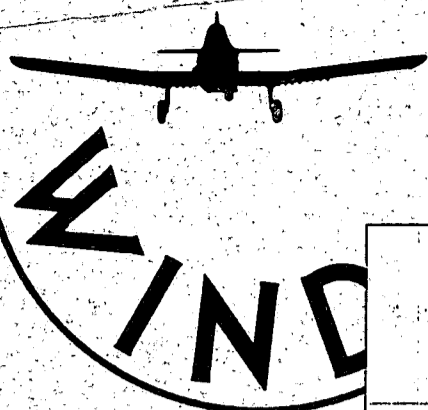


# RELATIVE



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

Address  
Correction  
Requested

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

Harold Vavra  
Box 5020  
Bismarck, ND 58502

Volume 3 - Number 4

May 1982

Wahpeton, ND 58075

Larry Lindrud

## Giving something back . . .

by Nancy E. Johnson

Ag spraying is no longer viewed as a romantic industry, populated with pilots sporting white scarves and goggles. Rather, it has become accepted as a permanent industry, with expanding membership.

The image of aerial spraying was changed in part by the North Dakota Aviation Association, according to its new president Larry Linrud of Wahpeton. Helping to change the image of ag aviation is one of the reasons Linrud became active in the organization after joining in the early '70s.

Negative sentiment against the aerial application business was one of the reasons the pilot joined NDAA and that's one of the reasons the organization is needed, he points out.

Until the past few years, the industry has been a small one, he notes during an afternoon interview in his home. "It's only been during the last eight or 10 years the industry has been established as a permanent industry."

During the fledgling years, the industry was constantly under attack but the times of being on the defensive all the time has changed, he says. Aerial application has now been recognized as a needed industry.

Being an officer of a statewide organization such as NDAA takes a great deal of time. But, Linrud says, "If something is good to you, you have the responsibility to contribute to that industry." He views his time spent as an NDAA officer as a contribution to the aerial application industry.

"I chose to become involved in NDAA to contribute what I could contribute, to help keep the industry going and active. I have never agreed with riding on the coattails of others' work, letting someone else do the work and reaping the benefits."

Linrud listed one of those benefits as the ability to go out and get in a plane and fly. "Everyone can contribute something. Everyone should get a little involved."

The Velva, N.D., native earned his license in 1967, shortly before entering the Army. But, Army regulations kept him from flying while in the service. He did keep a hand in aviation as a helicopter mechanic.

After being discharged from the Army, Linrud went to college at the University of North Dakota at Grand Forks, majoring in accounting. While going to college, he found he didn't care for accounting and did enjoy parachuting. This led him to jumping with the sport parachute team at UND and an acquaintance with pilot Ron Deck at

Hillsboro, who did a lot of flying for the team.

Eventually, Linrud wound up working as a spray pilot for Deck during 1972 and 1973. He left Hillsboro and moved to Wahpeton in August of 1974, where he formed Tri-State Aviation with partner Gerry Beck.

much jumping since. But he points to the happy circumstance of being able to make a business out of hobbies.

"It has been fun and enjoyable. But jumping is like spraying. If you don't do it a lot, you shouldn't do it at all. You need continuous practice to maintain skills." That's one of the reasons he

designs have made the planes more maneuverable and there is a smaller chance of hitting something and crashing.

"The design has come a long way, but the industry has a long way to go," he continues. The planes are safer to use, so the industry must now learn more about the deposition of chemicals. The main objective of the industry, after all, is putting chemicals where they are supposed to be. Using airplanes to apply those chemicals is just one part of the process and the airplane is secondary to the task of putting the chemicals in the proper location, he says.

"We are working to put the chemicals in on target rather than someplace else. This area needs a lot more work," he explains. The change in chemical rates, with applications dropping to one-eighth ounce per acre for some of the newer chemicals, makes it especially important to have proper application, he notes. The pilot predicts proper application will become more and more critical in the coming years.

Linrud is currently a pilot in transition. He recently sold his interest in Tri-State Aviation to Beck and is venturing out on his own. This means a move for the summer to the Velva area, where he will spray with a Cessna Ag Truck and sell chemicals. Linrud will also work with his brother in a farming operation.

This change is being made because the business was running his life, rather than being controlled by Linrud, he explains. This spilled into his personal life and caused him to take a hard look at what he really wanted.

Late summer was especially busy for Tri-state, and Linrud found he was living in the plane. He found the money from the business didn't mean as much as his personal life and a change was necessary.

Building up the business was something Linrud says he enjoyed. After learning the business from Deck, Linrud found the opportunity to start a new business in the Wahpeton-Breckenridge area with Beck. The area has been served by transient sprayers and needed a fulltime operation, they felt. This worked out well over the years and Linrud calls it all great fun.

Building on the experience gained at Tri-state, Linrud may start a smaller spraying business sometime in the future. His plans have extended only through the end of the summer, when some more decisions will have to be made about the future.

In the meantime, Linrud will see more of his wife Carlotta and their children Jennifer and Christopher, and might even finish up his garage building project.



Larry Linrud. Mirrored in Larry's sunglasses are stacks of lumber. Larry is currently devoting time to finishing up his garage before hitting the airways and fields this spring. With the weather setting an unknown deadline, Larry may or may not get that lumber unpiled and on the garage walls. (Photo by Nancy E. Johnson)

Linrud didn't get a license with the intention of starting a spraying business, "it just worked out. I had no intention of going into the business."

After spending a summer doing demonstration jumps around the state and two shots at the national collegiate meet in Florida, Linrud hasn't done

doesn't jump anymore.

During the years Linrud has been in the business, there have been many equipment and technological advances with aerial spraying. "Nobody flies J-3's anymore. Everyone flies planes designed for spraying." He says this has made the business 300 percent safer, since the

Capt. Tom Vierzba

# Likes being 'up in the air.'



Tom Vierzba, balloonist, and photo by Roger Whaley)

Being "up in the air" is not an uncomfortable situation for Capt. Tom Vierzba, weapons systems officer with the Air National Guard.

If he isn't zipping across the nation's skies with his Happy Hooligan buddies, he very likely could be gently floating across the North Dakota prairies and Minnesota lake country in his custom-made hot air balloon.

His fascination with the sport of hot air ballooning is apparent just in stepping into his Fargo office. The room, decorated in tones of sky blue, is accented with photographs of ascending balloons, metal balloon sculptures and a colorful edition of a book on ballooning.

Even his lapel pin is a reproduction of the balloon that sports bright rainbow colors.

Vierzba, 1102 25th Ave South, Moorhead, is a commercial realtor with the Fargo Land Office Company. He and his wife purchased their hot air balloon in 1979 after a lot of indecision, but they certainly don't seem in a hurry to give up their hobby yet.

"We ordered a balloon, and then we cancelled, and ordered and cancelled again. We weren't happy with the designs and then I changed jobs," Vierzba recounted.

After becoming settled in his job with

## A & P IN 1 YEAR!

Unique Practical Training

BECAUSE

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

— Approved For Veterans —

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

**Dakota  
Aero Tech, Inc.**

P.O. Box 5534, SU5  
Fargo, ND 58105 - 701-237-5305

the Land Office Company, Vierzba came up with the final design plans for his balloon, which featured a rainbow and clouds over a sunset and an expanse of green.

The manufacturer who constructed his balloon were probably not too impressed with his design; however, Vierzba said it took three men three days to transfer the flat design to the rounded surface of the balloon.

Since then Vierzba has completed his ballooning ground school and is a licensed commercial pilot. He and his wife and their friends enjoy ballooning practically year-round.

"It's the only 65-foot-high billboard that everyone looks at," he joked. "No one looks at it and is turned off. With the rainbow effect, it's very pretty."

And Vierzba has a right to be proud of his balloon.

Although there are about 3200 balloons owned by licensed pilots across the United States, it's very unlikely there would be another that looks just like his. Like clown faces, balloon designs are meant to be original and designs cannot be copied from one balloon to another.

Clusters of balloonists can be found in major cities across the United States, and Fargo-Moorhead is notable because of the high percentage of balloons in the area.

Vierzba counted seven balloons in the Red River Valley, compared with 13 in Sioux Falls, S.D., 15 in Minneapolis-St. Paul, and 25 in Albuquerque, N.M.

While the chilly winter temperatures of the upper Midwest would seem to be an effective barrier to year-round ballooning, Vierzba says this is just not true.

The Vierzbas and their friends have made flights year-round, including New

Year's Day. Because the balloon is carried with the wind, passengers are not buffeted by the icy winds that occasionally give winter a bad name.

Winter ballooning might even be more comfortable than making summer flights. Vierzba said the summer breezes that keep earth dwellers cool aren't felt by the passengers in the balloon basket and the heat source used to raise the balloons aloft can keep the passengers pretty hot, too.

One solution to this sticky problem is to lower the balloon to water level when flying over some of the inviting area lakes.

More than one lazy summer fisher has been startled to see Vierzba and crew descend out of the sky with their balloon and float near or on the water. The crew stops to chat with the boaters before activating the burners and floating back up into the air.

Persons unfamiliar with the principles of hot air ballooning might not realize the amount of control pilots can exercise over their crafts. Vierzba describes them as "very controllable, very forgiving."

"You can even run into trees, and all

the balloon will do is run into it and it will touch and bounce away," he explained.

Pilots must keep a disciplined eye on what is happening, and watch weather developments.

"The biggest problem is taking someone up (in the balloon). You try to entertain and you get into problems," he said.

Vierzba described the learning curve for hot air balloonists.

"After seven or eight hours, you feel pretty good. After 35 hours in the air you get dangerous, and after 100 hours, you're a good pilot," he said.

Because good pilots tend to enjoy the company of other good pilots, rallies are a favorite event for the balloonists. The rally guests are given the red carpet treatment, with expenses from lodging to propane paid by the rally hosts.

Just in case there aren't enough balloonists to share in the fun, Vierzba and his pilot friends are recruiting others interested in sharing the hobby.

## FAA service reduced

### Dickinson Flight Service Station

Paul Heidt, Chief of the Dickinson FAA Flight Service Station has advised the State Aeronautics Commission that effective April 1, 1982 to September 30, 1982, the Dickinson FAA Flight Service Station will be temporarily operating on a part-time basis. During this period, the Dickinson FSS will operate from 6:00 a.m. to 10:00 p.m. local time daily, seven days per week.

During the hours the Dickinson FSS is closed, pilot weather briefing filing and/or closing flight plans and IFR General Aviation Reservations (GAR) will be available from Grand Forks Flight Service Station by dialing toll free 1-800-732-4247.

All airport lighting at the Dickinson Airport including rotating beacon, runway and VASI lights will be left on during the hours the FAA is closed. No weather reports will be available from 10:00 p.m. to 6:00 a.m. local time.

The reduction of FSS hours is blamed on staffing shortage. The Dickinson FSS is getting one additional trainee in April, but this person will not be fully certified until about August this year.

The last aviation weather observation at Dickinson will be at 10:00 p.m. The first aviation weather observation the next morning will begin at 6:00 a.m.

### Jamestown Flight Service Station

Kenneth W. Baenen, Chief of the Jamestown FAA Flight Service Station has also advised of a temporary reduction in its hours of operation due to a staffing shortage, that became effective on March 25, 1982. Jamestown's FSS will be in operation from 6:00 a.m. to 10:00 p.m. daily local time, seven days per week.

## NOW'S YOUR CHANCE!!

**Narco**  
Avionics that make sense.

Dakota Aero Tech, Inc. Avionics Department has been approved for NARCO Sales And Service.

Special price on the new

**NARCO DME 890**

Special Low Prices on All Other New NARCO Avionics.

Contact Us Today!

**DAKOTA AERO TECH, INC.**

Hector Field  
Box 5534  
Fargo, ND 58105

701-237-5305

FAA Certified  
Repair Station  
D04-10

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

Publishing firm responsible ONLY for accuracy of customer approved proofread ads.

Any error in customer approved ad will NOT result in adjustment to the bill.

Errors in non-proofread ads will be adjusted by 10% off the NEXT ad run.

### RELATIVE WIND

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

### CO-PUBLISHERS

North Dakota Aviation Association and Prairie West Publications.

### EDITOR

Patricia J. Estes

### EDITORIAL ADVISORS

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

### ADVERTISING MANAGER

Richard K. Estes

### ADDRESS ALL CORRESPONDENCE TO:

Prairie West Publications

Box 1018

Wahpeton, ND 58075

# Clip and save

## NORTH DAKOTA AVIATION ASSOCIATION CONSTITUTION AND BY-LAWS

### ARTICLE I

**Headquarters**—The North Dakota Aviation Association, hereinafter referred to as the Association, a non-profit corporation organized and existing under the laws of the State of North Dakota, shall maintain headquarters, on a revolving basis, at the home of its annually elected president.

### ARTICLE II

**Purpose and Objectives** — The Association was formed for the purposes and objectives which are as listed below:

1. To bring together the aviation interests of North Dakota for the common good of the community.
2. To promote, develop and improve the application of agricultural chemicals to the food stuffs grown in North Dakota, by aircraft.
3. To promote, develop and improve a sound and economically strong private and commercial aviation community in North Dakota.
4. To promote the adoption of just and proper laws, rules, and regulations governing the private and commercial aviation community in North Dakota and the nation.
5. To assure friendly cooperation of its members with state and federal agencies, and to assist public authorities in investigations and studies relative to the business of private and commercial aviation.
6. To cooperate with other associations, organizations and agencies in their undertakings of mutual interest, and to coordinate, through negotiation or otherwise, the services of its members.
7. To act as a trade association for its members, and as such, to perform such services as may be deemed appropriate.

### ARTICLE III

**Membership** — There shall be five classes of membership in the Association.

**1. Regular Members** — The regular membership shall consist of profit motivated corporations, companies, partnerships or individuals who have a common interest in the improvement, development, and growth of commercial aviation in North Dakota. Each corporation, company, partnership or individual shall have the power of one vote in the affairs of the Association and may hold elective office.

**2. Employed Pilot Members** — The employed pilot membership shall consist of any person gainfully employed by a currently paid regular member. The employed pilot's pursuits shall be related directly with the Association, which might reasonably expect to benefit by the successful growth of operations conducted by the employed pilot members. Employed pilot members shall be expected to participate in the affairs of the Association to the fullest extent and shall have the power of one vote in the affairs of the Association and may hold elective office.

Regular members of other state's aviation organizations, who are residents of said state, may hold employed pilot memberships in the Association by providing proof of such current memberships. Such employed pilot members shall have the power of one vote; however, shall not be allowed to hold an elective office.

**3. Associate Members** — The associate membership shall consist of any person or representative of any organization, who is not gainfully engaged in the use of the state or nations airports, airways, aircraft, or air space, whose pursuits may be related directly or indirectly with the Association, which might reasonably expect to benefit by the successful growth of operations conducted by the regular members and employed pilot members. Associate members shall be expected to participate in the affairs of the Association to the fullest extent other than holding an elective office or vote.

**4. Industrial Members** — The industrial membership shall consist of any corporation, company, firm or individual who can reasonably expect to gain economically from the growth and development of a sound association and membership. Industrial members shall actively participate in the affairs of the Association and may take a portion of the time involved in the annual meeting to present a program of their own making to the membership. They shall be allowed to serve in appointed positions, vote in Association affairs; however, shall not be allowed to hold an elective office.

**5. Airport Operator Members** — The airport operator membership

shall consist of any person, political sub-division, or airport authority that owns and operates a public use airport within the State of North Dakota. Airport operator members shall be expected to participate in the affairs of the Association to the fullest extent and shall have the power of one vote in the affairs of the Association, per membership, and may hold elective office.

### Membership Procedures

**1. Application for Membership** — Each person, firm, corporation, company, partnership, state or federal agency which desires to become affiliated with the Association shall complete a form, approved by the Board, and submit same to the Board, through any of its members or a member of the Association, with a check for the dues. Each application shall be approved by the Board at a full board meeting. The classification of each application shall rest with the Board and its decision shall be final.

**2. Termination of Membership** — Termination of membership in the Association shall rest with the Board. Cause for termination shall be the establishment of the fact that any member is in violation of the By-Laws of the Association or any lawful rule or practice duly adopted by the membership, or participated in, or is involved in any conduct that may be prejudicial to the interest or well being of the Association.

**3. Transfer of Membership** — No membership shall be transferable. Where a change in the management or control of the operating ownership of a company or corporation with membership in good standing in the Association is contemplated, such member shall immediately notify the president of the Association. The membership in the Association shall be terminable unless the change in the management, control or operating ownership is approved by the Board.

### ARTICLE IV

**Annual Regular Meetings** — The membership shall be called together for an annual meeting at a time and place as may be determined by the Board or General Membership. At the annual meeting the membership shall elect the officers and members of the Board of Directors as provided in the By-Laws. It shall determine annual dues, pass on resolutions of the Association, and set various courses of action for the Board to pursue during the coming year. Changes to the By-Laws or dues structure of the Association shall require a two-thirds majority of those members attending to pass. All others issued shall require a simple majority.

**Notice of Annual Meeting** — At the discretion of the Board the notice of annual meeting shall be made via the regular mailing of the newsletter to the membership prior to the meeting, the common news media, or a special mailing to all registered pilot or aviation interests in the state.

**Special Meetings** — Special meetings may be called at the direction of the president with approval from the Board.

### ARTICLE V

**Board of Directors** — There shall be a Board of Directors created from the elected and appointed officers of the Association. The elected officers shall be President, Vice-President, Secretary and Treasurer. In addition there shall be a Safety Officer, "Industrial membership representative, and Executive Secretary positions on the board. The industrial representative shall be selected by a vote of the Industrial Membership group. The position of Safety Officer and Executive secretary shall be by appointment of the president." The immediate past president shall also serve on the Board. Each of these officials shall have a vote in the conduct of the business of the Board.

### ARTICLE VI

**Officers** — The duly elected officers of the Association shall be charged with the orderly conduct of the affairs of the Association, including but not limited to, the collection of dues, donations and contributions, their deposit in an account at a bank of their choice and the disbursement of same. The arrangement of the annual meeting, the representation of the Association interests before committees of state and federal agencies and related duties.

### ARTICLE VII

**By-Laws and Amendments** The Board of Directors shall have the authority to make, adopt, amend or repeal any part of these By-Laws and any such action shall be binding on the membership of the Association from the date of such action until the next annual or special meeting of the membership, at which time the action of the Board shall be approved or rejected by a two thirds majority vote of the total membership in attendance.

### ARTICLE VIII

**Quorum** — For the purpose of conducting the affairs of the Board of Directors a quorum shall consist of any four (4) of the members of the Board.

## FLAGGER PROBLEMS?

Does your flagger jam up? Not drop a flag every time? Have you had to land and re-load your dispenser? THEN . . .

YOU NEED THE EVER READY AUTOMATIC FEEDER!

- Spring Loaded
- Keeps Flags From Jamming
- Eliminates Feed Failures
- Eliminates Down Time

Get Yours Today!

IN STOCK: TWO BRANDS OF FLAGS  
THE AUTOMATIC FLAGMAN &  
E-Z-WAY FLAGS

**Ostlund Chemical**

Box 446 Fargo, N.D. 58107

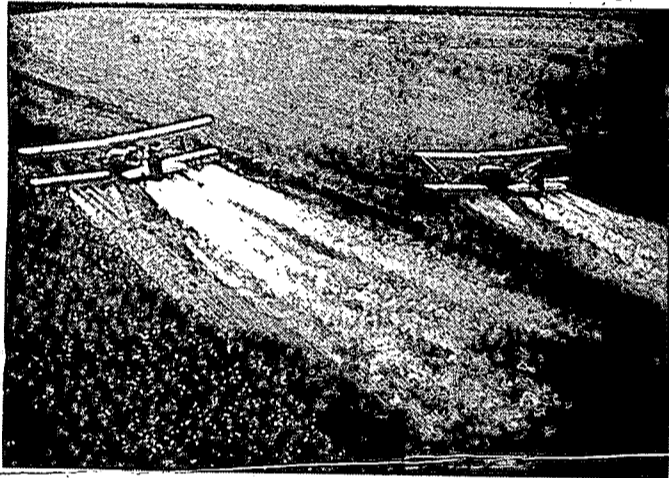
701-282-7300

## Know the facts

In order to represent the interests of general aviation, a pilot or airport manager must know the facts when speaking to public and government officials, news media and general public. Listed below are statistics that could prove a valuable aid to you in support of general aviation.

- General aviation is the largest air carrier in the world.
- General aviation carries approximately 120 million people intercity every year.
- General aviation transports more people than do 22 airlines combined.
- General aviation flies more miles (five billion) than do the airlines (three billion).
- General aviation makes more than 87 million flights every year. The airlines make about five million.
- General aviation makes 44 percent of the instrument approaches at towered airports. The airlines make 38 percent.
- General aviation has a fleet of airplanes totaling more than 211,000 (98 percent). The airline fleet totals 2,300.
- General aviation serves people from more than 15,000 airports in the United States. The air carriers operate at approximately 450.
- General aviation conducts more operations than do the carriers at five of the top 10 and 79 of the top busiest airports in the United States.
- The sky is not crowded. All of the airplanes in the United States could be in the air at the same time, at the same altitude over the state of Nevada and each would have more than one-half square mile of airspace around it.
- General aviation uses only approximately 10 percent of all aviation fuel consumed in the United States.

## Get Broad Coverage . . .



**AVIATION  
UNDERWRITING  
SPECIALISTS**

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

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

### AVIATION UNDERWRITING SPECIALISTS

For FBO's — — FULL LINE COVERAGE

- AIRCRAFT LIABILITY
- PREMISES LIABILITY
- HANGAR KEEPERS LIABILITY
- HULL COVERAGE
- PRODUCTS LIABILITY
- CARGO LIABILITY

— AND MORE —

For AG Operators:

- AIRCRAFT LIABILITY
- CHEMICAL DRIFT LIABILITY
- FARMER/OWNER/GROWER COVERAGE
- SPRAYING CITIES AND TOWNS COVERAGE
- HULL COVERAGE

For Private Owners:

- AIRCRAFT LIABILITY
- HULL DAMAGE
- NON-OWNER DAMAGE

**ASK AUS  
800-325-8079**

Area representative - L. JOHN WEBER



**AVIATION  
UNDERWRITING  
SPECIALISTS**

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



**DANGER!**  
**THUNDERSTORMS  
CAN KILL YOU**

Avoid Them With A Way-Point Installed  
Radar Or Stormscope — '500 Bendix  
Rebate On RDR230 HP Or RDR160XD  
Until May 31.

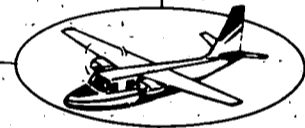
Call Larry at:

**Way-Point Avionics, Inc.**

701-663-9133

FAA # DO4-14

RR 2 - Box 15, Mandan, ND 58554



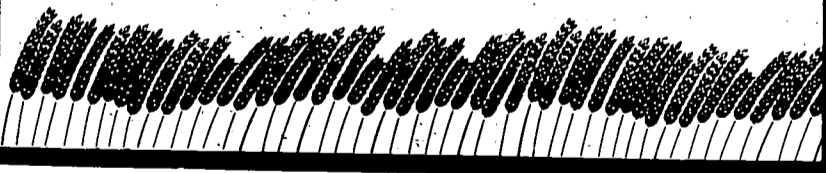
When Pigeongrass and  
Broadleaves threaten  
spring wheat...

START  
THE **Stampede**<sup>TM</sup>

postemergence herbicide



Rohm and Haas Company  
Agricultural Chemicals  
P.O. Box 85 • Minot, ND 58701



Distributed by:



**Wilbur-Ellis**

P.O. Box 2159  
Minot, ND 58701  
Phone (701) 852-5199

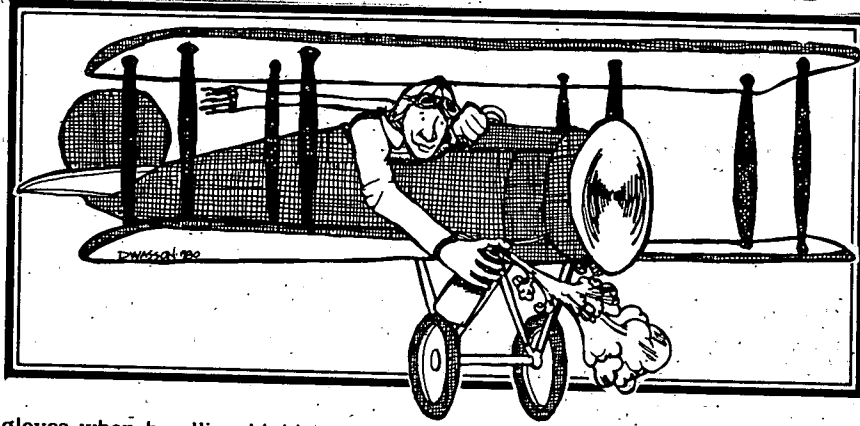
# Laundering clothes exposed to pesticides

Farmers, aerial sprayers and gardeners should give special laundry care to clothing worn while applying or mixing pesticides. "Droplets of pesticide solution can contaminate clothing," says Ruth Gulbrandson, clothing and design specialist at North Dakota State University, "and pesticide residue on clothing can be absorbed through the skin."

Gulbrandson says a University of Nebraska study gives the latest available recommendations and conclusions concerning how to launder clothing that has been exposed to pesticides:

- \*Use key words on the pesticide label as a guide to toxicity: the words DANGER, POISON indicate a highly toxic/concentrated pesticide; WARNING indicates a moderately toxic pesticide; CAUTION indicates a slightly toxic pesticide.

- \*Handle clothing contaminated with highly toxic and concentrated pesticides most carefully, as these pesticides are easily absorbed through the skin. To prevent pesticide absorption into the body, always wear rubber



- gloves when handling highly contaminated clothing.

- \*If clothes have been completely saturated with concentrated pesticide, discard them.

- \*Clothes contaminated by moderately toxic pesticides do not warrant the drastic measures noted in the two points above. Hazards are less pronounced when handling clothing exposed to low toxicity pesticides.

- \*Be aware when pesticides are being used so that clothing can be appropriately laundered.

- \*Launder clothing exposed to one pesticide separately from clothing exposed to other kinds of pesticides.

- \*Prerinse clothing by
  - presoaking in a suitable container;
  - agitating in an automatic washer;
  - spraying/hosing the garment(s) outdoors.

- \*Wash only a few contaminated garments at a time, using lots of water.

- \*Use washing machine settings for hot water (140 degrees Fahrenheit/60 degrees Celsius), full water level and

normal wash cycle (12 minutes). Avoid cold water washing.

- \*Rewash the contaminated clothing two or three times, if necessary.

- \*Rinse machine thoroughly after laundering contaminated clothing.

- \*Line dry to avoid contaminating the automatic dryer.

- \*Laundry detergents, whether phosphate, carbonate or heavy-duty liquid, are similarly effective in removing pesticides from fabric. Research has shown that heavy-duty liquid detergents are more effective in removing emulsifiable concentrate pesticide formulations.

- \*Laundry additives such as bleach and ammonia do not contribute to removing pesticide residues.

"Keep in mind that this information has been taken from the results of one research study only," says Gulbrandson. "Until other research is completed, this study provides general guidelines for laundering clothing that has been exposed to pesticides."

## Reports of interest . . .

### Ideal weed conditions

Conditions seem very favorable for weed growth this spring.

During the long 1981 growing season, weeds continued to grow and mature, dropping many seeds into the late fall. A wet 1982 spring is likely due to the abundant snow fall this winter.

These conditions are ideal for weed growth, especially wild oats, according to Dr. C.V. Eberlein, extension weeds specialist at North Dakota State University. Preemergence or postemergence herbicides will be needed in addition to good cultural practices in order to control weeds.

For wild oat control in wheat and barley, several herbicides are available. Fargo may be applied preemergence and incorporated for wild oat control in wheat, and may be used either preplant incorporated or preemergence incorporated in barley. In barley, a preemergence incorporated application of Avadex may also be used for wild oat control. If a severe foxtail problem is anticipated, a Fargo-Treflan tank mix may be used preemergence in wheat or barley, points out Eberlein. Apply Fargo-Treflan after planting and incorporate one inch deep by harrowing.

Postemergence wild oat herbicides include Avenge, Carbyne, and Hoelon. Avenge is cleared for use on all barley varieties, but only on Butte, Era, Kitt, Olaf and Fortuna hard red spring wheat varieties. All durums except Lakota and Wascana may be treated with Avenge, but Eberlein points out that research trials at NDSU have indicated that Vic and Edmore durum may also be sensitive to Avenge. Avenge should be applied when wild oats are in the 3- to 5-leaf stage of growth. Avenge is cleared for tank mixing with 2,4-D, MCPA amine, bromoxynil, and bromoxynil + MCPA ester so broadleaf weeds can be controlled in the same spraying operation as wild oats.

If Carbyne is used for wild oat control in wheat or barley, the wild oats must be treated when they are in the 1½ to 2 leaf stage of growth in order to get good control. Addition of one gallon per acre of aqueous nitrogen to the spray solution will increase wild oat control with Carbyne by an average of 10 to 20 per cent, May 1982.

cent, advises Eberlein.

Hoelon may also be used for foxtail (pigeongrass) as well as wild oat control in wheat and barley. Apply Hoelon when grassy weeds are in the 1- to 4-leaf stage. No broadleaf herbicide other than bromoxynil should be tank mixed with Hoelon or wild oat control will be reduced, according to Eberlein.

### Herbicides and economics . . .

The economic outlook for 1982 demands critical assessment of all crop production inputs. But in most cases, farmers cannot afford to do without fertilizers, herbicides and insecticides.

As far as herbicide use is concerned, weed control pays rather than costs.

Water to produce 15 bushels an acre of oats or 16 bushels of corn would go into the needs of 1,000 pounds of common lambsquarters per acre. And 1,000 pounds of foxtail (pigeongrass) per acre would use the nitrogen that could have produced 16 bushels of oats or 11 bushels of corn, points out C.V. Eberlein, extension weed specialist at North Dakota State University.

To get the best performance from herbicides, accurately inventory your weed problems as to their identity, distribution, and density. Familiarize yourself with the available herbicide products and select those that will best control your specific weed problems. Avoid the temptation to cut herbicide rates below those required for your weed problem or soil conditions, advises Eberlein, since reduced weed control may well cost you more in crop yield than you could save by skimping on herbicides.

If you are using soil-applied herbicides, match application rates closely to soil texture and organic matter content even if it means treating different areas of a field separately. The savings in herbicide cost and/or improved weed control may be more than worth the inconvenience of herbicide application.

When using postemergence herbicides, time the herbicide application to the most susceptible stage of growth of the weeds and to the most tolerant stage of the crop. Applying the herbicide too late may result in poor weed control and substantially increase the risk of crop damage, cautions Eberlein.

### Eagle buys facilities

Eagle Aircraft Company has announced the purchase of the 56,000 square foot Viking Building, which was formerly occupied by Bellanca Aircraft Corporation.

Eagle Aircraft's present facilities neighbor the Viking Building at the municipal airport in Alexandria, Minnesota. The manufacturing plant employs 100 local people in the production of the Eagle agricultural aircraft.

The purchase of the Viking Building will enable Eagle Aircraft to efficiently expand their manufacturing capabilities above the current five aircraft per month production level.

Eagle Aircraft originally chose Alexandria for its manufacturing headquarters because of the abundance of enthusiastic, skilled labor in the area. "We have been delighted with the support we have gotten from the City—building our factory in Alexandria, made sense at the time and looks even smarter now!" said Brad Brown, Vice President of Operations. Corporate and marketing headquarters are located in Boise, Idaho.

### Named Mechanic of the Year

John O. Kline, Fargo was named Aviation Mechanic of the year award winner at the 8th annual Upper Midwest Aviation Maintenance Symposium at Bismarck at the Kirkwood Motor Inn on March 10th sponsored by the North Dakota Professional Aviation Mechanics Association.

Harold G. Vavra, Director of the North Dakota Aeronautics Commission presented the aviation mechanic of the year plaque award to John O. Kline, Fargo, on behalf of the North Dakota Professional Aviation Mechanics Association and the State Aeronautics Commission. In addition, Vavra presented to John Kline a check in the amount of \$750.00 given by the N.D. Professional Aviation Mechanics Association and a travel expense award from the North Dakota State

Aeronautics Commission in the amount of \$250.00 for a combined total of \$1,000.00 which entitled John Kline travel and living expenses to attend a Cessna or Piper Factory training course or an avionics or electronics school or training course of his choice.

Mr. Kline is employed by Dakota Aero Tech of Fargo. Kline won the 1981 award for his design and construction of a unique avionics trouble shooting device, using both audio and light source to detect needle movement on aircraft instruments through use of a photo-electric cell that attaches to the face of the instrument being checked on an aircraft panel. This device will detect needle movement of the instrument and give off an audio tone so that the avionics mechanic, while working under the instrument panel of an aircraft on connectors, need not see the instrument panel to check aircraft wiring and connectors.

Vavra also presented a runner-up aviation mechanic award to Jeffrey Johnson, Fargo, who received a check for \$25.00 who designed a transistorized panel lighting circuit tester.

About 300 aviation mechanics, aircraft distributors, suppliers and manufacturers attended the three-day event at Bismarck, March 9th through March 11th at the Kirkwood Motor Inn.

### Beepkeepers must register

All beekeepers are reminded that applications for North Dakota Beekeeper's License are due May 1st. A beekeeper is any person who owns or controls one or more colonies of honey bees. If you have not received an application, please contact the North Dakota Department of Agriculture, State Capitol, Bismarck, ND 58505.

Commercial beekeepers should note that annual yard registrations also expire April 30th. Applications for new commercial locations must be accompanied by written permission from landowner/lessee. This is a new regulation which became effective February 1, 1982. Landowner/lessee permission forms are also available from the Department of Agriculture, Bismarck, ND.

## SKY TRACTOR SUPPLY

(A Div. Of Deck Flying Service)

**SCHWEIZER**

**AG-CAT**

DISTRIBUTOR

SALES - SERVICE - PARTS



**FOR MARCH '82  
DELIVERY —**

**1982 G-164B (Plus)  
AG CATS —**

Serial # (685B)

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

— Call For Price —

**Financing Through  
Grumman Credit  
Corp. For Qualified  
Buyers.**

**Distributors For:**

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

**"YOUR COMPLETE LINE DEALER"**

**SKY TRACTOR SUPPLY**

Hillsboro, ND 58045

701-436-4505

## Stop wild buckwheat, sunflowers, and kochia in wheat and barley.

**BROMINAL® and BROMINAL PLUS** broadleaf herbicides can control tough weed seedlings that resist 2,4-D-like wild buckwheat, sunflowers, and kochia. You get over 40 broadleaf weeds in all!

And you get more time to control them—BROMINAL can be safely applied from grain emergence until weeds are in the 3-to-4 leaf stage. BROMINAL PLUS can be applied from the beginning of tillering up to the boot stage. You conserve precious moisture and nutrients by controlling weeds early, and that helps build top yields.

BROMINAL herbicide can also be tankmixed with 2,4-D and MCPA amine or esters for wider spectrum broadleaf control. Both BROMINAL and BROMINAL PLUS herbicides can be tankmixed with Avenge® for wild oat control. And both can be tankmixed with liquid fertilizers.

**BROMINAL and BROMINAL PLUS broadleaf herbicides—they're an investment that really pays off at harvest.**

BROMINAL is a registered trademark of Union Carbide Agricultural Products Company, Inc. Avenge is a registered trademark of American Cyanamid Co.

**UNION CARBIDE** AGRICULTURAL PRODUCTS COMPANY, INC.  
AMBLER, PA. 19002



Get the ones that get tough weeds. **BROMINAL/BROMINAL PLUS**

Distributed by:

**Ostlund Chemical**

Box 446

Fargo, N.D. 58107

701-282-7300

## Aviation Briefs

### FSDO reports

**ATTITUDE ADJUSTMENTS**  
(FSDO Report)

Commenting on the high number of stall/spin accidents among aerobatic homebuilts, Paul Poberezny ("Mr. Homebuilt") penned these words: "Self policing is a good start toward keeping flying simple and enjoyable. Flying within one's capability is an asset that adds to the stability of all aviation. Training from qualified persons is so very desirable. Don't feel that just because you have your license that you have achieved your goal. You haven't. It is only after many wonderful hours and years of safely enjoying this vast ocean of air above us, when you hang up your goggles and helmet to fly no more that you have achieved that goal."

This is particularly applicable to those of you who don't fly enough to really feel that you're on top of things. The money you "lose" in hiring an instructor for an hour or two is actually a bargain for the occasional flyer. Knowledge and skill deficiencies are commonplace in our accident statistics.

**INSTRUMENT FLYING HANDBOOK**  
(FSDO Report)

The revised Instrument Flying Handbook (AC 61-27C) has been printed and released for sale to the public by the Government Printing Office. It offers improved information to pilots involved in instrument flying or flight training and updates instrument training techniques and procedures in general. A new chapter is devoted to attitude instrument flying in helicopters. Many illustrations have been changed to reflect the types of instruments found in current training aircraft. Flight procedures including RNAV, RMI, and DME are also covered.

**GO/NO-GO FUEL FUSES**  
(FSDO Report)

There seems to be a wide-spread misunderstanding about the go/no-go fuses used in refueling. Although these fuses only monitor cleanliness, people are using them as filters! While a fuse will prevent passage of water and dirt, it's used downstream of first- and second-stage filters. If either solids or water exceed a safe level at the go/no-go fuse, it will shut off the flow—a positive indication that the fuel has not been properly filtered.

But here's the problem: some operators are using the fuse as their only filter. So, when water or dirt in the

fuel cuts off the flow, they think the fuse must be faulty. Their solution: change the fuse each time. But they quickly tire of continuously changing fuses and then start pumping unfiltered fuel directly into aircraft! Fiction?? It's happening...

### Meeting set

A meeting scheduled for June in Billings, Mont., will be one in a series of regional meetings for fixed base operators (FBOs), air taxi and commuter airlines scheduled during the coming months. These meetings will be held at member companies of the National Air Transportation Association (NATA), such as Lunch Flying Service in Billings.

"Each Town Hall Meeting is expected to bring together between 20 and 50 executives from local FBOs and air taxi and commuter airline companies to exchange views on aviation issues and NATA's activities," explained NATA President Lawrence L. Burian.

### Send dates

With spring and summer approaching, so are many aviation activities such as airshows, fly-ins, contests, and many others. Many aviators over the past years have been disappointed when they learned of an activity only after it had happened. To try to avoid this, the North Dakota Aeronautics Commission wants to publish a Summer Activities Calendar in the June issue of Relative Wind. To do this, we need information on YOUR planned activities as soon as possible.

### A good idea

One proposal FAA's Administrator J. Lynn Helms has published earns substantial endorsement from small commuter airlines and air taxi operators. It is his plan to shift automatically any uncommitted Aviation Trust Fund revenues to building of 3,500-ft. runways at small community airports and to provide reliever facilities in large urban areas. He also proposes reduction of the minimum 4,500-ft separation of parallel runways to 3,000 ft. between centerlines. This would mean opportunities to build general aviation runways at present airports and would accommodate curved approaches made possible by microwave landing systems.

(From COMMUTER AIR, March 1982)

## Safety week

To: North Dakota Flyers

1. The United States Air Force has chosen the week of 16-22 May as Flying Safety Week to emphasize to USAF air crewmembers the importance of flying safety. In conjunction with that week, the 319th Bomb Wing is hosting a flying safety symposium for general aviation pilots in North Dakota and Minnesota. The symposium will take place on Saturday, 22 May, from 10:00 to 2:30 P.M., at the Officers Club, Grand Forks AFB, ND. A no host luncheon will be available in the dining room.

2. Topics will include midair collision avoidance, ATC facilities and capabilities, search and rescue capability, and others. After the discussions, transportation will be provided for those who desire to have a closer look at the base aircraft and the approach control radar facilities.

3. All general aviation pilots are invited to attend. Transportation will be available from Grand Forks International to the Base for those who fly in. Please call the 319th Bomb Wing Safety Office to make advance arrangements if you'll need transportation from Grand Forks International. If you have any questions or plan to attend please contact the 319th Bomb Wing Safety, Grand Forks AFB, ND, 58205, or call 701-594-6535.

Paul A. Maye, Colonel, USAF  
Commander

Department of The Air Force  
Headquarters 319th Bombardment Wing (SAC)  
Grand Forks Air Force Base, ND 58205



## Around the State

**NEW TOWN.....** a proposed black topping project east of the airport is planned in the near future. By coordinating with the contractor, a substantial savings can be achieved towards hard-surfacing the existing rough NW-SE turf runway. Airport authorities should check with their District Highway Departments on paving, seal coat, and crack filling projects. Runway extensions, apron expansion or taxiway development, etc. can be feasible if the price is right when the paving machine works nearby an airport.

**GWINNER.....** is planning to seal coat their 5,000' runway. The airport was expanded in the middle '70s to accommodate industrial development in the community. Presently approximately 8 aircraft are based here including several crop spraying aircraft.

**PARK RIVER.....** has done some soil sterilization around runway lights, fertilizing, and regrading the turf runway. Now is the time for airport managers to plan to fertilize, reseed and treat the weeds on turf runways. Numerous turf strips in our state need this type of doctoring to eliminate the "teeth rattling" experience on landings. Check with your county agent for the best methods and materials for your soil.

**BEACH.....** is considering an NDB unit. A budgetary price for an NDB installation project ranges from \$8,000 to \$12,000 depending upon local assistance on installation. Site selection is the first step and determines partially the type of unit needed. FAA and FCC notices must be filed along with an electrician's maintenance agreement on quarter inspections.

**OAKES.....** is also considering an NDB since aviation activity is increasing on this new airport located north of Oakes. Present project will be sealing cracks with a rubberized material. The freeze-thawing spring period will create crackage of asphaltic surfaces to alleviate this stress. If your authority needs information on crack filling, call the North Dakota Aeronautics Commission for some answers.

# RELATIVE want ads...



### WANTED

Selective Student Projects For  
Recovering And Refurbishing -

Also Engine Overhauls - Contact: Dakota Aero Tech., Box 5534, Fargo, ND 58105 - (701) 237-5305.

### Want To SELL Or BUY Something?

Use A "RELATIVE WIND" Classified  
Ad. Pre-Paid only \$15.00 minimum or .75 per word

(\$10.00 min. or .50 for NDAA members)

Fill in the blanks and mail your check To:  
Prairie West Publications, Box 1018,  
Wahpeton, ND 58075

Deadline for June 1982 Issue is May 17, 1982

				15.00/10.00
15.75/10.50	16.50/11.00	17.25/11.50	18.00/12.00	18.75/12.50
19.50/13.00	20.25/13.50	21.00/14.00	21.75/14.50	22.50/15.00
23.25/15.50	24.00/16.00	24.75/16.50	25.50/17.00	26.25/17.50

### Check One:

- FOR SALE                       WANTED TO BUY  
 JOB OPPORTUNITY            POSITION WANTED  
 FOR RENT/LEASE

## Prevent Rust On Dry Edible Beans With

**9% Zinc**  
With  
**Sulphur**

CLEAN  
CROP.

CLEAN  
CROP.

A Liquid Chelated Compound

Ask About Our  
Rust Prevention Program

Contact Your Local

Aerial Applicator

Or

Ostlund Chemical

701-282-7300

Box 446

Fargo, N.D. 58107

### North Dakota Aviation Association Officers

President: Larry Linrud, Tri-state  
Aviation, Inc., Wahpeton, ND.

Immediate Past President: Bill  
Beeks, Central Flying Service,  
Washburn, ND.

Vice-President: Fred Andersen,  
Aviation Services Inc., Minot,  
ND.

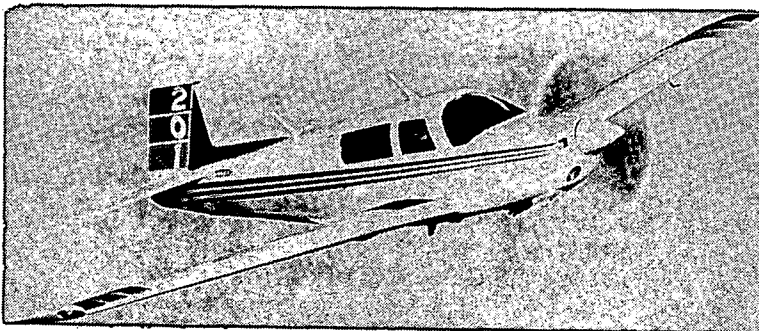
Executive Secretary: Jack  
Daniels, Serv-Air Accessories,  
Inc., Williston, ND.

Treasurer: Arnie Widmer, Wid-  
mer Flying Services, Crete,  
ND.

Delegate to National Agricultural  
Assn.: Dan Thompson, Thomp-  
son Aerial Spray, Wyndmere,  
ND.

Secretary: Mike Hohl, Mayport  
Aviation, Mayville, N.D.

### MOONEY AIRCRAFT



### NEW in '82 - THE QUIET MOONEY

1982 offers a completely re-designed interior, giving additional comfort, space and substantially lower noise level — check it out! You will be visibly impressed.

**1981 MOONEY 201**  
250TT, King Equipped, W/KNS 80 system,  
Jan. 82 annual. Century 21 Auto Pilot

**1961 BEECHCRAFT  
DEBONAIR**  
3690TT, 1080 SMOH, IFR Equipped.

**1982 MOONEY 201**  
FTO, King Equipped w/KAP 150 A/P  
Slave to HSI

**1981 MOONEY TURBO - 231**  
May '82 delivery.

Special Financing Program  
Available on 1982 Models  
Ask For Details

### Willmar Air Service Inc.

Our 35th year of Sales & Service

Municipal Airport — Willmar, MN 56201

Bruce Jaeger, Pres.

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

GOOD SELECTION ON NEW AND USED MOONEYS  
CALL FOR DEMO TODAY!

# Cessna will make you a pilot for \$2,990.

## Guaranteed\*

**Cessna Flight Plan... for everyone who's ever considered becoming a pilot.** Your Cessna Flight Plan covers everything you need to learn to meet the qualifications for a private pilot's license.

And for the first time, at participating Cessna Pilot Centers, you have the advantage of a standard, nationwide price. So you know at the start what it will cost. \$2,990.\*

**Bankcard financing.** You'll probably find your financing right in your billfold, because every participating Cessna Pilot Center is ready to accept your VISA or MasterCard.

But whether you choose the convenience of bankcard financing or cash, you'll still pay as you go.

Because your Cessna Flight Plan is designed to allow you to pay in easy increments from first solo to final check ride. Just \$365 to start, and \$375 as you complete each segment of

your training. Each payment may be charged to your VISA or MasterCard and financed, just like any other bankcard purchase.

**Quality Training.** Your Cessna Pilot Center System assures you of the finest flight training at any one of the more than 800 Cessna Pilot Centers throughout the U.S. It is a program which totally integrates the airplane with the study materials... teaching you what you need to know, when you need to know it.

The CPC System produces better pilots, in less time, and currently trains over 30,000 people each year.

**Lifetime investment.** In today's fast-paced world, the ability to be where you need to be, quickly and efficiently, is becoming increasingly important.

So a Cessna Flight Plan is an investment in yourself. Because once you have your pilot's license, you have it forever.

Whether you use it for busi-

ness or pleasure travel, or plan a career in aviation, your license will continue to pay dividends. **Open your Cessna Flight Plan.** Call this toll-free number for an information packet and the name of your nearest participating Cessna Pilot Center: 1-800-331-1750 (in Oklahoma 1-800-722-3600). Ask for Operator 601. Or fill out and mail the coupon. We'll see that you receive complete information including the name of your nearest participating Pilot Center.



Cessna Aircraft Company  
Department TE494  
P.O. Box 1521  
Wichita, Kansas 67201  
Please send me more information about the Cessna Flight Plan.  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Telephone \_\_\_\_\_ Age \_\_\_\_\_

\*Subject to limitations outlined in the Cessna Flight Plan agreement.

