

THE NORTH DAKOTA



AVIATION COUNCIL PRESENTS:

# Aviation Symposium

All Events Will Be Held At The Radisson Inn • Bismarck, ND • 701.258.7700

## March 3, 4, 5 & 6, 1996

### INFORMATIVE SESSIONS

- Informational and Membership Forums
- Maintenance Supplier Forums
- Ag Pilot Recertification
- Flight Safety Seminars



Linda Hall Daschle  
 FAA Deputy Administrator  
*Tuesday, March 5  
 12:30 PM*



James K. Cooyne  
 NATA President  
*Monday, March 4  
 9:30 AM*

### REGISTRATION FEES

Preregistration .....	\$40.00
Registration (after Feb. 23) .....	\$50.00
Spouse .....	\$15.00
Awards Banquet .....	\$15.00
One Day Pass .....	\$25.00

### SPECIAL ATTRACTIONS

- Over 70 Exhibitors
- High Speed/Stealth Technology Lecture
- Exhibitors Chili Cook-Off (Monday Night)
- Aviation Pioneers Day
- Awards Banquet
- Spouses' Programs
- Door Prizes



Leo M. Reinbold  
 North Dakota Public Service Commissioner  
*Annual Banquet Speaker  
 Tuesday, March 5  
 7:30 PM*

**NORTHWEST  
AIRLINES**



**UNITED EXPRESS**

# Aviation Quarterly

Issue # 31

NDAC

WINTER, 1996

## CHAIRMAN'S CORNER

*Fred Adams,  
Chairman ND Aviation Council*

If you live in or near North Dakota, are involved or interested in **AVIATION**, then mark your calendar for the 1996 Upper Midwest Aviation Symposium. The Dates are March 3-6, 1996. Location is the Radisson Inn in Bismarck.

The member organizations of the North Dakota Aviation Council are busy putting together their speakers and arranging various meetings. Final details for the opening General Session speaker and Tuesday nights Banquet speaker are coming together.

Regardless of your involvement in aviation, there will be something for just about everyone. Come and join us, the symposium will also be a great place to visit with old friends and make some new ones.

The North Dakota Aviation Council has invited the North Dakota National Guard to consider joining as a member of the NDAC. The response from Adj. General Keith Bjerke was very favorable. More work on this will start after the 1996 symposium and I am very excited about the opportunity to share aviation with the men and women who make up the North Dakota National Guard.

See you March.

**NOTE**

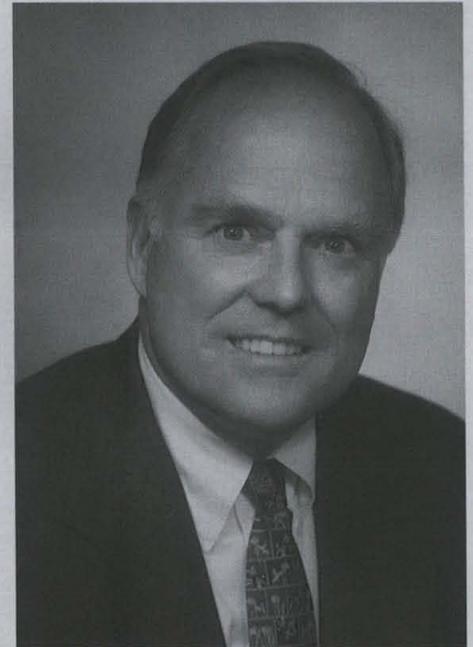
### Our New Address:

North Dakota  
Aviation Quarterly  
Andrew Niemyer, Editor-in-Chief  
P.O. Box 5020  
Bismarck, ND 58502-5020

## STEALTH AUTHOR TO SPEAK AT SUNDAY SESSION FAA'S DASCHEL, NATA PRESIDENT COYNE HIGHLIGHT UMWAS GENERAL SESSIONS.

National Air Transportation Association President James K. Coyne and Federal Aviation Administration Deputy Administrator Linda Hall Daschle will highlight the 1996 Upper Mid West Aviation Symposium General Sessions on March 4 and March 5, 1996. NATA's Coyne, an accomplished multi-engine pilot, former Member of the House of Representatives and White House senior staff member will speak at the Monday General Session starting at 9:30 AM in the Missouri Ballroom at the Radisson Inn in Bismarck.

A key figure since 1993 in the FAA's efforts to modernize Air Traffic Control and



*NATA President, James K. Coyne*



*FAA Deputy Administrator, Linda Hall Daschle*

reduce the overall size of the FAA, Deputy Administrator Daschle will speak starting at 12:30 PM to the luncheon session scheduled to begin at 11:30 AM in the Dakota Ballroom on Tuesday, March 5.

Coyne was selected in April, 1994 to head NATA, and serve as the leader and spokesman for an organization representing nearly 2000 large and small aviation businesses. A long time user and advocate of general aviation, he flies over 200 hours annually in his 1966 Beechcraft Baron "One Two Tango." Coyne was the founder and President of the American Tort Reform Association, the author of two books on Con-

*(Continued on page 8)*



## FROM THE EDITOR:

Greetings and Happy 1996! As this issue of the *Quarterly* goes to press, we're busily readying our February issue featuring this year's Upper Midwest Aviation Symposium schedule and registration form. From what we've seen so far, it looks like this year's Symposium will be one of the best ever! We'd like to add to the chorus you'll hear by urging everyone to register early, save some money by doing so, and prepare for a great time in Bismarck March 3rd through 6th.

While many of us have been either grounded or had our flying drastically curtailed by the lousy weather we've seen throughout the state the last few weeks, now's the time to turn your thoughts towards some other methods to improve your aviation "world of knowledge." One way is to research and write an article for us here at the *Quarterly*. Any reader can contribute, and we welcome any and all submissions, especially from those of you who belong to any of the North Dakota Aviation Council member organizations. So the next time you're "hangar flying", doodling on a scratch pad while on hold about that part you need to finish the overhaul, or think of something you'd like to share, write it up and send it in! We'll take a look and try and put you in print with the next issue.

The *Quarterly* is also thinking about making some changes during this upcoming year. For one, we're considering taking advertising from our members. This will do several things for us. First, it will help us grow and yet still not take a bigger slice of the NDAC annual budget. Second, it will allow you, the readers, to let the rest of us know about the products and services you offer. Third, we hope to improve the *Quarterly's* "look" by adding size and perhaps color to our offering. If you have an opinion either way, let us know, through letters, calls or through your NDAC representatives.

*Andrew S. Niemyer Editor-in-Chief*

## NAVAIDS

Prepared by: Mark J. Holzer  
ND Aeronautics Commission

Navigational Aids (NAVAIDS) are not often considered top priority for airport improvements by airport sponsors. However, as airports progress to satellite instrument approaches (GPS), NAVAIDS gain importance in lowering minimums and increasing safety for flight. The following is a summary of NAVAIDS at 97 public use air-

*(Continued on page 5)*

## AIRPORT ASSOCIATION OF NORTH DAKOTA NEWS

By Todd Hanson, AAND President

AAND has had an exciting 1995 and is looking forward to the challenges of 1996.

I would like to thank Steve Johnson of Grand Forks for his help in awarding the AAND scholarship to Ms. Kari Hondl. I think it's wonderful that we can help improve our membership and aid outstanding student's like Ms. Hondl.

The Aviation Symposium is only a few weeks away, and preparations are well on the way. The main topic of this year's symposium will be Basic Aviation and Airport Management. This should be of interest to all members. We will try to cover all areas that concern us as managers and aviators.

Speaking of the symposium, if you haven't paid your annual membership fees, please do so at your earliest convenience. Your prompt payments are what keep us going and allow us to hold these informative and enjoyable meetings. If you have any questions please call Jim Lawler at the Mandan Airport.

As we start 1996, I would like to wish each of you a safe and prosperous New Year. Please continue to support aviation and all the wonderful things it represents. I for one, at least the kid in me, always has to look when I hear the sound of an airplane overhead. It is hard sometime to explain the wonders of flight, but I feel the only real explanation is a quote from my son after his first airplane ride, "It's magic!"

See you all at the North Dakota Aviation Symposium!

**DON'T HESITATE,  
REGISTER NOW  
FOR UMWAS 1996!**

## AIRCRAFT REGISTERED IN NORTH DAKOTA

The total of 1746 aircraft, helicopters, balloons and ultralights, were registered by the N.D. Aeronautics Commission in 1995. Counties with the highest total of based aircraft were:

(1) Cass	277
(2) Grand Forks	191
(3) Ward	124
(4) Burleigh	105
(5) Williams	67
(6) Richland	64
(7) Stutsman	60
(8) Ramsey	49
(9) Pembina	49
(10) Barnes	43

About 1400 of the total registered planes are based at the 96 public-use/owned airport facilities in North Dakota. Registrations for 1996 were mailed to aircraft owners in late December. Any questions on state aircraft registrations can be made to the Aeronautics Commission registrar at 328-3486.

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## COMMISSIONER'S CORNER THE PRESIDENT, THE REPUBLICANS, THE BUDGET AND AVIATION

With the U.S. Department of Transportation (DOT) budget for Fiscal Year (FY) 1996 having fortunately been passed by Congress and signed by the President just as talks broke down over a balanced budget, the aviation community has felt virtually no impact from the on-going political stalemate. In fact, President Clinton signed the FY 1996 U.S. DOT appropriations bill one day into the first government-wide shut-down back in November 1995, losing the services of any "non-essential," now "non-emergency," FAA personnel for only a day. However, in spite of that fortunate circumstance, the now-prolonged standoff has finally begun to bring some serious side-effects to the world of aviation. Moreover, the final agreement between the President and the Republican-controlled Congress will bring even greater ramifications to those of us involved in aviation.

**Fiscal Year 1996:** With the end of calendar year 1995 and no budget agreement in place, federal taxes that generate revenues for the Airport and Airway Trust Fund have expired. Until formal action is taken by the Congress and the President, there will be no more 10% tax on domestic airline tickets, no 6.25% tax on air cargo, no \$6 charge per international departure and no 17.5¢ per gallon tax on non-commercial jet fuel. In essence, authority for the federal government to collect taxes that accrue to the aviation trust fund has ended. The 14¢ per gallon tax on aviation gas was enacted in separate legislation years ago and did not ex-

pire. However, avgas tax receipts now accrue to the highway trust fund, not the aviation trust fund. Likewise, the 4.3¢ per gallon tax on all aviation fuels that goes toward deficit reduction remains in place.

Not only will the trust fund receive no revenues for the interim period, its uncommitted balance of \$5.1 billion will begin to be drawn down to fund the FAA and its programs, unless and until a full FY 1996 budget is passed. Should there be no budget agreement or reauthorization of aviation taxes in 1996, the trust fund will keep the agency, which requires about \$8.3 billion annually, going for only about eight or nine months (or the end of the federal fiscal year) before the \$5.1 billion is depleted.

**Fiscal Year 1997 - 2002** Of course, the President and the Republicans are not simply debating the budget for FY 1996. At the heart of the debate is the scheduling for when the U.S. will produce a balanced budget. Republicans want the budget balanced by 2002. In fact, the Republican Congress passed a seven-year budget reconciliation which broke out budget cuts by spending category. President Clinton is for a balanced budget, but is not sure that achievement in seven years won't force deep cuts on domestic programs that he has vowed to protect—Medicare, Medicaid, education, and the environment. For these reasons, the President vetoed the seven-year budget resolution. Nevertheless, the focus for balancing the budget has narrowed to a seven year time-frame.

Upon Congressional passage of the budget reconciliation, various federal agencies were able to gain a preview of anticipated cuts to their programs over the next seven years. The FAA's view has the agency describing a "doomsday" scenario where they envision receiving only \$47.2 billion through 2002, when it needs \$59.3 billion to maintain present levels of staffing and services. This \$12.1 billion shortfall is precisely what has prompted the sharp debate over FAA's future financing. Those who accept the \$12.1 billion cut believe that new user fees are the only alternative to ensuring that the FAA has the resources to accomplish its mission. Others are more skeptical of the FAA's \$12.1 billion estimated shortfall and believe that vigorous reform of FAA's procurement and personnel rules will allow the agency to meet system needs at lower costs. The DOT appropriations bill that was enacted earlier requires the FAA to submit a proposal for such reforms by April 1, 1996. Further, if forecasts of resurgent air travel prove correct, within one or two years, annual aviation trust fund receipts will exceed FAA expenditures, and the trust fund will be able to continuously fund the agency and its programs.



## ANNUAL BANQUET TO FEATURE PSC'S REINBOLD

North Dakota Public Service Commissioner Leo M. Reinbold will be this year's featured speaker at the Upper Midwest Aviation Symposium annual banquet to be held Tuesday night, March 5, 1996 at the Radisson Inn, Bismarck, ND. Reinbold is a much sought after speaker, and has appeared at numerous aviation functions throughout the nation over past years. He appeared in 1994 at the National Association of State Aviation Officials annual meeting in Bismarck. That appearance has led to his being chosen to speak at numerous functions throughout the nation.

PSC Commissioner since 1980, the thrice-elected Reinbold is a teacher with over 25 years experience. The former Chairman of the Department of Geography at Valley City State College has held numerous positions on the national level, including National Association of Regulator Utility Commissioners, the Mid-America Regulatory Conference and the Advisory Council of the National Gas Research Institute.

Reinbold's humorous point of view and wry observations have had audiences laughing and smiling throughout the upper Midwest for quite some time. His appearance at UMWAS 96 will be a highlight of this year's meeting. The Banquet will be held in the Missouri Ballroom of the Radisson Inn, Bismarck, sight of this year's Symposium, starting with a social hour poolside at 6:00 P.M. The banquet will start at 7:00 P.M. Tickets are available in advance or at the UMWAS registration desk for \$15.00 per person.



# AIR SAFETY FOUNDATION SEMINARS, GPS, UND, STEALTH AND WARBIRDS HIGHLIGHT NDPA SYMPOSIUM OFFERINGS

The Aircraft Owners and Pilots Association's Air Safety Foundation will once again be offering a series of seminars in conjunction with the North Dakota Pilots Association at this year's Upper Mid West Aviation Symposium in Bismarck, starting on the afternoon of Sunday, March 3, 1996. The ASF will be making two presentations of its brand-new Global Positioning System (GPS) Overview and its latest Airspace Review. The GPS Overview will be offered both Sunday March 3rd and Monday March 4th, starting at 2:30 PM in the Governor's Room at the Radisson Inn, site of this year's Symposium. After each Overview there will be a manufacturer representative who will be making a company-specific presentation about their VFR and IFR-certified equipment. Garmin Company is scheduled for Sunday and Bendix/King for Monday.

The Airspace Reviews will be presented both Monday, March 4th and Tuesday March 5th. Monday's presentation will begin at 1:30 PM and Tuesday's will commence at 8:30 AM. Both presentations will run approximately 90 minutes and will be in the Governor's Room, site for all of this year's NDPA presentations.

Another highlight for 1996 will be the

opening lecture on Sunday, March 3rd, when Ms. Mary Barczack from aviation insurance company AVEMCO will present a lecture covering the pitfalls and pathways available to all who have or are contemplating carrying aviation insurance. Her lecture begins at 1:30 PM.

The NDPA will host an informal General Session for all UMWAS '96 participants on Sunday evening after the icebreaker. Well-known author and aerospace expert Mr. Bill Sweetman returns with another in his series of illustrated lectures on the world of high speed, high altitude and stealth technologies. His talk will start at 6:30 PM in the Governor's Room. Be sure to bring along an extra slice of pizza and your favorite beverage from the Ice Breaker!

UND Aerospace will be bringing a series of short talks to NDPA attendees this year, as they present a series of lectures beginning on Tuesday morning at 10:00 AM. Topics range from accident reviews and density altitude considerations to legal and physiological considerations. Be sure to check your schedule or the listings in this issue of the Quarterly.

Wednesday morning March 6th will bring a wealth of warbird information to

those attending UMWAS '96. Mr. Larry Mullaly from the Minnesota Wing of the Confederate Air Force will present a fun and fact-filled lecture for everyone who ever dreamed of flying a World War Two bomber: "Everything You Ever Wanted To Know About Flying The B-25 Mitchell." Mr. Mullaly is a check airman for B-25 pilots, and has flown the CAF's "Miss Mitchell" around the USA, including having the honor of being the flyover aircraft for the funeral of General Jimmy Doolittle at Arlington National Cemetery. In his "spare time" he flies for Northwest Airlines. The day will finish with an outstanding collection of unique home film shot in W.W.II from 8th Air Force B-17's while in combat over Europe. The film is part of a collection made by an 8th Air Force Flight Surgeon who chose to fly with the men he treated on a daily basis while serving in England.

All in all, the NDPA thinks that this year's presentations at UMWAS '96 will be some of the best and most memorable in a long time. Plan on attending the whole Symposium. If you can't, remember that a one day admission is just \$25.00, and plan on attending whenever you can!

## NORTH DAKOTA PROFESSIONAL AVIATION MECHANICS ASSOCIATION

*Jeff Faught, PAMA President*

The 1996 Upper Midwest Aviation Symposium is scheduled for March 3-6th. A full program is lined up including thirteen speakers, an ice breaker on Sunday, general sessions, and more. Also on Wednesday, the FAA FSDO will update us on the latest, visit with us about what we have on our minds,

and take care of our IA renewals.

I would like to encourage our members to attend and invite anyone interested in aviation to come and discover aviation in North Dakota.

The "Mechanic of the Year" award forms

are being mailed to the FBO's. Please spread the word about the award. I know there are several highly qualified mechanics and technicians in the state worthy of recognition. If you need a form, please call me at 701-436-5880.

*(NAVAIDS, continued from page 3)*

ports in North Dakota as:

- 81 airports have runway lights, 5 high, 27 medium, 49 low intensity fixtures.
- 16 airports which are generally low volume turf airfields have no lights.
- 63 airports have radio controller activators; so check your frequencies.
- 8 VOR's exist offering approaches at 11 airports.
- 34 airports have visual approach

path indicators (VASI or PAPI).

- 13 airports have runway end identifier lights (REILS).
- 48 airports have operational rotating beacons.
- 33 airports have unicoms for airport communications.
- 16 airports have non-directional beacons (NDB) of which 11 are for IFR operations.
- 8-ILS approach airports exist at com-

mercial service airports.

→ 3 airports have Automated Weather Observation Systems (AWOS) with 8 commercial airports developing ASOS through the National Weather Service.

If your airport wishes to acquire a NAVAID, a state/local or FAA's Facilities/Equipment Program can be pursued. Contact the Aeronautics Commission for more advice - 701-328-9650. Keep tuned in as NAVAIDS help pilots find their way home.



**CONVENTION SCHEDULE  
UPPER MIDWEST AVIATION SYMPOSIUM  
"AVIATION'S NEW HORIZONS"  
RADISSON INN - BISMARCK, ND**

**MARCH 3, 1996  
SUNDAY**

1:00 PM  
Registration Set-up ..... Courtyard  
1:30 PM - 2:30 PM • NDPA  
Aviation Insurance:  
Pitfalls and Pathways ..... Governors Room  
Mary Barczak  
2:30 PM - 4:00 PM • NDPA  
AOPA Air Safety Foundation:  
GPS Overview ..... Governors Room  
Chuck Berry  
3:00 PM - 4:00 PM • NDAC  
Council Meeting ..... Courtyard Room 1258  
4:00 PM - 5:00 PM • NDPA  
Garmin Company  
GPS Systems Introduction ..... Governors Room  
Speaker TBA  
NDAAA  
Board Meeting ..... Sheyenne Room  
5:00 PM - 8:00 PM  
Ice Breaker ..... Courtyard  
Pizza / Beer / Cash Bar

*Gathering open to all attendees and Guests.  
Registration will be available.  
Entertainment by:  
HARRY SCHNEIDER at the Piano*

6:30 PM - 7:00 PM • NDSAA  
Annual Meeting ..... Courtyard Room 1258  
6:30 PM - 8:00 PM • NDPA  
Open to Everyone!  
Horizons in High Speed, High Altitude and  
Stealth Technologies ..... Governors Room  
Bill Sweetman

**MARCH 4, 1996  
MONDAY  
"UNITED EXPRESS DAY"**

7:00 AM - 7:30 AM • NDAC  
Council Briefing ..... Courtyard Room 1258  
Continental Breakfast / Coffee  
8:00 AM - 9:00 AM • NDPAMA  
Business Meeting ..... Cannonball Room  
9:00 AM - 9:30 AM  
Coffee / Cookies / Soft Drinks  
Lower Level ..... Missouri Ballroom Hallway  
9:30 AM - 11:15 AM

"GENERAL SESSION" ..... Missouri Ballroom  
Welcome ..... Fred Adams / Chairman  
Introduction ..... Gary Ness / Director  
ND Aeronautics Commission  
Introduction ..... James Coyne / President  
National Air Transportation Association  
11:00 AM  
Exhibits Open ..... Dakota Ballroom  
11:30 AM - 12:30 PM  
Buffet Lunch ..... Dakota Ballroom  
1:30 PM - 5:00 PM  
Exhibits - Closed ..... Dakota Ballroom  
1:30 PM - 2:00 PM  
AAND-FAA  
Airport Accident Prevention ..... Heart Room  
Les Ellingson

1:30 PM - 5:30 PM  
NDAAA  
Recertification ..... Sheyenne Room  
1:30 PM - 2:15 PM  
NDPAMA Maxwell Aircraft - Propellers  
..... Cannonball Room  
Wall Colmonoy ..... Room 3130  
Sue Seckel  
Shell Oil ..... Room 3160  
Ben Visser

1:30 PM - 2:45 PM • NDPA  
AOPA - Air Safety Foundation  
Airspace Review ..... Governors Room  
Chuck Berry

2:00 PM - 2:30 PM • AAND  
Emergency Management ..... Heart Room  
Doug Friez

2:30 PM - 3:00 PM • AAND  
Safe Snow Removal ..... Heart Room  
Kenneth Ness

2:25 PM - 3:15 PM • NDPAMA  
Aero Engines - Radials ..... Cannonball Room  
Dave Bowerman  
Hutchinson Tech. - NDT ..... Room 3130  
Mike Mullan  
Wall Colmonoy ..... Room 3160  
Sue Seckel

2:45 PM - 4:15 PM • NDPA  
AOPA - Air Safety Foundation -  
GPS Overview ..... Governors Room  
Chuck Berry

3:15 PM - 3:50 PM • Coffee Break  
(At Your Convenience)  
Lower Level ..... Missouri Ballroom Hallway  
3:30 PM - 4:10 PM • NDPAMA  
Covington Engines - Radials ..... Cannonball Room  
Speaker TBA  
Parker Hannifin  
Cleveland W&B ..... Room 3130  
Sandy Schikel

Tanis Aircraft - Mechanics ..... Room 3160  
Peter Tanis

3:50 PM - 5:00 PM • AAND  
Ag Spraying on Airport ..... Heart Room  
Dale Faust, John Boe, Todd Hanson

4:15 PM - 5:15 PM • NDPA  
Bendix/King  
GPS Systems Introduction ..... Governors Room  
Speaker TBA

4:20 PM - 5:00 PM • NDPAMA  
Covington Engines  
Turbine ..... Cannonball Room  
Speaker TBA  
Shell Oil ..... Room 3130  
Ben Visser  
Tanis Aircraft - Pilots ..... Room 3160  
Peter Tanis

5:00 PM  
Exhibits Open  
Everyone Invited ..... Dakota Ballroom  
5:30 PM - 6:30 PM

Chili Cook-off  
Judging, Snacks,  
Miscellaneous, and Cash Bar ..... Dakota Ballroom  
7:00 PM

Judging — 3 Finalists.  
9:00 PM  
Exhibits close  
Socials open ..... Courtyard

12:01 AM  
Hospitality Rooms Close

**MARCH 5, 1996  
TUESDAY  
"NORTHWEST AIRLINES DAY"  
"PIONEER DAY"**

7:00 AM - 7:30 AM • NDAC  
Council Briefing ..... Courtyard Room 1258  
Continental Breakfast / Coffee

8:00 AM - 5:00 PM  
Registration ..... Courtyard

8:00 AM - 8:50 AM • NDPAMA  
Way-Point Avionics - Systems ..... Room 3130  
Dave Mohn  
Cleveland W & B ..... Room 3160  
Sandy Schikel

NDAAA  
FAA  
The New FAR 119 and FAR 135  
Hazardous Materials Update ..... Room 2160  
Wes Edwards - John Vold

8:00 AM - 9:45 AM • NDPAMA  
Teledyne Continental ..... Cannonball Room  
Bob Moseley

NDAAA  
Recertification ..... Sheyenne Room  
8:15 AM - 9:45 AM • NDPA  
AOPA Air Safety Foundation:  
Airspace Review ..... Governors Room  
Chuck Berry

9:00 AM - 9:45 AM • AAND  
Pavement Management  
in North Dakota ..... Heart Room  
Roy Eckrose  
Bill Green

9:00 AM - 9:45 AM • NDPAMA  
Unison Industries  
Ignition Systems ..... Room 3130  
Speaker TBA

Hutchinson Tech. - NDT ..... Room 3160  
Mike Mullan  
9:00 AM - 9:45 AM • NDAA  
FAA - Avionics, Airworthiness Update  
and Minimum Equipment Lists ..... Room 2160  
John Kline - Joe Souza

9:45 AM - 10:00 AM • AAND  
Coffee Break ..... Missouri Ballroom Hallway  
Lower Level

10:00 AM - 5:30 PM  
Exhibits Open ..... Dakota Ballroom  
10:00 AM - 10:30 AM  
FAA Pavement Reporting ..... Heart Room  
Irene Porter

NDPA  
UND Aerospace  
Fatigue & The Human Body ..... Governors Room  
Dr. Warren Jensen

10:00 AM - 11:00 AM • NDPAMA  
Unison Industries  
Ignition Systems ..... Cannonball Room  
Speaker TBA

Way-Point Avionics  
Autopilots ..... Room 3130  
Dave Mohn  
Aero Engines ..... Room 3160  
Dave Bowerman

10:00 AM - 12:00 PM • NDAAA  
Recertification ..... Sheyenne Room  
10:30 AM - 11:00 AM • AAND  
Construction Project Management ..... Heart Room  
Steve Johnson

10:30 AM - 11:00 AM • NDPA  
UND Aerospace  
Staying Out of Jail & The Law ..... Governors Room  
Dr. Joe Zahradka

11:00 AM - 11:30 AM • AAND  
Annual Business Meeting ..... Heart Room  
11:00 AM - 11:30 AM • NDPA  
Fargo FSDO  
Accident Review ..... Governors Room  
Fred Clark

11:30 AM - 12:00 PM • NDPA  
UND Aerospace - Density  
Altitude Considerations ..... Governors Room  
Rick Mercil

11:30 AM - 12:30 PM

Buffet Luncheon ..... Dakota Ballroom  
Soup & Sandwich  
12:30 PM - 1:15 PM  
Luncheon Speaker ..... Dakota Ballroom  
Linda Hall Daschel  
Deputy FAA Administrator

1:30 PM - 2:30 PM • AAND  
NDAC State Grant Program ..... Heart Room  
Gary Ness and Mark Holzer

NDAAA  
Recertification ..... Sheyenne Room  
1:30 PM - 3:00 PM • NDPA  
Fargo FSDO  
METAR's Introduction ..... Governors Room  
Les Ellingson

1:30 PM - 3:30 PM • NDPAMA  
Cirrus Aircraft ..... Cannonball Room  
2:00 PM - 3:00 PM • NDAA  
Annual Business Meeting ..... Room 2160  
2:30 PM - 3:00 PM • AAND  
Construction Contracts ..... Heart Room  
Murray Sagsulen

3:00 PM - 4:00 PM • NDPA  
Annual Meeting &  
Election of Officers ..... Governors Room  
3:30 PM - 3:50  
Coffee Break ..... Missouri Ballroom Hallway  
Lower Level

4:00 PM - 4:30 PM • NDAAA  
Fargo FSDO  
Congested Area Operations ..... Sheyenne Room  
Robert Harris

4:00 PM - 5:00 PM • AAND  
Financing with Bonds ..... Heart Room  
Maurie Cook and Tom Tudor

4:00 PM - 5:00 PM • NDPAMA  
Annual Meeting ..... Cannonball Room  
4:30 PM - 5:00 PM • NDAAA  
ND Dept. of Ag. ..... Sheyenne Room  
Barry Coleman

5:00 PM - 5:30 PM • NDAC  
Receive New Council  
Representatives Election of  
Council Officers ..... Courtyard Room 1258  
5:30 PM  
Exhibits Close ..... Dakota Ballroom  
6:00 PM - 7:00 PM  
Social ..... Poolside  
Cash Bar  
Music by : Harry Schneider

7:00 PM - 9:30 PM  
Recognition &  
Adward Banquet \$ 15.00 ..... Missouri Ballroom  
Breaded Shrimp / Prime Rib,  
Popovers, Baby carrots, etc.  
Guest Speaker ..... Leo Reinbold

NOTE:  
Ticket purchase / Entree Selection must be made  
at Registration by 3:00 PM Monday, 4th  
10:00 PM - 12:30 AM  
Social ..... Courtyard

**MARCH 6, 1996  
WEDNESDAY  
"FRONTIER AIRLINES DAY"**

7:00 AM - 8:00 AM • NDAC  
Host ND Aeronautics  
Commissioners ..... Courtyard Room 1258  
Continental Breakfast / Coffee

8:00 AM - 12:00 PM  
Registration ..... Courtyard  
8:00 AM - 9:45 AM • NDPAMA  
FAA - IA Recertification • Walter Turbine Engine  
Human Factor Update • Maintenance on  
Advanced Aircraft • Electronics and GPS  
Installations ..... Cannonball Room  
Joe Souza - Wes Edwards - John Kline

9:00 AM - 9:45 AM • AAND  
FBO Airport Study ..... Heart Room  
Speaker TBA

NDPA  
Everything You Ever Wanted  
to Know About  
Flying the B-25 "Mitchell" ..... Governors Room  
Capt. Larry Mullaly

9:45 AM - 10:00 AM  
Coffee Break ..... Missouri Ballroom Hallway  
Lower Level

10:00 AM - 10:30 AM • AAND  
Airport Networking ..... Heart Room  
Mike Ryan

10:00 AM - 11:00 AM • NDPA  
Everything You Ever Wanted  
to Know About  
Flying the B-25 "Mitchell" ..... Governors Room  
Capt. Larry Mullaly

10:00 AM - 12:00 PM • NDPAMA  
FAA - IA Recertification  
New FAR 119 - Wes Edwards  
NDT - Mel Cintron & Wade Padrnos  
Q & A - Dixie Norton ..... Cannonball Room

10:30 AM - 11:00 AM • AAND  
FAA  
Airport Improvement Program ..... Heart Room  
Irene Porter - Robert Billingsley

11:00 AM - 11:30 AM • AAND  
FAA National Priority Program ..... Heart Room  
Irene Porter - Robert Billingsley

11:30 AM - 12:00 AM • AAND  
FAA  
Grant Assurance Compliance ..... Heart Room  
Irene Porter - Robert Billingsley

11:00 AM - 12:00 Noon • NDPA  
WW II B-17 Air Combat  
"Home Movies" ..... Governors Room  
John Alin

1:00 PM - 3:00 PM • NDPAMA  
FAA-IA Renewals &  
Renewal Interviews ..... Courtyard  
Room 1268

CLOSING OF CONVENTION

## NORTH DAKOTA FLYING FARMERS

The North Dakota Flying Farmers held their annual convention at the Expressway Inn in Fargo on October 27-29, 1995. The group toured the Crystal Sugar Beet Plant in Moorhead, MN where they followed the sugar beet processing from its raw stage to refined table sugar. The luncheon speaker was Riaz Aziz, a private pilot from Fargo, North Dakota, currently a Research Assistant with the Upper Great Plains Transportation Institute.

Banquet entertainment was provided by Genora Schjeldrup, a private pilot and farmer's wife from Felton, MN. Officers elected at the annual meeting are as follows:

**President**

Diane Dahl  
Cogswell, North Dakota

**Vice-President**

Eleanor Kraft  
Mapleton, North Dakota

**Secretary**

Roger Pfeiffer  
Bismarck, North Dakota

**Treasurer**

Ralph Jenson  
Reynolds, North Dakota

## AVIATION ART CONTEST

The 1996 International Aviation Art Contest is underway! The contest is designed to motivate and encourage children of Federation Aeronautic International (FAI) member nations to become more familiar with and participate in aeronautics, engineering and sciences.

## NASAO AND FAA SIGN MEMORANDUM OF UNDERSTANDING

Silver Spring, MD—National Association of State Aviation Officials (NASAO) President Gary Adams and Federal Aviation Administration (FAA) Administrator David R. Hinson signed a Memorandum of Understanding (MOU) between the two organizations on January 29, 1996. The MOU established a cooperative agreement between NASAO and the FAA to develop a long-term partnership in support of the FAA's mission to provide government products and services to the aviation industry. This agreement will be in effect for five years and offers an opportunity for NASAO and the FAA, as aviation service providers, to develop improved and innovative systems for use by the aviation community. FAA Deputy Administrator Linda Daschle, along with several associate administrators, attended the signing ceremony expressing their support for this new partnership effort.

Both the FAA and the States have a common mission to advance and encourage the development of aviation within their respective areas of responsibilities. A team of FAA and State Aviation Officials will oversee the implementation of the MOU and help develop the partnership effort between the two organizations. Gary Ness, Director of the North Dakota Aeronautics Commis-

sion, will chair the NASAO Intergovernmental Oversight Committee, while FAA's team will be headed by Bill Withycombe, Western-Pacific Regional Administrator. Other state aviation directors on the NASAO team include Lloyd Parr, Missouri; Bob Kunkel, Wisconsin; Bill Gehman, Michigan, and Bill Blake, Illinois.

"When I first became FAA Administrator, I challenged the States to take a more active role in our aviation system. I am pleased today to see the NASAO has now taken on the challenge," said FAA Administrator David R. Hinson. In his remarks, NASAO President Gary Adams said, "Establishing this partnership has been one of my main goals as NASAO President and I am looking forward to working together under our newly formed partnership on issues of mutual concern."

The intergovernmental team met briefly after the signing ceremony to discuss the implementation of the MOU. The attendees have agreed that the next step in the partnership effort is to jointly develop a list of issues that both organizations can work on together to improve services to the aviation community. The team plans to hold an annual intergovernmental session for the expressed purpose of coordinating aviation resources and mutual areas of concerns.

The theme of this year's art contest is "Airfield". Entries will be judged in three classes with winners going on to national competition. If you would like a contest brochure with complete rules, please contact the North Dakota Aeronautics Commission at (701) 328-9650. Entries must be

postmarked by February 16, 1996 and may be sent to:

**North Dakota  
Aeronautics Commission  
P.O. Box 5020  
Bismarck, North Dakota 58502-5020**

# SEND YOUR REGISTRATION IN TODAY!

*(General Session Speakers Continued from page 2)*

gressional reform and has served as a Director of several private and public corporations.

Deputy Administrator Daschle began her aviation career as a FAA weather observer while still in college at Kansas State University. Since then she has served in executive positions with the American Association of Airport Executives, the Air Transport Association and the former Civil Aeronautics Board. She was confirmed by the

United States Senate in late 1993 for her current position as only the second woman to hold the post of FAA Deputy Administrator. Her career in aviation has earned Daschle several awards and honors, including the prestigious Kansas Governor's Hall of Aviation Award.

A further highlight of the Symposium will occur Sunday evening, March 3rd, when renowned aviation author and expert on high speed and "stealth" technology Bill Sweetman will address an informal Gen-

eral Session in the Governor's Room beginning at 6:30 PM. Sweetman, author of over 20 books on a wide variety of aviation subjects, is making his second appearance at the UMWAS, having spoken to an standing-room-only crowd at last year's Symposium. This year's illustrated lecture will be an update on the high speed, high altitude and stealth technology that is revolutionizing the "cutting edge" of flight. He is sponsored by the North Dakota Pilots Association.



# GRAND FORKS FLIGHT SERVICE RESPONDS TO NDPA QUESTIONS

By Dan Vigesasa, NDPA Vice President

## CUSTOMER SERVICE

**Q.** *What is the philosophy of the FSS with respect to the customers that call?*

**A.** Our philosophy is to provide each and every customer with "Quality" service. This includes (but is not limited to) accuracy, promptness, and satisfaction. We also believe in remaining open to continuously improving our service through customer feedback. Our daily goal is to provide the best service possible.

**Q.** *Do pilots experience any delays when their calls are handled?*

**A.** The average call waiting time (delay) is 3 seconds over the past eight years. The average for 1995 to date is 3.5 seconds. This is one of the lowest average times for any facility in the United States. This does not eliminate the rare occasion that a customer will wait 1-3 minutes to get through during a busy or peak period. By any standard or measurement, the customers in North Dakota are receiving the most prompt service possible, given the resources and the demand.

**Q.** *Some pilots have expressed dissatisfaction with the voice mail and menu approach to their calls. What plans, if any, does the FSS have to address these opinions?*

**A.** Voice mail and menu options are functions of the telecommunications equipment in place in all Automated Flight Service Stations. There are other options available to all customers. For example; a customer may avoid all recordings and menu information by entering #\*\*99 as soon as their call is connected (they would then be speaking directly to a briefer). In addition, for administrative or informational questions a customer may call direct to (701) 772-7489.

**Q.** *Some pilots would like to be able to carry a hard copy of the reports used to provide the briefing. How do you respond to this idea?*

**A.** We are presently equipped to provide hard copy reports to in-person briefings only. There are future plans for interactive capabilities between briefers and customers. We are supportive of that idea and believe it will become a reality.

**Q.** *Is the fast file system used much?*

**A.** Fast filing of flight plans is used an average of once a day in North Dakota.

**Q.** *In what ways is the fast file system useful to pilots?*

**A.** Fast filing of flight plans allows pilots who have completed their planning to file directly and NOT be delayed waiting for a briefer to become available. It is also useful

to those pilots seeking only weather data since they are not delayed waiting on a flight plan to be filed.

**Q.** *How do briefers feel about the fast file system?*

**A.** As with all technology our briefers believe when all data is known, it provides a viable option for our customers. It is only for the purpose of filing flight plans. All customers may not know that it is a blank tape (5 minutes in length) and as with any recorded message, recording should begin after the beep. For accuracy and promptness it should be used for flights with proposed departures of more than 30 minutes after filing (as processing still requires a minimum of 30 minutes). It requires following the flight plan form sequence and identifying each item. It also requires slow and clear speech (since a briefer will have to listen to the recording and file the data into the system). Finally, an accurate (immediately accessible) contact phone number is required in the event a clarification of the recording is necessary.

**Q.** *What percentage of your users are UND flight students?*

**A.** Percentages of our customers by category would, we believe, be misleading. As of today's date there are approximately 4,000 licensed—medically qualified—pilots in North Dakota (per the North Dakota State Aeronautics Commission). Additionally, the University of North Dakota (UND) currently has approximately 1100 aviation students (of which approximately 800 have specific flight requirements as part of their degree curriculum). As you can see, there can be and is some crossover between these 2 categories of customers. UND equals approximately 25% of our in-state customer base. We are affected daily by transient traffic which we have no ability to track. Frequency of use of our services by customer category varies daily and is not tracked. Since daily services are also affected by factors, we have no plans to attempt to track those statistics.

**Q.** *If UND lifted its requirement that each student contact the FSS prior to each flight, how would this impact the activity of the FSS?*

**A.** It is our understanding that UND does not require each student to contact the AFSS, but rather teaches all students that a professional in aviation would use all resources available. We are one of those resources. Some of the approximately 800 pilots at UND are undergraduate student pilots and they are both taught and required

to obtain a pre-flight weather briefing. If everyone at UND stopped contacting the AFSS, we believe we would lose approximately 25% of our current traffic.

## INFORMATION SOURCES

**Q.** *How does the FSS get input from AWOS stations and from ASOS stations?*

**A.** There are two categories of AWOS/ASOS stations. They are either certified or non-certified. If non-certified they should not be used for aviation application. If certified they are then either integrated into the National Airspace System or not. If they are integrated, then the AFSS/briefers can retrieve them from the national weather database. If not integrated, but certified, the briefer or pilot may dial them up directly by phone.

**Q.** *How is this information used in briefings?*

**A.** This information is identified as being an automated weather observation and is used appropriately with all other weather data.

**Q.** *How does the non-certified status of some ASOS and AWOS stations impact the dissemination of weather information?*

**A.** No impact, see the first question on this section.

**Q.** *How much confidence do you have in the reliability of the NOTAMS that are filed by some of the small airports in the area?*

**A.** We understand the nature of small airport management, upkeep, and NOTAM reporting. This sometimes causes a gap between the existence of an airport condition and the dissemination of that same condition. We are confident in the accuracy and reliability of the information we do receive.

**Q.** *What do you tell pilots worried about the accuracy of NOTAMS filed by small airports?*

**A.** We encourage pilots to make use of all resources available. We provide airport unicom frequencies, airport phone numbers, and airport management names and contact numbers daily. We serve as an information clearinghouse and will provide any data we have, or any available to us upon request.

## NOTAMS

**Q.** *With the proliferation of AWOS and ASOS stations and when most non-controlled airports do not have remote communications outlets, how are local NOTAMS disseminated to pilots that do not obtain their initial briefing from the GFK AFSS?*

**A.** We believe that the burden of planning and obtaining required data has not



changed. The pilot must use all resources available, which may include requesting local NOTAMS from us prior to departure. While enroute, this information may also be requested over any of our available air-to-ground frequencies prior to reaching the destination airport.

**Q.** How are class II FDC NOTAMS handled during a telephone briefing?

**A.** All published data is available upon request. The pilot must request Class II FDC NOTAMS.

**Q.** How does the AFSS advise pilots about active Military Operations Areas that exist above 18,000 feet?

**A.** Again, this information is available from a briefer simply by request. We have active MOA/IR/VR data on a daily basis, within 30 minutes prior to the Military Operation Area going active.

#### MISCELLANEOUS

**Q.** What impact has DUATS and the other private computer accessed weather briefing services had on the FSS?

**A.** This complex question doesn't have an easy, single impact, answer. The impacts on the AFSS have been many and have been varied. We have increased the complexity of our search-and-rescue procedures, we have answered more questions, we have amended more flight plans (that we did not file originally), and we have re-filed more lost flight plans (that we did not file originally) since the advent of DUATS. At the same time, we have had the opportunity to provide more personalized service to our customers since DUATS allows other customers (with the necessary equipment) to access their own personalized service.

**Q.** What will be the relationship between these computer services and the FSS in the future?

**A.** Future proposals call for an interactive system allowing for our briefers to respond to both our customers and other services while on-line. We support these proposals and we believe we have a great deal to offer any future networking.

**Q.** What do these private briefing systems need in order to be considered a "legal" briefing?

**A.** There is no clear definition of a "legal" briefing per se. This phrase is used in conjunction with what would happen in court after an accident or incident goes to litigation. Any inquiry into what will occur in a courtroom is very speculative. If weather is a possible cause or contributing factor (to any incident or accident) then lawyers for both sides would attempt to assign responsibility to either the pilot, the government, or now, to any one of the private briefing services. FAR 91.103 states in part

"each pilot in command shall, before beginning a flight, become familiar with all available information". In published aviation reference materials Flight Service Stations are listed as the primary source of weather briefing information.

**Q.** Discuss the future of the FSS in connection with projected cutbacks in the FAA and the privatization of the FAA? Rumors about closing some Flight Service Stations?

**A.** Any rumors about closing Flight Service Stations are just that, rumors. As with all current and projected budgetary cutbacks, FSS's are and will be affected in many ways (from supply funds to overtime funds). It would be premature at this time to speculate on which political solution will become a reality. Possibilities include: an independent agency, a corporation, privatization, and the status quo. All of these are currently being evaluated and analyzed by Congress.

**Q.** What do you anticipate will be the nature of your participation in the North Dakota Aviation Council's annual Aviation Symposium?

**A.** We desire to participate in all North Dakota aviation related activities. This facility has a record of attending and participation in very activity, for which it received an invitation since opening in 1987. Obviously our participation in any activity is accomplished in the framework of our budget. As mentioned above, we may be affected by future cutbacks.

**Q.** How do you plan to make yourself visible to the North Dakota aviation community?

**A.** We have a plan for taking our Operation Takeoff sessions "on the road". These are informational, educational, awareness meetings with pilots. Our plan would be to visit all parts of the state over a period of time and discuss with pilots topical issues (METAR/TAF, NEXRAD, ASOS/AWOS, NOTAMS, PIREPS), both for the purpose of passing on information and for collecting pilot feedback. These visits have started this month on a small scale by some of our personnel visiting airports within driving distance of the Grand Forks airport. We will be expanding these visits based on the availability of our resources, the weather, and our budget.

**Q.** How active will you and your staff be at meetings of pilot organizations and public presentations?

**A.** As previously mentioned, this facility will respond positively to any requests for attendance at any meetings or presentations. In this day and age of information, we are surprisingly unaware of many activities across North Dakota. Please contact us at (701) 772-7489 to let us know about any aviation activities in your communities.

## FROM FARGO TOWER:

Letter to Airmen No. 95-1, effective December 1, 1995

**SUBJECT:** IFR separation provided to VFR aircraft conducting practice instrument approaches.

**CANCELLATION: December 1, 1997**

Fargo Approach/Departure Control will provide standard IFR separation to VFR pilots who are conducting practice instrument approaches at the following airports:

Fargo Hector Airport

Casselton Regional Airport

Hawley Municipal Airport

Fargo Approach/Departure Control can be contacted on VHF 120.4/127.7, and UHF 395.9/255.6.

**SUBJECT: Class D Airspace Operating Procedures at West Fargo Airport.**

**CANCELLATION: December 20, 1997**

1. The relative close proximity of Fargo (FAR) and West Fargo (D54) Airports, the increasing number of pilots using the D54 Airport and requirements for certain services to be provided by Air Traffic Control (ATC) Specialists indicate a need for establishing standard operating practices for FAR ATC Tower/Approach and D54 pilots.

a. To the extent possible

FAR ATC Specialists will:

(1) Keep other traffic at or above 2,300 feet vertically or well clear laterally whenever unidentified radar targets are observed in the immediate vicinity of D54 Airport. (NOTE: This will provide at least 500 feet vertical separation provided the D54 traffic pattern is at or below 1,800 feet MSL).

(2) Continue to provide traffic advisories to aircraft operating with FAR ATC.

b. To the extent possible D54 pilots will:

(1) Observe traffic pattern altitudes at or below 1,800 feet MSL and fly a west traffic pattern. This will avoid traffic at Hector International.

(2) Avoid any turns to the east until radio contact is established with FAR ATC and a clearance is received.

(a) If entering class D airspace and landing at the primary airport, contact FAR Tower on 118.6.

(b) If entering class D airspace requesting east bound and TRSA service, depart west bound first and contact FAR departure on 120.4. Expect on course with departure. Two-way communications are not required if paragraph 1b(3) operations are followed and flight paths will not reenter

(Fargo Tower, continued on page 12)



**NORTH DAKOTA AVIATION COUNCIL**  
**PROMOTING GENERAL AVIATION GROWTH IN NORTH DAKOTA**

**"AVIATION'S NEW HORIZONS"**

UPPER MIDWEST AVIATION SYMPOSIUM

MARCH 3,4,5,6, 1996

Radisson Inn - Bismarck, ND

701-258-7700

PREREGISTRATION FORM

( Please print or type )

Name of Participant \_\_\_\_\_ Spouse Name \_\_\_\_\_  
(To be printed on name tag and enclose your business card)

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Company or Airport Name \_\_\_\_\_ Phone \_\_\_\_\_

\*PRE-REGISTRATION FEE: *(You must be a member of one organization and register for the symposium)*

Member .....	\$40.00	_____
Spouse .....	\$15.00	_____
Awards Banquet .....	\$15.00	_____

**ORGANIZATIONAL DUES:**

AIRPORT ASSOCIATION OF NORTH DAKOTA .....	\$25.00	_____
ASSOCIATE MEMBERSHIP .....	\$25.00	_____
NORTH DAKOTA AGRICULTURAL AVIATION ASSOCIATION .....	\$50.00	_____
ASSOCIATE MEMBERSHIP .....	\$10.00	_____
THE NORTH DAKOTA AVIATION ASSOCIATION .....	\$25.00	_____
ASSOCIATE MEMBERSHIP .....	\$10.00	_____
NORTH DAKOTA FLYING FARMERS .....	\$55.00	_____
NORTH DAKOTA PILOTS ASSOCIATION .....	\$12.00	_____
ASSOCIATE MEMBERSHIP (NON-VOTING) .....	\$10.00	_____
NORTH DAKOTA PROFESSIONAL AVIATION MECHANICS ASSOCIATION .....	\$15.00	_____
ASSOCIATE MEMBERSHIP (NON-VOTING) .....	\$10.00	_____
NORTH DAKOTA SPORT AVIATION ASSOCIATION & EXPERIMENTAL AVIATION ASSOCIATION (INCLUDES NATIONAL AND LOCAL DUES) .....	\$50.00	_____

**GRAND TOTAL \$** \_\_\_\_\_

\*Registration fee includes: admission to Symposium, Exhibit Area, Speakers, and Coffee Breaks.  
 +Registration after Feb. 23 is \$50.00.

**MAIL TO: JIM LAWLER**  
**RT 2 BOX 15B • MANDAN, ND 58554**  
**DO NOT MAIL REGISTRATION FORM AFTER FEB. 23, 1996**  
**Make Checks payable to N.D.A.C.**



# MURPHY'S LAW APPLIED TO AVIATION

From the SDPA News (found taped to the wall at Classic Aeroplane, NE — source Nebr PIREPS)

Most people recognize the basic form of Murphy's Law, "If anything can go wrong, it will." Murphy's Laws have been found to apply equally well to aviation. A small sample is given below:

1. Bumpy days and passengers with weak stomachs will always coincide.
2. Aircraft availability is inversely proportional to the importance of a particular flight.
3. All warranty and guarantee clauses on

aviation parts become void upon payment or just prior to failure whichever comes first.

4. On a long cross-country, home base will always be 5 minutes beyond the maximum range of the aircraft at the last planned fuel stop.
5. Wind aloft reports will only be accurate in the cases of direct headwinds.
6. Operating manuals will express important performance figures in the least usable form.
7. Answers on the FAA written examinations will all be equidistant from your com-

puted answer. Decimal points will always be misplaced.

8. Factory manuals will be wrong by a factor of 0.5 or 2.0, whichever gives the most optimistic results. For salesman's claims, these factors are 0.1 or 10.0.
9. On flights over water or over rough terrain, the engine will go into auto-rough at the midpoint + or -10%.
10. Control tower trainees will not be allowed to exercise command except on weekends and other high traffic volume times.

(Fargo Tower, continued from page 5)  
Class D Airspace.

- (3) Two-way radio communications are not required for aircraft departing from or arriving to the D54 airport when the flight path will remain to the west of the D54 air-

port. This is **ONLY** for arrival and departure operations conducted strictly west of the D54 Airport. All others must establish communications as soon as practical.

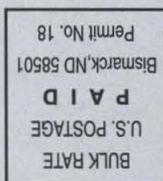
2. Aircraft operating in the touch and go

pattern at the West Fargo Airport are not required to establish two-way radio contact provided that all traffic patterns are conducted on the west side of the airport.

## NEW PHONE NUMBERS FOR AERONAUTICS COMMISSION

Note the following new numbers effective immediately for the North Dakota Aeronautics Commission:

Phone Number: (701) 328-9650 • Fax Number: (701) 328-9656



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