ROCKY MOUNTAIN GOLDEN SENTINEL TEAM TO PRESENT 4 PILOT SEMINARS IN STATE

The well known Golden Sentinel team of the FAA will be making four appearances in North Dakota during March. The team will present a varied program of interest to all pilots and would-be pilots on subjects related to flying.

At the Minot and Bismarck Seminars, the North Dakota Chapter of the 99's are graciously supplying the cookies for the breaks. All programs will start at 7:30 p.m. and will last about 2½ hours. The dates of the series are as follows:

March 28 - Fargo - Stevens Hall Auditorium, NDSU - Sponsor - Tri-College Flying Club
March 29 - Grand Forks, UND Student Union Ballroom, sponsors - UND Flying Club & UND Aviation Dept.
March 30 - Minot - Ramada Inn - Sponsors - N.D. Chapter 99's; Experimental Aircraft Association
March 31 - Bismarck - Sidney J. Lee Auditorium, Bismarck Junior College - Sponsors - N.D. Chapter 99's; N.D. Aeronautics Com.

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PILOT SAFETY MEETING TO BE HELD AT WILLISTON, WEDNESDAY, MARCH 16TH & AT CAVALIER IN MID-APRIL

All persons interested in aviation safety are invited to attend a meeting to be held in the hospitality room of the Cooperative Credit Union at Williston. The date is Wednesday, March 16th and the meeting will start at 7:30 p.m. Sponsor of the presentation will be SerVair of Williston and the person to contact for further details is Jack K. Daniels, Tel: 572-3773.

Another safety meeting will be held in the Cavalier area in mid-April, although the date has not been firm up as yet. Dick Halldorson, 254-4466 is the person to contact for further details.

Both meetings will be presented by the Accident Prevention Specialists of the Fargo General Aviation District Office. Michael Beiriger is Chief of the Section.

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ACCIDENT PREVENTION COUNSELOR PROGRAM ESTABLISHED NATIONWIDE BY FAA

While pilots and others here in the Old Central Region now part of the Rocky Mt. Region and the Southwest Region of the FAA, are acquainted with the FAA Accident Prevention Counselor Program, it having been around on a trial basis in the two regions for years, it will be a new program for much of the U.S. FAA apparently concluded rightly that the program enhanced aviation safety and an Advisory Circular AC-60-13 has been issued.

Michael Beiriger, GADQ #4 has been made Chief of the Accident Prevention Counselor Program which was formerly headed by Harold Olson, while on the trial basis, who was well known by many.

The FAA established the General Aviation Accident Prevention Program on the premise that accident rates could be reduced by encouraging airmen to improve their attitudes toward safety, by refreshing their aeronautical knowledge, and by improving their aeronautical skills. The program encourages total involvement of the general aviation community.

Representatives of all segments of the aviation industry are encouraged to participate with the FAA in the conduct of workshops and seminars which broaden and refresh the technical knowledge of airmen. In addition, accident prevention counselors are sharing their technical expertise and professional knowledge with the general aviation community.

Accident Prevention Counselors are private individuals dedicated to the promotion of aviation safety. They voluntarily serve as assistants to the FAA accident prevention specialist in performing accident prevention functions in their community. Accident prevention counselors act as advisors to the aviation community in support of aviation safety, but without designated regulatory authority. Counselors are selected for their interest in aviation safety, their professional knowledge, and their personal reputation in the general aviation community.
Mrs. O. A. Beech, Chairman of the Board of Beech Aircraft Corporation announced a $750 Beech Aircraft Foundation Scholarship has been awarded to Vonne Bourgeois, a junior at the University of North Dakota in Grand Forks.

The Beech Scholarship is awarded on the basis of academic achievement in aviation education and potential service to the aviation industry, to be used by the recipient to further her flight training experiences.

Ms. Bourgeois is working toward a major in Aviation Administration through the University of North Dakota's Department of Aviation. She is from Bismarck, N.D. and is active as the chapter chairman of the North Dakota Ninety-Nines; an officer in the Delta Chapter of Alpha Eta Rho, a professional aviation fraternity; and a member of the N.D. Flying Farmers and the Civil Air Patrol.

She presently holds her Private Pilot Certificate, is instrument rated and is working on her commercial certificate and certified flight instructor. Her career objective is sales and marketing of aircraft.

John D. Odegard, Chairman of the Department of Aviation, said Ms. Bourgeois will represent Beech Aircraft Corporation well as the recipient of their aviation scholarship. "She is an outstanding student at UND's Aviation Department, and is representative of the high caliber of young people entering the aviation industry from colleges and universities throughout the country."

**USE OF 720 CHANNEL TRANSCIEVERS**

The FAA is beginning to implement 25 kHz spaced VHF Communication channels in the National Airspace System. Probably not many of our North Dakota operators will be affected by this action but it would be well to be aware of it for future use.

The implementation began in high altitude enroute sectors in January, 1977. High altitude enroute sectors are defined as all sectors having floors at or above the existing low altitude route structure ceiling of 18,000 feet.

Enroute 25 kHz assignments to be commissioned on or after April 1, 1977 are:

<table>
<thead>
<tr>
<th>ARTCC</th>
<th>GENERAL AREA SERVED</th>
<th>FREQUENCY (MHz)</th>
<th>PLANNED COMM. DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleveland, O.</td>
<td>70 NM radius, Columbus, Ohio</td>
<td>135.675</td>
<td>April, 1977</td>
</tr>
<tr>
<td>Indianapolis, Ind.</td>
<td>80 NM radius, Brookeville, Ohio</td>
<td>135.575</td>
<td>April, 1977</td>
</tr>
<tr>
<td>Chicago, III.</td>
<td>125 NM radius, Dubuque, Iowa</td>
<td>135.275</td>
<td>April, 1977</td>
</tr>
<tr>
<td>Kansas City, Mo.</td>
<td>75 NM radius, Moline, Mo.</td>
<td>135.075</td>
<td>April, 1977</td>
</tr>
<tr>
<td>Atlanta, Ga.</td>
<td>120 NM radius, Cleveland, N. C.</td>
<td>135.875</td>
<td>May, 1977</td>
</tr>
<tr>
<td>Boston, Mass.</td>
<td>55 NM radius, Frankfort, N. Y.</td>
<td>135.775</td>
<td>October, 1977</td>
</tr>
</tbody>
</table>

Special efforts will be made during 1977 to advise airspace users of additional 25 kHz frequency assignments but after 1977 the only advisement will be in the Airman's Information Manual.

By satisfying high altitude enroute requirements, it appears that all requirements in the low altitude route structure and at terminals and flight service stations may be accommodated on 50 kHz channels for a number of years.

INFORMATION FROM GADO #4

**PIETSCH FLYING SERVICE - MINOT - EXPANDS FACILITIES**

Remodeling is underway at Pietsch Flying Service and is expected to be completed May 1st according to Alfred Pietsch, FBO at Minot International Airport. He said that approximately 5,000 sq. ft. are being added to the entire operation.

The shop was enlarged considerably and a 16' X 30' bi-fold door added so as to accommodate larger twins. Gary Johnson, shop foreman, expressed his feeling that the increased area plus a larger engine overhaul area and a larger parts room will greatly enhance working conditions and expedite work.

In the radio section, which has been moved and enlarged, Harold Wengel, technician also said that the move to a quieter area would improve his working area and allow a larger stock room.

Dan McDonald's Chief Flight Instructor's section has also been enlarged and redone. It is on the 2nd floor of the structure and is quite spacious. Pietsch also said that he expected to have a instrument shop operational as soon as the remodeling is completed. A large reception and sales office with an exceptional glass area overlooking the airside of the airport completes the facility.

The firm, besides being a Mooney aircraft distributor, sells Grumman American and has taken on the dealership of the Rockwell Commander 112 and 114 Models.

NOTICE TO AERIAL APPLICATORS:

The North Dakota Aeronautics Commission will be mailing out the 1977 aerial spraying applications the first part of April. Applications will be mailed to all operators that were licensed in 1976.
The frequency on which the device is tuned is 130.700 MHz. By the use of various methods, the location of the device can be determined to be either 13.0700 MHz.

This diagram shows the frequency spectrum for the device. The frequency bands marked are

- 130.700 MHz for 130.700 MHz
- 130.700 MHz for 130.700 MHz

These frequencies are used for communications between the device and other devices in the vicinity. The frequency bands are subject to change and are not fixed.
When looking at a five-digit display, you no longer assume you have a 360-channel radio. If you can select only frequencies with "00" or "50" on the right, you do have 360 channels. However, if you can select numbers with "20" or "70" on the right, you have 720 channels and can assume a "50" to the right of the "20" or "70".

SOME CAN BE CONVERTED: Some 360-channel sets in the past were manufactured with 720-channel capability and can be converted to 720 channels by a change in the frequency selector, some additional wiring, and a modification to the transmitter. (Reprint from Piper "The Right Seat")

** ** **

** TAKE OFF -- A Contest **

Billed by General Aviation Manufacturers Association (GAMA) as the world's largest airplane Sweepstakes totaling $300,000 for the next 3 years, it will be giving away a $50,000 airplane every 6 months to a pilot who attained a private pilot certificate during the preceding 12 months.

Each instructor who validates a winning entry will receive a holiday trip for two. The contest started the first of January, 1977 and the first drawing will be six months later. The winner can choose the make and model from those manufactured by members of the General Aviation Manufacturers Association of an aircraft up to $50,000 retail value. The goal is to get 200,000 new students per year with 100,000 new private pilots per year.

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** THINGS OF INTEREST -- FROM TECHNOLOGY USE STUDIES CENTER, SE OKLAHOMA STATE UNIVERSITY **

ROCKET ENGINE: A village in the Tyrolean section of Austria was greatly disturbed by a "Student prank!" in June of 1914. The "prankster" was 19 year old Max Valler, who had build a model airplane powered by a ROCKET motor and launched it in the darkness. The incident frightened the villagers and got him in trouble with the police.

Valler flew airplanes during World War I; and, then, in 1925 he wrote an article promoting space exploration with return to Earth by a rocket-powered vehicle with airfoils like NASA will launch in the Shuttle. In May, 1928, he demonstrated a rocket-powered Opel automobile on a race track in Berlin. He built an alcohol/liquid oxygen fueled rocket which weighed 4 kg and would develop 24 kg. Valler substituted kerosene for alcohol, in order to get the financial backing of an oil company and the little engine exploded and killed Valler on May 17, 1930.

Max Valler envisioned rocket-propelled airspace vehicles and built the first liquid fueled rocket engine. If our aerospace program owes its success to the fact that "we stood on the shoulders of giants" (as a starting base), then surely Valler was one of those giants.

COMPOSITES: We have had a chicken/egg situation in advanced composites for a decade or more. Production has been limited because of the price, and the price has been high because of limited usage. The B-1 bomber is designed to operate for a quarter of a century, as the B-52 will have before it is retired.

Considerable care would be in order if the material used in your next automobile had to permit maximum performance for the next 25 years. The Air Force has had to select about a half million pounds of material per airplane with a quarter century of high performance per airplane in mind. As reported in the December 27, 1976 issue of "American Metal Market," the Air Force has switched construction of the horizontal stabilizer in the B-1 from titanium/aluminum to an advanced composite. The 26-foot long, 1840 pound airfoil will be the largest structure in production whose load carrying members and skin are built from advanced composites. Many structures are flying with composite skins and some with noncritical load carrying structure. However, the B-1 stabilizer will be constructed with graphite fibers instead of the generally used glass fibers. These graphite fibers are the "A1" type at less than forty dollars per pound. (The same type of Fibers cost $3,000.00 per pound 10 years ago.)

It may appear to us laymen that the Air Force is spending a lot of money to save 500 lb. per airplane. However, under an old rule-of-thumb, each pound of weight added to structure in design adds nine pounds of penalty in performance. It takes additional power to move an extra pound; it takes additional fuel to develop the power; it takes additional tank space to carry the fuel; it takes additional structure to carry the additional tankage; etc. Five hundred pounds per airplane in a fleet of airplanes operating 25 years offers a significant reward in cost/performance.

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** STATE MECHANICS ELEC **

At a recent Mechanics Seminar, a organizational meeting was held and the following were elected officers to the N.D. Professional Aviation Mechanics Association. Gordon Person, Dakota Aero Tech, Fargo was elected President; Frank Argenziano, Grand Forks, Vice President; David Carlson, Servair, Williston, Secretary; Dave Teets, Rugby, Treasurer.
Assuming you're as high as you or your airplane will go, then drop down. Head for the warm air where the moisture is all rain. And you'll find you've passed through what could have been a problem (at another altitude) with no more than a touch of ice.

Some airplanes are known as good ice carriers. But without airfoil and prop de-icers, you are not permitted to find out how good your aircraft is. Nevertheless, if you fly regularly during the winter, you're going to get a fair idea soon enough.

When you do get a load of ice, remember the plane will stall at a higher airspeed. So, if making an instrument approach with ice building up on the wings, keep speed up well above what you'd normally use. And do everything correctly, for a missed approach or go-around might be an impossibility if the ice is thick enough.

In summary, remember, it's ill for you to fly in known icing conditions. So first and foremost, do all you can to assure you won't meet any ice on the trip. Sometimes the best course of action is to stay on the ground until the weather gets better. But if you're in the sky, there are things you can do to minimize your ice encounter to the point that it's no more than a mediocre hangar-flying story after you're safe at your destination.

EDITORIAL The foregoing article No. 7 is being reprinted from a series of Articles prepared by AVMCO Insurance Company. Although we are approaching the warmer season, we still will be exposed to icing for the next few months.

FCC NO LONGER COLLECTING LICENSE FEES

In the event that you as a pilot need a restricted radio-telephone permit or your aircraft radio license changed from the last owner, now is the time to make the application.

Richard Wiley, Chairman of the FCC recently told a House Appropriations Subcommit-tee that the agency can't develop a new fee schedule to replace one held illegal by a federal appeals court last year. "We don't have the accounting capability to devise a new fee system" that would meet the requirements set forth by the court. Mr. Wiley asserted. The court directed the commission to justify each of its fee assessments and to calculate the cost basis for each one. The FCC stopped collecting the fees January 1. According to FCC officials, the commission collected $34 million in fees in fiscal 1976, ended June 30. They ranged from $4. for a citizens band radio license to tens of thousands of dollars for some radio and television stations.

At the time of the court decision, the FCC said the fees wouldn't be reimposed unless Congress gave the agency "some decent ground rules."

Mr. Wiley gave his testimony at a hearing on the commission's budget request for $59.5 million for the year beginning Oct. 1, up $5.1 million from the current year. The proposed budget doesn't include any money to carry out the court's order that the FCC begin refunding all the license fees it has collected. The Commission has received $163 million in license fees since they were first imposed in 1970 at the urging of Congress, to extract the cost of operating the agency under the infamous user fee concept. This is the same concept that is plaguing the Federal Aviation Administration and from which emerges loose talk of aviation fuel taxes rising 40 to 75 cents per gallon, to satisfy the voracious maw of the agency.

GENERAL AVIATION DISTRICT OFFICE (GADO/4) FARGO ITINERARY FOR NEXT 3 MONTHS

All dates listed below are on Tuesdays and one or more Inspectors will be at the following airports on the dates specified for the purpose of practical examinations, flight tests, and aircraft inspections. Appointments for these services should be requested at least a week in advance to allow for scheduling by Inspectors. Written examination services will be provided at the Minot Ramada Inn and Bismarck Tower Building on an individual appointment basis. Exams will start between 0800 and 1000 on the day indicated. If there is a need for written examination services at other locations, please contact us.

<table>
<thead>
<tr>
<th>City</th>
<th>Airport</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
</tr>
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<tr>
<td>Bismarck, N.D.</td>
<td>Bismarck Municipal</td>
<td>5</td>
<td>3</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Minot, N.D.</td>
<td>Minot International</td>
<td>22</td>
<td>19</td>
<td>17</td>
<td>21</td>
</tr>
</tbody>
</table>

NORTH DAKOTA NINETY-NINES CHAPTER NEWS BY VONNIE BOURGOIS

Every pilot who holds a certificate or rating, also holds a moral responsibility to maintain the highest proficiency of his ability, if he or she plans to act as pilot in command or ride regularly in an aircraft of his operational capacity. I am pleased to report that the N.D. 99s have demonstrated a conscientious attitude toward proficiency, for Dorothy Herceg, the Section APT chairman, awarded our Chapter the "gold star" for being one of the three chapters in the Northwest Section (twenty chapters) with the highest percentage of APT members. APT Annual Proficiency Training--is a annual Biennial Flight Review. Are you APT?

The next meeting of the N.D. 99s will be held in Jamestown, March 19th at 11:00 a.m. at Comit Aviation. If you are a licensed pilot and would like to attend or find out what the 99s do, contact Lorraine Smith, 1226 N. 19th St., Bismarck, 701-255-3687.