

RELATIVE



The Official Publication Of The
North Dakota Aviation Association
and carrying the Official News of the
North Dakota Aeronautics Commission

Address
Correction
Requested

BULK RATE
U.S. POSTAGE
PAID
PERMIT NO. 120
WAHPETON, N.D. 58075

4030 RW 1182
HAROLD VAVRA
BOX 5020
BISMARCK ND 58502



Volume 3 - Number 11

November 1982

Wahpeton, ND 58075

FAA adopts rules

To operate ultralight vehicles

By Harold G. Vavra, Director
N.D. Aeronautics Commission

The Federal Aviation Administration adopted Rules and Regulations relating to Ultralight Vehicles and their Operating Requirements, which become effective on October 4, 1982, which were printed in the Federal Register on September 2, 1982.

Before adopting Ultralight Vehicle Operating Rules, new Part 103 of the FAR, the FAA cited some of the problems that have surfaced.

(1) On March 24, 1981, an MU-2 flew between two ultralights operating off the end of the runway at Winter Haven, Florida. Both ultralights were equipped with floats and were operating at night without lights.

(2) On April 11, 1981, a Western Airlines

727 captain reported a near miss with an ultralight vehicle in the vicinity of Phoenix Sky Harbor Airport.

(3) In May, 1981, the pilot of a single engine aircraft reported a near miss with an ultralight vehicle near Pasco Robles, California. According to the report filed under the FAA safety reporting program, the ultralight was operating at 7,000 feet in IFR weather conditions. The airplane pilot was operating on an IFR flight plan and was forced to take evasive action to avoid a collision.

Under new Part 103.1, in order to qualify as an ultralight vehicle and not an aircraft, such a vehicle is one that:

(a) -Is used or intended to be used for manned operation in the air by a single occupant;

(b) -Is used or intended to be used for recreation or sport purposes only;

(c) -Does not have any U.S. or foreign airworthiness certificate, and

(d) -If unpowered, weighs less than 155 pounds, or

(e) -If powered:

1. Weighs less than 254 pounds empty weight, excluding floats and safety devices which are intended for deployment in a potentially catastrophic situation;

2. Has a fuel capacity not exceeding 5 U.S. gallons;

3. Is not capable of more than 55 knots calibrated airspeed at full power in level flight; and

4. Has a power-off stall speed which does not exceed 24 knots calibrated speed.

PART 103.3 INSPECTION REQUIREMENTS.

(a) Any person operating an ultralight vehicle under this part shall, upon request allow the Administrator, or his designee, to inspect the vehicle to determine the applicability of this part.

(b) The pilot or operator of an ultralight vehicle must, upon request of the FAA, furnish satisfactory evidence that the vehicle is subject only to the provisions of this part.

PART 103.5 WAIVERS.

No person may conduct operations that require a deviation from this part ex-

(Continued on page 2)

N.D. airports compete for FAA station

North Dakota's major airports are competing for an automated and consolidated FAA flight service station, providing pilot services, which the Federal Aviation Administration will locate at one airport in North Dakota.

About 70 airport and city officials from throughout North Dakota gathered at Minot's Ramada Inn on August 25th for an information meeting on the facility conducted by Ronald C. Janecek, Contracting officer for the Great Lakes Region of the FAA, Chicago, Ill.

Represented were airport managers, airport authorities, and city officials from Bismarck, Dickinson, Devils Lake, Fargo, Grand Forks, Jamestown, Minot and Williston as well as airport authority representatives from several smaller cities and airports.

The FAA has awarded contracts for about \$78 million for equipment to consolidate its 330 flight service stations into 61 "super-automated stations" throughout the nation. The consolidated stations will be served by a national computer network, giving pilots access to air traffic data, local, regional and nationwide airport weather data and other information.

Every interested airport was given a 61 page Solicitation for Offers to provide the FAA with a 8,000 square foot building constructed in accordance with specifications contained in its extensive "Proposal to Lease Space" to the FAA. What it seems to boil down to is that the Federal government is encouraging cities or airports to find the up-front capital to build the building and get into a bidding contest to see who will offer the best lease most favorable to the FAA, after the building is constructed meeting its rigid requirements. In exchange the FAA is of-

fering a statewide facility which will employ a maximum of 45 employees. The FAA estimated that the city or airport getting the facility would gain a payroll at maximum of \$1.3 million, or averaging \$29,000 a year for each per-

Block grants distributed

The North Dakota Aeronautics Commission distributed \$750,000, in State airport block grants to eight air carrier airports for airport improvements, according to Harold G. Vavra, Director.

The four large air carrier airports at Bismarck, Fargo, Grand Forks and Minot divided up \$600,000 based on relative performance. The smaller air carrier airports at Devils Lake, Dickinson, Jamestown and Williston, which enplaned less than 20,000 passengers in 1981, received a flat amount of \$37,500 each.

The amounts received by each of the four largest airline airports at Bismarck, Fargo, Grand Forks and Minot was determined by each airports performance in enplaning airline passengers in 1981 compared with the total passengers enplaned by the group of four, Vavra said.

The amounts each received and their relative performance are:

| Airline Airport | Block Grant Dollars | 1981 Airline Passenger Enplanements | Percent of Total Passengers Among the 4 Airports |
|-----------------|---------------------|-------------------------------------|--|
| Bismarck | \$206,028 | 147,028 | 34.338% |
| Fargo | 210,156 | 149,976 | 35.026% |
| Grand Forks | 109,308 | 78,005 | 18.218% |
| Minot | 74,508 | 53,171 | 12.418% |
| Totals | \$600,000 | 428,180 | 100.000% |

The strongest of the four smaller air carrier airports in passenger enplanements in 1981 was Williston with 11,470 passengers followed by Jamestown with 3,597, Devils Lake with 2,041 and Dickinson with 1,729. Total passenger enplanements in 1981 at all eight airports was 447,017, Vavra said.

The North Dakota Legislature established this program in 1979 when it enacted a declaration of policy which said that the existing methods of financing airports are inadequate to meet the growing needs and that the property tax on real estate located within the boundaries of municipalities operating airports is frequently an inequitable method, inasmuch as many persons served by airports do not live within these city boundaries. The Legislature further declared that it is the intent of the legislative assembly to provide a better method of serving all of the people of North Dakota, and to provide an equitable method of sharing the financial burden of modern airline service without neglecting the needs of the general aviation airports.

Relative Wind

facility by October, 1983. The deadline for the FAA to occupy the new building is October, 1986.

The previous administration had tentatively selected Grand Forks for the new facility until the Reagan administration moved into Washington and changed policies. Then the entire Super Automated flight service station idea was put up for bids.

At present North Dakota has manned flight service stations at Grand Forks, Dickinson, Jamestown and Minot. The personnel from these four stations ultimately will be consolidated in the new Super automated facility. The FAA said that the North Dakota automated flight service station will have installed about \$1.3 million in equipment. The main operating room of the facility will be windowless to eliminate reflected light.

FAA officials stated that the term of the lease to be entered into between the Airport selected and the FAA is an initial term of not to exceed one year with the right of the FAA to renew the lease for up to 20 renewal periods of one year each. The federal government cannot enter into a long term lease without one year renewal periods, it was explained by the contracting officer.

Several airports speculated that an 8,000 square ft. building to rigid specifications could cost somewhere between \$70 and \$80 per square foot or about a range of \$560,000 to \$640,000.

FAA officials indicated that an existing building that is rebuilt to nearly meet their specifications in all general ways may qualify, provided it is on airport property in a convenient location and accessible to general aviation pilots.

(Continued on page 2)
Page 1

State aviation news in brief

Business announced

Dennis Rohlf, President of Executive Air Taxi Corp., Bismarck announced the formation of Air-Care Division of Executive Air Taxi Corporation at the Bismarck Municipal Airport.

Rohlf said Air-Care is a jointly sponsored program by the Bismarck and St. Alexius Hospitals, which will be inaugurating this new service, serving central North Dakota later this year.

When in operation, the helicopter transport system will respond to the needs of the critically ill and severely injured who require immediate medical attention and/or transport to medical centers equipped to provide a full range of emergency medical treatment.

Air medical transport of critically ill or injured patients in helicopters is nothing new. It has been done by the military for decades, but until recently remained an economically unfeasible service to provide to the public-at-large.

Technical advances during and since the Vietnam experience have resulted in modern, powerful, safe, fast and efficient jet-powered helicopters such as

the Bell Long Ranger, which are economically practical for general and wide-spread use.

Proof in point is the fact that about 50 such systems are now operating in the United States. Naturally, the systems grew first in dense metropolitan areas, but experience is proving that helicopter air medical transport is not only practical in sparsely settled rural areas, but indeed, is providing one of the key answers to supplying first rate, readily available critical medical care to the rural populace at affordable costs.

Marvelous mobility when coupled with equally sophisticated advances in medical technology, such as miniaturization of equipment, along with similar breakthroughs in communications, telemetry and pinpoint navigation, provide all the necessary elements for the successful implementation and operation of air medical transport systems serving the entire society.

Rohlf said that Air-Care helicopters will be supported by long-haul hospital ships such as a Piper Navajo.

Executive Air Taxi Corp., Bismarck now has three Divisions. These are the Fixed Wing Division, Helicopter Division and Air-Care Division.

Grants available

Under a six year federal-aid for airports bill enacted by Congress on August 17, North Dakota eligible airports can enter into grant agreements with the Federal Aviation Administration (FAA) for receiving 90% federal-aid funding on airport improvements, according to Harold G. Vavra, Director of the State Aeronautics Commission.

The first round of grant agreements for federal-aid airport projects must be entered into by the airport sponsor and the FAA not later than September 30, 1982, which is the end of fiscal year 1982, Vavra said.

Federal funds allocated to four major airline airports in North Dakota for airport improvements based on their passenger enplanements in calendar year 1980 total \$1,448,314 and are divided as follows:

| | |
|-------------------|-----------|
| Bismarck | \$442,651 |
| Fargo | 448,404 |
| Grand Forks | 329,065 |
| Minot | 228,194 |

In addition these four major airports may receive some FAA discretionary funds dependant on the priority of their specific projects compared with other airport priorities in the FAA Great

Lakes Region, Vavra said.

North Dakota has received a total of \$586,488 for federal-aid to general aviation airports which is also on a 90% federal aid basis. These funds must also be under grant no later than September 30, Vavra said.

Commercial service airports which are those at Devils Lake, Jamestown, and Williston are expected to receive a total of about \$268,164 which will probably be made available to the highest priority project, Vavra said.

Death reported

Peter R. Stoffel, Jr., 23 of Sheldon, N.D., died Sunday, August 29th in a Fargo hospital from injuries he received in falling from a hang glider that went out of control in a field 1½ miles west of Sheldon. Sheldon is in the north-east corner of Ransom County.

The accident occurred about 4 p.m., while Stoffel was being pulled by a pickup driven by Lowell Roland, according to Maynard Vannett, a North Dakota Highway Patrolman.

Vannett said a gust of wind caught Stoffel's hang glider. The glider turned sideways and nosedived from an estimated height of 50 to 80 feet, according to Vannett.

FAA regulations for ultralight vehicles

(From page 1)
cept under written waiver issued by the FAA.

PART 103.7 CERTIFICATION AND REGISTRATION.

(a) Notwithstanding any other section pertaining to certification of aircraft or their parts or equipment, ultralight vehicles and their component parts and equipment are not required to meet the airworthiness certification standards specified for aircraft or to have certificates of airworthiness.

(b) Notwithstanding any other section pertaining to airmen certification, operators of ultralight vehicles are not required to meet any aeronautical knowledge, age or experience requirements to operate those vehicles or to have airman or medical certificates.

(c) Notwithstanding any other section pertaining to registration and markings of aircraft, ultralight vehicles are not required to be registered or to bear markings of any type.

SUBPART "B" - OPERATING RULES.

PART 103.9 - Hazardous Operations.
(a) No person may operate any ultralight vehicle in a manner that creates a hazard to other persons or property.

(b) No person may allow an object to be dropped from an ultralight vehicle if such action creates a hazard to other

persons or property.

PART 103.11 DAYLIGHT OPERATIONS.

(a) No person may operate an ultralight vehicle except between the hours of sunrise and sunset.

(b) Notwithstanding paragraph (a) of this section, ultralight vehicles may be operated during the twilight periods 30 minutes before official sunrise and 30 minutes after official sunset or, in Alaska, during the period of civil twilight as defined in the Air Almanac, IF:

(1) The vehicle is equipped with an operating anticollision light visible for at least 3 statute miles, and

(2) All operations are conducted in uncontrolled airspace.

PART 103.13 OPERATION NEAR AIRCRAFT: RIGHT-OF-WAY RULES.

(a) Each person operating an ultralight vehicle shall maintain vigilance so as to see and avoid aircraft and shall yield the right-of-way to all aircraft.

(b) No person may operate an ultralight in a manner that creates a collision hazard with respect to any aircraft.

(c) Powered ultralights shall yield the right-of-way to unpowered ultralights.

PART 103.15 OPERATIONS OVER CONGESTED AREAS.

No person shall operate an ultralight over any congested area of a city, town, or settlement, or over any open air assembly of persons.

PART 103.17 OPERATIONS IN CERTAIN AIRSPACE.

No person may operate an ultralight within an airport traffic area, control zone, terminal control area, or positive control area unless that person has prior authorization from the air traffic control facility having jurisdiction over the airspace.

PART 103.19 OPERATIONS IN PROHIBITED OR RESTRICTED AREAS.

No person may operate an ultralight in prohibited or restricted areas unless that person has permission from the using or controlling agency, as appropriate.

PART 103.21 VISUAL REFERENCE WITH THE SURFACE.

No person may operate an ultralight except by visual reference with the surface.

FAA station

(From page 1)

FAA indicated that if two or more offers were nearly identical in meeting their specifications then additional guidelines to evaluate the offers may relate to the availability of adequate housing in the community. Another evaluation element will be whether the telephone systems are capable of linking with its national communications and computer systems. Another element, if everything else is nearly equal between competitors, might be the level of air traffic at the airport being considered.

The FAA indicated that the expansion of general aviation between now and 1990, would require more and more manpower, if steps were not taken to automate and consolidate with a saving of about \$1 billion in salaries alone estimated by 1990 after the new automated facilities are fully operational.

PART 103.23 FLIGHT VISIBILITY AND CLOUD CLEARANCE REQUIREMENTS.

No person may operate an ultralight vehicle when the flight visibility or distance from the clouds is less than that in the below table, as appropriate:

Original and bylined material appearing in this magazine may not be reprinted or used in any manner without the written permission of Prairie West Publications. Reprinting of articles with credit is usually permitted upon written request. All rights to such material rests in the hands of Prairie West Publications.

Publishing firm responsible ONLY for accuracy of customer approved proofread ads. Any error in customer approved ad will NOT result in adjustment to the bill. Errors in non-proofread ads will be adjusted by 10% off the NEXT ad run.

RELATIVE WIND

Official magazine of the ND Aviation Association. Published monthly for its members and others in the ND Aviation industry; carrying the official news of the ND Aeronautics Commission.

CO-PUBLISHERS
North Dakota Aviation Association and Prairie West Publications.

EDITOR
Patricia J. Estes

EDITORIAL ADVISORS
Larry Linrud, William Beeks, Fred Andersen, Jack Daniels, Arnie Widmer, Mike Hohl and Dan Thompson.

ADVERTISING MANAGER
Richard K. Estes
701-642-1501

ADDRESS ALL CORRESPONDENCE TO:
Prairie West Publications
Box 1018
Wahpeton, ND 58075

| Flight Altitudes | Minimum Flight Visibility (Statute Miles) | Minimum Clearance from Clouds |
|---|---|--|
| 1,200 feet or less above the surface regardless of MSL Altitude. | | |
| (1) Within controlled airspace | 3 | 500 ft. below, 1,000 ft. above, 2,000 ft. horizontal |
| (2) Outside controlled airspace | 1 | Clear of Clouds. |
| More than 1,200 feet above the surface but less than 10,000 ft. MSL. | | |
| (1) Within controlled airspace | 3 | 500 feet below, 1000 ft. above, 2,000 ft. horizontal. |
| (2) Outside controlled airspace | 1 | 500 feet below, 1000 ft. above, 2,000 ft. horizontal. |
| More than 1,200 feet above the surface and at or above 10,000 feet MSL. | 5 | 1000 ft. below, 1000 ft. above, One statute mile horizontal. |

MSL - Mean Sea Level

Vince Burras

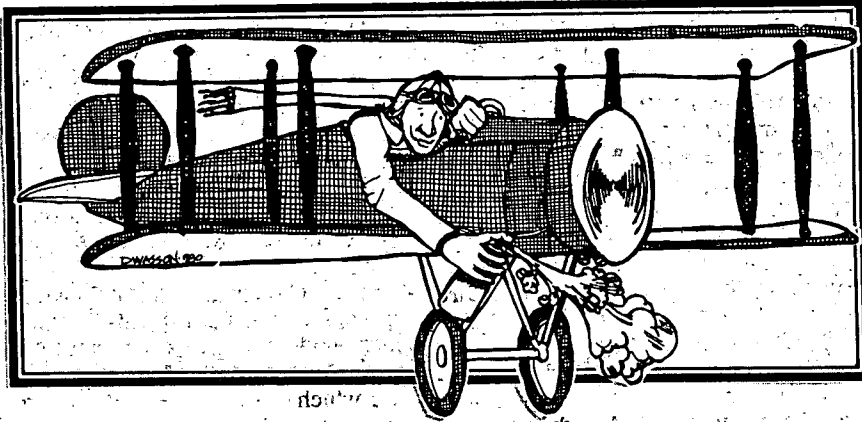
Device will aid aerial sprayers

By Karen McConn

Instead of taking 30-40 minutes to warm a small plane in spraying season, it will soon be possible for a pilot to have his plane's oil warmed and be ready to go in 5 minutes, thanks to a device created by Vince Buraas, operator of Vince Airport and Vincent Aerospray of Northwood.

Buraas will be manufacturing the radial engine oil warmer, comprised of a unit built into the oil tank and a panel for cockpit control of oil temperature, at his Northwood shop. The tank unit provides a means of circulating warm oil from the engine directly back into the engine, continuing the pattern until the tank oil has been warmed to proper take-off temperature.

With his idea, Buraas won last year's FAA Maintenance Technician of the Year Award for the then 6-state Rocky Mountain Region. The patent was



cleared this past July, and he has also an STC supplementary certificate and Parts Manufacture Approval for it.

Buraas has been using similar devices on his own planes for several years. The original idea came to him about three years ago, he said, and the oil warmer went through several FAA-advised modifications in the time since.

The warmer can alleviate engine failures due to a pilot's beginning operation of his plane at too low an oil temperature. It will also prove to be an energy saver by reducing the initial warm-up time on the ground.

The airport owner and operator began flying in 1939 and earned his commercial license one year later. He was

licensed as an A&P mechanic in the mid-40s.

Trained as an engineer, Buraas worked in the engineering department at Douglas Aircraft for several years. He returned to Northwood, his home area, after World War II to start a flight school. He began spraying crops a few years later, and by 1961, was operating in North Dakota, Minnesota, and Montana as well as Texas, Oklahoma and Colorado.

Because he needed more time at home, Buraas decided in the early 60's to eliminate the out-of-state operation and concentrate his efforts on the types of work he was doing here including crop spraying, flight training and maintenance and repair.

Through the summer he employs about 10, including pilots and ground crew. His spraying operation covers territory within a 30-mile radius.

Ag coalition is still evolving

By Nancy E. Johnson

It has been nearly a year now. The North Dakota Ag Coalition has been slowly, sometimes painfully working out an identity, a purpose broader than one or two immediate concerns. The loose-knit group of agricultural interests continued to hammer out this path and purpose at a two-day meeting held the second week of September in Bismarck.

To date, the group has evolved from the backers of agricultural concerns in the 1981 Legislature into providing information to members and may, in the next legislative session, work to support items of mutual concern.

Information about such varied subjects of transportation concerns, blackbird control in sunflower and the control of leafy spurge have been presented to the group over the past year. Such information is necessary as background for the membership, which includes general farm organizations and commodity groups as well as other agricultural interests.

Based on the presentation of such information, the group has struggled to develop a consensus of support for several projects. A stronger consensus is likely when actual legislation is drafted and presented to the '83 legislature.

For now, the group is very well informed about the '83-'85 budget for the North Dakota State University agricultural experiment station and the cooperative extension service. The directors of these entities have provided information about the budgets during the entire budget approval process. The final step for the budget is the legislature, and with an understanding of how much has been trimmed and a determination for agriculture to get some of the revenue it provides the state, the budgets will receive the support of Ag Coalition members when it is reviewed next year.

Deterioration of the state's road system is also a concern to members of the coalition. The group learned more about the problems when Highway Commissioner Duane Liffriq addressed the gathering with his concerns. A shift in the department's emphasis was also explained, moving from an era of continued building to a phase of maintaining the system in place. Liffriq explained several options for generating new revenue, such as increased fuel taxes.

The state road system has become increasingly important as the railroads abandon some branchlines and subterminals draw huge quantities of grain to central locations. Changing export markets also affect the road system, according to Gene Griffin, director of the Upper Great Plains Transportation, located on the campus of NDSU.

For the members of the coalition based in the eastern part of the state, information about the progress of the Southwest Pipeline project has been presented to the group. The project hopes to supply water to cities and towns, as well as rural water systems in the southwestern part of the state. However, the water piped from Lake Sakakawea will be very costly for end users. Because the project is so expensive, state backing is also required, project proponents told the coalition. After discussion on the project, the group decided to support it through the next legislature.

Changes in the funding of the Soil Conservation Service by the U.S. Department of Agriculture means the state and local units of government will have to pick up more of the tab during the next biennium. To fill some of the void, a plan to levy up to two mills to be used in grants and to match local funds was proposed by officials of the SCS and the Association of Soil Conservation Districts. These funds would help replace personnel when the USDA cuts back, they explained. This proposal was also given the Ag Coalition's support.

Improved marketing of the unique agricultural products of the state has been proposed by the Department of Agriculture with the addition of two staff members for the coming biennium. These increases in market promotion will help the state compete on the international as well as domestic marketing scene, according to Laurie McMerty, marketing director. This help would be in the form of feasibility studies for agricultural processing in the state, as well as trade shows and other marketing functions.

Changes in the department's budget to increase the marketing staff and functions was done with a decrease in other areas of the budget, as well as a request for increased funding. The coalition agreed to support this request for funding increases in the next legislative assembly.

One area which received much discus-

sion was the possible organization structure. During the discussion, conflicting views about the flexibility of the organization, goals and directions were voiced. The power of the organizational leaders and the requirements for membership were debated and not resolved. However, a nominating committee was named to prepare a slate of officers which would be submitted to members by mail for a written vote. Details about dues and membership re-

quirements are to be worked out by these officers and submitted to the membership at the next meeting.

Once again, the Ag Coalition agreed to agree on some issues, disagree on others and work toward supporting agriculture in the state. Growing pains are being worked out and the group is settling down to work on the consensus concerns and learn more about other concerns of agriculture.

Warning issued

Harold G. Vavra, Director of the State Aeronautics Commission issued a warning to unqualified pilots who may be using aircraft to harass or haze birds or water fowl in sunflower fields or growing crops.

Vavra said he had received reports that some pilots with NO AERIAL APPLICATOR'S STATE LICENSE issued by the Aeronautics Commission may be engaging in this activity.

Vavra said that the harassment of hazing of birds in fields by aircraft for blackbird control; by regulation of the Aeronautics Commission, must be carried out by qualified pilots licensed for this type of work and must have a low flying waiver from both the FAA and the State.

Pilots to qualify for a state aerial low flying waiver must have a minimum of 300 hours of flying experience, which includes low flying experience before such a pilot may be issued a low flying permit by the State to engage in the aerial harassment of birds or water fowl. After a low flying permit is issued, a permit is also required from the State Game and Fish Department for the harassment of birds under the Century Code Section 20.1-02-05, Sub Section 15, and Section 20.1-01-11.

He cautions, a pilot who flies his own airplane on his own land is still required to have a low flying permit.

Vavra said this year the State Aeronautics Commission has licensed 190 aerial applicator firms in the state utilizing 310 aircraft and helicopters of which all qualify for use of air craft to harass or haze blackbirds in sunflowers.

Farmers who have a blackbird problem and who are looking for a qualified pilot

and aircraft may call the State Aeronautics Commission in Bismarck for information as to the location of the nearest experienced aerial applicator in the area.

Pilots planning to engage in this type of work and qualify for a low flying permit must apply for and receive a low flying waiver from the FAA by writing to FAA, Box 5496, University Station, Fargo, ND 58105, and to the State Aeronautics Commission, Box 5020, Bismarck, ND 58502.

Thanks Karen

Karen McConn
C/O Prairie West
Publications
Box 1018
Wahpeton, ND 58075

Dear Karen:

I would like to compliment you on the fine job you did on your articles about Dakota Aero Tech, NDPAMA and the safety award winners. I enjoyed visiting with you and I would like to extend a warm welcome anytime you are in the area.

Sincerely,
John O. Kline
Avionics Manager

NAAA Convention
Las Vegas
Lowest Airfares
Call Gayle Collect
A Homeowned Company
Herbst Travel
701-237-6390 601 Bdw. Fargo
A Division of Midwest Travel International.

More N.D. aviation news briefs

Radar commissioned

An ARTS II — Automated Radar Terminal System II — was commissioned September 1, by the Federal Aviation Administration's Great Lakes region at Bismarck Municipal Airport, Bismarck, N.D.

ARTS II is a computerized radar system which produces an alphanumeric data block adjacent to the target on air traffic controllers' radarscopes. The block lists the identification number and altitude of trans-

ponder-equipped aircraft flying in and out of Bismarck Municipal Airport, as well as Mandan Municipal Airport nearby. Pilots flying within a radius of 45 miles are provided separation service. A transponder is an electronic device which enhances the target on radarscopes and also produces the data block information.

Bismarck's ARTS II and its radar antenna, installed by FAA at a cost of about \$2 million, includes three radarscopes in a TRACAB configuration in the cab of FAA's airport traffic control tower. Safety is enhanced with the sophisticated, computerized ARTS II as information produced on the radarscopes makes it possible to reduce the

number of radio communications between pilots and controllers. The new system also provides a better opportunity for identification of aircraft flying at some distance from the tower.

Bismarck's tower, with 11 controllers, is operational daily between 6 a.m. and midnight. The airport services three air carriers, air taxis, North Dakota Air National Guard and general aviation aircraft, as well as charter flights.

By the end of the year, FAA expects to commission an instrument landing system and medium approach light system on Bismarck's runway 13. An instrument landing system is a combination of radio beams which guide aircraft to the runway threshold. It enhances safety and facilitates low-visibility landings on the runway.

Alex Macdonald is President of Dakota First Capitol Corporation, a venture capital investment company and former commander of the 119 Fighter Group "the Hooligans" of the North Dakota Air National Guard.

Patrick Scherling is owner of Scherling Photography in Fargo.

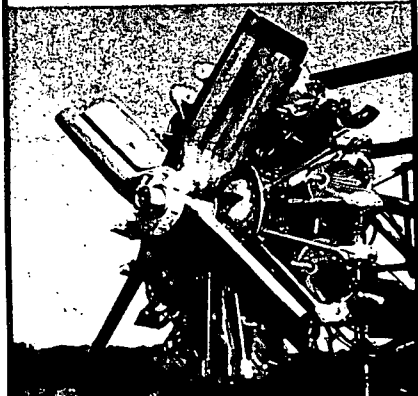
Gayle Diehl remains the manager of the travel agency. With 15 years experience in the travel business in the Red River Valley area, Gayle has a thorough knowledge of all phases of travel that qualifies her to meet both vacation and business needs. Gayle and her staff, Sheila, Edie, Noreen and Marlene have access to the lowest possible air fares and offer every service a traveller may need.

Mrs. Darrol Schroeder (Jean) has been appointed outside sales representative and is from Davenport, N.D.

Travellers out of the Fargo-Moorhead calling area may call collect for free services offered at Herbst Travel.

FAA Repair Station No. 212-23

Covington Aircraft Engines, Inc.



Major Overhauled Engines
Specializing in Pratt & Whitney
R-985-AN1 or 14B
R-1340-AN1

"Only the finest quality materials and workmanship are used in our engines."

Call or Write About Our Prices - You Will Be Pleased

P.O. Box 156, Municipal Airport
Okmulgee, Okla. 74447
918-756-8320

A & P IN 1 YEAR!

Unique Practical Training

BECAUSE

Our FAA Approved A&P School is combined with our FAA Approved Repair Station.

— Approved For Veterans —

Classes Starting in
January - March - June - September
Write Or Call:

Dakota Aero Tech, Inc.

P.O. Box 5534, S.U.S.
Fargo, ND 58105 - 701-237-5305

AIRCRAFT INSURANCE

Before you buy, check with us! We offer a complete line of aircraft coverage. Competitive prices, local service.

Herb Hill Ins, Inc.

1-800-472-2187 Bismarck
1-293-9204 Fargo

Training school set

A weather observer training school will be held at the National Weather Service Training Center November 15-19 in Kansas City, MO. James Schroeder, Program Manager, will be conducting the event which will cover all elements of weather observation and supplementary aviation weather reporting station including airline, air taxi and special types. According to Schroeder, the course will consist of illustrated lectures, actual experience in observing and examinations leading to certification.

Class will begin about noon on Monday, November 15 and end about noon Friday, November 19. Instructional materials will be furnished and some outside study is required. The school is being offered free of charge as a service of the North Dakota Aviation Association.

Arrangements have been made with the Travel Lodge at a cost of \$11 per day for persons attending the course. Reservations at the contract price need to be arranged through Schroeder no later than October 31. The student will make payment directly to the Motel.

Further information and requests for registration should be mailed to the National Weather Service Training Center, 617 Hardesty Str., Bldg. 9, Kansas City, MO, 64124, or made via phone at 816-374-3227 by Oct. 31. Either Schroeder or Beverly Schuetz can answer your questions.

"We have several facilities in the state that have short-time weather observation capabilities which curtail the charter activities of our state's air taxi operators. This is a chance for the operators to participate in a free training course to qualify them for weather observers so that they can meet the FAA requirements for on-site weather observation," Schroeder concluded.

Buys business

Herbst Travel International, 16 Broadway, Fargo, North Dakota has been purchased by Darrol Schroeder, Patrick Scherling, and Alex Macdonald. The firm operates as a Division of Midwest Travel International, Inc., and is a locally owned company. The agency is computerized with access to all airlines and travel companies. All types of travel: cruises, hotels, car rentals are available as free services to the public.

Darrol Schroeder is an Agri Businessman in Cass County which includes President of Schroeder Aviation. He is a member of the North Dakota Aeronautics Commission.

Flying Farmers elect

The North Dakota Flying Farmers Association meeting at Bismarck elected a new slate of officers. Arnold Widmer, Crete, was elected President; Jerome Arneson, Cooperstown, Vice President. Betty Day, Moffit, and Harold Vavra, Bismarck, were re-elected Treasurer and Secretary respectively.

June Jenson of Reynolds was crowned Flying Farmer Queen at the Saturday evening banquet. 120 Flying Farmers from North and South Dakota, Minnesota, Washington and the Canadian Provinces of Manitoba and Saskatchewan attended the event.

John Baker, Washington, D.C., President of the 260,000 member Aircraft Owners and Pilots Association (AOPA), the world's largest aviation organization was featured speaker at the event.

Mr. Baker told the group that his organization (AOPA) and the International Flying Farmers fought the increase in federal aviation gasoline taxes from 4 to 12 cents per gallon, which was enacted by the U.S. Congress last month, but lost on a close vote in the U.S. Senate.

Mr. Baker told the Flying Farmers that the Aircraft Owners and Pilots Association expected to sue the Federal Government in the federal courts because, in his view, the legislative procedure used by Congress to raise aviation fuel taxes, was defective and in violation of the U.S. Constitution. Baker said the federal aviation fuel tax measure originated in the Senate, while the U.S. constitution mandates that all revenue measures must originate in the U.S. House of Representatives.

Early American farmers neither sheltered nor fed their cattle. Cows, left to shift for themselves, became hardy but did not produce much milk. If a cow gave four quarts daily, that was considered a good yield. Modern American cows have gradually increased their yield from 1,800 quarts annually in 1861 to the present day when they yield more than 5,000 quarts of milk in a year.

— NOW ARRIVING —

flight 6

New Advanced Airplane Hanger Design Saves You Dollars

- Holds 6 planes
- Exclusive smooth forward & reverse electric rotating base
- Doorway positioning of any plane in less than two minutes
- Eliminates plane damage by not having to move planes around to take one in or out
- Only 1 overhead door — saves the cost of 5 doors and 5 concrete driveways, snow removal and door upkeep
- Eliminates doors on the wrong side of the hangar
- Beautiful hexagon design - 6525 square feet large inside area 380 sq. ft. for office - map room - baths - mechanical - lockers storage or whatever
- Colored steel walls and roof with filon windows in the walls - 1 walk-in keyed service door
- Architect approved plans

For The Best Value In Plane Hangars Today

Call Or Write



flight 6
(Lisbon Lumber Inc.)
P.O. Box 71
Lisbon, N.D. 58054
(701)683-5216

New federal program paves way for progress

TRAVERSE CITY, Michigan, September 15, 1982—Airport and airways legislation recently signed into law by President Reagan will pave the way for significant progress in aviation according to Lawrence L. Burian, president of the National Air Transportation Association (NATA). Burian offered this assessment at the 30th Annual Michigan Aeronautics Conference, conducted here by the Michigan Association of Airport Executives.

"This program provides for unconstrained airports and airways capacity for general aviation for years to come, and its passage is in large part due to the exceptional effort by Federal Aviation Administrator J. Lynn Helms and the farsighted members of the House and Senate aviation subcommittees," he said.

Burian observed, however, that two important misconceptions still surround the airport and airways program. "The commitment to overhaul the National Airspace System should not be considered as a 'blank check' which Congress has given the FAA to spend capriciously. The Congress limited expenditures to five years in order to buy equipment and start this program without neglecting airports. During this time, legislators and industry representatives alike will be able to recommend spending adjustments if necessary."

NATA's president added that the Association will monitor FAA expenditures of tax funds to ensure that monies are spent for the purposes they were intended. "We cannot accept a large surplus in the Aviation Trust Fund or

inadequate spending for airports, especially reliever facilities," he explained.

Burian also clarified language in the program on "exclusive rights" for airport tenants, including aviation sales and service companies known as fixed base operators or FBOs. "This provision simply prevents an FBO's established leasehold from being carved up indiscriminately to allow another tenant to do business on an airport," he pointed out. "The provision will benefit the general aviation community because it will help stem the loss of companies providing professional aviation services."

He also responded to calls that the new provision will create monopolies in the FBO industry. "These charges are bas-

ed on emotion rather than fact, and they reflect an obvious misunderstanding of the airport and airways program. The intent of Congress was not to sow the seeds of monopolies but to protect established businesses which have made substantial investments to serve aviation."

Noting that the nation as a whole will benefit from the new program, Burian concluded, "Our airports and airways system is an invaluable part of America's total transportation network, and by their actions the Congress and President Reagan have recognized the importance of aviation to the nation's economic health."

Aviation tips and taxes . . .

Take off tips

After their first flight, all pilots know how to takeoff. Just turn on the power, steer the thing where you want to go and after awhile start climbing. Because this works fairly well, there is a tendency to let it go at that and to concentrate on other phases of flight that appear to demand more skill. However, a good takeoff requires more skill than any other maneuver.

As a pilot you must consider runway length, density altitude, available power, takeoff speed, obstructions and wind direction because most takeoffs require solving one or more of these problems.

1. Shortfield Take Off — This procedure should be used any time there are obstructions in the departure path. Use the flap setting and technique recommended by the aircraft manufacturer.

The obstruction height above the ground and the distance from the takeoff point determines the time that the best angle of attack must be maintained. After the obstruction is cleared, accelerate to the best rate-of-climb speed, cruising-climb speed or cruising speed as desired.

2. Retracting The Landing Gear — The practice of retracting the wheels as soon as possible after takeoff is not the best technique for all aircraft. Transport category aircraft "takeoff procedures" are different from that for many other standard classification aircraft. "T" category aircraft have established for each takeoff a V1, a V2

and (Jets) a Vr speed.

So, if an engine fails before V1, the pilot must abort the takeoff and he is guaranteed stopping capability within the remaining runway. If an engine fails after V2, the pilot must continue the takeoff and he is guaranteed adequate climb performance on remaining engine(s). So, the landing gear is usually retracted soon after takeoff.

In other standard classification aircraft (single and multi-engine) the problem is not so simple. If your only engine quits, a wheels down landing made on the airport is usually best. Some multi-engine aircraft will not climb on one engine, except under ideal conditions.

A good general rule is: As long as you have runway ahead of you that you can land on, leave the gear down. When you pass this part "gear up."

Here are some others:

1. Generally speaking, takeoff on the centerline of the runway. The runway on either side of the centerline may be needed in the event of a blowout or sudden wind shift.

2. Get the aircraft "ready for takeoff" before taxiing onto the runway.

3. Plan ahead. Do not have any surprises on takeoff, if you can help it. Did you get rated power output? Check RPM, manifold pressure, EGT, torque, percent RPM, EPR's, or whatever "measure" your aircraft's engine output. Quickly determine if readings are "normal". If not, abort the takeoff immediately.

4. Plan ahead. Do not have any surprises on takeoff, if you can help it.

...and taxes

WASHINGTON, D.C., September 1, 1982 — Although legislation reinstating and increasing selected aviation user taxes is not yet law, aviation retailers will be held accountable for filing these taxes with the Internal Revenue Service (IRS), according to Lawrence L. Burian, president of the National Air Transportation Association (NATA). The Association represents aviation sales and service companies (fixed base operators, or FBOs), on-demand air taxis and commuter airlines.

"The IRS's release of information stating that aviation taxes should be collected beginning September 1 was made after our discussions with that agency as well as meetings with the Joint Committee on Taxation and the Association's tax counsel and inquiries from retailers. We were concerned that the lack of authoritative guidelines would create confusion throughout the industry," Burian explained. "Before the IRS clarified the question of collecting taxes, NATA had repeatedly stated that retailers would be accountable for filing these taxes and should collect them whether or not they passed the full amount through to consumers. The fact that President Reagan has not signed the taxes into law does not postpone the taxes from taking effect today."

Andrew V. Cebula of NATA's Industry Research department has received hundreds of telephone calls on the tax question. "Retailers are most concern-

ed about their accountability for filing the taxes, and they want information on filing procedures," he said. "Because we analyzed the program before it took effect, we've been able to correct misinformation and help retailers deal with the taxes quickly and smoothly."

The National Air Transportation Association (NATA) represents the interests of fixed base operators (FBOs), air taxis and commuter airlines at 1,000 locations across the United States. FBOs provide fuel, maintenance and other support services for general aviation and commercial aircraft. NATA's air taxi and commuter airline Member Companies transport 1.4 million passengers annually in 5,000 aircraft.

Air taxis and taxes

WASHINGTON, D.C., September 14, 1982 — The National Air Transportation Association (NATA) is making available to air taxi companies information on obtaining exemptions from the federal aviation excise taxes recently put into law by President Reagan.

NATA's material is designed to help air taxi operators understand tax procedures more quickly and incorporate them into their financial systems smoothly.

NATA is providing this information without charge as an industry service to air taxis. In addition, members of the Association's staff are available to answer tax questions.

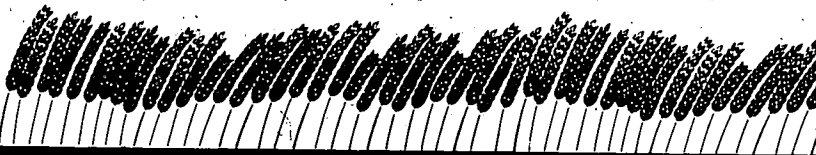
To receive NATA's tax material, call the Association's Washington offices at (202) 965-8880.

When Pigeongrass and Broadleaves threaten spring wheat...

START THE Stampede™

postemergence herbicide

ROHM HAAS Agricultural Chemicals
Rohm and Haas Company
Philadelphia, PA 19105



KING Special Bulletin KING

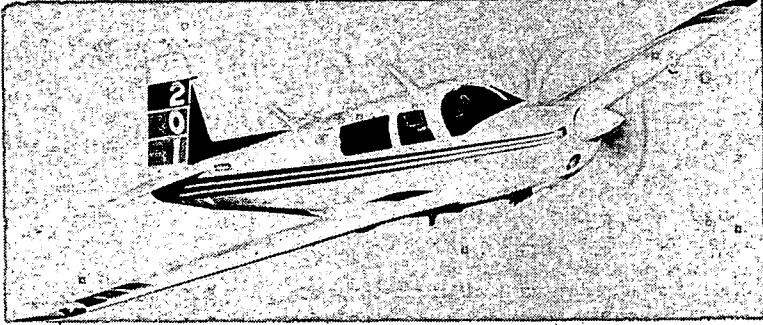


King Radio Corporation has put together the KNS-80 Integrated NAV system, KY 196/197 Com, and KI 206 Indicator at a sale price. Plus Dakota Aero Tech will also discount the sale prices even further!

| | LIST | KING SALE | DAKOTA AERO TECH |
|--------|-------------|------------|------------------|
| KNS-80 | Total | Total | Total |
| KY 196 | \$10,705.00 | \$9,500.00 | \$6500.00 |
| KI 206 | | | |

Call Us For Estimates, No Obligation.
Phone: 701-237-5305
Dakota Aero Tech Inc.
P.O. Box 5534 Hector Field, Fargo, ND 58105
FAA CRS DO 4-10

MOONEY AIRCRAFT



1983 MOONEY 201 — NOV. 1 DELIVERY —

1979 MOONEY 201
990 TT, Full Collins Microlite, A/P

1967 180 HP MOONEY
2100TT, SMOH, IFR Equipped

1967 180 HP MOONEY
2800TT, 900 SMOH, IFR Equipped, W/DME

1977 MOONEY 201
620 TT, King Equipped, A/P

Willmar Air Service Inc.
Our 37th year of Sales & Service
Municipal Airport — Willmar, MN 56201
Bruce Jaeger, Pres.

612-235-4844 or After Hours 612-235-7985

SERVICE SPECIALISTS —

We specialize in servicing Mooneys. Schedule your next repair or maintenance into our highly skilled service department.

From Your Secretary

By Jack Daniels,
NDAAs Exec. Sec.

Many North Dakota aviators are jumping to false conclusions about the report of the Governor's Task Force on state government and its impact on the Aeronautics Commission.

The independent study of the Governor's Task Force has led many in the aviation community to believe the Governor is going to do away with the Commission and put its duties and functions under some other department. This report is not the case.

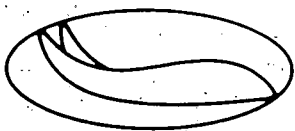
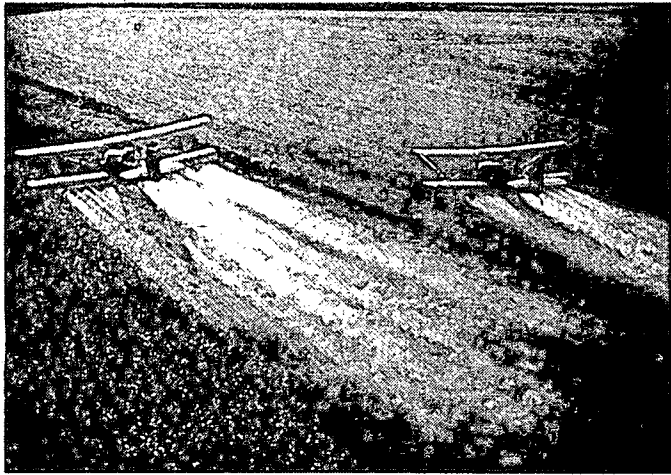
The independent report simply gives the Governor some ideas on how he might best organize those departments and agencies he is responsible for into a better managed unit.

It is not the views of the Governor or the aviation community.

The misinformation concerning this issue is flooding the Governor's office and causing considerable concern for him.

When the Governor has made an adequate review of the report he will make a determination on actions he feels should be taken. At that time the aviation community can respond.

Get Broad Coverage . . .



**AVIATION
UNDERWRITING
SPECIALISTS**

YOUR BROAD COVERAGE AVIATION INSURANCE SPECIALISTS — WITH COLLECTIVELY OVER 65 YEARS OF EXPERIENCE IN AVIATION INSURANCE.

THAT'S WHY 4 YEARS AGO OUR NAME BECAME WHAT WE REALLY ARE —

AVIATION UNDERWRITING SPECIALISTS

For FBO's — — FULL LINE COVERAGE
• AIRCRAFT LIABILITY • HULL COVERAGE
• PREMISES LIABILITY • PRODUCTS LIABILITY
• HANGAR KEEPERS LIABILITY • CARGO LIABILITY
— AND MORE —

For AG Operators:
• AIRCRAFT LIABILITY • HULL COVERAGE
• CHEMICAL DRIFT LIABILITY
• FARMER/OWNER/GROWER COVERAGE
• SPRAYING CITIES AND TOWNS COVERAGE

For Private Owners:
• AIRCRAFT LIABILITY • NON-OWNER DAMAGE
• HULL DAMAGE

**ASK AUS
800-325-8079**

Area representative - L. JOHN WEBER



**AVIATION
UNDERWRITING
SPECIALISTS**

16301 FONTAINE DRIVE — P.O. BOX 1039
CHESTERFIELD, MO 63017

Grants approved

The North Dakota Aeronautics Commission approved state airport grants for 15 airport improvement projects, totaling \$67,134.39 for paying fifty percent of the cost, according to Harold G. Vavra, Director. These are:

| | | |
|---------------------------------|------------|--|
| Columbus | \$4,252.55 | -Runway extension and reflective lighting system. |
| Crosby | 600.00 | -Power Mower |
| Drayton | 5,750.00 | -Purchase runway land |
| Golden Valley Co. (Beach) | 7,520.00 | -Supp. for apron and taxiway pavement |
| Hazen | 3,750.00 | -Earthwork and grading of taxiway & apron |
| Hebron | 1,475.00 | -Purchase used tractor and mower |
| Int'l. Peace Garden | 2,785.74 | -Completion of 2" overlay on runway, taxiway, apron and paint numerals |
| Lakota | 2,503.60 | -3" asphalt on runway overlay, taxiway and apron. |
| Lidgerwood | 9,500.00 | -Purchase land, grade new N-S runway |
| Lisbon | 4,000.00 | -Seal coat paved-runway. |
| Mandan | 12,000.00 | -Purchase and install VASI |
| Park River | 1,550.00 | -Tractor and mower |
| St. Thomas | 7,447.50 | -Seal coat on runway, taxiway and apron |
| Washburn | 2,500.00 | -Survey and preliminary design plans for grading and paving |
| Watford City | 1,500.00 | -Pave turnaround at SE runway end & parking area |

The source of state funds is a 4 percent excise tax on the sales price of aviation motor fuels.

SKY TRACTOR SUPPLY

(A Div. Of Deck Flying Service)

SCHWEIZER

AG-CAT

DISTRIBUTOR

SALES - SERVICE - PARTS



1982 G-164B+ AG-CAT

Serial # (474B) N8440K

600 HP, 400 Gal. FTO, 80 Gal. Fuel, 24V, APU Nav. Lights, Spray Only, Dust Controls, Bottom Load, Cool Seat, Smoker, Flagger, Standard Boom.

— Call For Price —

1979 600B AG-CAT

AG-100 Prop, 80 Gal Fuel, 600TT, Elevator Servo-Tab, Auto Flagger, Spreader, No Damage History — Spring '82 Annual \$76,500.00 Firm.

Distributors For:

- Cal-Mil Helmets
- Dura-Kev Flight Suits
- Transland Spray Equipment
- Spraying Systems
- Automatic Flagman
- Flags
- Agrinautics
- Pacific Propellers

Financing Through
Grumann Credit
Corp. For Qualified
Buyers.

"YOUR COMPLETE LINE DEALER"

SKY TRACTOR SUPPLY

Hillsboro, ND 58045
701-436-4505



THE 1982 CESSNAS ARE CLEARED FOR THE TAKEOFF YOU'VE BEEN WAITING FOR.

We've got to clear the ramps for the 1983 Cessna line of singles and twins. So from now through December 31st, your Cessna Dealer is dealing his best prices of the year.

SAVE EVEN MORE. Make your best deal on a new '82 Cessna before December 31st and take advantage of the full 10% Investment Tax Credit the government is allowing this year. Because *after* this date the tax options will be less attractive.

WIDE SELECTION. Your Cessna

Dealer is offering these low prices on the complete line of 1982 Cessnas — from the ever-popular 152 to our top-of-the-line pressurized 421 Golden Eagle.

You may *also* find outstanding values on low-time demonstrators and used aircraft, as well. So get out to the airport early.

Remember, our entire '82 line is cleared for takeoff. See your Dealer today or call 1-800-835-0025 (in Kansas call 1-800-362-0356) for the name of the Dealer nearest you.

