

Saturday, March 1, 2003 — Tuesday, March 4, 2003 **Grand Forks Regional Airport/UND Aerospace/Alerus Center**

Main Speakers



For This Years Powered Flight"

Darrel Collins "Wright Brothers Historian" Sunday Speaker March 2, 2003 12:20, Room 210, Clifford Hall



Dr. Bruce Smith Dean, UND/JDO School of Aerospace **Breakfast Speaker** Monday, March 3, 2003 7:30 am, Alerus Center



James Buchli "ND Astronaut" **Luncheon Keynote Address** Monday, March 3, 2003 Noon, Exhibit Hall

NDAVEROSPAGE

March 1st

1:00 pm - 3:00 pm **Grand Forks Airport UND Facility**

March 2nd

8:30 am - 10:50 am 2:00 pm - 4:30 pm UND/JDO School

Static Displays Facility Tours

Open to the Public

Hands-On Tours

Tour Features include: Altitude Chamber Arthur P. Anderson Atmospherium Regional Weather Information Center Flight Simulator Lab Air Traffic Control Lab AeroSpace Network Education Lab Computer-Based Instruction Lab

"THE History of Aviation IN FRONT of You"

Special State Unveiling of the

"Kitty Hawk COMMEMORATIVE STAMP"



Sunday, March 2nd, Clifford Hall, Room 210

EVENTS & SPEAKERS

Mechanics' IA Renewal **Awards Banquet ND Aviation Hall of Fame Inductions**

Airport Management Seminar

Pilot "Wings" Program **Wild Fire Control Program Vector Control Program Airworthiness Safety**



Winter, 2003 www.ndac.org

CHAIRMAN'S CORNER:

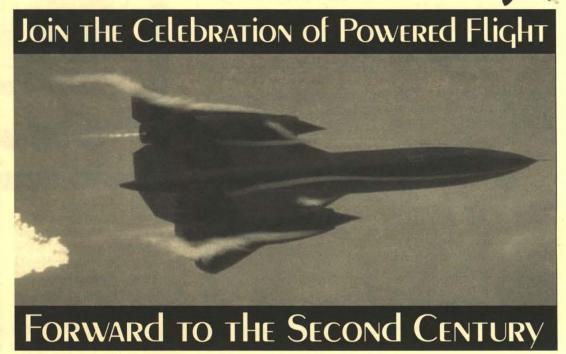
By Darrel Pittman

Well, here it is, Symposium time, again. When I look at the calendar I realize it's close, but it seems like we just closed the doors on last year's. Time just keeps slipping away.

The Council has put together a great event for you this year. You will see static aircraft displays, tour UND Aerospace pilot and ATC simulators, the weather department and the huge aircraft maintenance base. Plus, be entertained by two notable speakers, Historian Darrell Collins and North Dakota Astronaut James Buchli. Be sure to file your flight plan for Grand Forks, March 1-4 and join us for an enjoyable experience.

After this convention I'll be completing my fifth year on the Aviation Council. This includes two years as representative of the pilots (NDPA), two years as representative of the sport aviators (NDSAA), and this last year, as your Chairman. I've thoroughly enjoyed every minute of it. At times it's been frustrating, but the final outcome is extremely gratifying. My association with all of you has been some of the most enjoyable times I've ever experienced.

I tell people I meet that North Dakota is a well-kept secret. It has some of the fin-



est people I've ever met, most of them in aviation, of course. The openness of the land and sparse population reminds me of my youthful years in southwestern United States.

I call myself a transplanted North Dakotan, because my original home is Mesa, Arizona. That hometown is far too big for me now. When I left there after graduation (1953), it was about the size of Minot or just a little smaller (one high school). North Dakota is my home now and I love it here. Although, at times the winters make me question my sanity. I came to Bismarck, North Dakota in September of 1981 just after the PATCO strike (see "Paper Airplanes" for

the rest of the story). There were not very many controllers that didn't get fired. I was one of about 4000 controllers nationwide remaining to rebuild a struggling ATC system.

I left Bismarck in 1983 with a wife, and moved around in the FAA world until retirement in Minneapolis in 1990. In 1992 we returned to North Dakota (Grand Forks) to do some aviation consulting, mostly teaching. Marlette and I moved back to Bismarck in 1995.

I was still doing some consulting work when my current employer, Midwest ATC, contacted me, informing me that the FAA was contracting Minot tower to

them. They were inquiring if I wanted to go back to work; that was 1997. I'm still there doing what I love to do, talking to pilots and aviation people. I've got some of the best controllers around working for me. We invite you to fly into Minot and visit us; we'll put the coffee on.

I would be remiss if I didn't mention the other ATC facilities in North Dakota. I'll start with my home, Bismarck. In March of last year this facility was named the FAA Terminal Facility of the Year for 2001. It made me feel a proud kinship with them. Fargo, like

Continued on page 4

NDSAA

By Dave Hill

Wright Flyer

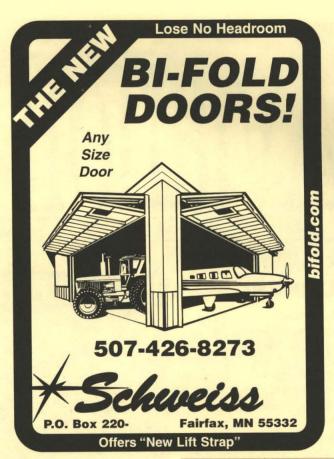
The Experimental Aircraft Association chapters in North Dakota are coordinating an ambitious project to build two Wright Flyers to commemorate the First Flight Centennial. The U.S. Centennial of Flight Commission (COFC) launched a yearlong celebration of the Wright brother's first powered flight at a special ceremony at the National Air and Space Museum (NASM) in Washington DC on December 17. With actor John Travolta, a 5000hour pilot, presiding as master of ceremonies, an all-star aviation line up including John Glenn, appeared against the backdrop of COFC's theme," "Centennial of Flight: Born of Dreams—Inspired by Freedom. The commission was created by Congress to expand national and international interest the centennial and to honor the 100th anniversary of Orville and Wilbur Wright's world-changing achievement and the century of flight related milestones that followed.

Our North Dakota Chapters are following the original plans used by the Wright Brothers to build the first airplane that flew in 1903. The airplanes will be assembled at the Air Museums in Fargo and Minot in time to celebrate the 100th anniversary of powered flight this December. NDSU manufacturing and technology students and the EAA in Detroit Lakes, MN, are assisting the Chapters. The aircraft will be exact replicas of the original plane except for wooden engines. The Smithsonian magazine is following the project and will publish a

story later this year. Many volunteers from around the state are building individual pieces in hangars and garages before they are transported to the two museums for final assembly and eventual display. A partially completed project aircraft will be on display at the 28th Annual Upper Midwest Aviation Symposium in Grand Forks March 1st through 4th.

Young Eagles

North Dakota EAA Chapters are working hard to reach a Young Eagles Program goal of flying 1 million Young Eagles by December 17, 2003. This national project is designed to give young people aged 8-17 their first airplane ride. The program is currently at 80% of the goal. A number of ND pilots have given first rides to over 2000 young people in North Dakota during the last few years. Young people from all over the country are now pilots thanks to this innovative program. More than 90% of the chapters have an active Young Eagle Program. The short flying season in ND puts a lot of pressure on pilots to take to the air when skies are clear and kids are out of school. EAA is reaching out to all pilots to continue flying as many Young Eagles this year to help us reach our goal. If you know children that are interested in airplanes and what makes them fly...point them in the right direction...point them to the EAA Air Academy Resident Youth Camp in Oshkosh this summer. Young Eagle pilots earn credits that we will donate to offset tuition costs. See our EAA pilots at fly-ins around the state this spring and ask them to assist your child with this great opportunity.



Chairman from page 3

Bismarck has a tower and radar approach control. It is the largest commercial terminal in the state. Grand Forks has the busiest tower in the state due to the tremendous UND flying program. Like us here in Minot, the radar approach control is located ten miles away at the Airbase. The Automated Flight Service Station is also located at Grand Forks. Both of the Grand Forks facilities have recently been given recognition by the FAA Great Lakes Region for an increase in the traffic workload. All of these facilities have great personnel dedicated to air traffic safety and North Dakota aviation. Give them a thank you now and then to let them know you appreciate the service.

Remember, the "Upper Midwest Aviation Symposium" in Grand Forks, March 1-4. See you there, and, don't forget to close your flight plan.

CLEARED TO LAND Darrel North Dakota Aviation Quarterly
Official Publication of the
North Dakota Aviation Council
Editor/Publisher:
Phone (701) 328-9650
North Dakota Aviation Council
Board Members 01/02

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Gary Ness ND Aero. Comm.
North Dakota Aviation Quarterly
Published January 15, April 15, July 15, October 15
Send Address Changes To:
North Dakota Aviation Quarterly
ndaero@state.nd.us
DO P 5020

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FROM THE DIRECTOR'S CHAIR

By Gary Ness, Director, ND Aeronautical Commission

2003 — The hundredth year in "A Century of Powered Flight." What does this mean to our society today? I can tell you what my Grandpa Ness said. "It made everything go fast, and we haven't slowed down since." He lived from the first flight of the airplane to the landing on the moon. Yes, with the invention of the airplane and the perfection of the assembly line by Mr. Ford, the world became a place of speed and we haven't slowed

The Upper Midwest Aviation Symposium is gathering this year at Grand Forks, where we will find the University of North Dakota, the home of the premier aviation educational program in the WORLD, the John D. Odegard School of Aerospace Science. This Symposium will give the North Dakota aviation industry a first-time-ever, hands-on formal look of the UND aviation program, plus the opportunity to enjoy a close encounter with the program. In another section of this publication you will find the information related to this year's visit to the UND/JDO School. Look this over and make sure that you don't miss this great opportunity to see the best educational "stuff" in the world. Air Traffic Control, Tower Operations, Flight Operations, Flight Simulators, ATC Enroute Air Traffic Control, Weather Forecasting and the funniest of them all the ATMOSPHERIUM.

Also look for the SYMPO-SIUM schedule in this edition of the "Ouarterly."

This is a call for all of North Dakota Aviation to join together at Grand Forks to Welcome "The Second Century of Flight." (I promise, you will have fun).



This year we will find insight and answers to reauthorization of FAA funding challenges and questions.

- The Son/Daughter of Air21 (for the lack of a better term).
- What funding levels will be available to help maintain a strong infrastructure?
- Will air traffic control be privatized?
- What about security and terrorism restrictions and requirements?

The creation of the Homeland Security Department will have the most direct impact on aviation. This new department is the largest in federal government since creation of the Defense Department. You also can say it is the biggest employment program by the government since WPA days. What the general aviation impacts will be have not been felt yet. Stay tuned. There should be concern and all have to be aware. There is a lack of aviation knowledge at this time in Homeland Security. Please make a new year's wish that the shortfall in knowledge is taken care of before we have another terrorist-type problem somewhere in the coun-

The Aerial Applicator Safety/Security meeting, at this years Symposium, will focus on local issues that may affect the operator with vector control and wild fire con-

trol. Both programs should give everyone the insight to make both efforts work well.

Joel Guttensohn, TSA-Federal Security Director, West Dakota, a Turtle Lake native, will participate this year and give us a new look at the federal security side.

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A TRIBUTE to the FORGOTTEN MECHANIC

Author Unknown

Through the history of world aviation many names have come to the fore....

Great deeds of the past in our memory will last, as they're joined by more and more....

When man first started his labor in his quest to conquer the sky, he was designer, mechanic, and pilot and he built a machine that would fly....

But somehow the order got twisted, and then in the public's eyes the only man that could be seen was he, who knew how to fly....

The pilot was everyone's hero, he was brave, he was bold, and he was grand, as he stood by his battered old biplane with his goggles and helmet in hand....

To be sure, these pilots all learned it; to fly you have to have guts....

And they blazed their names in the hall of fame on wings with bailing wire struts....

But, for each of these flying heroes, there were thousands of little renown, and these were the men who worked on the planes but kept their feet on the ground....

We all know the name of Lindbergh, and we've read of his flight to fame....

But, think if you can, of his maintenance man, can you remember his name?

And think of our wartime heroes, Foss, Yager and Scott.... Can you tell me the names of their crew chiefs?

A thousand to one you can not

Now pilots are highly trained people, and wings are easily won....

But without the work of the maintenance man, our pilots won't march with a gun

So, when you see mighty aircraft, as they mark their way through the air, the grease-stained man with the wrench in his hand is the one who put it there

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And so, here I am with my sheet of paper again. After I make the first fold the question of just how does a person with no connections to aviation end up in this flight pattern arises.

It happened on New Year's Eve, 1981.

By the time you get through the Christmas and the after-Christmas rush, working in a retail store, you can become a bit of a Scrooge (before the dreams). That was exactly how I felt. I had finished the day, had a drink with my co-workers, and wanted nothing else from New Year's Eve except to go home, curl up by the fireplace and rest.

I don't always get my way. My part-time job was to help one of my neighbors when her truck-driving husband was out of town and it turns out he was gone. So she calls, could I pick up a few groceries and come over for the night?

It was snowing, it was blowing, and it was cold. (This was when we had *real* winters in North Dakota). Here I am at the Super Valu with a cartful of groceries waiting in the longest checkout line of the season! Yep, I was pretty grumpy. I turned to the guy in the red parka behind me in line and complained, for about ten minutes.

He had just got back to town and was shopping for the party he was giving for his crew. Despite my bad attitude we ended up exchanging names and he handed me his business card (I still have it). I went out and got my old Jeep Waggoneer going, and pulled out of the parking lot. At the front door of the store I spot the guy in the red

parka. He is standing in the light with the snow swirling around him as if to say, "Where'd she go?" We both went on to our respective parties.

I didn't hear from him so I called my Mom for advice. She says, "things have changed, you can call him," and so I did. Darrel seemed a little surprised to hear from me, he said he was on his way to work and he would call me back in a few hours. This is Sunday afternoon about 4 pm. I didn't know anyone who had to go to work at that time so I figured I'd got the brush-off. (Note to myself, remember not to be so grumpy-you might want to talk to that person again.)

Darrel did call back. The view of Bismarck-Mandan from the control tower is a pretty sight. The only better way to see the area at night is from a small plane. We ended up getting married and spending a lot of time around airplanes, air traffic control towers, and en-route centers and living in ten different states. We always celebrate New Year's Eve together. And yes, my Mom is still taking part of the credit for how well everything turned out!

Thus began my association with aviation. And so, I now send this paper airplane zooming straight to you.

P.S. In the last Quarterly I should have told you that if you want to know more about the radar bases or to look up information on other sites there is now a website. http://www.radomes.org I can be reached by e-mail at mpittman@century21morrison.com

Happy Landings! Marlette Pittman

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Post-Flight Inspection

By Clinton Lowe, NDPAMA Member

It's been the weekend from hell. The guest room bed had a spring aimed right at your spine, your mother-in-law fondly reminisced about your wife's former boyfriends, and you again discover your father-in-law doesn't share your political or religious views. Relief is at hand, however, as you begin your preflight. You reach over to flick on the master switch and your heart sinks. It's already on and has been since Friday. Across the ramp you see the in-laws eyeing you suspiciously as they embrace their daughter and grandchildren. It's going to be a long walk back to where they're standing; the disappointment will be mutual.

All through our flight training, we spend a lot of time on pre-flight inspections. A post-flight inspection, however, is little more than filling out the time sheet and un-plugging the headsets. By taking a few minutes after a flight to look over your aircraft, you'll be doing a lot to help avoid inconvenient and potentially dangerous situations from occurring in

the future.

A post-flight inspection is especially useful because it is accomplished during and immediately after the equipment is operated. Fresh evidence of a fuel or oil leak, for instance, is far more likely to be noticed while it is still dripping from operation than it will be on a pre-flight conducted hours or days after the plane is flown. Since most aircraft manufacturers don't publish much of a post-operation checklist, a pilot would do well to put together one of his/her own for each aircraft he/she flies. The post-flight doesn't have to be as thorough as a preflight (though it would be nice), but it should hit on some high points. Following are some suggested procedures and/or items to look for (please remember approved checklists from the manufacturer take precedence over these suggestions if they direct otherwise).

Prior to Shutdown

Engine operation.

1) Turbocharger cooling. If the engine is turbo-equipped, it is essential the turbo(s) be allowed to cool prior to pulling the mixture(s). This is usually accomplished by idling for five minutes (including taxi time) to let the oil carry away the heat of operation. If not allowed to cool, oil trapped around the compressor drive shaft can get cooked by excessive heat and become baked into a substance known as "coke." This coke will bake onto components, reducing clearances and oil flow. In addition, this coke can flake off, causing additional clogging of oil passages, further reducing oil flow. Without going in-depth, turbo cooling greatly improves the life of the component.

2) Avionics. Shut down the avionics and other electrical equipment prior to engine shutdown, either by individual components or a separate avionics bus switch. This prevents un-regulated voltages from hitting your sensitive electrical components. This does *not* include the master switch; you want a line open to the battery so it can absorb any of those stray voltages as the engine slows to a stop.

3) Engine idle operation. Just prior to pulling the mixtures, spend a few seconds listening to the engine. Any roughness or unusual noises should be noted. Periodically (not every time, but every ten-or-twenty hours), move the magneto switch from "both" to "left," back to" "both," then to" "right" and listen for the mag drop. Then turn the mag switch to "off" to ensure the "Both Off" position is working properly (don't forget to pull the mixture out after shutting down

the engine). In this way you can determine the mag switch is properly grounding out the mags (shutting them off) in all positions, not just the "left" and "right." If the mag switch check isn't due, pull the mixture *slowly* to cut-off, watching for a slight rise in RPM just before the engine dies.

As the engine is winding down, listen for any unusual noises. One that may indicate a burned or otherwise damaged valve is a faint "shush-shush" (for want of a better way to describe it) sound as the engine rotates through its last couple of

revolutions.

After Shutdown

After the prop stops turning, listen momentarily to the sounds of the gyros spinning down. The whine of the slowing gyros should be smooth; rattling or grinding sounds may indicate impending failure. While listening, you can go through the post-shutdown checklist for your aircraft, if there is one.

After dismounting, a few checks of the aircraft exterior will go a long way in avoiding surprises on the next pre-

flight.

1) Look underneath the belly. A quick glance under the belly and other surfaces of the plane will quickly show of an oil or fuel leak. If something is found, it's easier now to trace it back to

its origin than it will be three days from now.

2) Check the exhaust stacks. The stacks should be a gray or tan chalky color. Black, sooty exhaust pipes are evidence of over-rich operation and any kinds of oil spotting in there could spell big problems soon...particularly if the aircraft is turbocharged.

3) Glance at the landing gear. Especially if you have oleo struts, now is the time to find out if they've deflated on the last landing. This is particularly important when you have flown between temperature extremes. While you're there, take a quick look at the tires to see if you cut them on something taxiing in.

4) Check the engine oil. Yeah, it's hot but nothing a rag or glove won't handle. If you've got an oil consumption problem, it's better to discover it now than when you do the next pre-flight and start wondering where the oil

went.

A post-flight inspection of the aircraft makes a lot of sense, it's up to the owner/operator to determine how thorough he/she would like to make it. It seems rather counter-productive to discover problems with an airplane just before you fly it; weekends and early mornings are difficult times to find a mechanic. Developing a habit of doing a post-flight may reduce embarrassing surprises.



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N.D.P.A.M.A.

By Dan Kasowski

Have you ever heard the expression, "Change is good" or "Change is progress"? Well, this year, we're going to put the "change" theory to the test!!

Hopefully, most of you have heard that this year's Upper Midwest Aviation Symposium will be held in Grand Forks, N.D. on March 1st, 2nd, 3rd and 4th at the Alerus Convention Center and the University of North Dakota. We are celebrating "100 Years of Powered Flight," and your NDAC wants to make it special.

For those technicians attending the symposium to renew your Inspection Authorization certificate, we have you covered. But keep in mind this year's format is going to be a little different; to renew your IA, you will have to attend the symposium on Saturday and Monday.

Our entire lineup of speakers consists of FAA representatives. That's right folks, no industry speakers, just 10.5 hours of FAA speakers! Are you excited yet? I know you're thinking, "My God what are they doing to us!" Well, we think we have a program that will not only be educational, but maybe even a little fun!

If you plan on attending to renew your IA, make plans to be at Streibel Hall (Room 103) on the University of North Dakota Campus on Saturday March 1st at 10:00 a.m. (Room 103 is a computer lab at UND). Our Fargo FAA office is putting on a 2 hour class on how to surf the FAA website. After lunch at the Alerus Convention Center, we are going

to have Rusty Jones speaking. Rusty is the FAA National Resources Specialist for NDI and has prepared a great presentation. Following Rusty's presentation, we will hold our annual PAMA meeting.

On Monday, we are privileged to have Bill O'Brian, the FAA National Resource Specialist for General Aviation, lecturing for 6.5 hrs. When Bill was asked for a profile for our newsletter and our symposium letter, his response was, "All I want, is to be known as an Irishman from Washington"! For those of you who have heard Bill O'Brian in the past, I'm sure you are looking forward to hearing him again. For those of you who have never had the privilege of hearing one of his lectures, don't miss this opportunity. It will be an experience you will enjoy (even if he is speaking on regulations). Bill O'Brian speaks at hundreds of gatherings throughout the year and must be scheduled at least a year in advance. Hopefully, everyone can attend. I would like to thank our local FAA for helping us persuade Bill O'Brian to come to Grand Forks in March. Following Bill O'Brian's presentation, we will have our final PAMA Business meeting.

"North Dakota Aviation Technician of the Year Award!" Each year we struggle to get three or four applications! North Dakota may not have an abundance of aircraft technicians, but I know we have more than two or three technicians that qualify for this award. I realize it's hard to sometimes find the time to sit down and

complete the application, and after all, we are Aircraft Technicians and we all hate paperwork! Right? Well let's not be so lazy, it's really not that difficult of a task! I encourage everyone to fill out an application and mail it to David Teets, 507 Park Drive, Manvel, N.D. 58256 or get it to one of the PAMA council members before 3:00 p.m. Sunday, March 2nd. Thanks in advance for all those who take the time to complete an application..

I am very excited about this year's line-up of activities. I may seem a little biased since I do work for UND Aerospace, but I really think everyone will enjoy the tours of UND Aerospace. Now that I have you all really excited about this year's symposium, I look forward to seeing you in Grand Forks. Go Sioux....



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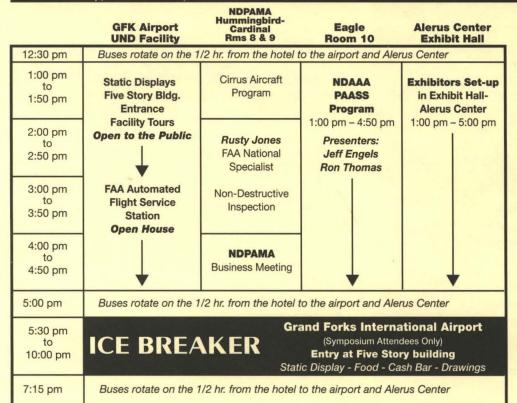
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Registration

8:30 am - 5:00 pm, Alerus Lobby

Exhibitor Setup

8:00 am - 5:00 pm, Alerus Center

Static Displays

1:00 pm - 5:00 pm - Open to Public

Display aircraft arrival

8:00 am - 11:00 am

*NDPAMA will start program at

10:00 am - 12:00 pm Streibel Hall-Room, 103-Computer lab (Odegard Hall's south end)

ND Aeronautics Commission -

Aerial Applicator Safety/Security Meeting 10:00 am - 12:00 pm, Eagle Room 10

ND Aviation Council Meeting

TBA - Five Story Building, Third Floor Conference Room

Sunday, March 2, 2003

Upper Midwest Aviation Symposium - march 1-4, 2003

	GFK Airport UND Facility	University of North Dakota John D. Odegard School	Alerus Center Exhibit Hall
8:00 AM	Buses leave hotels to	UND/JDO campus	
8:30 am to 10:50 am	Static Displays Five Story Bldg. Entrance	Hands-on Tours at UND/JDO Campus Odegard Hall, Clifford Hall, Ryan Hall 8:30 am to 10:50 am	Exhibitors Set-up in Exhibit Hall
11:00 am to 12:00 pm	Static Aircraft Display Departure	Lunch Rural Technology Center 11:00 am to 12:00 pm	
12:20 pm to 1:45 pm		"The First Day of Powered Flight" Darrel Collins, National park System Wright Bros. Memorial Park Ranger Clifford Hall - Rm 210, 12:20 pm to 1:45 pm Drawing to be held. Stamp Unveiling*	
2:00 pm to 4:30 pm	+	Hands-on Tours at UND/JDO Campus Odegard Hall, Clifford Hall, Ryan Hall 2:00 pm to 4:30 pm	Exhibitors Meeting Exhibit Hall 4:30 pm
4:30 pm	Buses return to hotel	s 4:30 pm to 5:00 pm	
5:15 pm	Buses depart to Alert	us Center from hotels and UND - 5:15 pm t	o 7:30 pm
5:30 pm to 10:30 pm	EXHIBIT NIGH	Fowered Flight C	elebration" m to 10:30 pm
10:00 pm	Buses depart to hote	els - 10:00 pm to 11:00 pm	

Continental Breakfasts at Hotels

7:00 am - 8:30 am, Alerus Lobby

Registration

8:00 am - 8:00 pm, Alerus Lobby

*Stamp Unveiling

Special State Unveiling of Kitty Hawk Commemorative stamp



Saturday and Sunday Schedule for Upper Midwest Aviation Symposium









ohn D. Odegard was the founder and the late Dean of the John D. Odegard School of Aerospace Sciences at the University of North Dakota (UND). He was also the President of the Aerospace Foundation (UNDAF), a public non-profit corporation that serves as a link between industry and the John D. Odegard School of Aerospace Sciences. Today, UND Aerospace is an international leader in collegiate and contract aviation education and training services with over 120 aircraft flying over 115,000 training hours. Its flight training centers are located in Honolulu, Hawaii with Honolulu Community College; Spokane, Washington with Spokane Falls Community College; Phoenix, Arizona in conjunction with Chandler-Gilbert Community College; Williston, North Dakota with Williston State College; and Crookston, Minnesota with the University of Minnesota, in addition to its home-base in Grand Forks, North Dakota.

Today, with more than 2,200 students from throughout the world, the John D. Odegard School of Aerospace Sciences is the second largest degree-granting college at the University of North Dakota and is one of the nation's most widely-respected aerospace education programs. Undergraduate and graduate programs leading to a variety of rewarding careers in aerospace are offered through four different academic departments: aviation, atmospheric sciences, computer science and space studies. The Odegard School offers excellent opportunities to students by awarding over 300 internships/co-ops and 90 scholarships annually and establishing employment/hiring agreements with regional airlines.







Hands-on Tours at UND/JDO

March 2, 2003, 8:30 am to 10:50 am and 2:00 pm to 4:30 pm

Touring features in Odegard Hall include the altitude chamber, the Arthur P. Anderson Atmospherium, and the Regional Weather Information Center.

Altitude Chamber: A tour of the Altitude Chamber allows the viewers to see where pilots experience the effects of hypoxia in a safe, controlled environment and to see the Vertigon spatial disorientation trainer in use.

Arthur P. Anderson Atmospherium: Two shows are available for visiting tour groups: Digistar (15 minutes) and Galaxies (45 minutes).

Regional Weather Information Center: This facility permits students pursuing degrees in Atmospheric Sciences an opportunity to participate in both operational and research aspects of contemporary meteorology through the use of high-tech equipment and specialized software programs.

Flight Simulator Lab: View the flight simulators used in UND's aviation programs. Simulator flights are an important part of pilot training, see the equipment used by student pilots. Air Traffic Control Lab: Step up to the scope in the ATC lab and look at the sky from a controller's point of view. See student Air Traffic Controllers learning the trade.

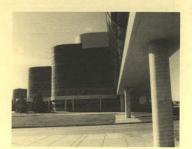
AeroSpace Network Distance Education Center: View our extensive video production unit which provides services for commercial and educational purposes, including the production of a series of videos for public TV. See the interactive broadcast classroom where live and canned classes are put on the Internet. ASN also develops educational applications for

These studios broadcast aviation classes from UND to classrooms across the nation, via satellite. See the interactive broadcast classroom and the broadcast control and production stu-

Computer Based Instruction Lab: Computer workstations test your knowledge of aircraft systems and flight proficiency under instrument conditions.







Monday Morning, March 3, 2003 *Continental Breakfasts: 6:45 am - 8:30 am, at Exhibit Hall - Alerus Center 7:30 am - Speaker:Dr. Bruce Smith, Dean, UND/JDO School of Aerospace

	Morning Dove Room 1	Pheasant Room 3	Hawk Room 5	Hummingbird- Cardinal Rooms 8 & 9	Eagle Room 10	
	NDAA	NDAAA	AAND	NDPAMA	NDPA	Registration
7:30 am	Buses leave hotels t	for Alerus - 6:30 am to	8:00 am*			8:00 am - 5:00 pm, Alerus Lobby
8:00 am to 8:50 am	Peter Shouldis Airwothiness Safety Part 135 Maintenance Safety	NDAAA Annual Business Meeting	Paul Meyers Jeff Kohlman Avt Management Consulting Group Airport Management	Bill O'Brian FAA General Aviation Specialist "An Irishman from DC"	Pietsch Aircraft Aircraft Restoration	Spouse Program 9:45 am - 3:00 pm Alerus Center Rm NDSU Pesticide Recertification
9:00 am to 9:50 am	FAA Regional Legal? "What to Do" and "What Not to Do"		Developing & Implementing Minimum Standards	General Aviation Maintenance FARs	Ceceilia Hunziker - FAA Regional Administrator Great Lakes Region Regional Update	Registration 8:30 am - 10:00 am Pheasant Room Alerus Center Exhibit Hall
10:00 am to 10:50 am		Andrew Thortenson National/State Pesticide Issues	Establishing Rules & Regulations at Your Airport	FAA Regulation Maintenance	Joe Morgan GFK - AFSS Runway Incursion Report	Exhibitors Area Open 10:00 am – 12:00 pm
11:00 am to 11:50 am	Ceceilia Hunziker - FAA Regional Administrator Great Lakes Region Regional Update	Jerry Thompson Ag. Enforecement Issues 2002 Complaints	Establishing Policies for Rates/Charges	FAR 145 Repair Station Changes	ND Air National Guard Special Use Airspace	

	Morning Dove Room 1	Pheasant Room 3	Hawk Room 5	Cardinal Rooms 8 & 9	Eagle Room 10	Alerus Center Exhibit Hall
	NDAA	NDAAA	AAND	NDPAMA	NDPA	
12:00 pm to 1:50 pm	LUNCHI	EON ^{Jan}	nes Buchli, Ko North Dakota	eynote Speaker Astronaut	12:00 pm	all -1:50 pm to be held
2:00 pm to 2:50 pm	NDAA Business Meeting	Andrew Thortenson Respecting Pesticide Lable	Annual Business Meeting 2:00 pm - 2:30 pm	<i>Bill O'Brian</i> FAR Part 145	Todd Schwarz ND Sports Aviation Rondtable	Exhibitors Area Open 2:00 pm - 3:00 pm
3:00 pm to 3:50 pm	FAA Regional Legal? (second session) "What to Do" and "What Not to Do"	Vern Hoffman, NDSU Airport Security Agdrift 2.0 software	2:35 - Strategic Business Planning For Airports	Form 337 - Major Repair/Alteration	Dr. Warren Jensen Aerospace Medicine/Human Factors	
4:00 pm to 4:50 pm	Pete Shouldis Airworthiness Safety Part 91-Rules/Regs Aircraft maintenance	2003 New Product Rich Zollinger Phil Giogoza Carl Bradley	Public and Community Relations	NDPAMA Business Meeting	Tech Program	
4:30 pm	Buses depart hotels	for Alerus Center to H	otels - 4:30 pm to 5:45	pm		
5:00 pm to 5:50 pm	*	North	5:00 pm t	ncil Organizational M to 5:30 pm ove - Room 1	leeting	
6:00 pm	Buses depart hotels	for Alerus Center - 6:0	00 pm to 7:30 pm			

Hummingbird-

13
NORTH
DAKOTA AVIATION
QUARTERLY

6:00 pm	Buses depart hotels for Alerus - 6:00 pm to 7:30 pm
6:30 pm to 9:30 pm	Social Hour Exhibit Hall -6:30 pm to 7:30 pm Awards Banquet "First Flight" Exhibit Hall - Banquet Area - 7:30 pm 2 NW Airline Ticket Giveaway Drawing in Exhibit Hall after Banquet (must be present to win) Exhibit Hall Open 6:00 pm - 7:30 pm
9:30 pm	Buses depart Alerus to hotels - 9:30 pm to 11:30 pm
9:30 pm to 11:00 pm	Exhibit Hall Open 9:30 pm - 11:00 pm

		AAND
7:30 am	Buses depart hotels for Alerus -	6:00 pm to 7:30 pm
8:30 am to 8:50 am		John Vold FAA FSDO Airshow Planning
9:00 am to 9:50 am	Aviation Careers Day Local and surrounding area elementary school students Kim Kenville	Ceceilia Hunziker Regional Administrator Regional Update
10:00 am to 10:50 am	Ryan Hall UND/JDO School of Aerospace	Federal/State Programs Mark Holzer, NDAC Steve Obenauer, FAA Tom Schauer, FAA Brian Schuck, FAA
11:00 am	Buses rotate from Alerus to hotels eve	ry 1/2 hour until 12:30 pm

Sex is a Factor in Crashes

By Wayne York, Flying Safety Coordinator New Mexico Department of Aviation

Hold on now; don't get the wrong idea on where I'm going with this article please just read on.

Not too long ago, while reading my copy of FLYING magazine, I came upon this very interesting article by Annmarie Yannaco discussing gender and general aviation accidents. The study conducted by the Johns Hopkins University Bloomberg School of Public Health indicates that gender may play a role in the most common types of general aviation accidents. Researchers concluded that mishandling the aircraft, poor decision-making and inattention are the most common pilot errors and speculate that gender plays a role in the likelihood of a pilot making one of these errors.

"Characteristics of General Aviation Crashes Involving Mature Male and Female Pilots," a study to determine the effect of gender on pilot error, included pilots between ages 40 and 63. Researchers used NTSB data from 1983 through 1997 and compared 144 crashes categorizing the types of accidents without knowledge of the pilot's gender. All pilots held the same class of medical certificate and type of pilot certificate and were of similar ages. Most pilots in this sample were private pilots, with similar percentages of males and females possessing and instrument rating. The female pilots had an average of 298 hours: male pilots had an average of 528 hours in the air. Researchers adjusted for this difference and concluded that the pattern of errors was not related to male pilots having more time in the air.

I know, enough already — What's the bottom line??

Well, the study found that female pilots were more likely to crash because of misuse or insufficient use of rudder, improper flare, poor response to bounce - mistakes that do not usually result in serious injury. But female pilots, the study found, were also more prone to fail to recover from a stall, a mistake that is often fatal. Aircraft mishandling was a factor in 81 percent of the crashes female pilots and 48 percent of the male pilot's crashes.

Male pilots were more likely than their female counterparts to crash because of flawed decision-making or inattention; a tendency the authors suggested may be related to carelessness and a willingness to take unnecessary risks. Male pilots were more likely, but not by much to crash because of misjudging visibility and weather,

flying and aircraft with a known defect, flying low, conducting a poor preflight, and failing to see and avoid other traffic - crashes that frequently involve serious injury or death. Poor decisions were a factor in 29 percent of male pilots' crashes and 19 percent of female pilots'; the figures for inattention are similar (a factor in 32 percent of males' crashes and 19 percent of females', According to the study, as male pilots age, they are likely to crash because of poor decision-making. The authors conclude that training for all pilots should reflect an increased emphasis on proper aircraft handling and decision-making. Good advice for all of us: know how to handle that airplane you fly, make decisions based on your own and your aircraft's limitations, and pay attention advice that will benefit both male and female pilots.

Proposed FAA 2003 Airport Construction Prepared by: Mark J. Holzer **Program Is Overwhelming**

ND Aeronautics Commission

The North Dakota Aeronautics Commission received notice from the Bismarck FAA Airports District Office in May to submit plans for \$8.5 million of proposed general aviation and commercial airport projects. However, Congress will need to fund \$3.2 billion nationwide for this program to be awarded. The following is a list of federal funds targeted for CY2003 construction:

Airport	Local Entitlement	Apportionment
Jamestown	\$150,000	\$22,000
Williston	150,000	
Devils Lake	150,000	227,000
Dickinson	150,000	35,000
Kindred	150,000	
Cando	150,000	
Lakota	150,000	
Edgeley	100,057	
Glen Ullin	150,000	
Washburn	150,000	
Bowman	150,000	
Wahpeton	150,000	800,000
Valley City	150,000	
Beach	150,000	1,108,000
Watford City	93,704	MANUFACTURE OF THE PARTY OF THE
Rugby	150,000	
Bottineau	93,333	
Crosby	83,482	
Casselton	150,000	
Mandan	150,000	
Mohall	60,939	
Mott	100,000	
Hettinger	150,000	207,000
Oakes	150,000	
State 5010	-	32,000
State MP	*	
State PCI		
Carrington	150,000	
Langdon	143,333	360,000
New Town	-	
State Av-Impact		
State System Plan Update	-	
Gwinner	57,778	
Hazen	42,222	
Grafton	127,778	
Pembina	31,111	
Rolla	38,889	
Tioga	41,111	
Cavalier	113,333	
Cooperstown	150,000	400,000
Ellendale	30,000	
Ft. Yates	150,000	
Garrison	40,000	
Harvey	31,111	
Hillsboro	56,667	
LaMoure	54,444	
Linton	150,000	
Northwood	96,667	
Park River	50,000	
Stanley	40,000	
Walhalla	63,333	
Dunseith – IPG	150,000	
	150,000	AND DESCRIPTION OF THE PERSON
Parshall	130,000	

With projections of these funding levels, airports above need to budget their local finances of the 10% share. Projects planned are runway overlays, rejuvenating seals, automated weather systems, snow removal equipment and related storage buildings. Airports are allowed by FAA to carry over entitlements to the next year to fund a larger project. These additional funds will allow airports to modernize, improve safety, acquire land and develop RNAV approaches. This program is expected to be an overwhelming success in North Dakota in insuring our 92 communities a safe and secure airport.



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NDAAA News

By Joel Hashbarger

The 2003 "Upper Midwest Aviation Symposium" has the makings of being one of the BEST EVER. It will be a departure from previous Symposiums in that activities will take place at three different locations instead of in one large hotel. Buses will be utilized to move the convention-goers to and from the various activities. A Static Display and Ice Breaker Social will be held at the UND Aviation Operation Center at the Grand Forks Airport. The" "HANDS-ON" tours, lunch and guest speaker Darrel Collins will be held at UND's Aerospace School on campus. The Alerus Center Convention Hall will be the focal point and location of the Exhibitor Displays, Association classes and meeting/programs, NDSU Pesticide Certification and the Key Note address by James Buchli. The Awards and Hall of Fame Banquet will be held at the Alerus too.

Aerial Applicators please note that the Aeronautics Commission's required Safety Program for 2003 (Administrative Rule 6-02-02-04.1) will be Saturday, 10:00am, at the Alerus Center. You may recall the Safety Program attendance requirement for Operators/Chief Pilots began last year. This will be followed by lunch and the NDAAA PAASS Program at 1:00pm.

At the 2002 "UMAS" held in Bismarck, there were a total of two hundred eighty-six people registered of which a full third (95) were with NDAAA. One has to go back to 1994 (98) to find a better showing from our members. Thank you for participating and helping make last year's Symposium a success. We invite you to come to Grand Forks in March. Education, entertainment, socializing and a view of what our State and UND has to offer the aviation world.

For more information about the Symposium and hotel accommodations for 2003, look to the UMAS web site http://207.243.70.208/index.htm

SEE YOU IN MARCH!





From Your AFSS

by Joe Morgan, Air Traffic Manager

Have you ever speculated on what someone looks like, just from the sound of their voice? Well, that is one reason the folks here at the flight service station are looking forward to this year's symposium. You see, talking to North Dakota pilots every day makes you curious as to what they look like. With the Symposium in Grand Forks this year, we would like to cordially invite you to stop by your AFSS. We want to encourage everyone to come in and look around while you're here, have a cup of coffee and most importantly, meet the people you talk to every day.

On Saturday, March 1 and Sunday, March 2, we will open the facility to everyone for tours. Our routine required security procedures will be adjusted for this occasion, so just say you are here for the Symposium. We are looking forward to an exceptional gathering this "Centennial of Flight" year. On Monday, March 3, we will be spending time with the NDPA. Our intention is to bring together the air traffic facilities in North Dakota so that you can ask any of those unresolved questions on your mind. Additionally, there will be information on all post 9-11 NOTAMS, Temporary Flight Restrictions, procedures and security issues. Please take this opportunity and join us for these sessions. We look forward to seeing you!



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NDAAM

By Don Larson

As many of you are aware, back in 2001 the Dakota Territory Air Museum and the Fargo Air Museum decided to jointly sponsor the building of two full scale Wright Flyers in commemoration of 100 years of flight. It was suggested that numerous EAA chapters in North & South Dakota and Minnesota be assigned various components and they would build two of each. Thus, ending up with two Flyers.

Many of you remember seeing some of the completed components that were displayed at the 2002 Symposium.

There is now much more that has been completed and will be displayed this year. The result of this effort will be two full scale Wright Flyer replicas on display at each of the museums in celebration of 100 years of flight. On behalf of those of us directly involved with the museums, I want to express appreciation to the many EAA members who have taken part in this huge undertaking. Without your efforts the project probably would not have happened. It will be a GREAT DAY see the two Flyers assembled and on display.

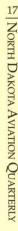
I realize that many of us directly involved with the museums are also EAA members and many EAA members are also members of the museums, which makes this project a real joint effort. So, plan to attend the symposium and see the nearly completed project on

display.

On another note, If any of you have or know of memorabilia of aviation history in our area or memorabilia of anyone who served in the military, I know either of the museums would be more than happy to display it for others to see and give the appropriate credit to whomever it belongs. There has been a lot of memorabilia surfacing the past 10 years since the museums have provided a place to display it. Many very interesting items have surfaced.

Hope to see your at the Symposium in Grand Forks to help us celebrate THE 100 YEARS OF POWERED FLIGHT.

Book Your Hotel Rooms NOW! See Back Page for Details









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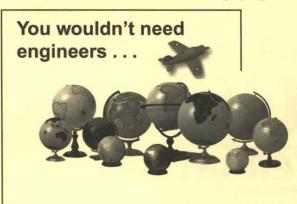
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2003 Calendar of Events

Fly-IN Breakfast

June 14, 2003 Golden Lake Resort Hatton, ND 8:00 am-1:30 pm Contact:

> Steve Gylten (701) 543-4136 (701) 430-0454

Ground Radio Feq. 122.9 goldenlakeresort@yahoo.com

Open House

June 22, 2003 Grand Forks Airforce Base

Turtle Lake Fly-IN Sept 21, 2003

Book Your Hotel Rooms NOW! See Back Page for Details

NDPA, Pilots Aviate at Hillsboro

Is your local airport really a public airport?

Some of the ideas local Hillsboro aviators are using are as follows: For the past several years the local Hillsboro pilots have provided aviation workshops for area 6th graders held at the host schools of Central Valley, Hillsboro and Norman County West Schools. The classroom workshop focused on the history of aviation, how airplanes fly, and visual presentations using radio controlled aircraft for demonstration. In May, the students are provided a free airplane ride to introduce them to world of flight as a conclusion to the aviation education program. The Hillsboro Airport hosts the flying event for the students in conjunction with the local EAA Chapter 317 members who donate their time and aircraft.

You might ask why 6th Graders?

With over a 3 million-dollar public investment in the Hillsboro Airport, the future of the airport lies with the youth of the local area. To stimulate the future of the airport we need to get youth involved in aviation. With the introductory flights, the local airport has all young people looking towards the clouds and dreaming of flight.

To learn more about the Hillsboro Airport, go to our web site at www.rrv.net/airport

Spouse Program

Upper Midwest Aviation Symposium Monday, March 3rd (Free to registered spouses)

9:45 a.m. Catch the free bus at the Alerus Center

10:00 a.m. Shop downtown Grand Forks

"Antiques & Boutiques"

12:00 p.m. Lunch together at the Blue Moose in

E. Grand Forks (Dutch treat)

1:30 p.m. Guided tour of ND Museum of Art

(no admission fee)

3:00 p.m. Bus returns to the Alerus Center

Fill out and send in the registration below to: GF Regional Airport Authority, 2787 Airport Drive Grand Forks, ND 58203; or call the Airport Authority at 701-795-6981, fax 701-795-6979, or e-mail plinstad@gfkairport.com. This program is subject to cancellation if there is insufficient interest.

Name	
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2 | NORTH DAKOTA AVIATION QUARTERLY

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MARCH 1-4, 2003

Grand Forks, North Dakota

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Awards/Hall of Fam	e Banquet	\$20.00 xno.=	
Organizational Dues:			
Airport Association	of North Dakota (AAND)		
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Regional Comme	ercial Service Airports	\$100.00 _	
General Aviation	Airport	\$25.00	
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(PAASS Program	Free With Full NDAAA Membership)		
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	Farmers (NDFF)		
North Dakota Pilots	Association (NDPA)	\$12.00 _	
Associate Memb	ership (Non-Voting)	\$10.00 _	
North Dakota Profes	sional Aviation Mechanics Association (NDPA)	MA) \$20.00 _	
Associate Memb	ership (Non-Voting)	\$10.00 _	
North Dakota Sport	Aviation Association & Experimental Aviation	Association \$55.00 _	
(NDSAA) (Inclue	des national and Local Dues)		
North Dakota Assoc	iation of Aircraft Museums (NDAAM)	\$35.00 _	
		GRAND TOTAL \$	
	Do not mail registration form after F	ebruary 22, 2003	
Make chec	cks payable to NDAC. For further information	call, (701) 663-0669 - Jim Law	ler
Mastercard/VISA	Name on Card		
Card #	Expiration Date Sig	nature	

Book Your Hotel Rooms NOW!

For the Upper Midwest Aviation Symposium Grand Forks, ND, March 1-4, 2003

Following is information for motels that the Aviation Council has blocked for the Upper Midwest Aviation Symposium scheduled for March 1-4, 2003 in Grand Forks. Be sure to mention the "Upper Midwest Aviation Symposium" when booking to get the symposium rates.

Hilton Garden Inn (attached to UND Aerospace) Rate: \$69.00 Suite: \$79.00 2 Room Suite: \$119.00

Local Phone: 701-775-6000

Call 1-800-Hiltons or reserve on-line at hiltongardeninn.com Must make reservations by February 1, 2003 for symposium rates.

Holiday Inn Rate: \$65.00

Phone: 701-772-7131

Must make reservations by February 14, 2003 for symposium rates.

Ramada Inn Rate: \$75.00

Phone: 1-800-570-3951 or 701-775-3951

Must make reservations by February 9, 2003 for symposium rates.

North Dakota Aviation Quarterly

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