



# Aerotalk!



July 2018

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Volume 1, Issue 10

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## Manager's Message

Managing the Club provides a privileged view of some inner workings. Most of the triumphs and trials pass through Club history quietly. Some need to be brought to the Members' attention. Late June, long time Club plane N7728G experienced an engine failure during a long cross country flight with a student pilot. The student conducted the engine failure procedures and landed on a quiet highway in Oregon without injury or damage. This singular event naturally brings up a wide range of reactions from our members in the form of questions, concerns, judgment and memories. Paramount, there was no harm to person or property. The student did an outstanding job executing the emergency procedures and is continuing training. The cause of the engine failure has been a difficult question to answer, however, several careful mechanical checks of the aircraft have shown every component in good working order. Interview with the student points to two possible causes: Carb ice or fuel starvation. It is not surprising that the exact details of the event are difficult to recall. Any of us can recount an experience where we needed to react to a potentially life threatening event. It is our trained reactions that pull us through, not necessarily our thoughts. Our memories get fragmented-questionable. I find myself longing to know exactly why the engine quit so we can all avoid this awful event in the future, but all I am left with are the resources at hand. Check the airplane. Check it again. Inspect the CFI's practices as well as the student's ability. Improve what we can and learn where we can. I feel that N7728G, the CFI and the student are all safe to continue. I'll end this with a tough question for you: Are you safe (I.M.S.A.F.E)? When you fly, do you review emergency procedures? What do you bring? Water, appropriate clothing, other safety gear? How was your preflight? How is your inflight scan? What are you missing? What can you do to be a better pilot? Be safe. Stay ahead of that plane!



Ponderosa Aero Club, Inc.  
4888 W Aeronca Street  
Boise, ID 83705  
208-344-5401

*Janna Greenhalgh*



Be Smart, Fly Safe and Have Fun!

## Accomplishments!

Congratulations to **Chelli Terry** on her first solo flight in a C172; N2863E at KBOI on 6/6/2018!

Her instructor is Rick Reiersen.



**Elizabeth "Boo" Carter** passed her private pilot check ride on June 13th! Brett Boesiger had been her instructor and her examiner, Julian Pridmore-Brown posed for a picture

with the happy new pilot.



**Aiden O'Gara** passed his private pilot check ride on June 27th with Examiner Greg Herbert in 7728G.

Nice job Aiden!



**Todd Johnston** passed his IFR check ride 6/29/18 after working w/Justin Perkins- and Rick, and Steve and Jamie! Todd is our first VA student at Ponderosa and we all learned that he is very motivated! He was too quick for

us to grab a picture, so this likeness of him was created with 65W. Great job, Todd!



The last two days of the month, **Toby Koehn** came in as a restricted member to finish up his IFR checkride the morning of 6/30/18. CFI Justin Perkins made sure that Toby had all that he needed and we were glad to offer the Club as a service to him. Congratulations Toby! We wish you luck on your future training.



## Welcome Mat, Thank You, and Rate Changes!

Welcome New Members!

- Veronika Hofmann 6/5/18
- Mat Stein 6/13/18
- Alex Youngwerth 6/14/18



Welcome new line help **Leah Davidson!** She recently joined the Club with a brand new private pilot certificate and is ambitious to gain experience any way she can. We are glad to have you as part of the team, Leah!



Big thanks for the help on June 23rd at our Plane Wash Party. The kids did great! We did manage to get four planes washed, and more than four hamburgers eaten afterward! Even our littlest helper loves having the airplanes cleaner!



The next plane wash will be held on Saturday, September 8th. Any help we can get to keep them clean is appreciated! It's amazing what you can learn about a plane by going over it with a wash brush!



**Save 65W!!** See that nice clean plane up there? Well, 65W is still for sale and we need to keep it in our family. Please consider buying all or part of this sweet plane to save it from leaving home.

If you are interested in owning all or part of the aircraft, do not hesitate. Contact Bob Apa (208) 559-4298 or Kevin Hennessey (208) 761-0664, and express your interest.



### Rate Change:

Note; starting July 1st, the following price changes will occur:

N4427R C-172 rate will increase from \$98 to \$100/hour

N9099K PA-28R will change from \$165/hour with the block rate option to a straight \$155

## Hello New C172 N4312R; Goodbye to N5700R!

Wherefore art thou Romeo? Residing with the Ponderosa family of aircraft now! Welcome to our newest addition, Cessna 172M, N4312R! To complement 28G as an economy aircraft, 12R is \$92/hour! Thank you Owner Cam Echanis, for adding another member to our fleet!



### *Bye Bye, Zero Zero Romeo!*

Hi all of you tailwheel pilots...

Cindy Fritz has decided to pull N5700R from the Club at the end of June. Cindy and Janna discussed it and it is clear that the goals that she has for herself and flying are growing away from the Club leaseback format.

We will be sad to see OOR leave the Club! It's a fine plane and great tailwheel trainer, but first and foremost comes the owner's goals. Cindy has some exciting plans for her flying adventures and improvements on OOR, so be sure to say hi and ask what she is up to when you next see her. Unlike her airplane, she is staying in the Club.

Best wishes! Thank you for sharing your airplane Cindy!

There is great value to the Club and the aviation community to have a tailwheel aircraft available for us. If you hear of someone that would be a good fit leasing their tailwheel aircraft in the Club, please let us know.



## Airport Badges

"Due to the number of unaccounted for General Aviation (GA) Access Media Badges, and to maintain compliance with the current Department of Homeland Security/Transportation Security Administration (TSA) Security Directives, the Boise Airport is required to issue new GA access media to all GA access media holders."

THERE IS NO FEE ASSOCIATED WITH THE REBADGING until July 30th AND PARKING WILL BE VALIDATED.

You will have priority badging during **July 15th to July 21st**. Please try to utilize these dates.

You must bring two approved forms of Government issued ID.

The badging office is open Monday-Friday 0700-1400 Saturday and Sunday 1100-1400. Please call 208-972-8450 if you have questions.

Your new badge will maintain the expiration date of your old badge unless it is within 30 days in that case you will be required to complete all regular badge training.

New badges will be purple rather than green.

When you get your new badge, please provide an image to staff at Ponderosa Aero Club so we may update MyFBO and other records.

As always, try not to let your badge expire.

Only active club members are permitted to have badges. If you go to a temporary associate membership, we will hold your badge in the safe.



## Operations—Rules Reminders!

Summer flying has our planes and instructors busy!

With the great flying opportunities and high demand for instructors, we want to remind members about Club fees and fines that come up now and again.

Keep your reservations on MyFBO accurate and cancel resources to free them up for other Club members and instructors if you are not going to use them. The General Operating Rules explain:

"When a member schedules a flight and does not fly, the member is obligated to remove the scheduled flight no later than the scheduled departure. Failing this, the member may be charged a cancellation charge which is the aircraft rate times the lesser of a) scheduled time or b) 2 hours per day of scheduled use..."

Instructors may charge you if you don't show up for a lesson too. Our instructors are very busy. Please be proactive communicating with them.

Another fee that occasionally pops up is when the master switch is left on after you have left the airplane. This kills the battery for the next Club member, degrades the life of the battery (sometimes permanently), and ties up the staff who fix it. If you leave a master switch on, you can expect a minimum \$25 fee to help offset maintenance.

Finally, regarding damage to aircraft, members will "Pay a deductible in the amount of \$2,500, or such higher amount as determined by the Board of Directors, if damage occurs to a Club aircraft while the Club aircraft is in the direct or indirect control, responsibility or possession of the Member." What this usually means is if you flat spot a tire bad enough to require a new tire, create hangar rash (pushing the aircraft into a hangar pole or tree) or similar "oops!" moves, you can expect to be asked to pay for repairs.



Be careful out there! Follow your check list. When thinking of the plane; consider the effect of your actions on your fellow Club members and the aircraft owners. Please leave the plane the way you'd want to find it. Be a good citizen of our aircraft community, and we'll all be happy! So will your checkbook.

## Upcoming Events—Warm Springs!

### The Warm Springs Airport Work Party is **July 6-8!**

**Fly-in, camp out; it's an annual event that's always a blast! PAC adopted this airstrip many years ago, but more fun than work! Really! Idaho Aero-nautics gives us a few tasks to do, like gopher bombing on the runway (what kid doesn't love that?), maybe paint the marker rocks, or pick up trash in the campground; light duty. If you're camping, we'll be there Friday and Saturday nights. If you're checked out there, you can fly in. S'mores and campfire Friday night; Saturday morning we'll cook a hearty breakfast for all the workers from 9am until it's gone. The campground there has dispersed camping and an outhouse; hot springs and hiking trails nearby. Warm Springs is 19 miles east of Lowman on Hwy 21. You'll see a sign on the road after you cross a bridge that says "Warm Springs Trail"; (if you get to the Bonneville Campground; you've gone too far). Turn left, go about 1/2 mile, then turn right at the Warm Springs Guard Station and go uphill about another 1/2 mile; the airstrip is on your left, the campground on your right. Rick Reiersen will give backcountry rides Saturday morning. S'mores and stories; come join us! Questions? Ask Staff. Bring firewood and chairs!**



## Scholarship Anyone?

**Club Members!** Here are some scholarships that you may apply for to further your flying experiences and training!

1. The Treasure Valley Chapter of Idaho Aviation Association is offering five scholarships that will be awarded over the next twelve months in the amount of \$500.

### **Backcountry Flying Scholarship**

Applicants must be Idaho Aviation Association members

Money must be used for backcountry training. Yes, you may use this in the Club!

You may submit your essay to Ron Graff at [grafr59@gmail.com](mailto:grafr59@gmail.com) or Nadine Burak [info@idahoaviation.com](mailto:info@idahoaviation.com).

2. Treasure Valley Chapter of the Idaho Aviation Association

### **Soaring to New Heights Scholarship**

Must be a high school junior or senior

Submission deadline is June 20th

There are a couple copies of the scholarship application at the Ponderosa building, otherwise contact Ron Graff at [grafr59@gmail.com](mailto:grafr59@gmail.com) or Nadine Burak at [info@idahoaviation.com](mailto:info@idahoaviation.com).

Scholarship covers two full days of introduction to ground school simulator and three glider flights in Ontario, OR.

3. & 4. Idaho Aviation Association

Pilot scholarships:

### **Shep Rock**

Must be US citizen, Idaho resident and at least 16yr but not older than 25.

Must be attending an accredited college, university or trade school for flight training where the scholarship will be applied.

Amount is \$3,000. More details may be found on the IAA website.

### **Interstate Aviation, Inc.**

Must be a US Citizen and a Idaho or Washington Resident.

Must be attending accredited university, college or trade school where the scholarship will be used for flight training.

Amount is \$3,000. More details may be found on the IAA website.



For more information about scholarships or Idaho Aviation Association check out their web site [www.idahoaviation.com](http://www.idahoaviation.com) or contact Ron Graff at [grafr59@gmail.com](mailto:grafr59@gmail.com) or Nadine Burak at [info@idahoaviation.com](mailto:info@idahoaviation.com)

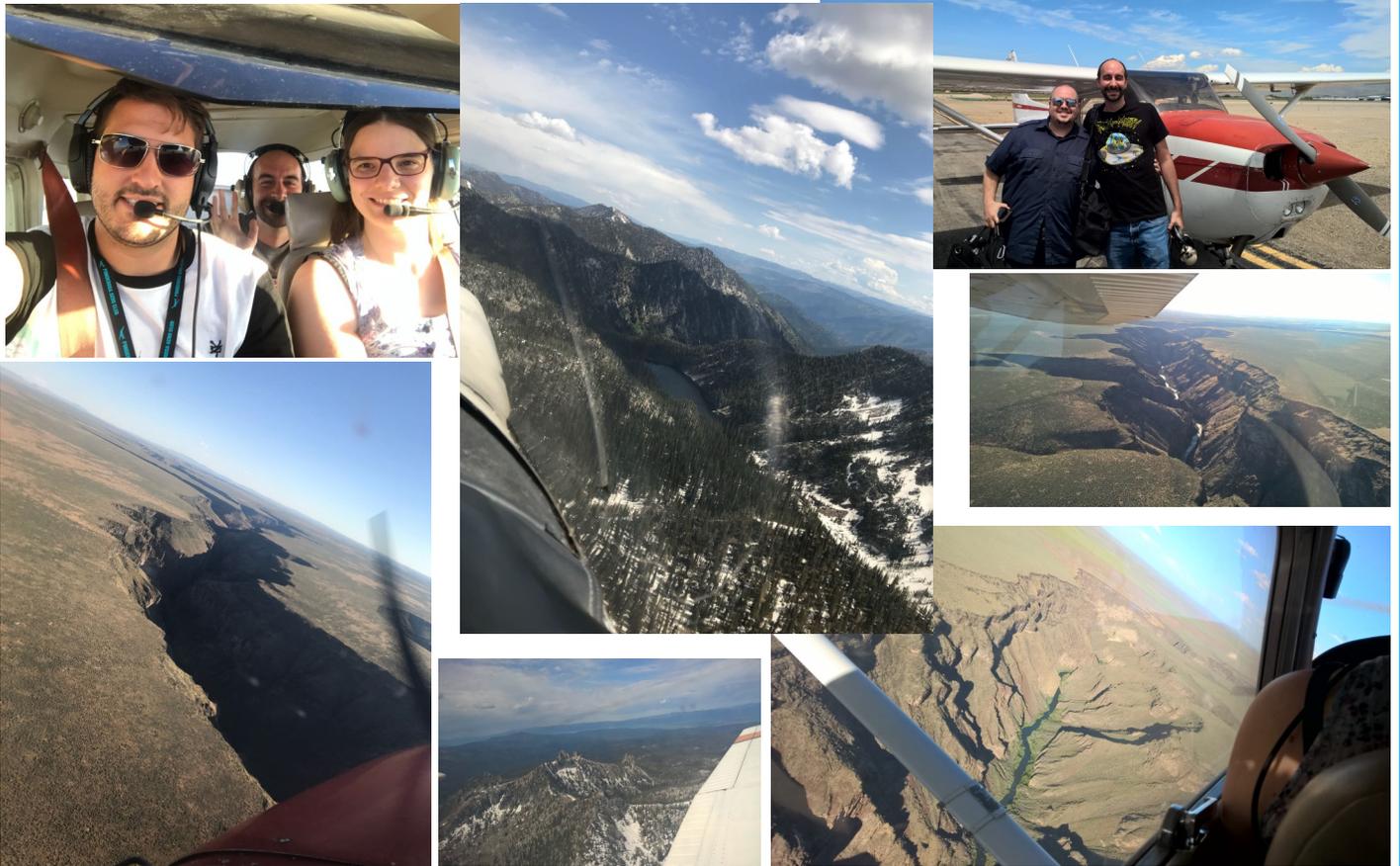
## From Austria to Idaho!

Ponderosa Aero Club has such a fun, wide variety of Club members. Veronika is one of those special members that enjoyed the Club in a restricted status. Restricted membership is a 30 day opportunity for people to fly in the Club for a \$100 investment. When Austrian citizens Veronika and Michael came out to visit Will Anderson, she jumped at the chance for the experience to fly in America. Here is a note from her and some beautiful pictures for you to enjoy.

Dear Janna,

When I got my private pilot license in July 2017 in Austria, my home country, my dream was to go flying in the country where flying comes from. So we planned our vacation to the USA. I needed to apply for verification of my license and then conversion of my license to an FAA license, which was quite a bureaucratic thing to do. But finally I received an FAA temporary airman certificate and Will Anderson introduced us to you and Ponderosa Aero Club. My boyfriend Michael, who has never been flying before, got to go on a discovery flight with Adam Troutman, and I got some flying time with Brett Boesiger, who helped with everything I did not know; Michael, of course, coming along with us. It was really great; I wished we would have had much more time.

We would like to thank you that you have allowed us to make Michael's and my vacation to the USA an awesome experience. We would like to thank Will and Cindy Anderson for hosting us, and introducing us to the Club. And last but not least, many thanks to the CFIs Brett and Adam, who did a great job keeping us safe and showing us great things. Veronika and Michael from Austria!





## I Don't Feel Very Well—Airsickness

Motion sickness occurs in a fairly high number of persons who travel by air, land, and sea. "Car sickness," "sea sickness," "air sickness," and "space motion sickness (yes, as many as 50% of astronauts experience nausea during space travel) all refer to the same types of symptoms that include increased breathing rate (hyperventilation), cold sweats, dizziness, increased salivation, headache, fatigue, and general discomfort. The more severe symptoms that make motion sickness particularly offensive in an airplane are nausea and vomiting. Unfortunately, for pilots and passengers, the milder symptoms often progress rapidly to the most extreme form and calls for quick retrieval of the sick sack in the seat pocket.

Although we don't know a great deal about "aviation nausea," there have been some studies that suggest that motion sickness occurs in a relatively high percentage of aviation participants, both passengers and pilots. Some surveys indicate that more than 25% of airline pilots have experienced motion sickness. The symptoms most likely occur because of conflict caused by the stimulation of the vestibular apparatus in the inner ear (the semi-circular canals) where the balance mechanisms reside and the resulting visual cues that send information to the brain. During the early stages of flight training when student pilots are introduced to shallow banked turns, these strange new sensory inputs often trigger at least the milder symptoms of motion sickness.

Once the symptoms begin, fear and anxiety set in and contribute to the cycle, further aggravating the condition. What's worse, some people just have a lower threshold for motion sickness and start having symptoms while experiencing even very mild sensory changes. Over time, though, many of those people gradually accommodate or adjust to the stimulation that triggered the symptoms and become less susceptible.

This is particularly true of new student pilots who, after a few lessons, become accustomed to the sensations of the flight environment and don't have any further problems. That's not to say, though, that experienced pilots don't sometimes complain of a little nausea, headache, or discomfort during or after a long, hot, bumpy cross-country flight.

Treatment options vary, and the best treatment is to avoid the stimuli that trigger symptoms in the first place. For student pilots, it may be good advice to avoid eating a heavy meal for several hours before the lesson; however, one of the studies on motion sickness seemed to discount the effects of eating on the severity of symptoms. Drinking ginger tea before flying may be helpful. Also available on the market are elastic bands with small wooden or plastic discs that are positioned above pressure points along the median nerve in the wrist. These inexpensive bracelets, called Sea Bands, are available in many drug stores and pilot supply businesses.

The techno-geeks might want to invest in a relatively new device called Relief Band, which is worn on the wrist like a watch. The device transmits an adjustable, very low voltage current to the median nerve in the wrist that "settles" the conflict between the inner ear motion and the visual cues. The Relief Band costs less than \$80 and has been reported to work well for many users.

There are several prescription and over the counter (OTC) medications available to treat motion sickness. The problems with these drugs are the side effects, and for that reason, the FAA doesn't allow their use by flight crewmembers. The OTC antihistamines, including dimenhydrinate (Dramamine), diphenhydramine (Benadryl), and meclizine (Antivert), are capable of inducing drowsiness in some people.

A very effective drug, scopolamine, (Transderm Scop) is worn behind the ear as a time-released prescription drug that's effective for up to three days. Visual disturbances and even some mental side effects can result from the use of scopolamine, so it, too, is prohibited by the FAA, as are promethazine (Phenergan) and trimethobenzamide (Tigan).

There are several steps you can take to minimize the effects of motion sickness both before and during the flight.

Before the flight, eat just a light meal a few hours prior to takeoff.

Don't smoke. (Don't ever smoke!)

If it's a training flight, know what maneuvers are planned for the lesson so you won't be surprised by "unusual attitude" training. If it's an aerobatics lesson, it's even more important to know the plan.

Be relaxed with your instructor. Get it to a personal level so there will be a level of trust and good communication before you get to the airplane.

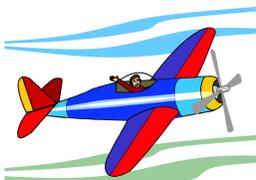
During the flight, stay focused on the tasks, especially that of maintaining a straight and level attitude.

Keep the vents open to fresh, cool outside air.

Use supplemental oxygen if you have it available.

Except in rare circumstances, most people can eventually overcome the annoying symptoms of motion sickness. If you're a student pilot, don't be afraid to bring it up with your flight instructor early on. And if you're an experienced pilot, recognize that an occasional bout of motion sickness just goes with the territory, whether you're pilot in command of your own personal aircraft or the occupant of seat 19A in economy class.

New pilots; you've conquered your initial queasiness, but now that you have your pilot's license, you want to take your friends and family to all those places you dreamed of during your training. Some advice; start slow! Take your passengers out on a short trip in the morning during calm air (not to the practice area to experience stalls!). Always carry motion sickness bags and brief your passengers on their whereabouts prior to takeoff. If they report they're starting to feel unwell, make sure you open all air vents, and have them focus on the horizon. Avoid flight over the mountains in the afternoon when heat turbulence is the greatest. Avoid aggressive maneuvers (you don't do that, do you?); practice shallow turns and descents, and keep their comfort in mind at all times. You want to be the smoothest pilot in town. You do want them to go with you again, right? And if someone does get sick in the plane, picture yourself spending the rest of the weekend cleaning it up; so try to avoid that to begin with!



**More Upcoming Events!**

**Wallowa County Fly-In at the Joseph Oregon Airport on July 13-14!**



**Tower Tour!** When: Tuesday, July 10th at 11:00am.

Where: Meet at Ponderosa Aero Club building to carpool over.

Sign up: The control tower has approved 10 visitors for the day to keep it intimate and less distracting for the controllers. Space is limited as this is our most popular event, so please RSVP to confirm your slot no later than a day before the event.

-R.S.V.P. to Sharki at: [acesharki@gmail.com](mailto:acesharki@gmail.com) or simply text her at 714-609-4233.



Saturday, July 21, 2018

Fly in Breakfast

St Maries Municipal Airport (S72)  
St. Maries, ID

Pancakes, eggs, ham; all the trimmings.

Contact: Carol Koelbel  
Phone: 2082452914 Email: [carol.koelbel@gmail.com](mailto:carol.koelbel@gmail.com)

**Utah Back Country Pilot's Association** is having a fly-in on July 6-8 at **Smiley Creek Airport!**

<https://www.facebook.com/utahbackcountrypilots/>





## "I'm Glad Moose Don't Fly" - Aviation Trivia Quiz

1. Although it is most commonly known as bird strike, any incident of our feathered friends impacting with an airplane can also be referred to by the appropriate acronym BASH. For what does BASH stand for?

- Beaks Adjusted, Severed Heads
- Brains All Splattered Here
- Bird Aircraft Strike Hazard
- Birds Ahoy, Steer Homewards

2. Bird strike is not confined to any one particular area of airspace; it can happen on the ground as well as in the skies, and anywhere in between. Studies have shown that the majority of bird strikes occur when the airplane is doing what?

- Being washed after its last bird strike incident
- Flying at high altitude
- Approaching for landing
- Taxiing on the runway

3. Considered to be the biggest danger imposed by bird strike is avian ingestion. This term refers to when the bird enters which part of the airplane?

- Cockpit
- Food preparation area
- Nose cone
- Engine

4. You might ask why, but workers at the Smithsonian Institute have given a name to the bloody remains collected from planes that have experienced bird strikes. So, what do they call it?

- Marge
- Large
- Snarge
- Barge

5. The need for an airplane that could withstand bird strike was realized in the 1950s by de Havilland Aircraft in England. What device did they come up with to help them test the strength of their airplanes?

- Peacock pistol
- Catapoultry
- Bustard bazooka
- Chicken gun

6. The first known bird strike-related death in the aviation world occurred at Long Beach, California in 1912, just five months after the same pilot became the first person to fly coast to coast across the U.S. What was the name of the unfortunate pilot?

- Orville Wright
- Calbraith Rodgers
- Charles Lindbergh
- Amelia Earhart

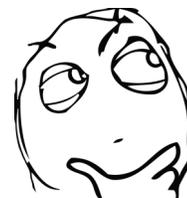
7. The single worst disaster in the twentieth century attributed to bird strike occurred at Boston, Massachusetts on the 4th of October, 1960, when Eastern Air Lines flight 375 crashed after suffering severe engine problems. Which small and unassuming bird was found to be responsible for causing this accident?

- Seagull
- Canary
- Starling
- Parakeet

8. I'm glad moose don't fly, because evidence has been found of airplanes being struck by cats and rabbits while they were in flight.

- True
- False

Answers on Page 12



## Downhill/Downwind, or Uphill Toward the Trees?

By Gail Frasier



The Club used to have a Beech Sierra; a 200 hp 4 place retractable. My elderly parents were visiting from California and I thought it might be fun to fly them down to Glenn's Ferry, and we could walk down to the winery for lunch. Now, that Sierra may have had 200 hp, but it was a heavy Beechcraft, and kind of a gutless wonder. It was a beautiful day with forecast light winds and sunny skies. A warm spring day. Four of us climbed into the Sierra and sailed off toward Glenn's Ferry. Those of you familiar with that airport know that it's down in the Snake River Canyon, has a slight grade downhill to the west, and just to the east of the airport is the Three Island State Park, and Three Island Oregon Trail Interpretive Center, which has lots of old tall cottonwood trees. The wind tends to blow out of the east in the morning, then turns and blows out of the west in the afternoon, which makes it nice to land into a headwind uphill on landing, but gives you a downhill into the wind takeoff to the west after you've had lunch, without obstructions, as you sail down the river until you have altitude enough to climb out of the canyon and head toward Boise. That's how it usually works. Beautiful! This is one of the Club's favorite spots for fly-ins as it's close, easy, has a nice restaurant within walking distance, etc.

We had an uneventful landing to the east, locked the plane, and strolled down to the winery for lunch. While we were sitting eating lunch, I noticed the wind had started to pick up, and not in the preferred direction. It was still blowing from the east and picking up steam. I was transfixed by the aspens outside with their leaves fluttering; in the wrong direction. I started thinking; downhill with tailwind? Or uphill with trees? It wasn't THAT much wind; so it made the decision tricky. My lunch wasn't settling very well. Everyone was chatty and happy as we wandered back to the airport. Except for me. I was staring at the wind sock and that gutless little Sierra sitting there on the ramp.

I'm pretty well known for being cautious, and I had to make a decision. I decided I was going to take one passenger on a downhill/downwind trip around the patch and see how much runway it took, and leave two standing there on the ramp. How much runway did it take? Almost all of it. %#@&^. Did I ever consider taking off uphill into the trees? No. Like I said, it's not like I'd have a howling headwind; it was kind of like 7-8 knots. I didn't think it was enough to overcome the grade and the trees. So I made the decision to take my passengers one at a time to Mountain Home, like a mother cat with her kittens in her teeth. It took the rest of the afternoon for that project. Do I think I was overly cautious? I don't know; we all had dinner together that night and nobody said they had this terrifying flight and would never climb into a small airplane again. Or worse. It was time consuming and boring to sit in the Mountain Home FBO pilot's lounge, but safe. Sorry, Mom and Dad. Sometimes it's hard to be the pilot in command.

## Answers to "I'm Glad Moose Don't Fly!"

1. Although it is most commonly known as bird strike, any incident of our feathered friends impacting with an airplane can also be referred to by the appropriate acronym BASH. For what does BASH stand for?

Correct Answer: **Bird Aircraft Strike Hazard**

The term bird strike is more commonly, but not only, applied to occurrences of birds colliding with any form of aircraft. It can also be used for collisions between birds and any other modes of transport such as cars and trains, as well as for other man-made structures such as buildings and towers. Although there has been tens of thousands of reported instances of bird strike since man first took to the sky, figures from a 2003 report by the U.S. Federal Aviation Administration (FAA) put the known number of fatal accidents involving civil aircraft at forty-two and the death toll from these accidents at 231 people. These figures have increased since then with one of the contributing factors being an increase in bird populations of species that are commonly involved in such accidents.

2. Bird strike is not confined to any one particular area of airspace, it can happen on the ground as well as in the skies, and anywhere in between. Studies have shown that the majority of bird strikes occur when the airplane is doing what?

Correct Answer: **Approaching for landing**

Once again using figures from the U.S. Federal Aviation Administration, a fourteen year study between 1990 and 2003 found that out of a total of 39,459 known instances of bird strike to civilian aircraft, 15,065 (38%) occurred during the airplane's landing approach. This was almost double the second most common time of during the take-off run at 7,810 (20%). The entire landing phase of the aircraft (the descent, approach and landing roll) accounted for 22,989 (58%) of all bird strikes. The overall view of the statistics showed that airplanes could indeed be subjected to bird strike anywhere and at anytime, but the greatest risk was at an altitude of less than one kilometer, and either at, or within very close proximity to the airport.

3. Considered to be the biggest danger imposed by bird strike is avian ingestion. This term refers to when the bird enters which part of the airplane?

Correct Answer: **Engine**

Avian ingestion occurs when a bird or birds either fly into or are sucked into the engines of the airplane. This is considered to be the most serious of all bird strikes on aircraft and the one that can have the greatest effect on its flight capabilities. As the bird enters the engine it has the potential to cause serious damage to the fan blades such as buckling them or even dislocating them from the rest of the fan apparatus which would inevitably lead to further damage to the engine. Possible worst case scenarios are a loss of engine thrust and power, fire and complete cessation of the engine. This type of damage can be caused by a single large bird such as an eagle, or by a number of small birds like sparrows striking the same engine.

4. You might ask why, but workers at the Smithsonian Institute have given a name to the bloody remains collected from planes that have experienced bird strikes. So, what do they call it?

Correct Answer: **Snarge**

The Smithsonian Institute's Feather Laboratory are assisting aviation authorities and the military in making the skies a safer place to travel. Packages of snarge (who knows how they came up with that name) collected from airplanes are delivered to the laboratory everyday where scientists are left with the grisly task of identifying what species of bird it is from the very little that remains of it. Sometimes they are lucky enough to be given a whole and intact feather which can then be matched to one of the 600,000 plus preserved specimens of birds in the Smithsonian's collection. Otherwise DNA samples are relied upon to identify the victim. The data that is collected in this work goes towards establishing a better understanding of what birds are in what areas and at what times as well as the potential damage they can cause to aircraft. This information can in turn be used to track safer flight paths and assist in the design of future airplanes and the materials used for them.

5. The need for an airplane that could withstand bird strike was realized in the 1950s by de Havilland Aircraft in England. What device did they come up with to help them test the strength of their airplanes?

Correct Answer: **Chicken gun**

The chicken gun, which was more of a cannon, was used by de Havilland to determine how much damage would be inflicted on their aircraft if they were to suffer bird strike. The gun was loaded with a freshly killed chicken and then fired at the airplane before it was taken away for an assessment of the damage the chicken had caused.

The use of a chicken gave results similar to that of large live birds but they have been replaced by gelatin molds of the same size and weight as chickens for modern applications, especially for testing the strength of cockpit windows. The chicken gun has come to be known by other names like the chicken cannon, turkey gun and rooster booster as well as the rather boring bird strike simulator.

6. The first known bird strike-related death in the aviation world occurred at Long Beach, California in 1912, just five months after the same pilot became the first person to fly coast to coast across the U.S. What was the name of the unfortunate pilot?

Correct Answer: **Calbraith Rodgers**

Cal Rodgers would probably prefer to be remembered as the pioneering aviator who was the first person to complete a transcontinental flight across the U.S. He undertook this challenge after newspaper magnate William Randolph Hearst offered a \$50,000 purse for the first person to accomplish the feat within thirty days. Rodgers flew a Wright brothers built biplane from Sheepshead, New York to Pasadena, California in the forty-nine days between the 17th of September and the 5th of November in 1911. On the 3rd of April, 1912, Rodgers was test flying in the Long Beach area when he flew into a flock of birds. One of these birds got stuck in the controls of the airplane leaving Rodgers unable to handle it properly. He crashed into the water and was found to have broken his neck when his body was pulled from the wreckage moments later.

7. The single worst disaster in the twentieth century attributed to bird strike occurred at Boston, Massachusetts on the 4th of October, 1960, when Eastern Air Lines flight 375 crashed after suffering severe engine problems. Which small and unassuming bird was found to be responsible for causing this accident?

Correct Answer: **Starling**

Within seconds of taking off from Boston-Logan International Airport the Lockheed L-188A Electra flew into a flock of starlings and ingested a number of them into its engines. Damage to the airplane's number one engine caused it to shut down, while engines two and four both suffered a loss of power. The resultant loss of airspeed prevented the airplane from completing its take off and the pilot was unable to maintain control over it. It crashed into the nearby Winthrop Bay, the fuselage breaking into two pieces in the process. A total of sixty-two out of the seventy-two passengers and crew perished.

8. I'm glad moose don't fly, because evidence has been found of airplanes being struck by cats and rabbits while they were in flight.

Correct Answer: **True**

Do you remember that snarge at the Smithsonian Institute I was telling you about in question four? Well, each package of snarge is sent to them by aviation operators, including the Air Force, who have collected the remains from their aircraft themselves. It is not compulsory for them to do so but it is encouraged to help better understand and develop countermeasures for bird strike. Each package has the details of the bird strike attached to it including the position of the airplane at the time. Through DNA testing procedures, some packages of snarge have been found to contain the remains of bats, cats, rabbits, frogs and reptiles that have struck the aircraft whilst it was in flight. Bats can fly so that's no surprise, but what about the others? The Smithsonian's have a very simple explanation. These animals have been picked up as food by birds of prey which have then dropped them into the flight path of the aircraft. Now aren't you glad moose don't fly?

