

PANCAKES & PLANES! Casselton Holds its Annual Fly-in

EAA Chapter 317 has been holding an annual fly-in for over 30 years. In the early days the event moved among various sites, always featuring pancakes, member airplanes, rides, and old fashioned hangar flying. Twenty years ago the event settled at the Casselton Regional Airport and acquired a name, PLANES ON THE PLAINS. There were major changes associated with this new venue. We began inviting the general public, speakers, Young Eagle rides, and air show acts. It has been ebb and flow in recent years. At the high point the event encompassed three days, and featured the likes of the Blue Angles and national aviation personalities like Duane Cole.

Even though the 2006 event highlighted aerobatic routines by Bob Odegaard in the Super Corsair, and Jim Maroney in the Super Chipmunk, the event suffered in 103 degree heat and \$4.50 fuel prices. Attendance was down from the days when the event drew as many as 165 transient aircraft, and 2000 drive in attendees.









Chairman's Corner By Darrel Pittman

I'm sure by now most of you know that recently our aviation community suffered two unfortunate events. We are all very sad for the families.

First, Bill Beeks was a mainstay in North Dakota aviation and a friend. Bill lost his life in an aircraft accident. When we inducted his father into the North Dakota Aviation Hall of Fame, I was honored to sponsor his family at the Symposium. He will be missed.

Next, pilot Bob Nelson and his aircraft were missing since August 24th. As the Civil Air Patrol (CAP) Incident Commander on this search mission it was hard not to allow myself to get too closely involved. After all, this was a fellow pilot who like me was retired from the FAA. I didn't know him personally but I felt like I knew him. At the end of the sixth day it was my decision to ask for some rest from the mission. I needed to be sure that we had done all we could to find the aircraft. I'm feeling better now because I know we did all we could up to that point. I wish I could have talked with him before he took off, perhaps I may have convinced him to wait a while, I don't know. I know this, during those six days I lost ten pounds. I don't advocate any person to try that weight loss program. In my previous career I've

In my previous career I've been involved with many emergency situations. Sometimes they can be easily resolved. Many times they become very complicated and drawn out.

As an air traffic controller in

the Air Force I saw a few aircraft crashes, (I still see them in my sleep). That's tough to watch but you instinctively react with emergency crews. For me the hardest part was having a radar blip disappeared from the radar scope and hoping to have it reappear. When it doesn't your heart jumps up in your throat and you know you can't do anything about it. Dealing with your inner self is hard. Over the years I had to force myself to not dwell on any of the situations that occurred on my watch. This is the only way to survive when you're responsible for so many lives on a daily basis.

At this writing the missing pilot Bob Nelson and his aircraft have been located. It's my hope and desire that the family can finally have some peace and rest from this terrible ordeal. Let's all say a prayer for them.

AVIATION COUNCIL

The "North Dakota Aviation Council" held their first meeting of the season on the 13th of September in Jamestown at the airport terminal conference room. We had two main topics, first and foremost was the "Upper Midwest Aviation Symposium". This year it will be in Minot, ND at the Holiday-Inn's Convention Center, This is a nice brand new facility and we're looking forward to our visit to the Magic City. In some of the past Symposium's we've held a career day session for the youth. That has worked so well that we voted to make it an annual event and an integral part of the NDAC charter. Aviation and technology are growing so fast it's difficult to stay up with it. So what could be more important than getting our young people involved in aviation now? Practically every aviation organization is youth oriented in some way. They are our future in aviation.

Second, we had a lot of open discussion about the new and upcoming Unmanned Airborne Vehicle (UAV) situation that has all of North Dakota aviation buzzing. A lot of "What, When and Where's" have been asked of us and we don't know the answers. I was invited by Gary Ness and Bob Miller to the Aeronautics Commission meeting on another subject. But while I was there I listened to a portion of the briefing given by the UAV group from UND. It appears the group is trying hard to be compatible with general aviation. I think they still have a lot of work to do to make that possible. I will not get further into this because I'm sure Gary will write or report on it.

I've also had many inquiries about the airspace issue. We have not heard much on it for a while but don't get too complacent. I'm sure it's not a dead subject. It could rise up at any time, especially with the UAV situation. The military really desires more area to train in. It would be difficult for the entities involved to say "no" during these trying times. Rest assured the council will remain involved with this issue.

Remember the council exists for you. Please continue to support all our friends involved in the North Dakota aviation industry. They are the best and are here helping us. So let's help them, stay tuned for more.

Don't forget, the Symposium is March 4 - 6, 2007 in Minot. So file your flight plan for the Magic City and join us, see you there.

CLEARED FOR TAKEOFF. Darrel



FROM THE DIRECTOR'S CHAIR

By Gary Ness, Director, North Dakota Aeronautics Commission



Chapter 2-06 The Airport Authorities Act of the North Dakota Century Code was created during the 1959 session of the North Dakota Legislature. In this author's opinion, it was one of the best pieces of legislation that was passed in support of aviation in the history of the state.

Section; 2-06-02 Creation of municipal airport authority; any municipality may, by resolution of its governing body, create a public body corporate and politic to be known as a municipal airport authority. This action gave a municipality that has a council, commission or alderman style of government the opportunity to divest from the sometimes confusing nature (to the layman) and day-to-day management of aviation. At the same time, municipalities had an opportunity to appoint a board of interested citizens to oversee the management of the "Front Door" to the community. Commonly the Airport Authority is made up of five (5) members appointed for staggered terms of five (5) years.

Section 2-06-06 <u>Commissioners-Compensation</u> <u>Meetings-Officers.</u> A commissioner of an authority may receive no compensation for his services, but is entitled to the necessary expense, including traveling expenses, incurred in the discharge of his duties. This is one of the less impressive parts of the Century Code and the Act.

Section 2-06-07 General Powers of an authority: One paragraph of this section says it all. Paragraph #3: to plan, establish, acquire, develop, construct, purchase, enlarge, improve, maintain, equip, operate, regulate and protect

airports and air navigation facilitiesincluding the acquisition, construction, installation, equipment, maintenance, and operation at such airports or buildings and other facilities for the servicing of aircraft or for the comfort and accommodation of air travelers. That is heavy responsibility for any group of people. But the Century Code gives that body considerable ground to cover in the establishment of an airport with flexibility to get the job done.

The airport authority in your hometown is an important factor in the development of aviation in North Dakota. The authority act gives the flying public the infrastructure to conduct business in the state and to create jobs. You for the County Fair Grounds, #6 Airport.

I can't remember the rest of the agenda. After sitting and listening to the related problems involved with the five previous items, I had my chance to discuss the merits of an Airport Authority. I started with every acronym I could think of, US-DOT, FAA, AIP, ADO, FSDO, ATC, CLASS "D" &"C" Airspace, RSA, RPZ, Part 77, Part 135, Part 91, SIDA, VFR, IFR, MIC and I made up some, too. I wanted to impress upon the city council that they had a tough enough job without dealing with the impressive, confusing, acronym-filled industry of aviation. The role of those in the community that wanted to manage as well as develop the airport

The airport authority in your hometown is an important factor in the development of aviation in North Dakota.

will find in another section of this publication the economic impact of aviation to the state's economy.

About five years ago a community called and asked if yours truly would attend a city council meeting and speak about creating an airport authority. This group of interested citizens understood the need for an airport authority and wanted the Aeronautics Commission to support the effort to create one. On the night of that August meeting it was 95 degrees and the air conditioning had failed in the city council room. The airport was number six on the agenda. #1 Garbage Pickup Problems, #2 Vacant Lot Mowing, #3 Painting of the Water Tower, #4 Vacation of an Alley, #5 Police/Security requirements wouldn't be compromised of delegating some responsibility to an airport authority. It wouldn't be giving anything away except the confusing and time-consuming efforts of being the governing body of the airport.

I don't know if it was the excellent argument or the heat in the room, but the council voted to create the airport authority and from that point on that authority gave its all to reconstruct the local airport and bring the facility up to the standards of the FAA and provide for the community one fine "Front Door." That authority has now just finished a complete reconstruction and extension of the main runway, new organization of the ramp/ apron area, new GA hangar area along with a new GA

terminal/office building. This reinvigorated the airport and the flying community in the city. It is great to observe and to be part of the process.

Many airport authorities meet to discuss the needs of the flying public and the development of their facilities and they do it for the communities with little regard to their self interest. When you review the list of members of boards from across the state it becomes apparent that a good number are not pilots or they are pilots who aren't flying anymore, but each and every one of them has the best interest of their community in mind.

It is obvious that the authorities have improved the airport systems across the state more in the last three years than has been done in the previous thirty. Reason: The FAA Airport Improvement Program (AIP) General Aviation Entitlement Program. This program provided \$150,000.00 of Aviation Trust Fund money to each General Aviation Airport each year for improvements to the facilities. These funds helped us improve and reconstruct along with providing maintenance funding for airside needs. The program also helped put in place new snow removal equipment and buildings along with some GA terminal buildings. The program provided for income-producing facilities such as hangars and selffueling equipment. These improvements have to be the biggest advancements to General Aviation in North Dakota since the creation of the Airport Authority Act of 1959.

Let's take this opportunity to say GOOD JOB to the 84 airport authorities representing North Dakota airports.

TRIM TAB

By Bob Simmers

Greetings!



It seems that fall has really descended upon us rather quickly. It was just yesterday that we saw the thermometer at temperatures over 100 and now we have already experienced temps below freezing. That means that we need to prepare the old bird for winter flying; check out the engine preheater, the heating system of the aircraft, make preparation for closing up the summer vents to make that cabin just a little bit warmer, maybe even change the oil to a lighter weight. It is also that time of year that we can enjoy some of the best flying. With all of the wildlife in the state, you could be out enjoying the scenery but more importantly you need to be aware of the hazards of the migratory birds and the possibility of birds and deer on or near your favorite landing area.

I have had several calls recently asking about the recurrent training requirements for pilots. More specifically, Sport Pilots. The question was, "do you need a Flight Review as a Sport Pilot?" The answer is found in FAR 61.56 in that all who wish to be PIC must have a flight review within the preceding 24 calendar months. It does not take exception to any pilot certificate. There are certain qualifying circumstances that may relieve you of the requirements of the regulation, but being a Sport Pilot is not one of them.

I hope that you have a safe flying fall.





By Paul Hanson and Larry Taborsky

The NDPA needs your help for the symposium! With the wealth of knowledge, experience and the many contacts that you have, can you come up with an interesting presentation for the pilot sessions at the symposium? I'm looking for exciting speakers who have done interesting things in aviation, with the aim to entertain and educate the rest of us. North Dakotans are a plus, but not required. Storm chasers, fire bombers, aerial fish stockers would all give us a different aspect of aviation which would increase our knowledge. Who do you know that could entertain a group for 50 minutes?

THCENTRA

Linton, North Dakot

NORTH

CENTRAL

AVIATION

Parts & Service

Annual Inspections

Major & Minor Repairs

100L/ Jet 'A'

Linton Airport (7L2)

Linton, North Dakota

Mike & Terri Gunia

701/254-5449

As a separate class, would any of you be interested in giving a personalized 5-minute account of your lessons learned? It might be in the format of the articles you've read called, "I learned about flying from that." If there is enough stories to make a class, I'll schedule it.

Please contact Larry Taborsky at: 220-2569 or ltaborsk@nd.gov.



It is hard to believe that our summer 2006 is history. How the time flies!

Dakota Territory Air Museum is nearing the end of another season. We close from mid-October to mid-May, 2006 has been a great one for us.

We started the season with numerous school tours from eastern Montana, and this region of North Dakota. A bus load of Air Cadets from near Saskatoon, Canada were here the later part of May. Education and preservation is what we are all about. We love to have the students visit.

In July we hosted the B-52 Association for an evening social and meal as one of the activities of their national convention. Also in conjunction with Northern Neighbors Day at Minot Air Force Base, we held an Open House and had many of the performers and display aircraft at the museum the evening before the event started at the base. J-3 Cub was Joseph K. Grote from Vancouver, WA. He and his wife are both pilots who have been flying a Cessna 182. He had another gentleman pick up the cub and fly it to Vancouver for him. In talking

2007 will be the first time the Upper Midwest Aviation Symposium will be held in Minot, and we are really looking forward to hosting this great aviation event. We hope to see you here.

We kicked off a very successful 2006 Sweepstakes at the 2006 Aviation Symposium. On August 20th the drawing was held and the winner of the with him later, he said that he and his wife were visiting a museum in their area the Sunday of the drawing (before they knew he had won) and he had said to her, "We should try to find a J-3 to buy,". Little did he know that he had just won one.

We just purchased a beautiful Cessna 140 for our 2007 Sweepstakes. Tickets will go on sale at the 2007 Symposium here in Minot.

Our Board of Directors recently approved a 10,000 square foot expansion of our museum which will give 32,800 sq ft. The new building probably won't be finished for the Symposium in March. However, we are already making plans to hold the "Ice Breaker"at our museum.

2007 will be the first time the Upper Midwest Aviation Symposium will be held in Minot, and we are really looking forward to hosting this great aviation event. We hope to see you here.



Log Book

By Malinda Weninger ND Aeronautics Commission



I have worked at the Aeronautics Commission for the past 22 years. I attend the aviation convention every year and it is a time to touch base with

people we may have not seen for a year. I, and the rest of the staff, consider many of these "aviation friends". I have seen many faces in the aviation industry come and go.

One of my tasks at the Commission is to keep the airport authority listing current. This listing includes airport authority board members' names, addresses and phone numbers. More often than I would like to, I have to remove a name of an airport authority member, a member who has

been very dedicated to their community's airport. Many times they are the "reason" the airport in their community is thriving or being maintained in the way that it is. I have witnessed how these board members put a lot of personal time into maintaining the airport, realizing that their efforts are helping their community. This time is not paid time and many times goes unappreciated. So, thank your local airport authority board members.

Airport authority board members over the years have either moved away, disappeared from aviation, or have passed away. It was disheartening to delete the

More often than I would like to, I have to remove a name of an airport authority member, a member who has been very dedicated to their community's airport.

> names of Corwin Waswick, Gwinner, Steve Hett, Mohall, Mike Davidson, Tioga, and Ken Lawson, Tioga. These were a few of the people that I visited with for many years. Corwin shared his own personal version

of what to do to prevent cancer and how to fight cancer if you have it.

As the years go on, it gets harder for me to remove the names of these individuals whom we have become very good friends with, a name of a person whose signature is sprawled all over papers in our office.

We miss all of our board members who leave us but most recently our dear friends Bill Beeks, Washburn, and Laverne "Trigger" Schmautz, Glen Ullin.

Bill was a great friend to visit with. He had a quiet and caring demeanor about him. Trigger was a visitor to our office and was like a family member walking through the door. We will most remember Trigger for his breakfast sandwiches he treated us to quite often. He popped in with treats periodically and we shared many a laugh with him especially his stories about his travels with the "Glen Ullin boys." He deserves a lot of the credit for the nice airport at Glen Ullin. We miss you, Trigger. We

miss all the aviators that have passed on. Your community misses your dedication to your airport.



Vincent Sargent Buraas 1918 – 2006

Vincent Sargent Buraas passed away at home in Oklahoma City, OK on July 23, 2006. He was born on the family homestead in Northwood, ND to Edwin and Dora Buraas on February 18, 1918, and finished grade school and high school



there. He graduated from the ND State School of Science in 1939 with a degree in Aeronautical Engineering and went to work for Douglas Aircraft in Santa Monica, CA, as a Tooling Engineer.

In 1940-41, he received his private / commercial Pilot's License #14458-40 from California Flyers at Mines Field (now LA International Airport). He was transferred to Douglas Aircraft in Chicago, IL in 1942, to build C-54's and was in charge of designing the fuselage assembly tooling. In 1943, he enlisted in the US Navy where he served for 1 ½ years as a Specialist X until the end of the war. In 1946, he returned to Northwood, ND and established Vince Field Airport, an FBO with flight school & A/C maintenance.

In 1948, he began a crop-spraying service with 6 Stearmans flying in 6 states which he continued to operated until 1986. During the ND Centennial in 1989, Vince flew the mail to 50 towns in 8 days.

In 2000, Vince was inducted into the ND Aviation Hall of Fame. In 2001, he received the Charles Taylor Master Mechanic Award and in 2004 he received the Wright Brothers Master Pilot Award from the FAA. Vince joined the Confederate (Commemorative) Air Force in 1983 and was a member of the wings in ND, MN and OK. He was active in the OKC Wing, was Wing Leader from 1993-1995 and received the CAF Lifetime Achievement Award in 2004. At the time of his death, Vince had over 10,000 hours total flying time and held the ratings of CFI, SEL, SES, MEL, TBM, A&P, AI and was a CAF check pilot. He was a member of the National Biplane Association, AOPA, EAA, Northwood ELCA and past Post Commander of the Northwood, ND America Legion Post No. 00921. Aviation was Vince's passion, but not his only love in 1948, he married Fanelle Badgett in Santa Monica, CA and in 1952 a daughter, Aleta, joined them.

Vince was preceded in death by his wife of 56 years, his parents, and his sister, Grace Evelyn Buraas Hart. He is survived by his daugher, Aleta, his niece, Patricia Hart Berreth and children, Jan and Greg of Portland, OR, his nephew, Tom Hart, and son Steven of Wilsonville, OR and numerous cousins.

Memorial services were held Friday, July 28th in Oklahoma City and in Northwood, ND.

Wilbur E. Brewer Memorial Scholarship

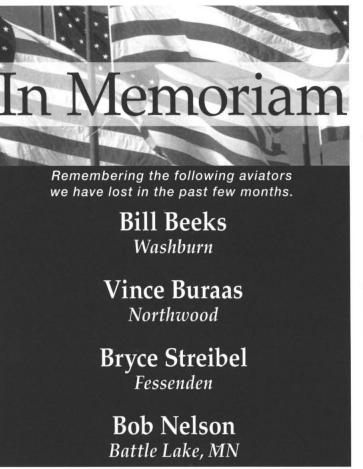
Weather Modification, Inc. of Fargo and Marian Brewer of Bowman have established the Wilbur E. Brewer Memorial Scholarship Endowment within the UND Foundation. The endowment funds a \$500 annual scholarship for a student within the Atmospheric Sciences Department of the UND/JDO School of Aerospace Sciences. The student must have a pilot's license and have completed all coursework in the weather modification curriculum with the Atmospheric Sciences Department.

The endowment is in honor and memory of Wilbur E. Brewer, a native of Bowman. He founded Weather Modification, Inc. and developed the North Dakota Cloud Modification Project, in which planes are used to deliver cloud seeding agents to targeted thunderstorm cells in an effort to increase rainfall and decrease hail.

Thanks to Brewer's work, aviation students at UND/JDO are able to receive weather modification training in the classroom and gain invaluable experience in the sky.

Brewer is recognized internationally for his leadership, experience, innovative techniques and knowledge in the development of the weather modification technology. Wilbur was inducted as a member of the North Dakota Aviation Hall of Fame in 1998.

The scholarship will be presented annually at the John D. Odegard Aerospace Sciences Aviation banquet.



Fact Sheet: 2004 Aviation Impacts in North Dakota



Welcome to the 2004 edition of the study of the economic impact of aviation on North Dakota's economy. This study provides a complete examination of aviation's economic impact on the state and updates similar economic impact and employment data gathered in 1994 and 2004. Economic activity associated with aviation in North Dakota provides jobs and expenditures related to aviation activities. Spending is then spread throughout our local economies and throughout the state, creating additional employment, tax revenue and spending.

- Aviation expenditures in North Dakota for 2004 totaled \$1.2 billion.
- Aviation jobs in North Dakota for 2004 totaled 10,902.
- Each day there are 102 airline flights at eight commercial airports transporting 1.2 million passengers. General aviation averages 2100 operations per day at the 90 public airports for annual total of 810,000 flights.
- Aviation manufacturing provides 1,175 direct jobs in North Dakota for aerospace contracts in 12 major companies across the state.
- Air travel visitors provide \$483 million (40 percent of total aviation statewide impacts) to local economies in hotels, motels and recreation like fishing and hunting. An air traveler visitor spends an average of \$700 per trip.

- Aerial sprayers assist the agriculture industry in treating over 3.3 million acres in North Dakota. This segment is comprised of 147 companies using 283 aircraft and helicopters for \$82 million of impact.
- Air medical services by flying doctors and fixed-wing helicopter firms provide daily rural health care and emergency transport throughout North Dakota.
- Air freight "just-in-time" services by Federal Express, United Parcel (UPS) and DHL couriers are based on commercial airports and communities employing 280 freight handlers and drivers to all corners of the state.
- General aviation airports located in 82 communities provide \$119 million or 10 percent of aviation impacts through construction grants and safety improvements.
- Aerospace training occurs at all 90 airports but not like Grand Forks-based UND Aerospace with over 100 aircraft and 1,800 students training for aerospace careers.
- Air travel agency and tour operators employ 1,075 staff for worldwide travel through firms like American Express (formerly Rosenbluth), MLT-Northwest Airlines World Vacations, and Holland America.
- Aviation businesses total 63, which are based at North Dakota airports, and provide ondemand air charter, flight instruction, aircraft maintenance, sales and services. Firms like Basin Electric, Montana Dakota Utilities, Bobcat (Ingersol-Rand) and Otter Tail Power are examples of businesses activly using North Dakota airports.



North Dakota Aeronautics Commission | PO Box 5020 • Bismarck, ND 58502 | 701-328-9650 • www.state.nd.us/ndaero

Examples of Aviation Businesses in North Dakota



UND Aerospace program, based in Grand Forks, is one of the nation's biggest and best educational training colleges for the aviation industry. Since 1968, it has grown

to be the world's largest aviation training college. The state-of-the-art \$83 million aerospace campus offers a technologically advanced training environment for 1,800 students. UND graduates fly for every major airline, and work with corporate flight departments, aircraft manufacturers, NASA and the FAA.

Goodrich Corporation has been based in the Jamestown Airport Industrial Airpark since 1970 and has more than 500 employees. The company is recognized as the world's largest air-cargo systems manufacturer for firms such as Boeing, Airbus and military contracts.

Weather Modification uses atmospheric resource technologies to manage weather such as rainfall increases, snow-pack growth, hail-damage mitigation, fog clearing, weather radar and technical/technology transfer consulting. The company has conducted weather operations and research since 1961 and is based in Fargo. Weather Modification employs 45 people in North Dakota and has global contracts. The firm uses 15 different aircraft and five radars, and has more than 43,000 aircraft flight hours.



Cirrus Aircraft has 291 employees and, since 1997, has been based in Grand Forks. This branch office manufactures wings and fuselages for the worlds largest-selling general aviation aircraft.

				Expen	ditures (\$000)					Emplo	yment		
	Group	Direct	1994 Induced ¹	Total	Direct	2004 Induced ¹	Total	% Change ³ 94-04	Direct	1994 Induced	Total	Direct	2004 Induced	Total
	Airlines	\$12,374	\$18,551	\$30,935	\$10,681	\$16,022	\$26,703	-14	269	269	538	171	171	342
														CTA DO
iants	Concessions	\$8,363	\$12,545	\$20,908	\$6,454	\$9,681	\$16,135	-23	326	326	652	176	176	352
I Ten	Gov't/Military	\$56,794	\$85,190	\$141,983	\$64,158	\$96,237	\$160,395	+13	1,364	1,364	2,728	844	844	1,688
Commercial Tenants	Air Freight	\$8,366	\$12,548	\$20,915	\$10,128	\$15,192	\$25,320	+21	197	197	394	280	280	560
Comr	Miscellaneous	\$718	\$1,077	\$1,795	\$6,655	\$9,983	\$16,638	+827	33	33	66	369	369	738
	Tenants Total ²	\$86,612	\$129,921	\$216,536	\$98,076	\$147,114	\$245,190	+13	2,189	2,189	4,378	1,840	1,840	3,690
	GA Management	\$7,577	\$11,365	\$18,943	\$37,818	\$56,727	\$94,545	+399	78	78	156	127	127	254
	Ag Sprayers	\$18,218	\$27,941	\$46,568	\$32,991	\$49,487	\$82,478	+77	687	687	1,374	425	425	850
	FBOs/Others	\$33,2683	\$49,902	\$83,170	\$23,278	\$34,917	\$58,195	-30	914	914	1,828	739	739	1,47
	Travel Agents	\$7,149	\$10,725	\$17,873	\$41,973	\$62,960	\$104,933	+487	349	349	698	1,075	1,075	2,15
	Hotels/Motels	\$2,477	\$3,715	\$6,192	\$1,803	\$2,705	\$4,508	-27	136	136	272	70	70	14
sitors	Comm. Service	\$67,978	\$101,967	\$169,945	\$180,349	\$270,524	\$450,873	+165	Series.					1
vel Vi	GA/Air Taxi	\$10,556	\$15,834	\$26,390	\$13,081	\$19,622	\$32,703	+24	1514		1.	1	199.0	The los
Air Travel Visitors	Visitor Total ²	\$78,534	\$117,801	\$196,335	\$193,430	\$290,145	\$483,575	+146	-	CONFERN		-10-11-27	1	0101
	Av. Mftrg.4	-	-		\$47,325	\$70,988	\$118,313	-	-		-	1,175	1,175	2,35
	Grand Total ²	\$234,243	\$351,370	\$585,615	\$476,694	\$715,041	\$1,191,735	+104	4,353	4,353	8,706	5,451	5,451	10,90

Expenditure and Employment Summary for Aviation Economic Impact in North Dakota 1994, 2004

Induced expenditures = Direct x 1.5

otals may not add up due to rounding Change in total expenditures

First year includes 2004 data

	rth Dakota Aviation
H	ALL OF FAME
Name of Nominee:	
Birthdate:	If Deceased, Date of Death:
Current Place of Residence:	
(If applicable)	
City and County in which this with respect to this award:	nominee's greatest aviation contribution(s) took place,
	City / County
Thi	s Nomination is submitted by:
<u>1 ms</u>	s rommation is submitted by.
]	Individual or Corporation
]	Individual or Corporation
]	Individual or Corporation Address, City, State, Zip
Telephone: (Home)	
	Address, City, State, Zip Telephone: (Work)
Telephone: (Home)	Address, City, State, Zip Telephone: (Work) Instructions
Telephone: (Home)	Address, City, State, Zip Telephone: (Work) Instructions
Telephone: (Home)	Address, City, State, Zip Telephone: (Work) Instructions ng to the following criteria. Each category will be given equal weight
Telephone: (Home) Each nomination will be judged according the judging. - Major achievements in aviation - Significant contributions to the	Address, City, State, Zip Telephone: (Work) Instructions ng to the following criteria. Each category will be given equal weigh in North Dakota. development of others in aviation in North Dakota.
Telephone: (Home) Each nomination will be judged according the judging. - Major achievements in aviation - Significant contributions to the - Special service to the state of N	Address, City, State, Zip Telephone: (Work) Instructions ng to the following criteria. Each category will be given equal weigh in North Dakota. development of others in aviation in North Dakota. orth Dakota in aviation activities.
Telephone: (Home) Each nomination will be judged accordin the judging. - Major achievements in aviation - Significant contributions to the - Special service to the state of No - Activities that bring credit to No	Address, City, State, Zip Telephone: (Work) Instructions ng to the following criteria. Each category will be given equal weigh in North Dakota. development of others in aviation in North Dakota. orth Dakota in aviation activities. orth Dakota aviation, either nationally or internationally.
Telephone: (Home) Each nomination will be judged according the judging. - Major achievements in aviation - Significant contributions to the - Special service to the state of No - Activities that bring credit to No - Significant contributions to the aviation (i.e.; service clubs, chu	Address, City, State, Zip Telephone: (Work) Instructions ng to the following criteria. Each category will be given equal weigh in North Dakota. development of others in aviation in North Dakota. orth Dakota in aviation activities. orth Dakota aviation, either nationally or internationally. local community or the state of North Dakota that are not related to arch related, political activities, etc).
Telephone: (Home) Each nomination will be judged accordin the judging. - Major achievements in aviation - Significant contributions to the - Special service to the state of No - Activities that bring credit to No - Significant contributions to the aviation (i.e.; service clubs, chu	Address, City, State, Zip Telephone: (Work) Instructions ng to the following criteria. Each category will be given equal weigh in North Dakota. development of others in aviation in North Dakota. orth Dakota aviation activities. orth Dakota aviation, either nationally or internationally. local community or the state of North Dakota that are not related to arch related, political activities, etc). at meets each of these criteria. Each entry will receive a more accurate
Telephone: (Home) Each nomination will be judged accordin the judging. - Major achievements in aviation - Significant contributions to the - Special service to the state of No - Activities that bring credit to No - Significant contributions to the aviation (i.e.; service clubs, chu Each entry must include information that valuation if the information is presente	Address, City, State, Zip Telephone: (Work) Instructions ng to the following criteria. Each category will be given equal weigh in North Dakota. development of others in aviation in North Dakota. orth Dakota aviation, either nationally or internationally. local community or the state of North Dakota that are not related to arch related, political activities, etc). at meets each of these criteria. Each entry will receive a more accurated by category in the suggested order. Additionally, the nominee's
Telephone: (Home) Each nomination will be judged accordin in the judging. - Major achievements in aviation - Significant contributions to the - Special service to the state of No - Activities that bring credit to No - Activities that bring credit to No - Significant contributions to the aviation (i.e.; service clubs, chu Each entry must include information that valuation if the information is presente chievements must be submitted type w	Address, City, State, Zip Telephone: (Work) Instructions ng to the following criteria. Each category will be given equal weigh in North Dakota. development of others in aviation in North Dakota. orth Dakota aviation activities. orth Dakota aviation, either nationally or internationally. local community or the state of North Dakota that are not related to arch related, political activities, etc). at meets each of these criteria. Each entry will receive a more accurate
Telephone: (Home) Each nomination will be judged accordin in the judging. - Major achievements in aviation - Significant contributions to the - Special service to the state of No - Activities that bring credit to No - Activities that bring credit to No - Significant contributions to the aviation (i.e.; service clubs, chu Each entry must include information that valuation if the information is presente chievements must be submitted type w	Address, City, State, Zip Telephone: (Work) Instructions ng to the following criteria. Each category will be given equal weigh in North Dakota. development of others in aviation in North Dakota. orth Dakota aviation, either nationally or internationally. local community or the state of North Dakota that are not related to arch related, political activities, etc). at meets each of these criteria. Each entry will receive a more accurated dby category in the suggested order. Additionally, the nominee's ritten, double spaced with the text limited to a maximum of four page

If you have any questions please write or phone (701) 328-9650.

NORTH DAKOTA AVIATION QUARTERLY | E

Night time Radar Operations at Fargo Air Traffic Control Tower

Several questions have been asked recently about the radar operations at Fargo Air Traffic Control Tower. The FAA Air Traffic Manager at Fargo provided the following information.

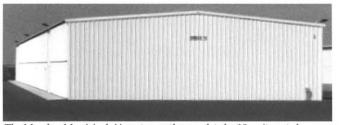
Radar Approach Control Services are provided by the controllers at Fargo Tower between the hours of 6am to 11pm from Monday through Friday and 7am to 10pm on Saturday and Sunday. Outside those hours radar services are provided by controllers at Minneapolis Air Route Traffic Control Center located in Farmington, Minnesota. Minneapolis Center provides those services using long-range radar. This is similar to the late night/early morning radar service provided by Minneapolis Center for traffic at Bismarck, Minot and Grand Forks Airports. The only difference is that Fargo Tower remains open while the others close during those late night/early morning periods.

Like the service provided by Fargo Approach, Minneapolis Center provides the approach control service for the area outside the Class D airspace (approximately a 5 mile radius from Fargo Airport). Prior to the aircraft reaching a point 5 miles from the airport, radar control is transferred from controllers at Minneapolis Center to the controller at Fargo Tower. Minneapolis Center's radar coverage is limited to approximately 2500 mean sea level (MSL) in the Fargo area. During those periods when radar services

are provided by Minneapolis Center, the controllers in Fargo Tower continue to monitor the radar screens in the tower (known as D-Brites).

The first priority of all air traffic controllers is to separate aircraft and issue safety alerts, known as safety services. Both Minneapolis Center and Fargo Tower provide safety services for the airspace for which they are responsible. The controllers at Fargo Tower do this for aircraft operating within or in close proximity to the Class D airspace, especially those at low altitudes. Although Minneapolis Center controllers may not see air traffic below 2500 MSL, controllers at Fargo Tower continue to scan the local area, visually looking out the tower windows and also monitoring the D-Brite for aircraft that may conflict with traffic inbound or outbound from Fargo. This includes monitoring for traffic that may illegally enter the Fargo Class D Airspace. This could include helicopters and agricultural aircraft. TRSA Service is not available during the periods that Minneapolis Center is providing Approach Control services

Jim Swenberger, the Fargo Air Traffic Manager stated the period that Minneapolis Center provides radar services is historically the slowest air traffic period of the day (late night/early morning operation). Specifically, controllers at Fargo control on average about 1.1 aircraft per hour during that period.



The Mandan Municipal Airport recently completed a 10 unit nested t-hangar, the third in 12 years.

A Pilot's Viewpoint of Nighttime Radar Operations at Fargo Air Traffic Control Tower

After reading the FAA's letter 'Nighttime Operations at Fargo Air Traffic Control Tower', it may be appropriate to view this subject from another perspective.

When Fargo Tower ceases approach control duties at night, Minneapolis Center assumes control of ALL Fargo airspace for IFR traffic. The center controller is responsible for separation of IFR/SVFR within that airspace. That includes the Class D airspace. Fargo Tower may talk to all aircraft within the Class D airspace; however, Fargo Tower is only really responsible for the 'runway separation' of aircraft using Hector Field.

Fargo Tower operates as a 'VFR Tower' at night using procedures originally intended/designed for use during a radar outage at Fargo. This of course means that there are no procedures in place for Fargo Tower to receive radar control of aircraft or act as a 'limited radar approach control' within 5 miles of the airport. Radar control is never transferred from Minneapolis Center to Fargo Tower.

Since Minneapolis Center's radar cannot provide radar coverage to the ground at Fargo the center controller is forced to employ non-radar techniques to provide IFR/ SVFR separation service to arriving and departing traffic. The controller at Fargo Tower can occasionally assist by using visual separation; however the approaching winter weather visibilities and ceilings will preclude the use of that tool. This means that any demand for use greater than one aircraft will cause delays of some sort to occur.

Currently there are no provisions in place for Fargo Tower to use their radar coverage to separate traffic. That is why there are no TRSA services when approach control is closed. Fargo Tower can 'see' traffic and issue traffic on their D-Brite display, but it is not used to provide separation of IFR/SVFR traffic. Minneapolis Center retains that responsibility. Traffic flow will be restricted when Minneapolis Center is using non-radar techniques and Fargo Tower is unable to use the D-Brite radar display to control IFR/SVFR traffic.

These changes in operations at Fargo Tower have possibly come from a shift in some staffing policies. Two controllers are now required to keep both the tower and approach control functions operational. If approach duties are dropped, Fargo Tower can staff one controller. Prior to these policy changes, one controller was able to work tower and approach control combined. Apparently, Fargo Tower prefers to reduce service rather than change policy or add staff to maintain service.

Really, these few paragraphs barely scratch the surface of this issue. I urge you to become involved so that a decision is made based upon what the users of the Fargo airspace want.

Mandan Airport and EAA Chapter 1008 hosted the "Flight of Discovery"



On August 20th and 21st the Mandan Airport and EAA Chapter 1008 hosted the "Flight of Discovery". The Flight of Discovery is a team of pilots and scientists who were flying the river corridors and overland routes of the Lewis and Clark expedition on its 200th anniversary.



Twenty of these modern day adventurers arrived in Mandan with five airplanes and two helicopters. While at the Mandan Airport they were treated to North Dakota hospitality with an elk steak picnic, visits to Ft. Lincoln and a meeting with area pilots.

The Flight of Discovery includes pilots, geologists, agronomists, botanists, ecologists and anthropologists. Corps members document and evaluate environmental changes along the route that have occurred over a 200-year period by employing scientific methods and procedures, with reference to the original documents from the 1804-1806 Lewis & Clark Corps

North Dakota Aviation Quarterly

12



of Discovery.

The purpose of the expedition is to connect people on and off the Trail with their history and their environment through the use of familiar and available technology. An aeronautical objective of the Expedition is to demonstrate the utility of general aviation aircraft and private pilots as effective tools for environmental assessment. Through contact and partnering with communities, elementary and secondary schools, flight clubs and aviation interests enroute, Corps members encourage public participation throughout this expedition of enlightenment.



PITTMAN AVIATION/CONSULTING

Consultant to the Industry Airports • Airspace • Education ATC/Pilot Rules • Management

DARREL PITTMAN

2805 Bernell Dr. Bismarck, ND 58503 701-255-6311 atcpn@bis.midco.net

"Referrals are the foundation of my business." Thank you for your confidence in me and my abilities!



Realtor® Cell 220-6311 or Office 223-6654 mpittman@century21morrison.com Century 21 Morrison Realty

201 W Front Avenue ~ Bismarck, ND

2006 is a Great Year to Buy or Sell, Call Me!

PIETSCH AIRCRAFT Restoration and Repair, Inc.

2216 North Broadway, Minot, ND 58703 Phone: 701-852-4092 * 701-852-4112 FAX: 701-852-5343

> Email: pietschaircraft@ndak.net *Inspections * Alterations * Overhauls *Ground up Restoration * Parts *Supplies * Chinook Preheaters *Flight Instruction * CFI, CFII, MEI *Lasergrade Testing Center

> > TRAVE

AIRCRAFT MANAGEMENT SERVICES

8523 Briardale Dr Bismarck, ND 58504

701-223-4754

Aircraft Management

Pilot Services

- Aircraft Brokering
 - Aviation Consulting
 - Flight Instruction
 - Pilot Certification
- Flight Department Management
- Aerial Photography
- Aircraft Maintenance

www.aircraftmanagementinc.com

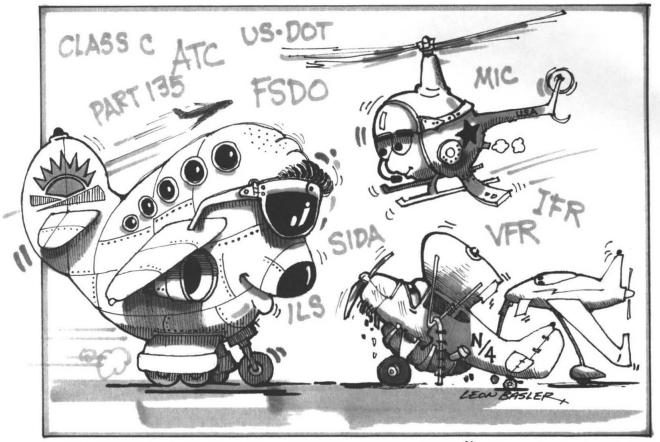


22 NORTH DAKOTA AVIATION QUARTERL

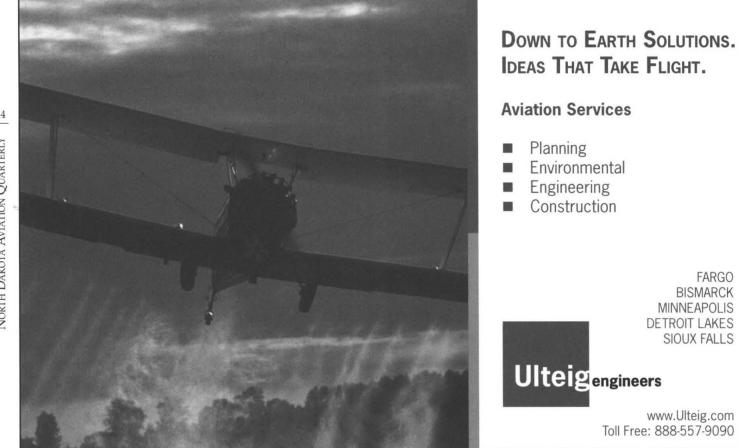
PROPELLERS & GOVERNORS • NDT Service • Overhaul • Sales

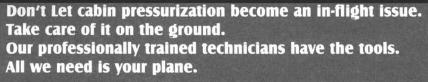


Toll Free: (800) 773-6853 & AOG info@canadianpropeller.com www.canadianpropeller.com 462 Brooklyn Street, Winnipeg, MB R3J 1M7 Contact: Maurice Wills, GM



LOOKS LIKE "ECONOMIC GROWTH" COM'IN OUR WAY!





For more information or to schedule an inspection today. call Vance @ 800-770-0538

www.fargojet.com



FAR

JET CENTER INC

www.waypointavionics.com

GARMIN

Now see for yourself what ATC has been trying to tell you.



Factory Trained Technicians New Sales and Installations



Complete Panel Re-configurations Factory Extended Warranties

Fargo CRS PS5D130N 800-770-0538



Members of Boy Scout Troop #241 worked hard all morning keeping everyone fed and happy during Casselton's annual "Planes on the Plains".

We're Taking Advertisina!

The Quarterly is now accepting advertising from its subscribers. Rates listed are for a minimum of 1 year (4 issues). Sorry, no classifieds! SIZE RATE 1/8 page 1/4 page 1/2 page Full page \$150.00 \$280.00 \$525.00

\$900.00

Send your photo or scanned ready copy to:

North Dakota Aviation Quarterly Advertising P.O. Box 5020 Bismarck, ND 58502 Make checks payable to: NDAC - Advertising

North Dakota Aviation Quarterly P.O. Box 5020 Bismarck, North Dakota 58502-5020

RETURN SERVICE REQUESTED

PRSRT STD U.S. POSTAGE PAID BISMARCK, ND PERMIT NO. 433