#### くけつとくロ I C O Z

#### ということ

## NEWSLETTER Versen H. Baitzer, Kalles

ALOXY I DAKOTA いてとし

> COMMISSIONERS:
> WARD WHITMAN, ROBINSON
> CHAIRMAN, ROBINSON
> JACK K. DANIELS, WILLISTON
> VICE CHAIRMAN JOHN D. ODEGARD, GRAND FOR NICHOLAS F. SCHUSTER, FARGO . PIETSCH, MINOT ALFRED C.



Harold G. Vavra Director

2 0 0 å - Bismarck, U Im i C **Z** 26 345 

relephone

1974 DECEMBER NOVEMBER

#### POS I TION AIRPORT BUILDING PROGRAM IN PRECARIOUS o N

Funding of Airport Development is falling short of actual demand in the U.S. by \$328 million dollars, FAA said last week. Meeting with industry representatives in Washington to plan for the future of the program because congressional authorization expires June 30, 1975, the FAA placed fiscal year 1975 demand at \$638 million. Tota resources, however, amount to only \$310 million, of which \$40.1 million is being allocated to general aviation airports and \$270. million to air carrier airports. aviation airports and \$511, million for demand is \$127.2 million for general air carrier airports. Actual

Inflation is taking its toll in airport funds. FAA said that a \$280 milliodollar airport program in 1970 when the Congress enacted the Airport/Airway Bill would now cost about \$540 million dollars today - a 92.8 percent increase.

and going to the states and larger continue the existing federalthe airport (2) FAA maintains airports construction in this Newsletter. options concerning The FAA is studying three possible management options conce m: (1) FAA maintains and improves the existing program; ( es the air carrier portions and delegates general aviation ; and (3) FAA converts programs to block grants going to th is expected to recommend that Congress program with some modifications. and proposed to airports FAA improves the states; and airports. F program: 9

FORKS IN GRAND 10 BE FLIGHT INSTRUCTORS WORKSHOP

Flight Instructors Workshop is being held in Grand Forks 9th. The FAA, University of North Dakota, Fargo GADO, a Annual 7 <u>ا</u> ا

December 17, 18 and 19th. The FAA, University of North Dakota, Fargo GADO, and North Dakota State Aeronautics Commission will sponsor the workshop which will be held in the Lecture Bowl of the University Center.

The Flight Instructor Refresher Team from the FAA Academy will be giving their outstanding presentations on all areas of FAR's, IFR, and IFR instructional techniques multi-engine and medical factors. Special sessions will be held by Fargo GADO on new factors.

hour happy

Registration will start at 1500 hours on December 16th at the Holiday Inn, with hour starting at 1700.
Highlights for this year include three free lunches with presentations by Beech and Grumman American, door prizes, and free refreshments. A generous of training materials will also be available.

Attendance for all 24 hours of the Workshop will normally be accepted for renewall the formal of the materials will also be available. Cessna,

accepted for renewal of training materials will Attendance for all 24 hours ght instructor certificates You will be receiving a brown of flight

For more contact Dave Pishko, Box 8027, University Station, or call 701-777-2791  $^{\prime}$   $^{\prime}$ form. or certificates. receiving a brochure shortly with an application formation,

AVIATION ASSOCIATION PRESIDENT OF NATIONAL ELECTED FIRST VICE

The Aviation Department has been working diligently with representatives of the Bureau of Reclamation and the National Science Foundation in the preparation of the course material, guest lecturers, and required equipment for training weather modification pilots. The new course introduction to Weather Modification (Aviation 330) is offered in the fall semester of 1974-75, and Advanced Weather Modification (Aviation (Aviation 340) will be offered in the spring semester.

Robert Giacomelli will be Program Director of the UND's Weather Modification

0000 Training Program.

\* \* \* \* \* \*

Proposed Rule Making would have raised operator permit from present \$8. for indefinite period to \$10. for one year. Latest proposal would drop it to \$4. for indefinite period, is result of high court ruling against FCC in recent cable-TV case. Several proposals changed as result, including aircraft station license previously proposed at \$40. for commercial use, \$20. for non-commercial, is now proposed at \$6. posed at \$6. regardless of class of use. AOPA congratulates FCC for changes, advocates they step further, as previously recommended: drop FCC licensing of stations in planes and pilots, as both already covered under FAA certificates, continue only type accept and frequency control. Deadline for comments to FCC extended to October 21. to FCC, Washington, according to Aircraft Owners & Pilots Association Newsletter.

#### UNICOM PROBLEMS

Unicom problems now subject of FCC action, aimed at reducing congestion on presently used frequencies. FCC proposing ban on use of frequencies for ordering cabs, asking for hotel reservations, etc. AOPA to suggest these are valuable services to general aviation, recommend FCC expand use of little-used frequencies already set should be assigned to individual airports just as tower frequencies are assigned to towers. When 25 kHZ becomes common in general aviation airborne equipment, six more frequencies would be available. Deadline for comments is November 15, to Docket Section, FCC, 1919 "M" St., Washington, D.C. 20554 according to Aircraft Owners & Section Association Newsletter.

#### NEW GENERAL AVIATION AIRPORTS BUILT AND TWO EXPANDED AND PAVED IN STATE \* \* ¥ ¥ \* \*

At the close of the construction season in 1974, North Dakota had a net gain of

NEW HEAD OF MAINTENANCE IN FARGO GADO

Jim Brownfield, Maintenance Inspector at the Fargo GADO has been promenager of the General Aviation Maintenance Program. Brownfield replaces L Adams, who was promoted and transferred to the Denver Regional Headquarters a Aviation Maintenance Specialist, according to Lee C. Mills, Chief of the according to at the Fargo GADO has been promoted to Program. Brownfield replaces Lloyd he Denver Regional Headquarters Office

operator to 7th at More than 100 exhibitors and approximately 2,500 agricultural aircraft of their wives; manufactors, suppliers and others from throughout the world, will for the 1974 International Agricultural Aviation Conference December 3rd to 7th Vegas, Nevada

(NAAA) Conference headquarters Association The meet which is sponsored by the National Aerial Applicators ed to the theme "World of Agricultural Aviation '74". Conferent the Las Vegas Hilton and Las Vegas Convention Center. The 100 exhibitors will display their products in 135 separate is keyed will be

separate booths. fixed-wing and helicopter agricultural aircraft

... Le on exhibit at the ... Le un agricultural and forestry aviation, legislation, safety, chemical design, operating techniques, future aircraft design, insurance, pilot training the agricultural aviation industry in the coming fen. ... on engines and aircraft. Convention Center.
Also featured will be sworld trends in agricultural symposiums on the development, equipment tions of t

23RI CONVENTION IN BISMARCK, JANUARY NORTH DAKOTA AVIATION ASSOCIATION TO HOLD ANNUAL ωb 24TH\_

their As in the past, the North Dakota Aviation Association will be holding the annual convention in Bismarck at a earlier date so as to be able to inject inpu into the legislative process, while the legislature is in session.

The Thursday, Friday and Saturday dates will allow the members to attend and also contact their representatives and senators on vital legislation, if ne The convention will be held at the Holiday Inn which has greatly expanded facilities by adding several hundred rooms.

sessions needed

expanded

Chairman, competing According to Ron Ehlers of Dickinson Air Service, who is Convention Chairma the Holiday Inn has reserved a block of fifty rooms earmarked for those that want attend the convention. The Inn will hold these rooms available from now until tw weeks before the Convention, so it is very important that if anyone wants rooms, reserve well in advance. Remember that you should state that this is a NDAO resetion and if you wait too long and fall into the 2-week period, you will be compet general with the

0 2 the according to finalize meeting in November to f membership in November, the committee will be 9 be made directly convention comm a mailing will The

\* \* \* 45

### PLANNED AVIATION MECHANICS REFRESHER SEMINAR

Aviation sponsoring The North Dakota Aeronautics Commission with the cooperation of the Fargo GADO and the help of Mr. Charles Maddox of Van Dusen, Inc., have planned and are sponsorir a 3-day Mechanic, Industry-oriented seminar at Bismarck, N.D. next March 18th, 19th and 20th. The meetings will be arranged so as to allow industry to send in their representatives Monday or Tuesday and depart Thursday or Friday, allowing greater flexibility in participation. Technical representatives of Spark Plug Companies; propeller, engine, airframe and electrical components are expected to be on hand to make the various presentations. Future mailings will be made directly to all registered mechanics, taken from the files of the Fargo GADO and Aeronautics Commission Offices. More information will also be published in future issues of the N.D. Aviati

40 45 40 \* \*

## WINTERWISING AND WEATHERWISING

With the first blush of winter behind us and no reports of anyone hurting themthemselves

either Dakota. a never-New-

selves or bending any metal, North Dakotans, as pilots, can congratulate themselves on the premise that "perhaps we are getting a little smarter".

This is the time of the year that a wary eye must be cast on the weather. Newcomers and old pilots better remind themselves that these are the months that a neverending succession of lows, seems like one every 3 days, march out of Wyoming and eithe sneak across S.D. or stagnate, causing low ceilings and associated fog for North Dakot During the day, ceilings may lift, but with temperature and dewpoint soclose together, evenings have trapped many an unwary pilot, when evening temperatures drop as they inevitably do and fog forms. This coupled with early darkness, which must also be taken into account as something to add to winter flying tribulations. Don't forget the with early darkness, there is also the factor of very little twilight so allow plenty of time to make that landing at a unlighted field.

In the winter, time seems to evaporate, not only do aircraft engines need to be heated, many times they refuse to start. Allow an extra margin of time to play it safe. While heating that engine, make sure that not only are the cylinders heated, heat the accessory case and also make sure that the crankcase vent line is open and do the control of the eratures drop as which must also allow plenty to-Don't forget

> heated, many times they refuse to start. Allow an extra margin of time to play it safe. While heating that engine, make sure that not only are the cylinders heated, heat the accessory case and also make sure that the crankcase vent line is open and not have condensation freezing it closed, as water vapors are being driven from the crankcase, as the engine is being heated. Assuming that it is dripping and is partlebstructed while heating, further engine operation in taxing and take-off could seal

is reflected in an abnormal high oil pressure. This internal crankcase pressure, which is reflected in an abnormal high oil pressure. This internal pressure can build up to the point that it will blow out crankshaft seals or if you are lucky, the pressure can build up the pressure drops down and the possibility of the engine oil being driven overboard, the pressure drops down and the possibility of the engine oil being driven overboard, the pressure drops down and the possibility of the engine oil being driven overboard, the pressure drops down and the possibility of the engine oil being driven overboard, the pressure drops down and the possibility of the engine oil being driven overboard, the pressure drops down and the possibility of the sine driven overboard, the pressure of the tast could have drifted inside the tail cone or propspinner in this country. Don't be suckered into thinking that it will burn off after you are airthis country. Don't be suckered into thinking that it will burn off after you are airtifus country. Don't be suckered into thinking that it will burn off after you are alithis country. Don't be suckered into thinking that it will burn off after you are alithis country. Don't be suckered into thinking that it will burn off after you are alithing to several the suckers that your aircraft into thinking that it will burn off after you are alithing the time before your are at the start of the take-off run to a start will not any that you will settle back down on the runway, providing that it was long terrific amount and you will settle back down on the runway, providing that it was long terrific amount and you will settle back down on the runway, providing that it was long terrific amount and your aircraft. Supposing your aircraft is ready to be started, how about since you alithing the time before your aircraft is ready to be started, how about the properly in a N.D. wind.

Since you have heated that engine properly, treat it as in other mild weather, was all the first provided and then stop,

As you are about to land at your destination and if it is one of our many smaller fields, you suddenly remember you should have phoned ahead to check the field condition. It would have only cost 75 cents and could save you thousands in bent aircraft and injured people, in the event of a mishap. Remember, just because snow had been cleared injured people, in the event of a mishap. Remember, just because snow had been cleared the runway, which as a rule are rather firm and can remove landing gear, both fixed and retractable, in a most awesome manner. Another thing, don't assume because you can and retractable, in a most awesome manner. Another thing, don't assume because you can see you can see what appears is 16 inches tall. This condition will that last cutting in the fall and the grass is 16 inches tall. This condition will dirt over the runway, covering 2 & 3 ft. snowbanks with a perfect trap for the unwary. What happenens is that adjacent summer fallowed fields can and will drift it is safe. What happenens is that adjacent summer fallowed fields can and will drift that are often made at some airports. This comes about by the street foreman of City X, that are often made at some airports. This comes about by the street foreman of City X, that are often made at some airports. This comes about by the street foreman of City X, that are often made at some airports of the airport and plow out the runway, complete-alleys are open, telling Joe to go out to the airport and plow out the runway, complete-alleys are open, telling Joe to go out to the airport and plow out the runway, complete-alleys are open, telling Joe to go out to the airport and plow out the runway, complete-alleys are open, telling Joe to go out to the airport and plow out the runway, complete-alleys are open, telling Joe to go out to the same fashion, making some of the deepest damn canyons that only clear your wing tips by scant feet. Imagine what can happen if you have some tricky crosswinds. e some tricky

If you have purchased your first aircraft this past summer, don't forget to install the winterization kit and block off your oil cooler if necessary. Check with a knowledgeable mechanic on what is best. On the landing approach in cold weather, avoid severe and abrubt throttle changes, use the progressive reduction method to allow pistons to cool down. Finned cylinders can cool down quickly while a piston that has a concentrated mass needs more time, the fast cooling of the cylinder wall will reduce the diameter and cause piston scuffing, since the piston reduces size more slowly, so it is claimed. On the ground at your destination, don't forget to plan on heat for your engine if you are staying any length of time. For shorter durations, that blanket we talked about one of the new plastic custom designed engine covers being sold. Now have a good trip home.

FORMER HIGHWAY PILOT AGE 71, EARNS ADDITIONAL RATING OF COMMERCIAL GLIDER: To of Bismarck and places South, who retired 6 years ago from the dual capacity of the photographic section of the N.D. Highway Department and as its Chief P time out from his busy retirement schedule to pick up his commercial glider P recently. Tom who is 71 had no problems keeping up with the younger members of prairie Buzzards Soaring Club, when it came his turn to run the wing of the grains odid his fair share as pilot of aerial tows in the Cessna 305A, which was tow plane. Bowen who is falling behind in accomplishing things that he had p in his retirement, allows that he is seriously thinking of hiring help to cat had planned to do glider pilot, used as the the Chief took

#### NORTH DAKOTA FLYING FARMERS

The North Dakota Flying Farmers Association recently concluded a three-day onvention at Jamestown with election of officers. Tom Hoggarth, Courtenay was lected president; Fred Gage, Oriska was named Vice President; Mrs. Clell Rambough raddock and Harold G. Vavra, Bismarck were re-elected treasurer and secretary of the group.

Grieve, Buffalo was crowned farmerette for the coming year.

Mrs. Joyce Gansrich, Hatton was named Flying Farmer woman of the year. Clell
Rambough, Braddock was selected Flying Farmer man of the year for his 26 years of
service with the N.D. Flying Farmers Association.

New Regional Directors elected for two year terms of office included John
Kirschman, Regent; Bob Chitwood, Alexander; Don Berge, Northwood; Tom Hoggarth,
Courtenay and Donald Hartness, Gwinner, director at large.

The Ladies Auxiliary elected Mrs. Reta Gage, Oriska, President; Cheryl
Hoggarth, Courtenay, Vice President and Martha Kirschman, Regent, Newsletter Editor.

128 Flying Farmers and their families attended the banquet Saturday night
from North and South Dakota, Minnesota, lowa, Wisconsin and the Canadian Provinces of
Manitoba and Saskatchewan.

During the convention, 12 Flying Farmers took the FAA ground review and biennial
flight review, which was given by flight instructors of Jamestown Aviation, Inc., and
had their log books endorsed as required by FAA regulations in new Part 61.

HINTS FROM 10WA

face into the wind on hot days and away from the wind on cool days. This cows have sweat glands on their noses. To keep cool, a cow faces the wind away when she wants to keep warm. On moderate days or when all else fails,

S pollution in the U. O million tons of is because cows have sweat grant.

and turns away when she wants to keep warm. On moderate days or when any of look at the wind sock.

Cows, by the way, are probably the number one source of air pollution in the U. According to the Environmental Protection Agency, U.S. cows burp 50 million tons of hydrocarbons into the atmosphere every year. At that rate, it would only take ten hydrocarbons into the atmosphere every year. At that rate, it would only take ten cows to supply enough energy to heat a small house.

Maybe all those people who complain about airplane emissions should go back to waybe all those people who complain about airplane emissions should go back to

REALLY LIKET THIS WHAT GENERAL AVIATION PILOTS ARE

Business Aviation recently published the results of a study which compares the male. Both pilot groups scored significantly higher than the average US male in achievement; tendency to talk about personal adventures and argue for their point of view; ability to do new things and interest in the opposite sex. The pilot groups scored significantly lower on their willingness to do what is expected, organizational ability; participation in groups; need for other's help and willingness to accept blame, assist others and work hard at a task.

The researchers who conducted the study concluded that the pilot is the active masculine male who is strong, competent and adventuresome. Thus, his highly stero-typed-image is fairly accurate.

-34 \*\*

# UND WEATHER MODIFICATION PROGRAM REBUILDING OLD TOWER TRAILER

The Aviation Department is diligently re-working the Trailer which formerly served as the portable air traffic control tower at Grand Forks International Airport. Upon completion of the re-work, the Trailer will be equipped with a meteorological radar for cloud tracking and a rawinsonde for determing the characteristics of the winds at various altitudes. The end result will be to provide a sophisticated weather monitoring unit to assist in directing cloud seeding and serve as a tool in the program of acceptable water management. The Trailer with its I2 foot radome will have an overall height of over 26 feet and will house such typical items of equipment as control console, transmitter, digitizer rack, pressurizing set, photographic scope, computer terminal and plotter, plus numerous items of tracking gear for the rawinsonde. The Weather Mod Trailer vill be positioned adjacent to the UND Hangar at Grand Forks international Airport during the winter months and used on field assignments during the summer months. This Trailer will be used in conjunction with the current Weather Modification Program, the National Science Foundation and the U.S. Bureau of Reclamation of Reclamation to provide research radar, field studies, and other research in connection with the with Plains Cooperative Program. The new Weather Modification Trailer will provide dates inputs and monitoring capabilities for downwind research in cooperation with the with Plains Cooperative Program.

inputs Plains

SPECIAL FLIGHT REVIEW GROUND COURSE by Jeppesen. I'mited offer, expires T2-31-74, now only \$8.95. Box 1471, Bismarck, N.D. Tel: 223-0260

Includes FAR Part 91 + \$10 Value, Contact Capital Aviation Corporation

FOR SALE: 1965 Cherokee 1800, 1400 TT, 300 on top with ½" valves, certified IFR Mark 12 360 V0A 4, Narco ADF, Narco Transponder, selector panel, 3 lite, heated performed by the performance of the selector panel, 3 lite, heated performed by the selector panel, and the selector performed by the selector panel, and a lite performed by the selector performed by heated pitot

FOR SALE: 1964 Super Cub: 1972 Cherokee 4-place with low time; 1973 Cherokee Arrow, IFR equipped; 1974 Cherokee Warrior with low time; 1974 Twin engine Seneca, IFR equipped with low time. I will take trade on any one of these aircraft. Contact victor L. Gelking, Minot Aircraft Sales, Box 24, Minot, N.D. 58701, Tel:701-839-5961

FOR SALE: New 1974 Citabria C package; 1974 Grumman American Traveler and Trainer.

New Mooney Trainers with no radios so buyers can have their choice of radios. See or call Pietsch Flying Service, 2300 -2nd Ave. N.W., Minot, N.D. 58701, Tel: 701-838-4092

FOR SALE: 1963 Pawnee 2295 TT, 950 SMOH; 1969 Pawnee 260, 1550 TT; 1975 PA-18 Super Cub, ferry time only; 1975 Citabria, ferry time only, 150 hp; 1975 Cessna 150 Comuter; 1975 Cessna Skyhawk II loaded; 1970 Cessna 150 Aerobat, 1800 TT, 0-SMOH; 1973 Citabria 150 hp, radio; 1974 Warrior PA-151, 500 TT; 1961 Cessna 180, 2100 TT, 895 SMOH; 1964 Cessna 182 Skylane, 1500 TT, 650 SMOH; 1966 Cessna 182 Skylane, 1500 TT, 650 SMOH; 1966 Cessna 182 Skylane, 200 SMOH, full IFR; 1969 Cessna 182 Skylane, 200 SMOH, full IFR; 1969 Cessna 182 Skylane, 1400 TT, clean; 1970 Cessna 182 Skylane, 1400 TT, clean; 1970 Cessna 182 Skylane, 1500 TT; 1964 Cessna 1500 TT; 1964 TT; 1966 TT;

BISMARCK, NORTH DAKOTA NORTH DAKOTA AERONAUTICS BOX U COMMISSION

FIRST CLASS

B 2 1 Contact Jamestown Aviation, Inc.

2-1946 North American AT-6-G's, very clean, 1200 SMOH. Contact Jamestown Aviation, In Box 1128, Jamestown, N.D. 58401, Tel: 252-2150

Box 1128, Jamestown, N.D. 58401, Tel: 252-2150

FOR SALE: 1975 Skyhawk II, summer gold/saddle brown, NAV-PAC includes 2 720 ch. 200 Ch.

FOR SALE: 1 Set A-2000 Federal Skils for Super Cu Rosser Ave., Bismarck, N.D. 58501, Tel: 223-8677 \* \* \* \* \* \* Cub. Contact Eva Santineau, 1713 E

FOR SALE: 19 Transponder, OR SALE: 1964 Beech Debonair, 100 on Chrome top, 800 SMOH, 3950 TT, ADF, 2- Mark 12 ransponder, DME, 3 lite marker, R. Beacon, EGT, ELT, tip tank by Brittian, 2-yr. old oly paint, Sept. 75 annual. Contact Ron Deck, Hillsboro, N.D. 58045, Tel: 436-7766.

FOR SALE: 1959 Travel Air, 900 SMOH, full IFR; 1974 Super Bellanca Viking, full IFR, Century II coupled; 1970 Skylane, 275 SMOH, Kx-170A, Escort T10, Tr; 1967 Twin Comanche 1800 TT, full IFR, 3 ax1s coupled; 1975 Skylane, FTO, Nav Pac; 1975 Champion Citabrias and Scouts in stock; 1971 Cessna 150, 400 SMOH, N.C. 300; 1962-250 Fuel injection Comanche, 0-SMOH, full IFR, 2 ax1s pilot; 1966 Turbo Twin comanche, 1050 SMOH, full IFR 3 ax1s coupled; 1975 Turbo Seneca, King silver crown pkg; 1973 Aero Commander 112, 200 TT, Dual Kx 170 A<sup>T</sup>s; AT-6G immaculate condition, rewired for electronics; 1965 Pawnee 235, 1600 TT with or without 0-SMOH; 1967 Pawnee 235, 2100 TT, 500 SMOH; 1975 Thrush 52R, 600 P&W loaded; 1964 Pawnee 235, 550 SMOH, smoker, flagger; 1967 MK 21, 0-SMOH, and many more. Contact Commander Aviation Corp. Bismarck, 701-223-6862 or 223-3388.