

STATE OF NORTH DAKOTA



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NOVEMBER, DECEMBER, 1976

JOINT NORTH DAKOTA AVIATION ASSOCIATION ANNUAL CONVENTION AND AERIAL APPLICATORS RESTRICTED CHEMICAL CERTIFICATION SEMINAR

With registration starting Wednesday, January 19th, 1977 at 10:00 at the Kirkwood Motor Inn, Bismarck, N.D., a busy 4 days will face many of North Dakota aerial applicators as they become recertified in restricted chemicals and also attend the N.D. Aviation Association annual convention.

Billed as a joint function, the chemical certification seminar portion is sponsored by the N.D. Aeronautics Commission and the North Dakota State University and deals with training of the safe handling and proper application of restricted chemicals as they pertain to aerial application. The seminar is to start Wednesday the 19th at 1:00 p.m. and run through Thursday morning cumulating in an open book testing session.

Airport managers of the State of North Dakota have been invited to a panel discussion on the problems associated with using air carrier airports by the general public in the areas of security on Friday morning the 21st.

The Air Taxi Fixed Base Operators group will meet separately from the aerial applicators on Friday afternoon to discuss problems attendant to those phases of the industry. The meeting will also be covering the position of the Federal Aviation Administration on the rewriting of the Air Taxi Rules.

Webster D. Todd, Chairman of the National Transportation Safety Board will be present at the upcoming annual meeting of the N.D. Aviation Association. Mr. Todd has accepted an invitation from the Executive Secretary of the N.D. Aviation Association, Jack K. Daniels, to address the banquet of the Association on January 21, 1977.

Mr. Todd was an assistant to the Chairman of the Civil Aeronautics Board, special assistant to the President for the Council on Aging, and moved into the Chairmanship of the National Transportation Safety Board recently, being appointed by President Ford.

Todd is no stranger to the aviation industry, having owned a FBO and having run a commuter airline prior to entering government service. He speaks in down-to-earth terms that we in the Midwest can understand. He plans on discussing the work of the NTSB in the area of aerial application of agrichemicals and air taxi operators, and what the NTSB has going for it in enhancing safer operations for those in the industry.

In making the announcement NDAA Secretary Daniels expressed his feelings of gratitude that Chairman Todd has accepted the invitation.

The detailed agenda follows:

WEDNESDAY, JANUARY 19, 1977:

10:00 a.m. to - Registration for both Restricted Chemical Seminar & N.D. Aviation Association - Kirkwood Motor Inn, Bismarck, N.D.
 1:00 p.m. to - Joint N.D. State University and N.D. Aeronautics Commission sponsored
 5:00 p.m. Restricted Chemicals recertification Seminar

THURSDAY, JANUARY 20, 1977

8:30 a.m. to - Continuation of Restricted Chemicals Seminar and aerial applicator
 12:00 Noon Certification (Open Book Testing)
 12:00 - 1:30 - Lunch
 2:00 - 3:00 - Industrial presentation
 3:00 - 3:15 - Coffee Break
 3:15 - 5:30 - N.D. Aviation Association First Business Session
 6:30 - 9:00 - Poolside Social

FRIDAY, JANUARY 21, 1977

7:30 - 9:00 - Industrial Breakfast
 9:30 - 10:00 - Aeronautics Commission Reports
 10:00 - 10:30 - Airport Managers panel
 10:30 - 10:45 - Coffee Break
 10:45 - 11:30 - Safety Seminar
 11:30 - 12:00 - Executive Secretary remarks
 12:00 - 1:30 - Luncheon, Richard Backus - House Floor Leader
 2:00 - 3:00 - N.D. Sales & Use Tax - Application of Guidelines - Walt Stack, Tax Dept.
 3:00 - 3:15 - Coffee Break
 3:15 - 5:30 - Aerial Applicators Session & Fixed Base Operators Session
 6:30 - 7:30 - Social Hour

- Annual Banquet, Vincent Cartwright, Pres. Master of Ceremonies
 Flight Instructor of Year Award; Mechanic of the Year Award
 Webster D. Todd, Chairman, National Transportation Safety Board

SATURDAY MORNING - 9:00 to 12:00 - Final Business Session

1977 NORTH DAKOTA AVIATION MAINTENANCE SEMINAR MARCH 1,2,3 - KIRKWOOD MOTOR INN
BISMARCK, N.D.-----

Gordon W. Person of Dakota Aero Tech, Inc., Fargo, Seminar Chairman, has announced that the 3rd annual aviation maintenance seminar will be held in Bismarck, March, 1,2,3 at the Kirkwood Motor Inn. Person stated that space has been secured in so that the aviation manufacturers and suppliers can have displays. Person also stressed the importance of making early room reservations and said that reservation cards will be sent to everyone on the mailing list. In the event you call for room reservations, be sure and state that you are attending the N.D. Aviation Maintenance Seminar as a block of rooms have been set aside. The completed agenda of the Seminar follows:

MARCH 1, 1977:

8:00 - 9:30 a.m.	- Registration
9:30 - 10:00	- Welcome and Introduction
10:00 - - - -	- Low Lead fuel management (Otto Goergen, FAA GADO #4)
11:00 - - - -	- Aircraft Heaters (Stewart Warner Corp. - John Mossberger)
12:00 - 1:00	- Lunch
1:00 - 3:00	- Hartzell Propeller Inc. (Hartzell Technical Rep) & Ken Maxwell of Maxwell Aircraft, Minneapolis, Minn.
3:00 - 4:00	- Care of Spark Plugs (Art Pierce)
4:00 - - - -	- What's new in aircraft engines by Teledyne Continental
5:00 - 6:30	- Industry displays visitation
6:30 - 7:30	- Pool Side Social Hour
8:00 - - - -	- Various Committee Meetings

MARCH 2, 1977:

8:00 - 12:00	- Electrical Aircraft Systems by Cessna Training Center, Wichita
12:00 - 1:00	- Lunch Break
1:00 - 2:00	- Aircraft magnets & accessories (James Slick of Slick Electric)
2:00 - 3:00	- Vacuum & Pressure System (Phil Peterson of Airborne Mechanisms)
3:00 - 4:00	- Champion Spark Plugs & Filters (Stan Fletcher of Champion Spark Plug)
4:00 - 5:00	- Maintenance and trouble shooting of Presto-Lite Products (John Davis)
5:00 - 6:30	- Industrial Booth visitation
6:30 - 7:30	- Pool Side Social
8:00 - - - -	- Committee Meeting

MARCH 3, 1977:

8:00 - 9:00	- What's New - Avco/Lycoming (Kenny Lowmiller, Field Rep)
9:00 - 10:00	- Field Approvals (Ron Adams, Fargo GADO)
10:00 - 11:00	- Tires & Boots Care & trouble shooting (B.F. Goodrich)
11:00 - 12:00	- Strobe Lights testing & maintenance (Jack Gretta of Whelen Engineering)
12:00 - 1:00	- Noon Lunch
1:00 - 2:00	- Business Meeting (Proposed N.D. Aviation Maintenance Technician Assn)
2:00 - 3:00	- IA Inspection Authorization Meeting (GADO, Fargo)
3:00 - - - -	- Adjournment

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PILOT SAFETY SEMINARS:

Schedule of Pilot Clinics in North Dakota in January, 1977 to be presented by the Accident Prevention Specialists of the Federal Aviation Administration, Fargo, Mike Beiriger, Chief, Accident Prevention Program follows:

January 13, 1977 - Wahpeton, N.D. at the Student Center at the North Dakota State School of Science, at 7:00 p.m. Sponsored by Plains Aero. For more information call 642-6151.

January 24, 1977 - Hettinger, N.D. at the Friendship 7 Room of the First National Bank 7:30 p.m. sponsored by Air Dakota. For more info, call 567-2069

January 25, 1977 - Bowman, N.D. location undecided (Contact CAP)
7:30 p.m. sponsored by the Civil Air Patrol. For more information call Virgil Rath at 523-3237 office.

January 26, 1977 - Beach, N.D. at the Community Center. 7:30 p.m. sponsored by the Beach Buzzards Flying Club. For more info, call Gene Hamilton at 872-4191.

January 27, 1977 - Dickinson, N.D. at the Crown Room of the First National Bank and Trust in Dickinson. 7:30 p.m. co-sponsored by Dickinson Flight Service Station and the N.D. Chapter of 99's. For more information call 225-2989.

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1976 AIRCRAFT REGISTRATIONS AND AERIAL SPRAYING LICENSES SET RECORDS

During 1976, the State Aeronautics Commission registered 1,522 general aviation aircraft in N.D., an all time high, compared with 1,405 in 1975, an increase of 8 per cent. Aircraft licensed by the Aeronautics Commission for aerial spraying totaled 338 in 1976 compared with 306 in 1975, an increase of 10%.

The Aeronautics Commission will be mailing out the 1977 aircraft applications to all aircraft owners the first week of January, 1977.

TWO (2) AIRPORTS, POSSIBLY MAY BE BUILT WITHOUT AVIATION FUNDS

Economic Development Administration (LPW) Local Public Works Capital Development & Investment Program funds have been requested for 2 airports within North Dakota recently. For those of you who are not knowledgeable, this is some of the money that Congress pumped into the economy just before election and President Ford signed the bill. The avowed purpose is to create immediate jobs in the high unemployment areas of over 6.5% of which nine counties qualify in North Dakota. The State was allocated $\frac{1}{2}$ of 1%, which amounts to roughly 9.7 million of which 70% is earmarked for Indian reservations and the 30% balance for other areas in the same counties.

Garrison and Rolla, N.D. have both applied for grants which will fund the projects 100%, except for cost of the land. Garrison's Airport Authority proposes to buy 256 acres of land and construct thereon an Industrial Airpark, consisting of a NW-SE 60' X 3100' paved runway; a NE-SW 120' X 3500' turf and a 55 acre industrial section adjacent to the airport.

The construction of the airport and the laying of sewer and water mains are projected to cost \$485,000 which is also the amount requested from the LPW funds.

The Rolla project consists of realigning the present NNW-SSE turf landing area more northwesterly then grading and extending northwestward, a connecting taxiway and ramp apron are also to be constructed. The entire area is then to be hardsurfaced with asphalt. Projected costs, not including land, are \$253,000 which of course is also the amount requested from LPW.

If any funds are granted for these projects, construction must start within 90 days of the notification of the awarding of the grant, again in keeping of the making work concept.

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AERONAUTICS COMMISSION STUDYING AIRPORT ON LAKE SAKAKAWEA

With the loss of Lee's Resort and the convenience of the landing area at that facility, requests have been voiced for a landing area near the Dam site. Considerable exploration for alternate sites in cooperation with the Garrison Airport Authority were carried on. A few sites on the north shore of Lake Sakakawea, located on private land were suitable, but would have necessitated the taking of land from landowners that had lost considerable land to the Reservoir. It was then decided to try for land owned by the Government. On the north side of the Reservoir, a suitable site from the standpoint of an airport, could have been built on the Douglas Creek camping and recreation area, but it is 18 miles from the City of Garrison, which would have resulted in rather a remote site. Coupled with this drawback, it is doubtful if permission to build in a semi-developed camping and recreational area could be secured.

The next areas to be studied were located on the south shores and six possible sites were scrutinized. Of the six, three were located on Government land and three on private land.

Since economics are a factor in all projects, the study concentrated on the sites on government land. Of the three, the one chosen just west of the Girl Scout Area lent itself to a very suitable site for an airport, for quite a few reasons, among a few being: 1. Undeveloped area, no relocation problems. (2) Accessible by fair roads. (3) Area large enough for a main NW-SE runway of 3400 ft., also a crosswind SW-NE of 3000.

From preliminary studies, it would appear that the first phase of construction would be grading of a turf landing area and paving to be a future phase, if traffic warrants.

Before any construction could possibly start, an Environmental Impact Statement must be prepared and submitted through the State Clearing House for what is known as the A-95 clearance. It is the intent of the Aeronautics Commission to submit a preliminary draft of the Environmental Impact Statement to the Governor's Council on Human Resources for their review and comments before the first statement is prepared. The aviation community is invited to stop in anytime at the Aeronautics Commission offices and make known their views.

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NOTICE FROM THE EDITOR

The Newsletter is not published on a fixed calendar basis. When sufficient material has been gathered and the work load permits, we try and have a mailing bi-monthly, so don't become alarmed if it seems like a long time in between issues.

We have also gone to bulk rate mailing with this issue, to save a substantial amount of money. The undesirable feature of bulk rates is that undelivered Newsletters are destroyed instead of being returned to our office, which would alert us to an address change. If you should move, please advise us, as we have no means of knowing of your address change or even of the fact that you have moved.

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FOR SALE: Cessna 170B, Fresh major on engine, new Imron paint, new interior and new radio. Contact Dick Cole, Tel: 228-3740 airport or 228-3740 home, Bottineau, N.D.
58318

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BETH LUCY, _JAMESTOWN, ELECTED CHAIRMAN OF AVIATION ADVISORY COUNCIL

Mrs. Beth Lucy, Chief Flight Instructor at Comet Aviation, Inc. of Jamestown was recently elected to serve as chairman of the Aviation Advisory Council at the University of North Dakota.

The 25-member council, composed of people associated with the aviation industry in North Dakota and executives from major airlines and aircraft manufacturers throughout the nation, held their annual meeting in Grand Forks, November 29th.

The group's primary function is to act as an advisor to the Aviation Department on issues and programs affecting aviation education at UND and graduate employment, according to John D. Odegard, the Department's Chairman. The council was originated in 1971. This is Mrs. Lucy's first year on the council.

The newly elected chairman began flying 12 years ago, and made it her career 10 years ago when she became a flight instructor. Besides acting as Chief Flight Instructor, Mrs. Lucy was also formerly general manager of the fixed base operation in Jamestown. Last year she was named "CFL of the Year" in the FAA Rocky Mountain Region.

Odegard is enthusiastic about the council's new leadership. He said, "The Aviation Department is experiencing tremendous growth in the number of students, as well as the programs offered and research conducted within the Department. And the Advisory Council serves as an important communication channel between aviation educators and professionals in the industry, to keep everyone involved abreast with current developments. I am confident that Mrs. Lucy's outstanding expertise and professionalism will be a significant contribution to the council and to the progress of aviation education at UND."

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13TH ANNUAL FLIGHT INSTRUCTOR CLINIC WELL ATTENDED

The recent Flight Instructor Clinic held at the University of N.D. November 1st through December 2nd was attended by over 100 people. It was billed as the 9th annual although this referred to only those held at the University. Prior to the nine, four others were held, the first being at Bismarck, then one at Minot and two at Fargo, which would make it 13.

FAA has let it be known that they will in the future, not supply FAA Academy personnel to lecture. The aviation community, they contend, should take over this function themselves. At the conclusion of the clinic, a pitch was made by Dan Wakefield of Wakefield Flight Service, Devils Lake, N.D., to institute a letter writing campaign by those in attendance, to FAA to reconsider the proposed discontinuation.

In an informal discussion period, it was the consensus of the instructors, that this program in itself was one of the best means that FAA has to promote training of the type needed to develop safe and knowledgeable pilots. It is suggested that if interested in sending a letter to FAA, that it be copied to the National Transportation Safety Board. The addresses are as follows:

John L. McLucus, Administrator
Federal Aviation Administration
Washington, D.C. 20594

Webster D. Todd, Jr., Chairman
National Transportation Safety Board
Washington, D.C.

Of interest is that among those attending the 13th Annual Clinic, six instructors had attended the first one in Bismarck. In those first four clinics, a portion was devoted to flying and the Academy team would then ride with the instructors to standardize them. Those that attended the first and also the 13th were Lee Barnum, Dan Wakefield, Cliff Beeks, Jim Montgomery, Ernie Knutson and Vernon Baltzer.

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NORTH DAKOTA AERONAUTICS COMMISSION TO MAKE DISTRIBUTION OF 20 ADDITIONAL BT-400 AIRCRAFT HEATERS

Last fall when the temperatures were in the high 80's and low 90's, the N.D. Aeronautics Commission was very fortunate in securing a fair number of BT-400 aircraft heaters from the Minot and Grand Forks Air Force Bases. These heaters were all in X condition, which as a rule means that cost of repair would exceed 40% of the acquisition cost, which in this case was \$2100. each, 12 years old. The heaters are known as the Herman Nelson BT-400 and are marvelous heaters, having as an output 400,000 BTU's per hour. The twenty that are to be distributed, have all been reconditioned to original specifications by a Canadian firm, Aerotech Corporation of Winnipeg and will meet OSHA standards. Previously 40 heaters had been distributed, although these were not reconditioned. It being the responsibility of the recipient airports to make them operational.

Municipal Airport Authorities to receive the heaters about the first of the year will be notified as to where to make the pickup by Vernon Baltzer. Airports slated for heaters are: Bismarck, Bottineau, Carrington, Cavalier, Cooperstown, Devils Lake, Glen Ullin, Jamestown, Lakota, Langdon, Mandan, Minot, Mohall, Mott, Parshall, Rolla, Walthalla and Watford City.

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SAFETY AND ACCIDENT PREVENTION TIPS BY MICHAEL G. BEIRIGER, CHIEF, ACCIDENT PREVENTION PROGRAM, GADO #4

ICE, A THREE LETTER WORD FOR WATER: It has been said, "there are two kinds of pilots . . . those that have flown in ice . . . and those that will". Ice is not an uncommon thing for a pilot to encounter. It's another important realm of flight to know and understand.

Generally, the most severe icing an aircraft will encounter will be below 12,000 feet MSL, and around 32 degrees F. Ice is weight. A general aviation light twin can quickly put on as much as two or three cubic feet of ice (150 pounds) in LIGHT icing conditions. At an ounce of ice per drink, that's enough for a party of 2,400 people.

Weight, however, is not the real culprit of ice. The real culprit is DRAG - interruption of airfoil. As ice builds up on the wings or props, the smooth flow of the air over the airfoil is interrupted. The airfoil becomes more and more inefficient and finally is stalled -- even with maximum power applied to the engines.

When you first start to get ice, start working to get out of it --and that generally means a different altitude. Very often, a change of 1,000 feet can make the difference between severe icing conditions and no icing conditions.

Do not attempt to fly into icing conditions unless your aircraft has all the required anti-icing equipment. Even then, use that equipment only to get yourself out of the icing situation.

FROZEN PITOT TUBE: Pitot tube freezing is a potential threat to flight safety in winter. Blockage of the pitot head or the drain holes by ice can produce erroneous airspeed readings which have led to serious accidents. Pitot heating should be used during take-off and throughout flight if weather conditions are conducive to pitot tube icing (clouds, visible moisture, etc.). Pilots should be alert to false readings that indicate blockage of the system (stationary airspeed following power change in level flight, increase airspeed during steady climb, or decrease during descent). Pitot heat, when available, should be checked during the preflight inspection.

THOSE BFR'S: Are you due a biennial flight review (BFR) again? If you got yours when the requirement went into effect in November of 1974, then chances are you need another one now. Check that logbook and see if you have had a BFR within the past 24 months.

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G. A. SURVEY IS OUT

The FAA has released the results of a survey on general aviation activity conducted by FAA and the Civil Air Patrol. Results of the study indicate that 54% of the pilots interviewed during the two-day survey in August 1975 filed flight plans with the FAA on intended cross-country flights. Other results indicated that general aviation aircraft ownership breaks out with 48% owned by individuals, 27% by rental companies, and 8% by flying clubs. The remaining 17% were the property of businesses, institutions or government agencies.

The amount of traffic varied widely among non-tower airports. Usually there was more traffic at airports with paved and lighted runways. They averaged 66 operations per day. Those with paved but unlighted runways had an average of 55 daily operations, those with unpaved but lighted runways had 18 and those with neither paved or lighted runways had 10.

Pilots with Airline Transport Pilot Certificates averaged 651 flight hours per year and those with Commercial Certificates averaged 427. Private pilots were next with 143 hours on the average, followed by student pilots with 36.

For the 1975 fiscal year, it was estimated that general aviation aircraft consumed 409 million gallons of aviation gasoline and 393 million gallons of jet fuel. Nearly 1,000 Civil Air Patrol volunteers participated in the study which was designed to gather useful information on general aviation flying in the United States and the resulting impact on FAA operations. (From American Association of Airport Executives)

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AIRCRAFT VANDALISM AT CARRINGTON

Senseless and deliberate vandalism upon a pressurized Navajo owned by Steve Reimers of Carrington was discovered November 20th. The hangar was broken into and over fifteen thousand dollars worth of damage was caused by the vandals who used a claw hammer to break the heated windshield plus other cabin glass, instruments and dented the fuselage. The North Dakota Crime Bureau and the Federal Bureau of Investigation are working on the case.

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OBLIQUE WING FLIGHT TEST

We have "fixed wing," "rotary wing" and "lifting body-type pilots"; someday, we may have an OBLIQUE WINGER added to the list. In the future, a pilot might check that his wings are level and find that his righthand wing tip has crawled up in front of the cockpit while his left wing tip is back around the tail surfaces somewhere. His airplane will not likely be bent or broken; he probably will be flying an Oblique Winger.

Dryden FRC and Ames Research Center teamed up on a program to build and test-fly a vehicle to examine the oblique wing concept. Slots and slats on the leading edge, flaps of all kinds on the trailing edge, swept wings and swing wings have all been successfully tried as a means for altering the aerodynamic cord of wings without affecting the structural chord. Their little airplane has a 22-foot span and a 90 hp piston engine. It can pivot the wing in flight from the normal 90-degree position to 45 degrees. It will be piloted remotely from a cockpit on the ground. It appears that Dryden/Ames have devised a means for testing concepts which are economical in monetary cost and do not expose a test pilot to unknown hazards.

CLOUD_SEEDED_COUNTIES_RECEIVE_MORE_RAINFALL_IN_1976_SEASON

North Dakota cloud seeded (target) area received 5% more rainfall in 1976, based on unseeded precipitation data.

This evaluation resulted from computer studies of rainfall data taken by 151 National Weather Service Cooperative Rainfall Reporters throughout the state.

The North Dakota Weather Modification evaluation team used a computerized evaluation technique previously identified on other projects as the gridpoint analysis. The same analysis technique is being used to evaluate weather modification effects in South Dakota, New Mexico and Utah. This analysis identifies seasonal precipitation as a percent-of-normal in each area of the state, whether the area is a seeded or non-seeded area.

This data provides evidence that the seeded areas received 5% more rainfall in the 1976 season than would be expected, had they not been in the weather modification program. Taking into consideration that a drought existed providing lesser seedable clouds, the 5% increase in rainfall is a marked improvement favoring the weather modification program. It is anticipated that continued analysis over a four to five-year period will substantiate an average annual increase in precipitation above 5% in the cloud seeded area.

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EFAS_HAS_COME_TO_GRAND_FORKS_BY_THERON_A_REGORKAH_CHIEF_A_GRAND_FORKS_FSS

EFAS (En Route Flight Advisory Service) is specially designed to provide en route pilots with continuous weather information pertinent to their flight.

The primary purpose of the EFAS Flight Watch Control Stations is to enhance aviation safety by providing these pilots with timely and meaningful weather data. Eventually, this will be a nation-wide system of central facilities controlling one or more communication outlets on a single discrete frequency to be used solely for the purpose of transmitting and receiving inflight weather reports and other pertinent weather information. Determination has been made that the most meaningful information concerning enroute conditions between ground observing points is that which is currently being observed aloft by pilots and weather radar. Participation is essential to the success of this service through a continuous exchange of weather information between pilots and specialists on the ground. Pilot reports will provide one of the necessary ingredients for "real time" weather conditions.

In time, EFAS will be available throughout the conterminous United States to the extent that any pilot at 5,000 feet AGL, or above, and within 80 miles of an EFAS communications outlet will be able to obtain this service. Each Flight Watch Control Station will control one or more remote communication outlets covering a large geographical area. All communication will be conducted on the designated discrete frequency (122.0 MHz). Separate transmit and receive capability on this frequency will be provided at each control station and for each remote communication site.

It has been determined that the communication system and specially trained personnel of the Flight Service Station would be the proper vehicle for this service with meteorological support from the National Weather Service Forecast Offices.

The main thrust of the Flight Watch Specialist is to analyze and summarize data in a comprehensive and logical manner so as to deliver "real time" weather information to enroute pilots. They will also serve as a common collector of weather conditions experienced aloft by pilots concerning enroute conditions.

The Flight Watch Specialists' primary responsibility is to provide enroute pilots with a clear, concise, and complete weather picture on conditions occurring or expected to occur along the intended and/or alternate route of flight. Continuous air-to-air, air-to-ground, and ground-to-air exchange of information coupled with the normal collection of meteorological data, weather radar, and the Flight Service Station's access to National Weather Service expertise should significantly enhance the overall safety of enroute aircraft.

EFAS is not intended to be used for flight plan filing or cancellation, routine position reporting, or to obtain a complete preflight briefing in lieu of contacting an FSS or NWS prior to flight.

The Grand Forks Flight Watch Unit consists of Grand Forks as the Flight Watch Control Station with remote communication outlets at Minot and Jamestown, N.D. Other Flight Watch Units adjacent to the Grand Forks Flight Watch Areas are Huron, covering the State of South Dakota, and Minneapolis, Minnesota, which will be covering the Northern end of Minnesota.

To contact a Flight Watch Station on 122.0 MHz, use the name of the controlling Flight Service Station and the words "FLIGHT WATCH" or, if the controlling FSS is unknown, simply call "FLIGHT WATCH" and give the aircraft position in relation to the nearest VOR. Initially, the hours of operation will be limited to 16 hours per day from 0600 to 2200, seven days per week.

The National Transportation Safety Board (NTSB) has gathered some rather startling facts where Flight Watch has been operating (Washington, Oregon and California) compared with another area in the United States that does not have Enroute Flight Advisory Service. The following was excerpted from the NTSB report:

FATAL ACCIDENTS: 5.49% decrease in Flight Watch Area

15.44% increase in Non-Flight Watch Area

WEATHER RELATED FATAL ACCIDENTS: 9.09% decrease in Flight Watch Area

32.30% increase in Non-Flight Watch Area

Use our service. . . . THE LIFE YOU SAVE MAY BE YOUR OWN. . . .

BOTTINEAU AIRPORT HAS NEW SHOP BUILDING AND FIXED BASE OPERATOR

Richard Cole, better known as Dick, formerly from Maine, has moved to Bottineau and will be the Fixed Base Operator there. Dick is retired from the Air Force, having spent 23 years there as a radio operator, electronics counter-measure technician and tail gunner. Cole, besides having his airplane and powerplant ratings, has a commercial single and multi engine with an instrument instructors rating. His wife Mary, nicknamed Kitty, is originally from Minot and they have two sons, James a teacher at Plaza and Kelly at student at UND. Kitty works as an accountant at Bottineau NDSU.

A 60' X 60' shop building was completed in October of this year and underground 80 & 100 Oct gas tanks installed.

Bottineau is to be congratulated on being able to secure a man of Dick's talents and everyone wishes him well.

BOTTINEAU AREA TRYING FOR AN ENTERPRISE TELEPHONE TO MINOT FSS

All aircraft owners who are served by the Bottineau telephone exchange are asked to contact Dick Cole at the Bottineau Airport. His telephone numbers are 228-3740-arpt and 228-3367. A total of thirty aircraft are needed to be able to secure a toll-free telephone line into the Minot Flight Service Station for weather briefings and to open and close.

19 NORTH DAKOTA AIRPORT PROJECTS WITH STATE-AID FUNDS COMPLETED IN 1976

A total of 19 airport projects with state-aid funds were completed in 1976 for which the Aeronautics Commission paid a total of \$207,032.82 with a balance of \$40,538 to be paid on these projects when they are submitted for a total 1976 state airport aid program of \$247,570.82. In addition, there are 12 new state-aid projects which have been allocated a total of \$94,870. in state-aid funds, which will be completed in 1977. The list of 1976 completions follow:

Airport Authority	Project	State-Aid Paid in 1976	State Funds Being Held For Completion in 1977
1. Breckenridge-Wahpeton	Pave taxiway & NDB Beacon	\$ 3,104.00	\$ 3,150.00
2. Cooperstown Airport	Pave and extend runway	3,347.15	16,652.85
3. Drayton Airport	Build new turf runway & Lights	1,881.57	793.43
4. Langdon Airport	Install Rotating Beacon	361.32	000
5. Lakota Airport	Gravel & surface runway, taxiway	10,000.00	000
6. Leonard Airport	Pave runway, taxiway and lights	13,500.00	000
7. Maddock Airport	Surface runway	3,750.00	000
8. Minot Intn'l Airport	Expand airport terminal bldg.	50,000.00	000
9. McClusky Airport	Build new turf airport	8,936.35	1,563.65
10. Mohall Airport	Pave runway, taxiway and lights	10,000.00	750.00
11. Mott Airport	Pave runway and light	15,000.00	1,500.00
12. Park River	Pave runway and apron	10,000.00	10,000.00
13. Parshall Airport	Seal runway and apron	8,000.00	000
14. Rolette Airport	Pave runway and apron	13,250.00	000
15. Rugby Airport	Runway pavement overlay	20,000.00	000
16. Walhalla Airport	Pave apron	6,500.00	000
17. Williston Intn'l	Airport Fire Station & Mis.	14,605.00	000
18. Watford City Airport	Seal runway and taxiway	13,871.93	6,128.07
19. Wyndmere Airport	Build new turf runway	925.50	000

TOTALS - - - \$207,032.82

In addition the Aeronautics Commission has made firm allocations of state aid funds of \$94,870 for 12 additional airport projects at Arthur, Bismarck, Ellendale, Harvey, Hillsboro, Lake Williams Township, Elgin, Minto, Northwood, Oakes, Linton and Bowman which are expected to be completed in 1977.

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SEEKING EMPLOYMENT: Phan Van Loc, age 38, married, a student at the University of North Dakota in 1975 and 1976 and who also attended the University of Saigon, South Vietnam, is seeking employment in aviation. He holds an FAA commercial, instrument, single and multi-engine ratings. He has a total of 6,080 hours flying time, including 5800 hours DC-3 time, 200 hrs. in T-28 and time in Cessna 172, 150, Twin Comanche and Cessna 318. Fourteen years in Vietnamese Air Force including 7 years DC-3 instructor pilot, experience as flight training officer in Air Transport Squadron 1969-72. Holds senior wing certificate from U.S. Air Force and awards from the South Vietnamese Armed Forces. He is highly recommended by the Aviation Department of the University of N.D. Phan Van Loc may be reached for an interview at 7B Brannon Hall, University of N.D., Grand Forks, N.D. 58201. His telephone at Grand Forks is 701-777-3163.

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SEEKING EMPLOYMENT AS APPRENTICE SPRAYING PILOT: Seeking employment during the 1977 aerial spraying season as apprentice commercial Ag pilot. Contact Thomas (Tom) Sjule, Souris, N.D. 58783, Tel: 228-3444. * * * * *

FOR SALE: 1974 Ag Truck automatic flag, Hyd system, manual valve, heater and windshield defrost, filter, 525 TT. Contact Minn-Dak Aviation at 218-478-3586 or 218-455-3304.

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FOR SALE: 1976 Gruman Cheetah, 250 TT, demo; Cessna 150-1975 model, 650 TT, steps and strobes; 1975 Cessna 150, 1050 TT; 1968 Cessna 210H, 1200 TT; 1976 Cessna 172 (2) one IFR equipped. Try all the new models, but fly a Gruman before you buy. Comet Aviation, Jamestown, N.D. Tel: 701-252-4020 * * * *

FOR SALE: 1969 Mooney Executive 900 TT, 2 Nav/Com, 1 Narco, 1 King 160B Series, 1 Narco ADF, 1 Narco DME, King Transponder, King glide slope, 1 PC-EGT. Contact Dave Halstad, Dickinson, N.D. 701-225-5313 * * * *

FOR SALE: 1968 Cessna 150, 3800 TT, 400 SMOH, Full panel, 360 ch. Nav/Com. Contact Mark Sundby, Turtle Lake, N.D. Tel: 701-448-2434 or Bismarck at 258-7527 * * * *

FOR SALE: 1975 Cessna 150; 1973 Cessna 150; 1977 Cessna 150; 2-1976 Cessna Skyhawks; 1975 Skyhawk; 1977 Piper Warrior; 1966 Cherokee six; 1974 Cherokee six; 1977 Cherokee Lance; 1963 Cessna 205; 2-1970 Cessna Skylanes; 2-1969 Skylanes; 1968 Cessna Skylane; 1976 Citabria 1977 Super Cub; 1964 Cessna 310; 1966 Cessna 310; 1967 Cessna 310; 1970 Cessna 310; 1965 Piper Aztec; 1969 Piper Navajo; 1955 Cessna 180; 1974 Cessna 180; 1976 Cessna 180; 1-90 gal Sorenson; 1972 Pawnee; 1963 Thrush 600 HP; 1976 Thrush 800 HP. Contact Jamestown Aviation, Inc., Box 427, Jamestown, N.D. 58401, Tel: 701-252-2150 * * * *

FOR SALE: 1976 Cessna 150 Computer 725TT; 1977 Cessna 150 Computer, 25TT; 1977 Skyhawk 100, 300 Nav/Com, ADF, Trans.; 1974 Skyhawk 11, 1000 TT, Nav-Pac, 200 A Auto Pilot; 1976 Cardinal 11, 400 TT, 300 Nav/Com, ADF, Transponder, post lights; 1974 Piper Warrior, MK-12A/90 Chan; 1565TT; 1965 Skylane, 3800TT, 450 SMOH, 2 MK-12A's, transponder, KR-80 ADF, 2-yr. paint; 1967 T-337, 1475 TT, 2-MK-12's, KR 60B, DME, KT-76 transponder, OT, LR tanks; 1956 D-50 twin Bonanza, KDM-700 DME, dual Kx-160, dual glide slope, KR-80 ADF, KY-95 panel KXP-750 trans, 5260 TT, 234 L.E.; 3-1977 Skyhawk 11's, 2 1977 cardinal 11's; 1976 Sky-

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Margaret Rose
Historical Society
Liberty Memorial Bldg.
Bismarck, NDeak 58501



wagon and 76 Skylane; 1969 B-55 Baron 1745TT, 519 L.E., 519 R.E., 210 STOP Dual MK-12-A, Kn 60B, DME, AT-6A transponder; VOA-9 Indicator, M/B UGR-2 6/s, Bendix T-12C ADF, B-5 auto pilot coupled. Contact OK Aviation, Bismarck at 701-258-5610 or 258-6337 Evenings. * * * *

FOR SALE: 1976 Beechcraft Sport, 20.0 TT A/E, dual controls, Comm 10A Narco, Nav 10 Narco, 1976 Beechcraft Sundowner, 80.0 TT A/E, Nav-Com KX170B, 720 chan, KI201C, VOR/Loc, transp. KT-78, ADF KR-86, Century 1 W/Tracker auto pilot, KI 214 & glide slope rec., heated pitot; 1971 Cessna 401B, 2250 TT, 775 TT on 0-time engine, dual inst. panel, 400 Nav-0-matic auto pilot, 400 glide slope, 300 marker beacon, 400 ADF;. For these and many more stop in or call Executive Air Taxi Corp, Bismarck, Tel: 701-258-5024 * * * *

FOR SALE: 1976 Bellanca Citabria; 1975 Bellanca Scout 90 TT; 1962 Cessna Skyhawk 2250 TT; 1976 Skyhawk 11; 1977 Skyhawk 11 160 HP; 1977 Skyhawk XP 195 HP; 1976 Skywagon 180; 1976 Skylane 182; 1976 Skywagon 185; 1976 Beech Baron B-55, 150 TT; 1975 Beech Baron 58 450 TT; 1975 Hughes 500C Helicopter; 1976 Enstrom Turbo Shark Helo, 90 TT; 1976 Enstrom F28A, 90 TT; 1973 Cessna Ag Truck, 880 TT; 1967 Cessna Ag Wagon 1736 TT; 1968 PA-18-150 1200 TT; 1977 PA-18-150; 1974 PA-28-151 Warrior 1600 TT; 1977 PA-32R Piper Lance; 1977 Turbo Seneca 1T; 1974 Aztec 1000 TT; 1972 Pressurized Navajo; 1966 Cherokee 180C, 1100 TT; 1974 Pressurized Navajo, 900 TT; 1969 Pawnee 260D 1800 TT; 1973 PA-28-140; 1972 Cessna Ag Truck 770 SMOH. For these and many more, contact Commander Aviation Corporation, Box 1014, Bismarck. Tel: 701-223-6862 or 223-3388 after hours.

FOR SALE: 1968 Mooney Exec. full IFR, 800 TT, Contact Gene Grindeland, Mayville, N.D.
Telephone: 786-7347 or 786-7260