Flight Costs: What your dollar pays for.

As we all know, the aviation industry is a constantly changing environment, and UND Aerospace is certainly no exception. Every year, SAAC receives a lot of questions concerning our flight costs and what exactly goes into generating them. To answer this question, we annually publish a chart showing how one dollar from your flight expense is distributed, courtesy of Terri Clark and Dawn Seaver of the Flight Operation’s Finance department. This chart breaks down one dollar and shows exactly what it pays for and how much. This information was generated in May, 2012, and will remain current until May of 2013. If you have any questions concerning other flight training financial matters, you can contact SAAC at und-saac@listserv.nodak.edu or Dawn Seaver at dseaver@aero.und.edu.

Interested in becoming a member of SAAC?

The Student Aviation Advisory Council is now accepting applications for interviews!

We are opening up our selection process to students enrolled in the John D. Odegard School of Aerospace Sciences.

SAAC is a great way to get your voice heard and to connect with faculty members.

Applications will be accepted until November 9th and interviews will be conducted the following week.

Go to saac.aero.und.edu to apply!
What is Known Icing?

While relatively warm winters are nice, they're more conducive to icing conditions. And, as we hear every year, there is always discussion among pilots as to what the term "known icing" means. Generally, many pilots have a lack of understanding of the term. Many cite the term as vague and undefined. However, A NTSB Law Judge, who will judge whether you complied as a prudent pilot in the event of an accident, incident or alleged FAA violation, has defined the phrase "known icing" to include predicted weather.

NTSB Quote: "We do not construe the adjective "known" to mean there must be a near-certainty that icing will occur, such as might be established by pilot reports ... rather, we take the entire phrase to mean that icing conditions are being reported OR forecast in reports which are known to a pilot or, of which they should be reasonably aware."

Some say, "If I observed the known icing limitation the way the NTSB defines it, most of the winter flights would never happen." Perhaps. Nevertheless this NTSB quotation continues to be used by the FAA in alleging that an operation was illegal, i.e., in violation of FAR(s). So, before you get into trouble, ask yourself, "Am I doing the prudent thing?" Icing, when it does occur, is a definite hazard! Rather than guessing that it won't occur, or that nothing will happen, doesn't a prudent pilot try to eliminate or reduce the hazards associated with flying? In the event you choose not to be a prudent pilot, remember this while you're watching the ice form on your wings, tail surfaces tend to have airfoil sections that are much thinner than wings and, thus, collect ice at a much faster rate. The aerodynamic characteristics of the tail degrade sooner than the wing.

If you see or suspect icing on your aircraft, the performance information in the POH and standardization manual may be of little value. For example, a good rule for landing after any ice encounter is not to use flaps since you already have plenty of drag (ice). You do not need the extra drag of landing flaps. What you do need is extra speed, extra power and a long runway. Leave the flaps retracted so you won't compound the problem with a tail stall. But what would you do if your fuel vent(s) iced over? Or your air intake? Hopefully you don't have an accident. If you do, remember, your actions are subject to great scrutiny. The NTSB judge will be told by the FAA why your actions flying in icing conditions were poor ADM and violations of FAR's or the FAA Approved Flight Manual. The weather data will be read; reports, forecast and what you should have observed prior to takeoff.

So ... what does the phrase "known icing" mean to a pilot? First, the pilot is responsible for information regarding icing conditions that he/she actually knows of - such as outside temperature, visible moisture (clouds), etc., and information regarding icing conditions the pilot reasonably should have known - such as available weather reports. Second, information on icing conditions includes both reported and forecast data. It is not invalidated by the absence of confirming pilot reports - or by a pilot report that indicates a particular altitude or flight-track was free of icing as he flew through it.

Be a PRUDENT pilot!

Dana D. Siewert ATP/CFI-II/MEI/DPE
Director of Aviation Safety

Stickers Added to the C172’s

The Student Aviation Advisory Council has had a very productive semester so far. One issue that was brought to us by a student was that people were having a hard time finding their tail number on Charlie ramp in a timely manner. SAAC discussed this issue thoroughly to try to find ideas that would alleviate this problem.

An idea brought to our attention was to label the yellow “T’s” on the ramp and notify dispatch of your parking location when you returned. Unfortunately, after conducting research, we found that this idea was not feasible. We brought the issue up at our Course Manager/ Administration Luncheon in September. Jeremy Roesler quickly responded with the solution to place stickers with the three numbers of the corresponding tail number onto the vertical stabilizer to make identifying the aircraft quicker and easier. Within a few weeks, the stickers were being added to all of the Cessnas! This was accomplished because students voiced their concern, and we made them heard.

If you have an issue you would like us to address or an idea that you would like to see turn into action, let us know! Stop by our office in Odegard room 101, or contact us through our website! www.saac.aero.und.edu
September Winners

Flight Instructor of the Month
Andrew Quinn

"From the first meeting, he was very kind and I could tell he loved what he was doing. These were the characteristics I was hoping to find in an instructor. I was never nervous going out to the airport because flying with Andrew was something I looked forward to. Instead of yelling at me or making me feel incompetent when I made a mistake, like some past instructors I had did, he always told me what was wrong and offered ways to fix it; he made learning how to fly the airplane really fun. Instead of tearing you down, he wanted to build you up. I can definitely say that Andrew Quinn is a fantastic instructor and I hope one day that I can be an instructor just like him."

Student of the Month
Gregory Bodensteiner

"Gregory completed his private pilot license back in 2007, and just began his commercial training in 221 this fall. He hadn’t flown in over 5 years, and was able to complete a BFR in one lesson, make the transition from a Warrior to a Cessna, and from a 6 pack to glass without incompleting or having to review a single lesson. He is super motivated, and always comes very well prepared to each lesson. He is extremely motivated to finish, but is also very patient with his own limitations. He also has shown great perseverance, as he lives in Fargo and drives to Grand Forks every day for class, and has a late permanent launch Bottom line, excellent student."

Lessons from the King

A) MAG CHECK (suggestion)

Ever shut off both MAGS when doing a mag check? Ever takeoff on one Mag? Some pilots have. Here is a suggested procedure which will prevent this from happening on magneto switch setups such as the C-172 and Arrow.

1) Set the desired RPM
2) Starting from the BOTH position turn the key two clicks to the LEFT and note the drop
3) Turn the key two clicks to the RIGHT – back to BOTH
4) Turn the key one click to the LEFT and note the RPM drop
5) Turn the key one click to the RIGHT which will put you back on BOTH. Using this procedure you will never shut OFF the engine or attempt a takeoff on one mag.

B) Effect of load factor on stall speed

- Stall speed X the square root of the load factor equals the new stall speed
Example - Vs of 50 KIAS times load factor of 2 (Square root = 1.41) equals a new stall speed of 71 KTS
There have been numerous questions regarding the new flight point requirement of two activities per week. The following information will hopefully help to clear up some of the questions and confusion surrounding the two activities per week requirement.

1. The “two activities per week” requirement is applicable to ALL aviation students (101 through 415)
   a. 1st attempt students
   b. Retake students

2. What will be counted as an activity?
   a. A flight in the aircraft
   b. A flight in the FTD or Mentor located in Ryan Hall
   c. A briefing
   d. Both incomplete and complete activities count

3. Will weather cancels be taken into account?
   a. Two activities per week already takes into account the weather and maintenance cancels throughout the year. We anticipated you will get weathered on an average of once per week throughout the semester. Hopefully with the great weather we have been having this semester, the average activity is more than two through this point in the semester.

4. What happens if I only average one activity per week?
   a. If you finish your flight course before the semester ends, then it is not applicable. Example: A 323 student finishes his 17 lessons and cross country time in a total of 22 activities. This will be less than two activities per week; however, the student completed the flight course. They will receive the grade they earned in the class.
   b. If you do not complete your flying and do not average 2.0 activities/week you will not earn an incomplete and your academic grade will be an “F”.
   c. If you maintain 1.5 activities per week, that will not be rounded up to 2.0.

5. Airport recommendations:
   a. Do not wait until December to build up your 2 activities per week. Fly when the weather is nice.
   b. Your flight lab is a class – it should not be skipped for extracurricular activities or study sessions.
   c. Make sure you look at all available weather resources when weathering a flight.
   d. If yours and your CFI’s schedule allow for back to back lessons in one day, this will count as two activities if you fill out two invoice slips.

As always, if you have any questions pertaining to the activity requirement please see your appropriate Course Manager.

101/102/112 – Brian Willis 701-777-7834
221 & 414 – Paula Carlson 701-777-7851
222 – Chad Martin 701-777-7966
415 – John Rudolph 701-777-7940

Keep up the great work so far and FLY SAFE!
The North Dakota Atmospheric Resource Board (NDARB) in cooperation with UND Aerospace Sciences (UND) have long recognized their shared roles in providing appropriate experience for students and young professionals. A Memorandum of Understanding between the two outlines the responsibilities of both entities to create an opportunity to prepare students for a professional career through participation in a summer internship program. The internship is designed to prepare qualified students for a professional career through participation in a summer intern position with the NDARB during the North Dakota Cloud Modification Project (NDCMP).

The NDCMP Pilot Internship Program (PIP) began in 1976. During the 2012 project, eight UND student pilots worked as interns on a full-time basis. Hourly wage was $11 per hour. The average number of flight hours flown per aircraft was 79.98. At the completion of the 2012 project, the program has provided training and experience for 326 pilots since its inception.

Selection criteria for the PIP includes:
- Ratings: must have multi-engine commercial instrument rating completed by April 30.
- GPA: Must complete two semesters of classes:
  - Introduction to Weather Modification (AtSc 250)
  - Advanced Weather Modification (AtSc 251)
- Motivation: class attendance, extra credit work, and overall enthusiasm for fieldwork.
- Flight hours: total and multi-engine time.
- Related work experience.
- Successful completion of an interview.

Intern pilot duties and areas of involvement include:
- Duties of a regular crew member, both on the ground and in the air.
- Record keeping of all seeding events, times, and seeding material expended.
- Maintenance of seeding equipment and materials.
- General aircraft maintenance.
- Conduct of seeding missions according to project guidelines.
- Visual surveillance of the weather.
- Representing the project to the public.
- Other duties as required to meet project objectives.

The pilot internship is an important milestone for the students, enabling them to gain unique insight and experience and to have important responsibility directly in their field of interest. For more information about the NDCMP, visit the NDARB website at www.swc.nd.gov/arb.

**Early registration has begun!**

*Make sure to meet with your academic adviser to discuss your future plans.*

**New Elective classes offered Spring 2012:**

**Aviation 310 — Public Safety Aviation**
- Professor Al Frazier
- Tuesday and Thursday, 8:00-9:15am

**Aviation 399 — Safety Management Systems**
- Professor Gary Ullrich
- Tuesday and Thursday, 9:30-10:45am
The Student Aviation Advisory Council is currently accepting applications for new members. We are looking to accept four or five candidates to be part of SAAC for the Spring semester. Interested? Apply on our website! We are seeking highly motivated students.

A tremendous thanks must be extended to the faculty and airport administration for all of their support this semester. The success of SAAC wouldn’t be made possible without their continuous efforts to help us accomplish our mission. Each semester, we hold meetings with the faculty and airport administration, and the discussions that we have are very productive. SAAC wouldn’t be where it is today without your support. Thank you!

Amanda Pearson
Public Relations