AVIATION NEWSLETTER

NORTH DAKOTA PROFESSIONAL AVIATION MECHANICS ASSOCIATION ANNUAL SEMINAR
FEBRUARY 28TH THROUGH MARCH 2ND, 1978

Bismarck has been selected as the site for the annual N.D. Aviation Mechanics Seminar and the dates are February 28th through March 2nd, according to Gordon Person of Dakota Aero Tech, Inc., Fargo, the Association President. Person also said that all airplane and powerplant mechanics (A&P's) Inspection Authorization (IA's) and all others interested in aviation mechanics and others, are welcome to attend. The seminar will be held at the Kirkwood Motor Inn and everyone is responsible for their own reservations for rooms. Person said. It is suggested that the reservation, Phone number 701-258-7700, be made as early as possible.

The 3-day meeting in itself has something for everyone and will conclude with the election of officers for the year and renewal of the inspection authorization ratings. Present officials are Gordon Person, President, Dakota Aero Tech, Inc.; Frank Argenziano, Vice President, Manager and chief mechanic, University of North Dakota Aviation Shop; David Carlson, Secretary. Mechanic, Servair Accessories, Williston and David Teets, Treasurer, owner/operator of Rughee Air Care, Rugby, N.D.

The agenda following has been quite well firmed up but is subject to minor changes.

February 28th:
8:00 a.m. -- Registration & Coffee
9:15 a.m. -- Welcome
9:30 a.m. -- Luncheon break
1:00 p.m. -- "What is a 100 hour/annual inspection" - FAA Fargo GADO by Otto Goergen
1:50 p.m. -- Slick Magneto's by Jim Slick
2:50 p.m. -- Coffee break
3:10 p.m. -- "Cherry Rivets" Townsend Division by Charles Kenyon
4:00 p.m. -- "Boots & De-icing Systems" - B.F. Goodrich
4:50 p.m. -- Business meeting - NDPAMA
5:30 p.m. -- Dinner
6:30 p.m. -- Social Hour sponsored by the NDPAMA

March 1st:
8:30 a.m. -- Champion Spark Plugs by Stan Fletcher
9:20 a.m. -- Coffee break
9:40 a.m. -- "Janitrol" by Bob Deeds
11:30 a.m. -- Luncheon break
1:00 p.m. -- Continental
2:00 p.m. -- "Teledyne Batteries" by Dick Ruff
2:50 p.m. -- Coffee break
3:05 p.m. -- "Logbooks & Records" by FAA - Wes Edwards
4:00 p.m. -- Engine Components Inc. by Rich Worstell
5:00 p.m. -- Social Hour to be announced sponsored by Wall Colmonoy Co.

March 2nd:
8:30 a.m. -- Avco Lycoming by Kenny Lomiller
9:20 a.m. -- Coffee break
9:30 a.m. -- "Alumigrip Paints"
10:30 a.m. -- Business Meeting
               Election of Officers
11:30 a.m. -- Luncheon break
1:00 p.m. -- IA meeting with FAA for renewal of IA ratings
**SECTION 1: **

**NOTICE**

**FOR THE APPLICANTS**

Mr. H. K. Johnson, the Director of the Department of Agriculture, recommends that the following measures be taken:

1. **Additional Staff:** Increase the number of staff in the Department of Agriculture to handle the increasing workload.
2. **Training Programs:** Conduct training programs for existing staff to improve their skills and efficiency.
3. **Technology Integration:** Integrate technology into processes to streamline operations and reduce errors.

**ANNUAL REPORT**

The annual report for the Department of Agriculture is due by the end of the fiscal year. It should include a detailed summary of the department's activities, achievements, and challenges.

**FINANCIAL STATEMENT**

The financial statement for the Department of Agriculture for the fiscal year ending in March is due by the end of April. The statement should be submitted to the Ministry of Finance.

**APPENDIX A**

This appendix contains detailed data and analysis related to the department's performance and future plans.

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**SECTION 2: **

**AIRPORT ATOMIC INCIDENT REPORT**

**At the Atomic Incident Site**

The incident occurred at 14:30 hours on 25th November 20XX. The site is located within a 5-kilometer radius of the airport.

**Incident Details**

- **Time:** 14:30 hours
- **Location:** Atomic Incident Site
- **Incident:** Nuclear device explosion

**Response Actions**

- **Emergency Services:** Police, Fire, and Medical response teams were immediately dispatched.
- **Evacuation:** All personnel within a 5-kilometer radius were evacuated.
- **Decontamination:** Decontamination efforts are ongoing to ensure public safety.

**Post-incident Assessment**

- **Damage Assessment:** The damage to the surrounding area is being assessed to determine the extent of the impact.
- **Health Monitoring:** Health monitoring of exposed individuals is being conducted.

**Precautionary Measures**

- **Area Closure:** The area surrounding the incident site is closed to all unauthorized personnel.
- **Public Information:** Information regarding the incident is being disseminated to ensure public safety.

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**SECTION 3: **

**AIRPORT ATOMIC INCIDENT RECAPITULATION**

**Incident Recap**

- **Date:** 25th November 20XX
- **Time:** 14:30 hours
- **Location:** Atomic Incident Site
- **Cause:** Nuclear device explosion

**Impact Assessment**

- **Physical Damage:** Significant damage to infrastructure and personnel.
- **Environmental Impact:** Local environment affected by radioactive contamination.

**Response and Recovery**

- **Emergency Response:** Immediate response by emergency services.
- **Recovery Efforts:** Long-term recovery plans are being developed.

**Lessons Learned**

- **Preventive Measures:** Enhanced security protocols.
- **Response Protocols:** Improved response and recovery procedures.

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**SECTION 4: **

**AIRPORT ATOMIC INCIDENT LESSONS**

- **Enhanced Security:** Increased security measures at the airport.
- **Emergency Preparedness:** Improved emergency preparedness plans.
- **Public Information:** Enhanced public information dissemination.

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**SECTION 5: **

**AIRPORT ATOMIC INCIDENT CONCLUSION**

The incident at the Atomic Incident Site on 25th November 20XX has been fully investigated and the lessons learned have been incorporated into our procedures and plans.

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**SYNTHETIC OIL**
FCC PROPOSAL THAT UNICOM MONITOR (ELT) EMERGENCY LOCATOR FREQUENCY
OPPOSED BY NORTH DAKOTA AERONAUTICS COMMISSION

In a notice of proposed rule making, the FCC is asking for comments on a proposal to require operators of Unicoms to monitor 121.5 and 243 MHz in order to reduce the number and duration of ELT signals inadvertently activated.

The Air Force Rescue Coordination Center (AFCRC) at Scott Air Force Base, Illinois, said that during 1975 they had 6,603 activations. 4,503 were transmitted before the source of the signal could be located. Of the remaining 2,100 signals, only 34 of 810 of 18 of 431 of ELT signals reported, were activated by a forced landing or a crash. As everyone knows, ELT's are accidentally activated by a number of causes, such as bad batteries causing corrosion of circuits, bad switches, hard landings of the aircraft, rough handling during shipment from manufacturer plus human error.

Since 90% of all signals are inadvertently activated, the FCC has concluded in its wisdom that to reduce the delay which is being experienced in locating and receiving notification of these signals and since they are mostly on or adjacent to an airport, monitoring by Unicom would solve the problem. FCC also felt that the monitoring requirement would not subject the Unicom licensee to a significant economic burden. Comments were due by the 9th of February.

Harold G. Vavra, Director of the N.D. Aeronautics Commission submitted comments to the proposal and vigorously opposed the requirement that Unicom monitor the ELT frequencies on the following grounds:

1. Requirement would impose an economic burden on Unicom licensee because it would necessitate the purchase of a monitor costing approximately $200 or more.
2. Unicom licensee not a principal of the problem, they the principals being (a) The Federal Communications Commission (b) The Aircraft pilot/owner (c) The ELT Manufacturer.
3. Legality of mandatory monitoring rule also challenged on the grounds that such a rule is not related to the applicants' needs for a Unicom license to operate an advisory radio station, nor any standard or criteria relating to the frequency stability or quality of the signal of the ground station being licensed.

In conclusion, Mr. Vavra stated that in view of the foregoing, the problem of inadvertent activation could be greatly reduced by FCC by the following steps:

1. Tighten up type approvals of ELT equipment.
2. Recall ELT's on market which are known or found to be grossly defective.
3. Mount a pilot/owner educational program to prevent and check inadvertent activation.

FAA TO EXTEND VOR AIRWAY V-170 FROM ABERDEEN TO DEVILS LAKE, ALSO ADD NEW AIRWAY V-344 DUPREE, S.D. - ABERDEEN - FARGO

The FAA is considering an amendment to Subpart C of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) to alter Federal Airway V-170 and to designate a Federal Airway (V-344) in the vicinity of Aberdeen, S.D. The proposed actions would extend V-170 from over Aberdeen, S. Dak., to Devils Lake, N. Dak., via Aberdeen (352°/342° radial) direct to Jamestown, N. Dak., (172°/162° radial) and from over Jamestown (353°/343° radial) direct to Devils Lake (172°/161° radial), and designate V-344 from over Dupree, S. Dak., to Fargo, N. Dak., via Dupree (081°/068° radial) direct to Agerdeen, S. Dak., (263°/253° M radial) and from over Aberdeen (038°/028° M radial) direct to Fargo (219°/210° M radial). These proposed actions would improve air traffic efficiency by providing preferential routing with charted radials, distance and minimum en route altitudes.

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A LIGHT AT THE END OF THE TUNNEL:

AC Form 8050-73 (Air Craft Registration Eligibility Identification and Activity Report) has gone the way of the dinosaurs, as effective the 30th of January, 1978, FAA has decided that it was a burden on the public and no longer needed. The Federal Register Vol. 43, No. 20, Monday, Jan. 30, 1978 carried the notice to delete the requirement that each holder of a Certificate of Registration must file AC Form 8050-73 by April 30th of each year. For those of you so inclined to want to read it, you will find it on page 3900 of the Register. If your memory has slipped and you no longer remember the form, its the one wherein you answer questions as to where the aircraft was hangered, how many radios and what type of flying and how many hours in the past year.

If you elected to not so and failed to answer followup correspondence, FAA could and would understand, in some instances did revoke the registration number of your aircraft. Imagine then having to reapply for a N-number and not getting your old one back, which thank goodness will not happen anymore.
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c/ Source: FAA

d/ Commencing January 1, 1968, the definition of substantial damage was changed; therefore, fewer accidents were reported. Care should be used in comparing with similar data for prior years.

e/ Beginning in 1970, the decrease in aircraft-miles flown is the result of a change in the FAA standard for estimating miles flown.

NATIONAL TRANSPORTATION SAFETY BOARD

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AIRPORTS AND OPERATORS

Bismarck - Executive Air has taken on the Piper line of aircraft sales, according to Dennis Rohlf, owner/manager, as well as Beech. They have added Henry Brekus, a North Dakota native, as Sales Manager. The firm also sells new and used aircraft and has a nice stock to select from. Rohlf said that Executive Air stresses the concept of executive travel, and to that end has assembled a fleet that renders itself to larger groups traveling. He said that to augment the King Air, they also have a nine passenger Navajo Chieftain, plus a second Navajo available, and a Seneca II to round out the line. Five full-time pilots are on the line, and a fully staffed shop, plus student instruction are services offered.

Bismarck - OK Aviation has started footings for a new 100'x 60' heated hangar, but has suspended construction awaiting better weather. Dr. Norbert O'Keefe has sold the firm to a group consisting of Jacobson Construction Co., former of Ray, N.D., Dan Delaney, also from Ray, now located in Williston, and Robert Bennet, former Manager of OK Aviation. Lyle Hilden, former Chief Pilot has been named Manager and Chief Pilot. Neil Kelstrom is the Inspections Authorized Chief Mechanic. The firm has two other pilots in Bill Pace and Roger Pucksgruver, and a secretary receptionist, Ruby Ackerman. OK offers Cessna sales and service, A & P shop, and also air taxi/charter and student instruction.

Bismarck - The building formerly occupied by Apollo Aviation has been purchased by the Command Corporation. It will be occupied by Tri-State Engineering, a civil engineering consulting firm, who will be on the second floor. Commander Aviation of Bismarck will move their flight department, plus sales and air taxi/charter offices, now housed in Jacobson Construction building on the northwest edge of the airport, into the remodeled lower floor. Commander will also offer A & P services.

Bottineau - This city has a new fixed-base operator in the person of Mike Pfau, an Upham native. Mike took over from Dick Cole, who moved to Florida to assist his brother-in-law with an operation, and is presently flying a Cessna 421. Mike's operation will be known as "Prairie Mountain Aviation." He will be providing new and used aircraft sales, A & P shop, flight instruction and aerial application. For those of you who haven't been to Bottineau for a spell, a large 75'x100' shop and office building has been constructed. Pfau holds a Single & Multi-Engine Certificate with Instrument and Certified Flight Instructor ratings. He and his wife, Joette, invite all to stop in and to introduce yourselves and have a cup of coffee. The firm's telephone number is 701-228-3740.

Beulah-Hazen - A series of very fruitful joint meetings have been held between these two highly competitive cities and a planning firm has been hired to make an application to FAA for a planning grant. The H-K-M firm
**CORPORATION**

According to the flight line room, there will be a shift in the role that airports play in the economy. In the past, they have been primarily responsible for commuter and regional air travel. However, with the growth of general aviation, airports are now playing a more significant role in the economy. The airport is seen as a hub for both passenger and cargo traffic, which can bring in a substantial amount of revenue.

**TRUST FUND SUPPORTS**

The trust fund has been established to support the development and expansion of the airport. The fund is designed to provide the necessary financial resources to meet the needs of the airport. The fund is supported by contributions from various sources, including the federal government, local governments, and private entities.

**A BREAKTHROUGH IN THE AIRPORT UNDER CONSTRUCTION**

The airport under construction is expected to be completed by the end of the year. The new facility will include a new terminal building, additional parking spaces, and improved runway lighting. The airport is expected to become a major hub for both passenger and cargo traffic.

**FUTURE PLANS**

The airport has several future plans, including the expansion of the runway and the construction of additional hangars. These plans are expected to be completed within the next five years. The airport is also planning to develop a new business park to attract new businesses to the area.

**CONCLUSION**

The airport under construction is expected to be a major economic driver for the region. The new facility will provide a significant boost to the local economy, creating jobs and generating revenue. The airport is expected to become a major hub for both passenger and cargo traffic, attracting businesses and tourists to the area.
Michael G. Beiriger, Chief of Fargo GADO Accident Prevention Program has completed the scheduling of the annual appearance of the Golden Sentinel Team here in North Dakota. Topics covered during the following schedule will be take-off and landing techniques; mechanical problems; aircraft performance; safe pilot techniques and weather flying and accidents.

All meetings are evening meetings starting at 7:30 p.m. and running to 10:00. The schedule follows:

**February 14, 1978** - - 7:30 p.m. - - Fargo, N.D. - - Stevens Hall Auditorium

**February 15, 1978** - - 7:30 p.m. - - Grand Forks - - Student Union Ballroom

**April 3, 1978** - - 7:30 p.m. - - Jamestown - - Ramada Inn

**April 4, 1978** - - 7:30 p.m. - - Bismarck - - Sidney Lee Auditorium

**April 5, 1978** - - 7:30 p.m. - - Minot - - Ramada Inn

**April 6, 1978** - - 7:30 p.m. - - Devils Lake - - Lake Region College

**LANDINGS AND TAKEOFFS FROM HIGH ELEVATION AIRPORTS**

Pilots frequently ask us for information and guidance concerning landings and takeoffs from high elevation airports. Our reference point in this discussion will be based on density altitude. The discussion also requires that we treat separately operation of normally aspirated, turbocharged, and supercharged engines at high elevation airports.

Normally Aspirated: The normally aspirated engine performs and reacts to density altitude as it does to indicated altitude. An example, this type of powerplant at takeoff from an airport with a 3,000 ft. indicated altitude airport, but with an ambient temperature of 85°F, would have a density altitude of more than 5,000 ft. The engine would lack some 20 to 25% of its power and also probably run rough because of a rich mixture on the ground at full rich. Therefore, the typical normally aspirated direct drive engine requires the mixture be leaned on the ground for efficient takeoff performance where airports are 5,000 ft. (density altitude) or higher. The over rich condition is something the pilot can compensate by leaning. However, the higher density altitude with its thinner air cannot be compensated for with a normally aspirated engine unless a supercharger or turbocharger unit is added to the power plant. Thus, at density altitudes of 5,000-6,000 feet, the pilot of a normally aspirated engine has available to him approximately 75% of the engine power, and must plan his takeoff accordingly after setting the mixture.

Procedure for Leaning: (1) The fixed pitch propeller - lean to maximum RPM at full throttle prior to takeoff where airports are 5,000 ft. density altitude or higher. Limit operation at full throttle on the ground to a minimum time.

(2) The direct drive normally aspirated engine with a prop governor but without fuel flow or EGT, set throttle at full power and lean mixture on maximum RPM with smooth operation of the engine as a deciding factor.

(3) With fuel injection, if the powerplant has a marked fuel flow gage, then set mixture in accordance with instructions on the fuel flow gage and/or in accordance with the airplane Pilot's Operating Manual.

(4) With an EGT gage, at full throttle, lean mixture to plus 100° on the rich side of peak of a normally aspirated engine.

(5) Pressure carburetor - All Lycoming engines have an automatic mixture control which does not require leaning for take-off.

(6) Turbocharge and supercharged engines - All takeoffs must be at full rich mixture because the engine is brought back to sea level horsepower which does not permit leaning.

Descent: Regardless of the field elevation where the pilot intends to land, the descent from cruise altitude to traffic pattern altitude should include some leaning for smooth engine operation. Low elevation fields (below 5,000 ft. density altitude) will require that the mixture be moved to full rich in the "before landing checklist". Landing at airports above 5,000 ft. density altitude, the mixture must be leaned to smooth engine operation during traffic pattern flight and landing; otherwise, the engine may stall on the runway because of excessive richness.

* From AVCO Lycoming "Flyer" Issue No. 30.

**SECOND 1977 TAKEOFF WINNER UNSURE OF KEEPING PRIZE**

Airplane Given Away by General Aviation Manufacturers' Association

Again from Flight Line Times, who interviewed James A. Plader, 32, a salesman from Rockford, Illinois, who was pronounced the winner in the second drawing, held January 19, of the two held for 1977, said he is now reviewing the cost of keeping a $50,000 airplane, and from the numbers he was coming up with, it doesn't look feasible. He went on to say that he earns in excess of $30,000 per year.