Gary R. Ness  Gary’s interest in aviation began in the baggage compartment of an Aeronca Champ, as his father, Oscar, gave flight instruction in Fargo during the summer of 1946. Interest continued at the Walhalla airport, when he listened as his father integrated the new business of aerial application into the local farming community. The aerial application business progressed, and in 1957, the family moved to Lisbon. Traditionally soloing on his sixteenth birthday and working in the family aerial operation as the Lisbon airport developed, Gary gained a larger appreciation for aviation. From birth to completing a college Political Science degree, flying, horses and sports were always at the forefront of activity.

After graduating from the North Dakota State School of Science (NDSCS) and North Dakota State University (NDSU) in 1967, Gary was accepted into the Aviation Officer Candidate School at Pensacola, Florida. He was designated a Naval Aviator at Naval Air Station Chase Field, Beeville, Texas, where his Wings of Gold were pinned on by his father. During the final two years of naval service, Ness was assigned as an Air-to-Air Gunnery and Carrier Qualification Flight Instructor at Training Squadron Four (VT-4) Naval Air Station Pensacola.

Following his Naval career (’72) he accepted a job with the Grand Forks Federal Land Bank as an appraiser /loan officer. In 1977, he joined First Federal Savings and Loan as the Vice President of Commercial Lending. In early 1980, he left the banking industry and was hired as Territory Sales Manager for AGSCO Farm Chemical Company in Grand Forks, serving eleven counties in northeastern North Dakota.

In 1986, Gary become the Executive Director of the North Dakota Aeronautics Commission (NDAC). He served in that position until December, 2008. During Gary’s tenure at the NDAC, he achieved many accomplishments, including leading the agency through the changes and new technologies introduced as the aviation industry progressed. Ness wrote a grant (’87) to...

Fred E. Adams  Fred was born in Pierre, South Dakota in 1950. His extended family included an uncle, Jerry Snedigar, who owned and operated a flying service in Rapid City. He began working during the summer of 1969 as an aircraft fueler and continued while he was completing his college degree.

Fred soloed on May 10, 1970, and three years later had his Commercial Pilot Certificate with Single and Multiengine Land Rating, Instrument Airplane rating, and his FAA Certified Flight Instructor Certification. Fred started as an air mail pilot in the summer of 1973, and earned his FAA Air Transport Pilot Certificate on May 1, 1974.

Fred was designated by the FAA as a Pilot Examiner in 1979 while in South Dakota and again in 1981 when he moved to Bismarck. Fred was hired by Executive Air Taxi (EATC) in 1981, and his primary duty was to pilot a King Air under contract for Basin Electric Power Cooperative. Four years later he left EATC and was hired by TWA. Basin Electric Power Cooperative (BEPC) began its own business aviation flight department in May 1986, and Fred was hired to be their first Chief Pilot. While at Basin, Fred started a World Class paid flight internship, with the help of Dean John Odegard and Ken Polovitz from the University of North Dakota, along with support from Basin Electric’s senior management.

Fred has been associated with the North Dakota Aviation Council for over 23 years, during which time he held most leadership and committee positions. Along with Gary Ness, Fred worked on the formation of the North Dakota Aviation Hall of Fame during 1995-97.

Fred has flown over 23,450 accident free hours in many makes and model of aircraft. During the ten years he was an FAA Pilot Examiner, he gave over 600 flight examinations and over 100 FAA Part 135 check rides as a Check Airman.

Fred has been part of National Business Aviation Association’s Certified Aviation Manager (CAM) program. He was on the CAM...
Welcome to 2016. Reading through the articles forwarded to me for this edition, it appears it will be a full year in the aviation field. Thank you to all authors for submitting articles. It is wonderful to be able to provide a wealth of information to our readers. It will be important to continue to share as this busy year moves ahead.

The next big event is the Upper Midwest Aviation Symposium. If you’ve never attended, it’s an amazing opportunity to network and learn. If you have attended, you know how extremely valuable it is as an aviator. There is a poster in the middle of this issue that we hope you will pull out and post somewhere prominently.

Thank you for your support of the North Dakota Aviation Quarterly. Whether an advertiser, writer, or reader, you make a difference in our magazine. It’s focus is you. Please feel free to share with others, and if you know someone that would enjoy a copy, be sure to let us know. As always, please feel free to submit articles.

I remember flying on cold crisp winter days — it was my favorite time to fly. The air was smooth and the white covering on the ground looked so peaceful. May you have smooth flying and peace throughout this new year.
The North Dakota Aviation Council and You

As a first year Chairman, I was delighted to receive a personal phone call from one of our readers this past month. Several of the questions were challenging and thought provoking. The discussion focused on the notion of what the North Dakota Aviation Council (NDAC) does for aviators? What happened to the Aviation Works for North Dakota education and awareness campaign? What else is the Council doing, other than planning for the upcoming Upper Midwest Aviation Symposium (UMAS) that is scheduled for March 6-8 in Bismarck?

After receiving the phone call, I wondered if there are other readers asking the same questions?

First let me start off by paraphrasing the purpose statement of the NDAC. The purpose of the NDAC is to exercise leadership in the field of aviation by improving relations among aviation professionals; promoting and extending aviation services in all appropriate ways; improve the standing, qualifications and abilities of aviators; providing for the general organization and coordination of an annual aviation convention (Upper Midwest Aviation Symposium); and conducting research, studies, surveys, articles related to the field of aviation and disseminating the results of such activities in an appropriate aviation publication (Aviation Quarterly).

What is interesting about the purpose of the North Dakota Aviation Council is that only two of the five purpose statements, as outlined earlier in this article, are well known by aviators in North Dakota; the Upper Midwest Aviation Symposium (UMAS) and the Aviation Quarterly publication that you are reading today. Although UMAS and the Quarterly publication do support the other three purpose statements, the reader implies that there is more to be done in North Dakota.

Getting to the heart of the reader’s question; what is the NDAC doing beyond planning UMAS and providing the Aviation Quarterly publication? My immediate response to the reader was to defend the body of NDAC and the important role in advocacy that can be deployed in times of negative media, legislative challenges, and regulatory threats. The beauty of the NDAC is that there is a unified body that, even during idle times, is still fully assembled and ready to jump into any advocacy related measures. While other state organizations lose traction through constant bickering, the unity and strong voice that the NDAC represents has a significant impact during great times of need. Examples of this include: air space issues, regulatory issues, state legislative issues, funding, technology, etc. I felt confident in my response to the reader, until they asked, “are we thinking big enough?”

So, how can we utilize the NDAC, along with the start that these folks have made in their communities, to “Think Big?” The goal of the Aviation Works for North Dakota campaign is to align the efforts of each individual aviator across the state into something bigger! Can we brand all of our state aviation efforts under one name?

I’m proud of our aviation heritage in North Dakota and all of the benefits that aviation brings to our state. We need to continue to share these benefits in our communities. I’m confident that if all of us, as aviation advocates, can volunteer for just five hours per year, we can make a huge difference across the great state of North Dakota.

We need to hear from more of you! As an aviator in North Dakota, are you content with what the NDAC is doing; “Are we thinking big enough?” If you have comments, questions or suggestions, please submit them to jons@bismarckaero.com.
I am excited to announce that the North Dakota Aeronautics Commission has launched a new and improved website that can be located at www.aero.nd.gov. My hope is that this website becomes a one-stop shop for all individuals interested in learning more about aviation in North Dakota.

An important new feature available through this website is that aircraft owners now have the option to renew their annual aircraft registration online with a credit card payment.

Additional features of this website include:

- **Upcoming Events**: A calendar listing of all upcoming fly-ins and aviation related events in North Dakota. If you would like to have a future aviation event listed on our website, please contact us.

- **Latest News**: The Aeronautics Commission will continue to update the newsfeed on the website with relevant aviation news to help keep the public informed. The Aeronautics Commission’s Facebook page is also connected to the website, and I recommend that you like our Facebook page to stay connected on social media.

- **Airport Database**: At the bottom of the home page, you can find an airport database that is presented in Google Maps. You may click on any of the 89 public-use airports in the state and learn more information about that airport.

- **Airport Manager Information**: The website provides information on airport grant funding, airport management tools, and statewide aviation studies.

- **Aeronautics Programs**: Information regarding all of the programs that the North Dakota Aeronautics Commission offers is readily available for your review.

- **Pilot Information**: All of the information a pilot may need to operate in North Dakota is available. Airport information, registering your aircraft, or applying for an aerial applicator permit are just a few of the pages on the site.

- **Unmanned Aircraft**: As UAS technology continues to revolutionize the aviation industry, our agency has dedicated pages to help educate and communicate regulations and safe operating practices.

- **Mobile Device Compatibility**: The website is presented in a mobile friendly format. This enables users to easily utilize the website on a mobile or tablet device.

As we enter an age where technology and online communication is utilized more in our daily activities, I hope that this upgraded website allows us to serve you better.

If you have any recommendations for additional content on our website, please feel free to let us know. Our staff looks forward to visiting with you and continuing our pursuit of enhancing aviation in the state of North Dakota.

Wishing you smooth flying, Kyle

To make a TAX FREE donation to the North Dakota Aviation Hall of Fame:

- mail: North Dakota Community Foundation, PO Box 387, Bismarck, ND 58502-0387
Not many people can say they have flown to every airport in North Dakota. The Create a Flying Legacy Passport Program awards individuals who accomplish this task. Flying to all 89 public airports in the state can take some pilots years to accomplish, while others have stamped their entire book in just a couple of weekends. To date we have 24 Gold awards, with nine leather jackets being awarded this year. I would like to congratulate the pilots below for their achievement.

Shawn Anderson, Rogers
Jerry Miller, Garrison
Hubert Bleese, Enderlin
Larry Loose, Jamestown
Bob Roswick, Bismarck
Harold McConnell, Cavalier
Jamie Bryn, Dazey
Francis Cox, Duvall, WA
Terry Schaff, Bowman

All of the passport awards for the year will be awarded during the opening night social for the Upper Midwest Aviation Symposium (UMAS), which will be held 7 p.m., March 6, 2016 at the North Dakota Heritage Center.

It is exciting to see the interest from out-of-state pilots completing the program as well. This year Mr. Francis Cox completed the program traveling all the way from Washington state!

We hear many stories from the pilots who complete the passport program. It is exciting to learn about the unique experiences during these trips. Stories like Mr. McConnell, who flew to all 89 airports in his homebuilt Kitfox with a two-cycle engine, or Mr. Bob Roswick who has shared his story, which can be found in this edition of the North Dakota Aviation Quarterly, are always fun to hear. If you have a great experience to share from your travels gathering stamps for the Passport program, please consider sharing in a future Quarterly edition.

You can pick up a Passport book at any airport, typically located with the stamp for that airport, or by contacting our office. If you have any questions or would like to share a story, please let us know. Mike McHugh 701-328-9653 mmchugh@nd.gov
Safety and security should be a top priority for all airports in North Dakota. Aviation has many risks, but most of those risks can be mitigated in some form or another. Two areas that should be ranked high on the list for safety and security are protecting runway approach surfaces and runway protection zones (RPZ). In the 2014 North Dakota State Aviation System Plan (NDSASP), there was a goal to attain safety and security with performance measures dealing with both the approach and RPZ surfaces.

An approach surface is a three-dimensional imaginary surface that extends from the runway primary surface to a calculated end-point. The approach surface size varies by the type of runway approach (precision, non-precision, or visual) and must be protected from objects that penetrate the surface, such as trees, structures, and towers. If objects penetrate the approach surface, the approach minimums could be raised, limiting airport access during times of reduced visibility. The FAA Part 77, 20:1, surface size was used to evaluate these performance measures.

The goal for the approach surface performance measure was for all North Dakota airports to have clear obstructions to the 20:1 approach slope – both ends of the primary runway must be clear. The 2014 NDSASP showed that 65% of airports met this goal with clear 20:1 approach slopes. Along with keeping the approach surfaces clear, RPZ surfaces also need to remain obstacle free.

Another performance measure of the NDSASP was to look at how many of the North Dakota system airports have no wetlands, roads and/or structures in the RPZ. The runway protection zone or RPZ is an area at ground level prior to the threshold or beyond the runway end to enhance the safety and protection of people and property on the ground. FAA Advisory Circular 150/5300-13A gives the guidance on the RPZ and states, “it is desirable to clear the entire RPZ of all above-ground objects.” Research has shown that the RPZ area is at high risk for takeoff and landing accidents to occur there. With this in mind, it is imperative to keep the RPZ free of obstacles to include people.

It is interesting to note that the 2007 NDSASP showed 38% of system airports with clear RPZs; while the 2014 study showed 4.5% of system airports have clear RPZs. That’s a major decrease in airports that are protecting the entire RPZ surface, but there is a very logical explanation. The 33.5% decrease in airports protecting the RPZ surface since 2007 can be accounted for due to the FAA’s addition of roads being defined as incompatible use within the area. So, how do airports protect the RPZ surface area? By controlling the land underneath the RPZ surface, which leads us to another performance measure in the NDSASP that looked at how many airports actually controlled their entire runway RPZ surface.

While there was a dramatic decrease in airports with full compatible land use in the RPZ areas, there is good news to report with airports controlling the RPZ. The 2007 NDSASP showed 27% of airports had complete control over the RPZ, and the 2014 report showed that number had increased to 37% of airports controlling their full RPZ. An additional 30% of our airports currently have partial control over their RPZ. These numbers clearly show that airports are trying to position themselves to be able to remove incompatible objects from their RPZs despite the previous performance measure percentage drop.

Safety and security is a priority in North Dakota, and airports are working hard to alleviate hazards to aviation, which the NDSASP clearly shows. But, working to keep the approach surfaces and RPZ areas clear will take continued vigilance as trees grow and community development encroaches upon airport airspace. The North Dakota Aeronautics Commission (NDAC) staff appreciates all the hard work and efforts of the airport managers and airport boards throughout the state, who continually work to improve safety for the flying public. If you would like to learn more about aviation in North Dakota, please visit the newly updated NDAC website at www.aero.nd.gov. Also, please feel free to contact me if you have any questions, and let’s continue to work to make North Dakota #1 in aviation!
This year's agenda is action packed, and you won’t want to miss out!

Online registration is available on the North Dakota Aviation Council website:

www.ndac.aero/umas

Hotel reservations are available at Ramkota Inn (701) 258-7700

Be sure to ask for the UMAS rate.
The Upper Midwest Aviation Symposium (UMAS) is coming together to be another great opportunity for education and networking. In addition to education sessions and exhibits, featured speakers for this year’s event tie in closely to our theme of “Honoring our Heritage and Preparing for our Future,” and share a unique connection to their accomplishments.

Registration for the symposium is open and available online today at www.ndac.aero/symposiumregistration. Help us celebrate with the 2016 inductees, Gary Ness and Fred Adams, at the Hall of Fame Banquet on Tuesday, March 8.

Following the end of the first day’s sessions, the event kicks off with an icebreaker social at the newly completed North Dakota Heritage Center. If you haven’t had a chance to take in the new Heritage Center, it is sure to impress and serve as a reminder of the history and heritage of the great state of North Dakota. What has become tradition will continue this year again with the awards and recognition of accomplishments in the “Fly North Dakota Airports” passport program.

Our main general session on Monday will be a presentation from Matt Guthmiller. Guthmiller is an entrepreneur, pilot, software engineer and Guinness World Record holder, all of which were accomplished as a teenager. At 19-years-old, Guthmiller became the youngest person to fly solo around the world. Prepare yourself for an inspiring presentation proving “you don’t have to be old to tackle huge endeavors.”

A couple of highlights in the schedule this year will be a UAS joint session update on Monday, led by Trevor Woods, director of operations with the North Dakota’s UAS test site. On Tuesday, we will have the popular “State of the State” listening session with the North Dakota Aeronautics Commission. Tune in to the Council website and new facebook page for session highlights and schedule updates: www.facebook.com/AviationCouncil and www.ndac.aero.

Rounding out the event this year will be a keynote presentation Tuesday at the North Dakota Hall of Fame awards banquet, from Dick Rutan that you won’t want to miss. Rutan, famous for his 1986 – nine day, three minute and 44 second non-stop flight around the world in the Voyager aircraft, will take us around and out of this world.

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Book signing at the NDPA booth at this year’s UMAS!

See you there, Darrel
provide airborne runway light controllers for 38 airports. He worked to develop the first ('89) satellite to ground weather and flight planning/filing terminals (WeatherMation), as nine locations were installed across the state. Several state-wide studies were encouraged including: air freight, pavement condition, air service, aviation economic and the helicopter emergency landing area plans. Ness also encouraged the FAA to develop the state-wide GPS approaches and AWOS systems to improve North Dakota’s aviation system. Gary wrote and published the first airport/aerial applicator and private airport “safety/security” closure plan in the nation after 9/11. The North Dakota General Aviation Airport Crisis Communication Plan, developed to help community first responders address possible airport emergencies, and earned NASAO’s Most Innovative State Program award in 2005.

In 1995-96, Gary served as Chairman of the National Association of State Officials (NASAO), the oldest association of national aviation officials in the nation. He was honored with several awards: NASAO’s Kenneth T. Rowe Ambassador of Aviation Award (’08), National Business Aviation Association’s Silk Scarf Award (’03), and the NDSU Upper Great Plains Transportation Institute Chairman’s Award (’15). These awards recognized efforts to represent and encourage aviation development at state and national levels. He was a member of the Greater North Dakota Association Board (’84-’91), NDSCS Foundation Board (’88-’91), NDSCS Letter Winners Club (’78-’92) and National Agricultural Aviation Association’s Safety Curriculum Committee (’95). He is a member of North Dakota State College of Science’s Athletic Hall of Fame. Gary helped establish, and served as Chairman, of the North Dakota Aviation Hall of Fame Committee (1997-2008).

Throughout his career, Gary was active in state and national aviation issues, encouraging a strong network of communication between aviation associations, especially the North Dakota Aviation Council. Gary’s efforts strengthened industry awareness, contributions to the national economy and well-being of the State of North Dakota.

Board of Governors for nine years and was in the first group to sit for the nationally accredited certification examination in 2003. Fred has also been associated with collegiate aviation accreditation since 2006, and is on the Board of Trustees for the Aviation Accreditation Board International (AABI). He is the only industry representative that is currently approved as a Visiting Team Chair to conduct accreditation audits.

Fred has received the National Business Aviation’s Silk Scarf Award (’06) and the Richard W. Taylor Industry Award, whose mission is to advance quality aviation education worldwide through accreditation and leadership.

Within his community, Fred has been involved in his church as a church elder and treasurer for over two decades. He also coached soccer when his sons were in school.

Join us at UMAS for the Hall of Fame Awards Banquet Tuesday, March 8, 7pm.
Thinking about resurfacing your tarmac or runway?

A-1 Sealcoating is bringing an exciting new technology to the industry. The use of crushed glass over silica sand.

A-1 Sealcoating gets the raw form of sealcoat from the manufacturer with no silica sand. Instead of sand A-1 Sealcoating mixes in the proper amount of crushed glass for the condition of each lot.

The crushed glass is used as an eco-friendly alternative filler. Glass can be used from large to small abrasives. A-1 Sealcoating adds additives to achieve the proper consistency. Then the glass is added and is applied by a sealcoat machine or hand trimmed.

Control your asphalt sealcoating. Using glass versus silica sand makes for a quicker turn around for the re-opening of lots. For example, gas stations prefer not to have their lots shut down longer than a 24 hour period. With this new technique A-1 Sealcoating has cut the turn around time in half. On average 7-12 hours depending on weather conditions.

Go Glass, Go Recycle, Go Green
Years ago I was having a conversation with Dennis Adams, and we decided to start the Passport Program, sponsored by the North Dakota Aeronautics Commission. It is a program where you visit every airport in North Dakota — all 89 of them. We weren’t sure when we would get started, but we knew we would get it done. As fate would have it, cancer intervened with our plans and we lost Dennis in November 2014. Now it was a forgone conclusion, I was going to complete the passport program. After Dennis left us, his plane was sold to a friend of mine, John Morgan. John was very enthusiastic about doing the program. So much the better, we would be taking 171VA, Mr. Adam’s Cessna 172, on this quest. John was a student pilot, so I said “this will be an excellent learning tool.” Living in Bismarck-Mandan, we benefit from starting from the center of the state, so we chopped the state into four quadrants.

On a beautiful April morning, Flight Service was advertising clear skies and no winds. We departed Y19 to knock off the northwest corner of the state. Lift off was at zero-dark-thirty. This crew left at zero-light–thirty, and we were on our way to Killdeer. The Killdeer mountains are beautiful in the morning sun. Some very nice ranches are nestled in the gullies and on the hillsides. We stopped for our stamp, and off to Watford city we went. On approach, we announced we were five miles out only to hear a Cirrus was 10 miles out. He zipped on by us, and was on the ramp when we arrived. A quick chat with the other pilots, and we were off to Williston. We admired all the oil rigs as we went. Not unexpectedly, our friend in the Cirrus zoomed by us again. Landing in Williston, we visited all the FBOs and offices looking for a stamp. No joy. No one could help us, so we left empty handed. Tioga, Stanley, Crosby, and Columbus were next. Columbus was very dilapidated, but the runway was superb, groomed like a golf course. The runway at Bowbells needed a shave, but on and off we went. Then, Kenmare and Mohall, followed by Westhope and Bottineau, Then off to Minot. In Minot we got our stamp at the GA terminal. I saw Don Larson drive by on his way to Pietsch’s. After a brief visit with Don, and a hello from Warren Pietsch, we found out the Dakota Territory Air Museum was closed. It was only closed if you where not talking to Don Larson. We taxied over to the museum iFly GPS, and the manager let us in to get our stamp. A brief tour and we were on our way to Plaza. Plaza did not need a shave, it had a full beard. At the end of the beard was the driveway for a new house. Yup, we had a new house on the end of the runway with a few trikes in our way. Well a low flyby with some pictures, and we were off to Parshall, New Town, then Garrison for a late lunch. Garrison has always been more than accommodating to arriving pilots with an airport car and multiple choices for restaurants. It was a step down from the days Red Ewing would take us to town in his limousine. With a full belly, we were off to Riverdale, Washburn, and home. Today, it was 720 miles.

A few weeks later, on a beautiful day, we lifted off Y19 to grab the southwest corner of the state. Today we departed after breakfast at the “Shiny Diner.” First stop, Glen Ullin, a very nice facility that we stop at often. Next stop, Elgin. We are talking a grass strip that no one brags about. We overflew the “field” and note that natures civil engineers (known as badgers) have been at work. We plan our serpentine landing that is well described in AIM-FAR and get-er-done. Off to Mott and then Hettinger, and we still have all our wheels. Hettinger, I made the observation that towns have airports for several reasons: civic pride, utility and/or as the result of the actions of a single enthusiast. Here we have all of the above. Hettinger has several choices of runways with taxiways. It was amazing. At the terminal we were greeted by Jay Lindquist and had a nice chat. Off to Bowman, we were set up on a beautiful airport with some big Xs on the runway. This is the new unopened field. Oopsie, we need the old one. The old strip looked like an aircraft carrier that ran into a trailer park. Water on all sides with a trailer park on one end. On the ground we were greeted by Brent Kline, who fueled us and told us of the new facility going in on the other side of town. Sounded great, and most assuredly, will be Airport of the Year once it’s done. With fuel, we were off to Beach then Dickinson. Both were pit stops leading up to Richardton. After making sure no cows were on the runway, we landed among the cow patties and rolled to a stop. Not too bad a strip. It was smooth. Under the windsock we found an aluminum cylinder that
had a screw top and an O-ring to boot. It was more akin to a time capsule than a container for a stamper. When the North Dakota Aeronautics Commission started this program they provided airports with mailboxes and stampers. I don’t think everyone knows that mailboxes are a time proven design with billions of hours of proven reliability to keep paper dry in all conditions. Don’t tell the monks you can’t improve on them. Unfortunately the cylinder was half full of black ink soup and a stamper. We drained the cylinder and took the stamper with us to deliver to the North Dakota Aeronautics Commission in Bismarck. A brief stop in Beulah and Hazen, both wonderful regular stops for us, and we were home.

As summer crept up on us, the incidence of thunderstorms increased. These round robin cruises became iFly GPS more difficult. I made my usual stops to the surrounding airports, including Fort Yates, Hazelton, Linton, Turtle Lake and McClusky. McClusky had runway markers in the drink, and Hazelton was wet all over. I enjoyed my visits with Mike Gunya in Linton so much that, I forgot to get my passport stamped. Oh well. Every time we flew we were watching interesting echoes on radar.

I suspended the systematic attempt to complete the program and resorted to my usual flying. My summer schedule involved multiple trips to Minot, Fargo, and Minnesota. So, now was the time to get the southeast corner of North Dakota off the list. I split this up into the I-94 corridor, north of I-94, south of I-94 and the South Dakota line.

The first trip was a trip to Minnesota, where I had a full day to do north of I-94. I hit Harvey, Fesseden, Carrington, Cooperstown, Mayville, Hillsboro and Arthur. Okay, now I’m sounding like that Johnny Cash song, “I’ve Been Everywhere.” While in Mayville, they didn’t recommend Arthur, as the field was wet. In Hillsboro, they had been there earlier in the day and said it was dry. They were both right. The runway was dry and the stamper was kept in a jar with a hose clamp on a fence post south of the hangar. Like Richardson, they thought they could improve on the time honored ForeFlight mailbox concept when they only provided black stamp soup. I guess the recipe was getting around. With that stop, it was off to Minnesota for the weekend.

I woke up to a beautiful day on Saturday, so I called a friend in Jamestown, Bob Wells, and offered him an airplane ride. He was game, so off to Jamestown I went for a stamp and a ride. We made a pit stop in Page and West Fargo and then flew on to Jamestown. A pleasant ride up and down the James River was cut short by weather looming in the west. I left Jamestown and planned to wait it out in Casselton. I had a delightful visit with Bob Miller at one of the most active hangars in North Dakota. Bob was and is instrumental in the Fargo Air Museum, as many of you know. Both myself and the young fella that mowed grass at the airport scored a free lunch with Bob and his lovely wife Janice. Why is it that all us pilots marry up? After that it was back to Minnesota for the night and a ride home on Sunday. I slowly peeled off Wahpeton, Ligerwood, Milnor and Oakes. Arnie Widmer has a nice collection of pre-WWII birds that I missed the first go around, but caught later in the summer.

Another trip to Linton, again, forgot the stamp, but I did get tater tot casserole! We convinced ourselves it was not tater tot hodish, which is what is served to the less sophisticated. Off to Wishek, Ashley, Ellendale, and LaMoure. I firmly placed my LaMoure stamp in the almost the same, but not quite, box marked LaMoure in my passport. It had me stopping back a second time to LaMoure thinking I had lost my mind, only to discover my mistake. A stop in Lisbon yielded a visit with John Goeger, who noticed I was wearing a Lake Flyers Club t-shirt. He asked me if I knew what a Thurston Teal was? Of course I did. It is the father of the Laker Buccaneer. He was restoring one, and I was invited to come back and see it. I should have asked him if he knew what a Grumman G-65 was? It was the father of the Thurston Teal that inspired this concept. It was dubbed the “Tadpole.” How appropriate.

I was getting down to my last 28 airports. It was September, and I was counting on some of those perfect days we had in April. I was not disappointed. The first week in September was plated to be perfect. John couldn’t go but I wasn’t going to be denied. Off I went on Friday night to overnight in Minnesota then off to a whole host of airports on Saturday and Sunday, overnighting at ND99, one of the finest private strips in North Dakota, with my host, Howard Reeve. It was so much fun, when John was available the next weekend — I did it all over again. The two of us left on Friday right after work with John now a full-blown private pilot, and in command of 171VA, the plane that started it all. We stopped in Jamestown and Valley City and overnighted in Minnesota. In the morning we left into a day of moderately increasing westerly winds. As many of you know, the runways in the valley run north and south. We planned to be out of the valley before the wind kicked up, because the surface wind forecast was not promising.

First stop Northwood, then on to Grand Forks. We got in line with the UND students at GFK, and landed and rolled to the GA ramp. There was an experimental autonomous aircraft on the ramp.
It was a Northrop Firebird, a twin boom piston pusher of Burt Rutan design. It can loiter for 40 hours. It had drooped wingtips that I speculated had some effect on wingtip vortex, and in the lobby, the director of the program spoke up and gave us a primer. It was a vehicle that could be flown by a pilot or by a ground crew, but in all instances, a pilot needed to be in the cockpit to start it. Very wild indeed. We went to get the last stamp I needed to complete the Passport Program, and the nice young lady did a regal job of officiating the ceremony. Kudos. Then back in line for a departure into a 15 knot headwind on 27 with the students from UND.

Next was North Dakota's skinniest strip on the route, Minto. We had last year's North Dakota Airport Directory, which advertised it as 100-ft wide, but I knew better. Twenty feet was not much to work with on a 15-20 knot crosswind. John took us in for a go around, then I made my first attempt. A line of trees on the north side of the strip made the approach a problem. With another go around under our belt, we came around and defeated the trees for a hot landing that brought us to a stop one foot past the end of the runway. Not bad. With a stamp in hand, it was off to Grafton, Park River, and St. Thomas. When we landed in St. Thomas, we were hungry. We were watched by a black Suburban on the ramp, so we got out to say hello. It was John Blair. John was gracious enough to haul us into town. The restaurant closed in five minutes, but he thought we could take a shot at it. The doors were locked, but John got the ladies to answer the door to tell us they were closed. Now it was my turn. "Are either of you girls single?" The matriarchs swung open the door, and we were in. We were offered some "Hearty Soup" that I know as chili. It was just put away in the fridge. We accepted whatever they were offering, and it tasted good. Next came an offer of a sandwich, then chips, then a soda and then an announcement that the Schwan's man had recently been there. "Why sure, I'll take some ice cream." Thanks to John, we were fully fueled and off to Dayton and Pembina.

Now we were in the trees and lakes. Although I knew the northeast corner of North Dakota is wooded, it makes a difference when you see it.

Pembina has an old DC-3 on the ramp that was interesting but not as interesting as the package business we saw. They receive packages for Canadians who cross the border to pick them up and head back to Canada. It was interesting. Next stop Cavalier and Walhalla. Here we flew the Pembina Gorge and it was beautiful. Now that we had the runways turned around and pointing west, the building wind was not a problem. Over lake country to Langdon, Rolla, and the beautiful International Peace Gardens. Next was Rollete and Cando. We ended in Devils Lake at dusk. Finally no wind for some hangar talk and the challenge of getting an airport car for the night. With the help of Devils Lake Aviation we were off to “The Ranch” Steak House for a fine meal at the end of a day in the air.

In the morning we got airborne to Lakota, Leeds, Rugby, and Towner. It was beautiful, with no wind and the sun shining. Towner has two nice prairie crosswind strips that were enjoyable. Next stop Maddock, where I wrecked my prop, due to a load of rocks on the taxiway. This time we simply stayed on the runway, while I walked for a stamp. Then it was off to home.

When I arrived at Madan, I felt a sense of accomplishment. To say the least, I think Dennis Adams is smiling. My Passport book was full and seemed more valuable than my wallet, because it was.
Recently, the American Concrete Pavement Association (ACPA) has named recipients of its 26th Annual “Excellence in Concrete Pavements” awards, which recognize quality concrete pavements constructed in the United States and Canada.

The awards program encourages high-quality workmanship in concrete pavement projects, and serves as a way to share information about challenging and highly successful projects.

Judges representing various stakeholder groups throughout the transportation-construction community evaluate projects. The program recognizes contractors, engineers, and project owners who completed outstanding projects. The program requires projects to be completed in the calendar year prior to judging (2015). Awards were given for 16 different categories, with two awards being presented in each category; one for Silver and one for Gold. In the Reliever & General Aviation Airports category, the Sedalia Regional Airport was presented with the Silver Award and the Gold Award for Excellence went to the Bowman Regional Airport, located in Bowman, ND. The Bowman Regional Airport was the only project that was constructed in North Dakota to receive an Excellence in Concrete Pavement Award from the ACPA this year.

This project encompasses the total construction of a new general aviation (GA) airport facility, including a 5700 ft. long by 75 ft. runway, as well as taxiways, hangars, and aprons. The airport is located in the very southwest corner of North Dakota and on the edge of oil country.

The runway is now the longest GA runway in the state of North Dakota. The 6-inch thick pavements will routinely handle 30,000 pound aircraft weights.

During the early stages of planning, discussions of pavement material alternates included future maintenance costs for the pavement surfacing after the project was constructed.

The Bowman County Airport Authority, in conjunction with the Federal Aviation Administration and North Dakota Aeronautics Commission, chose concrete pavement for all surfacing through an alternate bid selection process, which included a 12% life cycle cost analysis allowance for concrete pavement. In the end, 6-in. thick concrete bids were only 6.8% higher than 4 in. asphalt options. With attractive concrete pavement prices, even the airport access road was paved in concrete.

Other recipients of the 2015 Excellence in Concrete Pavement Awards can be found at www.acpa.org/excellence-in-concrete-pavement-awards.

Gold Award Recipient
Project: Bowman Regional Airport – Airfield Surfacing Project, Bowman, ND
Contractor: Northern Improvement Company
Owner: Bowman County Airport Authority
Engineer: Brosz Engineering, Inc.

American Concrete Pavement Association names recipients of Annual Excellence in Concrete Pavements Awards

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Now I know how my airplane feels after its annual inspection. It didn’t realize that the daily use was wearing it down, and its performance deteriorating with each flight. The tires balding and the brakes fading, the plugs are collecting deposits and the oil’s breaking down. Now it all makes sense. After the annual, the aircraft is now fresh and ready to serve, as it was designed to do.

On the other hand, an aircraft that is not flown collects dust and generates rust, just the opposite of the symptoms of regular use. When needed, it is usually not ready to serve, because of the long “rest” it has had. Inevitably, when needed, something will not work where as an aircraft that has regular use, is ready to fly.

At this stage of my life, I make arrangements to have my annual inspection. Recently, my inspection revealed that one of my landing gear (hip) was in need of an overhaul. After researching the alternatives, repair was scheduled. After a 55 minute surgery and a month’s recovery, I am back to better than I remember. But now I start to wonder if some of my other systems will soon need a tune-up.

Happy Landings!

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**Keep Them Tuned Up and Flying**

Now I know how my airplane feels after its annual inspection. It didn’t realize that the daily use was wearing it down, and its performance deteriorating with each flight. The tires balding and the brakes fading, the plugs are collecting deposits and the oil’s breaking down. Now it all makes sense. After the annual, the aircraft is now fresh and ready to serve, as it was designed to do.

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Happy Landings!

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**GOING TO A FLY-IN?**

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UAS Test Site Update

The news is filled with stories of drones interfering with fire fighting efforts, flying everywhere, and crashing on the White House’s front lawn. Don’t confuse amateur drone pilots with the type of operations that are conducted at the Northern Plains UAS Test Site (Test Site).

Every flight that is conducted by the Test Site has a specific purpose and must follow many steps prior to being approved for flight. There is no such thing as an equivalent “$100 hamburger flight”, which are generally pleasure and recreational, for Test Site operations. Before any operation is conducted at the Test Site, a Safety Review Board, overseen by the Director of Safety of the Test Site, must approve them. The Safety Review Board assures that the pilot and crew members are appropriately qualified and trained, and approve an outline of the flight test flight plan. The flight checklists, maintenance procedures and pilot training requirements of the unmanned aircraft are also reviewed. After the Safety Review Board has been presented with all of the required documentation, they may also require additional safety mitigation strategies to be followed.

Per the regulations, currently there are no specific flight certifications for UAS pilots. The proposed small UAS rule under Part 107 of the regulations includes language that will include an “operator certificate” for small UAS pilots. Until that time, the FAA and the Test Site have a minimum pilot requirement of a private pilot’s license for most operations. The Test Site does have the ability to conduct flights below 400 feet in sparsely populated areas away from airports with pilots who have completed the private pilot written exam within the past 2 years as a minimum requirement.

The Test Site has worked closely with the North Dakota Aeronautics Commission, FAA Airport District Office in Bismarck, and also the airports division of the FAA at the Headquarters level to develop procedures for operations from public use airports. The procedures assure that manned traffic is not affected by the remotely piloted traffic. The Test Site operated out of the Lakota, ND airport this past summer. The procedures that we established were validated as we conducted multiple flight days with manned traffic operating in and out of the airport. In the future, the Test Site anticipates utilizing more public use airports to meet the testing needs of unmanned aircraft that require a runway surface for takeoff and landing. Before flights are conducted at public use airports, the Test Site engages with the airport manager and local operators to develop a letter of agreement that outlines the operating procedures. The approved letter of agreement is submitted to the FAA prior to operations.

In addition to operating at public use airports, most of the Test Site flights are conducted in rural, sparsely populated areas. Operating in these types of locations mitigate many risks that may be associated with the flight. Additionally, the Test Site conducts many flights to support precision agriculture applications that take place in these rural areas. Even when operating in rural areas, safety is a top priority. The Test Site is still required to use visual observers and issue a notice to airman (NOTAM) prior to operations.

The Test Site fields many questions asking, “When and where are you flying?” Sometimes this question is out of curiosity, and other times it is because a manned pilot wants to make sure that unmanned aircraft will not affect their flight. This is an easy question to answer as the Test Site is required to file a NOTAM prior to flight. The Test Site has a requirement to issue a NOTAM no earlier than 72 hours before and no later than 24 hour before a flight. As long as the manned pilot is checking the NOTAMS, which is required for flight, the pilot will see if unmanned flights will be operating in the vicinity. It is important to point out that a NOTAM from the Test Site does not restrict manned pilots from flying through that airspace. The Test Site flights are always operating within visual line of sight of the pilot and dedicated visual observers are always looking for other traffic. The unmanned flight crew has the responsibility of not affecting the flight path of manned operations.

The Test Site works very closely with the FAA UAS integration office and air traffic organization to obtain flight approvals. The mission of the Test Site is to assist the FAA with safely integrating unmanned aircraft into the national airspace system. Flight approvals are earned from the FAA as the Test Site has established repeatable safety processes that assure that our operations can be conducted at an equivalent level of safety of manned flight. The Test Site will continue to safely expand our operations that will bring us closer to integrating unmanned and manned aircraft in the same airspace.

When it comes to the actual day of flying, the efforts have been weeks - if not months - in the making. Final checks happen in the days leading up to the flight with a Flight Readiness Review. Our range safety officer, or mission commander as the FAA calls them, conducts a thorough review with the flight crew, ensuring all the aforementioned process. All of the flights follow specific pre-approved flight test cards that outline the route, altitude and duration of each flight. At the conclusion of the flight, the data is collected in a secure manner, the pilots notify air traffic control that they have concluded for the day, and the necessary flight paperwork is filled out, providing data to the FAA.

As you can see, the Test Site operates in a very safe, professional and structured environment. This is a far cry from the rogue drone operators that making a bad name for our industry or public perception of haphazard unmanned flight. Safety is the top priority and the Test Site will continue to work with the FAA to assure that the future of unmanned aircraft are operated with an equivalent level of safety as manned flight.
FAA Announces web-based aircraft registration process for UAS

The U.S. Department of Transportation’s Federal Aviation Administration (FAA) today announced a streamlined and user-friendly web-based aircraft registration process for owners of small unmanned aircraft (UAS) weighing more than 0.55 pounds (250 grams) and less than 55 pounds (approx. 25 kilograms) including payloads such as on-board cameras.

The Registration Task Force delivered recommendations to FAA Administrator Michael Huerta and Transportation Secretary Anthony Foxx on November 21. The rule incorporates many of the task force recommendations.

“Make no mistake: unmanned aircraft enthusiasts are aviators, and with that title comes a great deal of responsibility,” said U.S. Transportation Secretary Anthony Foxx. “Registration gives us an opportunity to work with these users to operate their unmanned aircraft safely. I’m excited to welcome these new aviators into the culture of safety and responsibility that defines American innovation.”

Registration is a statutory requirement that applies to all aircraft. Under this rule, any owner of a small UAS who has previously operated an unmanned aircraft exclusively as a model aircraft prior to December 21, 2015, must register no later than February 19, 2016. Owners of any other UAS purchased for use as a model aircraft after December 21, 2015 must register before the first flight outdoors. Owners may use either the paper-based process or the new streamlined, web-based system. Owners using the new streamlined web-based system must be at least 13 years old to register.

Owners may register through a web-based system at: www.faa.gov/uas/registration

Registrants will need to provide their name, home address and e-mail address. Upon completion of the registration process, the web application will generate a Certificate of Aircraft Registration/Proof of Ownership that will include a unique identification number for the UAS owner, which must be marked on the aircraft.

Owners using the model aircraft for hobby or recreation will only have to register once and may use the same identification number for all of their model UAS. The registration is valid for three years.

The normal registration fee is $5, but in an effort to encourage as many people as possible to register quickly, the FAA is waiving this fee for the first 30 days (from Dec. 21, 2015 to Jan 20, 2016).

“We expect hundreds of thousands of model unmanned aircraft will be purchased this holiday season,” said FAA Administrator Huerta. “Registration gives us the opportunity to educate these new airspace users before they fly so they know the airspace rules and understand they are accountable to the public for flying responsibly.”

The online registration system does not yet support registration of small UAS used for any purpose other than hobby or recreation – for example, using an unmanned aircraft in connection with a business. The FAA is developing enhancements that will allow such online registrations by spring of 2016.

The full rule can be viewed here: www.faa.gov/news/updates/media/20151213_IFR.pdf
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Last spring, the Dakota Territory Air Museum was privileged to have Art Mortvedt as special guest speaker at our May 22 Annual Membership meeting — facilitated through the efforts of museum director, Leon Basler. Art was asked to speak about his adventures to both the Arctic and Antarctic regions in his bright orange-colored Cessna 185 – the Polar Pumpkin. Art’s piloting and navigational skills have brought singular fame to his exploits in the Polar Pumpkin — as the only single engine production aircraft to have flown over both the North and South poles. The topic chosen for the speaking engagement suggested an interesting evening. From Art’s speech and Eloise Ogden’s post-meeting interview, we would learn a number of interesting highlights about Art’s accomplishments. The following are a sampling:

Having grown up on a farm near Stanton, Art received flight training on a flying scholarship, graduated from Dickinson College with a degree in math and science, and Art was off to see the world.

In 1974, his adventures would begin with starting out in a Volkswagen bug for Alaska with a teaching certificate in his pocket. With several offers, he chose to teach Eskimo children. After two years, that experience would whet his appetite for “things that Art saw the kids doing after school.”

He planned to take a year and spend time in the wilderness training a dog team. He intended to hunt, trap, fish and take in the out-of-doors. This adventure turned into a 35 year stint in the Alaskan bush.

A thumbnail sketch of this remote life included putting up tents and doing scientific calculations for submarines. These Alaskan projects became training for the Antarctic — with at least 20 visits chalked up to that region. On one of his trips to the South Pole, Art delivered a woman from France, who planned to ski 1000 miles solo to the coastline. She came very close to not making it.

Eventually, the company for which Art flew, decided to sell the Polar Pumpkin. They informed him of the sale and he said, “I’ll take it.” This opened the door to his next excursion – flying to the North Pole.

One of many interesting details on the way to the North Pole involved searching for fuel for the return flight. The fuel was to be picked up on an ice floe tended by Russians, who were members of a scientific team – the Russian Drifting Ice Station Barneo. Arriving at the assigned GPS coordinates did not result in a sighting. Where were they? The ice floe had drifted, making its position approximately 20 miles from the North Pole. After a systematic search, the Russians were found. There was a great sigh of relief by Art and his Russian friends.

Art discovered that one of the Russian team members was Mikhail Farikh. His grandfather, Fabio Farikh, flew the body of North Dakota native and world famous pilot, Carl Ben Eielson, from the North Cape Siberian crash site. He arrived in Fairbanks with the body in February of 1930. A state funeral was held in Hatton, North Dakota. There is a museum dedicated to Carl Ben Eielson in Hatton to this day.

While at the Annual Meeting, Art became intrigued with our youth education programs, including the Minot Discovery Center — a relatively new children’s museum located in our Flying Legends hangar during the off-season. He asked if we would want to display the Polar Pumpkin, so that our local youth would be exposed to his polar explorations. After some discussion and consideration for Art’s commitments, the details were worked out for the Polar Pumpkin to be placed on display this winter. On the way to deliver the aircraft, Art exhibited the orange attraction, with its insignia of polar bears, penguins, sponsors and mission logos. He told his story to hundreds at the Experimental Aircraft Association Fly-In. He attended the Beechcraft Fly-In in Tullahoma, Tennessee and dropped in on numerous other aviation events, before ending up in Minot during the early part of November.

Art’s story is bigger than we can tell. No one can convey a living experience like the one who was there. Although Art has gone on to other adventures, just having the Polar Pumpkin around starts the inquiries that leads to those stories that intrigue and inspire. For more of the story, go to www.polarflight90.com

We are truly privileged to have been the final destination for Art and the Polar Pumpkin as it wound its way across the United States this summer. Art’s polar experience is now turning into an educational adventure and display for kids that helps us fulfill our mission at the Dakota Territory Air Museum.

Federal Aviation Administration (FAA) Administrator Michael Huerta announced the public release of the B4UFLY mobile application following an initial beta testing period.

B4UFLY tells users about current or upcoming requirements and restrictions in areas of the National Airspace System (NAS) where they may want to operate their unmanned aircraft system (UAS). The app is now available for Apple devices and can be downloaded from the App Store.

The FAA also is releasing a beta version of B4UFLY for Android devices, which can be downloaded from Google.

“We expect B4UFLY will help raise public awareness about what it means to operate unmanned aircraft safely,” Huerta said at the Consumer Electronics Show in Las Vegas, NV. “It is another important part of our education and awareness efforts to foster a culture of safety and accountability for the UAS community.”

The B4UFLY app includes a number of enhancements the FAA developed as a result of user feedback during the beta testing announced in May 2015. Within two taps, users know if it is safe to fly at their current location. The app provides a status indicator that tells users: “Proceed with Caution,” “Warning – Action Required,” or “Flight Prohibited.” The app also features a planner mode that allows users to select a different time and location for an upcoming flight and determine if there are any restrictions at that place and time.

By law, hobbyists who want to fly within five miles of an airport must notify the airport operator and the air traffic control facility (if there is one) prior to flying. For now, B4UFLY will ask users who are supposed to notify the airport before flying for voluntary information about their planned flight. This will not meet the statutory requirement to notify the airport and air traffic control facility, but the data will help the agency make informed policy decisions related to notification. This information will not be publicly available.

You can find more information on our B4UFLY webpage at www.faa.gov/uas/b4ufly.
The University of North Dakota (UND) Chapter joined Women in Aviation, International chapters world-wide on September 26, 2015, for an outreach event to ensure the next generation of women in aviation. Chapters all over the world put on their own unique activities. UND hosted nearly 50 girls ages 13-19 at their event which was free and open to the public. Support for the event came through an aviation education grant provided by the North Dakota Aeronautics Commission.

The event began with an impressive speaker panel featuring women in various careers in the aviation industry including professional pilots (military and airline), medivac pilot, airport managers, airline managers and aviation business owners. The panel gave a lot of great advice for those interested in pursuing careers in the aviation arena. Next the participants were able to get some hand-on experience both flying aircraft simulators, as well as controlling aircraft in UND’s Air Traffic Control radar and tower simulators. Lastly, the group headed out to the Grand Forks International Airport where they received tours of UND flight operations, could explore training aircraft as well as got up close to the Airport’s emergency vehicles.

Based on the success of the program, the 2016 Girls in Aviation date has already been set for Saturday, September 24, 2016. The UND Chapter of Women in Aviation are in the planning process already for next year’s event.

Women in Aviation, International is a nonprofit 501(C)(3) organization dedicated to providing networking, mentoring and scholarship opportunities for women and men who are striving for challenging and fulfilling careers in the aviation and aerospace industries. For more information, contact WAI at 3647 State Route 503 South, West Alexandria, OH 45381, Phone (937) 839-4647; Fax (937) 839-4645 or through www.wai.org.

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FAA Issues New Student Pilot Rules

By Mary Grady (www.avweb.com)

Under a new rule released today by the FAA, student pilots will no longer get their student pilot certificate from an aviation medical examiner. Instead, they can apply in person at a FSDO, through a designated pilot examiner, with a Part 141 flight school or a CFI. The TSA will vet the application, and then a plastic certificate will be sent to the student by the Civil Aviation Registry. Earlier proposals to charge a $22 fee and require a photo have been withdrawn. Student pilots still will have to visit an AME to acquire a separate medical certificate. The new rule takes effect April 1.

Student pilots who already have a paper certificate can continue to use it until it expires, according to the rule. Plastic replacements can be requested, but there will be a $2 fee. How long it will take for the TSA to complete its vetting process is not clear. The FAA says it will “take steps to expedite student pilot applications ... so they may exercise the privileges of the certificate as soon as feasible.” The FAA estimates that the turnaround time “can be reduced to an average of 3 weeks or less, provided that initial security vetting by TSA indicates that the applicant is eligible for the certificate.” If an applicant is deemed ineligible by the TSA on security grounds, he or she will be able to appeal that decision through the TSA’s administrative procedures.

David Oord, AOPA’s vice president of regulatory affairs, told AVweb today AOPA is hopeful that timeline can be expedited. Some schools, he said, try to solo students soon after they start, “similar to AOPA’s ‘one week to solo’ project at last year’s Sun n Fun.” For now, he said, instructors and students should submit their student pilot application as soon as possible to be sure the certificate is issued in time for solo.

The FAA says it has another NPRM in the works that would require all pilot certificates to be resistant to tampering, alteration and counterfeiting, and to include a photograph and “biometric information.” The new rule issued today began with an NPRM issued in November 2010. The FAA received about 470 comments on that proposal.
In response to the Nov. 21 article “Relaxed rule for pilots takes off in Congress” by Gail Collins. 

Collins is critical of Congress’ handling of the Pilot’s Bill of Rights 2, which lessens the need for flight physicals in private pilots flying for personal or recreational reasons.

As a physician who performs flight physicals and a private pilot I am quite aware of the process from both sides. What Collins failed to ask is whether flight physicals improve safety. She also failed to note that the Sport pilot rule has allowed pilots of certain small aircraft to fly without medical exams for the last 10 years. During that 10 years no significant aircraft accidents have been attributed to health problems in Sport pilots even though they have not needed flight exams.

Sadly, what kills pilots is pilot error not medical problems. As such, safety and recurrent training need to be emphasized over flight physicals. I would hope the Federal Aviation Administration, if this bill passes, would take some of the money saved and invest into more extensive research to determine additional ways to increase aviation safety.

Commercial driver’s license rules say if you want to drive some of your friends to a Vikings game and everyone kicks in some gas money you don’t need a CDL exam, but if you want to own a bus and charge everyone $200 you would need the exam. We need to approach aviation in a similar fashion.

Here is a chance to decrease government burden that has no proven benefits. In this age of growing government, I would hope Collins would agree. The reason the bill has 69 sponsors is due to it being the right thing to do. Decreasing government spending for a purpose with no proven benefits would seem prudent.

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ADS-B Equipage Program for North Dakota

By Mark Askelson, Principle Investigator, Limited Deployment-Cooperative Airspace Project

The University of North Dakota has been involved in a cooperative research program known as Limited Deployment-Cooperative Airspace Project (LD-CAP). One of the goals of LD-CAP is to expand the use of Automatic Dependent Surveillance-Broadcast (ADS-B) across North Dakota. Because of the information provided by ADS-B, which includes locations of surrounding transponding aircraft and weather, it has been found to enhance aviation safety. Through the LD-CAP effort, a limited number of ADS-B avionics were purchased for the purpose of distributing them to interested North Dakota pilots.

Specifics regarding this opportunity are:

Free equipment including:
• An advanced ADS-B system produced by Appareo that provides ADS-B OUT data (outgoing information regarding the aircraft position, etc.) and that is 2020 rule compliant.
• An Appareo Stratus receiver and an Apple iPad® to enable display of ADS-B IN information
• $1500 of the install cost is covered
• Aircraft types that are being targeted include
  – Beech 35 (Bonanza) and 36
  – Cessna 140, 150, 152, 172 through model S, 177, 180, 182, and 210
  – Mooney M20
  – Piper PA-22, PA-24, PA-28 and PA-32
  – Other common types of aircraft
• As this project is supported by the state of North Dakota, North Dakota pilots are eligible.
• Aircraft will be selected according to the following criteria
  – Annual aircraft usage
  – Whether aircraft are flown into airspace that, under the 2020 rule, requires ADS-B equipage (airspace that currently requires Mode-C, including class A, B, and C airspace)
• Installation must be performed at one of North Dakota’s avionics shops.
• Recipients must be willing to take part in data collection efforts (though limited) regarding ADS-B usage. This may come in the form of periodic surveys or electronic submission of data collected with the ADS-B unit.

There is still time to take advantage of this opportunity!

Resources, including information regarding ADS-B and an application form for this program, are available at www.uasresearch.com/projects/ld-cap/outreach.aspx. If you should have any questions regarding this program, please send an email to LDCAP-ADSB@aero.und.edu or contact either: Chris Theisen at ctheisen@atmos.und.edu or 701-777-6139 Mark Askelson at askelson@aero.und.edu or 701-777-6334 We hope that you have interest and will either join us for our webcast or contact us directly.
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Avoid “Slip-Sliding Away” This Winter!

By Eric Basile, Assistant Professor of Aviation, UND

Many typical winter flying articles focus on how to get your airplane in shape for cold weather. However, it’s also a good idea to spend some time thinking about how snow, slush, and ice affect our ability to safely operate on runways and taxiways during the winter months. The following are some reminders and good operating practices to keep in mind.

• **SLOW DOWN!** This may seem like common sense, but every winter lots of incidents occur during taxi operations. Taxi with the minimum power necessary to stay moving. Use caution for your wingtips when operating near snowbanks along taxiways and runways. Pavement markings, centerlines, and taxiway signs can be obscured, so take the time necessary to make sure your path is safe. Be sure to slow to a prudent speed before attempting sharp turns.

• **Refocus on stabilized approaches.** While winter wind gusts make landings challenging, carrying lots of extra airspeed or landing with a tailwind, is a recipe for not being able to stop before the end of the runway. A 10 percent excess landing speed causes at least a 21 percent increase in landing distance. Approaches that are too high also result in long landings and wasted runway. For every 10 feet above the standard 50 feet threshold height, landing air distance will increase 200 feet. If you are too fast or high – go around!

• **Don’t break the brakes.** Maximum braking effectiveness occurs just prior to the point where wheel skidding occurs. Touch down firmly and apply firm, continuous brake pressure – but don’t lock the brakes. This may require some practice with a CFI! For airplanes without an antiskid system, slow back pressure (not enough to raise the nose) should be applied to the yoke for aerodynamic braking. Braking should be maintained until the airplane slows to a safe taxi speed for the conditions. If you lock up the wheels or a skid develops, release the brakes, straighten the aircraft, and then reapply less firmly.

• **Your takeoff and landing distance requirements are different!** Contaminated runways are a double whammy. Snow and slush impede acceleration on takeoff, increasing the runway required. On landing, ice, wet pavement, and packed snow reduce tire friction with the runway and increase stopping distances required. The published performance information for most light GA aircraft is based on a clean, dry runway – and manufacturers generally don’t give any guidance for how your runway requirements change! The following are some suggested adjustments:

**TAKEOFFS**

- For wet runways, multiply the published takeoff distance by 1.15
- For runways with loose snow or slush, multiply the published takeoff distance by 1.3
- For runways where braking action is “poor,” multiply the published takeoff distance by 1.5

**LANDING**

- If runway is wet or has loose dry snow, multiply dry landing distance by 1.9
- If runway has packed or compacted snow, multiply dry runway landing distance by 2.2
- If runway has wet snow, slush, standing water, or ice, multiply dry landing distance by 2.6
• If runway is covered with wet ice, you can expect braking action to be nearly nil. Consider an alternate runway or a diversion.

• Example: an aircraft has a published landing distance of 1,500 feet. The runway is covered in compacted snow. The new required landing distance is 1,500 X 2.2 = 3,300 feet.

These correction factors include a built-in 15% safety factor, and are intended to reflect normal pilot performance rather than the test pilot performance used to obtain your aircraft landing distance numbers.

• Mind the crosswind! The maximum demonstrated crosswind component for your aircraft was established on a clean, dry runway. It’s no surprise that slippery runways make it more difficult to keep going straight, especially in gusty conditions.

  • Consider reducing the amount of crosswind you will accept on a slippery runway. When braking action is reported “fair,” reduce your crosswind limit to 1/2 of the aircraft’s demonstrated crosswind component. If braking is reported “poor,” reduce it to 1/4, or even consider diverting to another runway with better pavement conditions.

  • Here’s an easy rule of thumb to calculate the crosswind component (these are close approximations):

    – If the crosswind is 30 degrees off the runway direction, the crosswind component is half of the total wind speed. With a 45 degree crosswind, the crosswind component is 3/4 of the total wind speed. With a 60 degree crosswind angle or greater, the crosswind component is all of the total wind speed.

• Keep ‘em inflated. Your aircraft’s stopping performance depends on a proper friction coefficient between the tire and pavement. Underinflated tires may not be immediately apparent from a visual inspection. Consider investing in a good quality tire gauge and check tire pressures during preflight – don’t just give them a “look see” and fire up the engine. Tires with poor tread and/or flat spotting should be replaced.

• Understand braking action reports and NOTAMs of friction readings. Braking reports provided by pilots or airport management are categorized as “good,” “fair,” “poor,” “nil,” or a combination of these. The word “fair” is in the process of being replaced with “medium.” While these terms may seem straightforward, keep in mind they are subjective and vary with pilot’s experience and aircraft type. In order to provide more objective data, some airports use friction reporting equipment. Each brand of equipment reports slightly differently and the meaning of the numbers may seem confusing. As a general rule, when friction readings (μ) are below 40, braking performance begins to degrade and directional control becomes more difficult.

There is no approved correlation between friction readings and braking reports, since every aircraft is different. However, in order to provide you with at least some useful information, the following table is provided as advisory information only.

<table>
<thead>
<tr>
<th>Braking Action Conversion</th>
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<tr>
<td>Good-Fair</td>
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<td>Mu-Meter (MUM)</td>
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<td>Tapley (TAP)</td>
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<tr>
<td>Bowmonk (BOW)</td>
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<td>Canada (CRFI)</td>
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At many of our rural airports, no friction reports or reports from pilots may be available. Calling airport management to inquire about runway conditions before flying is essential.

• Final thoughts – a professional pilot puts safety above a smooth landing. Winter operations call for precise technique – don’t float searching for a “greaser” landing, and use firm braking once you’re down. In my professional flying experience, I’ve found you can put passengers at ease by simply pre-briefing them on what will be occurring during the landing, so that it’s not a surprise. Stay warm and fly safe this winter!

Eric Basile is a former corporate pilot now serving as an Assistant Professor of Aviation at the University of North Dakota. A 7000+ hour pilot, he is ATP rated with type ratings in Learjets and Cessna Citation business jets and is a Gold Seal CFII/MEI.
Nationally, there are a number of concerns that are of interest to not only business aviation, but general aviation as well. FAA funding seems to be a never ending saga of band aids for temporary funding. It should be no surprise that User Fees are going to be a topic in Congress as they look at upcoming reauthorization of the FAA. A proposal from the airline lobby would create a privatized Air Traffic Control (ATC) system, funded through user fees.

The General Aviation alphabet groups, lead by AOPA and NBAA, have been getting the message out, so Congress can hear from the voters on this topic. The ATC system has been viewed as the best throughout the world, and privatization would remove Congress of its long time authority. This, I think, would not be good for general aviation users.

The Pilot’s Bill of Rights 2 (3rd class Medicals) legislation passed the Senate Commerce, Science and Transportation Committee with minor changes, and is now eligible for consideration by the full Senate.

The NBAA Certified Aviation Manager (CAM) certification recently had its 300 successful award of the CAM designation. The CAM program has gone through national independent accreditation and is in the process of completing a recurrent seven year job analysis review, to ensure the examination and credential is valid in today’s ever-changing business aviation industry.

As the oil boom takes a breather, the volume of business air traffic in the northwest part of our state has slowed down some, reducing some of the ATC delays and airport parking issues.

The Powder River Training Complex (PRTC) is approved and in use. Thanks to those who commented on this airspace issue, and the author wished the decision went the other direction. Now the issue is twofold as I look at it, one being keeping you as a pilot up-to-date with the airspace when it is hot or not, and second is to provide feedback, both positive and negative, as the PRTC becomes fully operational. For those who wish to provide feedback, the North Dakota Aeronautics Commission has volunteered to be a location for collecting comments.

The Upper Midwest Aviation Symposium (UMAS) is fast approaching from March 6-8, 2016 in Bismarck. Mark your calendar and consider attending. There will be informational and educational sessions, many possibilities for networking, mechanics IA renewal, and a host of other things happening.

In the Bismarck area, business aviation is alive and well. Over the last 24 months, two new hangars have been, or are being, finished. Several additional business aircraft are based in the local area, which leads to additional pilots and mechanics in the area. The Mandan airport has finished its runway improvement, and the Bismarck airport is starting a several year project on the main runway.

Whether you fly for business or fun, or are just connected to aviation, be safe and enjoy 2016.
Experimental Aircraft Association

By Darrel Pitman, Bismarck

As one of the North Dakota Experimental Aircraft Association (NDEAA) representatives on the Aviation Council, I felt it my responsibility to write about the Experimental Aircraft Association (EAA). This will provide assurance that the history and information is written.

The EAA is a worldwide group consisting of EAA chapters in many of our cities and towns throughout the world. Some members may not realize how large the Association has become.

The EAA was started by Paul H. Poberezny in Milwaukee, Wisconsin and was eventually moved to the present location at Whitman Field in Oshkosh, Wisconsin (OSH). Paul had sought out those aviation people, like Frank Tallman and Steve Whitman, to talk to those that would be interested in coming to an event like we currently have in OSH. The first event only had 22 aircraft and 150 people in attendance. It has steadily grown as we know it today.

When EAA began, it was open to anyone having an interest in the common purpose of the organization and homebuilt aircraft, regardless of age, sex or anything else.

The Young Eagles (YE) program that we have now, began as a program called Teen Hi Airlift, attracting many young people. It has grown many times over. One of the last counts of YEs was 1.8 million and growing. The YE program is designed to fly young students ages seven to 17.

Paul retired from EAA in 1989. The EAA board elected his son, Tom Poberezny, as the new President. Paul has been elected to the National Aviation Hall of Fame in Dayton, Ohio. Paul had over 70 years of flying experience in 500 different airplane types. Paul passed away on 22 August 2013.

EAA continues today as the premier airshow event of all time. Oshkosh is called the Busiest Air Traffic Control Tower in the World. Of course that’s during the 10-day time period of the air show, I believe that to be true, because I had an opportunity to work in that program for two years in a row. At the 1984 session, I was able to accomplish the reduced arrival/departure separation that is currently in use today. During 1985, we were able to bring the famous French Concord to OSH. I also had an opportunity to assist the FAA Safety team during another session at OSH.

Those were truly experiences of a life time!

Cleared to land, Darrel
Call for Mechanic of the Year Nominations

ENTRY DETAILS: Give a brief factual description. Drawings, photographs or other presentations may be included to assist the judging committee. All entries become property of the Selection Committee and will not be returned.

The North Dakota Professional Aviation Mechanics Association (NDPAMA) requests your nominations for Aviation Mechanic of the Year. Application form located at www.ndac.aero and is due by March 1, 2016.

Also, NDPAMA’s Gordon W. Person Scholarship Applications must be postmarked no later than January 31 2016. Mail to: Kenneth Foltz 2342 22nd St. NE, Mekinock, ND 58258, or hand deliver to a NDPAMA Council Member before 3:00 pm Monday, March 7, 2016.

Qualifications: Each person submitted on the entry form must hold an FAA Airframe and/or Powerplant rating, or Repairman Certificate, and must be employed in the field of aviation maintenance in the state of North Dakota. Entries must be based upon a viable contribution to aviation safety.

JUDGING: The NDPAMA President will form a committee of at least three current NDPAMA members to judge the entries.

AWARD: An award of $300 will be presented to the selected mechanic of the year.

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**February 2016**
- Fargo Air Museum’s Camp — Feb 13
- Fargo Air Museum - Radios
- Missouri Slope Model Aero Club
- Flurry Fest — Feb 27
- Fore Season Golf Dome, Bismarck

**March 2016**
- Upper Midwest Aviation Symposium — Mar 6 to Mar 8
  Bismarck, ND Ramkota Hotel
- Women Take Flight — Mar 8 to Mar 12
  Fargo Air Museum
- Fargo Air Museum’s Camp — Mar 12
  Public Speaking/Communications
- Ribbon Cutting for New Bismarck Aero Center Hangar — Mar 18
  KBIS Bismarck

**April 2016**
- Fargo Air Museum’s Celebrity Dinner and Auction — Apr 1
  Fargo Air Museum
- Fargo Air Museum’s Camp — Apr 9
  Fargo Air Museum - Orienteering

**May 2016**
- Grafton Municipal Airport — May 1
  KGAF - EAA Fly-In / Drive-In
- Fargo Aviation Education
  Career Fair — May 6 to May 7
  Fargo Air Museum
- Aviation Poker Run — May 7
  Y19 - Mandan
- 13th Annual Aviation Career Day — May 11
  KBIS - Bismarck Aero Center
- 2nd Annual Fly-In — May 14
  05D - New Town
- Fargo Air Museum’s Camp — May 14
  Fargo Air Museum

**June 2016**
- Manitoba Air Show — Jun 4 to Jun 5
  Winnipeg, MB
- Fargo Air Museum’s Camp — Jun 11
  Fargo Air Museum - Welding
- Planes and Pancakes — Jun 12
  Y19 - Mandan

**July 2016**
- Fargo Air Museum’s Camp — Jul 9
  Fargo Air Museum - Weather
- EAA Air Venture — Jul 25 to Jul 31
  Osh Kosh, WI

**August 2016**
- Northern Neighbors Day — Aug 13
  MAFB - Open House and Fly-In
- Fargo Air Museum’s Camp — Aug 13
  Fargo Air Museum - Photography
- Kulm Windfest — Aug 20
  D03 - Kulm

**September 2016**
- International Peace Gardens Fly-In — Sept 5
  S28 - Dunseith
- Barnes County Municipal Airport Fly-In — Sept 10
  KBAC - Valley City
- Fargo Air Museum’s Camp — Sept 10
  Fargo Air Museum - Engineering
- Bismarck Fly-In — Sept 11
  KBIS Bismarck

**October 2016**
- Fargo Air Museum’s Camp — Oct 08
  Fargo Air Museum - October Sky/ Rocket Propulsion
- EAA Chapter 1008 Chili Feed & Contest — Oct 15
  Y19 - Mandan

**November 2016**
- Fargo Air Museum’s Camp — Nov 12
  Fargo Air Museum - Model Design and Building

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*Check out the online calendar for details on these events: [www.NDAC.aero](http://www.NDAC.aero)*

*Please send your upcoming dates to ndaero@nd.gov*