Many students are concerned with why it always takes so long for UND’s ramps to reopen after a snow event. Chris Brauckman and I met with Patrick Dame, GFK Airport Director, Rick Audette, Operations and Maintenance Manager, and Chris Deitz, Airport Operations Lead, to discuss the airport’s Winter Operations plan and what their procedures are after a snow event. We wanted to see what the airport’s side of the story is regarding snow removal and disseminate the information to students. A few reasons for the delay in clearing UND’s ramps include the list of priority, safety concerns, and the airport’s limited staff.

UND isn’t the airport’s top priority. After it snows, the airport begins their snow removal according to a priority list.

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**Wilderness Pilots Association Dogsledding**

**By Paul Weinreis**

Late January weekend brought bluebird skies and sub-zero temps for a group of Wilderness Pilots Association members who were to spend a Saturday dog sledding in the North Woods of Minnesota.

After looking forward to this trip through the fall semester it was a well-deserved break from the slog of the previous year’s work.

Our group of seven travelled to Ely, MN on a Friday afternoon and spent the night in a cabin on the edge of town. The following day did anything but disappoint our crew; some started the day with a cross country ski on some local trails while the others visited the International Wolf Center.

After a quick lunch back at the cabin it was time to hit the trails with the dogs. A few miles south of town is Chilly Dogs Outfitters, a family owned operation that utilizes hundreds of acres of state and federal land to showcase the rustic method of travel – dog sledding. The group spent three hours on the trail and covered about 14 miles. We traded off driving the sleds providing a good balance of hands on experience and time spent simply enjoying the ride. After the journey the WPAers had some hot chocolate and cookies back at Chilly Dogs’ lodge.

The voyage back to Grand Forks was anything but normal with half the group driving through whiteout conditions to get back while the other half got stuck in Bemidji for the night waiting for the roads to open the next morning. All in all everyone had a great time and would love to go again!
Safety Hot Topic | Propellers

We recently received an on-line safety report that raised the hair on the back of my neck. The crew of a Seminole experienced difficulty getting one of the engines started in extremely cold weather. Maintenance was called, and they, in turn, asked the Line staff to pre-heat the engine before they attempted another start. While the pre-heat was taking place maintenance and line personnel were standing in close proximity to the propeller, and the crew was still in the aircraft. Someone noticed that the mags were still in the “on” position, and turned them off, about the time one of the technicians moved the propeller. We all know that a little fuel, a little turn of the propeller and a little spark is all that is needed for the engine to “kick over” with devastating consequences, which is why we preach taking extra precautions when in the area of the prop. I have been around long enough to have seen what happens when someone thought the prop was safe to move, or didn’t realize someone was about to start an engine, and it wasn’t pleasant. Making assumptions is hazardous (“there is no one in the aircraft”, or “they shut the engine down properly, so everything is safe”). The responsibility for ensuring safety around aircraft belongs to everyone. The pilot needs to use the checklist as well as operating information in the aircraft handbook and stan manuals to ensure the engine won’t start. Line and maintenance staff must confirm the safe condition of the aircraft before starting their work. Above all there needs to be communication between the crew, maintenance, and line in high risk situations such as this.

Any time someone determines that they need to work in the area of a propeller they must check and verify that the mags are in the “off” position, the throttle is closed and the mixture is in idle cutoff. They also need to remember that this is only a safety procedure and not a guarantee that something won’t happen. If there is a broken “P” lead or defective ground at the magneto the engine can still fire. Armed with this knowledge anyone approaching a propeller should do so with extreme caution, and only after determining the appropriate controls and switches are in the closed and off position. “What about moving the propeller?” you ask. During pre or post flight you may have to get the prop out of the way so you can use the tow bar, or you need to look in through the front of the cowl as part of your inspection. You can always turn the propeller opposite the normal direction of rotation so the impulse couplings are deactivated, but do this while standing clear of the prop arc. If you have any safety related questions or concerns about flight operations please contact:

Dana Siewert:
701-777-7895
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Frank Argenziano:
701-777-7822
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John Walberg
701-777-7871
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If you would like to make a confidential safety report or learn more about safety at UND Aerospace, visit:
http://safety.aero.und.edu/

Multi-Crew Pilots License

To get from zero to 1,500 hours can take an individual a minimum of two to three years. If you’re in a college program, it will take a minimum of four years of school plus an additional year or two of flight-time building to reach the required 1,000 hours minimum before qualifying for the Restricted - ATP. This, of course, follows a more traditional route of going from a Private Pilot Certificate in a small GA aircraft through further ratings and certificates until qualified for an Airline Transport Pilot Certificate. The Multi-Crew Pilots License (MPL) changes this almost entirely.

Introduced in 2006 by ICAO as part of Annex 1 (Personnel Licensing), an MPL places an individual into advanced jet training simulation as part of a crew from day one. Approved Training Organizations (ATOs) will take an individual through a series training phases that is targeted at preparing a pilot to fly on a modern airline flight deck.

The ICAO Journal described an MPL as “preparing the co-pilot candidate for the right seat of an advanced airliner, using a competency-based approach to training developed with an emphasis on improving flight deck safety.” Essentially, an MLP trains a candidate in specific skills required to operate from the right seat of a transport category aircraft.

An MPL course takes just under two years to complete while flying about 200 hours in a simulator and about 100 hours in an aircraft, allowing for a quicker transition from initial training to passenger carrying operations. Flights conducted in an aircraft are often single engine or multi-engine GA type aircraft, but some are also jet aircraft.
Recently in Aviation News

**FAA Announces UAS Test Sites**
The FAA announced the location of UAS test sites around the United States. The sites include: Alaska, Nevada, North Dakota, Texas, New York, and Virginia. The test sites will part of the ongoing process to regulate and certify the commercial use of unmanned aircraft systems.

**FAA Publishes Annual “Most Wanted List”**
The FAA published its yearly list of safety risks it wants fixed in the transportation industry. Some of the items on that list are: Identify and communicate hazardous weather condition to pilots, address unique characteristics of helicopter operations, eliminate pilot distractions, enhance fire protection and occupant protection.

**NTSB Announces UAS Commercial Activity**
The FAA called the “gray areas” regarding UAS commercial activity a myth. On their Facebook page, the FAA posted a fact stating that “There are no shades of gray in FAA regulations. Anyone who wants to fly an aircraft—manned or unmanned.”

**Pilot Fatigue Rules Worsen Pilot Shortage and Cancel Flights**
In January FAR Part 117 became effective which establishes a new set of rules regarding rest and fatigue for pilots in Part 121 passenger operations. In combinations with large winter storms, JetBlue airlines cancelled a 21 hour block of flights citing the new fatigue rules as the reason they did not have ample pilots to fly their aircraft.

**FAA Sets out to Hire 10,000 Controllers in 10 Years**
The FAA announced it would be hiring 10,000 controllers for its facilities over the next decade. However, the stipulation for this hiring push is that everyone is equally eligible for hire—putting CTI graduates and off the street applicants in the same hiring pool. Previously, CTI graduates were placed in a separate hire pool by the FAA.

**ALPA Calls “Pilot Shortage” a Myth**
The Air Line Pilots Association (ALPA) released a statement calling the pilot shortage a “myth.” ALPA claims that there are ample pilots willing to fly for airlines in the United States, but low wages drives a significant number of pilots overseas in pursuit of better paying jobs.

**FAA Refutes Myths about UAS Commercial Activity**
The FAA called “gray areas” regarding UAS commercial activity a myth. On their Facebook page, the FAA posted a fact stating that “There are no shades of gray in FAA regulations. Anyone who wants to fly an aircraft—manned or unmanned.”

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Because training is immediately focused on how to fly a transport aircraft for an airline, no time is wasted learning unnecessary information. Emphasis on flying as single pilot is dropped and new emphasis is added on working as part of crew. Training in simulation is increased, including ATC simulation allowing for an increased number of scenarios to be acted out by the pilot.

Might this be something the United States should adopt as a way to streamline more pilots to airlines? Although the creation of the certificate was not intended to be the answer to pilot shortages throughout the world, the MPL does indeed provide an additional method for airlines to create more pilots. The primary concern raised by the industry, however, is that this may not be a safe method for pilot training. Are co-pilots with an MPL less competent than pilots who have trained through the traditional route?

In 2011, IATA published training and best practices material for MPLs. IATA shows in its training material that co-pilots’ Initial Operating Experience (IOE) is just as successful without any training hours in light GA type aircraft. This is evidence that a co-pilot can be successful in a modern cockpit without having ever conducted any initial private pilot training.

Despite evidences for MPLs being an advantageous and safe way for the industry to generate pilots, there are some drawbacks and considerations to be made. For an industry that is slow to change, this is considered a “radical” change to a traditional process of creating pilots that has worked well for many years. The perception that the MPL’s only purpose is to generate pilots faster causes significant resistance as well. A particular disadvantage to the pilot is that he or she is only qualified to fly as part of a crew on an airliner, whereas pilots trained via the traditional method have other flying opportunities they could pursue should they find themselves unable to fly an airliner.

Finally, an MPL is not necessarily a more cost effective (in the short term) route for training pilots. Up to 200 hours in simulators of advanced aircraft, over 100 hours in actual aircraft, and nearly 1,000 hours of ground training are involved in obtaining an MPL, which means it is not a cheap training program.

An MLP is a license created by ICAO, and used by multiple airlines and countries around the world with Canada recently adopting the MPL as part of their airmen certification options. The FAA has not adopted an MLP as a type of pilot certificate for US pilots. In 2012, when new rules for pilot qualification were introduced by the FAA (the same rules that increased the numbers of hours for an ATP) Airlines for America (A4A) recommended to the FAA that consideration be given to adopting a MPL program. A quick search of FAA.org reveals very little information on the FAA’s part concerning the adoption of a MPL.
November Winners for CFI and Student of The Month

Instructor: Brian Lee

I've known Brian for the last 4 years and worked closely with him on the Flying Team. Knowing Brian, I don’t think I’ve met a more calm and patient person. I have flown with him quite a bit, and I can see firsthand his patience and concentration that I do not see in too many other instructors. His work on the Flying Team allows him to teach his students more than what they might learn in ground school, which is very valuable. He is a very hard worker, and I consistently see him working early in the morning to late in the evening, reaching 1000 hours very quickly, which proves that he is dedicated to his career and current job. His ability to do his school work, flight instruct, and compete on the Flying Team shows how well-rounded a person he is.

Student: Jordan Delaney

I would like to nominate Jordan Delaney for student of the month. Jordan Delaney was the most motivated 222 student I have ever worked with. The best part about working with Jordan is that he listened intently during our pre/post briefings. This made it very simple to teach Jordan because he would learn from his mistakes once they were brought to his attention. He always came prepared to our lessons with questions and the assignments completed. It was very nice to have him finish the course a month before the end of the semester. This is mostly due to the hard work Jordan put into this flight course. Jordan is a great example of personal responsibility. I look forward to working with him again.

WANT TO CONTINUE WITH A M.S. IN SPACE STUDIES?

Space Studies offers a Master of Science degree requiring a minimum of 33 credit hours. This interdisciplinary program studies the implication of humankind’s entry into space: the scientific, political, legal, and social impacts, on a national and international level, that are associated with the evolutionary development of a new extraterrestrial frontier. Also emphasized are the environmental and resource management possibilities afforded by the new information from Earth remote sensing satellites. The Space Studies program at UND will give motivated students a working knowledge of the overall picture so they can become the planners, managers, researchers, troubleshooters, negotiators, and communicators of space.

The Master of Science in Space Studies is designed to prepare the student for positions in both the commercial and government sectors of the rapidly growing field of space exploration, development and settlement. Careers in the space community encompass all backgrounds, not just a few technical areas. Federal and state government agencies, aerospace companies, entrepreneurial firms, educational institutions, and the media all need people with good managerial and communication skills and a working knowledge of the full scope of space activities.

For more information about Space Studies call us at 777-2480 or visit us at Clifford Hall, 5th floor. Check us out at: www.space.edu.

From the Editor

As we all attempt to keep warm in our pleasant Spring weather here in North Dakota, I want to thank you for picking up the Skyward and reading our publication.

As we continue publishing the Skyward this semester, I would like to invite anybody in the Aerospace School to contribute articles for publication. Whether you are an undergraduate or graduate student (from all majors in aerospace), faculty member or CFI/Associate, we would love to make your contributions part of the Skyward monthly publication. SAAC Skyward aims to help accomplish the two purposes of SAAC’s existence: to act as line of communication between students and the administration and to inform students about issues at UND aerospace. Your contributions and input concerning this publication will help further these two goals.

Sincerely,
Troy Merritt
Public Relations

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Items for SAAC Skyward may be e-mailed to
Troy Merritt at
SAACSkyward@gmail.com
APRIL 10 & 11
SAMA CONFERENCE & CAREER FAIR IN CLIFFORD HALL

APRIL 12 & 13
AVIATION PARENT’S WEEKEND

- AHP Family Flights April 12 & 13
- Women in Aviation Pancake Breakfast at the Airport April 12, 8:00am—11:00am
- AHP Barbeque at the Airport April 12, 11:30am–2:00pm
- Scholarship Ceremony at the Memorial Union April 12, 5:00pm
- Aviation Family Weekend Banquet at the Memorial Union April 12, 7:00pm

The University of North Dakota’s Student Aviation Management Association (SAMA) is pleased to announce its Thirty Second Annual Aerospace Conference and Career Fair. Since beginning in 1981, the SAMA Conference and Career Fair has been structured to acquaint our student population with a wide variety of aviation professionals in our industry, and over the years has grown to be one of the largest student organized professional events held here on campus. Year after year, SAMA invites prominent individuals from across the nation and from a variety of disciplines to join our students on campus and share their invaluable perspectives with us.

The 2014 Conference and Career Fair will be held on Thursday, April 10, 2014 and Friday, April 11, 2014. To complement these events and to further assist our students in better preparing themselves to meet with these professionals, SAMA is also sponsoring its Resume Workshop. This event will be led by SAMA Faculty Advisor Dan Malott.