

NORTH DAKOTA AVIATION QUARTERLY



Issue #2

NDAC

January 1, 1988

Special Activities Planned For 1988 Symposium

Roger Pfeiffer

ND Aviation Council Secretary

Numerous new programs and special activities are planned for the 1988 symposium. Along with an all new spouses program is an International night and a hangar dance/party.

The Bismarck Convention and Visitors Bureau and the North Dakota Aviation Council are sponsoring a tour, style show and an introduction to flight class for spouses attending the convention.

The International night is being sponsored by the North Dakota Aviation Association and is planned for Monday night. This festive evening will feature seven different food ports highlighting the individual countries authentic cuisines.

On Wednesday night a hangar party/dance is planned to commence after the banquet. This will be an excellent opportunity to socialize and "kick up your heels" in celebration of the culmination of what should be a fantastic symposium.

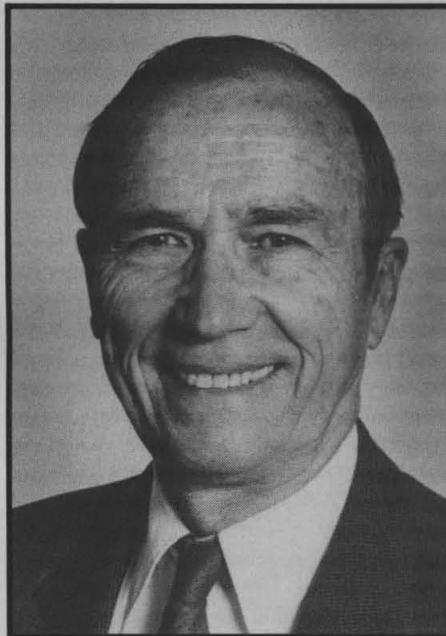
ND AVIATION COUNCIL NEWS

*Gordon Person, Chairman
North Dakota Aviation Council*

Convention time is drawing near again! It is my hope that all of you read this publication, mark your calendar and then attend the 1988 Convention in Bismarck this March. The Aviation Community of North Dakota has the opportunity to grow together and gain in business recognition and political voice concerning new regulations.

In January of 1983, several ND Aviation organizations voted to join together, Council wise, to hold and host the Annual Convention. At this time we have 6

Donald Engen To Address 1988 Symposium



Donald D. Engen plans to address the 1988 Upper Midwest Aviation Symposium on Tuesday at 3:15 p.m. Mr. Engen will speak on behalf of AOPA's Air Safety Foundation, FAA and various other aviation issues.

Donald D. Engen is President, AOPA Air Safety Foundation. He most recently completed three years as the Administrator of the FAA. In that position, he improved the Air Traffic System for all who fly. Fighting battles with naysayers and others, he carried the Standard of Aviation high. His innovations in Air Traffic Control have laid the standards for the future. He also guided the FAA to bring to the United States the safest three years in civil aviation history.

Engen was the first FAA Administrator to have been a member of the National Transportation Safety Board, where he served for two years prior to the FAA. He has been a corporate training consultant in Washington and a manufacturing executive in the Piper Aircraft Corporation.

A Naval Aviator, he retired as a Vice Admiral, US Navy in 1978, then serving as the Deputy Commander in Chief of the US Atlantic Command and US Atlantic Fleet. In his naval career he saw action in three wars, and among his 29 decorations and awards is the Navy Cross, the Navy's highest award for valor.

He attended the Empire Test Pilots School and was an engineering test pilot, specializing in flying qualities. He has been flying for 45 years and has flown 6,000 hours in 240 different types of aircraft. He holds a current commercial pilots license with instrument and glider ratings.

Mr. Engen holds a B.A. from George Washington University, and Honorary Doctor of Science degree from the Florida Institute of Technology and Dowling College, in New York. He graduated from the Naval War College with distinction. The SETP presented him the Doolittle Award for Technical Management in 1984. -

member organizations working together to bring to you the best convention ever for the upper Midwest. These organizations are all listed in this publication, so sort thru the articles and the schedule and start planning your participation with one or more groups.

This Council is non profit and the members you elected to serve you are doing so without any compensation. They all need to be thanked, and I am sure they would appreciate any help you would offer. They most definitely will appreciate your interest and participation.

At present time, over 60 exhibitors are scheduled to attend the convention. Let's all plan on greeting each other at the Kirkwood Motor Inn in Bismarck on March 7, 8, 9. See you then.

What Is Enough Automation And Computerization In The Aviation Field

Gary R. Ness, Director
N.D. Aeronautics Commission

The other day I was looking at an instrument panel and musing at the bells and buzzers that filled the holes. Dual Nav/Comm "Flip Flop", flight directory/auto pilot, attitude preselect/alerter (encoding), digital ADF, integral mode annunciator, digital transponder, VOR/LOC/Glide Slope Indicator, digital DME, marker beacon receiver, Radar altimeter, weather radar, radar graphics, slaved compass and audio control console. It took about five minutes to find where to put the key and two more to find the master switch. These components are not in a 747 or a F-18, they were attached to a single engine, four passenger, private aircraft. To fly this little beauty, at its full IFR capability, you pick up a phone and dial a series of specified numbers for the opportunity to listen to a computerized answering machine give you instructions how to ask for the menu. Next you give your flight plan to a tape, which will enter that plan into a computer, so you will fit into the flow of traffic towards your destination. Then a computer will pass that plan onto the appropriate controlling authority so they know who, when, where and what your little beauty will be doing for the next few hours. And the bells and buzzers in the panel will help complete that plan of action.

With all this, we have TCAS, ARSA, TRSA, ATC, FSS and AFSS along with WAC charts, sectionals, high and low altitude charts, instrument approach plates, airport/facility directories and the list could go on forever.

Really, what is apparent is the continuing education that is involved to stay proficient in today's aviation world. We are part of a world of automation and complexity and we seem to continue on towards some goal that is, as of now, not defined.

The education that it entails is extensive whether we fly for a vocation or avocation. The proficiency factors are as important now as they were when we got our first check ride. We may gripe and complain about the changes, however, we have to survive in the environment and not jeopardize our fellow flyers. So education and retraining should be our first priority.

Even with all these rules, regulations and confusing changes, the aviation world and aviators will keep in step and adapt.

As the co-pilot said to the captain while on an approach to minimums in a thunderstorm, "Are we having fun - yet?"

A Full Program for Pilots

Gerri Saylor
NDPA Vice President

Check it out! This year's Upper Midwest Aviation Symposium is stuffed with programs for pilots sponsored by the North Dakota Pilot Association. Here's some of the highlights:

Biennial Flight Review

Four flight instructors from UND's Center for Aerospace Sciences will give you a good solid review of FAR Part 61 and 91. Rick Mercil, Jerry Iverson, John Bridewell and Don Debuque in two 2½ hour sessions cover airspace, performance charts, aerodynamics, weather - a little bit of everything.

Students completing the two day course will receive a logbook sign-off for the ground school and will only then require the flying portion of the biennial. The flying portion of the biennial is to be completed with their local instructor at their local airport.

This is a prime opportunity for you pilots in the state who have become inactive to get back "into it" with some real quality instruction. Additionally, you pilots that are active and are approaching a need for a biennial, this is a good chance to get a different perspective offered by different instructors.

This is the first time NDPA is offering this type of program and we are enthusiastic about its potential success. I urge pilots in the state, that are in need of a biennial, to participate in what hopes to be an annual symposium event.

Collision Avoidance in the 80's

A representative from AOPA's Air Safety Foundation is coming out for this. This one-hour workshop will take you through typical scenarios of mid-air collisions and how to avoid them. If you haven't taken part in one of AOPA's presentations before, don't miss it. These people know how to keep your interest up and teach you things you thought you knew, but maybe really didn't or that just got rusty.

Automated Flight Service:

Jamestown As A Case Study

On March 29, the FAA will officially shut down the Jamestown Flight Service Station. This is the first of many small flight service stations scheduled to close in North Dakota as a result of automating flight service stations nationwide. Two FAA reps from Grand Forks will give you, the pilot, tips on how to make the system work for you and how to actually increase the level of service you've had in the past.

Thunderstorms, Flight & Fantasy

The mystique of severe weather is a constant topic of hangar talk conversation. Hear tips and tales about thunderstorms from someone who knows - a pilot who

is paid to fly in and around thunderstorms as part of his job and who teaches others how to do it. This fun primer on basic cloud physics will be worth your while.

As all good things go, there may be a few changes in the time schedule here and there. But, we promise a program that's guaranteed to please each and every day of this important aviation gathering.

NORTH DAKOTA AERONAUTICS COMMISSION

Aeronautics Staff

The North Dakota Aeronautics Commission has published the 1985-1987 Biennial Report. This report covers the time frame of July 1, 1985 to June 30, 1987.

During this time, the Commission distributed \$628,976 to the state's secondary airport system from the Airport Construction Fund under the 50/50 Matching Grant Program. There were 110 grant payments made for the two year period.

The Commission also distributed \$953,154 to the Aircarrier Airports with scheduled air service. These grants were allocated from the Airport Block Grant Fund. All of these funds went to maintenance, construction or improvements to the state airport system.

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Aircraft Engines Stolen At Dickinson

Greg Haug, Publisher

North Dakota Aviation Quarterly

J.B. Lindquist, owner/manager of Air Dakota Flite in Dickinson, has reported the theft of 2 Cessna 402 engines during the early morning hours on Friday, December 4th, 1987.

Lindquist said the thieves gained access to the main hangar by jimmying the lock to get into the front part of the building and then by breaking the window out of a walk door that led into the shop.

The thieves later opened the hangar door, drove a vehicle in and proceeded to remove both engines from Lindquist's Cessna 402. The State Highway Patrol also has a plane in the same hangar and it was evident that the thieves were intending to remove its engine too, but must have run out of time.

The theft occurred between 11:30 p.m. December 3rd and 4:30 a.m. December 4th. The aircraft was put in the hangar at 11:00 p.m. after a charter flight. Dickinson Flight Service personnel arrived at 5 a.m.

Lindquist said the hangar was locked at all entry points and the ramp and building lights were all operational. The Dickinson Airport is located 5 miles south of town in a sparsely populated area.

Air Dakota Flite maintains its operations in Dickinson and Hettinger and serves Southwestern North Dakota with charter service, aircraft maintenance and crop spraying.

Lindquist is offering a \$2,000.00 reward for information leading to the arrest and conviction of the person or persons responsible for the theft.

If you have any information concerning this crime, please contact: Dickinson Police Department or J.B. Lindquist, Air Dakota Flite, Box 429, Hettinger, ND 58639, (701) 567-2069.

North Dakota Flying Farmers Offers

Auto Gas vs. AV Gas Debate

Don Zimbleman, President
ND Flying Farmers

Auto Gas vs. AV Gas: The Debate Continues! A panel of various aviation individuals is being put together to address the 1988 Symposium. This list of hopefuls includes Paul Poberinski from EAA, a Nebraska pilot who uses auto gas, and reps from the FAA, an engine manufacturer, an aviation insurance firm, and the fuel industry. This is an issue that continues to warm the minds of skeptics and advocates try to sort out facts and myths, risks and benefits. Hopefully we will receive some practical advice on STCs and safe use of auto gas.

The tentative time for this session is 2:30 on Wednesday, March 9.

Attention All Pilots: Caution — Turkey Farms

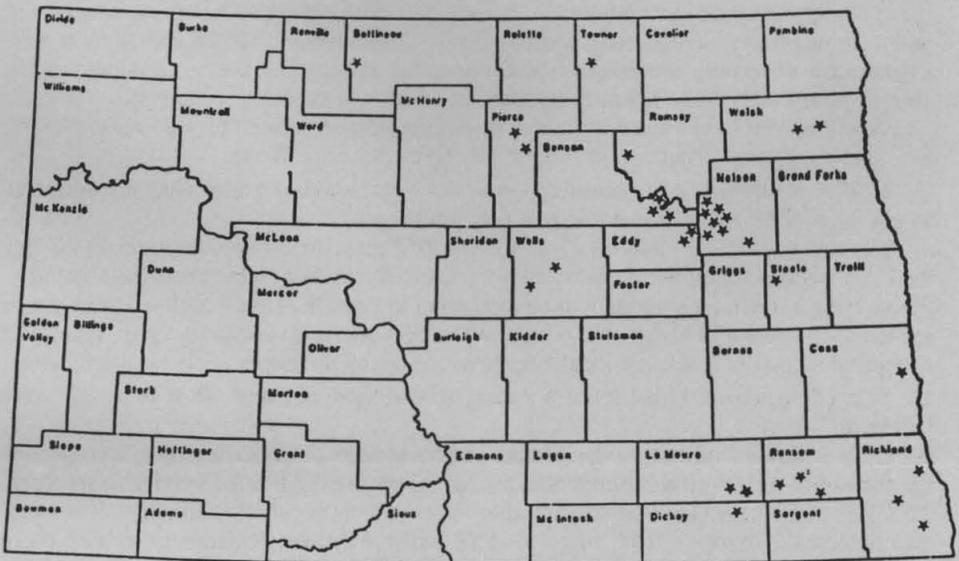
David Rude, President
North Dakota Turkey Federation

The turkey producers in the state are very concerned with the airplane and helicopter activity around North Dakota's 35 turkey farms.

Fast and low level flights frighten the birds and cause them to stampede and pile. Bruising, scratching and death are the result of this fright and thus lead to financial loss for the turkey producers.

Good communication and cooperation between the turkey farmers and the pilots flying out of airports in close proximity to turkey farms has kept disturbances to a minimum in the past. However, at this time we would like to make our locations known to all the pilots in the state and ask you respect our farms and property.

Turkey farms are located in the counties marked on the map and all pilots should be aware of locations when flying low in these areas. The exact location of these farms should be posted at airports with Section, Range and Township and direction and distance from the nearest town.



Season's Greetings

from the

North Dakota Aviation Association

Bob Simmers, President
NDAA

At this writing we are fast approaching the holiday season and winter has not bothered us yet — at least not the way it could this time of year. For the last month we here at Jamestown have been saying that "winter is just 15 miles away", because for the last month it's been snowing 15 miles east of town. However, we finally got a taste of it about a week ago, but through the mild weather the last few days, most of it has managed to disappear.

For those of you that missed the meeting between the Local Operators and Mr. Beiriger of the Fargo FSDO, I feel that you missed a very constructive meeting. Although nothing firm came out of the meeting, a positive feeling and good communications were established between those operators that attended and the FAA. Also some questions were raised that we hope will be answered at the sessions to

be held at the convention in the spring.

Ah — YES — The convention in the spring!!!! The individuals that make up the NDAC, the people at the Kirkwood, and the Bismarck CVB have combined efforts to bring you the best in aviation conventions in recent years.

There is a full three day schedule planned for all aviators. Included are exhibits of the latest in new things in the aviation industry and three fun-filled evenings. All the way from an International Night for openers, to a Hangar Party to close the convention. If you don't plan on attending, you will be missing the aviation event of the year in North Dakota.

As winter flying continues, do not forget your winter flying safety. Continue to enjoy the winter in old Dakota and we hope that you will continue to have a safe flying winter.

Best wishes for a very Merry Christmas, and may your New Year be a prosperous one from your representatives at NDAA: Bob Simmers, President, Warren Pietsch, Sec/Treas. and Jack Daniels, Board Member.

North Dakota Automated Flight Service Station Is Committed To You

Robert P. Fishman, FAA Air Traffic Manager

EVERY PILOT KNOWS that the FAA made the commitment that all Automated Flight Service Stations would provide "EQUAL or BETTER" service to the flying public.

Your AFSS at Grand Forks is now focusing on the "BETTER" side of this commitment.

This undertaking involves a variety of efforts including continuing education, quality assurance, and innovative programs, some of which were initiated in response to concerns identified by North Dakota pilots.

Our automated equipment has increased capacity enabling us to receive, update, and disseminate information to you more quickly. Through automation we have color weather graphics which provides live color radar from anywhere in the country and enhanced satellite imagery, allowing us to show movement of weather systems. Our new equipment ensures faster processing of all flight data.

Equally significant is that automation also provides us with statistical data which allows monitoring the quality and quantity of service provided to North Dakota pilots. Through the use of these statistics, we monitor delays that pilots have experienced reaching a briefer, or if there are any equipment failures.

To help us realize our optimum efficiency, we have initiated a telephone survey with which some of you have already been involved. This survey includes questions regarding services received, comments or recommendations, and assists us in being responsive to your needs. Our intent is to identify and solve potential problems.

Many of you have raised questions regarding gaining access to, and utilization of, the "new system". Those most frequently asked are as follows:

Q. Until consolidation is complete, how do I ensure that I am always connected to my local FSS when I use the toll free number?

A. The expanded "800" number (1-800-FAA-5552) that you dial routes your call through the FAA's central computer in Wisconsin. You are then requested to enter the digit "1". Pilots using a touch tone phone will be instructed to enter the first 3 digits of your phone number. The call will always be routed to the FSS serving your geographic area. The exception to this is when the local telephone company's equipment is not compatible.

Q. What happens if I call from a rotary dial telephone, and what does the term "default" mean?

A. Calls initiated from rotary dial phones are routed somewhat differently. Upon entering the digit "1", they will automatically be routed to expedite the service to the user. This may mean being answered by another facility. This is called "default". It is based on a percentage of the calls vs. statewide FSS staffing. As consolidation continues, more of the default calls will be answered by the Grand Forks AFSS.

Q. How can I avoid listening to the same greeting each time I call? Can I bypass any of the introduction?

A. Yes, however, only touch tone telephone users connected to the Grand Forks AFSS have the ability to control how they access our system. Use the #* instructs our computer. Upon hearing "Welcome to the . . .", immediately depress the # symbol. This tells the computer to stop. By depressing the *, you are telling the computer to follow your next command.

For example: After depressing #*, you may depress *99.

This connects you to a live weather briefing.

#*636 gives you the main menu. #*333 accesses Fast File.

#*201 accesses the PATWAS.

B. How does Fast File work?

A. "Fast File" does not mean a pilot may obtain a clearance faster by using this service. The "fast" implied here refers to the elimination of all other aspects of our system except a recording on which to leave your flight plan. As those who have come in contact with an answering machine know, one must be prepared before the "beep", and not begin until the "beep" has sounded. You **must** use the sequence of the FAA flight plan form, identify each item, speak slowly and distinctly, pause between items and complete the filing before the allotted **5 minutes** has expired. At the conclusion of filing, PLEASE leave a phone number where you can be reached should a question arise out of the filing of your flight plan.

Q. What is PATWAS?

A. PATWAS is the Pilot's Automatic Telephone Weather Answering Service. This weather information recording currently applies only to a 50-NM radius of Grand Forks. As consolidation of the other Flight Service Stations occurs, we will consider adding PATWAS for other areas of North Dakota to meet your needs.

NOTE: A PATWAS does not constitute a preflight weather briefing as required by the Federal Air Regulations.

We will continue to offer assistance and respond to questions that arise in future publications. You are welcome to call or visit our facility at any time.

Remember, we are committed to YOU!

AIRWAY FACILITIES ROLE IN FAA'S MISSION

Steven J. Obenauer, Asst. Manager
FAA Airway Facilities, Bismarck

When most pilots deal with the FAA, they are usually involved with air traffic control personnel or FSDO personnel. However, an element of the FAA that is not nearly as visible as these personnel is the Airway Facilities service. The electronic technicians, maintenance mechanics, and engineers who make up the Airway Facilities service are the second largest element in the FAA. These people provide and maintain the electronic "eyes and ears" that pilots and air traffic personnel use.

The Dakota Airway Facilities Sector, which has its headquarters in Bismarck, maintains all the FAA facilities in North Dakota, South Dakota, and parts of Minnesota. In addition to the headquarter's staff of 18 and 38 people in South Dakota, we have 47 maintenance personnel stationed at Bismarck, Fargo, Grand Forks, Finley, Minot, Watford City and Dickinson. To support the aviation industry, we maintain the following systems:

- Terminal radars at Bismarck and Fargo
- Long range radars at Finley and Watford City providing en route data to Minneapolis and Salt Lake City centers.
- Air Traffic Control Towers at Bismarck, Fargo, Grand Forks, and Minot.
- Automated Flight Service Station at Grand Forks.
- Flight Service Stations at Minot, Jamestown, and Dickinson.
- ILS's at Williston, Minot, Dickinson, Bismarck, Jamestown, Devils Lake, Fargo, and Grand Forks.
- VOR's at Williston, Minot, Dickinson, Bismarck, Jamestown, Devils Lake, Grand Forks, Pembina, and Fargo.
- MALSRS and VASIS at Williston, Minot, Dickinson, Bismarck, Jamestown, Devils Lake, Fargo, and Grand Forks.

We also maintain all the communications equipment and are involved with many of the NDB's in North Dakota.

Our maintenance personnel are highly trained professionals who are very conscientious about providing you the reliability and safety you need and deserve. In fact, they do their job so well that our facility reliability is the highest in the FAA's Great Lakes Region. So the next time you fly a VOR radial or make an ILS approach or talk to an air traffic control specialist over the radio, you'll know that these services were proudly provided by the FAA's Airway Facilities personnel.

Dr. David Webb to talk on Pioneering the Space Frontier

Thirty years ago, the orbiting of Sputnik marked the beginning of the Space Age. Today, a new era of space exploration is emerging. Humankind is on the threshold of moving into space. The National Commission on Space was charged by the President and Congress to look into the future and chart a map of civilian space goals for the 21st Century.

At this year's Upper Midwest Aviation Symposium, you have a unique opportunity to hear what the Commission's final report says and what it means to all of us from Dr. David C. Webb, a presidential appointee to the Commission. Webb, who now chairs the new Space Studies program at UND's Center for Aerospace Sciences, is an internationally-respected consultant on space policy.

He'll share with us this nation's plans to pioneer the space frontier and develop the Inner Solar System. We'll learn how other countries, such as the Soviet Union and Japan, are quickly accelerating their own vigorous space development activities and what that means for the United States.

Treat yourself to this unforgettable, eye-opening presentation. Perhaps never before and never again will you get this kind of insider's look at the issues and effects of space development.

Dr. Webb is scheduled to speak on March 8th, starting at 2:30 p.m. This is a Tuesday group session in which all organizations are invited and encouraged to attend.

1988 UPPER MIDWEST AVIATION SYMPOSIUM SCHEDULE

March 7, 8, 9 - Kirkwood Motor Inn, Bismarck, ND

"SKY'S THE LIMIT"

MONDAY, MARCH 7 A.M.

8:00	Exhibitors Set Up, Open by 12:00 noon
9:00	NDAC Council Meeting
10:00	COFFEE FOR EXHIBITORS
10:00	Registration Opens
10:00	NDPAMA B.F. Goodrich - Tires - Charles Block Deicing Systems - Gary Garcia
10:00	NDPAMA Cleveland Wheels & Brakes - John Bakos
10:00	NDPAMA Airborne Air & Fuel - Ralph Heysek
10:30	NDAAA Business Meeting
10:30	NDAAA Malibu Engine Problems
11:00	AAND Board Meeting
12:00	Soup & Sandwich - Governor Sinner - Welcome

MONDAY, MARCH 7 P.M.

1:00	NDAAA Insecticide Update - Dean McBride
2:00	NDPAMA Teledyne Continental - Liquid Cooled Engines
2:30	COFFEE BREAK — COFFEE — SOFT DRINKS — COOKIES
2:30	AAND Certification of Airports - Aeronautics Commission Personnel/Asphalt Maintenance - Neil Zimmerman
3:00	NDPAMA Piper - "What's New at Piper" - Roy Byrd
3:30	NDAAA Pesticide Laws - Doug Tollefson
4:00	NDAAA Fungicide Update - Art Lamey
4:00	NDPAMA Mooney - "What's New at Mooney" - Jim Fleming
5:00	NDPAMA Cessna - "What's New at Cessna"
6:00	International Night

MONDAY EXHIBIT AREA OPEN:

12:00 - 8:30

TUESDAY, MARCH 8 A.M.

7:00	Continental Breakfast & Exhibits
7:30	Registration
8:00	IA Mechanics - Turn in renewal forms at FAA table
8:00	NDAAA Safety Bulk Handling - Jack Peterson
8:00	NDPAMA Superior - Replacement Parts - John Lauer
8:00	NDPAMA AVCO Lycoming - Maintenance - Jim Brown
8:00	NDPAMA Pratt & Whitney - PT6 - Tim Douglas
8:00	NDPAMA Hartzell - Maintenance - Jim Reedy
8:00	NDPA Business Meeting
9:00	NDAAA Sprayer Calibration - Vern Hofman
9:00	AAND FAA Information Session Navaid Funding - Ed Phillips Airports Funding - Dave Rask, Milt Heupel, Bob Huber Flight Service Station Update - Bob Fishman
9:00	NDPA Biennial Flight Review
9:00	NDPAMA Champion - Sparkplugs - Bill Mangold
9:00	NDPAMA Concord Batteries - Skip Koss
9:00	NDPAMA McCauley - Props - John Stieis
9:00	NDPAMA Slick Products - Maintenance - Harry Felton
10:00	Spouses Program
10:00	NDAAA Test - Initial & Recertification
10:00	COFFEE BREAK — COFFEE — SOFT DRINKS
10:30	AAND AV Plan Update - Barb Fritschie Airport Insurance - Clint White - Rollings, Bur- dick, Hunter of Kansas
10:30	NDPAMA Teledyne Continental - Maintenance
10:30	NDPAMA Mooney - Maintenance - Jim Fleming
10:30	NDPAMA ATP - Microfiche - Julie Lais
10:30	NDPAMA Wall Colmonoy - Exhaust Systems - Art Pierce
10:30	NDFF TCA Procedures Update - FAA - Flight Service

TUESDAY, MARCH 8 P.M.

12:00	Soup & Sandwich & Exhibits - DOOR PRIZES
1:00	NDAAA FAA 137 Safety Review - Fred Clark
1:30	NDPA Collision Avoidance in the 80's - AOPA
1:30	AAND General Business Meeting
1:30	NDPAMA Chadwick Helmeth - Rotary Wing Vibration - Jim Fackler
1:30	NDPAMA AVCO Lycoming - Maintenance - Jim Brown
1:30	NDPAMA Aeroquip - Al Wagner, Lou Williams
1:30	NDPAMA B.F. Goodrich - Tires - Charlie Block Deicing Systems - Gary Garcia
2:30	Open Meeting - Dr. David Webb
2:30	NDPAMA Cessna - Composite Structures

Kirkwood Motor Inn



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1988 UPPER MIDWEST AVIATION SYMPOSIUM SCHEDULE
March 7, 8, 9 - Kirkwood Motor Inn, Bismarck, ND
"SKY'S THE LIMIT"

TUESDAY, MARCH 8 (cont.)

2:30	Spouses Program - The Basics of Flying - Jerry Cockrell - Sponsored by NDFP & 99's
3:15	Open Meeting - Don Engen, AOPA
4:00	COFFEE BREAK — COFFEE — SOFT DRINKS — COOKIES
4:00	NDPAMA Cleveland Wheels & Brakes - John Bakos
4:00	NDPAMA Airborne - Dry Air Pump, Pneumatic Valves, Regulators, Deice Systems - Ralph Heysek
4:00	NDAAA Regulatory Division of ND Dept. of Ag, John Sellie
4:30	NDAAA Doug Tollefson - NDSU
5:00	NDPAMA Business Meeting
7:00	NDAC The Psychology of Air Safety - Jerry Cockrell
8:30	Exhibitors Hospitality Night

TUESDAY EXHIBIT AREA OPEN:

7:00 - 8:30
 11:00 - 2:30
 4:00 - 7:00

WEDNESDAY, MARCH 9 A.M.

7:00	Continental Breakfast & Exhibits
7:30	Registration
8:00	NDPAMA Auburn - Sparkplug Lead Fouling - Art Pierce
8:00	NDPAMA Hartzell - Props - Jim Reedy
8:00	NDPAMA Superior - Replacement Parts - John Lauer
8:00	NDPA Automated FSS - Jamestown As A Case Study
8:30	NDAAA Report on NAAA - Ron Deck
9:00	NDPA Biennial Flight Review
9:00	NDAAA Gary Ness & Rodger Pfeiffer
9:00	NDPAMA Champion - Filters - Bill Mangold
9:00	NDPAMA "Battery Shop, Aviall" Ni-Cads, Grady Lynn
9:00	NDPAMA AVCO Lycoming - Maintenance - Jim Brown
9:00	NDPAMA Pratt & Whitney - PT6 - Tim Douglas
9:00	NDPAMA McCauley - Wheels & Brakes - John Stieis
9:00	NDFP Business Meeting
9:30	NDAAA FAA/AG OPERATOR Maintenance Problems Fargo FSDO
10:00	COFFEE BREAK — COFFEE — SOFT DRINKS
10:00	NDAA FAA Fargo FSDO, Part 135, Regional FAA - John Colomomy - Jim Adland, Otto Goergen, Fred Clark - Wes King
10:30	NDAAA North Dakota Workmen's Comp - Bob Dikhord
11:00	NDAAA Business Meeting
10:30	NDPAMA Teledyne Continental - Ignition Systems
10:30	NDPAMA Aeroquip - Al Wagner, Lou Williams
10:30	NDPAMA Shell Oil - Ben Visser
10:30	NDPAMA Concord Batteries - Skip Koss

WEDNESDAY, MARCH 9 P.M.

11:00	Exhibits Open - DOOR PRIZES
12:00	Soup & Sandwich
1:30	NDPA Thunderstorms, Flight and Fantasy
2:00	Spouses Program
2:00	NDPAMA FAA IA Renewal - Panel Program - Otto Goergen, Wes King, Wes Edwards
2:00	NDAAA Presentation by Chemical Distributors & Repts 10 minutes each (All exhibitors invited to make presentations to NDAAA group)
2:30	NDFP Auto Gas vs. AV Gas Panel - The Debate Continues
3:00	NDAA Business Meeting
3:00	NDPAMA ATP - Microfiche Systems - Julie Lais
3:00	NDPAMA Slick - Maintenance - Harry Felton
3:00	NDPAMA Dupont Paints - Walt Oster
3:00	NDPAMA Chadwick Helmeth - Fixed Wing A/C - Jim Fackler
4:00	NDPAMA Business Meeting, Election of Officers
5:00	NDAC Council Election of Officers
5:00	Cash Bar - Pool Side
6:30	Banquet - Sponsored by NDAC Council Speaker - Jerry Cockrell - Aviation Humor
9:00	Dance & Hangar Party - Sponsored by NDAA

WEDNESDAY EXHIBIT AREA OPEN:

7:00 - 8:30
 11:00 - 4:00 Tear down after 2:30
 Exhibitors are invited to make a 10 minute presentation to
 NDAAA in room A, from 2:00 - 4:00.
 Exhibit Area will be the site of Hangar Party at 6:30 p.m.

**NORTH DAKOTA
 AVIATION ASSOCIATION
 to host hangar party**

*Bob Simmers, President
 NDAA*

The North Dakota Aviation Association (NDAA) is hosting a hangar party and dance following the Symposium Banquet scheduled for the 9th of March, 1988. This year the Symposium promises to be a new adventure in aviation surrounding the theme "SKY IS THE LIMIT", and the banquet and following hangar party will be no exception. The setting will be that of an old hangar, and the atmosphere will be that of fun and relaxation, so plan on attending and kickin' up your heels to live music at the hangar party.

**Dr. Jerald Cockrell
 Aviation Safety Psychologist
 To Speak At Symposium**

Dr. Jerald Cockrell is scheduled to address various audiences during the 1988 Upper Midwest Aviation Symposium. Dr. Cockrell is planning to make a 2½ hour presentation for the non-flying spouses on Tuesday afternoon; he is scheduled for a 1½ hour educational air safety talk, open for all attending the symposium Tuesday evening; and will be the keynote speaker for the symposium banquet Wednesday night.

Dr. Jerald Cockrell is originally from Mississippi. He earned a PhD in psychology from the University of Mississippi and has worked as a clinical psychologist.

Dr. Cockrell has an Airline Transport Certificate - DC-3 rating - and has over 9,000 hours flight time. He has worked as a flight instructor and has done charter and freight pilot flying.

In giving aviation safety programs over the past 15 years, he has spoken in every state in the union. Dr. Cockrell gave the first flight instructor clinic in Africa and has given aviation safety programs all over the world.

He worked for AOPA for approximately 8 years doing flight instructor refresher clinics before beginning his own aviation training firm. Dr. Cockrell is a member of the Aviation Psychologists Association. He also is a past president of the Alaska Aviation Safety Foundation and has performed a weekly television show addressing aviation safety on PBS.

He is currently working as an aviation consultant doing safety programs for the airlines and the military. On January 1, Dr. Cockrell assumes the position of director of safety for MARKAIR, Anchorage, Alaska.

WINTER OPERATIONS

*Fred Clark, Safety Inspector
FAA/FSDO, Fargo*

Wintertime in North Dakota can be one of the most pleasant times of the year to fly. There is a significant decrease in turbulence due to thermal activity, and there are very few mosquitos and flies to distract you during your preflight and taxiing operations. There are, however, some different operational techniques that are necessary for safe operation during the winter season.

Aircraft Preparation:

Manufacturers generally can predict their products performance in temperature extremes and outline precautions to be taken to prevent premature failures. These may include baffling and winter covers, commonly called winter kits. The cabin heater should be thoroughly inspected to ensure that there is no possibility of carbon monoxide entering the cockpit or cabin area. Wet cell batteries require special consideration during cold weather. It is recommended that they be kept fully charged or removed from the aircraft when parked outside to prevent loss of power caused by cold temperatures and the possibility of freezing. Wheel wells and wheel pants should be inspected prior to each takeoff. Mud and slush can be thrown into the wheel wells or wheel pants during takeoff and taxiing. If frozen in flight, this mud and slush could create a landing gear problem. The safest method is to avoid these conditions with retractable landing gear aircraft. Removal of wheel pants on fixed gear aircraft can help to prevent the possibility of frozen substance locking the wheels or brakes.

Operation of the Aircraft:

Low temperatures can change the viscosity of engine oil, batteries can lose a high percentage of their effectiveness, instruments can stick and warning lights when "pushed to test" can stick in the push position. Because of the above, preheat the engines and the cockpits before starting in low temperatures. Extreme caution should be used in the preheat process to avoid fire. The following precautions are recommended: 1) Preheat the aircraft by storing in heated hangar, if possible; 2) Use only heaters that are in good condition and do not fuel the heater while it is running; 3) During the heating process, do not leave the aircraft unattended. Keep a fire extinguisher handy for the attendant; 4) Do not place heat ducting so it will blow air directly on parts of the aircraft, such as upholstery, canvas, engine covers, flexible fuel, oil and hydraulic lines or other items that may cause fire. Use of the carburetor heat may be required to assist in fuel vaporization; however, do not use the carburetor heat in such a manner

that it raises the mixture temperature barely to freezing or just a little below. In such cases, it may induce carburetor icing.

Enroute:

Weather conditions may vary considerably in cold climates. Snow showers, of course, are quite prevalent. A pilot may suddenly find himself without visibility in an IFR condition shortly after snow shower penetration.

In the event of an encounter with icing conditions, a pilot can expect a significant decrease in the airspeed coupled with a significant increase in stall speed. It is, therefore, most important that a pilot be aware of the operating characteristics and the protection the manufacturer affords a particular make and model of aircraft he is operating. Even with extensive anti-icing and deicing equipment on board the aircraft, performance may somewhat diminish due to the accumulation of ice on unprotected areas.

Survival:

After an unscheduled off-airport landing, it is best to leave the aircraft as soon as possible. Take time to analyze the situation and help others, and take care of any injuries first. Stay away from the aircraft until all gasoline fumes are gone. Sit down and think. Keep in mind that survival is 80% mental, 10% equipment, and 10% skill. Since mental factors are the #1 problem, establish a goal to conquer regardless of the consequences - don't have the give-up-itis or do-nothing attitude. Do not run off without taking time to think out each problem. Don't imagine things that are not there. Whether to stay with the aircraft or start out on foot might be a major decision. Did you file a flight plan? If you did, it may be best to let them find you. Is your emergency locator transmitter operating? Do you have a survival kit? Don't fight a storm, stay put and find shelter. Most storms are of short duration and short term survival in our part of country is all that is necessary. The survival kit is well worth its weight. You can assemble your own inexpensive survival kit, if you wish. Commercially assembled survival kits are also available. An easily assembled survival kit can be made up of - 1) A metal container with a lid. This container can be used to heat water, make tea, use as a digging tool or polished as a signal mirror; 2) A boy scout knife; 3) A small candle; 4) Penny box of matches (wrapped in plastic); 5) A leaf bag (pull over head, cut a hole for your face); 6) Garbage bag - step in, pull up and tuck in pants, or tie around the waist. Now you have body protection from heat loss; 7) Sugar cubes, wrap in plastic, 6-12 cubes; 8) Plastic tape. The above is only a sample of what can be done. Use your own innovation and remember, survival depends on you.

When one flies in the wintertime, one should consider wearing or at least carrying sufficient clothing so that should it be necessary a person could walk a distance necessary for seeking assistance. This would consist of proper footwear, snow-suit, a ski mask and hat and gloves. Proper clothing can make the difference between an uncomfortable hazardous situation, and simply a minor inconvenience.

Winter flying is an enjoyable experience and can be as comfortable as flying in any other season, if you employ the proper precautions and techniques.

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About The...

Airport Improvement Program

*Milt Heupel
FAA-AFO, Airports Engineer*

We are still waiting for renewal of the Airport Improvement Program (AIP) which expired on the 30th of September. All indications are that the new program will make more dollars available for airport improvements than under the recently expired program. Of course, we are all disappointed with the delay in getting a new program, and the longer it continues to be delayed the tougher it will become to get construction on the upcoming projects moving during this next construction season. One way of getting ready for the new program and avoiding unnecessary delays when that time comes is to get your preapplication for federal assistance in now, rather than waiting for the program.

While it appears that more money will be available under the AIP for airport improvements, we see our role in the program changing. Because of restrictions on the resources available to us, we are going to be less involved in the details of your projects. By this we don't mean to imply that the high standards that have always been demanded on these projects will be lowered. With your cooperation and assistance these same high standards will be maintained.

We hope to have an opportunity to talk to you during the Upper Midwest Aviation Symposium at Bismarck in March and give you more details about the Airport Improvement Program and our changing role.

AAND's Program At Symposium "Jam-Packed"

Gerald K. Olson, President
AAND

The 1988 AAND program promises to be interesting, informative, and most likely controversial. There are three 1½ hour sessions planned for Monday and Tuesday, March 7, 8.

Starting on March 7th, from 2:30 - 4:00 p.m., a two part session is planned. The state certification of North Dakota's approximately 100 airports will be discussed by the Aeronautics Commission staff. Gary Ness, Roger Pheiffer and Mark Holzer will present a program potentially calling for the classification of airports into three or more categories.

The state of Minnesota has adopted a classification program that the state of North Dakota might follow. Minnesota categorizes their system into three classes — Key, Intermediate and Landing Strip airports.

A Key system airport is 5000 feet or over, paved and lighted. An Intermediate System airport is under 5000 feet in length with a hard surface runway and Landing Strip System airports all have turf runways.

Minnesota charges a \$15.00 annual system license fee. The license is issued and displayed at qualified airports. If that airport fails to meet the Aeronautics Division minimum standards, the license is revoked. To be eligible for state and federal assistance an airport must be included in the state airport system and the national airport system.

At the request of the Airport Association, the Aeronautics Commission is evaluating the certification program. This session will be an opportunity (a public hearing if you will) for the airports in the state to voice their opinion regarding certification.

Also included in the Monday morning session will be a presentation on proper asphalt maintenance, with emphasis on crack sealing, given by Neil Zimmerman of Zimmerman Contracting, Minot, North Dakota.

Starting on Tuesday morning, March 8th, running from 9:00-10:30 a.m., will be a three part Federal Aviation Administration information session. Mr. Ed Phillips, Airways Facilities Division Manager, from Des Plaines, Illinois, will start off with a discussion regarding funding availability and acquisition of NAVAID's for airports.

Mr. Milt Heupel and Mr. Dave Rask from the FAA Airport's Field Office in Bismarck, along with Mr. Bob Huber, Minnesota/North Dakota airport's supervisor from the FAA's Minneapolis office, will follow Mr. Phillips presentation.

These three individuals will discuss the new FAA reauthorization spending bill and how it will affect North Dakota airports. Additionally, a period of time will be spent evaluating the FAA's "changing role" under the new federal aid program.

The third topic in the 9:00 - 10:30 a.m. time slot will be the airports relationship and responsibility with respect to the closing of the North Dakota's Flight Service Stations and the full commissioning of the Automated Flight Service Station in Grand Forks. Mr. Bob Fishman, manager of the North Dakota Automated Flight Service Station will discuss proper issuance of NOTAM's, correct system usage, and weather reporting after the Minot, Jamestown, and Dickinson FSS closures.

The final AAND program will run from 10:30 - 12:00 Noon, on Tuesday and will be divided into two topics. Aviation Planning Associates (AVPLAN) of Cincinnati, Ohio, will give an update on the State Aviation System Plan and the State's Aviation Economic Impact Study. AvPlan was hired by the North Dakota Aeronautics Commission to do various studies on aviation in the state. Ms. Barb Fritsche, AvPlan Consultant, will provide the most up to date information available and this should be of interest to airport sponsors throughout the state.

The second part of the 10:30 - 12:00 session will be on airport insurance. Mr. Clint White, Vice President of Rollins, Burdick and Hunter of Kansas will be available to provide information on an airport insurance program for "commuter" sized airports and smaller. The insurance program is tied in with the American Association of Airport Executives (AAAE), a national association representing the concerns of airports throughout the country.

Apart from the three aforementioned informative sessions, AAND's general business meeting is scheduled for Tuesday, from 1:30 - 2:30 p.m. This meeting is open to any AAND member or associate member. The election of 1989 new officers takes place and any other new association business will be discussed.

I feel that the 1988 Upper Midwest Aviation Symposium is shaping up to be one of the most informative and entertaining ever. In addition to the airport programs mentioned, there are educational general sessions planned, spouse programs, an all new international social night and a special hangar party banquet. All and all, this years program should be fantastic. If you haven't attended a symposium in the past, this would be the year to start — see you in Bismarck in March.

NDPAMA Convention And Award Update

Charles Q. Lindquist
NDPAMA President

Hope you all had a great holiday season. Plans are nearing completion for the 1988 Upper Midwest Aviation Symposium in Bismarck. The dates are set for March 7, 8 & 9 at the Kirkwood Motor Inn. Approximately 24 speakers have been lined up for the mechanics portion of the program. The companies which will be represented include:

1. Superior Air Parts
2. Champion Aviation Products
3. Auburn Spark Plugs
4. Wall Colmonoy Exhaust Systems
5. Hartzell Propeller Products
6. McCauley Accessory Division
7. Teledyne Continental Motors
8. Avco-Lycoming
9. Pratt & Whitney Canada Inc.
10. Slick Aircraft Products
11. Chadwick Helmuth
12. B F Goodrich
13. Concorde Battery Corporation
14. Cessna Aircraft Corporation
15. Piper Aircraft Corporation
16. Mooney Aircraft Corporation
17. Federal Aviation Administration
18. Aircraft Technical Publishers
19. Shell Oil
20. Battery Shop/Aviall
21. Aeroquip Corporation
22. Dupont Paints
23. Cleveland Wheels & Brakes
24. Airborne Air & Fuel

With this list, everyone will be able to find something of interest.

Also at the convention, the FAA will be conducting their annual IA Renewal. They will be sending out forms prior to the convention. Remember to bring your completed form along with you so your renewal may be done at this time. This meeting will tentatively be held Wednesday, March 9th at 2:00 p.m.

Elsewhere in this issue of ND Aviation Quarterly, you should find an entry form for Mechanic of the Year award. I would like to encourage not only mechanics, but aircraft owners/operators to submit entries for mechanics whom you feel would deserve this recognition. The deadline for submitting will be listed on the form as well as where to send it.

Hope to see you at the convention!

North Dakota Aviation Maintenance Mechanic Safety Award Program

Ed Zawistowski, Secretary NDPAMA

Every year an effort is made to single out the most outstanding maintenance technician in a competition known as the Mechanics Safety Award Program. This effort allows the public to recognize the importance of the role maintenance technicians play in aviation safety and also focusses the attention of industry toward the vital contribution made by all aviation technicians. This program is sponsored by the North Dakota Professional Aviation Mechanics Association Safety Program.

This year's winners will receive the following prizes.

First Place: \$300.00 cash award plus paid convention expenses

Second Place: \$150.00 cash award

Third Place: \$50.00 cash award

The objective of the North Dakota Aviation Mechanic Safety Award Program is to recognize those mechanics making an outstanding contribution to aviation safe-

ty through the performance of their duties. This effort enables the public to recognize the importance of the mechanic's attention on the vital safety role they play in the practice of aviation maintenance. PLEASE READ THE FOLLOWING INFORMATION CAREFULLY BEFORE COMPLETING THE ENTRY FORM.

An entrant must be working in North Dakota as an active aviation mechanic. He/she must hold a current FAA airframe and/or power plant, repairman, instrument or avionics technician rating. He/she must be skilled in the methods, techniques and practices necessary for the performance of maintenance, inspection or alteration of aircraft as a whole, or any of the major aircraft subdivisions, such as engines, propellers, air-frames, avionics and appliances. Eligible mechanics may submit an entry form for themselves or for a friend or co-worker. Entries should be made

using the information contained on this form and submitted no later than February 10, 1988, To: Ed Zawistowski, Sky Tractor Supply, R.R. 2, Box 36, Hillsboro, ND 58045.

Screening of the entry forms will be done by the Aviation Mechanic Selection and Award Committee, comprised of members of the NDPAMA and the local FAA office. They will thoroughly review all entry forms to assure that the entrant's "outstanding contribution" is within the guidelines specified. All entries will be judged without regard to race, creed, color, sex or national origin. Selection of the recipient will be made by the Selection and Award Committee, and their judgement is final.

For more information on the North Dakota Aviation Mechanic Safety Award Program contact Ed Zawistowski at 1(800) 732-4292 or (701) 436-5880.

ENTRY FORM FOR NORTH DAKOTA AVIATION 1988 MECHANIC SAFETY AWARD PROGRAM

INSTRUCTIONS: Use a separate form for each entry. All entries must be either typewritten or neatly hand lettered.

Name:

FAA Certificate No:

Address:

FCC License No:

Telephone No:

Employer:

Employer's Address:

Year first designated a Maintenance Technician:

Years experience:

ENTRY DETAILS: Give brief but factual description. Drawings, photographs or other presentations may be included to assist the judging committee. All entries become the property of the Selection Committee and will not be returned.

(If additional space is required, attach additional sheets)

ENTRY SUBMITTED BY: (if other than entrant)

Name:

Address:

Employed by: (Name and address)

Position Held:

Date:

Signature of person submitting entry:

FOR SELECTION COMMITTEE USE ONLY

AVGAS SELLERS BEWARE

Jack Daniels, ND Aviation Council Lobbyist

Beginning next year, FBOs will no longer be able to exempt themselves from paying the manufacturer's tax on avgas when purchasing aviation gasoline from their supplier.

Effective January 1, 1988, the exemption numbers obtained by FBOs using **Form 637 will no longer be valid**. This means those aviation retailers currently paying no federal aviation fuel excise taxes when purchasing avgas from a supplier will begin paying the supplier the 9.1 cents a gallon manufacturer's level taxes.

The following table contains general guidelines for filing aviation excise taxes with the IRS using Form 720:

Type of Tax	Rate	IRS # (line)
Aviation Gasoline Retail Tax	2.9 cents	14
Jet Fuel Retail Tax	14.0 cents	69
Aviation Gasoline Tank Tax (applies only to aviation gasoline)	.1 cents	15
Tank Tax On All Aviation Fuels (applies to both aviation gasoline & jet fuel)	.1 cents	15
Aviation Gasoline Manufacturer's Tax	9.0 cents	62
Tax on Transportation Of Persons	8%	26
Tax on Transportation Of Property	5%	28
International Departure Tax	\$3/person	27

FBOs Currently Registered As Producers (FBOs currently registered with the IRS as a producer using Form 637) - Until December 31, 1987, those operators may exempt themselves from paying the manufacturer's tax at the wholesale level. However, since the exemption expires at the end of 1987, a one time adjustment must be made so that the manufacturer's taxes are paid on the avgas in storage. This "floor stocks tax" requires the FBO to prepare an inventory of aviation gasoline held for sale on January 1, 1988 and submit 9.1 cents a gallon for the avgas which no manufacturer's tax has been paid. The "floor stocks tax" must be filed with the IRS using Form 720 by February 16, 1988. From January 1st on, all FBOs will be considered as "FBOs Not Registered As Producers." Refer to the appropriate section for details on filing fuel excise taxes.

FILING AVGAS EXCISE TAXES

FBOs Not Registered As Producers (After January 1, 1988, all FBOs will pay the manufacturer's tax at the wholesale level) - The one-tenth of a cent per gallon tank tax on all aviation fuels is included in the price of avgas by the manufacturer. When combined with the nine cent per gallon manufacturer's tax, the total tax paid to the manufacturer is 9.1 cents per gallon. Since the total federal tax on avgas is 12.1 cents, an additional 2.9 cents retail tax and a tenth of a cent "aviation gasoline tank tax" must be collected. The 2.9 cents retail tax is reported on Form 720, line 14, and the "aviation gasoline tank tax" on line 15. Properly registered tax exempt customers may continue exempting themselves from paying three cents per gallon federal tax at the retail level (2.9 cents retail tax plus the .1 cent "aviation gasoline tank tax") but must pay the 9.1 cents manufacturer's tax.

FILING JET FUEL EXCISE TAXES

All FBOs Selling Jet Fuel - Since there is no manufacturer's tax on jet fuel, FBOs must collect the 14 cents per gallon federal retail tax along with the one-tenth of a cent per gallon tank tax on all aviation fuels. The jet fuel retail tax is reported on line 69, and the tenth of a cent per gallon tank tax on all aviation fuels on line 15. Air taxis with exemption numbers can exempt themselves from paying the 14 cents per gallon retail tax, but are required to pay the tenth of a cent tank tax on all aviation fuels.

On The National Side

Tim McPherson, President
ND Agricultural Aviation Association

Although all the North Dakota members were not able to attend the National Agricultural Aviation Association Convention in Mobile, Alabama, November 30 through December 3, 1987, those that did felt the 'South' did a tremendous job of hosting the event. The attendees were able to experience the culture with a Cajun Party and Mardi Gras along with viewing an array of exhibits on display. Speaker Gill Rude, flight leader of the Blue Angels drew a large crowd and was excellent. Tours of the city were offered and the dog races were personalized, with Breezy Barb, Roving Ron, McPherson's Mint and North Dakota Gerald running, the betting was more interesting. An applicator from Puerto Rico was the winner of a four-wheeler given away in the WNAAA raffle which Barb Deck was in charge of, and through the WNAAA, sweatshirts and t-shirts are still available.

Membership in your state and national organizations was stressed at this convention and all aerial applicators are urged to participate in these valuable organizations. The NAAA business meeting at the convention included the presence of the membership at large which hasn't been done for some time. NAAA members present were able to question officers as well as express their views. Since it proved successful, the NAAA Convention business meeting will likely continue to invite the members. North Dakota's Ron Deck stepped down from his NAAA Secretarial position and Barb Deck was elected Vice-President of the Womens National Agricultural Aviation Association, with Avis Georgeson of South Dakota serving as President, Gay Boardman of Nebraska as Secretary and Glenda Meisel of Kansas as Treasurer. The men elected to serve as NAAA officers were: President Jack Keahey, Louisiana; Vice-President Art Heck, Ohio; Secretary Wayne Turner, Montana; and Treasurer Eddie Henry, Arkansas.

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