Vol. 27 • Issue 1 North Dakota Aviation Council Winter 2015

2015 North Dakota Aviation Hall of Fame

North Dakota Aviation



HALL OF FAME Congratulations,

Bob Simmers

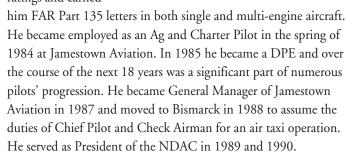
One aviator will be inducted into the North Dakota Aviation Hall of Fame in 2015. That aviator is Mr. Bob Simmers. Many of you know him for his article, *Trim Tab*, in this publication. Others of you may know him through his activity in all areas of aviation, as well as within his community and our state. Congratulations, Bob!

Robert (Bob) H. Simmers was born in Jamestown, North Dakota and was raised on a farm southeast of Jamestown. He attended a one room school house through the 7th grade, spent the 8th grade in Spiritwood and graduated from Jamestown High in 1965. He attended NDSU and joined the North Dakota National Guard in 1966. He was honorably discharged in 1971 after serving at Fort Lewis Washington as a Drill Instructor. He returned to the farm in 1972 and farmed with his dad until turning to aviation in 1984.

Although Bob's professional aviation career did not start until 1984, his childhood upbringing engrained aviation into Bob's way of life. Bob's parents, Francis and Irene Simmers, each had their private pilot's license and used aviation as a means to enhance their personal life styles through travel as well as a tool to enhance their farming and ranching operations. Up until around the year 2000, this Simmers Farm was listed on the sectional chart with two grass strip runways maintained seasonally.

Bob's aviation career started when he soloed in 1963. Throughout the years he enjoyed the privilege of leisure flight around the farm life. In 1984 he studied for and took 13 check

rides that took him from a private pilot to a flight instructor with instrument and ME ratings and earned



Bob started Aircraft Management Services in 1990, which has since grown into Bismarck Aero Center and Mandan Aero Center, focusing on premier services and a positive working environment while offering aircraft maintenance, re-fueling, avionics, pilot services, hangaring and flight instruction.

In 2015, Bismarck Aero Center will celebrate 25 years in business and the organization is currently making plans for a big celebration bash! Most notably, Bob's vision in creating a better working environment for aviation professionals in central North Dakota became evident when the organization was named one of the top

(Continued on page 3.)



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AROUND the **PATTERN**

Kris Magstadt, Editor

Happy New Year! This issue brings us to the 2015 Upper Midwest Aviation Symposium. I hope you have all marked your calendars and plan to attend. I also encourage you to provide input and support to those that work hard for a year to provide this excellent opportunity!

I had forgotten how peaceful flight could be until I attended an open house at the local airport. Josh Simmers, whom I respect and admire, had just returned from a tour of duty overseas, and he was taking his daughter, Genevieve, and wife, Sara, up for a ride. He asked me to join. I was hesitant because I had so much to accomplish yet that day. He looked at me in disbelief ... and, long story short, I went flying. What an amazing flight it was. The skies were beautiful at almost sunset. The river had a unique look to it dotted with ice, and Genevieve's continual statement of "water, daddy" reminded me of how very blessed we all are to have this thing called aviation in our lives. Thank you, Josh, Sara, and Genevieve, for sharing your adventure that day with me!

Congratulations to Bob Simmers for well-deserved recognition and induction into the North Dakota Aviation Hall of Fame. It has been an honor for me to work with and know you for so many years. I can't wait to celebrate ... hope you all will join me!

Aviation in North Dakota seems to be a very hot topic and a very busy industry. We welcome your comments and articles to share in this publication. This is your publication, and we sincerely want to make it informative and one that supports and recognizes the importance of general aviation in our state.

May 2015 bring you many blessings. Thank you for allowing me to be a part of your lives.



Reminder: Pilots turn in your passports in time for UMAS.

Do you have an interesting aviation story to share?

Submit your ideas or stories for consideration to: ndaviation@yahoo.com or call (701) 220-2797

Bob Simmers - 2015 North Dakota Aviation Hall of Fame ... continued from cover

25 Best Small Companies to work for by Prairie Business Magazine through an employee survey.

To date, Bob has accumulated over 16,000 hours of flight time and has flown over 100 different makes and models of aircraft. Bob is currently serving on the North Dakota UAS Authority through appointment of Governor Dalrymple. Bob has been appointed to several UAS endeavors by the State of North Dakota as a result of his voice of reason and his vision of co-existence between GA and the UAS industry. Bob's focus in shared airspace between the parallel industries has not waivered through his involvement of the UAS industry. Throughout the State of North Dakota's UAS endeavor, Bob has received the respect of those in the UAS industry both nationally and within the state of North Dakota while staying true to his representation of the North Dakota GA industry.

What is truly remarkable about Bob is his selfless nature amidst all of his accomplishments. As he looks for opportunities to protect, improve, and share aviation, he also gives rides with EAA or other friends and family, raises funds for charities such as the Scottish Rite Speech Therapy Center for Children and sponsors aviation activities. He speaks, writes, organizes, and gives to his community in numerous ways, whether it be neighboring needs in the flood of 2011 or a winter storm, the Salvation Army, Free Masons, Junior Achievement, or other entities.

Bob's love for aviation has been transferred to his children, with two sons and one granddaughter directly involved in aviation. Bob and his wife, Carol, live in Bismarck. They have four boys and seven grandchildren.

North Dakota Aviation Quarterly (NDAQ)





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Together we are strong

The organizational plans for the upcoming 2015 Upper Midwest Aviation Symposium (UMAS) are now on the "front burner" so to speak, and the line-up of presenters, speakers and "hot topics" continues to grow. The schedule is taking shape and most of the educational sessions are filled with interesting presentations, informational topics, and excellent presenters.

Thankfully, the Site Committee has their agenda established, and the UMAS Sponsorship Program is receiving funding from sponsors so that hopefully our bottom line remains in the black. We are so fortunate to have our sponsors, since without them the registration fee for the event would need to be substantially raised. It all costs money, and thankfully, the Sponsorship Program offers us the ability to stay ahead of the game. Again, thank you sponsors, each and every one of you!!

The speakers for the special combined events have been contacted and have agreed to the contracts. Our North Dakota Aviation Hall of Fame speaker has also been retained, and I'm sure you will enjoy his presentation. It will be an exciting event with the induction plans of a new member to the hall already on the drawing board. Get your tickets early so you are sure you don't miss this historic event.

The 64th Legislative Session of the North Dakota Legislative Branch started on January 6, so we need to be reminded there is very important aviation based legislation that is up for consideration this year. One of them possibly being a proposal to present a bill to the legislature in regard to pursuing a sales tax exemption for aircraft parts. It has been passed in several nearby states, and it may help North Dakota businesses retain some of the maintenance work from aircraft coming in from out of state. It may even bring down the cost of maintenance and help the shops in the state retain some of the work lost to shops in surrounding states that either have no sales tax or have an exemption in place. The Powder River Training expansion also continues to be a very "hot topic" on conversation. Having

"blanket coverage" with a 500 foot minimum altitude puts the potential for the bombers, fighters, and other support aircraft "right on top of the public at any given time" for 240 days a year if the military chooses. We know from past experience that probably isn't going to happen, but why put the bottom of the operations area at such a low altitude when air traffic controllers won't be able to contact the military aircraft in the MOA until they are at or above 6,500 feet! Below the 6,500 foot level these aircraft will be "behind the curtain" and not visible on radar. Even though we fully support military training, it sure doesn't sound like a good training scenario to us at least!

Be sure to attend Aviation Day at the North Dakota Capitol on March 17 to visit with out legislators about aviation in our state.

On the www.ndac.aero website do everything you need to prepare yourself for the March 1-3, 2015 UMAS. You are able to book your room at the Holiday Inn of Fargo, register as an exhibitor, register as an attendee to the symposium, nominate an Aviation Mechanic of the Year, as a student - apply for the Gordon W. Person Aviation Mechanic Scholarship, and check out the aviation events schedule in North Dakota. Also on the website is a listing of all the members of the NDAC with a direct link to their email address if you need to contact them. Feel free to do so! They are your elected representatives, and they need your input to make decisions on topics that are important to you. The "members" page also offers direct links to your specific organization's website. The NDAC is positioned under "The Umbrella of Strength," prepared to act in your best behalf whenever called upon. Please be an active member in your association and become part of advancing the goals of all the member organizations. Together we are strong!

In closing, I hope this finds you and your family happy, healthy, and prosperous, in this joyous season and in the many years to come.

Cordially, Rod Brekken, NDAC Chairman





Kyle Wanner, Director
North Dakota Aeronautics Commission



DIRECTOR'S Chair

Aviation Growth to be Highlighted During Legislative Session

The 64th Legislative Session has arrived, and our agency and community leaders around the state have been preparing to support aviation and provide testimony to bills that have a direct effect on the industry. March 17 is currently reserved as Aviation Day at the capital, and I encourage all members of the aviation community to stop by the Memorial Hall in the capitol building, where we plan to visit with our state leaders about the exciting things that have been happening in aviation around the state.

Before this legislative session began, our agency invited state legislators and aviation leaders from around the state to take part in public presentations held in our four major cities that highlighted the major findings of our updated aviation system plan. We had over 100 people attend these events, and it was incredible to see the support from our aviation community. To view information on the North Dakota State Aviation System Plan and the presentation that was provided at these events, please visit the project website at: www.ndaviationplan.com/events.

The North Dakota Aeronautics Commission last updated the state aviation system plan in 2008, and since that time, our state has seen tremendous changes and growth within the aviation industry. We know that it is important to work towards maintaining the existing infrastructure we have, but we must also do what we can to accommodate for the growing needs of our aviation industry. Below you will find a statistics that provide a perspective of where our state was when we last updated this study.

- In 2007, the state boarded 652,380 annual airline passengers, and at that time, it was forecasted that we would reach one million annual airline passenger enplanements around the year 2030. In all actuality, we reached the one million mark only five years later in 2012. The state is expecting 2014 to be another record year of over 1.2 million passengers boarding our airlines in North Dakota.
- In looking at our flight destinations available to the flying public, North Dakota is currently averaging 75 airline departures per day to 12 different non-stop destination airports.

For perspective, in 2007 the state averaged 52 airline departures per day to five non-stop destination airports.

- General Aviation activity has also increased throughout the state, which can be seen in the growth in the amount of aircraft registrations that the state office provides. In 2007, there were 1,630 aircraft registered in North Dakota, and so far in 2014, we have had 2,016 aircraft register with the state aeronautics office. This is an increase of 386 planes, or a 24% statewide increase, from 2007 levels.
- Another indication of growth includes aviation fuel sales.
 In 2013, our state used almost nine million more gallons of aviation fuel than it did in 2007, a 61% increase.

We know that our airport system is an important part of our overall transportation system, and it is exciting to share these remarkable numbers showing the growth that the aviation industry has been experiencing. As we also work to update the economic impact of aviation in North Dakota, we are looking forward to sharing additional information related to how the airports have continued to help act as economic engines for our communities.

As we enter this legislative session, our agency is looking forward to supporting critical aviation items that have been listed in the Governor's Executive Budget, including airport infrastructure funding, funding to reconstruct the University of North Dakota's apron, and funding for the continuation of our Unmanned Aerial Systems test site.

As legislation comes forward regarding elements that will have a factor on aviation, I encourage you to contact our office to share your concerns. It is also important to communicate with your elected representatives to share your point of view on critical issues.

Lastly, I hope that you are able to join us in Fargo, March 1-3 for the Upper Midwest Aviation Symposium. Your aviation council representatives have been hard at work preparing an educational and fun atmosphere for all aviation enthusiasts to enjoy. I sincerely hope that you are able to take the time to celebrate aviation with us.

Fly Safe! Kyle



AVIATION DAY

Come celebrate aviation with the North Dakota Legislators on March 17 at the North Dakota Capitol.

Sponsored by your North Dakota Aviation Council membership.



TRIM TAB

Lost Airspace and Other Losses

BITITITITITITITIT!!! It's Cold!!!! Can you believe that it is was -24°C on December 1? But the old bird sure performed well that morning.

The weather is not the only thing that I am frustrated with. Last week the Air Force published their EA on the Powder River MOA expansion. It is a large document that is full of government jargon that is hard for me to follow. It appears that they are well on the way to get their way with a few concessions. I have been involved in an airspace integration project, and I cannot see why this project should not also be an integration project. With the NextGen system being thrust upon us by 2020, and the push to "sense and avoid" technology, why can't we co-exist in this airspace and learn from that existence?

Airspace is not the only thing we are losing. Dennis Adams filed his final flight plan recently. His name may not be familiar for many of you, but to those in the Bismarck/Mandan area, Denny was a clear and present advocate of aviation. Denny was one of those that, as growing up, always looked to the sky. He never

pursued his dream until later in life. When about to retire, he approached me about becoming a pilot and buying an aircraft. He did both, first buying a Cessna 172, then taking the time, while still working, to learn to fly. He soloed in 2003 and achieved his Private Pilot Certificate in 2004, fulfilling a lifelong dream. In his brief time as an aviator, he was very involved from flying to airspace issues and local aviation promotion. He became active in EAA Chapter 1008, serving in many of the elected positions. He was appointed to the Mandan Airport Authority and was a voice during the rebuilding of the Mandan airport. He was a board member of the Bismarck Air Museum Foundation and was intrigued with the aviation history of the area. All this in the short span of 10 years.

Dennis Adams moved the bar higher for all of us in aviation. He showed that one person can make a difference. He truly was an aviator, and I will miss him, his gentle smile, quick humor and generosity.

Flight Plan Closed.

Until Next time, HAPPY LANDINGS, Bob Simmers



Bowman County reacts to Powder River training expansion

By Bryce Martin | Pioneer Editor | bmartin@countrymedia.net

Having military bombers frequent the skies only 500 feet above Bowman County is not an easy thing to swallow and Bowman County Commissioners are not giving in without a fight.

The county commissioners relayed their concerns over the proposed Powder River Training Complex expansion in a conference call with a legislative assistant of Sen. Heidi Heitkamp, D-N.D., during the board's regular meeting Dec. 16.

During the approximately one-hour call, several of the commissioners directed specific questions and distresses to Eric Bursch, Heitkamp's military affairs adviser, in an effort to give a voice to Bowman County.

Rodney Schaaf, a retired pilot and president of the Bowman Airport Authority, joined commissioners on the call as he explained that sometimes in the eyes of Washington, D.C., "it seems like our voice isn't heard out here."

Schaaf has been an opponent of several of the U.S. Airforce's restrictions as they shaped their expansion plan since 2006. While Schaaf said he supports the military's need for training, the proposed plan proves unsavory for Bowman County and its effects would be widespread.

Of chief concern for Schaaf and several of the commissioners was the low altitude at which the military's B-1 bombers could fly: 500 feet above ground.

"Our issue down here is the 500 foot elevation," Commissioner Lynn Brackel told Bursch. "I'm wondering why we have a blanket coverage of that 500 foot elevation, five days a week, all year long, when we know it's not going to (be) used."

Bursch said he awaited clarification on that point from the Air Force.

After public hearings on the expansion project, the Air Force released its final environmental impact statement last month in which the Air Force laid out its alternatives to the original plan, but indicated that they favor Modification A. That modification would allow aircraft to travel at harrowingly low altitudes over Bowman County.

The U.S. Air Force had a minimum of 30 days from the release of the report on Nov. 28 to make a final decision on its modification and submit that to the Federal Aviation Authority for their approval.

Bursch said during the call that he expects the Air Force to announce its decision Dec. 29 and that the FAA would render their verdict no sooner than Feb. 15. The FAA's decision is final.

In an attempt to amass any remaining concerns over the project, Bursch setup the conference call with the commissioners so Heitkamp would receive the concerns of those impacted. Bursch said she would then draft a formal letter to the U.S. Air Force for their consideration.

One of the biggest concerns from Schaaf was related to civilian air traffic in the low-fly regions. The Air Force explained in the impact statement that NOTAMs (notices to airmen) would be issued prior to any activation of the airspace for training.

Schaaf said that is nowhere near adequate.

"In the 502-page impact release, which I read every sentence, they keep throwing this 240 day operations at us," Schaaf told Bursch. "With weekends off, that's going to be used year-round."

Along with the amount of time the airspace would be utilized, the system to notify aircrafts that the space is in use is abysmal.

"It looks good on paper, but it won't work," he said.

Bursch indicated that there is a special use airspace website that will have the schedule for the use of the PRTC.

Pilots would have to reach 6,500 feet above ground to talk to air traffic controllers and receive indication that the airspace was in use, which Schaaf said most do not usually do on a given day.

Schaaf referred to the expansion plans as a "dog and pony show" as he explained that representatives from the county, himself included, previously voiced the same concerns during the public comment period but, when the impact statement was released, nothing was changed.

"I got the impression that it was just shoved down our throats — we're going to take that 500 feet anyway," he said.

Schaaf laid out several reccomendations for Heitkamp to relay to the Air Force including moving the low-fly zone east 50 miles, or put in an area over Wall, S.D. If that's not feasible, Schaaf explained they could simply raise the 500-foot restriction and "90 percent of the problem would be resolved." Otherwise, the Air Force could change the schedule of the 500-foot flights to predetermined, rotating days each week or install a remote transmitter in aircrafts.

Installation of an advanced remote transmitter could take a year from approval, said Bursch, but the Air Force wouldn't utilize the low space over Bowman until radars were installed.

Another solution would be to give a direct contact number for Ellsworth Air Force Base's operations center so pilots could see in real-time if the airspace is active with bombers.

"A big problem with this whole process, and I told the Air Force this before, they haven't done a really good job to make sure that impacted folks can understand part of the strategy," Bursch admitted to commissioners.

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BOMBING OVER BOWMAN - Part II:

Air Force releases final impact report; decision to come By BRYCE MARTIN | Pioneer Editor | bmartin@countrymedia.net

Residents of southwest North Dakota and eastern Montana expressed great concern in the four years since the announcement of a proposed expansion to the military aircraft training area known as the Powder River Training Complex.

The controversial plan had many area farm owners and aviation experts urging the federal government not to follow through on the project.

The time for public input has since ended and a formal decision on whether to go ahead with the expansion is expected later this month.

But prior to the U.S. Dept. of Defense's final word on the matter, and after four years and an exhaustive public comment phase, the U.S. Air Force released a Final Environmental Impact Statement on Nov. 24. The report detailed a final modified expansion area and the potential impacts such an expansion could cause.

Plans call for Powder River, which currently spans South Dakota, Wyoming and Montana, to grow into an 18-million acre bomber-training complex that would also reach into southwest North Dakota, from Bowman to Hettinger and up to New England.

U.S. Air Force crafts from Minot Air Force Base and Ellsworth Air Force Base in Rapid City would utilize the area for exercises nearly five days each week and 10 to 12 days of the year host large force exercises, colloquially known as war games, across the stretch.

According to an updated map of the expansion in the report, Bowman County and much of southwestern North Dakota was still included in the training area.

The Air Force's Modified Alternative A would expand the current Powder River operations area, located in western South Dakota, into four separate low and high military operations areas (MOA) for daily training.

It is this alternative that the U.S. Air Force favors most. Though, it brings no change in the proposed overflight elevations for Bowman County.

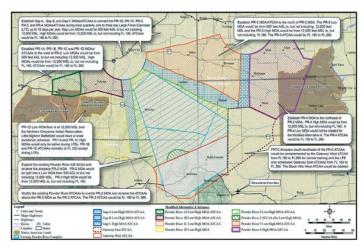
That was a concern for Rodney Schaaf, a pilot and president of the Bowman County Airport Authority.

"That's going to kill us for the new airport," Schaaf said earlier

The new Bowman Regional Airport, which nears completion, would be one of the main airports within the expanded region, posing a potential threat to Bowman's aviation and commerce, according to Schaaf.

Though, the most pressing issue facing the area is the altitude at which several of the military's aircraft could fly, notably over Bowman, which has been designated in the plans as a low/high area where crafts could fly at a minimum of 500 feet above the ground.

Other airspace encompassed by the expansion, such as Hettinger's, has been designated as high areas, meaning aircraft could only fly as low as 12,000 feet above the ground.



The map above details the final modified area for the Powder River Training Complex expansion. A decision to finalize the plans and move forward is expected later this month. [Courtesy U.S. Air Force] The map above details the final modified area for the Powder River Training Complex expansion. A decision to finalize the plans and move forward is expected later this month. [Courtesy U.S. Air Force]

The Air Force conducted 19 public hearings since the original draft of an environmental impact statement in 2010. Issues and concerns identified during the hearings were reviewed by the Air Force and the Federal Aviation Administration.

The release of the final impact report gives explanation and mitigation on some of the larger issues brought forth by landowners, farmers and governing representatives, considering impacts such as noise, land use, wildlife and general aircraft safety.

Sen. Heidi Heitkamp said last week that she is hopeful for the Powder River expansion, but would help ensure that the Air Force "keeps their promises."

"We need to also make sure the Air Force keeps its promise to limit the impact of the expansion on our communities, businesses, local airports, pilots, ranchers and tribes who rely on our land and unobstructed air space to do their jobs," Heitkamp said in a

Heitkamp worked with the Air Force to ensure any work it does to expand air space at the Powder River Training Complex would not negatively impact interests of surrounding communities.

Noise only an 'annoyance'

The public expressed extensive concern about aircraft flying too low to the ground. Impacts from such an event include uncertainty, startle effects and noise.

According to the report, the Air Force would continue the process within the Powder River MOAs whereby ranchers have coordinated with the Air Force to identify temporary avoidance areas to reduce the potential for low altitude aircraft impacts.

The Air Force claimed that the overall resulting noise impact from bombers and other aircraft operating within the expanded Powder River training area would only be considered an "annoyance" to persons on the ground, and not significant enough to warrant larger mitigations, according to the report.

For low fly areas such as Bowman County, however, noise could

be a bigger problem.

"Increased noise from a sudden low overflight would be noticed and could be perceived as a significant impact by residents under the airspace," the report said.

Such an overflight would be expected to occur over two to four percent of each active MOA during each training day, or an average of six to nine per year, according to the report.

Supersonic flights emitting sonic booms, the sound made from traveling faster than the speed of sound, would be limited to 10 days per year and could average at least one sonic boom per day. A boom could result in a local area experiencing an overpressure. If that occurs, glass, plaster and other structural elements in good condition normally would not be expected to fail, but it would be possible, according to the report.

Sudden onset sounds can be startling to humans and animals and have resulted in damage to penned cattle and fencing—one of the main negative aspects identified by public input.

The Air Force would extend the Powder River airspace policy of establishing seasonal avoidance areas to reduce potential impacts to ranching, other sensitive areas and cultural or historic resources.

Air traffic could see big impact

In an attempt to mitigate safety concerns regarding civilian airspace, the report explained that required airspace for military training would be scheduled in advance and notices to airmen would be issued two to four hours prior to the initiation of military training.

If all the MOAs were activated at one time for military training, the training could impact an estimated 86 civilian aircraft flights

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daily under the airspace during Monday through Thursday. If all the MOAs were activated Friday morning, there would be approximately 30 civilian aircraft operations impacted.

Impacts also included an estimated delay of up to four hours for ground holds or diversions.

Common aircraft that would be involved in training are the Boeing B-52 Stratofortress and the Rockwell B-1 Lancer, both of which are strategic bombers for the Air Force. The B-52 would navigate in the areas designated "high" and the B-1s, a supersonic bomber, would be operating in the low areas. Thirty to 40 aircrafts simulate war scenarios during the exercise.

A potentially dangerous situation could occur if a small aircraft is traveling through the proposed training airspace.

Emergency flight operations such as firefighting and air ambulance would continue under emergency flight procedures. No impact would be expected because the Air Force would "expeditiously" move training activities outside the required airspace to meet the emergency, the report said.

Involuntary littering

Chaff or flare residual materials would not result in a safety impact, although finding a piece of chaff or flare material on the ground could "annoy persons," the report said.

Chaff is a bundle of miniature tinfoil that is released by aircraft if an enemy tracks and launches a missile based on its radar location. One bundle of chaff could contain about one million pieces of tinfoil, which fall to the ground.

"Some of these ranchers are concerned about it laying on your surface water and your stock dams," Schaaf said.

Flare use by aircraft would also be restricted to above 2,000 feet above the ground and discontinued in airspace with very high to extreme fire conditions. Though, flares would not be expected to increase fire risk, according to the report.

There would be little safety risk from an estimated one dud flare falling within the entire airspace every three years, as said in the report.

Wildlife could be at risk.

Minimal to no effects are expected to threatened, endangered and other special status species including greater sage grouse or rare migrants, such as the piping plover, least tern, whooping crane or yellow-billed cuckoo, according to the report.

Andrea Bowman, agent with the Bowman County NDSU Extension office, said one of her concerns rested with sage grouse, a species already drawing concern due to dwindling population. Bowman said her concern would be how the presence of the bombers would affect the sage grouse and area livestock.

Though the report said that any impact to sensitive species would likely be short-term and unlikely to significantly affect the population.

Potential bird aircraft strikes could also occur in the low MOA where migratory flyways converge, such as in Bowman County.

Migratory bird species involved in bird-aircraft strikes would be considered an incidental taking and would be exempt from any permitting requirement. An infrequent special status bird-aircraft strike would not be expected to adversely affect any populations.

According to the report, there is no evidence of chaff and flare residual materials or chaff fibers affecting wildlife or domestic animals through ingestion, inhalation or direct body contact.



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Kyle Wanner, Director North Dakota Aeronautics Commission

The North Dakota Aeronautics Commission is conducting research to document how general aviation is being used to support the state. North Dakota has experienced exponential economic growth. This growth has led to the need to invest in and expand airports in North Dakota at an unprecedented rate. For the Commission to continue to respond effectively to airport development needs, documentation on contributions general aviation is making at all airports throughout the state is needed.

With the assistance of Aviation and students from UND's School of Aerospace Sciences, the Aeronautics Commission is currently conducting two online surveys. These questionnaires are designed to gather information from general aviation users, businesses, emergency service/health care providers, agricultural operators, and others that rely on and use general aviation.

The survey for general aviation users can be accessed at the following address: http://NDAC.GA-Pas.sgizmo.com/s3/ or by scanning this QR code. If you are or if you have flown recently to any airport in North Dakota, you can provide important information by responding to this survey.



The survey for businesses that rely on general aviation to improve their efficiency can be obtained at the following address: http:// NDAC.business.sgizmo.com/s3/ or by scanning this QR code. If you rely on general aviation to support your business travel needs, you can provide additional research data by replying to this survey.



These surveys are available now and will be available over the next few months. However, we hope that you will take the time now to respond to these important surveys. Your participation in this effort is vital to the Commission's efforts to secure funding to keep pace with airport needs.

Thank you for your response!





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ATC and Memory Testing

The North Dakota Aviation Council (NDAC) is making plans for the next Upper Midwest Aviation Symposium (UMAS). The UMAS will be held at the Holiday Inn in Fargo on March 1-3, 2015. Start making you reservations to attend now, it's going to be a good!

AIR TRAFFIC CONTROL

I have had many ATC experiences during my career. I had harrowing times, and some very pleasing times. The harrowing times always seem to stay front and center. During my military career (1952-1963), I saw many aircraft crashes that I still see in my dreams, and I will never forget them.

The Korean War was just getting over and the Viet Nam War just beginning. Some accidents happened over my entire career in the military. Many happened at one base. That base was a refurbished base for the Air Force. We received a lot of the latest Fighters from that era: F100, F101, F102, and yes, even a few F86s, but not many they were being phased out. The flyable aircraft that arrived had been wrecked or shot up badly, but were repairable.

One of my pleasant times was when I had an opportunity to work with the Air Force Thunderbirds precision flying team. They were flying F100s then. That was an experience I'll cherish forever!

MEMORY TEST

In my last article, I mentioned I would test some of your memories. How many got the answers to my questions correct?

The easy one I mentioned; what year did the ATC strike occur? What year did the MOT ATC tower commence contract tower service? Answers!

- 3 August 1981
- 3 August 1997

What year did the midair collision occur over the Grand Canyon? Which airlines were involved? What kind of airplanes was each flying? Answers!

• 30 June 1956



Airspace, Airports, ATC, Mediation, Military

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Darrel Pittman 701-391-7760 atcpn@bis.midco.net

- Trans World Airlines Super Constellation and a United Airlines DC7
- Unfortunately, no occupants survived the accident. That basically began the start of today's ATC system as we now know it.

What month and year did the first lunar landing occur? Who were the Astronauts that walked on the moon? Answers!

- 20 July 1969
- Neil Armstrong was the first person to walk on the moon, followed by Edwin (Buz) Aldrin Jr.

One of my favorite authors (Tony Hillerman) writes stories about my home state, that of course being Arizona and the Four Corners area. He writes about the Navajo Indian country, which is located around the Four Corners land. One book he wrote was concerning the Grand Canyon midair collision (Skeleton Man). Because I'm familiar with most of the landmarks he describes, I can visualize them as he writes about them. Great reading. I highly recommend his books.

Until next time, cleared for takeoff, Darrel



Tail Feathers

By Anonymous Guest Writer

I might be preaching to the choir, but it's always good to review. The Federal Aviation Regulations (FAR) Part 43, Maintenance, Preventive Maintenance, Rebuilding, and Alteration, permits the holder of a pilot certificate issued under FAR Part 61 to perform specified preventive maintenance on any aircraft owned or operated by that pilot as long as the aircraft is not used under FAR Part 121, 127, 129, or 135. FAR Part 43, Appendix A, Subpart C, Preventive Maintenance, lists the authorized preventive maintenance work. One restriction on such work is that it cannot involve complex assembly operations.

Although the following examples of preventive maintenance authorized by FAR Part 43 can be done by a certificated pilot under the conditions listed in the FAR, each individual planning on doing such work should make a self-analysis as to whether or not he or she has the ability to perform the work satisfactorily and safely. If any of the preventive maintenance authorized by FAR Part 43 is done, the person doing the work must make an entry in the appropriate logbook or record system to document the work done.

The log book entry shall contain:

- 1. A description of the work performed (or references to data that is acceptable to the Administrator)
- 2. Date of completion
- 3. Signature, certificate number, and kind of certificate held by the person performing the work (The signature constitutes approval for return to service ONLY for the work performed!)

There's a bunch of "formal" language for you. Well, there's a bunch of stuff you can do, but do you feel "comfortable" doing it?? Replacing tires, greasing not requiring disassembly, landing gear maintenance, replacing safety wire or cotter keys, adding hydraulic fluid, replacing safety belts, bulbs, reflectors, position and landing light lenses, spark plugs, hose connections (excluding hydraulic), batteries, fabric patches, removing cowlings but not requiring the removal of the propeller or disconnection of the flight controls, and actually lots of other stuff too long to list here.

Just remember, Good maintenance is not cheap, but poor performance can be disastrously expensive. If you are unqualified or unable to do a particular authorized job, you must depend on competent and certificated aircraft maintenance technicians to perform the job. Always use FAA-approved parts. You can save money and have a better understanding of your aircraft if you participate in the maintenance yourself. If you do some of your own preventive maintenance, do it properly. Make sure you complete the job you start and make all of the required record entries. Money, time, and effort spent on maintenance pays off. It also ensures your aircraft will have a higher resale value, if you decide to sell.

Remember, a "well cared for aircraft is a safe aircraft." A safe aircraft needs to be flown by a competent and proficient pilot. Maintain both your aircraft and yourself in top-notch condition. Have a well-trained mechanic do your aircraft maintenance. It's well worth the peace of mind!

Quarterly Joke Four people are in an airplane, the pilot, the smartest man in the world, the richest man in the world, and a punk teenager. The airplane experiences some difficulties, and the pilot informs the three passengers that the plane is going to crash, and there are only three parachutes on the plane. The richest man in the world takes one, because he says that his lawyers will sue everyone else on the plane if he doesn't survive. The smartest man in the world takes a parachute, because he thinks that the world would be a worse place without him. The pilot says to the punk "There's only one parachute left, I'll fight you for it." "That won't be necessary," said the punk, "The smartest man in the world took my backpack.



The BISMARCK Trees

Cat McClintock, Writer and Editor, Technical.Marketing.Academic

In Bismarck, many of the people you meet have been here their whole lives. There's a family farm somewhere else in North Dakota, and probably their parents or grandparents still live there. So, when I first noticed the trees on the east side of town, I rightly assumed everybody else already knew about the little forest there in a blank field east of Expressway.

Bismarck Forest



Indeed. After a quick survey of my Facebook friends, I found they are only news to me, the newcomer.

What I had a harder time uncovering was how the trees got there, and why. Most people suggested they were there for the airport—in case a pilot got lost or something. One older woman said they

were planted for the state centennial—which was only partly right. Someone who had retired from the state library told me to check the vertical files there.

"Which vertical file?"

She didn't know, but with those useful hints I did uncover the story of the trees. That said, I didn't find it on the Internet. So, that's what I'm doing here. Putting some of the story on the Internet.

First, it's helpful to know the name. It's called the Bismarck Centennial Forest, planted in July, 1972 to celebrate the 100th anniversary of the city. (The state wouldn't celebrate its centennial until 1989.)

5-yr-trees 1977, 5 years after planting.



City forester Gene Blackwell inspects the centennial forest.

It was the first event in a whole weekend of fun activities, including a state trap shoot and a city-wide ringing of church bells.

Sponsoring businesses and organizations each bought individual seedlings, volunteers

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dug holes, and a fence was built in advance. And then, a mob of people showed up at the site at 10 am on Saturday July 22. In 15 minutes, they planted all 394 ponderosa pines to create what they thought might be the largest city name sign in the country.

"You've heard of the whispering pines," said Jim Dybdal, the chairman of the forest project in the Bismarck Tribune back in 1972. "Well I like to call this our shouting forest because it's going to be shouting 'Bismarck' for years to come."

His hope was that after the celebration of the centennial had past, the forest would be something left behind for another 100 years.

Dybdal said he got the idea for the trees while looking out his office window at a a group of trees. Dybdal, according to an article published in 1977, left Bismarck for Minnesota shortly after the planting.

Were arboreal signs a trend at the time? I don't see any evidence of more than a few plantings over the years throughout the US at any time.

Here are a few more things you must know about our eponymous forest:

- According to the blog Google Sightseeing, the trees are a Grotesque sans serif font, set it at 261,354 point (approx.)
- A 1979 article in the Bismarck Tribune says the planting is a block long and the letters average 36 feet wide.
- A 500-pound plaque commemorates the planting just off Bismarck Expressway north of Rosser. You've probably driven by it a million times.
- The land is owned by the state and was used by the penitentiary nearby to graze livestock when the forest was planted.

• Newspaper stories from 1972 say the sign is 2 miles from Bismarck. Today, it seems very much within city limits.

The best place to view the forest from the ground, however, is from E. Main Ave, just east of Expressway.



With this info, you should be able to find out anything else you want to know about it. Or maybe that's more than you wanted to know. For me, I still have one mystery that keeps me up at night

Before the forest was planted, an artist made a conceptual painting of the forest. Someone told me she thinks that painting is still around, but she can't remember where she saw it.









TENTATIVE UMAS Schedule Highlights

Continental Motors — Katie Woodall

Airport NOTAM Manager — Matt Remyese

North Dakota Aeronautics Commission State Programs Update

FAA Program Seminars

Economic Impact Study

Lord Engine Mounts — Joseph Markiewicz and Paul Snyder

Maxwell Propellers — Butch Maxwell

Champion Aerospace — Joe Logie

Air Carrier and General Aviation Roundtable

Rod Machado sessions presented by NDPA

Jay Flowers, FAA — Sponsored by NDPA

Spouses Program — TBA

Business Meetings

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• NDAC • AAND

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• NDPAMA

Plus great exhibits and North Dakota Aviation Hall of Fame social and awards banquet, featuring speaker Rod Machado and induction of Bob Simmers.

NDPA

TENTATIVE Inspection Authority Renewal Highlights

Dr. Jensen

Champion Aerospace—Joe Logie

Covington Aircraft PT6 Engines—Keith Rash

Tempest (Spark Plugs)—Vince Bechtel

FAA—Vance Emerson

Colorado Classic Aircraft Fabric Repair—Carol Leynar

Aero—Don McNamara

FAAST Team—Jeff Boe

Tempest (Vacuum Pumps)—Vince Bechtel

Continental Motors—Katie Woodall

Lord Engine Mounts—Joseph Markiewicz and Paul Snyder

Maxwell Propellers—Butch Maxwell Champion Aerospace—Joe Logie



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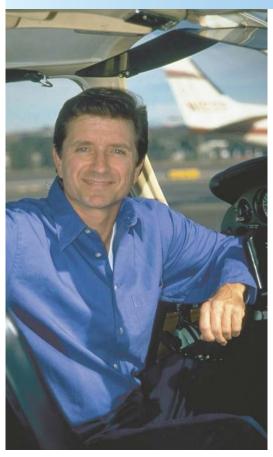
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2015 Hall of Fame Banquet Speaker Sure to Delight



Rod Machado — From Motorcycle to Airplanes

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- He wrote and co-anchored ABC's Wide World of Flying.
- He is AOPA's National Flight Instructor Spokesperson, the instructor and voice of Microsoft's Flight Simulator up to 2012, and a columnist for AOPA Pilot and Flight Training magazines.
- His aviation textbooks include:
 - Two Private, Two Instrument, and a Sport Pilot Handbook.
 - Rod's new *How to Fly, Maneuvers Handbook* was just released.

Rod Machado has taught millions the basics of flying through flight lessons, simulation and training materials. Since 1973, he has been teaching and speaking to pilots in the 50 states and Europe. He simplifies the complex, making bland topics interesting and educating with humor. Besides a degree in Aviation Science, Rod holds degrees in Psychology. He started flying at age 16, is a rated ATP with all fixed wing Flight Instructor ratings. Rod is AOPA's National Flight Instructor Spokesman and a National Accident Prevention Counselor appointed by the FAA in Washington D. C. Because of his vast CFI experience and unique style, he was chosen to write the flight lessons and be the CFI voice on Microsoft's Flight Simulator. Rod is a columnist for AOPA Pilot and Flight Training magazines. His 10 titles include Rod Machado Instrument Pilots Handbook--a must for those working in the IFR system. Books can be downloaded to an iPad from RodMachado.com.





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ADS-B: Know the Facts and be Prepared

Kris Hexom, Aviation Technician

It has been great watching our aviation industry continually grow over the last five years. Today, we are looking at around 5,200 public use airports and over 250,000 general aviation aircraft in the United States alone. In an effort to keep pilots and their passengers safe with all this traffic in our skies, the FAA is looking to update our current outdated, ground-based air traffic control systems to a modern satellite-based system. Enter the Automatic Dependent Surveillance-Broadcast systems or the ADS-B.

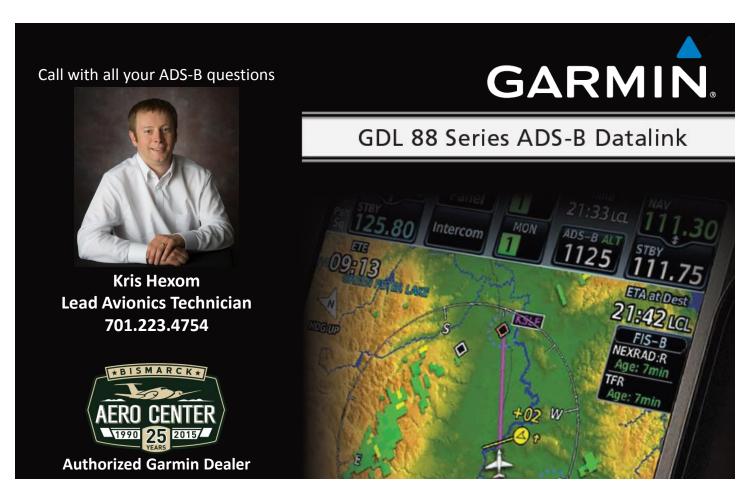
For those who have not heard, ADS-B is a system installed on each aircraft to assist with air traffic surveillance. There are two different types, ADS-B Out and ADS-B In. With ADS-B Out, each aircraft broadcasts its own GPS position, along with other information like heading, ground track, ground speed and altitude. Receivers on the ground then receive this information and send it to air traffic control displays. The ADS-B Out information can also be received by nearby aircraft and displayed on a traffic display, such as a Multi-Function Display. This receiver installed in aircraft is the ADS-B In.

So why is this important? The ADS-B information used by air traffic controllers will allow improved separation services along with additional future applications, such as continuous descent approaches. ADS-B information in the cockpit will allow better situational awareness and traffic avoidance along with future

applications, such as self-separation. Airport ground vehicles will also be equipped with the ADS-B Out to help prevent runway incursions

On May 27, 2010, the FAA published its final rule, mandating that by 2020 ALL aircraft owners will be required to have at least ADS-B Out capabilities in any airspace that currently requires a transponder (classes A, B and C airspace, all airspace at or above 10,000 feet MSL, and within 30 nautical miles of airports listed in 14 CFR 91.225). The mandate allows for either a 1090-ES (Extended Squitter) or UAT (Universal Access Transceiver). The 1090-ES has only the capacity for ADS-B position reporting, and is required for all large aircraft flying outside the United States or at high altitudes in the United States. In contrast, the UAT has a spare uplink bandwidth that allows for additional data streams to be picked up, such as weather reporting. To fly without this equipment in 2020 could mean your aircraft will not be cleared to enter certain airspace and possibly be fined after landing.

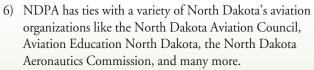
Even though 2020 is five years away, pilots are encouraged not to wait until December of 2019 to schedule their ADS-B installation. With almost 2,400 aircraft registered in just North Dakota, the waiting line can get very lengthy quick! Make sure to talk with your local Avionics Technician and find out what is best for you and your aircraft.





Sean A. Davis, President sean.davis@discoveraend.org

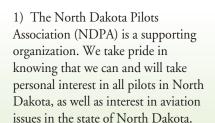
Why you should join the North Dakota Pilots Association



- 7) Our members range from students to commercial pilots and are from a diverse section of occupations and varying interests.
- 8) There is good communication from NDPA to its members. Members with email have an instantaneous method of communication from the pilots association about a variety of issues that might affect you.
- 9) Our organization allows members to reimagine how they fly through new technology and other opportunities in the aerospace industry. NDPA also supports the responsible integration of new technology, like unmanned aerial systems into our airspace.
- 10) NDPA gives you the opportunity to come together with pilots from across the state and to become more active in your state's aviation system, while having a great time with other individuals that share a similar interest.

We encourage pilots and non-pilots alike to join the North Dakota Pilots Association. To join, please visit www.ndpilots.com.

Together we can make a great aviation community even better!



We encourage all of our members to get involved at all levels, because together we can make a difference.

- 2) We support keeping our 89 airports in North Dakota active and open, as well as, generating interest in new and upcoming airports.
- 3) NDPA members get the opportunity to be appointed to a district position and run for a state-wide office. They can also vote at our annual meetings. All pilots in North Dakota have a voice; we are ready to listen and respond.
- 4) Our organization is ready and willing to go to any means necessary to keep North Dakota airspace free and clear for many generations of pilots to come.
- 5) NDPA actively sponsors education initiatives, like aviation safety programs and safety seminars all over the state of North Dakota.



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Freedom of Flying

Josh Simmers, Pilot

There are few places in the world where we find the coincidental values so prized by *Quarterly* readers: freedom and flying. The good ol' US-of-A is a prime place to be, as it encourages us in the "pursuit of happiness," which many of us feel when airborne.

You read Kris Magstadt's editorial, which commented on a recent flight just before sunset along the Missouri south of Bismarck. To me, it was another flight ... another moment in which I felt alive and free in all three axes which we can only find when airborne! I cherish that feeling, and long to share it with more people and remind them it's attainable.

I spent the last year under the burdensome structure of United Sates Armed Forces aviation in a country where individual citizens do not fly, nor even spend their time dreaming that they could. I longed to get back to general aviation to choose where and when and how I wanted to fly. As I took my vacation in other countries, I spent some time in Denmark and wandered to the closest airport – a glider strip an hour south of Copenhagen. The folks were just what one would expect: happy, welcoming, and eager to share the joy of flight. Knowing that I was a pilot,

an Airbus captain named Bent offered to take me up for an introductory flight (about 50 USD). I was elated to see the world from the air, experience the differences of a glider and gliding community, and those old familiar axes of pitch, roll, and yaw. How generous of him to basically lose money on me – which he had to trust I would give to someone else before I drove away. He gave me a lasting impression of more than just an aerial view of Denmark – he solidified aviation as a world-wide community that welcomes others to a serious and fun activity. But, I was remised at how aviation continues to build a reputation as elite, haughty, and accessible only to the wealthy, which is even more accurate in other countries where regulations are less conducive to general aviation, and land, user fees, and gas are exponentially more expensive than they are here in the United States. I continue to choose aviation. It is an investment

in an identity, a recreation, a lifestyle, a service, and a skill set. And I encourage you to share that message: Aviation Works.

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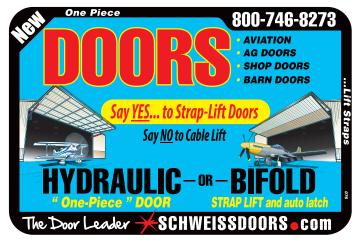












Schumacher flew 35 missions in a B-17 over Nazi Germany during World War II

Allan Burke, Emmons County Record

When a World War II-era B-17G Bomber was displayed at the Bismarck Municipal Airport in June of 2013, Andrew Schumacher, 90, of Linton was invited to tour the aircraft and fly in the four-engine bomber for the first time since 1945.

Schumacher received the honor because he was a ball turret gunner in a B-17 during World War II.

The plane, named "Sentimental Journey," is owned by the Arizona Wing of the Commemorative Air Force and is based in Mesa, Ariz. The organization tours the United States with the bomber and hosts events.

Commenting on his flight, Schumacher said, "You always wait for that feel in the lift. Then you figured you were safe."

Jim Kimmel, pilot of the "Sentimental Journey," said the plane honors World War II veterans like Schumacher and is to educate subsequent generations.

"You can't learn it by reading a history book. Here's living history in front of you. It's gonna smoke, it's gonna roar, it's gonna fly," Kimmel said.

"I'll never forget that smell. The oil, hydraulics—there's a certain smell of a B-17," Schumacher said.

After his flight, Schumacher praised Kimmel for his skills and especially for a good landing.

"It's always that landing," he said.

Schumacher was invited to sign his name on the aircraft among the names of other B-17 veterans.

Fewer than 10 B-17s are left that are in flying condition.



Andy Schumacher sits in the cockpit of the B-17.

Remembering the war.

After graduating from Strasburg (St. Benedict's) High School in 1942, Schumacher entered the U.S. Army Air Corps where he was assigned to the 324th Squadron of the 91st Bomb Group. That's the squad that included the famous "Memphis Belle" B-17 bomber about which movies have been made. It was the first 8th Air Force bomber to complete 25 missions. Another famous plane from the 91st was the "Nine-O-Nine," which completed a record 140 missions.

A ball turret gunner on a B-17, Staff Sgt. Schumacher flew on 35 bombing missions over Nazi Germany in World War II. The targets were most of Germany's major cities, including Berlin, Cologne, Leipzig and Dresden.



Based at Bassingbourn, England, the 91st Bomb Group was supported by 2,000 ground personnel. Between Nov. 7, 1942, and April 25, 1945, the 91st officers and enlisted airmen flew 9,591 B-17 combat sorties on 340 missions.

The effort was not without casualties. The 91st lost 197 B-17s while destroying 420 of Adolph Hitler's German aircraft. Lost were 1,010 combat crewmen (899 killed and 111 missing in action), and more than 960 crewmen became prisoners of war.

"I was one of the lucky ones," Schumacher said. "A lot of my friends did not come back from their missions."

He said his plane, "Little Jean," was hit by a Nazi anti-aircraft shell. The shell went through the plane's waist window and came out through the tail section, leaving a gaping hole in the aluminum structure.

"If the shell had exploded like it should have, all 19 of us on that plane would have been killed instantly," Schumacher said.

Reprinted with permission from Emmons County Record

Strasburg students practice skills in the air

Terri Lang, Emmons County Record

In November at the Linton Airport, students from Strasburg High School placed themselves in the pilot's seat and took a short journey.

The students had been practicing their flight skills for two months on an online simulator.

Senior Anthony Roth said it was fun, but the strong winds made the flight a little difficult.

"In the afternoon, by the time our crew flew, the winds really picked up, and the instructor had to do the take off and the landing for us," Roth said.

At 4,000 feet in the air and at 140 to 150 miles per hour, Roth said combines in the fields below looked like turtles.

Seniors Kendall Scherr and Brittany Moser were on the flight with Roth and their instructor.

"It was fun, and I would do it all over again," Scherr said.

Roth had flown first, and after his flight, he was not feeling his best and ended up getting sick.

"I almost got sick, too, but I made it," Scherr said.

The only female in the class, Brittany Moser said it was fun, interesting and exciting.

"I was excited when I first sat in the seat," Moser said. "It was a good experience, and I am excited about going again."

Senior Jordan Nieuwsma was not able to schedule his flight but will be in the air soon, he said.

Junior Aaron Leier was the first student to put the plane in take-off mode.

"It was cool!" Leier said. "We flew over our farm."

When Leier was in the air early in the morning with Junior Brody Nieuwsma, it was not windy, so they had a smooth flight.

"I was so nervous to go already at 5 a.m.

when I woke up," Nieuwsma said. "Aaron had texted me by then and said we are going. I thought to myself, wow, I am actually going to be flying a plane today."

Nieuwsma said after he was in the pilot seat, he was doing much better.

"It was pretty sweet in the air," he said. "The take-off and landing were fun, and I would do it again in a heartbeat."

Juniors Artie Voller and Andrew Hulm had their flight together, but Voller admitted he may have done too many Zero G maneuvers.

"Andrew wasn't doing too good, and that was probably partially my fault," Voller said.

It was windy and rough, Voller and Hulm said, during their flight.

Juniors Darek Keller and Ty Moser said the adrenaline kicked in for them.

"When we first got there, it was nerveracking just seeing the plane," Keller said. "I thought, oh, we are actually going to do this!"

As Keller approached the pilot seat, he saw all the buttons and knew they had learned all about them during class.

"The instructor, though, told us what to do, so I throttled it up and all of a sudden, we were in the air," he said.

They practiced a few techniques and Zero G maneuvers, and Keller said it felt like they were on a roller coaster ride.

"I had some trouble with the winds as they kept me from trying to turn, and I could not get it turned," Keller said. "The cell phone tower seemed to be getting a little too close."

Moser said he felt "pumped up" while he was waiting for the previous crew to land.

"Aaron and Brody were right before us,



Juniors and Seniors enrolled in the Aviation Technology course at Strasburg High School are, front row, left to right, Jordan Nieuwsma, Brittany Moser and Brody Nieuwsma; back row, Darek Keller, Ty Moser, Artie Voller, Aaron Leier, Andrew Hulm, Kendall Scherr and Anthony Roth.

and they made it sound fun and easy," Moser said. "But when I started the engine, the nerves started working,"

The plane swayed back and forth from the winds during take off, but, once in the air, Moser felt safe.

"We flew to our farm ,and it only took about five minutes to get there," he said.

Most of the students said the reason they decided to take the Aviation Technology course was because they thought it would be fun. Some of them said they plan to use their skills to perhaps fly an airplane of their own for personal use some day.

Mrs. Kimberly Droog has been assigned as the off-campus education coordinator and said many students needed to take online courses this year because the school had a smaller teaching staff.

"We tried to get our students in a regular classroom setting, but we lacked teaching staff this year, so that opened the opportunity for the students to enroll in on-line courses," Droog said.

The Aviation Technology course is offered through the Missouri River Educational Cooperative (MREC). MREC provides career and technical education through virtual or distance-learning methods of instruction.

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The RotorWash Column was an interesting and informational column, which we hope you enjoyed. We asked for, and did not receive any, feedback on the column. If you think it was worth the space it takes to print, please contact us at ndaviation@vahoo.com, and we'll continue to look for guest contributors.

It will be discontinued if we do not hear from you.

For those of you with a fixed-wing rating, additional training for a private-pilot rotorcraft-helicopter privileges would include the following, based on what I found what sifting through the user-friendly FAR-AIM in 61.109(c):

- (1) 3 hours of cross-country flight training in a helicopter;
- (2) Except as provided in §61.110 of this part, 3 hours of night flight training in a helicopter that includes—
 - (i) One cross-country flight of over 50 nautical miles total distance; and
 - (ii) 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.
- (3) 3 hours of flight training with an authorized instructor in a helicopter in preparation for the practical test, which must have been performed within the preceding 2 calendar months from the month of the test; and
- (4) 10 hours of solo flight time in a helicopter, consisting of at least—
 - (i) 3 hours cross-country time;

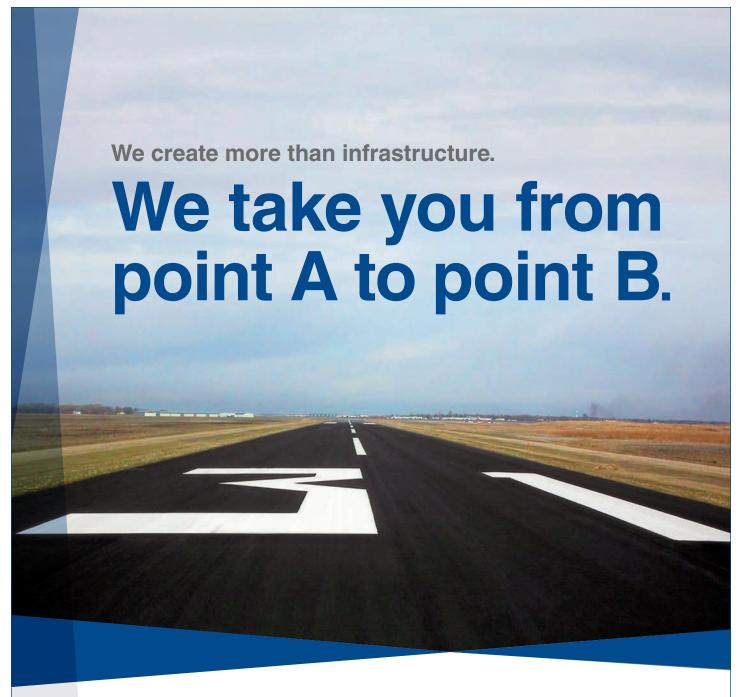
(I omitted requirements that did not explicitly state "helicopter," as this scenario assumes you have a license to fly airplane single engine land That's as little as 16 hours! Although, I would plan on more...it takes a while to get the hang of hovering.)

Now, when it comes time for your practical test, you don't need to start from scratch, either. The practical test standards (PTS) for an applicant in this scenario gives you credit for demonstrated knowledge and pretty much sticks to the different knowledge required to fly a helicopter – and of course, demonstrating competency in flight. If you get close to your check ride, you can check out the PTS for yourself, note page 1-iii. Disclaimer: this interpretation has not been verified by the FAA, although the information was taken from their publication.

It may be worth your time to look into sport or recreational privileges for helicopter or gyroplane as an alternative. Whatever you fly, and which ever flight horizon you're eager to look beyond, enjoy it safely.







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Wings and Wheels Airshow

Putting together an airshow is no easy task. Usually, when we see an airshow, it's in a big city, put together by a large amount of people and resources. It almost seems like an impossible feat of organization and initiative. However, that was not the case for the Wings and Wheels Airshow that took place in Valley City this past September.

The Barnes County Municipal Airport organized and hosted the Wings & Wheels Airshow. The performers included Matt Younkin and his Twin Beech 18 with both a day and night show, the Pietsch brothers - Kent flying his Interstate Cadet "Jellybelly" and Warren in the Japanese Zero, Toby McPherson in his P-51 Mustang, Kelly Perhus flew a T-6 Texan, and Duggy the DC-9 piloted by Casey Odegaard with the Fargo Skydivers. My brother, Paul, performed in his Pitts S-2B, and I flew my Pitts S-2C. In addition, Paul debuted our Original Red Baron Super Stearman. Now that sounds like quite the line-up for a small town airshow! There was also a car show, arranged by the Bridge City Cruisers Club, a variety of vendors, and activities for the kids, including inflatable games. Many aircraft displays were on the ramp leading up to the show, some available to tour. That morning, volunteer pilots were giving kids airplane rides as part of the EAA's Young Eagles program. All the hard work and dedication from the airport board members, volunteers, pilots and performers definitely showed and paid off for a great day.

It couldn't have been a nicer day for weather. Perfect blue skies and minimal wind with the temperature in the 70s. The whole show flowed along flawlessly, keeping the audience intrigued at all times, wondering what would happen next.

This airshow proved that you don't have to have a large city setting for a great show. As a matter of fact, this performance had a lot more benefits for the audience. For example, being able to park your car in close proximity, knowing who the performers are, either personally or because this is their home state, and best of all, being able to sit right along the airshow line to enjoy the performance. Overall, the fans are able to get closer to the planes and pilots. It doesn't get any better than that.

What a great way to promote and showcase flying and aviation. I encourage other small towns and airports to do the same. Even during our busy crop spraying season, Paul and I got out to practice as much as we could, perfecting our aerobatic sequences to provide the best possible show for the audience, all while keeping safety our top priority. Having the opportunity to be able to inspire, educate, and enliven individuals toward aviation is worth making the seemingly impossible airshow, possible.

SMOKE ON! - JARROD LINDEMANN

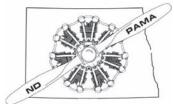


New Aerospace Research Facility

The University of North Dakota is starting work on a new aerospace research facility. The 66,000-square-foot aerospace research facility will be located at the John D. Odegard School of Aerospace Sciences. The project is expected to cost about \$25 million, with funding from state, federal and private donations. The school says UND Aerospace Center of Excellence for Unmanned Aircraft Systems will be a major tenant of the new research building

NDPAMA Mechanic of the Year Nomination Form due March 2, 2015

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Visit www.ndac.aero/ndpama2015.pdf for the application.

AAND

2014 AAND FAA Fall Seminar



(Above) Laurie Suttmeier addresses the attendees.



(left) Scott Brownlee and (right) Kyle Wanner addresses the attendees.







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Eternal FLIGHT



After a brief courageous battle with cancer, **Dennis Lee Adams**, 71, Mandan, went to his eternal home, Nov. 6, 2014.

He had many hobbies, interests and talents and led a very full life, never sitting idle. Some might say he was a renaissance man: inventor, builder, hunter, fisherman, birder, photographer, artist, traveler and pilot. At

age 60, he fulfilled his childhood dream of obtaining his pilot's license. Throughout his life, Dennis was active in many community organizations. Most recently he was a member and true contributor of the Civil Air Patrol, EAA, Mandan Airport Authority Board, and the Bismarck Air Museum Foundation Board.



Richard D. Farroh, 61, Grand Forks, ND and formerly of Williston, died unexpectedly on Tuesday, October 21, 2014 in St. Marys Hospital of Rochester, MN.

Richard attended UND (Williston) then worked as a general contractor building homes in Williston. During that time, Richard earned his Private Pilot License, Commercial Pilot License

and Flight Instructor Certificate. He later moved to Grand Forks and graduated from UND with a Bachelor of Science in Aeronautical Studies in 1990. Richard earned his Juris Doctor from the UND School of Law in 1993 and spent over 20 years making a career of helping others by opening his practice in Grand Forks.



Dennis Leroy Helland died at his home under hospice care on November 1, 2014. Dennis was an avid hunter and served as a Hunter Education Instructor for 30 years. He was a pilot with a love for aviation. Denny actively supported the Barnes County Airport and served as a member of the Barnes County Airport Authority Board

for 39 years. He was chairman of this board for 15 years.



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Dennis also was a member of the Hastings Fire Department, serving as chief for 10 years.



Ralph Jenson, 79, Reynolds, N.D., died Monday, Sept. 8, 2014 at his home. Ralph lived in Heidelberg, Germany, where he served in the U.S. Army until 1960. He and his wife, June, then moved to Reynolds, where they lived and farmed for many years. He became a private pilot

at the age of 40 and was active in the International Flying Farmers Association.



Michael Kratz, 55, passed away on Sunday, November 30, 2014 in a crop duster accident in Arizona. Michael was a resident of Milnor, North Dakota. Michael had a passion for aviation at an early age and ultimately started and grew his own business, Kratz Aerial Service.



Oscar Rau, 90, Ashley, died Oct. 27, 2014, at Ashley Medical Center. Oscar was active in community affairs and had a longtime love of music. He traveled to the mission fields in India, Brazil and Columbia, where he worked as an electrician. Oscar was a pilot for 35 years, having

later earned an IFR rating; he donated his time and talent to fly missionaries on leave.



Patrick Redmond, 85, Belfield, died Friday, August 22, 2014 at St. Benedicts Health Center, Dickinson.

At the age of 22 he was drafted into the United States Army, and spent two years during the Korean Conflict in the Artillery Division before being honorably discharged. He returned

home and got his pilots license through the Dickinson Airport. He became a crop sprayer, and for the next 25 years this is what he did.





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Best of all, a scaled version of Garmin's SVT™ Synthetic Vision Technology now comes standard on the G600 – or as an option on the G500. With SVT, pilots are offered a realistic 3-D virtual reality display of terrain, obstacles, runways and traffic information, all shown in context on the PFD. It's like having a clear-day "out-the-window" view in any weather or flight situation. And it promises to bring a whole new level of situational awareness to your Garmin retrofit glass cockpit.

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

North Dakota Aviation Quarterly

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CALENDAR of EVENTS

2015

March 1-3, 2015

Upper Midwest Aviation Symposium, Holiday Inn, Fargo Contact: 701-328-9650



March 17

Aviation Day Memorial Hall, Capitol Building Contact: Sean Davis 701-328-9653

May 13

Aviation Career Day – Bismarck Contact: Shae Helling 701-223-4754

June 7 • 8-11:30 a.m.

Mandan's Planes & Pancakes

Contact: Jim Lawler 701-663-0669

June 12

Relay for Life Survivor Dinner Bismarck Aero Center Flight simulators for the kids. Contact: Shae Helling 701-223-4754

September 13 • 7:30 a.m.-1 p.m. Bismarck Masonic Pancake Breakfast Fly-in Contact: Shae Helling 701-223-4754

Online calendar: www.ndac.aero/events.htm

Please send your upcoming dates to ndaero@nd.gov

Airport of the Year Nominations Requested

The North Dakota Aeronautics Commission and the Airport Association of North Dakota are soliciting nominations for the annual airport of the year awards for:

- 2014 Commercial Service Airport of the Year
- 2014 General Aviation Airport of the Year

To nominate an airport, complete a nomination form which can be found on the North Dakota Aeronautics Commission Website at www.nd.gov/ndaero/airport/airport-of-the-year.html or contact the Aeronautics Commission at ndaero@nd.gov. Public recognition along with the formal award will be presented to representatives of

the winning airport during the Upper Midwest Aviation Symposium banquet on the evening of March 3, 2015. Nomination forms are due to the North Dakota Aeronautics Office by January 30, 2015 and the winner will be selected and notified prior to UMAS. Criteria for selection include:

- 1. Aviation Advocacy and Community Outreach
- 2. Airport Management and Commitment to Aviation Advancement
- 3. Special Events and Recognition
- 4. Airport Construction and Beautification Projects