle.

On learning that two colleagues were missing, Forest Service contract pilot Earle jerked his shiny scarlet and white helicopter off the Wrangell runway and into the turbulent sky. His actions were typical of many helicopter-borne rescuers in Southeast Alaska who race against twilight, fog, and hypothermia.

Earle knew that the southbound Alaska Airlines jet was scheduled to arrive in Wrangell late that afternoon. In fact, Flight 64 was on final approach as Earle's helicopter leapt into the air. To avoid the plane's flight path, Earle flew south over spruce-covered Dewey Mountain. As soon as Flight 64 touched down safely and the captain called "down and clear," Earle steered his helicopter north, flying over the dark, white capped water west of Wrangell called Etolin Bay.

Over High Island

Earle hailed the Federal Aviation Administration as he soared high over Kadin Island just northwest of Wrangell's airport. "I'm over High Island and clear of the area," he said. Earle gave Farm Island a quick glance in case the missing workers were there. As he peered over the fields that were once the winter home to pack mules used in the Cassiar gold fields, he failed to spot the missing skiff or its two occupants.



Earle continued along the Stikine valley that was darkened by a lowering ceiling of clouds. Snow swept the upper slopes of Garnett Mountain. The sun was slowly disappearing from the horizon of Zarembo Island. Earle stared down at the dark yawning mouth of the serpentine Stikine, knowing perfectly well the clouds could close in on him. He continued to Cottonwood Island which had been colonized in 1898 by prospectors waiting for the spring thaw of the Stikine River.

Chief Shakes Slough

The next likely spot to find the two missing women was near the glacial waters of Chief Shakes Slough. There, Forest Service cabins stand near a site once regularly visited by Tlingit leader whose title was Chief Shakes. Once, again there was no sign of the skiff.

Earle radioed Forest Service dispatch. "No luck so far," he said. "I'm over the Warm Springs."

Earle followed the Ketili River, tracking black coils through the muskeg. He contacted a ship that he passed, asking the pilot to keep an

eye open for the missing Forest Service crew. He flew over the big "elbow" in the Stikine, wondering if the women might have holed up in one of the cabins near the U.S./Canadian border.

Flemer Creek

Banking hard to the left at the elbow in the river, Earle almost missed spotting a small cabin hidden in the dark spruce alongside Flemer Creek. He slowed the ship and made out two figures in the gathering gloom. Surveying ribbon fluttered from their uplifted arms.

He landed quickly. His skids stabbed deeply into the soft sand of the Stikine. The rain-drenched workers had just fixed their outboard. They decided to spend the night in Flemer Cabin. They'd been unable to call out on the radio, due to the steep canyon walls and towering mountains between them and Wrangell. They thanked Earle profusely for searching for them.

"Just doing my job," Earle said. He wished them luck, called the Forest Service with the good news, and raced the falling sun for home.

Local Pilot Averts Mid-air Collision

If Petersburg pilot Rod Judy had taken off from Keku Island seconds later than he did, he might have collided in mid-air with a humpback whale.

But time was on his side that day and gave him a good story instead.

Judy, a commercial pilot, flew to the islands about 100 miles south of Juneau to pick up two U.S. Forest Service employees bound for Petersburg.

The floatplane was moving on the water about 50 miles an hour and just about to lift off when a humpback whale suddenly breached in front of the aircraft.

“We were just clearing the water, and right dead ahead of us this thing came clear out of the water. We were staring right into the whale’s stomach,” passenger Burl Weller told the Juneau Empire.

“It had to be at least 15 feet above the airplane,” Weller said. “You could see under his tail—he had air under his tail.”

Judy banked the plane to the left, and the whale fell off to the right. Weller estimates that the whale missed the wing of the plane by ten feet, but the pilot’s version of the story puts a little more distance between the whale and the plane.

Judy estimated the whale breached about 100 feet away from the nose of the aircraft and said it did not pose a threat to the plane. But it was close enough to render Weller speechless, he said.

“The fellow in the front couldn’t even talk. He was sputtering,” Judy said. “It was impressive. You could see the whale’s eye. I’ve seen them breach a lot, it’s common. But I’ve never seen one straight in front of the airplane that close.”



Photo courtesy of NOAA, Juneau, Alaska

Judy said it never occurred to him a whale could breach in that area because the islands are close together and the water appears shallow.

“You wouldn’t think it would be deep enough for a whale to get momentum to breach,” he said.

Breaching whales now officially go on record as a potential hazard to aircraft. The Forest Service is distributing a notice to its employees nationwide to be on alert for whales when landing to taking off in floatplanes, Weller said.

“This is something that could happen again. Hopefully not. Once in a lifetime is enough,” Weller said, laughing.

While he can laugh about the incident now, he can’t help but wonder “what if?”

“If the whale would have breached one second later than what he did, we would have been his necklace,” Weller said.

Reprinted by permission from the Petersburg Pilot newspaper.

Measuring Safety

“It is impossible to accurately measure the results of aviation safety. No one can count the fires that never start, the aborted takeoffs that do not occur, the engine failures and the forced landings that never take place. And one can neither evaluate the lives that are not lost, nor plumb the depths of human misery [that] we have been spared. But the individuals with the flight controls, fueling hoses, wrench, radar or dispatch order can find lasting satisfaction in the knowledge [that] they have worked wisely and well, and that safety has been the prime consideration.

Author Unknown

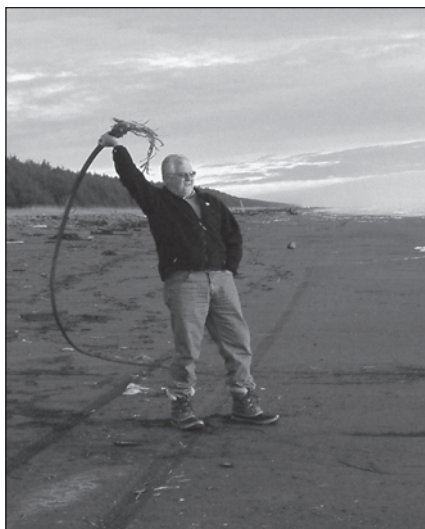
Pilot Proficiency

By John Liston, Regional Aviation Officer

The early morning sun cast long shadows from Black Butte lookout in Oregon as I slowed the helicopter's load of logs and watched the 100-foot-long line strain toward the upcoming slope. With vertical reference flying, it's always a matter of division of attention and depth perception. Looking down from the pilot-in-command's open door, I tensed as the load neared earth. "Watch the logs, watch the ground, watch the trees, check the rate of closure, glance at the instruments," I thought to myself as the logs continued their course and the helicopter shuddered out of effective translational lift.

As the ground crew watched from the ridge, I was looking good and feeling proud—right up to the point where the warm air from the south slope sent an updraft blasting into the bottom of the helicopter.

My overcorrection with collective and pedals sent the logs left and me right. The outhouse withstood the impact of the load, but my pride tumbled as I wrestled the logs to their intended destination.



John Liston enjoys a day at the beach.

No harm, small foul, I thought, as I returned to the landing for another load. I carried another 13 loads to the top of Black Butte during the morning flight. With each one, my confidence gained and my proficiency returned. It's one of the things most pilots' love about their work. It's full of variety and change which makes it an ongoing challenge and skill test.

Proficiency is defined as: *performing in a given art, skill, or branch of learning with correctness and facility (Webster's Dictionary)*. I certainly hadn't demonstrated proficiency on that first trip up Black Butte that morning, but I had by the end of the flight. This is an occurrence experienced by many of you as you undertake aviation operations in the Alaska Region. You begin a flight with a carded pilot and your senses tell you you're uncomfortable. Things just don't seem right. Is the pilot having an "off day"? Are the winds too strong to be flying? How did this person get approved to fly Forest Service flights?

As a pilot inspector, I can tell you that each pilot approved to fly Forest Service flights has demonstrated the ability to fly our demanding operations and has experience well beyond that required by the FAA for commercial flying. I can also tell you that, the check ride I give these pilots is only a snapshot in time. They know I'm evaluating their performance and judgment. They're on their best behavior. They know the standards I'm evaluating them to and they perform. Their job may very well depend on it.

The problem is that an inspector only flies with our contracted pilots once every few years. The rest of the time, we depend on our employee's to maintain Forest Service standards and



The Bell-407 pilot demonstrates extreme proficiency while placing an antenna on a tower. Photo by Tim Graves, Air Logistics, Inc.

be ready to recognize when things just don't seem to be right. Flying skills are perishable and training is expensive. It's not uncommon, and perfectly legal, to go months without practicing certain pilot skills. In Alaska, it's not uncommon for seasonal pilots to not even fly for 4-5 months during the winter.

It's like that first flight into Black Butte. I wasn't unsafe; I was rusty with my skills. Be cognizant of your pilot's skills and recognize skills that are rusty versus skills that lack safe practices. Proficiency with seldom practiced skills quickly returns. Poor performance and unsafe practices are a recipe for disaster. If that uneasy feeling with a pilot doesn't quickly go away, please contact your supervisor or aviation manager. We can recognize when proficiency is lost and require training to restore skills. But, we need you to alert us to the situation.

The History of Our Aviation Safety Program

By: John Krosse, Forest Aviation Officer, Tongass National Forest

While I was naming my document for this special edition of *Sourdough Notes*, it occurred to me, just maybe, I could be considered a sourdough. I would never presume to call myself a sourdough, but others, when hearing my story or finding out how long I've been here, might call me a... well, maybe not. When I came to the Tongass in 1983 from the Pacific Southwest Region as a temporary employee to work as a helicopter manager, I never intended to stay here this long. Things just have a way of working out, don't they?

Statistically and emotionally, the 1970s was not a good decade for the Alaska Region aviation program. The tragedies of that decade were the result of a tremendous amount of flying coupled with highly motivated employees in a "get 'er done" culture. Fortunately, Regional Forester Mike Barton recognized something had to be done. He said he didn't ever want to notify another family about a tragedy again. He said to make the changes in safety happen.

Barton's demands for improvement in aviation safety paved the way for the current program. Following his lead, forest supervisors removed collateral duties and empowered aviation and safety officers to develop and implement more effective programs.

To equip aviation managers with the tools to build an effective program, the region sent them to the University of Southern California to earn aviation safety certificates. These certificates required 200 hours of aviation safety, aircraft accident investigation, and a study of human factors, as well as 32 hours



Misha Yastkov loads a float plane on Admiralty Island.

of a supplementary elective to enhance investigation skills.

All safety program management classes teach that effective safety programs must start from the top. Fortunately, leadership brought on key people to develop and formalize a new approach to aviation and safety program management. The Forest Service had good policies and procedures for the time, however, aviation policies and procedures for fire were not designed for the mission and sheer volume of traffic in the Alaska Region.

One advantage for our employees, however, was the consistent use of the same pilots, airplanes, and helicopters. Such familiarity is a real asset when communicating safe practices. The sheer volume of work depending on aviation support drove the evolution of efficient and effective standard operating procedures. So, the aviation leaders of the 1980s were instrumental in setting up safe and efficient procedures. As a result, there was a significant reduction of injuries and accidents.

During this phase of program development, a decision was made to introduce and visibly support a philosophy of "conservative decision-making during operations in marginal conditions." This philosophy served as an alternative to the "fly-in-anything, get 'er done" culture of early Alaska.

The introduction and management of this concept was based on the relatively intensive education of employees and an environment where passengers and pilots alike could make conservative decisions. This was in contrast with the incident response culture under which Forest Service aviation policy had evolved.

Accountability for policy deviations played a big part in the successful implementation. Everyone learned that flight minimums and procedures were developed for a reason. There were a few examples of disciplinary action associated with willful deviations. Regionally, leadership also made the necessary financial commitment to

Dunking Pays Off

By Teresa Haugh, Regional Public Affairs Office

support the conservative philosophy because aviation operations in the Alaska Region are financed by projects with limited funds, whereas 95% of aviation operations in other regions are funded by incident response.

During the performance of normal duties, Alaska Region employees use aircraft more often than any other region. They need to be able to incorporate the proper aviation safety practices while accomplishing their primary target—getting their jobs done.

In the early 1980s, forest supervisors combined aviation responsibilities with the Occupational Safety and Health Program. These collateral duties provided more support and experience to sharpen skills in effective leadership in both programs. It also started a very close relationship between aviation officers and safety officers, which influenced employees at all levels. Safety responsibilities provided access to concepts and training not offered elsewhere that were easily applied to the management of both programs.

We are very fortunate that the management of the aviation program has been seen by field employees and leadership as an efficient, productive and helpful method of providing transportation services. While today the volume of flying has subsided, these concepts and culture have prevailed. They are alive and well, contributing to the safety trend we are experiencing today.



Chugach Aviation and Fire Officer Mike Stubbs. Photo by Annette Heckart.

Mike Stubbs, aviation and fire officer on the Chugach National Forest, is responsible for all aviation safety in the region outside the Tongass. Stubbs appreciates the region's safety record for both the fire and aviation programs. He attributes this milestone to the quality of people with whom he has worked. Stubbs said that safety comes from good leadership that begins in the regional office and works its way down through the ranks. He also gives credit to aviation user training and the carding of aircraft and pilots.

Stubbs said the Chugach has a noteworthy requirement of their aviation training that is unique in the region: they dunk employees in underwater cages. The purpose is to give trainees experience in finding their way out of a plane in case they land upside down in the water. This training paid off for some State & Private Forestry employees traveling on a State Division of Forestry plane. When the plane landed upside down on a sandbar, all the pas-

sengers were able to get out safely. A videotape of their experiences recorded during an after-action review has been used in subsequent training sessions.

Stubbs believes that the safety record will continue in the region if people are amenable to changing with the times and accepting new technology. For example, before 1996, each district on the Chugach had its own radio network and managed all their own field and flight activities. Stubbs helped to set up central dispatching system which increased efficiency and safety. Stubbs said that the servicing of radio repeaters could become cost prohibitive, and we must continue to look at doing business more efficiently. Now, radio over IP has alleviated some of the problems of keeping in touch with planes and all field going personnel. We can also track planes using automated flight following technology, and in the future, may use real time flight following.

Stubbs is a qualified Type I Planning Section Chief. He has a Master's degree from Colorado State University in forest management with an emphasis on forest fire science. He began his Forest Service career in 1978 in Richfield, Utah, at Fishlake National Forest. He worked in a variety of areas including fire, timber, recreation, special uses, fleet management, facilities, minerals, roads, and volunteers. In 1992, he came to the Chugach National Forest as part of an interdisciplinary team to work on a possible forest plan amendment. Later, he moved to recreation. In 1996, Stubbs became the Chugach Fire Management Officer and Unit Aviation Officer. He was one of the original 12 national trainers for the fledging INFRA program.

Thoughts from the RF

By Denny Bschor, Regional Forester

Since I first arrived here in the Alaska Region, I've been impressed with the emphasis on safety, especially the aviation safety program. This special edition of SourDough Notes focuses on that program's safety success story: ten years of accident-free flying in the Alaska Region.

The most important aspect of the aviation safety program is that it empowers employees to have a say in their own safety. Anyone in a party can say they do not want to go on a flight because they have doubts about safety—whether those doubts stem from inclement weather, or a question of the airworthiness of an aircraft.

After ten years, we've suffered no losses.

We have had some near misses, though. Don't hesitate to talk about those near misses. We all need to talk about them, and what could have prevented them. Talking about near misses will help prevent accidents in the future.

The most significant near miss I encountered was when former Secretary of Agriculture Anne Venemen was on a visit here two years ago, during our "sunny" summer. I remember she tried to talk me out of our mandatory requirement to wear over-the-ankle boots on our flights. I tactfully explained how quickly weather can change in Alaska, and that our experience has been that this key safety requirement was worth observing. I finally had to become insistent, and told her no boots, no flying.

We set out on a calm, sunny day with a plane full of high-level of-

ficials, ranging from Washington, D.C., representatives to regional leaders. The bad news is that the engine stopped mid-flight. The plane had run out of fuel, and the pilot had to switch to the other tank.

The good news is that he then got the engine restarted. If he hadn't, not only would there have been a tremendous loss of life, but because of the high-level of the plane's passengers, the story certainly would have been national news.

"We can't eliminate all the dangers... but we can be prepared."



Our recent loss of a Forest Service employee in a non-aviation accident is a reminder of how important safety measures are in the Alaska Region. We have tremendous safety challenges when we step out into the woods in this region. There aren't a lot of safety valves or options—unless you are thinking ahead.

Slow down. Utilize your job hazard analysis and your safety handbook before you head out. You don't have to be surprised. You can be prepared.

My worst nightmare, and the worst nightmare of any supervisor, is to have to go to a family and tell them they've lost their loved one. I've done it in the past, and it is a nagging possibility that I may have to do it again.

So my message to each employee in the region is...don't take undue risk. Follow basic safety procedures. We can avoid serious injury and death if we just look out for our own safety, and look after each other. If you see an unsafe condition, or you see another employee not observing safety procedures—regardless of grade or rank—speak up! Grade and rank doesn't matter when it comes to looking out for each other.

You can be in a situation of preventing an accident just by being aware of three things:

- Learn to recognize unsafe conditions.
- Learn to recognize unsafe actions.
- Check your own attitude and that of your co-workers before going out. Challenges on or off the job, or even being sick reduces an employee's ability to focus on the task at hand, and on safety procedures.

Nothing we do out there is so important that we have to risk loss of a life. Work can wait another day, another week, two weeks—rather than losing your life. Delays in getting home from the field are also acceptable.

Our field employees fly more than I do. The possibilities of a mishap increase dramatically with your frequency of flight. We need to follow our safety procedures. Don't cut corners. And when you are in a hurry and you think you need to cut corners—that is when it is most important that you slow down.

We can't eliminate all the dangers, but we can be prepared.

Here's to ten more years of safe flying.

Safety Is Critical

By *Dustin Wittwer, Aerial Survey Coordinator and Unit Aviation Officer, State & Private Forestry*

Forest Health Protection, a sub-unit of State & Private Forestry, is mandated to monitor and report the health of the forests annually. Aviation is our primary tool. We perform forest-damage aerial detection surveys over the forested lands of Alaska and across all ownerships. We find ourselves in some pretty remote and unforgiving locations. Missions can be as short as a few hours to as long as multiple weeks. Adequate planning and preparation, especially in regard to safety, is critical. There is no substitute for a crew, pilot, and dispatcher that can make good decisions. Communication is the key for a successful, safe mission. We are constantly challenged by dynamic weather conditions and logistical limitations. I credit our years of safe flying to God’s protective hand, good people, proper attitude and a robust safety program. When people are conscious of the fact that “getting the job done” isn’t as important as people coming home safely, then we are on the right track.



State cooperater Graham Mahal and Regal Air plane and pilot pause for a lunch break on a northern Kenai lake. Photo by Dustin Wittwer.



Dave Gala, Sunrise Aviation

Thanks to Our Vendors

The U.S. Forest Service greatly appreciates your contribution toward ten years of accident free flying in the Alaska Region.

1996-2006

Anchorage

JIM Air, Inc.
Regal Air

Cordova

Cordova Air Service, Inc.
Fishing & Flying

Fairbanks

Shadow Aviation, Inc.

Homer

Maritime Helicopters, Inc.

Juneau

Coastal Helicopters, Inc.
Ward Air, Inc

Ketchikan

Misty Fjords Air & Outfitting
Promech Air
Taquan Air
Temasco Helicopters, Inc.

Sitka

Harris Aircraft Services, Inc.

Wrangell

Sunrise Aviation, Inc.

Petersburg

Kupreanof Flying Service
Nordic Air
Pacific Wing Inc.

Yakutat

Alsek Air Service, Inc

Emergency Landing

By Joseph Poynton, Seasonal Volunteer, State and Private Forestry

In 1998, I joined Dustin Wittwer, Forest Health Protection, and Roger Burnside, State Entomologist, for the final week of an aerial insect survey. Dave Gala of Sunrise Aviation in Wrangell was our pilot. After a short stop in Fish Bay to collect insect samples, we headed to Nakwasina Sound. About halfway through the pass, I noticed the plane's oil filter light was on. Gala and Wittwer were examining all the gauges, assessing if we were in any immediate danger. All other gauges seemed normal, and we understood that the logical move was to get over water, regardless of the oil filter light.

About 2.5 miles from Nakwasina Sound, I heard a small explosion, and then we lost power. I knew something serious had happened to the engine. We were going down. Gala told us we were going to have to land. He remained very calm and reacted quickly, immediately send-



Sitka Ranger District quickly responded with a boat to retrieve the plane and crew. Photo by Joseph Poynton.

ing out the mayday call to Patti Huddlestun at Sitka dispatch. Huddlestun responded instantly and asked for our position. She wanted to know if we could “make it to the water.” In fact, we could see water ahead, and if our glide continued with no drastic down drafts or other wind changes, we would make it. Soon, Dave told the dispatcher we were on the water. The conversation lasted only seconds. Everyone let Gala concentrate on landing the plane.

I made sure my floatation vest was on correctly, oriented myself in case I would have to exit under water, and then pulled my seatbelt down as firmly as possible. Everyone else did the same. We descended in a glide, getting a half mile over the water before we touched down. The landing was as soft and expertly done as any powered landing I've experienced. Gala called dispatch, alerting them of our safe landing and position. A Forest Service boat was sent to pick us up.

The only thing that went “wrong” during this event was the failure of the engine itself. We were fortunate that the weather was perfect, the sea calm, and our position at the time of engine failure was close to the bay. Just as vital to our safe landing was the expert handling of the situation by both the pilot and the dispatcher. Gala kept us at least 500 feet above ground level at all times, which enabled us to glide to safety. He responded quickly and confidently, and Huddlestun, likewise, was totally cool and calm. I remember quite vividly that *she never seemed to change the tone of her voice*. It was as if she has done this type of thing everyday. She increased my confidence in our safe landing. I had no reservations about getting back up in the air to finish our survey, especially with Gala as our pilot and Sitka dispatch monitoring out safety. I have the utmost respect and confidence in both of them.



Sitka Dispatcher Patti Huddlestun was a voice of calm during an emergency.

Ten More Years of Accident-Free Flying

By Keith Simila, Director, Engineering and Aviation Management, Alaska Region

Before coming to the Alaska Region in 1999, I discussed with Pat Kelley, Assistant Director for Aviation in the Washington Office, the important issues I was likely to encounter as director. Pat told me the Alaska Region experienced several years of accident-free flying, but I needed to be prepared—statistics indicated an accident would likely happen on my watch. He said to build a contingency plan and expect it to happen. I could see myself having to tell a spouse or family member that their relative had perished in an aviation accident in Alaska. I decided if I had anything to do with it, I'd make sure it didn't happen.

Once in Alaska, I learned that after many serious fatalities in the 1980s, the region made some changes. Management experts tell us when an organization makes changes, that cultural change is the last to happen. Our culture is simply how we get things done, the way we work without thinking about it. It is ingrained in us.

By 1999, the Alaska Region made a cultural change regarding aviation safety. We crafted aviation user training for every employee every year. We told employees that safe flying was their job, not just the pilot's job. We developed a dispatch system that looks out for our best interests. We found talented people to make sure the policies were implemented, missions were safe, aircraft were properly maintained, and pilots had the right skills and attitude to fly for us. Flying safely is how we do business here; we wouldn't think of doing it differently.

Our accident record shows we have flown ten years without an

accident. We have the most enviable accident record of any region in the Forest Service. That's not to say we haven't had some problems, near misses and mistakes. But, we do have a record of success to be proud of, and it is due to each employee taking a personal interest to make sure the safe practices we've established are followed.

It's no surprise to anyone that we aren't flying modern aircraft in Alaska. In fact, the fleet of contract float plane aircraft we use is quite old. That is why we insist on viewing maintenance records and checking aircraft before they are put into service each year. We also check aircraft after any incident to make sure it is airworthy before allowing it to return to service. We check ride each pilot and issue them cards to validate their qualifications. We want safe pilots, not pilots who consider flying against the odds in bad weather or poor conditions to be just one more challenge to overcome. We work to make sure the pilots not only have the required skills, but understand our culture.

So, what can we do to encourage "Ten Again"? First, we will celebrate our success. We will recognize the pilots and vendors who have served us well over the years. We will incorporate into our aviation user training the recognition of our record of safety and the reasons for it. Also, we will acknowledge the hard work and dedication of many employees who have contributed to our safety record.



Beyond the celebration, however, we will continue to guard against complacency. Someone once said: "complacency is a poison taken one drop at a time." It is easy to ignore unsafe practices, or fall into it ourselves by just not paying attention.

Policies that require over-the-ankle boots and non-flammable clothing are essential for our survival in case of an accident. Our policies come from reviewing what went wrong in prior accidents and fatalities, and adjusting our requirements to improve safety. They only work if we follow them. Don't let complacency be a part of this region. We've gained too much to let simple mistakes be our undoing.

Pat Kelly is retired now, but I am pleased that we have proved him wrong. We have a culture of aviation safety equaled by no other region. We have achieved a significant milestone in going ten years without an accident. Let's make it ten more years.

The Alaska Region aviation team has done our part to insure you are safe. Can we count on you to do yours?

Training to Be Safe, Every Job, Every Time

By: John Baldwin and Tina Dinzl-Pederson, Tongass National Forest From Spring 2005 Issue

Every spring the call goes out, and every spring people from all walks of life sign up to become Forest Service seasonal employees. The work of many permanent employees takes them out to the field. The Forest Service doesn't just hand you a shovel and send you out on the job. Hoonah Ranger District safety training is done in two intensive weeks by experienced specialist instructors.

Carrying out field work in remote locations using boats, float planes, helicopters, and hiking—all without injuries—is a tribute to all those performing the hazardous tasks. Many jobs on the Tongass National Forest are physically demanding and hazardous, and frequently require productivity in poor weather and in isolated areas.

Each district training session, coordinated by District Safety Officer Chris Budke, concludes with hands-on opportunities. Experience, caution, and the use

**Safety won't cost
you anything...
until you forget it.**

Richard E. McArdle,
Former Chief,
U.S. Forest Service

of proper safety measures and equipment—such as hardhats, eye and ear protection, flotation devices, and safety clothing and boots—are extremely important to avoid injury. Training and practice helps produce accident free workers.

Training includes: district procedures, defensive driving, boat orientation, CPR and first aid, use of radios, fire refresher and pack test, air operations, rifle training, working safely in bear territory, saw certification, and survival with Personal Immersion Gadget (PIG) training. The PIG water evacuation training simulates what an emergency water landing might be like.

A half day is spent practicing in the pool with life jackets, float jackets, work suits and survival suits. These life-saving outfits provide buoyancy and insulation against cold ocean waters. Having experience with the equipment builds familiarity, so, if the time ever comes, you'll know what to do to increase your chances of survival. Participants practice getting into a raft from the water and exiting a sinking boat. Participants practice rafting together to increase chances of survival and also to provide a way for others to get out of the water.

The Tongass National Forest is a rich natural resource. Managing the land requires many different kinds of workers, often in occupations requiring physical strength and stamina, frequently outdoors, and in many cases, as part of a team, walking long distances through densely wooded areas to do their work. We are want to give employees the skills that they need to work safely.



Top: Kelley Shaw, Don Bolton, Ann Francis and Tina Dinzl-Pederson. Middle: Tim Hazlewood (surviving or napping?) Bottom: Tina Dinzl-Pederson works to put on her survival suit. Photos by Sarah Shaw.

AIRWARD

Airwards are given in recognition of professional performance during a hazardous aviation event or for a significant contribution to aviation mishap prevention. The following were recognized for outstanding leadership in conducting aviation user training 1997 to 2006.

Jeff Schlee
Patti Huddlestun
Libby Dougan
Mike Stacey
Trina Ives

Alicia Sterns
Vivian Hjort
Bill Moulton
John Krosse
Don Andreasen

Teresa Campbell
Rose Greenup
Yvonne Stanley
Cindy Vreeland
Rick Fritz



Sharp Eyes Insure Safety

By Boyce Bingham, Aviation Safety Manager, Regional Officer

In 2005, Todd Tisler, Greg Whaley, and Mario Barajas from the Ketchikan-Misty Ranger District were helping a pilot load a DeHavilland DHC-2 “Beaver” floatplane on the waterfront in Ketchikan, Alaska. The three alert Forest Service employees noticed something dripping from the bottom of the plane’s fuselage. They pointed it out to the pilot, who determined there was a fuel leak and suspended the flight. Company maintenance was notified and the aircraft was pulled out of the water and put in the maintenance hangar for immediate repairs. Todd Tisler also contacted Forest Service Dispatch.

The company substituted another approved aircraft and pilot to fly the mission with a minimum of delay. Dispatch immediately notified the Regional Aircraft Maintenance Inspector Michael Cook and the Forest Aviation Officer John Krosse.

Tisler, Whaley and Barajas were commended with “Airwards” from the National Aviation Safety Cen-



Mario Barajas, Todd Tisler, and Greg Whaley received an “Airwards” for their contributions to the Alaska Region Aviation Mishap Prevention Program.

ter in recognition for their willingness to say something that instigated resolution prior to the initiation of their flight. The action taken by these employees demonstrates their ability to contribute significantly to the R-10 Aviation Mishap Prevention Program. Their mission to per-

form maintenance on a remote fish pass located near the Misty Fiords National Monument was delayed for less than 30 minutes.

The center tank of the airplane was found to be cracked; it was replaced and placed back in service.

A Tribute to Our Vendor

Excerpts from a recent letter of performance

By Ken Zogas, Biological Technician, State & Private Forestry

In the two years I have flown aerial surveys with Regal Air management, I have found the staff not only friendly and courteous, but willing to do whatever was needed to insure a safe and successful mission. The western survey has always been a logistical challenge and places demands on the aircraft not regularly encountered in the normal course of business. Regal's willingness to allow us to use their aircraft as a living space, storage locker, and bedroom, as well as a means of transportation for a week or more at a time, is very considerate. They are an easy group to work with and quick to respond to our concerns or consider our suggestions. They maintain sound aircraft, and provide us with highly qualified pilots.

Pilot Dave Obert is one of the best I have flown with. Our pilots not only have to deal daily with logistical challenges such as finding fuel in the villages, but have to cope with smoke from wildfires, volatile Interior weather, landings on unfamiliar lakes and rivers, camping in remote locations, eating freeze dried food for a week, not showering, swarms of biting insects, and living closely with strangers 24 hours per day. Not only did Obert do this, but he did it cheerfully and with good humor. He is competent, experienced and exercises good judgment. He checked with us frequently regarding our requirements for observation. He showed



Ken Zogas during a refueling/lunch stop at Gulkana, Alaska. Zogas is a veteran Alaska aerial detection surveyor of 29 years. He has worked with a wide variety of pilots, operators and conditions in the Alaska Region. Photo by Dustin Wittwer.

interest in what we were doing and quickly became a great help in pointing out areas of insect activity for our consideration.

Much of the credit for our successful mission can be credited to Obert and the Regal staff. I look forward to flying with them again in the future.



Left: Jim Air pilot Charlie Pike and Ken Zogas prepare to set up camp on Graphite Lake, north of the Arctic Circle.

Right: Shadow Aviation pilot Andy Greenblat retrieves gear from the float of his Cessna 185. For the past three seasons, Shadow Aviation has provided a safe and quality service for Forest Service, Forest Health staff based in Fairbanks.

Photos by Dustin Wittwer.

Technology Enhances Safety

By Dustin Wittwer, Aerial Survey Specialist, State and Private Forestry, Juneau, Alaska

The Forest Health Protection staff of State and Private Forestry conducts annual aerial detection surveys to map and document the extent of active insect and disease damage on forests. These surveys are conducted statewide and cover about one-fourth of the forested land in the state. Annually, we surveyed nearly 40 million acres, at a cost of less than \$.002 per acre, making aerial surveys the most efficient way for us to collect this information.

This survey has been conducted since the 1960s, and serves as a valuable historical dataset. Traditionally, an observer hand sketched the data polygons and attributed them on paper maps while flying over the forest in a small airplane. While this sounds simple enough, it is quite a daunting task at times. In addition to being heavily involved in flight management, the observer constantly tracks aircraft position, while accurately completing the maps, all while moving along at over 100 mph, and without making use of the barf bag. In areas requiring heavy mapping, an observer could map several hundred features per hour. The traditional mapping tools and techniques really didn't change significantly until about five years ago.

At that time, the Forest Health Technology Enterprise Team in Fort Collins, Colo., joined with aerial survey specialists and software developers to design a system to digitally sketch map forest health data. The digital system has greatly improved the timeliness and accuracy



Automated flight following prototype

of the end product for our customers. It allows us to keep our eyes more on the forest and less on the map.

We use new technology not only to provide a good product for our customers, but also to insure the safety of our crew. We find ourselves in some very remote areas of Alaska where communication is difficult, at best. If an aviation accident was to occur, our survival rates would be greatly increased if rescuers could locate us quickly.

For this reason, we accelerated the use of Automated Flight Following (AFF) on our survey flights, which could mean receiving emergency help in hours as opposed to days. All forest health aerial detection flights flown since 2004 were tracked with the AFF system. With AFF, the dis-

patcher is able to track our position in real-time on a map display using the Internet. The equipment onboard the aircraft reports our GPS position every two minutes via a satellite link. The Forest Service has adopted AFF and will eventually implement it for all Forest Service flights.

Forest Health Staff flying aerial detection flights must complete several training courses beyond the regional required aviation user training. All aerial observers train as a junior observer until mapping and safety skills are proficient. Other training activities include Fixed Wing Manager—Special Use certification, Aerial Survey Aviation Safety Management Training, Pinch Hitter, Land and Air Survival training and Calibration & Conformity ground truthing activities.



Left and above: Forest Inventory and Analysis crews use a boat-based helicopter to cover the large expanse of coast from Ketchikan to Kodiak. Photos by Ray Koleser.



Above: A Forest Service contract A-Star helicopter makes an approach to pick up field crews in a remote area of the Tongass National Forest. Photo by Janelle Cossey.



Above: Hoonah Ranger District employees are serious about aviation user training class. Photo by Libby Dougan.

Editor's Note: We hope you have enjoyed the photos in this issue. Appreciation is extended to everyone who took the time to send in their photography. In spite of the wonderful response to our requests, we still have a shortage of great photos of employees at work using aircraft. Do you have some photos you would be willing to share? If so, please see inside cover for contact information. Thanks.

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