FAA seeks 900 controllers

By Nancy E. Johnson

Air traffic control is "demanding, interesting and satisfying work," according to a Federal Aviation Administration official, and the search for qualified, ambitious young people to train for this career is underway.

Paul H. Bohr, the director of the Great Lakes Region of the FAA, was in the state during early June on a search for future air traffic controllers. He issued this search to fill the ranks of traffic controllers, which were depleted following a strike by the controller's union last year, as his number one priority. Already, 1,200 new trainees have been hired in the Great Lakes region to fill the positions of 2,500 controllers who were separated from the FAA. Of this number, Bohr reported 60 have passed the screening at the controller academy and are back at their facilities. He also mentioned that there would be an additional 900 controllers during 1982.

To join the ranks of these 1,300 personnel who are being trained currently at the controller academy in Oklahoma, interested persons must sign up by the end of June to take the necessary test. When the entrance test for the academy in taken, obvious defects are called on the basis of scores.

In this search, Bohr hopes to recruit and train 150 new controllers per month. The starting controller pay is $46,600 and can range up to $40,000 per year, depending on the facility and other considerations, he explained.

The air traffic control system is recovering from the loss of 11,000 controllers August 3, he continued. The overtime put in by remaining controllers has been cut in half since the strike, he claimed, and most controllers are given the option of working overtime or of the normal 40-hour work week. Also, each controller will be getting a one week vacation this summer.

Since the strike, the use of the air traffic control system has returned to 80 percent of pre-strike volume. These numbers are being monitored so there won't be system overloads, but Bohr also admitted there were probably 2,500 extra controllers employed by the FAA at the time of the strike. He projected the extra personnel level won't be reached, even with increased air traffic. Due to automation in the system, he added.

Sectors of a center air space have also been made larger, so less personnel are needed to work a control center. This will be a plus for the industry, also, he noted. With fewer sectors in the center air space, there will be less frequency changes while in the air.

Recently, the FAA re-tired six of the striking air traffic controllers. But, this is not the first wave of FAA "protestors" (Professional Air Traffic Controllers) members to be rehired," he emphasized. "These controllers were separated from the FAA improperly, he explained. The procedure to separate the 11,000 striking controllers was handled on an individual basis, and mistakes were made in these six cases. They were sent to different facilities, so didn't return to the facility they were working at previously.

Bohr said there are other major concerns in the FAA. The agency is one year into a lengthy study reviewing the national airspace system. This is being done in cooperation with the industry and military, looking at the airspace system in the lower 48 states. Bohr predicted this study will be the basis for some substantial changes in the future.

The agency is also working on the National Airspace System Plan, a 20-year projection of industry needs. This plan should result in modernization of the system with new technology to increase capacity, it is expected. The FAA, too, will eventually mean primary radar will be phased out for incoming traffic, he explained.

A third priority for the agency is the action to look at itself. Bohr said. This is the one started before the strike, but the strike made the need for the study more obvious. The human relations in the department, selection and training of supervisors and managers will all be examined.

Computerized study of results will take five to seven years to implement. While there will be no automatic changes immediately evident, he noted the problems didn't develop overnight, either.

Examining the system and getting changes in place so they are difficult to abandon is one of the chief goals of FAA Administrator Lyon Helm. According to Bohr, Helm reviewed the details of the evaluations of the National Airspace System Plan, which is a system approach to getting necessary changes made, and wants to get the plan in place.

Bohr hopes the changes will result in "restoring pride in what we do at the FAA, which is a valuable service."

Appearance counts in commuter business

By Kris Smith

Appearance is important in all phases of business, and it is especially important to smaller commuter airlines. Edward J. Godec, vice-president in charge of business for Air Wisconsin Inc. spoke recently at an aviation seminar sponsored by the Student Aviator Management Association (SAMA) held at the University of North Dakota.

"People like big airplanes," Godec said. "Dinky airplanes seem to indicate (to the public) a dirty airline. That's why, he said, the appearance of the crew, the airplane livery, the reservations desk, and all phases of operation and scheduling are important. "We must provide the same service as the commercial airlines," he said.

The history of what we today call the commuter airline started in the early 1960s with such airlines as Allegheny and Hawaiian Airlines, said Godec. In 1965 there was a change to Conair 440 and other aircraft. The new 727 jets were more productive because of the increased speed and the double seating," he said. "In addition, the jet was a novelty in air transportation and had greater comfort.

"The large carriers got more and more into service, and these guys cut out of service by service carriers. This equipment change, market change, gave up "as many as other carriers," Godec said. "If was a result of increasing costs. Cola go up, management looks for ways to decrease these costs." Commercial airlines "gave birth" to the commuter airlines, Godec said. North Central announced plans to offer a service. Air Wisconsin began service to Chicago in December 1980. Godec pointed out that his airline began service in Chicago in August 1980 with the De Havilland, Dope, and the first Twin Otter, a turbo-powered aircraft, began flying in Chicago in November 1980.

"Air Wisconsin, in 1987, was operating two Twin Otters and making a profit," the company then ordered two Beach Bum 8s to fly between Appleton, Wis. and Minneapolis," Godec said. "These had a speed of 80 knots increase over the Otters. The introduction of more productive aircraft allowed the previously unrealistic—profit.

Reliable Wind

Apartment soap, 25,000 feet at 256 knots.

The SF 340 seats three-abreast, has a six-foot standing area, a galley, baggage area, and was 15,900 feet at 252 knots. Godec said it is "similar in pressure, etc. to the Dash 8".

This example illustrated the switch to smaller turboprops, according to Godec. "To travel public, this will represent more than triple service from 4 a.m. to 9 p.m."

The public reaction to change from jets to turboprops is seemingly proportional," he said. "I think the public is phased on "... The change can be experienced in them to just two words: fuel economy.

The job future for commuter airline pilots looks bright. "Studies indicate there will be an increased demand for well-trained, experienced airline pilots," according to Godec. "In a six-foot, 125 inch standing room, baggage capacity, a galleley, pressurized cabin, and fast toilet. This craft cruises at 25,000 feet at 256 knots. 256 knots. 256 knots. 256 knots.
Aviation insurance highly specialized

By Kris Smith

There’s insurance to cover nearly everything today, and the aviation in-
dustry is no exception.

Early F. Voelz, executive vice president of Associated Aviation Underwriters, speaks at the FAI Seminar held at the University of North Dakota.

“The insurance industry follows the basic needs of the industry it serves—it is a highly specialized area,” he said. “One of the problems we face is that there’s not really any one answer, the laws of large numbers don’t apply.”

He said there is no regulation of the aviation underwriting business “so far as a state or federal government has set up rules similar to those en-
counterred in other forms of insurance.”

The field is also very individualized, with very different types of coverage for automobiles.

Voelz said applying for an insurance claim is merely a matter of submitting the basic information on the operation to the underwriter and “at that time make a judgment—and he could be wrong.”

In the categories of the T45s and DC-10s, some insurance figures go into the million-dollar figures. “When you add passengers, you’re talking very signifi-
cant dollars,” he said.

A policy is a contract between the pilot-owner and the insurance company generally arranged by a broker, Voelz said.

There are different types of insurance for different types of uses and for the aircraft, just as there are different types of coverage for automobiles.

In a hypothetical situation, Voelz outlined the basic options available to pilot-
owners of a four-place, retractable wheel metal aircraft. The craft has a value of about $100,000 and has a loan on it. The primary intention is for business—not to make a profit.

With this type of a private aircraft situation, says Voelz, brokers and underwriters will immediately face. “First it’s liability coverage,” he said. “You’re hoping you never have an accident and on the other hand you don’t know what kind of accident you might have in it.”

There would be a bodily injury protection clause.

The second area is property damage. “The airplane is an asset and automobile insurance is separate that is additional liability coverage.”

Voelz said, “Most people end up taking some kind of passenger liability.” In the last eight or ten years the single limit coverage has been popular, he said.

Clients might carry a figure for each one, “so that you give the flexibility to change dollar amounts,” he said. “Another add-on” could include medical pay coverage or baggage coverage.

The next major division is the hull part. “The bank will probably insist you in-
sure all of the aircraft you own, whether it’s sitting on the runway, taxi-
.ng, or in flight,” Voelz said.

Voelz said deductibles such as “not in motion” should be considered. “Ob-
tained, the highest the deductible, the lower the rate,” he said. Generally, no deductible is given for flood, theft loss, or transportation loss, “and expo-

don’t fit into the same category...weather accidents certainly enter the picture,” he said.

On the liability side, the name of the game is negligence,” Voelz said. “Were you, as a pilot-owner, negligent and did you cause damage to this third party?” State laws and rules of determining damages are different, so there can be wide ramifications.

Voelz said many people are reporting theft losses recently, so “underwriters have to be careful in knowing the true condition of the aircraft, its true pur-

pose of use, etc.

“Insurance rates for our company on $50 and some of the lighter twins that are popular with the drug trade have had to be increased, just because of the number of airplanes sitting in Mexico and California,” Voelz said. “Basically we know where they are, but getting them back is almost impossible.”

Things not covered in an insurance policy are normal wear and tear, and can be covered. “Normal wear and tear or mechanical breakdowns would be covered in a commercial accident in flight, such as engine failure and you then start moving the landing and back to the airplane, then you’re not concerned about coming in and applying that (the normal wear and tear, or mechanical breakdown clauses).”

“T’ll tell a difference between the EPA says and what the insurance company regards as an accident. The two are not really related, like an-

esква...did they have a complete breakdown in the aircraft. A lot of our work is of a technical nature; getting this background,” he said.

One thing the National Transportation Board is “what the real cause of an ac-
cident was. Breakdown in the airplane?”

Voelz said, “It if’s available, we have a checkout book when those deci-

sions are being made.”

Voelz said the value on aircraft are stated value policies. “If it’s a total

loss, that amount, minus any deducti-

ble, is what is paid,” he said.

The “cream of the crop business, as far as Associated Underwriters is concern-
ed” is the corporate jet business, accord-

ting to Voelz.

This type of insurance business is very competitive, with no deductible clauses for corporate jet insuring.

The most repetitive type of claim is the FOI, or the foreign object damage claim; wear and tear and mechanical damage is excluded. "It can easily in-
volve $200,000 to $300,000," Voelz said. "The costs of parts of jet engines have skyrocketed, so the premium you col-

lected last year is going to an escalated situation.”

Another area in the corporate jet insur-

ing is the guest voluntary settlement, mainly because of the higher quality of crews.

"The only thing the insurance com-

panies have no idea of is the defense of the pilot’s claim, there’s no information now of the policies to federal air regulations," Voelz said. "An early day attempt was made to have the policy cover more or less that a violation of air regula-
tions would be a violation of the policy, but that’s contrary to the whole purpose of it..." Underwriters mainly rely on the pilot clause, which could involve spelling out what the underwriter expects the pilot will be.

Rentier pilots, in a fixed base operation, "are a potential problem from the liability standpoint," Voelz said. He explained an individual, non-

ownership policy, "It’s not something boring you..." he said.

Voelz said the airline industry is special-

ized. "Generally there are high deduct-

ibles, generally a very negotiated type of policy with no real standard forms, and generally written on a vertical basis," he said.

"From a company standpoint, there are two jobs: one is under-

writing, and two is a combination insurance and judgment man,” Voelz said. "There are many independent pilots in the box and many experts in the field now... We’re already in space with insuring airlines.

Voelz said he looks for a change in the wear and tear clause to the point where “we consider different margins of engines.”

"T’ll tell a difference between a friend — don’t lie to him,” he said. "Keep the policy review up to date. If you don’t, it

won’t hurt him, but it may hurt you." Voelz has been employed by Associated Aviation Underwriters for 25 years in the Chicago office. He started his aviation career in the U.S. Air Corps, U.S. Air Force, as a maintenance, engineering officer. Voelz is also a member of the International Society of Air Safety Investigators and is an instrument rated pilot.

Jubilee set

By Thay Martin-Machael

The idea of Boeing, N.D. is planning a Diamond Jubilee Airshow to be held on July 3 and 4, 1981 at Boeing County Airport.

Featured at the airshow will be Doctor Chuck Carothers, Lincoln, Neb., and Al Pest and sons and Kent and Warren, from Minot, N.D.

Tired Iron, Inc. of Casper, Wyoming will display a restored World War Two aircraft.

Announcing the Jubilee festivities will be Ken Herrick of Scramlin, N.D. He will have his British Chipmunk along with him.

Featured at the airshow will be a fly in breakfast, to be held from 9:00 a.m. to 11:00 a.m. The grub is free to aircraft pilots.

In addition to the attractions already listed are the following:

12 p.m. M.O.T. - Arrival and Review of W.W. II Aircraft. Towering century at 12:30 p.m. by the 1912 Curtiss Pusher.

10:00 a.m. - American Legion Air Show.

10:00 a.m. - American legion Air Show.

12:30 p.m. - Airports closed to all aircraft.

1:00 p.m. - Historical Cadillac Air Show.

2:00 p.m. - World War II - Corsair 700 of North Dakota Air Force at 1:00 p.m. by the Nazi 11:00 a.m.

3:00 p.m. - Airports received to all aircraft.

Contact with Boeing should be done on Unicom 12:20 p.m. miles out for ad-

vising. Non-radio equipped aircraft make left traffic runway 28, right traffic

runway 11. Please, bring your own tie-downs.

Bring the whole family and a blanket to the celebration.

RELATIVE WIND

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George Batchelder
award winner . . .

George Batchelder in motion.

Learned to fly in World War II. This May 19 he celebrated 40 years since his first solo flight. "I soloed in an old bi-plane -- open cockpit, goggles, the whole nine yards," he says. The laugh comes out as he remembers. "They were crank- ing them out by the hundreds -- the Army Air Corps then, filling southern skies. Most of the flight schools were in the south, because of the climate."

He then went to twin-engine school and completed flight school and up to 17Gs. "It's always fun to say these are the ones that won the war -- that starts arguments," he says. "We always used to claim the B-29s were the B-17s came in!"

He was called back to fly during the Korean war. Between wars, he says, he tried to get out of aviation.

"That didn't work. I was executive secretary of the South Dakota Implement Dealers Association. In a very short time, the association had an airplane and I was flying it, when they found out I could fly."

Batchelder brings out a box of war mementos and pictures, including pictures of his B-29 team being shot at. Opening the box opens his memory and he starts to laugh again.

"The war had some fun parts. I remember we were on an island in the Indian ocean -- flew with a and I well, we ran into this very pretty lady, and he says, "Don't I know you from somewhere else?" -- what a terrible old lie -- and of course we probably weren't feeling too much pain about that. But she was very gracious, and said maybe he should visit her sometime."

She's a famous opera singer, Lilly Pons. I have her autograph here," he says.

"Her husband, Andre Koelesejig, played piano -- so we sat up and sang dirty songs with them only 3 a.m. They know all the songs we did and more. For a couple songs that didn't know much about opera."

A picture on a foreign currency bill reminds him of the Cantah. "Nothing looks worse or smells worse than the Cantah."

He once went to the Soviet Union to see what they wanted in the Cantah. After he can imagine a dumb kid from South Dakota seeing that --", he says, and laughs at himself and the thought.

Before Batchelder and his wife Eunice visited Grand Forks in 1978, he worked with the Civil Aeronautics Administration (later the FAA) in air traffic control and flight standards. He retired from the FAA at Salt Lake City in 1979.

Continued on p. 4

Relative Mind

Fly to Oshkosh safely.

The State of Wisconsin is seeking your assistance in reducing the accident rate among pilots flying to the annual Experimental Aircraft Association Fly-In, to be held this year July 31-August 7, and the Aerobatic competition held at Oshkosh. We know that some recent accidents could be prevented if the pilot feels that the higher fuel costs in some locations and availability problems will probably increase the accident rate this year. We hope you can fly safely.

We want everyone to enjoy this fine event this year and would like to ask your help in reminding pilots of potential fuel and safety problems by publicizing them in your newsletters safety bulletins or news releases. Here are some items we think should be emphasized:

1. Don't stretch your fuel range; make that extra stop.
2. Clip ahead to be sure fuel is available.
3. Require to see if appropriate refueling fuel is available.
4. Be wary of the weather! Conditions can change quickly and lake effect fog can develop in minutes.
5. Make use of Flight Service Stations services.
7. Don't overextend yourself physically. Fatigue causes numerous accidents each year.
8. Be alert for other traffic. Many others are heading to EAA also.

With your assistance we are hopeful that this year's Fly-In will be enjoyed by all.

General aviation
future for UND grads

by Kris Smith

"General aviation is where you come from. General aviation is where I come from," is according to the manager of Air Age Education for Cessna Aircraft Co. in Wichita, Kan.

Russel W. Watson spoke this spring to aviation students and faculty at the University of North Dakota's flight operations seminar; sponsored by the Student Aviation Management Association (SAMA).

Watson said general aviation includes all aviation except the military and the airlines. "It is divided into two categories: personal flying. How many of you have taken a friend to see the city at night? -- and business flying." Watson said. "There is a great proportion of jobs coming from the general aviation industry."

To be an aviator, Watson said, "you have to be disciplined. You have to study in school and perceive what the instructor wants."

"You also have to be brave, because someone might ask you to go on a talk on aviation. Even though public speaking takes courage, can you think of anything you'd rather talk about? There's no substitute for the challenge and reward to be able to go up and down," Watson said.

He said he tried to analyze "why we like aviation. First, there's more excitement and more jokes and more fun about aviation. Also, there's more freedom," he said. "Aspiration create the motivation to do better because you're prepared."

Watson warned the aviators that "it becomes an exclusive club, with inside knowledge. Tell the stories," he said, and use the knowledge, but be careful. Don't leave people out.

"People make the worst out of what we do unless we let them know that our 'remember the time when stories are just that -- stories,"' Watson said.

Watson said that in 1946, immediately after World War II, the aviation industry experienced a great boom, but the tide was soon satisfied, and then dropped off. So by 1960, the industry experienced a decrease.

The industry was affected by the 1979 recession, according to Watson. Beginning in 1979, there was growth until 1978. "Money received re-countered. More planes were purchased because of effective use of fuel."

Then in 1980, "aviation unit production was cut way down. Sales curtailed because of high interest rates, and the economy," Watson said.

"More than ever, the airplane is being accepted as a business tool, and not for pleasure," Watson said. "The professionally flown airplane is the way to the future. That's why it's important to have professional knowledge, professional skill, professional judgment."

A Cessna employee for 25 years, Watson has served in a wide range of responsibilities within the marketing division. For the past 10 years he has been responsible for curriculum development for the Cessna Pilot Center program, which includes more than 1,169 flight schools in 31 counties.

He has conducted seminars and workshops on aviation throughout the United States and Canada, as well as in Europe, Africa and Australia. Watson is a commercial pilot with multi-engine and instrument ratings, and has more than 3,500 hours of flight experience.

Numbers up

North Dakota aerial appraiser
applications and general aviation
aircraft registrations have increase
in 1982 compared with last year at this time, according to Harold Vavra, director of the Aeronautics Commission.

Up to mid-June a total of 156 com-
mercial aerial appraiser candidates
have been processed by the Aeronautics Commission operating 266 Ag planes and helicopters compared with 253 Ag planes and heli-
copters for last year at this time.

There are more Ag aircraft on hand and being processed, a result of more crop spraying.

Up to mid-June, 1982, a total of 1,250 general aviation aircraft have been registered with the Aeronautics Commission com-
pared with 1,502 last year at this time.
Aviation news of note...

From Washington

The U.S. House of Representatives Ways and Means Committee approved a tax package for the Airport Development Aid Program in the bill H.R. 4900. The final bill to be voted on is H.R. 3602 which includes aviation taxes put together by the Committee. The Ways and Means Committee tax package includes:

1. Five percent airline passenger ticket tax, which was withdrawn from the present tax. The difference be- tween the present to go into the aviation trust fund in place of the U.S. Treasury general fund.
2. A 12 cent per gallon tax on both aviation gasoline and jet motor fuel used by general aviation aircraft. The present federal tax on aviation gasoline is 4 cents per gallon at the refinery level and new tax on jet motor fuel used by aircraft.
3. Five percent cargo way bill tax.
4. E.0.0. International departure tax on each passenger, except to Canada.
5. A small tax on aircraft tires and tubes.

The House of Representatives Rules Committee hadd dawn a rule whereby no amendments can be offered to the tax package, when H.R. 3602 hits the House floor for final vote. However, language in H.R. 2635 which is the renewal, authorization bill, which details how the federal funds are to be spent is on the floor of the House. The H.R. 3602 will go to the Senate. The Senate bill Senate Bill 360. The reason for this procedure is the U.S. Constitution mandates that all revenue bills must originate in the U.S. House of Representa- titives.

Senate Bill 360

In the meantime Senator Nancy Kasse- baum (R-Kan.) has come up with a change in the Senate ADAM Compensation bill which would:

1. Set an eight percent ticket tax on airline passengers.
2. Charge a 12 cents per gallon tax on aviation gasoline and 14 cents per gallon on jet motor fuel used by general aviation.
3. Eliminate the controversial provision that would deregulate 70 large airports which enplane over 700,000 passengers annually.
4. A cargo waybill tax of 5 per- cent.

The senators are expected to work on the Senate ADAM Compensation bill and if passed by the Senate, it will be sent to the House for a full discussion. This new bill is a plan to coordinate all types of air travel, he pointed out.

Committee members include Jack Daniels of Wisconsin, the executive director of the North Dakota Aviation Association, a representative of the University of North Dakota aviation department and a representative of the state highway department. Valva ex- plains there would be 11 plates available for pool use. The planes are owned by several state agencies, including UND, the highway department and the state game and fish depart- ment.

This committee is due to meet sometime in July and make a report to the Legislative Council at its next meeting, scheduled for August.

Study underway

By Nancy E. Johnson

Coordinating the use of state-owned air- craft and the use of commercial taxi operations in the state is currently under study. This study will be conducted by representatives of the state and the North Dakota Aviation Association, who will try to develop a plan to make the best use of aircraft for travel by state workers.

This committee was appointed by Lt. Gov. Ernest Sands following a meeting of Legislative Council Audit and Fiscal Review Committee June 14 in Bismarck. The committee reviewed a report prepared by the Legislative Council staff on possible state aircraft policies the previous year was requested by the state Sen. Byron Streibelt of Fessenden, who suggested the state could save money in transportation costs by developing such an aircraft pool.

Interested air taxi operators in the state were invited to appear at the com- mittee meeting and were included in the discussion, according to Harold Vavre, director of the N.D. Aeronautics Commission. He noted the air taxi operators in attendance were satisfied with this plan to coordinate air travel by state employees, since it includes the use of their services. This pool idea is a plan to coordinate all types of air travel, he pointed out.

Committee members include Jack Daniels of Wisconsin, the executive director of the North Dakota Aviation Association, a representative of the University of North Dakota aviation department and a representative of the state highway department. Vavre ex- plains there would be 11 plates available for pool use. The planes are owned by several state agencies, including UND, the highway department and the state game and fish depart- ment.

This committee is due to meet sometime in July and make a report to the Legislative Council at its next meeting, scheduled for August.

FSDO report

(FROM FSDO, Fargo)

The question of whether or not an air- craft flight manual is, or is not, re- quired aboard an aircraft seems to be a matter of misunderstanding. Many applic- ants for pilot certificate have been denied during the past because they either did not have a required flight manual for their aircraft or were not familiar with its contents.

The regulatory requirement establishing whether or not a flight manual is required for a particular air- craft is determined at the time the air- craft is initially certificated. Con- sequently, different requirements for different aircraft have evolved over the years. A basic guideline is that any air- craft with a gross weight over 5,000 lbs. or which was manufactured after March 1, 1979 is required to have an ap- proved flight manual aboard the air- craft. Those aircraft 8,000 lbs. and under or manufactured prior to March 1, 1979 must be considered on an in- dividual basis. It is the duty of your aircraft, consult the Type Certificate Data Sheet. It will specify if the flight manual is re- quired in the place of placards, instru- ment markings, and/or manuals.

From a pilot's point of view, thorough knowledge of the aircraft and its manual is essential. FAR 91.31, for example, re- quires that everyone on board an air- craft without compliance with the operating limitations of that aircraft. A pilot not familiar with the contents of the limitation section of the manual might easily exceed an aircraft or engine limitation without realizing it. The normal and emergency procedures sections of the manual display air- speeds, configurations, and acceptable practices that have been determined by the manufacturer to provide the best performance possible under varying circumstances. A pilot not familiar with the information contained in the manual section might find himself in a position of "flying by the seat of his pants" and hoping to pull through an emergency when a previously tested flying technique might have kept him out of the situation to begin with. Other sections of the manual are equally helpful.

George Batchelder

From p. 1

"I came here at that time. I've been here four years—seems like four weeks, I have so much fun," he says.

He is an avid Miss Piggy fan, an in- terest he shares with his grandchildren: They have his car, as well as a Miss Piggy doll, sitting on his office shelf. She's in Paris—"like other other UND aviation faculty—and has a picture of one turtle he has named on his wall.

He says he is the flying expert for his grandchildren, who call him with ques- tions. "Oh, we have marvelous get- togethers. Grandchildren aren't suppo- ed to fly and all that. I guess they're supposed to have front porches in rock- ing chairs!"

Batchelder also likes to fish for trout. "I'm a fishing nut. I was fortunate enough to be stationed in areas in the west with streams with marvelous trout fishing," he said. "We also took along that old black iron skillet and the bacon fat and fried them up—oh, they're good."

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N77575C

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1979 CESSNA 152

N6753E "Gary" New

1952 CESSNA C-170

N2048K "Green" S/N 170N, 139 SMOKE CONTACT SUNDAY NITE

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Page 6

Relative Wind

July 1982
Soybean oil research

Looks at use as pesticide carrier

ST. LOUIS, MO—Less may be more as far as soybean oil and pesticides go.

Preliminary tests by industry on the use of vegetable oil as a carrier of pesticides show good results, but more research is needed. One thing that's known for sure is that a smaller volume of oil is needed to carry the pesticides—a one quart of oil as opposed to two gallons for water—so vegetable oil is often referred to as an ultra low volume carrier, or ULV.

The use of an oil carrier will allow the farmer to be his own best customer. Oil represents about 18 percent of the volume of a soybean, but about 35 percent of the dollar value of the crop. Right now, U.S. farmers and the soybean crushing industry are experimenting with a surplus of soybean oil. The use of oil as a ULV carrier, representing a potential of 30 million gallons of oil, offers a positive impact on the value of soybeans.

In order to gather the data necessary to develop this market, the American Soybean Association (ASA) recently approved funding for five research projects. A list of those projects and the principal researchers follows:

- Dr. George Kapusta, Southern Illinois University, Carbondale, "Utilizing soybean oil as a carrier for herbicides applied with the rotary nozzler at reduced volume.
- Dr. Lawrence O. Robb, Oklahoma State University, Stillwater, "Analysis, testing, and feeding of aircraft spray systems for precise ULV application of pesticides using soybean oil dispersants.
- Dr. B. Jack Butler and Dr. Loren E. Bode, University of Illinois at Urbana-Champaign, "Soybean oil as a carrier for low volume group application of pesticides."
- Dr. B.G. Leuttrell, Mississippi Agricultural and Forestry Experiment Station, Mississippi State, "Efficacy and targeted dose of insecticide treatments applied as ULV in soybean oil for control of Heliothis spp. on cotton and soybeans."
- Dr. William L. Barrentine, Mississippi State University Delta Branch Experiment Station, Stoneville, "Soybean surfactant—a herbicide additive for aerial and group application."

So far, farmers, entomologists, aerial applicators, and industry researchers have some good things to say about vegetable oil as a ULV carrier.

As a result of a meeting ASA recently held with 40 representatives from companies and universities to discuss research needs, a Canadian firm is planning to test using vegetable oil as a pesticide carrier for control of spirea budworms in forests in Quebec.

Lacey Clark, manager of Mitchell Farms, Sumner, Miss., says they're getting a better kill and longer residual with vegetable oil. Charges for aerial application went down by 40 cents an acre because of increased efficiency due to the lower volume.

"The big advantage," Clark notes, "is being able to cut back on insecticide rates. With good drop, they put on 0.1 pound of Pydrin for tobacco budworms. But with low rates of oil, we've been able to drop rates back to 0.05 pound per acre, for most of our season—until we get a buildup of worms."

While Clark spends 80 cents an acre to buy cottonseed oil or soybean oil, he feels that's just good business—producing a market for a commodity he produces.

Sid McDaniel of FMG Corp. expects full federal clearance for Fonse pesticide on soybeans for 1982. "Later we anticipate the use of reduced low volume oil application."

McDaniel expects their label will allow farmers to drop rates from 0.1 pound to 0.05 pound when used with oil.

"Our research also shows longer residual with Fonse and oil. But when you drop rates you give up some residual," he says. "If rates drop to the 0.05-pound level, you probably won't be able to stretch your spray interval.

McDaniel also cautions their reduced rate is recommended only under low pest pressure and during early season.

ICI Americas recently announced a new formulation of Ambush called Ambush-4 designed specifically for use with oil. Ambush will be registered on soybeans this year for water application only, but ICI is conducting research on Ambush-4 to include soybeans.

Max Skeri, Shell Chemical Co., says Pydrin can be used in low volume with vegetable oils on cotton and soybeans.

However, in their work in cotton, Skeri says, "We found that as you increased the rate of material, yields also increased. Based on this work, we're not recommending growers prey turbulent rates when they go to low volume oil carriers."

Roy Redd, Mississippi Extension entomologist, agrees that using low volume of oil as the carrier for insecticides offers a great deal of potential in energy and time savings to aerial applicators.

"But just because you're using 37 ounces per acre of vegetable oil as your carrier you can't automatically assume you'll be able to cut insecticide rates. You may be able to, but that's going to require good scouting, good timing and a good evaluation of your insect problem," Redd says.

Ron Livingston is a soybean grower, who also has his own plane for custom application work. He feels his insect control is as good with low volume oil as it is with a high volume water carrier. Part of the reason is that when you drop from two gallons of water down to a quart of oil, you have to change to nozzles with a tighter orifice, he explains. That breaks spray into finer droplets which can better penetrate the crop canopy.

"The main advantage, though, to a custom applicator," Livingston says, "is if we're putting out just one quart per acre, a 100-gallon load will cover 400 acres. But if you drop from two gallons per acre, we could do only 50 acres before we'd have to go back and reload.

Farm Facts

• The U.S. exported nearly $44 billion worth of farm products last year—giving us a favorable balance of trade in agriculture that cut our nonfarm trade deficit in half.
• More than one million people in the U.S. work in jobs related to farm exports, most of them in nonfarm industries.
• Farm exports take the production of about 14,000 acres out of 3—"which means that without exports about one-third of the nation's productive farmland would be idle, driving up the per-unit costs of production and, in turn, food prices.
• In 16 states, one-third to one-half of farm income comes from agricultural exports: Arkansas, Illinois, Indiana, Iowa, Kansas, Louisiana, Mississippi, Missouri, Montana, Nebraska, North Carolina, North Dakota, Ohio, Oklahoma, and South Carolina.
• Farm exports have a major impact on the nonfarm business sector. Every $1 in exports of major commodities—potatoes, wheat, soybeans, rice—creates an estimated $6 in such sectors as transportation, financing, warehousing and production of supplies sold to farmers. In 1980, for example, farm exports created about $80 billion of additional business in the nonfarm community—business that would not have existed without those farm exports.
• Farm exports turn 1 barrel of oil into 10. This is the way it works—it took about 100 million barrels of oil to produce and ship $4 billion of oil products in 1980. However, the U.S. imported almost 2 billion barrels of oil at a cost of $6 billion. Those farm exports not only more than half of the oil imports.
• In short, the 100 million barrels of oil that were used to produce and ship our farm products overseas bought 196 million barrels of oil in return—almost a 1 to 10 cost-benefit ratio.
**PARK on apron.**

**Leonard ROLLA plan.**

**OAKES** has completed a rubber crack filling project. If your airport hasn’t done the crack maintenance yet, contact a couple of high school kids and get some tar pets. Show them how to do it and contact your office for advice.

**NEW TOWN** will be completing pavement of a 3,900’/30’ runway with connecting taxiway and apron. The dream to financially afford a hard-surfaced runway has come true by negotiating a contract when a contractor is nearby in a plan. The local airport authority also receives revenue from a percentage of a county-wide mill levy plus the community levy. Congratulations to the airport authority for a job well done.

**BEACH** is considering expanding the airport apron and developing taxi-ways to the hangars. The board will also analyze the need for an NDB and snow removal equipment.

**LISBON** has 11 based aircraft. The Aeronauts Commission staff had met with the City Council to discuss the creation of an airport authority and made recommendations to insure the safety and efficiency of the airport is maintained.

**HARVEY** plans to have a radio-controlled runway light activator operational by July. Please check with the Jamestown FSS on the operational status of this unit if you plan any nighttime activity at the Harvey Municipal Airport.

**WESTHOPE** has had a history of bad cracks due to some spring flooding of the airport. They sealed them with a rubberized material and had relatively good success except the large cracks. They will wait until next year to do a seal cost job.

**TIoga** will expand the runway by 80’ this summer and also construct a turf cross-wind runway. Check the FSS on this airport’s status. They also are reviewing plans to develop a taxiway to the existing hangars and expand the apron.

**ROLLA** has an airplane military surplus tug for sale. Get details from Leonard Krech, Airport Manager, 675-5455.

**PARK RIVER** is in need of a tractor and mower to keep the cross-wind runway and airport land mowed. Check with the highway district in your area on any surplus equipment.

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**March grants aid airports**

The North Dakota Aeronautics Commission in a meeting at Bismarck on March 13th, approved State-aid airport grants for 14 general aviation airport improvement projects totaling $180,740.25 for paying fifty percent of the cost. These are:

1. **KINDRED REGIONAL AIRPORT AUTHORITY** — Graveled 10’# bituminous paving on runway — State-Aid $10,004.20

2. **CARRINGTON AIRPORT AUTHORITY** — Two runways, taxiway & apron, seal coat — 20,000.00

3. **COOPERSTOWN AIRPORT AUTHORITY** — Seal coat runway, taxiway & apron — 14,000.00

4. **BEULAH AIRPORT AUTHORITY** — Expand airport parking apron and taxiway — 25,590.00

5. **BEULAH AIRPORT AUTHORITY** —Overlay pavement on existing runway — completed two years ago in 1980 — 24,590.00

6. **TIoga AIRPORT AUTHORITY** — Extend paved runway 80’/1.95; no federal aid — 27,000.00

7. **HAZEN AIRPORT AUTHORITY** — Construct and grade grass runway, 4,400’ x 120’ with 1/4 Hazen, to NADC.

8. **MCIVOR AIRPORT AUTHORITY** — Runway lights, grass seed — 1,737.41

9. **CROSBY AIRPORT AUTHORITY** — Supplemental; overrun as cost for radio control unit, painting and turf mower — 836.00

10. **MCCLUSKY AIRPORT AUTHORITY** — Sand gravel for runway & taxiway — 647.08

11. **HARVEY AIRPORT AUTHORITY** — Materials and labor for mini-terminal — 547.67

12. **ASHLEY AIRPORT AUTHORITY** — Supplemental; relocate hanger, S.W. corner & buildings — 605.50

13. **ADAMS COUNTY AIRPORT AUTHORITY** — Dirt work, grass seed; supplemental — 905.00

14. **ASHLEY AIRPORT AUTHORITY** — Grade & realign runway, engineering — 13,000.00

**TOTAL** — $180,740.25

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