

RELATIVE



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and carrying the Official News of the
North Dakota Aeronautics Commission

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Wahpeton, N.D. 58075

New director of FAA outlines North Dakota's airway future

I am delighted to be here in North Dakota once again. It gives me an opportunity to renew acquaintances and to meet some new faces as well. I believe this is my fourth trip to your fine state and I must say that on each occasion I have been thoroughly impressed by the level of aviation interest.

It seems that no speech is complete without the inclusion of some statistics — oftentimes designed to baffle or bambozal an audience, so allow me to get the gee whizzes out of the way early.

In terms of aviation activity, you are no doubt aware that North Dakota has 223 airports — 216 general aviation and 7 air carrier. Of these, 125 are public use facilities. There are more than 3,700 licensed pilots in North Dakota and 1,900 registered aircraft in the state.

The FAA has 168 employees presently working in the state which represents about 5 percent of the total Rocky Mountain Region work force. There are 17 F.A.A. field facilities in North Dakota. Eight of these are airway facilities offices at Bismarck, Fargo, Grand Forks, Minot, Watford City, Dickinson, and Jamestown. We have four flight service stations — Dickinson, Grand Forks, Jamestown, and Minot, and four airport traffic control towers — Bismarck, Fargo, Grand Forks and Minot. We also have a flight standards district office at Fargo and an airport district office here at Bismarck.

The F.A.A. payroll last year was \$3.85 million. In fiscal year 1980, we granted more than \$3.5 million to six airports in the state under the airport development aid program.

I would certainly be remiss if I didn't acknowledge the splendid aviation program that is underway at the university of North Dakota. I had the pleasure of visiting U.N.D. shortly after I arrived in the region and was pleased to learn that about one-third of the student population is involved in aviation in some way.

John Odegard, who heads the aviation department is to be commended for his efforts in developing the only college-

Text of speech
by Denver
FAA head
Arthur Varnado
at January
convention
in Bismarck



level weather modification program in the world. In addition, U.N.D. is the only university in the United States that offers courses in air traffic leading to an associate degree. These are commendable achievements indeed.

One of the first goals I established after coming on board was to improve communications with the people we serve. I think we have made some real progress in that direction in the past few months. I am convinced that there must be good dialogue with all segments of the aviation community if we in the F.A.A. are to be effective. It is also important for us to get a reading from the aviation users on the quality of service we are providing and what improvements are needed.

As a means of accomplishing this, we embarked on a series of listening sessions throughout the region, beginning last May. We held a session here in Bismarck in late September, and I thought it went very well. The turnout was outstanding and there were some excellent questions. As a matter of fact, the attendance was good at nearly every location. These sessions were extremely productive from our standpoint, and I plan to start another round of listening sessions this spring. Looking ahead, we are planning a session in Grand

Forks, probably sometime in May.

As all of you are well aware, we are witnessing some rather dramatic changes in aviation. I thought it might be appropriate to spend a few minutes talking about some of the more obvious ones, the underlying causes of these changes, and what they will mean to the future of aviation.

From a national perspective, economic conditions have had a significant and direct impact on the health of the aviation industry. The sharp rises in fuel prices, declining consumer purchasing power, and falling corporate profits have all had a strong dampening effect on the aviation industry.

Air carrier and general aviation activity were both down in 1980. Airline passenger travel dropped off some 5 percent from 1979, and the airlines have reported heavy losses. In general, aviation production levels were down some 2,000 units from 1979.

Realistically, I don't think we can expect any significant turnaround in most aviation activity until the economy recovers from the current recession. As the nation's economy improves, air carrier passenger travel should begin to recover and a similar upswing can be expected in general aviation.

Interestingly, there is one

notable exception to this downward trend. That is, of course, the air taxi and commuter industry. Airline deregulation has had a dramatic impact on air transportation as a whole. As scheduled air carrier service to our nation's cities has decreased, because of deregulation and the airlines shift to larger and faster aircraft for major hub service, the role of general aviation in providing air access has taken a significant turn.

In sharp contrast to a decline in most areas of aviation activity, the air taxi and commuter industry is experiencing unparalleled growth. This pattern of high growth rate is expected to continue through the early 1980s. With the move to larger aircraft and greatly expanded route structures, many of the commuter carriers will resemble the local service carriers of an earlier day and time.

This trend is easy to understand when you consider that fewer than 500 airports across the nation are served by regularly scheduled airlines. The other 13,000-plus airports must rely on general aviation for their air connections to other points through air taxi service, business aircraft and private planes.

This situation is especially true here in North Dakota, and throughout the entire Rocky Mountain Region for that matter. We are a rather sparsely populated region when compared with the rest of the nation, and there are considerable distances between communities. To illustrate the distance factor, the scheduled air service trip length in this region are about 60 percent longer than the national average. Hence, the airplane takes on added importance as a means of transportation and, indeed, to our economic well being.

The other major factor affecting aviation activity in this region is energy resource development. The Rocky Mountain region alone has about half of the nation's energy resource reserves in the form of coal, uranium and oil. It has all of the high grade oil shale and de-

Continued On Next Page

**'FAA payroll hits \$3.85 million
in North Dakota'**

Energy resources development factor

Cont. From Page One
 posits that are lying in wait to replace both the declining oil resources of this country and the ready sources of foreign oil.

When you look at many communities located near energy developments in the states of this region, we are seeing population increases that double, triple, or even quadruple within a year or two. These communities — and we have identified some 300 of them — are experiencing severe growing pains and are scrambling for the means to provide necessary community services, including transportation.

What does this energy development growth mean for aviation — and especially commuter/air taxi service? During the past 2 years, air taxi and commuter operations have grown about twice as fast as air carrier operations. In terms of passenger enplanements, commuter service has grown almost five times faster than air carrier, and air taxi enplanements grew about seven times faster than air carrier enplanements.

General aviation is now big business, a way of life, and an important means of travel. It

will play an ever increasing role in meeting our total transportation needs in the years ahead.

How do we accommodate this future growth? At a time when we are all vitally concerned how and where every tax dollar is spent, this becomes a very important question. The Federal Aviation Administration's key concern is safety for all users of the national air transportation system, including the air travelling public. Let me just touch upon a few of the programs and areas of concern that will affect aviation in the years ahead.

As far as preparing for future aviation needs and problems in connection with energy development, we are working closely with officials of the Department of Energy and with state transportation and aeronautical directors who are closely attuned to planning for the needs of energy impacted communities.

One of the problems we've encountered is that present facility establishment criteria will allow few of the needed airport facility improvements to be made. Even if and when they do, the time lag associated with

local planning and government funding cycles is a barrier that prevents us from keeping pace with the rapid expansion of such needs. A corollary to this problem is that these communities are hard pressed to come up with matching funds.

Air traffic management is another concern that arises in connection with commuter/air taxi operators. Fortunately, we are blessed with a fair surplus of unused airspace in this region, except for major metropolitan areas like Denver—so we have not encountered problems with direct routing of such flights. High mountains and bad weather, however, can be a problem.

Certainly one of our principal concerns is commuter/air taxi safety, allow me to gee whiz you again by saying that a look at the commuter airline safety record in the region shows one

accident in 1979 and two in 1980, with no fatalities in either year. The air taxi safety record shows 8 accidents in 1979 with 10 fatalities, and 11 accidents in 1980 with six fatalities. The only offsetting factor in this case is that the rate of accidents per number of operations was about the same for both years. But we must do better.

To counter any alarming trends in air taxi safety records, I have established a special air taxi/air carrier accident prevention program in which our district office personnel are to work closely with air taxi management personnel to develop good, safe operating practices.

While we are on the subject of safety, you may have read recently that 1980 was the safest in the history of commercial aviation. Continued On Next Page

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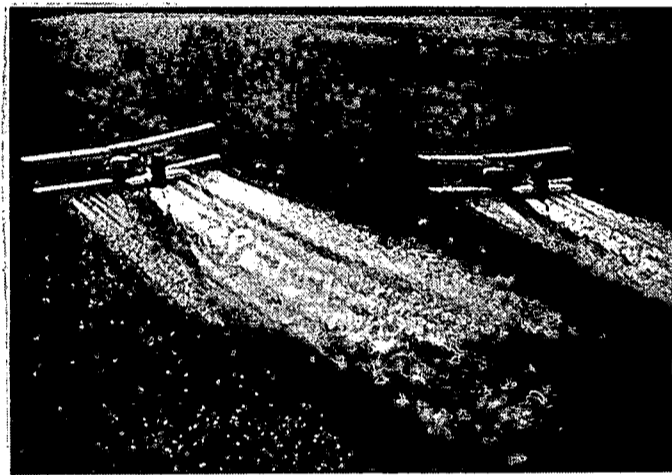
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Zero accidents is FAA'S goal

Cont. From Page Two

cial aviation. There was only one fatal crash involving a Part 121 carrier. That was the air Wisconsin accident last June in which 13 people were killed. The previous record was set 47 years earlier in 1933 when 17 were killed. We also achieved an 11 percent reduction in general aviation accidents in the Rocky Mountain region in 1980.

Unfortunately, those of us in the business of aviation safety are never able to rest on our laurels because there's only one acceptable figure — and that, of course, is zero accidents. We must continue our efforts to make flying safer — whether it be commercial air transportation or general aviation.

As for some of the other programs that will affect aviation, one is the satellite airport program. This, as most of you know, is an effort to make alternative airports more attractive to the general aviation pilot. When completed, 86 airports in 56 metropolitan areas will have received federal support to improve their responsiveness to general aviation needs. The program aims are short-term development projects that in-

crease both total capacity and instrument training capacity.

Another is the commuter airport program.

As you know, the Airline Deregulation Act of 1978 contained provisions which sparked a rapid growth in the commuter air carrier industry and which also provided for scheduled essential air service to small communities.

Last week in Washington, D.C., I participated on a panel for a commuter airline symposium at which the administrator announced F.A.A.'s recommendations for the commuter airport program. In essence, F.A.A. proposes a 5-year, \$159 million program (about equally split between F & E and A.D.A.P. funding).

The F & E funding would cover approach and navigation aids while A.D.A.P. funding would cover land purchases, facility site preparation, and such other airport improvements as runway extensions and taxiways, apron and terminal building improvements.

The program would apply to 127 airports that are either served by commuter airlines or designated as requiring essential air service. The criteria for commuter airport improvements is based on a minimum level of 2,500 annual commercial passenger enplanements — a figure used in all present versions of A.D.A.P. legislation considered by congress.

Of 16 airports in the Rocky Mountain region listed to receive commuter airport benefits, instrument landing systems are recommended for two locations in North Dakota — Devils Lake and Williston. This would probably take place in the third year of the program — 1985.

Another major objective of the F.A.A. that is directed primarily at general aviation is the flight service station automation program. The program will consolidate the 318 existing flight service stations into 61 automated facilities.

Of the 61 flight service stations, 14 are scheduled to be

commissioned by 1985, with the remaining 47 to be commissioned at a later date. The location identified for the automated flight service station here in North Dakota is Grand Forks. I might add that construction of a flight service station at Arapahoe County Airport just south of Denver started this past fall. This facility will serve as the prototype or model of the new automated flight service stations.

Another subject which I'm sure is of interest to you is aid for airports. As you probably know, the airport development aid program terminated on September 30th, with the expiration of legislation which authorized the program. Differences between house and senate versions of follow-on legislation were so great that agreement could not be reached by the end of the session.

As a result, action on legislation is now up to the new congress, and recognizing that the new administration may wish to completely rethink the program, it could be late summer, at the earliest, before there is a continuance of A.D.A.P.

There are, of course, a number of other programs

'11% reduction achieved'

Continued On Next Page

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EDITOR

Patricia J. Estes

EDITORIAL ADVISORS

Robert Odegaard, Larry Lindrud, William Beeks, Ron Ehlers, Fred Andersen and Jack Daniels.

ADVERTISING MANAGER

Richard K. Estes

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From Your President

By Ron Ehlers, NDAAA President

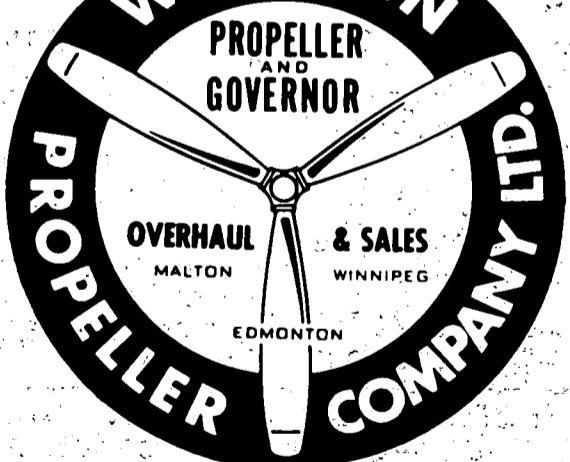
All you 137 operators owe a hopper full of thanks to Bill Beeks and Harold Vavra. Through a joint effort of NDAA and the Aeronautics Commission proposed legislation was defeated. This legislation had it passed would have cost you a bundle. What does your Association do for you???

Bill will be spending several more days at the capitol as there is pending legislation that will affect all Aircraft Owners.

Larry Lindrud, Tri-State Aviation at Wahpeton, is the man to call, write or see about what you think the NDAA should be doing, should not be doing etc.. We need your input — Help us.

Our Montana neighbors are having Army Worm problems — in the middle of March. You Operators and Growers along the western border of North Dakota — especially in the dry southwest might be looking at your winter wheat and watching for this pest.

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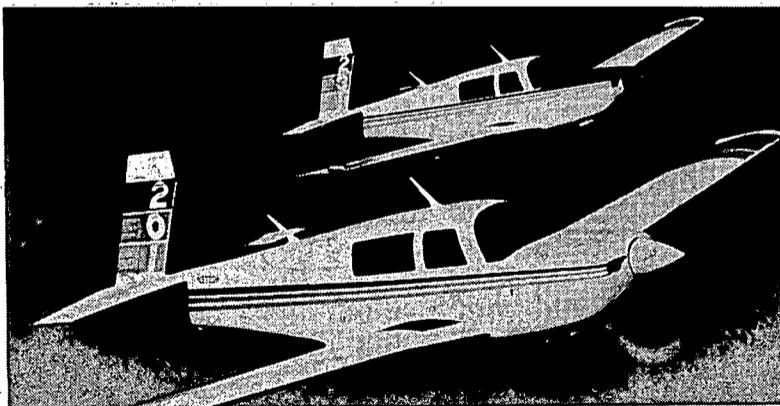
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Cont. From Page Three

either underway or planned that will affect the future of aviation.

One is the microwave landing system. The international civil aviation organizations has adopted M.L.S. as the world order standard approach and landing guidance system for the future. It offers a number of advantages over the present I.L.S., but perhaps the most significant is its greater operational flexibility offering pilots a wide range of approach paths to the landing runway. The F.A.A. is now asking for public comment on a draft microwave landing system transition plan that spells out 10 alternative strategies for introducing the equipment at airports.

Public hearings to discuss the transition to the new landing system were held at several locations earlier this month, including one at Denver on January 7th. The F.A.A.'s decision to implement the M.L.S. will not be made until after we've received and thoroughly reviewed comments from the aviation community and the public.

As a final subject, I would like to mention the notice of proposed rulemaking to amend Part 137 of the Federal Aviation Regulations, which deals with agricultural operations. This

proposal involves certain restrictions to aviation agricultural operations in the use of certain types of chemicals. There has been a great deal of interest in this proposal, as evidenced by the 3,500 comments we've received to date and the number of congressional inquiries. No final decision has been made, as yet, but I can fully appreciate your interest in hearing the outcome of this proposed rule as soon as possible.

Before I conclude my remarks, I want to take this opportunity to commend the 230 agricultural operators in the state of North Dakota for their excellent safety record. I understand that in the last 10 years there have been four agricultural aviation fatalities, well below the national average. According to our statistics, in 1979, using 325 aircraft, these operators sprayed some 3.6 million acres without a single fatality. I urge you to keep up the good work.

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. . . Dan Wakefield

Thanks, Dan Wakefield, for all your contributions in helping to found NDAA. That was the message given to Dan when NDAA presented him with a plaque during the January awards banquet. Jack Daniels did the honors.

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Beet growers' president defends herbicide and pesticide application

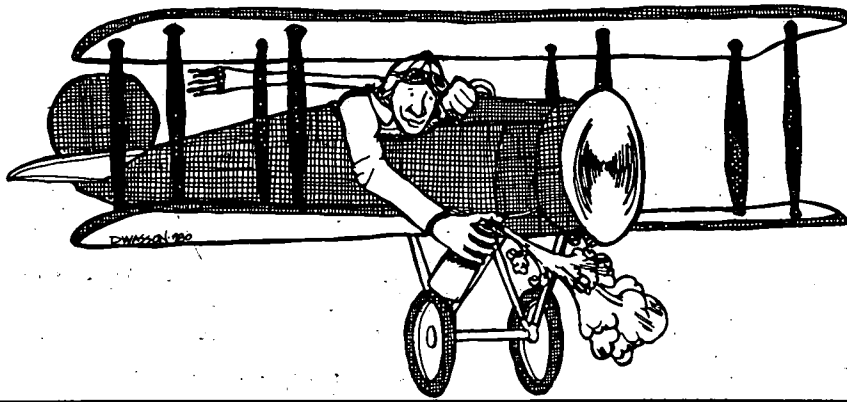
By Nancy Erickson Johnson

One of the functions of the Red River Valley Sugarbeet Growers Association is protecting the tools of agriculture, according to President Mike Warner of Halstad, Minn. Defending the use of farm herbicides and pesticides has been one of his duties during the past year.

During 1980, the Friends of the Earth made an effort to have 2,4-D use severely restricted. The RRVSGA, under Warner's direction, helped members petition the Environmental Protection Agency to deny the FOE petition and continue scientific testing.

The FOE study, "as I understand it, was basically a survey by a bunch of local people in Oregon," Warner said. "They liked to use words like mutant, premature births, cancer. They have a very noble thought, their motives are very honorable, and I don't question their sincerity."

"But it is like so many other things, it just isn't all one way



or the other. We can use those kinds of tactics too. Sure, we could ask them, if we quit using 2, 4-D, you pick out which 30 million people in the world aren't going to eat. We can use that, but it doesn't accomplish anything. The name calling, the fighting back and forth is not going to solve the problem.

"The tragedy of the whole thing, as I see it now, is that the same people, be it the Friends of the Earth, or whoever, they have beat it so hard that the backlash is going to prevent just that from happening. They are turning out to be their own worst enemies," he speculated.

"They didn't use reason, they didn't use proper channels, they used scare tactics. Now it is going to backlash."

Looking at the problem from the point of view of a farmer, Warner said, "We use those chemicals and now dog gone it, if they cause cancer, or if they mess up my genes so that I pass along a weakness to the next generation, I want to know about that. I am sincere about that. I am all for the studies. But in the meantime, we can't just indiscriminantly take all farm chemicals out of the picture.

"The consumer wants food as

cheaply as possible. So the consumer shares the responsibility for possible chemical problems with me because I have to have those chemicals to deliver cheap food, cheap sugar," he pointed out.

"That's the tact that we take. We testified in front of the science advisory panel of the EPA in behalf of a wild oat herbicide. It worked, we came in talking more sense and we were listened to," he continued. Members of the panel told Warner he was the first farmer they had received testimony from, which greatly surprised him.

"I just assumed there had been hundreds of farmers there before.

Warner said he thought the EPA panels had many members he called "academics discussing how many angels can dance on the head of a pin."

He continued with a warning, Farmers appearing in Washington provide some of the reality, Warner said.

The EPA chemical review process:

By Rick Main

Author Rick Main is pesticide consultant to the National Association of Wheat Growers.

Rebuttable Presumption Against Registration (RPAR) is a fact-finding procedure the Environmental Protection Agency employs to determine if a pesticide poses an unreasonable adverse effect on man or the environment. If certain risk criteria are met or exceeded, EPA presumes the pesticide should not be registered. It is the responsibility of the manufacturer to rebut the presumption — and to prove there is no unreasonable approach, doesn't it? We are all consumers. We all have to live in this environment. None of us wishes to see fish and wildlife destroyed. Reasonable people agree that every pesticide should be reviewed and, if potential hazards are found,

there use should be restricted, modified, or banned.

Unfortunately, the approach EPA is taking to the RPAR process is not reasonable. It is turning a fact-finding procedure into a witch hunt. Any individual, regardless of his qualifications to assess the validity of the information, can cite a study in which a chemical exceeded one or more of the criteria in the RPAR section of FIFRA and thereby trigger an RPAR for that chemical. Details of the study in question do not have to be available to EPA to trigger RPAR. RPAR's for several products have been triggered by someone citing a Russian or East German study. Try to utilize a Russian study, or for that matter, a study from any country other than the United States to obtain a registration for a pesticide and see how far you get. In a nutshell,

the RPAR process states that a pesticide is "guilty until proven innocent."

RPAR notices have been issued for a number of pesticides, including Toxaphene, 1080, Benlate, Kerb, Maneb, Captan, EDG, and 2,4,5-T. Many other chemicals are on the list and an RPAR will be issued for them as soon as the bureaucratic process allows. Eventually, all pesticides will be RPAR'd.

What happens if an RPAR'd pesticide is not defended successfully by the registrant? The product's registration may be modified or cancelled!

If the products presently on the RPAR list were all banned, agricultural production would be severely affected. Remaining pesticides would be more expensive, crop production would be decreased and, without a doubt, consumer

prices would rise sharply. To date, no RPAR'd pesticides have been cancelled, or, for that matter, given a clean bill of health. True to form, the EPA takes years to make a decision regarding RPAR'd pesticides, even though the deadline for some RPAR'd products, established by EPA's timetable, is past.

In order to respond to an RPAR notice, much time, money, and work are required of a lot of people. What is needed from the farmers and ranchers is benefit data: such things as what kinds of pesticides are being used, in what quantity, the effectiveness of the pesticide, and any problems, either with the pesticide, and any problems, either with the pesticide itself or with the chemical companies. Without

Continued On Next Page

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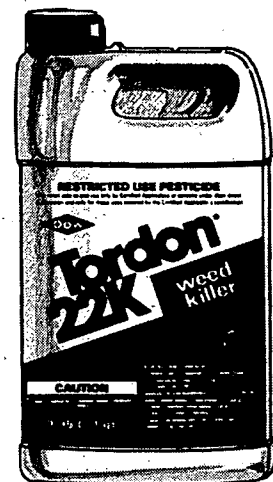
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Testifying on behalf of chemicals takes time, money and lots of work

Cont. From Page Five

benefit data, pesticides will not be registered.

It is vital that growers communicate benefits of the RPAR'd pesticides of EPA. The RPAR procedure has a built-in provision for growers and other affected parties to do just this. Included in each RPAR notice, as published in the Federal Register, is a section titled "Benefit Information." Interested parties are invited to submit information on product benefits, which will be weighed against the risks before the final RPAR decision is made. If the benefits — as submitted by growers, shippers, processors, research and extension workers and other affected parties — outweigh the risks, the product has a chance for survival! If not, the product will be lost! No matter how beneficial the product, if no benefit letters reach EPA, a minor risk could kill the product.

How can you communicate information on benefits of the RPAR'd pesticide? First, send a letter to the EPA in response to requests or public comment published in the Federal Register. The NAWG office will devise a communications chain to advise members when to respond to comment opportunities. True to the creed of a bureaucracy, they ask for three copies. Handwritten letters are perfectly acceptable — may even be preferable. Provides answers in numbers wherever possible.

- Indicate specific crops and pests to be controlled.
- Give information on the effect the loss of the products in question will have on crop yields and/or quality (in tons, pounds, bushels and dollars per acre).
- Provide information on the effectiveness and cost of alternate products.
- Provide information on the effect the loss of the RPAR'd

'It is vital that growers communicate benefits - - -'

product would have on your ability to grow crops. Would it be economically difficult to grow the crop? How much would the local economy suffer? Would growers, farm laborers, and other workers be put out of work? How many?

- Send your letter to the Washington, D.C., address provided for the specific product involved. A special reference notation is provided for each product.
- Secondly, send copies of the letter to your U.S. Senators and Representatives. It might also help to add a personal note pleading for their help in saving the product.
- Last, but not necessarily least, please send copies to your state and national association offices.

Summary

1. The EPA is deadly serious about RPAR and the RPAR procedure is alive and well in Washington. It is a grave threat to agriculture.
2. The EPA will be responsible for obtaining all risk data on RPAR candidate products, including human and animal toxicity and overall environmental effects.
3. The EPA will not be responsible for obtaining the benefit data on RPAR candidate products. The manufacturer must provide adequate information to rebut the presumption of risk and the grower, processor, shipper, distributor, research and extension worker and trade associations must provide benefit information to the EPA as well as to elected representatives in Washington.

4. We have to work together to save those products that should be saved.

The following is a list of USDA pesticide benefits coordinators for each NAWG-member state:

USDA Pesticide Benefits Coordinators in NAWG States

COLORADO
Dr. Bert Bghmont
Colorado State University
Fort Collins, CO 80523
Send copies to:
Dr. Hugh Henderson
303-491-5237

MINNESOTA
Dr. Phillip K. Harein
Department of Entomology
Fisheries & Wildlife
Agricultural Experiment Station
University of Minnesota
220 Coffee Hall
St. Paul, MN 55101
612-373-0751

MONTANA
Mr. Mike Jackson
Extension Weed Specialist
Leon Johnson Hall
Montana State University
Bozeman, MT 59715
406-994-4601

NORTH DAKOTA
Dr. John Nalewaja, Professor
Agronomy Department

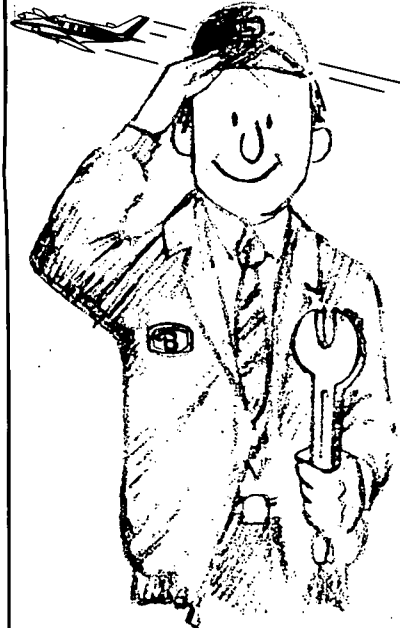
Agricultural Experiment Station
North Dakota State University
Fargo, ND 58102
701-237-7654

SOUTH DAKOTA
Dr. Leon Wood
Extension Plant Pathologist
South Dakota State University
Brookings, SD 57006
605-688-5156

WYOMING
Dr. Alvin Gale
Division of Plant Science
College of Agriculture
Box 3354
University Station
Laramie, WY 82071
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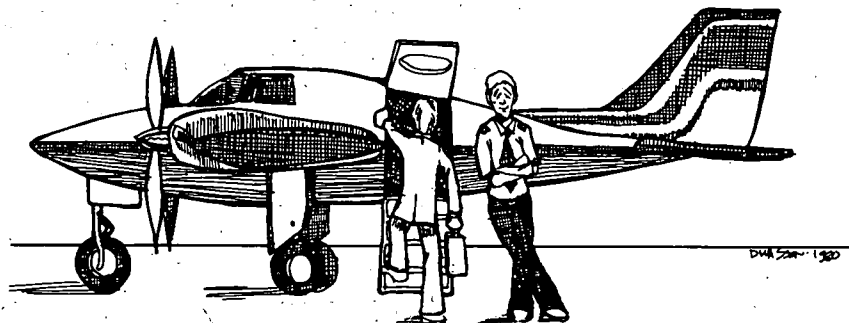
Off: 436-5880-Res. 436-5921

When is an operation considered to be under air taxi rules?

A question often asked at the district office is: When is an operation considered to be under Air Tax rules, FAR Part 135, and when may a person operate under General Operating Rules, Part 91? Unfortunately, under certain circumstances, this can be confusing. Generally, a person is required to operate under the rules of Part 135 if the flight involves the carrying of persons or property for compensation or hire.

FAR 61.118(b) allows a private pilot to "share expenses". A sharing of the ex-

penses has been defined through court decisions to mean that a private pilot may friend and building some flying time toward his commercial certificate. But, if the pilot had



take passengers with him and share the direct operating costs as long as the pilot does not provide the flight merely for the convenience of his passengers. In one case, a private pilot took a friend to a business meeting. The friend paid for the fuel but did not pay the pilot for his service. The court ruled that the pilot was compensated in that he was "building time". The key point in this case was that the pilot had no purpose in going to the meeting other than providing an economical means of transportation for his

planned to attend the meeting, he could have shared the direct operating costs of the flight. Direct operating costs include such items as fuel, oil, tie-down fees, etc.

Another example of a legal Part 91 operation is demonstrated in the case of the individual that rents an aircraft for his own use, then hires a commercial pilot to fly it for him. However, the situation becomes illegal if the renter of the aircraft also provides the pilot. In this case, the renter (operator) is carrying a

passenger for compensation. Additionally, the pilot would be in noncompliance because he was employed by the operator and was carrying a passenger that had paid for the flight.

Company owned aircraft are another problem. When one company carries persons or property for another and there is no compensation, it is an operation under the rules of Part 91. On the other hand, if the business is compensated, it becomes an Air Taxi operation and requires an operating certificate and operations specifications. There is one exception — a member of the National Business Aircraft Association can get an exemption from the requirements of Part 135 if they make proper application through the association.

If there is any doubt about the legality of a proposed operation, it is best to contact the local Flight Standards District Office (formerly the GADO) and get a clarification before the flight.

Visual monitors

The FAA has recently encouraged operators of aviation service transmitters to install visual monitors on those transmitters. Air traffic control facilities have reported several systems errors as a result of continuously keyed microphones resulting in the inability to communicate with airborne aircraft. Unintentional transmissions can be caused by sticking microphone buttons, operators sitting on microphones, mikes wedged in seats and equipment malfunctions. They usually occur without the knowledge of the operator.

Benefits of the visual monitor include reduced operating costs, prevention of premature failures and transmitter operation can be verified during preflight and inflight situations. Avionics repair facilities or the Fargo FSDO may be contacted for further information.

Medicine standards

All pilots and certain other airmen have to meet minimum prescribed medical standards. Recently it has been noted that there seems to be an increase of pilots performing duties requiring a medical certificate when that certificate is no longer valid. It is your responsibility to keep your medical certificate current and not to fly if it is expired or denied. Remember, medical certificates expire at the end of the month rather than on the anniversary of the date they were issued. For Commercial Pilot privileges, the Class II medical certificate must have been issued within the previous 12 calendar months. For Private Pilot privileges, the medical certificate must have been issued within the previous 24 calendar months. Pull that medical certificate and have a look. Is it still valid?

April 1981



Congratulations on work well done, as NDAA secretary Jack Daniels presented Bob Odegaard the past presidents plaque during the January Awards banquet.



Barbara Baltzer accepts plaque commemorating service of Vern Baltzer, now deceased, to NDAA Aviation. Jack Daniels, NDAA Executive Secretary, presented plaque at the January convention in Bismarck.

Annual accident review released

The National Transportation Safety Board has issued its statistical "Annual Review of Aircraft Accident Data, U.S. General Aviation, Calendar Year 1978."

The Board's annual review breaks down these statistics in 198 pages of analysis, tables and graphs. These breakdowns provide such further statistical information as...

**Accident totals and rates by kind of general aviation flying

**Totals by type of accident

**Probable cause and con-

tributing factors

**Accident types and causes by category of aircraft

**Specialized data such as location, pilot flight time, etc.

Single copies of the Safety Board's complete printed report may be obtained without charge by writing to the Publications Branch, National Transportation Safety Board, Washington, D.C. 20594. Multiple copies may be purchased by mail from the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161.

Relative Wind

Lessons in airborne weather radar . . .

Many aircraft in North Dakota are now equipped with airborne weather radar. While radar and thunderstorms are not very much in mind during the coldest weeks of winter, the time for those spring storms is not far away.

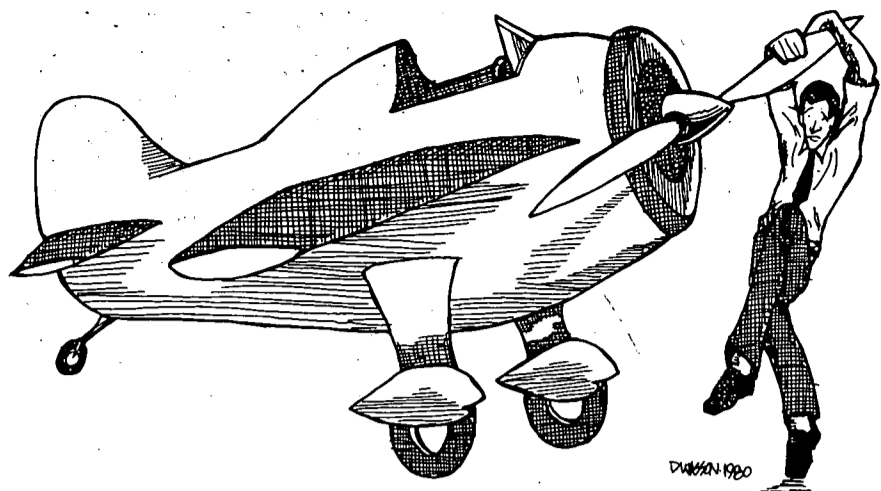
The National Transportation Safety Board has investigated the use of airborne weather radar in two major accidents recently. We felt that a review of the limitations of this system are worthwhile as we approach spring.

Most, if not all, of the current radar systems operate in the X-band frequency range. "Studies show that these systems are comparatively susceptible to attenuation by water vapor and precipitation. This may be particularly true when precipitation covers the antenna radome. If a pilot fails to consider this limitation, he may misinterpret the display in the process, which is a significant reason why airborne radar should not be used as a storm penetration aid. For maximum effectiveness, interpretation of X-band radar displays should be accomplished when the aircraft is in areas free of water vapor or precipitation."

Three important lessons must be learned from the Air Wisconsin Metroliner crash at Valley, Nebraska on June 12, 1980. First, airborne weather radar cannot and should not be used to penetrate severe weather. Secondly, existing airborne weather radar cannot be relied upon exclusively for severe weather detection and avoidance in all circumstances. Third, when atmospheric conditions exist which would limit the capabilities of airborne weather radar, the flight crew must seek additional assistance from Air Traffic Control.

Page 7

Wanna know how



to fly a Jenny?

INSPECTION: It is best not to inspect this ship. If you do, you'll never get into it.

CAMERA MOUNT: Lash camera to left wing-tip skid with light wire. Don't bother aiming camera as vibration will make it useless anyway. Try to avoid banking to the left with camera in position. Also a good idea to avoid right banks too.

CLIMBING IN COCKPIT: Do not attempt to enter the cockpit in the usual way. If you put your weight on the lower wing panel it will fall off. And besides your foot will go through the wing, probably breaking your leg. The best way to enter the cockpit is to climb over the tail surfaces and crawl up the turtle back. Be sure to brush out the gopher and squirrel nests out of the cockpit. Take care not to cut your hands on the remains of the windshield.

INSTRUMENT: After having carefully lowered yourself into

the cockpit and groped in vain for the safety belt, take a good look at the instruments, both of them. The one on the right is a tachometer. It doesn't work, the other is an altimeter and functioned perfectly well until 1918, when the hand came off. Look at them now for when the engine starts you can't see them.

THROTTLE CONTROL: Don't bother. The engine is either off or on.

STARTING THE MOTOR: The switch is on the right. It doesn't work because it isn't connected. However, it gives the mechanic a sense of confidence when he is pulling the prop through, as he can hear the switch click when you say "switch on."

WARMING UP: Don't warm up the engine. It will only run a few minutes anyway and the longer it runs on the ground the less flying time you have. After the throttle is open do not expose any part of your body outside the cowling. It is no fun having your face slapped by a flaying rocker arm or bits of pistons peppering you along with small parts of valves, rings, etc., that are always coming out of the exhaust stacks.

THE TAKE-OFF: The take-off is in direct defiance of the laws of nature. If you have a passenger, don't try it. If you can keep the engine running long enough, you will after a short wait achieve flying speed (this is a misnomer). In any event, when the plane seems to be traveling real fast move control stick in various directions until you get the effect you want. If plane leaves the ground try and remember what you did in case you ever want to try again.

THE FLIGHT: After you have dodged trees, windmills and chimneys until you are over the lake, you will see a large hole in the left side of the fuselage. This hole is to allow the stick to be moved far enough to make a left turn. Don't try one to the right.

THE LANDING: The landing is made in accordance with the laws of gravity. If the landing gear doesn't collapse on the first bounce, don't worry . . . it will on the second. After you have extracted yourself from the wreckage and helped the spectators put out the fire, with a nonchalant shrug walk (don't run) disdainfully away.

(Courtesy of Bill "Red Baron" Truver, president of the Illinois Wing of the OX-5 Aviation Pioneers)

It's best to keep in touch

We are often reminded that the job at hand is not finished until the paperwork is done. Of course, few of us like to shuffle papers. That often seems like the unproductive side of an otherwise profitable endeavor. But, keeping addresses current and paperwork up could yield tangible benefits for pilots and aircraft owners. Being able to contact you may be most beneficial in cases of new Airworthiness Directives, dissemination of valuable Technical Data, Regulation changes or Educational Programs. It may be costly to miss out on some information and it may even effect your safety. The following information may be helpful:

The Purchaser of an aircraft must apply for a Certificate of Aircraft Registration from the FFA Aircraft Registry, P.O. Box 25504, Oklahoma City, Oklahoma 73125 before it may be legally flown. The Aircraft Registration Application, AC Form 8050-1 may be obtained from any General Aviation District Office.

When applying for a Certificate of Aircraft Registration, submit an Aircraft Bill of Sale, AC Form 8050-2 or other evidence of ownership and in-

clude a fee of \$5.00 by check or money order. Until the permanent Certificate of Aircraft Registration AC Form 8050-3 is received from the FAA, the pink copy of the Application serves as a temporary certificate for 120 days. It should be placed in the Aircraft. The owner of an aircraft which has been destroyed, scrapped or sold, should notify the FAA by completing the back side of the Certificate of Aircraft Registration and mail it to the FAA Aircraft Registry as soon as possible.

Aircraft registrants as well as pilots are required to notify the FAA of a permanent change of mailing address within 30 days of such change by writing to:

Federal Aviation Administration (Airman Regis-

tration Aircraft Registration Branch for Pilots and P.O. Box 25082 Mechanics) Oklahoma City, Oklahoma 73125.

For additional information, contact the General Aviation or Flight Standards District Office nearest you.

Torque . . .

Pilots who choose to perform allowed "preventive maintenance" on their aircraft are cautioned that torque wrenches — such as those used for changing spark plugs — may become progressively inaccurate as time goes on. Periodic inspection and servicing is necessary for accurate torque readings. Your dealer on manufacturer's representative should be able to advise you where to have this done.

Night flying . . .

The loss of visual reference in the night flying environment may be compensated for in various ways, all of which contribute to better airmanship.

COMMUNICATIONS: Do not fly with a faulty radio. In the dark, it is your lifeline. If you have any radio problems, land at the nearest airport.

ALERTNESS: Stop flying before you get tired. Recognize that flying can be fatiguing to the eyes, and that many people lose visual acuity when tired, or at altitude. Avoid flying alone at night; if you have no companion to converse with, make a point to converse with the ground facilities. Never guess or be casual about your position. If you have any doubts, ask for assistance from FSS.

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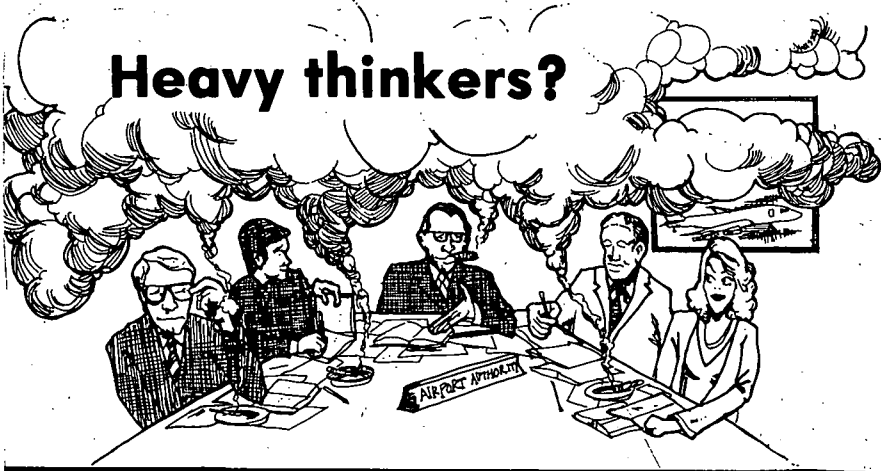
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Heavy thinkers?



General aviation around the state

ROLLA . . . is still awaiting FCC approval for their NDB frequency. The runway has 2" cracks and it has been a bad year due to frost heaving for crackage on runways.

LANGDON . . . a 40' power line is being constructed 1,255' north of the runway at the airport. It is outside the clear zone and will be marked with balls as soon as the utility company receives them. Pilots take note of this change if you are flying to Langdon.

STEELE . . . the city council has appointed members for

Dealing with an intentional stall is much different for the student

During student training, stalls are usually conducted under the watchful eye of an instructor. The student can keep his eye on the airspeed indicator, keep the ball centered and learn to predict the moment that the noise will drop. This is always done at a comfortable altitude.

Dealing with an intentional stall is much different from dealing with an unexpected one. A pilot should explore the stall parameters of each aircraft he flies and he should be familiar with its slow flight characteristics and handling qualities in various configurations. First-hand experience will help the pilot to recognize the onset of a stall and develop recovery technique skills.

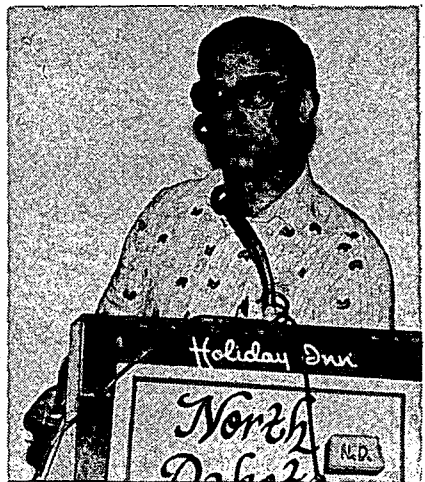
Once student training is completed, stalls are approached with a certain amount of anxiety by some pilots because they associate them with spins. That kind of fear can create a reluctance to practice stalls so as to maintain proficiency in dealing with them. Lack of proficiency can be serious when the real thing happens and those fears can become a reality.

The takeoff and landing phase are particularly serious if a pilot allows a stall/spin to develop. The aircraft is low and slow and the pilot's attention is

disturbed by the airport environment, and his concentration on aircraft performance/control.

The initial reaction to an unexpected stall is one of surprise. If the pilot fails to recognize and react at the onset of the stall, he may have insufficient altitude to recover once the stall occurs. He may aggravate the situation by **YANKING AFT AGAINST THE STOP**. He may not be used to initiating stall recovery at low altitude, so the thought of pushing the nose down at the earth isn't inviting.

A pilot experiencing his first unexpected spin is likely to be



Bill Beeks, outgoing NDAA president, conducts annual meeting during January convo.

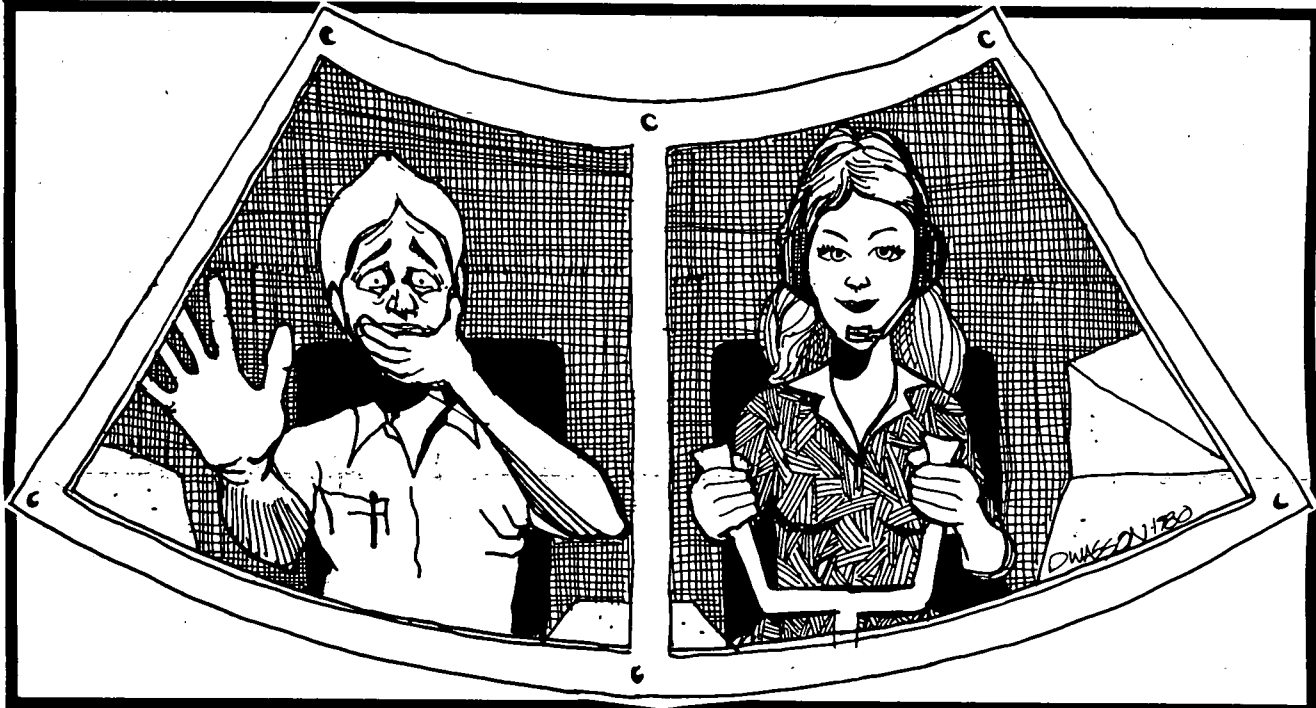
their airport authority. The members will meet to select a chairman in the near future and also decide on realignment of their runway.

LAMOURE . . . plans are for runway crack sealing with a rubberized material in the early spring. Also the land around the airport is being considered for irrigation. Information was sent out to the airport authority to insure that the sprinkler units will not come too close to the runway and violate safety zones. It is important to have lateral obstruction free clearance alongside your runway so that if the plane drifts off center that there are no machinery or aircraft to collide with. The safety surface recommended is go 125' laterally from the centerline and then a 7:1 rising transitional surface.

TURTLE LAKE . . . is reviewing a site one mile southwest of town for an airport site. The site would accommodate a 3000' turf E-W runway. The land lease agreement must be ironed out before work can be started to grade a runway.

STERLING . . . this open-to-public airport had about 600 landings in 1980. Possible 300' extension, hangar development and windsock positioning are planned. Future runway lights are possible but a power line must be marked since it lies in the approach zone.

BOTTINEAU . . . the frost heaving at this airport has caused the runway to become uneven. Caution is advised so that pilots should be aware of its condition. Hope for construction on the airport to alleviate this problem may be delayed until a new ADAP bill in Congress is approved. We again must advise airport people to voice their opinions to governmental people so that airport aid will not be reduced in their present budget cutting policies.



'The initial reaction to an unexpected stall is one of surprise'

under a considerable amount of stress. A spin because of its abrupt nature, rapid rotation and general disorienting effect is considerably more violent than a stall. Recovery procedure calls for **POWER REDUCTION, NEUTRAL AILERONS, FULL OPPOSITE RUDDER FROM THE DIRECTION OF ROTATION, FORWARD ELEVATOR, AND NEUTRAL RUDDER WHEN ROTATION STOPS, FOLLOWED BY RECOVERY FROM THE DIVE:**

some aircraft will recover from a spin if the pilot releases all controls. Specific recovery procedures vary among aircraft, so always follow the aircraft manufacturer's recommendations.

Each pilot should analyze his skills and recognize whether he is proficient in handling his own aircraft, especially stall recognition and recovery. **REMEMBER, A SPIN CANNOT OCCUR WITHOUT A STALL.**



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Pilots can save taxes with new, improved taxlog book

A book that has helped thousands of pilots save taxes is now available in a completely revised edition. "Pilot's Taxlog", a combination flight logbook and IRS tax record, has been improved in numerous ways to make it more useful to all pilots.

"Whether you own, lease, or rent aircraft, the tax savings available to you can be substantial," says the foreword in this new, fourth edition of Taxlog. "It's simply a matter of understanding the rules — as directed by the Internal Revenue Service — and making those rules work for you, not against you."

Taxlog is a dual-purpose book. It allows pilots to record all of the flight and aircraft data required by FAR's on clearly designed log pages. But unlike other logbooks, Taxlog also contains forms for documenting all possible avia-

tion tax deductions, plus complete instructions for using the forms. You can record your deductions at the same time as your flight data, while the information is fresh in your mind — thus meeting IRS requirements for "contemporaneous" records.

Taxlog was created by Jay Knepp, a private pilot and CPA. However, many of the improvements in the new edition resulted from suggestions submitted by users of past editions.

The biggest change is the book's new format: It now contains only the record-keeping forms, instructions, and filled-in examples — all greatly expanded to better serve the requirements of both the FAA and the IRS. The tax information and "Taxtips" that formerly appeared in Taxlog will be published in much greater depth, in a new companion volume entitled "Pilot's Tax

Guide". This new book will come out after Congress concludes its current session (which may enact changes in the tax law) and then will be updated yearly.

With the new format, "Taxlog's" price has been reduced from \$14.95 to \$9.95, quite an improvement in itself. "Pilot's Tax Guide" will sell for \$5.95.

With two books instead of one, pilots can use their "Taxlog" more than one year, yet keep abreast of current tax-saving information and advice by reading each year's "Tax Guide".

"Taxlog" is now much more comprehensive. Thirty-four kinds of forms appear in the fourth edition — twice as many as in the past. In addition to the basic flight and tax information, pilots can now record in one place all kinds of information they might otherwise scatter throughout various logs, files, and stacks of paper — for example, aircraft statistics and performance data, depreciation records, total flight time (by category, class, or type), tax deductible auto mileage connected with flying, and information on getting refunds of up to 10 cents per gallon on state aviation fuel taxes.

In addition, all forms used in past editions have been redesigned for easier use, and the whole book has been redesigned to give it a more contemporary look.

"Pilot's Taxlog" is 6 by 9 inches, 128 pages, bound in a durable green hardcover. The book, which is tax deductible itself, is available from Prairie West Publications, P.O. Box 832, Wahpeton, ND 58075 at a cost of \$9.95 plus 30¢ tax for each copy.



David E. Wachal

Promotion:

David E. Wachal, Vice President - Finance, American Crystal Sugar Company, Moorhead, Minnesota, was appointed Commander of the North Dakota Wing, Civil Air Patrol by the National Executive Committee at Maxwell AFB, Alabama. Concurrent with this appointment, he was promoted to the rank of Colonel. Before this appointment, Wachal had served as Interim Wing Commander for six months and Deputy Wing Commander for two years.

The Civil Air Patrol (CAP), an auxiliary of the United States Air Force, is engaged in search and rescue, aerospace education, and cadet activities in the State of North Dakota. In this position, Wachal is the commander officer of the North Dakota Wing. The North Dakota Civil Air Patrol has six airplanes located throughout the State of North Dakota, and performs essentially all aerial search activities requested by any governmental authority. These activities include searches for downed aircraft, lost hunters and children, river flood patrol and aerial radiological monitoring in a war-time environment.

Wachal is an instrument-rated pilot, has approximately 1,300 hours flying time, has been a pilot since 1967 and resides in Fargo.

New definition

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Flying 79 percent of the civil flight hours

Covering 71 percent of the airplane miles

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100 percent of the nation's airports.

(Arizona Aeronautics Division)



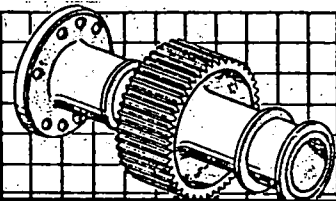
A winning couple. When Dane Wakefield was honored by NDAA for his contribution to that organization and to aviation in the state of North Dakota, NDAA was pleased that Dan's wife, Victoria was also on hand. After receiving the honor at the January annual meeting Dan and Victoria posed to record the moment in NDAA history.

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Farmers may get wild oat control

OMAHA — Even with some limitations, an experimental postemergence herbicide screened for three years at North Dakota State University may have its place in fighting wild oats, North Dakota's worst weed pest.

Dr. S.D. Miller, NDSU weed control researcher, reported on SD-45328 at the annual meeting of the North Central Weed Control Conference here.

The experimental herbicide gives up to 90 percent control of wild oat when applied at the four-leaf stage of wild oat. This later application gives the farmer a little more time in the busy springtime to apply the herbicide.

Shell Development, the herbicide's producer, apparently is convinced of a place for its product in the market. The company plans to register and clear the product for use in controlling wild oat in small grains. It would supplement such herbicides as Fargo, Carbyne, Hoelon and Avenge. Fargo is applied pre-emergence and Carbyne and Hoelon applied at the 1 to 3 leaf stage for effective control. Avenge is applied at the 3 to 5 leaf stage and gives excellent wild oat control in barley but is marginal on wheat. It is cleared only on four spring wheat varieties.

The experimental herbicide is limited to controlling wild oat only, it can't be mixed with broadleaf weed controlling herbicides and barley is marginally tolerant to the herbicide.

The herbicide didn't look as good this year as it did in 1978 and 1979. But most herbicides did not perform as well under this year's dry conditions as in previous years, Miller pointed out.

Miller and colleagues used four different formulations of the experimental and one formulation containing different amounts of emulsifiers and additives gave consistently good wild oat control at the four locations tested: Fargo, Williston, Minot and Langdon. The emulsifiers and additives apparently can overcome some of the environmental problems posed this year at least.

SD-45328 will not mix with such broadleaf weed control herbicides as 2,4-D, MCPA and bromoxynil. When mixed with these herbicides, the experimental's control of wild oat drops to about 50 percent.

Spring wheat and durum tolerance to the experimental is excellent. But applied at the 4 leaf stage of wild oat in barley, the experimental really "zaps" the barley plant.

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the windmills of my mind

by patricia estes

I spent a day in Minot in July to gather material for a story on the Minot airport. I hope to run features on every N.D. airport of every size in Relative Wind some day. This time it just worked out that I was in the Minot area.

I am also hoping to do profiles on all of the Aeronautic Commissioners and those who serve on the Weather Modification Board.

Our goal is to have at least one live feature in each issue. If a few more advertising dollars roll in, we could expand to 12 pages and run more news and features.

If Relative Wind readers have story ideas on people, places and events in North Dakota aviation, drop me a line at Box 832, Wahpeton, N.D.

And as you are reading this issue, if you aren't currently a member of the North Dakota Aviation Association, please think of joining and carrying your fair share. That Association is helping to fund this magazine each month which comes to you FREE. That group lobbies on a state and federal level on aviation issues.

One last thought... if you know someone who might become an advertiser in Relative Wind, we'd welcome that information too.

This is YOUR magazine. It is intended to be the voice of aviation in North Dakota. Let's hear from you.

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NDAA is ready to lobby for needed state legislation or to speak out on issues that affect the aviation industry.

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creasing regulations, problems caused by spiraling inflation.

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1981 is off to a pretty good start

The Accident Box

	Jan.	1981
Accidents	0	0
Fatal Accidents	0	0
Fatalities	0	0

From an aviation safety standpoint, 1981 is off to a pretty good start. No accidents April 1981

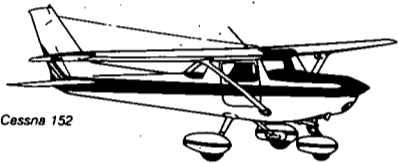
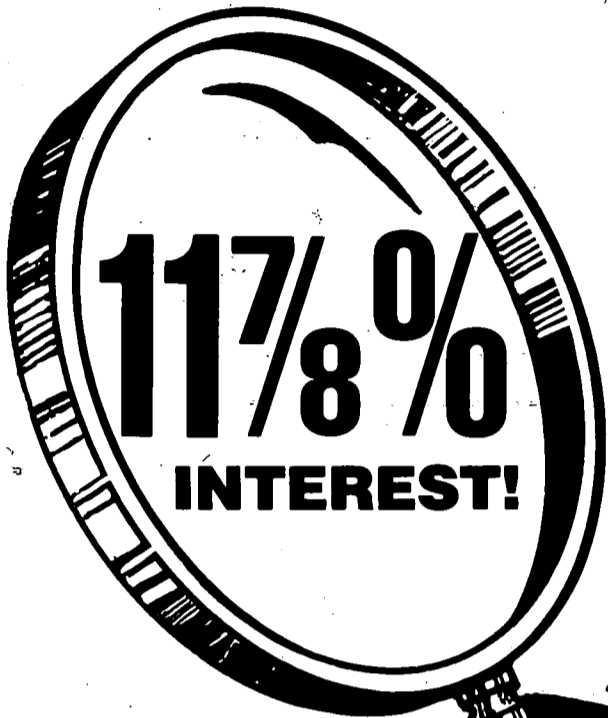
were reported during January. With the lack of snow, wind and winter-like conditions, we have not had our usual number of takeoff and landing accidents resulting from a loss of aircraft directional control by the pilot. The problem usually results from a combination of

drifting snow, frozen finger drifts and crosswind conditions. When snow is received during any winter, the potential is there. Monitor runway conditions closely and be prepared to immediately plow the runway or NOTAM the airport with the area FSS. Before takeoff on a

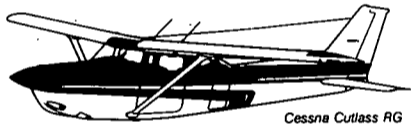
cross-country (especially student type operations), call ahead and become informed of destination airport conditions. I know many pilots who now say they wish they would have called ahead.

From F.S.D.O.

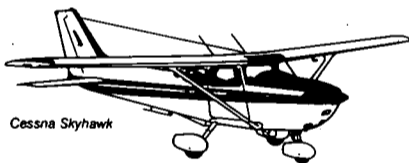
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Total of Payments		\$40,015.00
Total Deferred Price		\$47,578.00

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