NORTH DAKOTA

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North Dakota Aviation Council

PYY

Aviation History is on the Horizon

Shortly after daybreak, the first rays of a summer day illuminates the ramp at Bismarck Municipal Airport. On the ramp sits a slightly oil stained 1975 Cessna Skymaster, an avocado and lime green workhorse. The aircraft has an unassuming appearance, more like a relic of another era, barely noticeable on a ramp full of bizjets and turboprops. But its importance is far beyond its physical presence. It is an example of not only how aviation works for North Dakota, but just as importantly, how government works for North Dakota.

The aircraft was originally purchased by the North Dakota Highway Department in 1975, initially for passenger transport services. Later in the decade, it was converted for use in aerial survey/photogrammetry with the removal of all but one pilot and one passenger seat, and the addition of a Zeiss RMK aerial film camera. This made North Dakota one of only eight states in the union that did its own aerial surveying.

With the addition of the film camera, two large openings were made in the bottom of the fuselage, one for the viewfinder and another for the camera itself. The film used was 240mm (approximately 9") wide, in rolls 250 feet long. After a long days flying and photographing road and city projects for the Highway Department, the film was then developed in the state's own in-house darkroom.

In 2007, the leap into the digital era was made when a Zeiss DMC camera was purchased and installed. This particular model of camera is 103 megapixels and takes color, black and white, and near infrared photos simultaneously. The camera is



Lou Ann Gosbee and Paul Stubbs look over equipment

entirely computer controlled, with photo positions and flight lines determined by the use of flight planning software. A GPS signal is used to tell the camera when to make an exposure based on the pre-flight planning. Instead of an old fashioned darkroom, photos are processed for stereo compilation on state of the art desk top computers.

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Fall 2013

The Skymaster is used for several types of missions; low level road surveys, wetland monitoring, taking the photos for the North Dakota Airport Directory produced by the North Dakota Aeronautics Commission, and the Seamless Basemap Project for the North Dakota Department of Emergency Services. Road surveys are generally flown at 1500' AGL, but are occasionally flown at different altitudes, depending on the scale of the maps needed by the civil engineers. The same goes for wetland monitoring. Airport photos and the Basemap imagery are taken at 9000' AGL.

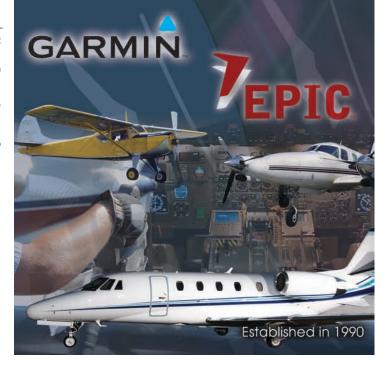
The pilot is provided with navigation information via an LCD screen mounted on a swivel stand to his right. In-flight tolerances are very tight and require precision flying. For road survey work, an airspeed of 110 KIAS is generally used, with a maximum horizontal deviation of \pm 150', and a vertical tolerance of -0', \pm 50' feet. For high altitude work, groundspeeds of 140-175 kts. are typical, with a horizontal deviation of \pm 900' and vertical deviation



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AROUND the **PATTERN**

Kris Magstadt, Editor

As I look through this issue, I see a lot of FUN photos of fly-ins, golf ball drops, and museum events. Then, I think about the snow we had early October and wonder what photos we'll have of winter events in our next issue? That's a challenge for those of you with winter events to submit photos!

I will NEVER forget shoveling at the airport, dad putting the heaters on the planes, the crackling sound of the airplane engines in the cold, and the snow plow. Oh, the snow plow. Dad spent endless hours on that machine. I thought it sounded like fun, so decided to go one day. Those were the days where snow plows weren't like they are today ... all I remember is this huge "steering wheel" and dad working extremely hard to turn it. I was cold, and after the first couple of passes, was ready to go home! Be sure to take time to thank those that keep you safe while flying during the winter months.

This issue also talks about flying in North Dakota during the beautiful, albeit short, fall season. I truly enjoyed Joshua Simmer's article ... it made me sit back and think about how much we really do have to be thankful for. Then, for Bob Simmers to write about how wonderful it is to aviate in North Dakota ... it must be a family thing. And, as for the RAF article and the possibility of opening the airstrip on the Elkhorn Grasslands north of Medora and another closer to Medora — that is exciting stuff! Dad talked about how beautiful it was to land on the airstrip on the butte overlooking Medora from the northeast decades ago - these new possibilities will provide for enjoyable flights and landings in the beauty of our badlands. As I refer to the badlands, I have to laugh, because I caught a lot of grief when I visited the Grand Canyon earlier this year and referred to it as "a big Painted Canyon." It is kind of true, isn't it? North Dakota is hard to beat ... the people, the places and the aviation community.

There are many ways to support aviation in North Dakota. The North Dakota Aviation Council and the alphabet groups all work hard to keep aviation alive and well in our state. You may enjoy the many fly-ins and events, the Upper Midwest Aviation Symposium, coffee at the airport on the weekend, or just flying to take in the fall views. Take someone with you and share your appreciation and love for aviation.

Enjoy the beauty of the fall colors of the trees and the scenery from the skies above North Dakota.

"You haven't seen a tree until you've seen its shadow from the sky" – Ameila Earhart

CHAIRMAN'S COMMENTS

Rod Brekken, Chairman North Dakota Aviation Council

"Wow, I should be listening to this...'

Did you ever get a letter, phone call, email, or even a text from a friend that made you stop and consider your life? It may have only been a small gesture, or even an innuendo when listening to them talk to someone else. I got an email like that yesterday from an old friend. In your mind you step back and say to yourself, "Wow, I should be listening to this." If you listen to or watch what this person is doing, you may realize it relates to a lot of things in life, like how we live it, who we associate with, and how we trudge along sometimes without "a plan." It snaps you back to realizing that sometimes our lack of planning sometimes gets us in trouble. We all have ups and downs in our lives, but for the most part our generation has enjoyed a relative "up time" in the scope of things. The old friend who sent me the email I mentioned earlier, is a guy I met in 1996 and got to know for only a short time - like for about a month! Bob's from Canada, and we were involved in an international GPS project together. I never knew him before we met, and I haven't seen him since. The thing about it is, ever since

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ND Aviation Council: www.ndac.aero • ND Pilot's Association: www.ndpilots.com ND Aeronautics Commission: www.state.nd.us/ndaero/ FAA-Fargo FSDO: www.faa.gov/fsdo/far/ • FAA Safety: www.FAASafety.gov we came back from that project 17 years ago, we have talked over email. He sends me pictures of his life, his family, and the area he lives in. I send the same stuff back to him, and we enjoy the contact. As I said, we only knew each other for about a month or so and were actually not involved with the project on a daily basis. His involvement in the project was entirely separate from mine, but we became friends, and continue to be friends. In my daily life I have everyday friends. Friends I associate with on practically a daily basis, but Bob, well, he's a distant lifelong friend. I don't really understand it, but it works for us.

Speaking about having "a plan" and "working together," the North Dakota Aviation Council has "cracked the egg" on plans for the upcoming Upper Midwest Aviation Symposium that will be held at the Alerus in Grand Forks March 2-4, 2014 We have had our September meeting, which is sort of an organizational affair, considering there are new members on the council. We are currently in the process of selecting a banquet speaker and have already booked a special session speaker who many of you will be interested in hearing. Have your "G suits" ready! All of the groups within the NDAC have begun to make plans, and for those of you who are mechanics who hold Inspection Authorizations, the NDPAMA group will again be sponsoring FAA approved IA renewal classes. As the months tick away, we will continue to make plans and preparations for what is being billed as the "30th symposium." Yes, I know we celebrated the 30th anniversary of the NDAC last year, but this will actually be the 30th time we have come together as a mid-west aviation community to enjoy the camaraderie, share the new things we have learned this past year, and relive the rich aviation heritage that has been established by those who came before us. We will need to prepare for a "new era" in North Dakota aviation, as the oil, gas and coal industry aviation needs are hopefully implemented for the future. Fortunately, our 2013 legislature provided funding to begin to prepare for this future, but in a few short months, we begin again to formulate lobbying efforts for the 2015 legislature to continue long-term funding. It won't be easy, but it will be necessary, to insure that the aviation generations to come are provided for. We need to be visionary in our plans, so that the generations to come don't need to be reactionary.

Remember, March 2-4, 2014, we will be looking for all of you in Grand Forks. So, make your reservations early with the Canad Inn or surrounding hotels, and come to enjoy and be a part of the 30th anniversary of the Upper Midwest Aviation Symposium. Larry Taborsky, Director North Dakota Aeronautics Commission



DIRECTOR'S CHAIR

What does the Flight Service Station do for me?

You can get ALMOST all the available information online yourself these days. What benefit does the Flight Service Station (FSS) serve? When you plan a flight, does it involve a phone call to get all available information relating to your flight?

There are numerous places to find information on Temporary Flight Restrictions, restricted airspace, Military Operations Areas, and other hazards. However, there is no guarantee that they are up to date. The FAA has designated Flight Service as the official distribution point for updated airspace advisories. That phone call gives me the most current information.

I'm human and don't want to miss any details. I feel better having another set of eyes looking out for me, both during flight and during pre-flight planning. A short call to FSS gives me a last chance to catch some important detail about my flight before I take off unaware. That briefer might save me some money or my license someday!

Even when I think I'm right about the weather and the forecast is wrong, it is a good exercise to prove to myself that the conditions are not right for the posted AIRMET. Flight Service is a certified weather source, good enough for the military and commercial operators. There is still a bit of art to the science of weather forecasting, and I'll listen to the weather experts before making my flight decisions.

I am told that the volume of briefings has stayed steady over the years. The military makes use of this service, as do student pilots and those without computers. If you don't think you need a brief, how about giving back to aviation? Perhaps your flight experience would make the system better for everyone! I have some pilot friends who let me know when the briefers didn't provide the information that they expected. This information gets relayed to

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"...the Flight Service briefings can prevent me from getting a call from the highway patrol some evening to report a crash..." the management, who make sure that the briefs are better all the time based on that feedback. If you are at the peak of your aeronautical experience, your knowledge could be used to increase the current information of the briefers, who then pass the information on to the next pilot on the phone.

The FSS has told me that they receive reports of aircraft accidents across the country every weekend. Of those reports, the overwhelming majority have not received a pre-flight briefing of any kind. Maybe some of those got their information somewhere else and didn't leave

a record of receiving a briefing. But if the Flight Service briefings can prevent me from getting a call from the highway patrol some evening to report a crash, I'm happy as an aviator to support this part of the FAA budget.



(continued from cover)

Aviation History is on the Horizon



of ±100' allowed. Road survey flight lines are normally less than five miles in length, however, projects can range from 1 to 20 flightlines. Basemap flightlines are 40 NM in length, and are currently oriented along an East-West axis. Thus, these lines can take from 15 to 25 minutes to fly depending on the winds aloft.

By far, the largest project undertaken is the North Dakota Seamless Basemap. The basemap's origins began in 2009, when after two previous attempts, the 61st legislative session approved initial funding of a proposal from the North Dakota Department of Emergency Services (NDDES) for the development of a map of the entire state, based on aerial imagery. This map is currently called the Statewide Base Map.

In September of 2009, Mike Lynk, director of State Radio at NDDES, approached the North Dakota Department of Transportation (ND DOT) with a proposal to join forces and create "a statewide seamless basemap to provide the most accurate and efficient means of mapbased emergency management activities across disparate public safety answering points and other jurisdictional entities. In terms of Emergency Services, this base map would become the foundational element of the Computer Aided Dispatch system and future Next Generational 911." This will allow first responders an unprecedented level of accuracy in addressing and mapping, resulting in quicker response times to critical situations.

By November, 2009 a proof of concept test was developed, and in March 2010 McHenry County was chosen as the test subject. During the summer of 2010, new strategies and processes had to be developed from scratch. Nothing like this had ever been attempted, anywhere. The makers of the camera, Zeiss, and software, Intergraph, claimed that it could not be done to the required accuracies. With the cooperation of NDDOT and NDDES, several new systems and procedures were invented that proved that the impossible was, indeed, possible. "Precision post processing" was incorporated into the GPS solutions to tighten down photo centers, allowing the team to match the

required sub-meter accuracies for roadway digitizing. Additional state of the art computers were purchased, and a massive 50 tera-byte server was built to house the massive amounts of data needed. All this equipment was installed in the NDDOT's building on the capital grounds, however, the processing of the data is done by NDDES geographic information systems (GIS) specialists.

By May of 2010, centerlining of roads began. Centerlining is a process completed in an application called Microstation, after the photos for a particular block are processed and joined together. Every single roadway in North Dakota will have its surface type designated and its centerline drawn in. All highways, section roads, township roads, streets, alleys, etc. will be digitized. In McKenzie and Dunn Counties alone, that accounts for over 35,000 road segments.

Images are taken in half blocks of latitude and longitude, split up into half degree segments. This means that there are approximately twenty-four 40 NM long flight lines in each half block, or



Basemap courtesty of ND DOT

approximately 2550 photos. Photography can only be done on relatively clear days when roads are easily seen from 9000' AGL. Once taken, the raw image data is downloaded, and then run through seven different computer programs before the finalization of that half-blocks data. This processing can take up to three months to complete. The volumes of data processed is staggering, with some programs running continuously for days, or even weeks, at a time.

The pilots for the project are provided by the ND DOT, while the photogrammetry and GIS work is done by four full time NDDOT photogrammetry staff and from two to five NDDES GIS specialists. This cooperation between the two state departments is the key to the success of the project.

To date, over 125,000 photos have been taken, with the initial aerial coverage projected to end by late fall of 2013. The estimated completion date of the processing is in late summer of 2014, with the addressing portion winding down in early 2015. At that point, the Basemap creation will cease to be a project, and will then move in to a long term maintenance mode. Current plans are to re-fly one third of the state every biennium, with the entire state re-flown every six years. Basemap imagery will be available to all state departments, agencies, counties, and local governments free of charge. Commercial use of the imagery will eventually be available on a subscription service basis, with the fees used to offset the cost of maintenance of the map.

With the Cessna Skymaster slated for retirement, a new chapter in North Dakota aviation history is on the horizon. But, despite its ordinary appearance, the airplane has played a vital role in creating an amazing new era, demonstrating that in North Dakota, not only does Aviation Work, but so does state government.

Plane & display photos courtesty of Monte Oberigwitch.



Skymasters Display







How lucky we are to aviate in North Dakota?

As I write this I am sitting in an emergency room in Niagara Falls, New York. We have been traveling in the east and have seen many interesting elements of the United States, to include Gettysburg, the Flight 93 Memorial, Amish and Mennonite farm country, the Adirondack and Appalachian Mountains, the rolling hills of western New York and Niagara Falls. All of these are very beautiful and inspiring exhibits.

I cannot believe how lucky we are to aviate in North Dakota. Flight over this area would take your breath away, especially if the engine quit. There is nowhere to make an off airport landing. I don't think that I saw a field or spot large enough to land an aircraft since we left western Minnesota.

I visited the Flight 93 Memorial near Stoystown, Pennsylvania. This Memorial is a work in progress and a tribute to those who fought so bravely against the Terrorist attack of 911. The airport at Lancaster, Pennsylvania is the home of the first two pilots to penetrate the newly established TFR around Washington DC post 911. That is one reputation I would not enjoy. Although I am enjoying the spectacular countryside, I cannot stop thinking about my aviation skills. Am I getting complacent when I fly? Am I prepared if something should go wrong in flight? While flying, when was the last time I looked down and wondered if the engine quit now, where I would land, and once I chose a spot, could I make it there and spot land the aircraft on the desired mark? When was the last time I performed power off spot landings? Lots of questions running through my mind, but my answers were as hard to find as a suitable landing spot in Pennsylvania!

How about you? When was the last time while flying you asked yourself the same questions? Could I land my aircraft safely from my current position if the engine quit or if some other in-flight emergency required an off airport landing? When was the last time you did power off spot landings? If your answers were as hard to find as mine were, then it's time that you and I meet at the airport and answer those questions.

Till Next Time, HAPPY LANDINGS



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Kyle Wanner, Aviation Planner North Dakota Aeronautics Commission

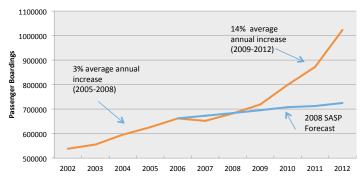


North Dakota to Update State Aviation System Plan

North Dakota last updated its State Aviation System Plan (SASP) in 2008. At that time, our state was seeing modest population growth, and it was expected that our commercial service airports would continue to see a statewide average increase of 1.7% in passengers per year. Our state was also forecasted to reach 1 million annual enplaned passengers sometime after the year 2030.

In all actuality, since 2009, North Dakota has actually seen a 14% average annual increase in statewide passenger enplanements and reached the 1 million annual enplaned passenger mark in 2012. The majority of these increases have been related to activities in the oil industries that were not known to be a factor when the 2008 State Aviation System plan was completed. General aviation and business traffic has also increased in many of the state's general aviation public-use airports over the same period. An example of the unprecedented growth can be found in the statewide historical airline boarding chart.

This graph represents just one example of why the North Dakota Aeronautics Commission has decided to take the needed steps to provide the state with an updated aviation system plan.



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Statewide Historical Airline Boardings

With the dramatic changes that have occurred within North Dakota since the last state aviation system update, a new look at the aviation industry within the state is necessary to provide the recommendations needed to develop and maintain an adequate airport system for the new demands the state's airport infrastructure now faces.

You can help our efforts to update the aviation system plan. Surveys and data collection will be needed from the airports and the users of the system, and if you have an opportunity to provide information relating to the aviation industry, please do so. Regional meetings throughout North Dakota will be planned to take place in the near future, and the public will be provided the opportunity to provide input at those meetings. You can also expect to see a presentation on the state system plan update at the North Dakota Spring Aviation Symposium. Lastly, the North Dakota Aeronautics Commission's website front page at www.nd.gov/ndaero will soon have a link to a State Aviation System Plan project website that will:

- Provide summary information about the study and survey instruments for study participants to download
- Exhibit the project schedule
- Maintain a posting of public information and workshop meeting dates and meeting handouts
- Establish an online feedback form
- Post working documents for public review

I hope that in the coming year you are able to get involved and take this opportunity to help us develop the blueprint and vision for the next stage of airport development in the state of North Dakota.

REMINDER Don't forget to nominate your favorite airport of the year to Kyle Wanner (kcwanner@nd.gov) or (701) 328-9650.



Fall Flying – the best of the year

Joshua Simmers, Typical pilot with atypical passion

Most of us live in North Dakota for its pronounced seasons. My firm belief is that autumn offers the best aviating, primarily because of picturesque sights. It doesn't take a dense forest to kindle all of the sensations which capture our soul. North Dakota is a state of living landscapes; infinite horizons punctuated by rising buttes, grassy hills, blue waters, and changing colors. Practically speaking, it is nice to be beyond the summer gusts, density altitudes, and warm cockpits. Aesthetically speaking, there are a couple flights in North Dakota that you would be remiss to miss. From the creeks carving the rugged landscape of the west to the shaped grasslands and glistening lakes of the east, you'll find plenty of delighting settings this fall.

One of my all-time favorite flights was a day with my dad to catch the fall colors of the **Pembina Gorge**. Flying the Gorge is relatively short, but is deeper with more grandeur than any of our other river valleys. Contact the local tourism office to see when colors are peaking. We flew up on a cloudy day and the sun revealed itself for the duration of our time above the Gorge and those colors POPPED! It is a spectacular memory of a pristine site.

Other river valleys in North Dakota are also lengthy and spectacular. I am personally partial to the Heart and Sheyenne. I was at Cooperstown in mid-September and took note of the colors beginning to display themselves in the **Sheyenne River Valley**. From Kindred to the highlight of Lisbon and the particularly beautiful **hills south of Devils Lake**, the Sheyenne is breathtaking. In a similar way, starting south of Richardton gives you beautiful peaks and follows the **Heart River** with all its curves right to the **Missouri** – where you can follow it north to the **Garrison Dam** Recreational Airpark or south over the river-bottoms and **Lake Oahe**, turning east on **Beaver Creek** around the hills west of Linton.

The **Mouse River Valley** gets you twice (once southbound and once northbound) and makes a great transition to or from the **Peace Gardens** where you can take in the unique **Turtle Mountains** rising above the prairie. I am still partial to the International Peace Garden Airport because you can take in the beauty of the Turtle Mountains and have a nice and simple walk to the café through the gardens or hike around the lakes through the trees. A little surprise are the **birch trees** north of Belcourt that will be splendid this time of year.

Finally, my favorite [FAVORITE] flight is over the Badlands of North Dakota. The reason it's my favorite flight (that I try to take annually) is because the **Badlands** already have natural color steeped in the layers of earth that are highlighted by the green juniper trees and fall foliage. It's inspiring if you take the attention to soak it in. You can start in the southwest corner above the **Limber Pines** to the **Columnar Cedars** – local anomalies – and continue north over the Badlands looking for **patches of aspens** and **ponderosa pines**. Take note of where the **South Unit** (**Theodore Roosevelt National Park**) is as you fly over or around it and don't stop following the **Little Missouri** until you see the **North Unit**. You will see the land rising steeply north of the river creating a deep, wide, and steep gorge with land and vegetative colors – making it preferable to the south unit when viewing it from the air. Fly below 2,000' AGL south of the park's boundary



Photo courtesy of Matthew Leitner, quixotic aviator

to get the best view. I personally prefer to continue along the river to where **Lake Sakakawea** begins to seep up the edges of the rough topography. Since you're in the neighborhood, swing down to **Killdeer Mountain** and see the color crawl up its draws.

There are some **lakes among the hills with trees** in area the south of LaMoure that are really pretty to over-fly. I like to go out of my way when traveling cross-country to get a nice view of those pockets in the southeast. There are just too many worthy destinations to write about in one article – there are numerous more sights worth mentioning: the **flares of the oil fields at night**; the **James River**; the **Cedar Creek**; the **small forests** and **ridgeline hills** in the heart of our state, or the **Des Lacs River view** while departing Kenmare. <u>The point is to get out and find them</u>, <u>savor them</u>, and share them</u>. Flying season is not over, and as this issue of the *Quarterly* gets in your in-box, it'll be peak time to fly.

Final notes: Make sure to take into consideration the minimum altitudes above national parks and wildlife refuges. Your North Dakota Airport Directory is free and has been updated this year to include symbols of local airport amenities. By looking at any selected airport you can tell if they have hiking to take in the fall colors, a courtesy car, or fuel to help with your agenda. The views, bakeries, hikes, and restaurants I find while deviating from the airport constantly add to the adventure.

And while you're enjoying the best part of aviation – make sure you've brought someone with you, too. *Aviation Works* too well for us to keep it to ourselves.





(Above) Joshua in 1983, at the Valley City Airshow pointing at smurf plane. (Below) Joshua and his daughter, Genevieve, on her first flight.



Reminiscing FAA History

Air Traffic Control

Ever wonder about how Air Traffic Control (ATC) started? The following is a short bit of history on that.

In 1926 President Calvin Coolidge signed the "Air Commerce Act" into law. Eleven years later, President Franklin Roosevelt asked Congress to include "Air Transportation" into the "Emergency Railroad Transportation" act, but it failed in Congress.

In December of 1935, the airline companies of that time organized three air traffic control centers. The first was at Newark, New Jersey. Several months later the other two opened, one in Chicago and one in Cleveland. The purpose was to provide airline pilots information on the whereabouts of other planes in the centers vicinity under instrument conditions. In July of 1936 the "Bureau of Air Commerce" took over operation of the three centers, and appointed an Airway Traffic Control Supervisor. In 1937, three more centers were established in Los Angeles California, Washington DC and Oakland California.

In 1938 President Roosevelt signed into law the "Civil Aeronautics Act." The Bureau of Air Commerce then became the "Civil Aeronautics Authority" (CAA).

I could write a full book on this, so we'll fast forward a little.

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In June of 1956 there was tragic midair collision between a Trans World Airlines' Super Constellation and a United Airlines' Lines DC7 over the Grand Canyon, Arizona killing all 128 occupants. Congressional hearings were opened to probe the tragedy for general problems of airspace and air traffic control. This started the current air traffic control system we know today. Radar soon became normal for separating air traffic. The CAA and the USAF entered into an agreement for joint use of the military radars. They established the airway system using the new very high frequency omnidirectional navigating system (VOR) and the military version TACAN (VORTAC).

In late 1958, the "Federal Aviation Act" became law. The CAA then became the Federal Aviation Agency (FAA); later to become the Federal Aviation Administration, establishing the FAA as we know it today.

In my long career as an air traffic controller (51 years), I worked at four centers and five towers, plus a tour in the Great Lakes Regional office and as airspace manager for the 1st Air Force at Langley AFB, Virginia.

When I was still in the USAF at Hill AFB, Utah, one of the programs put in place, was an FAA/USAF cross training program. I was allowed to train at Salt Lake City Center (SLC). At SLC I was asked where I would like to train. I'm from Arizona, and the Farmington, Utah sector covers the Grand Canyon. I requested that I work the Farmington Sector. The SLC controllers were great to work with. After the air force I worked at SLC center for one of my tours in the FAA.

If this history trivia interested you let me know.

Cleared for takeoff, Darrel

I made an incorrect statement in my previous article and I owe my readers an apology. In that writing, I told about the book *The Wild Blue* and George McGovern being one of the B24 pilots, which was true. I also stated that he was a past Governor of South Dakota and United States Vice President. That was in error, so I stand corrected. Thanks, Ted.



The Duchess of Dakota

Murray Lawler, a Linton North Dakota native, was a pilot during World War II. He was stationed in Great Britain and took part in D-Day on June 6, 1944. Lawler enlisted in the Army Air Corps in about 1942 and, despite his family's doubts, he passed the corps' test with only his eighth-grade education.

Lawler flew transport and paratroopers throughout the European Theater and received the Air Medal with two oak leaf clusters for outstanding service in World War II. While in Great Britain, Murray met Margaret. She and her girlfriends from Nottingham were invited to a dance at the nearby American base, and it was

there she met her future husband. On D-Day, Lawler flew near

St. Mere Eglise and dropped 18 paratroopers behind Nazi lines. "I wouldn't want to do it again, but I don't regret that I was there," Lawler told the Emmons County Record in a 1994 interview.



According to Murray's family, The Duchess of Dakota came into

being around September, 1944 and was named in reference to Margaret. She told the American who was enchanted by English royalty that she was just "a plain miss." Margaret recalls that Murray said, "If you can't be the Duchess of Nottingham, you'll have to be the Duchess of Dakota."

The couple became engaged in October 1944, but had to postpone the wedding three times while they waited for permission from Washington, D.C. After the war, Lawler returned to Linton, and when all the soldiers had safely arrived home, his wife followed him. She was the first war bride to arrive in North Dakota, and she was welcomed by a crowd of people and a reporter who took her photograph and interviewed her at Bismarck's train station.



Tyson Voelkel, President, Texas Flying Legends Museum with Margaret Lawler





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Interestingly, an aircraft piloted by Murray in WWII was named SNAFU Special. This aircraft was sold to a Czechoslovakian airline, then to the French Air Force, then to the Yugoslavian military. The history of the aircraft was lost in the transfers to different entities, and after its last flight in 1994, the SNAFU Special sat next to an airstrip in Bosnia until a United Nations peacekeeper noticed it and remembered Merville Battery Museum's search for a C-47 plane for display at the museum in Normandy, France.

While dissembling the plane in Bosnia, someone discovered a crew roster from World War II; Murray Lawler was on the roster. In correspondence with the pilots and their families, Marageret was located and confirmed that it was indeed her husband in the picture.

Museum Administrator Beatrice Guillaume expressed her gratitude to the troops who liberated France. "We never forget what the American young men did for us," told Margaret.

The plane reached France at the end of November. It has been reassembled and was unveiled today at the Merville Battery Museum in the presence of a few of the World War II pilots and their families. It was unveiled in the same colors it bore on June 6, 1944.

Murray past away at 85 on July 23, 2006, and is buried in the North Dakota Veterans Cemetery. Although she lost her lifelong love, through the reemergence and discovery of these two planes Margaret has found another reason to brag about her husband's determination and integrity.

Watch for more about "the Duchess" in the spring issue.



The Fly North Dakota Airports Passport Program is a fun reason for pilots to get out and fly while supporting aviation in North Dakota at the same time. Grab your passport book and start collecting your stamps. *Go to www.nd.gov/ndaero or call 701-328-9*<u>650</u> for more information!



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Local AMT Employee award recipients

The Aviation Maintenance Technician awards program was introduced in 1991 as a means to promote initial and recurrent training among individuals involved in all areas of aircraft maintenance. The program recognizes technicians as well as employers who go the "extra mile" practicing aviation safety. The individual achievement levels are comprised of three phases.

Phase I: Bronze requires a minimum of 12 hours of eligible aviation maintenance training.

- **Phase II: Silver** requires a minimum of 40 hours of eligible training.
- **Phase III: Gold** requires 80 hours of maintenance training plus satisfactory completion of 3 credit hours of applicable college level courses.

In addition to individuals this program also recognizes employers



Jim Sweeney, Fargo Jet Center President; Jeff Boe, FAASTeam Program Manager; Mike Clancy, Fargo Jet Director of Maintenance



Mike DeVries, Maintenance Training Manager; Jeff Boe, FAASTeam Program Manager; Clark Gebhard, Technician

for their outstanding contributions to safety. An eligible employer with a minimum of 50 percent of its eligible employees receiving an award may receive the **AMT Gold Award of Excellence**.

An eligible employer with no less than 100 percent of their eligible employees receiving an award may be presented the **AMT Diamond Award of Excellence**.

This year the FAA proudly recognized two recipients of this prestigious award; Fargo Jet Center in Fargo and UND Aerospace of Grand Forks.

These individuals and employers go the extra mile in their commitment to safety and are to be commended in the efforts to put safety first.



Fargo Jet Center maintenance technicians receive individual awards



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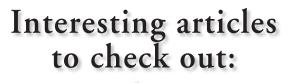


Learn to Fly Scholarship

The North Dakota Pilots Association is once again offering a Learn to Fly Scholarship. The purpose of the scholarship is to assist an individual in obtaining a sport, recreational or private pilot certificate. It will be awarded to an individual who is either from North Dakota or is taking lessons from a flight instructor who is based in North Dakota. Information and applications will be available on the NDPA website at www.ndpilots.com.

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On July 4th we dedicated our latest expansion, The Flying Legends Wing. All eleven of the Texas Flying Legends Museum's war birds were on hand for the event. Also, Dr. Ed and Marie Bosarge and Mr. Bruce Eames, principals of the Texas Flying Legends Museum, Houston, Texas, participated in the dedication. Throughout the day leading up to the dedication program, we held an open house at the museum with no admission charge. We had antique auto displays by the Dakota Cruisers Car Club, Military Vehicle Collectors Association provided numerous displays, and a scavenger hunt with prizes for the kids. We had an estimated 1,200 plus people visiting the museum though out the day with about 500 of them attending the dedication

program that evening. After the dedication, a group from Houston, Music Doing Good, provided an hour long, professional musical program called Voices of Freedom. This was followed by entertainment and dancing with a local band, Soul Shine, and a huge fireworks display provided by Visit Minot (Minot's CVB).

Our \$1.8 million Flying Legends Wing expansion was a result of the Texas Flying Legends Museum principals wanting a hangar to display their collection each year when they bring them to Minot, and offered \$1.25 million on a 2-for-1 match to build a 150 foot by 150 foot hangar. Our match came primarily from a \$500,000 Community Development Grant and \$50,000 from the Strata Corporation. In addition to the hangar, our expansion included a 190 foot by 190 foot paved ramp, 900 feet of paved taxi way, and a 100 foot access gate to the airport. With the Flying Legends Wing, our museum has over 55,000 square feet of display area. Our cooperative joint venture with the Texas Flying Legends Museum has opened many avenues to our museum. In addition

to the Flying Legends Wing, we have a tremendous traveling collection of WWII aircraft that is rarely seen in one location.

With the help of a \$20,000 grant from the North Dakota Aeronautics Commission, our Education Committee, chaired by board member Michelle Saari, is developing an ongoing youth education program to introduce 4th and 5th graders to the many facets of aviation. At the request of the Minot School Board, our museum is also involved in developing and introducing an aviation curriculum at Minot High School. The goal is to have a curriculum in place for the 2014-15 school year.

In the early years of Minot AFB, the 5th Fighter Interceptor Squadron was a tenant unit. In January 1960, the first F-106 Delta Dart arrived at 5th Fighter Squadron. They already had a T-33, tail #70616, in the squadron, which has been on loan to our museum since 1989. In December 1984, the 5th Fighter Squadron began the transition from F-106 Delta Dart to the F-15 Eagle. A couple of years ago, the USAF Museum agreed that we could get a static display F-106 from the surplus



C-47 static with Flying Legends Wing in background



Historic Military Vehicles and the B-25.

aircraft facility in Tucson, Arizona. Shortly thereafter we requested a static display F-15 from the USAF Museum inventory, more specifically an F-15 that was placed on loan to Minot Air Force Base (MAFB) several years ago for the purpose of a static display. For budget reasons and other priorities, the display never materialized. Last spring the USAF Museum agreed that our museum could have the MAFB Eagle. Thanks to our Board Member, Darrel Kerzman, retired Chief Master Sergeant, who has been coordinating the demilitarizing process, the Eagle should be towed down Highway 83 to our museum this fall. All three of these aircraft will be on loan to our museum from the USAF Museum. Our goal is to create a static display of the three aircraft



Logan Pietsch Leading the Pledge of Allegiance. Also pictured Dr. Ed Bosarge, Bruce Eames, and Mayor Curt Zimbelman.

in recognition of the 5th Interceptor Squadron that was a part of MAFB and our community for many years.

Our 17th annual sweepstakes came to an end on August 15th when all 2,500 entries were sold and our drawing was held at our fly-in/drive-in breakfast on August 18. The winner of the 1st prize, a 1947 Luscombe, was Ryan Carson, Cedar Crest, New Mexico. The winner of the 2nd prize, an Apple iPad, was Chuck Greenway, Armour, South Dakota. The winners of the two \$300 Early Bird drawings were Piper Scott, Weldona, Colorado and Jeff Larson, Minot. We want to thank everyone who participated in the sweepstakes supporting our museum.

With the dedication of the Flying Legends Wing hangar and all the activities generated by the presence of the Texas Flying Legends Museum collection of WWII aircraft, we have had a very busy summer. As most of you know, we are open from mid-May to mid-October, so as of this writing, we have a few weeks until we close for the season. If you can't pay us a visit this fall, be sure to plan a trip next season.





Dr. Ed Bosarge speaking at dedication.

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The green plane and the blue sky

Julie R. Neidlinger

In the 1980's, during the farming crisis and a time of farm auctions and tight budgets, my father did a risky thing: he decided to pursue his lifelong dream.

Right in the middle of being serious and focused on keeping the farm afloat and off the auction posters that covered the walls of local businesses in much of small-town North Dakota, he decided the time was now or never. He became a private pilot. He, along with a neighbor, eventually took an even greater leap of faith by purchasing a 1964 Cessna 172 airplane. With those two decisions, a green and silver airplane and the view of the family farm from several thousand feet above the ground became entangled with all the other memories I have growing up.

The Neidlinger family farm.

He took us flying in the summer and in the winter. He flew over his crops for a better view, and over the local threshing show to see all the action. He flew to neighboring towns, took photos of farmsteads, and even flew over Grand Forks during the flood in 1997 before a flight restriction was put in place. My memories of the farm are as much the open sky as the grass and the wheat, as much the roar of the propeller as the chugging combine. It didn't occur to me that flight was at all rare, that other kids weren't used to the sight of an airplane landing in the back pasture and taxiing up to the gas tank in the yard. The green plane and the blue skies were locked in a dance; there wouldn't be one without the other.

In 2007, my father experienced some health problems that put his private pilot's license in jeopardy, and talk of selling the airplane surfaced. This was upsetting to me; it had become embedded in the memory and photograph albums of my family and the community. The familiar green plane with the setting sun glinting off of the aluminum wings on a soft summer evening — how could I say goodbye to that?

and memorizing flight maneuvers and panicking because, as my father gently told me when I announced my plans several months prior, "it takes some work to get your private pilot's license."

"Yeah, yeah, dad, I got this," I had said confidently before heading down the road with a destination in the sky.

I am not going to quit, I told myself repeatedly those four and a half months, outlining notes from my text book, diagramming airspace rules, and filling out navigation logs at the library coffee shop. I spent nearly ever moment of non-flying sitting in my car or a chair or a bench at the mall doing some "arm chair flying", practicing steep turns and stalls and probably looking a bit silly.

Never one much for talking around people I didn't know, my flight instructor initially found, after several mostly silent and oneword answers during the post-flying lesson debriefings, that my blog was the best source to turn to to find out exactly what I felt had happened during the day. Lessons I described as "fine" to him were revealed as something much else.

As my training went on, the cartoons and blog posts on my web site became a stopping point for several people who worked where I was receiving my flight training, though I wasn't aware of it initially. My intention was to share it with my distant blog readers, of course, but also my father. I didn't want him to worry about how things were going, so I tried to find humor in the challenges and self-deprecation in the successes.

On my web site, I compared my landings to a satellite falling from the sky. I illustrated my struggle to handle the sectional and E6B and timer during my first cross country flight as borderline chaos theory. I wrote about nearly taxiing the training plane to



I repeatedly explained to a friend how upsetting this was to me, not only that the plane might be gone, but that my father wouldn't be able to go up in the air and raise a fist to gravity. At the end of my long-winded rant, my friend asked me, quite simply, "why don't you learn to fly?"

Why not, indeed, which is how I found myself in Bismarck in May of 2008, reading about airfoils and wind shear and carburetors and weather systems. I learned how to read a sectional chart, and use an E6B flight computer, which is, despite its name, less computer and more a circular slide rule. I sat up nights, watching the ground school DVDs and preparing for the FAA written test







Montana from the runway because I mistook my right foot for my left. I wrote about the day I thought I might have heard God greeting me on Mandan's common traffic advisory frequency (CTAF). This was the only way I could process the simultaneous fear and exhilaration I felt while learning to fly, knowing that I was beating gravity but that it was certainly not down for the count.

"Your blog is famous at the airport," my instructor said jokingly, reminding me of the truth that it is easier to write when the audience who reads it is nowhere nearby.

I found this horrifying.

I thought I could keep my private humiliation within acceptable limits. As time went on, however, I was happy that someone could enjoy the humor of me bouncing down the runway and pulling three landings out of what should have been one, repeatedly banging my forehead on the ailerons during preflight, or my absolute inability to remember what the fuel vent was called.

After my first solo flight, the first person I called was my father. After I passed the FAA written test, the first person I called was my father. And, on October 31, 2008, after passing my checkride in Montana and officially becoming a licensed private pilot, the first person I called was...my father. I thought that the license itself might be the pinnacle; it was my goal, certainly, so that should have been that. Story over.

But no.

My father and his pilot friend from back home came to visit on a beautiful summer day and we decided to take the green airplane up for old time's sake. We flew from Bismarck south along the



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East Side Terminal Hector International Airport P.O. Box 5591 Fargo, ND 58105 Marc Lepage Office: (701) 235-2041 FAX: (701) 239-4235 Home: (701) 280-9056 Missouri River, up past the turbulence to a smoother piece of sky. Sitting in the left seat of that old familiar green and silver plane instead of the right — that was the moment that surpassed the checkride, the solo, the lessons, the tests, the doubts. Coming in for the return landing with my father indicating a bit more throttle to account for passenger weight in the back, perhaps, and me nodding as I pulled on the carburetor heat and put in flaps — that was what I had worked for.

Lacking even the standard six-pack of instruments, it's not everyone's dream airplane. But it's my dream airplane.

The old green and silver airplane sits out on the general aviation ramp here in Bismarck during the summer, and beckons. I do feel sad knowing that I cannot keep the plane since I cannot really afford to fly. There will be a time soon when dad will sell the green plane, and I won't ride in it again. Life is letting go, whether that is letting go of gravity, or the the machine that helps you do that.

I haven't accumulated as many flight hours as some private pilots, but I have no regrets in learning to fly. Now, when I talk to my father on the phone, we are able to talk about flying, and I am able to understand. We talk about aviation news, airplane maintenance, and the old green plane. It is no small thing to learn to share a passion as a way to connect, to make that effort to go outside of what you are naturally inclined to do, in order to build a bridge.

As I explained to a friend, there are some who learn to fly because they naturally love flying. I learned to fly because I love my dad. Neither reason is better than the other. They are merely different. The green plane and the sky can still dance.

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Backcountry Airstrips

By Brian Rau, North Dakota liaison to the RAF

Have you ever wished you could do more recreationally with your aircraft? North Dakota has great areas to hike, fish, bike, camp, hunt, golf and attend outdoor musicals. The problem is, that most of these areas are not accessible by aircraft without further motorized ground transportation. The Recreational Aviation Foundation (RAF) is an organization that is dedicated to maintaining, enhancing and developing airstrips that are primarily used for recreational purposes. These airstrips are often considered "Backcountry Airstrips," but do not let the name fool you, backcountry or recreational does not necessarily mean tail-draggers with large tundra tires. Many recreational airstrips are useable by most light aircraft.

The RAF is a 501c(3) organized in 2003 by a group of pilots in Montana and has become a national organization with members in all 50 states, including many members in North Dakota. The RAF works with federal agencies, such as the Forest Service and Bureau of Land Management to affect policy to allow the inclusion of aviation activities in Land Use Management Plans. The RAF is also involved at the state level to affect public policy change, such as the inclusion of aviation in state Recreational Use Statutes.

The RAF works in conjunction with local pilot groups to maintain existing recreational strips, as well as identifying and sometimes opening new strips. The airstrip activities by the RAF range in diversity from developing and constructing the first new airstrip on BLM land in decades (The Russian Flats airstrip), to being the recipient of donated airstrips (Ryan Field), to working with the National Park service to open the Chicken Strip in Death Valley National Park. As a 501c(3), donations (including airstrips) to the RAF are tax deductable. You can find out more information about airstrip activities by going to www.theraf.org

In North Dakota the RAF has its eyes on an airstrip on US Forest Service land (Elkhorn Ranchlands) located 20 miles north of Medora in one of the most scenic areas of the North Dakota Badlands. This airstrip is located on property recently acquired by the Forest Service. The airstrip is in fair condition, but is not known to have been used as an airstrip for a couple of decades. Progress on this airstrip is in a holding pattern, as the Forest Service waits for a couple of external issues in the area to be resolved before they open the Land Use Management Plan for the area. When this plan is opened up, input will be needed from aviation enthusiasts to comment on, including aviation activities. Exploring possibilities for an airstrip closer to the town of Medora is also being conducted.

To find out more about RAF activities, go to www.theraf.org or contact me at brau@theraf.org or 701-486 -3414.



Rotor Wash

Contributing author, Scott Hauge



Getting off the ground is half the fun – that is until the rules become confusing and ambiguous. The one phrase every helicopter pilot has heard that causes most of that anxiety is, "Helicopter 12345, departure from the ramp at your own risk. Cleared for takeoff." Simply stated, the clearance is nothing more than the same procedure we follow when departing uncontrolled airports. The anxiety lies in the fact that pilots are used to being directed when at towered airports and not left to our own risk. The way to plan for and depart safely "at our own risk" starts with the confidence that we have actually planned the complete flight starting with leaving the ground.

Departures from non movement areas, General Aviation ramps, private ramps or from areas that can't be seen by the control tower, will prompt the "own risk" call from ATC. The comment I heard from one young aviator was, "Well, isn't it always my own risk?" Yes, but ATC does provide traffic separation and can give headings after take-off that will avoid known obstacles. I personally departed from an area in-between hangars that I would have flown directly at an old NDB antennae had tower not given me the heads up. ATC will always try to give a clearance, but are only allowed to accept the risk when they can control all aspects of risk. If you're in an area they can't observe, they will rely on you to relay your intent and a logical plan to enter into controlled airspace. All that being said, the main goal of every pilot goes back to having a plan that starts with leaving the ground and ends with walking away safe.

While most helicopter flights are VFR and visual reference to depart from a non movement area is as easy as avoiding obstructions, an IFR departure requires more thought. The FAA allows for diverse departure procedures, which allow helicopter pilots to depart from areas other than runways or taxiways; the only real expectation they have is that you can climb at more than 400 ft/min. These can be time saving and cause less hover taxiing, reducing the chance for damage to other aircraft or property, but pilots must have knowledge of all obstructions on the field in order to depart safely and not risk hindering traffic. Most of us will look at the airport diagrams, NOTAM obstructions that are noted, as well as checking the area on the walk or drive to the helicopter, and attention must be given to all obstruction such as light poles and fences. More information obtained will allow for accepting those clearances from non movement areas or diverse departures safely and without the anxiety when ATC doesn't issue a full clearance.



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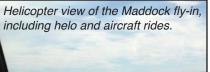




Masonic and Bismarck Aero Fly-In



<u>20</u>







Major General Eldon Joersz whom the Mercer County field is now named after.



One of the last flying WWII B-17 bombers (Sentimental Journey) landed in Bismarck.





Eventful day for Pilots for Christ

Will Rice showed off his collection of golf balls after picking them up from the drop on Sunday.





The first anniversary of the J.T. Rice-North Dakota Chapter of Pilots for Christ International was celebrated July 28, 2013 at the Maddock Airport. The beautiful day began with a worship service. A welcome was given from the chapter president, Pat Tracy, followed by an invocation by the chapter chaplain, Pastor Lu Mathison. "The Old Rugged Cross" was sung by Janna and Katie Rice and Danny Dwyer. Pastor Allen Campbell read Scripture from Psalm 62, which was followed by music and the special guest introduction of John and Kendra Smiley given by Perky Backstrom. The Smileys shared past experience from situations that made them trust in and be patient with God. They've also written several books on parenting and have their own radio show called "Parenting Like A Pro." A benediction was then given by Pastor Dave Fix, which led to the dinner prayer by Fr. Brian Bachmeier.

The golf ball drop took place after lunch and was quite a sight to see as 1,500 golf balls were dropped out of the helicopter near a flag stuck in the ground. Dennis Backstrom and Kathy Daeley were the official judges of the drop. As soon as they finished measuring, several kids sprinted out to the flag, competing to see who could pick up the most golf balls.

Dennis Backstrom and Deb Tracy presented the winners. The grand prize four-wheeler was won by Bryan Kenner, whose golf ball was only four inches from the flag. Bethany Haug won the \$2,000 travel certificate with her golf ball being 12 inches from the flag. The five \$100 cash prizes were won by Pat Fix, 14", Dave Allan, 15.5", David Kinzley, 16.5", Micki Brandvold, 17.25", and Patty Conlon, 17.5".

With perfect weather conditions and wonderful company, many people stayed to view Maddock and the gorgeous countryside from the air, closing out the day on a great note.

Spectators stood outside the hangar and watched as the helicopter came up with a strategy for dropping the golf balls sold as a fundraiser for Pilots for Christ-North Dakota.



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Two Jamestown pilots fly to all North Dakota airports

From the Oil Patch to Fargo, from Turtle Mountain to the Badlands, two Jamestown residents toured all of North Dakota with a view from the sky.

Dale Seckerson, 61, and Jay Dugan, 35, recently flew to all 89 airports in North Dakota, completing the top tier of the North Dakota Aeronautics Commission's passport program.

"It was a lot of fun. You get to see a lot," Seckerson said. "It's just something we wanted to do."

The passport program had both pilots flying to airports in their spare time with the goal of filling their "passport" booklets with stamps from each North Dakota airport. Seckerson and Dugan earned their last stamps in early September.

Only about 10 people have visited all 89 airports through the program, which started in 2010...

said Melinda Weninger, administrative officer with the North Dakota Aeronautics Commission.

Seckerson and Dugan flew to about half of the airports together in Dugan's plane and about half separately, Dugan said.

Seckerson started his passport tour in summer 2012, and Dugan joined in April after moving to Jamestown from Grand Forks. The two had been friends before Dugan moved to Jamestown, they said.

The passport program started out as a friendly competition between the two lifelong aviators.

Although Dugan started the program months after Seckerson, he took advantage of the Fourth of July weekend — when Seckerson had plans — to get ahead in the competition.

"I went, and I called him up and said 'I got 35!' and he was at like, 33 at the time," Dugan recalled.

"So a couple of days later, I took off," Seckerson said, laughing. After covering the airports near Jamestown, it became clear that the two friends would benefit from quitting the competition and splitting fuel costs by visiting the further-away airports together.

Both pilots said the program helped them see places they hadn't been to before and some that they'd like to visit again.

"Williston, I hadn't been up in that area," Seckerson said. "You can see all the oil activities going on ... I thought, 'My God, they've got vehicles running all over.""

Dugan said one of his favorite airports was in Arthur, because planes approach the grass runway between two trees.

"It's really cool. I enjoyed that runway, it was a lot of fun," he said.

The highest number of airports the pilots hit in one day was 18, during Labor Day weekend, Dugan said.

It wasn't too difficult for either of them to find time for their flying, they said.

"You get off of work, and you just go," said Dugan, who works as a truck driver. "We did a lot of weekends."

"Whenever we wanted to fit it in, the weather was perfect," added Seckerson, who is a farmer.

Some of the airports were closed or didn't have good landing



Dale Seckerson, left, and Jay Dugan, both of Jamestown, completed the North Dakota Aeronautics Commission's passport program by visiting every airport in the state. (below) Passport stamps



conditions, the pilots said, and at some, they couldn't find the stamp for their passports. They called the Aeronautics Commission later to get credit for those airports.

Seckerson said he enjoyed talking to people at the airports he visited, and some

of them were surprised at what he was doing.

"Some knew about it, and some of them said, 'You're doing what?'" he said.

The passport program has three levels, according to the Aeronautics Commission website. Bronze, which is awarded for visiting 30 airports, earns pilots a polo shirt. Silver, for 60 airports, gets them a flight bag.

And gold, which is the level Seckerson and Dugan reached by visiting all 89 airports, earns pilots a leather flight jacket.

Both Seckerson and Dugan have been around aircraft from a young age.

"I was probably flying in the womb," Dugan said. "It was always there for me."

Dugan's dad was a pilot, he said, and Dugan got his own pilot's license at the University of North Dakota.

Seckerson's dad was a mechanic in the U.S. military in World War II, and his family flew crop spraying aircraft in the '50s and '60s, he said.

"My dad started me (flying) in '66, '68," Seckerson said.

Both Dugan and Seckerson now just fly for fun. They store their planes at Jamestown Regional Airport, and they said they're always eager to talk with anyone interested in learning about aviation.

The cold weather is coming! Do you have your leather jacket yet?



NORTH DAKOTA AVIATION QUARTERLY

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Charly Haley, The Jamestown Sun

Preparing for 'Ol Man Winter It's gonna get cold outside

Bo Klindworth, President

North Dakota Professional Aviation Mechanics Association

This September morning I came to the shop a little before 7:00 am. I started the coffee and opened every door/window I could find. The weather man said it was going to be a very hot and humid day. I had everything shut by 8:30 am, hoping to keep what cool air I captured in the hangar. Around midafternoon it was in the lower 90s, and the hangar felt about the same. I thought to myself, "Man, I can't wait for cooler weather." Well, it is right around the corner, whether we like it or not. So, before the cold weather hits, I thought we could talk a little bit about cold weather maintenance.

Let's start with lubrication. Most people like a good multiweight oil. Some people prefer straight weight oil instead. Multi-weight oil is a good "all around" oil for winter and summer use. Some people are stuck on just using straight weight oil and changing it along with the outside temperatures. This is fine as long as you use lighter viscosity oil in the winter. If not you will be stuck after a cold night out.

Pre-heat is also very good. I personally wouldn't leave your airplane plugged in for days or weeks at a time. I would give your engine just enough time to heat up. Set up a timer the night before and have the pre-heat done before you get to your aircraft. Most of the engine heater manufacturers state that it is alright



to leave them plugged in for long periods of time. Talk with your mechanic and see what he or she recommends. I personally wouldn't keep it plugged in. However, I do agree that it is very good practice to pre-heat whenever you can before flying to prolong the life of your engine. I recommend 5-7 hours before start up, but any little bit will help.

Maximizing your battery life is also very important. Be sure to keep it charged up and that the fluid is at the right level to help maintain the battery. If you have a trickle charger, now is the time to start using it. If you don't, charge it up with a regular charger if you can't get out flying on a regular basis.

De-icing is another important topic. Be sure your de-ice boots are in good shape, no cracks or bulges. Check system functionality now before you actually need them. If you park outside, it's good to keep a garden sprayer in your car or aircraft with de-ice fluid in it. This will help get you in the air faster than trying to wipe off all the frost or ice. If your aircraft is equipped with a TKS system, contact your local mechanic to make sure it is functioning properly.

Covers and engine plugs are also good to dig out of the closet. These help keep the ice and frost from forming on the wings and the birds from building a nest in a warm engine compartment. Be sure they are clean before you slide them over your wings or windscreen. The littlest rock will make it look like someone went after your aircraft with a t-post from the nearest fence. Another thing to remember with covers is to keep them dry. After we use them a couple times, we end up just leaving them lay in a big pile. Mold will start to grow if it gets warm enough, and believe me, it doesn't have to be that warm for it to start molding.

I know most of you already know something about these subjects, but I thought we could all use a reminder this time of year, so we can get things in order before we are all freezing and wishing we had done it before. Any other concerns, I am sure your local mechanic will help you with any questions. With that, I better get to the farm and cut some firewood.



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Brothers rebuild stunt planes to enjoy 'real flying'

By Helmut Schmidt hschmidt@forumcomm.com

Jarrod and Paul Lindemann have sewn, painted and tuned up a tie to their family's past they hope will take them into an extreme flying future.

The brothers, owners of North Valley Aircraft, spent last winter

rebuilding a Pitts Special S-2B stunt flying plane from the nose of the propeller cap to the back of the rudder.

Pitts Specials are small, tough biplanes that are a favorite of airshow pilots for their ability to climb, dip, dart, corkscrew and otherwise dance around the sky.

Paul, 35, and Jarrod, 32, spent about 1,000 hours checking the engine and other components of the S-2B, painstakingly attaching new fabric to the wooden spars of the wings



Jarrod, left, and Paul Lindemann sit Monday in front of the Pitts aerobatic planes they fly as part of their aerobatic act for airshows. (Helmut Schmidt / The Forum)

with thousands of hand-tied knots, and repainting the plane from its original dark blue to a jaunty green and white check and stripe pattern.

"Full restoration. Just everything," Paul said.

The green and white color scheme is a tribute to their father, Dan Lindemann, and uncle Larry Lindemann, who built the first Pitts S-2E (E for experimental, not factory built) from a kit in the late 1970s, the brothers said.

Paul and Jarrod are now the fourth generation of Lindemanns to take up flying as a business. Three crop-dusters take up twothirds of their hangar at Barnes County Municipal Airport.

Like their father and uncle, Jarrod and Paul were bitten by the aerobatics bug and have been flying at air shows for a year.

Jarrod said aerobatic flying is physically and mentally demanding.

"It's more hands-on, manipulating the aircraft," he said, taking the machine beyond the envelope of typical flying.

"You have to be able to fly the aircraft out of control, then know how to bring it back into control. To feel the aircraft. ... It's real flying," Jarrod said.

Paul said the aerobatics become instinctual.

"It's just a blast," Paul said. "It's a sport. You've got to be a little different to fly aerobatics. ... You never stop learning. It never gets old."

While Paul flies the S-2B, his brother flies a black S-2C with silver and red stripes.

The planes have identical Lycoming AEIO 540 engines, power plants built especially for aerobatics, Jarrod said.

They had hoped to fly in the Fargo AirSho this summer, but federal sequestration budget cuts canceled all appearances by the Navy's Blue Angels – the show's major draw – and organizers called off the event.

The Lindemanns' next performance was August 17 at the JakeStar Festival near LaMoure.

Meanwhile, when the crop dusting and air show season ends, the brothers and their shop mechanic have a couple of projects in the wings.

A bright yellow, singleseat Pitts S-2S, minus its wings and sporting a bent propeller, is parked on the side of the hangar, awaiting repairs this winter

The S-2S had a bad landing, and the brothers picked it up in Missouri.

They also bought an open cockpit Stearman biplane that once flew in the Red Baron Stearman Squadron.

The bright red plane, with its white stripes and pizza company logos, sits in parts around the shop, waiting for its rebuild and return to the sky.

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Longtime pilot James Fischer, 86, of Garrison died September 18, 2013. Fischer began flying in 1946, purchased a Taylorcraft in 1947, then a new Piper PA-11 in 1949. He started spraying with it in 1960, advancing to a Piper Pawnee 150, then a 235, before retiring in 2002. He also owned a Mooney Mark 20. So long, old friend.

Experimental Aircraft Association (EAA) Founder Paul Poberezny passed away August 22, 2013 at Evergreen Retirement Village in Oshkosh, Wisconsin, after a battle with cancer. He was 91.

The Poberezny family has expressed the following: "We deeply appreciate all the support shown to Paul and Audrey over the past five months. As Paul often said, he considers himself a millionaire because through aviation he made a million friends. He leaves an unmatched legacy in aviation and can be best remembered by all the people who discovered aviation through his inspiration to create EAA. We also thank you for respecting our family's privacy during this time."

UND Aerospace signs training deal with **Norwegian agency**

Forum News Service - 07/08/2013

The University of North Dakota Aerospace Foundation in Grand Forks, has renewed its air traffic control training contract with Norway's airport management agency, according to the university.

The agency Avinor, will bring a class of 28 Norwegian students to UND in September and another class in September 2014, Chuck Pineo, the foundation's executive vice president, said in a statement.

An earlier three-year contract ended with 25 students graduating June 28, the same day the new contract was signed by Kristen Kleven, Avinor's chief of staff.

UND began training air traffic controllers for the Norwegian airport agency in 2001 with a three-year contract worth \$3.3 million. Another three-year contract began in 2010. The foundation, a business arm of UND's School of Aerospace Sciences, made that deal and this latest one, the values of which were not disclosed.

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HOW THE UNITS COMPARE:	G500	G600
 Approved for Class 1 Aircraft (typically piston singles under 6,000 lbs.) 	Yes	Yes
 Approved for Class 2 Aircraft (typically piston twins and turbine aircraft under 6000 lbs.) 	Yes	Yes
 Approved for Class 4 Aircraft (typically piston or turbine aircraft between 6000 lbs. and 12,500 lbs.) 	No	Yes
Software design assurance level	Level C	Level B
 Garmin SVT[™] Synthetic Vision Technology 	Optional	Standard
 GAD 43 replaces select A/P gyro attitude with AHRS reference and provides bootstrap heading, yaw information, and baro corrections 	Optional	Standard
GWX 68 Radar interface (radar LRU sold separately)	Optional	Standard
Internal TAWS-B terrain alerting	No	Optional



Remember to submit your applications for North Dakota Aviation Hall of Fame by November 30, 2013!

available online at: www.ndac.aero



Mark Holzer receives Lifetime Achievement Award



Upper Great Plains Transportation Institute Advisory Board Chairman Neal Fisher (L) and UGPTI Director Denver Tolliver (R) present Lifetime Achievement Award to Aviation's Mark Holzer.

The Upper Great Plains Transportation Institute (UGPTI) Lifetime Achievement Award for 2013 was awarded to Mark Holzer. This was the first time the award was given in the field of aviation.

Holzer was an aviation planner and grants program manager for the North Dakota Aeronautics Commission for more than 30 years. During his time there he performed and processed more than 1,800 inspections of the state's 84 general aviation airports. Holzer was involved in the planning, design, development and in obtaining funding for passenger terminals at the eight air carrier airports in North Dakota. During his career, \$321 million dollars of federal funding was expended on facilities at the state's airports. In 2011, Holzer began working with the Federal Aviation Administration's Bismarck Airports District Office and is involved in geographic information systemsrelated planning and airport layout planning and master plan reviews.

The Lifetime Achievement Award recognizes individuals who have had a distinguished career in a transportation-related field. The award is not based on the individual's impact on mobility in North Dakota or on the viability of the UGPTI, but on long-term professional excellence in the field of transportation.

Nominees should be held in high esteem by their colleagues and recognized for their example in upholding professional standards, mentoring other professionals or contributing to day-to-day excellence in their chosen field within transportation. Recipients are selected by a committee appointed by the chair of the Institute's Advisory Council. Nominations are solicited from Institute staff, Advisory Council members, and selected NDSU administrative staff and faculty. *Congratulations, Mark!*