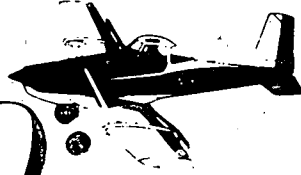


Harold G. Vavra
Aeronautics Commission
Box U
Bismarck, N.D. 58505

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

RELATIVE WIND



THE OFFICIAL NEWSLETTER OF
THE NORTH DAKOTA AVIATION ASSOCIATION

VOL. 1 - NO. 8

MARCH-APRIL 1980

WAHPETON, ND 58075

The Herbicide Controversy

By Patricia J. Estes

Robert P. Matthews, Washington Forest Protection Association Deputy Director, presented a speech on the topic of "The Herbicide Controversy" at the Washington State Forestry Conference that should be reprinted in total.

However, space limits force Relative Wind to condense the message delivered by Matthews at that November 1979 convention. Matthews is also chairman of the Washington State Pest Management Alliance, an informal group of associations concerned over

the management of pests, including unwanted vegetation.

Matthews opened by noting that no simple answer to the building herbicide controversy exists.

He pointed out most effectively that the issue is not even herbicides or chemicals. It is the public fear of being poisoned and that fear must be eased if the controversy is to be solved. The public is not going to respond to economic reasons for use of pesticides when the fear is that of being poisoned.

Herbicides provide benefits to each individual in the United States but the anti-herbicide

movement wants to control exposure of public to chemicals.

The possibility of absolute safety guaranteed is just not practical, he continued.

Looking at the intensity of the attention focused by the anti-spraying forest factor, Matthews suggested that the marijuana connection is one reason why this controversy does not crest and fade.

This speaker suggested that the impetus for this continuing controversy comes from the billion dollar untaxed industry growing pot in the U.S. today. If marijuana were legalized, he wonders if the anti-herbicide movement might not diminish.

Other factors fanning the anti-herbicide controversy include: lake pollution, Agent Orange, used in Viet Nam and the tendency of some organizations to join any battle that is anti in nature.

Those in the pesticide industry, Matthews said, must be committed to refuting the anti-pesticide movement by science and not emotion. Recognizing this will cost some money.

Secondly health fears must be dispelled and efforts trying to justify the use of herbicides purely on economics ended. The public could care less. Simple risk-benefit analogies which can be recognized and understood by the public must be publicized.

Third, credibility with agencies such as EPA must be maintained.

Fourthly, those in the industry must speak up as users

Continued on Next Page

It's Coming . . . It's Coming . . . It's Coming!!!

ANNOUNCING a magazine for the aviation industry in North Dakota. North Dakota Aviation Association, recognizing the importance of communication, is launching a magazine of, by and for and all about North Dakota aviation.

The magazine will continue to carry the name Relative Wind. It will be expanded to tabloid size and arrive in your mail box FREE each month.

To help encourage this new publication the North Dakota Aeronautics Commission, under the able leadership of Harold Vavra, is going to incorporate all the information traditionally included in the state newsletter in the new Relative Wind. That will replace the Commission newsletter.

Your suggestions are welcome for story ideas, magazine content, etc. Much of the cost of this magazine will be covered by advertising sales revenue. Notice who advertises in each issue. Help us develop new ad contacts.

Start-up cost of this magazine, an ambitious project, is being born by North Dakota Aviation Association, individual NDAA members, Prairie West Publications, the firm which produces the magazine and the invaluable assistance of Harold Vavra.

Look for the next issue of Relative Wind, in a new format, in your mailbox in early May.

From Your President

By Bill Beeks, NDAA President

Since beginning to write this column I feel like a bearer of bad news. Part of it is because I am receiving more information from Mr. Vavra, other persons and from news articles and possibly because I have been looking for things of importance to write about.

As you are aware, the "Friends of the Earth" petitions are being dealt with. Now Montana is having its problems with 2,4-D sprayed along roadsides and the possibility of an injunction to stop the use of 2,4-D in Montana. It is your president's personal opinion that other causes could be investigated as a cause of the miscarriages, still births and other problems being blamed onto the phenoxey herbicides. Marijuana is also a causal factor and there may be others, but the problem is to be able to run tests at the time of the incidents to get at the real root of the problem. Part of the answer is to clean up our operations and keep our spray on the target areas.

The air taxi people have had their hands full too. Airport security at the small airports, if carried through, would be unlivable for them, the FBO's on these airports and for the small town airport management. Another area affecting air taxi is increased passenger liability that will further reduce the number of air taxi operators and leave many small towns without any reasonably priced air taxi service.

Now Congress is trying to change our aviation gasoline tax to a percentage tax at a rate of 10% of the selling price. This will mean an increase, at present prices, from 100% to 200% in the fuel taxes paid by "noncommercial aviation fuel purchasers". This means everybody from air taxi, aircraft of 6000 pounds or less, sprayers and on down to the private pilots. This is in the form of H.R. 3745, so write to your Congressmen or women, explaining that the Trust Fund is growing at a rapid rate with the present taxes, why increase this growth rate.

Some good news is that environmentalists are reportedly losing ground because of their credibility and the costs associated with their demands.

From Page One

in defense of pesticides when they are unjustly attacked. We must work to make the media aware there is another side to this issue, he said.

Fifth insist on thorough investigation and reporting of anecdotal scare stories.

Face the fact that if these stories turn out to be based on real facts and research that it may mean putting a chemical back on the shelf because of the hazard.

Next support and participate in herbicide research by qualified people. Work to supply herbicide use information.

Seventh, be willing to consider alternatives. Don't have a closed mind.

Work toward professionalism within your own industry. Police your own members.

Finally, realize that the herbicide issue will never be won at the ballot box. The fear and hysteria which have soared on this issue for the past three years have already made their mark on public opinion. No proof of chemical safety will ever satisfy the critics.

Therefore, we must build a broad base of public support for the continued availability of herbicides, according to Matthews.

This topic is of interest to those in NDAA who are aerial sprayers and to all of us who know the importance of meeting the food and fiber needs of a hungry world.

Allied Industry Membership Application

National Agricultural Aviation Association
Suite 459
National Press Building
Washington, D.C. 20045

Date



We recognize the importance of NAAA to the agricultural aviation operator, the direct and indirect benefits to our business resulting from NAAA's services, and wish to add our support to NAAA through Allied Industry Membership.

We enclose our check for tax-deductible dues, for one calendar year, computed as follows: Our business is (Check one):

- | | | | |
|--|----------|---|----------|
| <input type="checkbox"/> 1 to 10 employees | \$165.00 | <input type="checkbox"/> 11 to 50 employees | \$245.00 |
| <input type="checkbox"/> 51 to 100 employees | \$330.00 | <input type="checkbox"/> Over 100 employees | \$480.00 |

Person to be on Mailing List:

Company Name

Street or P.O. Box

Phone No.

City

State

Zip

Thanks EPA

We Really Needed That (Or Did We???)

In February EPA announced a new program. EPA entitles it the "Seek and Find" hazardous waste hotline.

The new program does not include North Dakota but it does include Minnesota, unless we just did not receive the N.D. announcement.

A toll free hazardous waste hotline has been created to encourage citizens to report known or suspected sites where hazardous waste material has been improperly disposed or stored.

The headlines and stories of many rather shocking and disturbing results from problems associated with chemical waste dumps probably spurred this program.

And it may be needed . . . if

the chemical industry, and that includes aerial sprayers, can't and won't police itself.

So be aware that EPA has begun a program where the public is encouraged to report such observations as dead vegetation, barren spots along a road; dumping of 55 gallon steel drums originally used for shipping of chemicals, etc.

More importantly . . . dispose of hazardous wastes in your own operation properly. Be concerned about the public welfare today and in the future. If we police ourselves, then maybe, just maybe we can forestall any expansion of EPA programs such as this one . . . because maybe they won't be needed.

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

Robert Odegaard, Larry Linrud, William Beeks, Ron Ehlers, Fred Anderson and Jack Daniels.

ADVERTISING MANAGER

Richard K. Estes

PRODUCTION MANAGER

Diane M. Gira

ADDRESS ALL

CORRESPONDENCE TO:

Prairie West Publications

Box 832

Wahpeton, ND 58075

TASCO AVIATION

(Piper & Lycoming Parts)

244 Fillmore Ave. E.

St. Paul, MN

55107

612-224-5788

MICK LUMBY

UNION

CARBIDE

(AM CHEM)

Harry R. Johnson

112 N. Univ. Drive

Fargo, ND 58102

Mike Atkinson

2012 So. 16th

Moorhead, MN 56560

From Your Secretary

By Jack Daniels, NDAA Secretary

Dear Fellow Operators

We are all in hot water now. The ag boys have the "Friends of the Earth".

The air taxi operators have the NTSB beating on the F.A.A. because we have such a poor safety record.

The up shot of the problems, with the flying, for the ATCO certificate holders is the onslaught of recurrent training.

All of us who have been certificated under new FAR 135 are rapidly moving toward the first go 'round with recurrent training according to our tentatively approved Flight Training Manuals.

For me that poses somewhat of a problem. How about some of you other operators?

The biggest area of concern, it seems to me, is understanding what is really required and getting those requirements completed.

Toward this end, some of you who are operating more than one pilot and one airplane will be getting a letter soon asking you to come to Bismarck sometime in April to sit in on a meeting with people from Fargo in a shirt sleeve session designed to help us understand what is really happening.

The slide by approach to FAR 135 training is no longer acceptable. Some kind of a program, available to our area ATCO certificate holders must be developed or we will see some supervisions of certificates.

We have moved into the Real World of professional transportation providers and are going to have to get to be professionally trained and perform to professional standards.

More on the meeting as time will allow and a firm date can be set.

What Goes Up Must Come Down But Some Ways Are Better . . .

By Patricia J. Estes

For whatever the reason . . . gravity, fuel supply, arrival at destination . . . the following is certainly true in aviation: what goes up must come down.

However, safety seminars conducted at various locations this winter, show rather dramatically that some planes come down with tragic results. While the goal is a safe landing at the designated destination,

that goal is not always met.

Why not and other questions were addressed at these seminars which are part of an overall volunteer pilot safety program.

Speakers at the Fargo seminar, held at NDSU, included: local GADO officials, an accident prevention specialist from Minneapolis and Bob Bissonette, Minnesota Commissioner of Aeronautics.

The seminar was punctuated by slide presentation of mostly small planes that crashed, a dramatic show of landings to be avoided.

The first presentation focused on learning by accidents and a look at accident cause and effects.

In 1979 in North Dakota there were 46 reported accidents with 17 major ones resulting in injuries or structural damage to the planes. There were three weather related fatalities and two serious injuries.

In looking at the cause and effects of accidents, the pilots in attendance were told that planes in general were well designed, safe, and forgiving plus the pilot was healthy. Every accident started out with those conditions.

Factor number one in accidents is that aircraft are not indestructible. Factor number two is the pilot and his attitude.

Continued on Next Page

JAMESTOWN AVIATION, INC.



CESSNA SKYHAWK

1976 CESSNA 182 II

1586 TT, 50 SMOH, 2-KX-170B's, KMA-20 Audio Panel W/3 LMB, KR 86 ADF, KT 76A X-ponder, GS, EGT, Carb, Air Temp., LH Articulating Seat, T-Windows, Quick Drain, Winter Kit, RH Hinged Window, LR Fuel, 200A-Pilot, NDH, Aug. Annual, Green/White, Green Interior. N9886M

\$32,500.00

1977 MOONEY 201

320 TTSN, 2-KX-170B's, KMA-20, Audio Panel W/3 LMB, KR 86 ADF, KT 76A X-ponder, Cent. I., Fuel Coupler, Elect. Trim, KN 65, Sound Proofing, EGT, Strobes, GSP, NDH, Sept. Annual, Blue/White, Blue Leather Interior. N201VK

\$51,500.00

1977 PIPER LANCE

400 TTSN, 2-KX-170B's, KMA-20 Audio Panel W/3 LMB, GS, KT-76 X-ponder, KN-65 DME, III B A/Pilot w/couplers, Conference Seating, EGT, LR Fuel, Tinted Windows, Elect. Trim, HD Brakes & Tires, Sound Proofing, GSP, New Annual, NDH, One Owner, Brown/Gold, Brown Indian Interior. N5661F

\$59,500.00

1977 PIPER LANCE

505 TTSN, Narco IFR Package, DME 190, III C A/pilot, Executive Group, Deluxe Conference, GSP, Sound Proofing, Tinted Windows, HD Brakes & Tires, LR Fuel, NDH, Gold/Red/White, Red Interior. N3NB

\$63,500.00

1979 CESSNA 172 II

491 TTSN, 300 Nav/Com, 400 G.S., 300 ADF, 300 X-ponder, 400 MB, RH Hinged Window, Rear Seat Vents, Hobbs, Courtesy Lights, GSP, LR Tanks, NDH, Winter Kit, LH Articulating Seat, New Annual, Green/Tan/White, Green Int. N2487E NDH

\$ Call Us

1978 SKYHAWK 172

TT650 hrs, IFR,

\$22,500.00

1978 CESSNA 182RG II

990 TT, 720 Nav/Com, GS, 300 ADF, 300 X-ponder, 200 A/pilot, Post Lights, Courtesy Lights, Rear Seat Vents, Hobbs, RH Hinged Window, Winter Kit, Marker Beacons, Blue/White, Blue Interior. N7369X NDH

\$45,000.00

1979 PIPER TOMAHAWK

160 TT, KX-170B, KT-78 X-ponder, Pilot Heat, Post Lights, ELT, Brown/White, Tan Interior. N2589C NDH

\$ Call Us

1980 PIPER ARCHER II

68TT, KX-170B, KN75 GS, KMA 20 Audio Panel, KR 86 ADF, KT-78, X-ponder, Executive Interior, Strobes, GSP, EGT, III B A/pilot, Sound Proofing, OH Vents, Tinted Windows, Black/Gold/White, Gold Interior. N8114H NDH

\$43,500.00

1970 PIPER NAVAJO B

3300 TT, 1050 SMOH, L&R, 2-KX-170B's, KR-85 ADF, KT-76 X-ponder, 190 DME, KNX 40 Radar, III C A/pilot with couplers, GS, C. Pilot Instruments, C. Pilot Brakes, Cabin Divider, Executive Tables L & R, Toilet & Bar, Oxygen, Tinted Windows, Floor Runner, Full DEICE, Hot Windshield, Strobe, 8 Seats, Nov. Annual, Blue/Red/White, Red Interior, NDH N6647L

\$125,000.00

1979 PIPER AZTEC

3300 TT, King Silver Crown, Flight Director, HSI, 25 Amp, ELT, EGT, Aux. Fuel Tanks, Wing Insp. Lights, Tinted Windows, Encoding Altimeter, KN 65 w/KI 266 Ind, DME, KA 58 DME Hold Switch, Red/Gold/Black, Black Interior. NDH N2510M

\$165,000.00

1978 BRAVE 375

150 TT Each, Hi Density Combo Less Spreader, Side Load (Both), Spray System Shut Off, Spray System Suction Strainer, Nav & Strobe Lights, Landing & Taxi Lights, Inst. Lights, Cabin Heater, Aux. Power Recep, Left Step, Assist Handle, NDH, Red/White, Like New

\$62,500.00

1978 AG CAT

450 HP, FTO, 20 Hrs., B Model High Density Combo, 80 gal fuel, 12 volt, side load, Nav Lights, APU, in Line Strainer, Pilot Cool Seat.

\$70,500.00

1978 AG CAT

525 HP, 80 TT, B Model, High Density Combo, 80 gal fuel, Side Load, Nav Lights, in Line Strainer, Pilot Cool Seat, Spreader.

\$67,000.00

JAMESTOWN AVIATION, INC.



PIPER PAWNEE BRAVE

Post Office Box 427
Jamestown, North Dakota 58401
Phone 701-252-2150

ND AVIATION ASSN. OFFICERS

President: William Beeks,
Central Flying Service, Washburn, ND.

Vice-President: Ron Ehlers,
Dickinson Air Service,
Dickinson, ND.

Treasurer: Larry Linrud, Tri-State Aviation, Inc., Wahpeton, ND.

Secretary: Fred Anderson,
Aviation Services, Inc., Minot, ND.

Immed. Past President: Robert Odgaard, Odgaard Aviation, Inc., Kindred, ND.

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

Delegate to National Agricultural Aviation Assn.: Bob Woods, Woods Flying Service, Grand Forks, ND.

More than 80% of all accidents are pilot caused.

The accidents happen because of failure to adhere to basic rules learned in training or in proper operation of machinery.

The most frequent accident types are: engine failure, ground loop and collision with trees, etc.

We are not innovative with accidents, the experts stated. Pilots repeat the same type of accidents year after year. The only new factor probably is which pilot is behind the wheel.

On looking at accident types, the goal should be to learn from the experiences of others without committing that same goof up on our own. Learn from the cause and realize in doing that no judgment is intended of the pilot in the accident under study.

One accident discussed at the seminar was due to fuel starvation. In this case a student pilot with only 1/2 full fuel tanks decided to take off when no additional supply was available. He proceeded to practice touch

and go landings. Forced to land in a crisis situation, he landed fairly well in a farm yard until he hit a truck, losing a wing. The pilot was not injured seriously.

Fuel supply is going to be critical with a 30% av gas shortage reported in this area this year. Pilots must consider this in making plans.

The next accident considered had a pilot, with a commercial license. He had logged no flying time in the previous 90 days. He was enroute to an appointment for a maintenance check on a plane having problems.

After a down wind departure, the engine malfunctioned. The pilot tried to return and impacted near the air strip.

The area was well suited for landing and a field landing without an accident was possible. However, the pilot opted to stick with the decision to return in the exact pattern in which he had departed. He overshot the approach, tried again and stalled and then impacted.

Investigation revealed the plane had exhaust muffler

damage which interfered with safe operation. The pilot could have checked that out on his own—prior to take-off.

The third accident occurred in the Missoula, Mo., area. A highway there goes through the mountains at a spot know as Beavers Cut. On a beautiful summer day a private plane was westbound. Power lines from the east cross the highway and then head back east. These lines were obscured by trees. There was nothing to alert the pilot to the fact the lines might cross over.

The pilot was flying at a low level according to observers. It is likely he was looking over the beautiful scenery when he hit the power lines. Both he and his wife were killed. The pilot had failed to observe FAA regulations.

The fourth accident discussed was of the buzzing type. A pilot had won a skeet shoot. He took off and immediately began buzzing other shooters, diving steeply and pulling up. On the third pass the plane ascended

Continued on Next Page



AIRCRAFT ON INVENTORY AT EXECUTIVE AIR TAXI CORPORATION

1980 NAVAJO CHIEFTAIN

Exterior: Baja yellow/Ocala orange/Dark blue, Interior: Blue Leather, KTS 1-31 Radio Group, KNS - 80 RNAV, KFC - 200 AP/FD, Yaw Damper, Full De-ice, Ground Recognition Lights, Fwd. Storage Cabinets, Co-pilot Inst. Group, RDR - 160 Radar, United Encoder, Ground Clearance Switch, Air conditioning, Heavy Duty Brakes, Prop Synchronizer, Aft Vanity/Toilet, Oxygen System, MANY, MANY MORE OPTIONS!

1976 SENECA II

Exterior: Juneau White/Green/Gold, Interior: Green, 1270 Total Time, KX 170B NAV's, KR 86 ADF, KT 76 TSO Transponder, Narco 195 DME, KMA 20 TSO Comm Panel, Altimatic IIIC Auto-Pilot, Dual EGT's, Pitot Heat, Annunciator Panel, Electric Trim, Glide Slope, Prop De-Ice, Dual VOR's, PLUS MUCH MORE!

1979 PIPER TURBO LANCE

Exterior: Juneau White/Matador Red/Las Vegas Gold/Royal Blue, Interior: Blue, 225 Total Time, KX 170B NAV's, KR 86 ADF, KT 76A Transponder, KMA 20 TSO DME, Altimatic IIIC Comm. Panel, Electric Trim, Dual VOR's, Dual Localizers, Glide Slope, TAS Indicator, EGT, Marker Beacons, Annunciator Panel.

1979 PIPER DAKOTA

Exterior: Juneau White/Madrid Red/Bahama Blue, Interior: Light Blue Crushed velvet, 54 Total Time, King KX 170B NAV's, King KT 76A Transponder, King 20 TSO Comm. Panel, Auto Control IIIB/Omni Coupler, Electric Trim, EGT, Head Phone Jack for Mike and Phones.

1979 PIPER ARCHER II

Exterior: Juneau White/Madrid Red/Las Vegas gold, Interior: Gold, Total Time - 273, KX 170B NAV, KT 78A Transponder, Autocontrol IIIB Auto-pilot, Pitot heat, Annunciator Panel, EGT, TAS Indicator, VOR, Strobes.

1978 PIPER TOMAHAWK

Exterior: White/Blue, Interior: Blue, KX 170B NAV, KT 78A Transponder, Electric Clock, Pitot Heat, VOR, TAS Indicator, Strobes, Narco ELT 10.

1980 PA-28RT-200 ARROW IV

T-Tail, TTSN 115 Hour August 80 Annual, Nav. Comm. Dual RX 170B with Glidescope and Loc, ADF KR86, Transponder KT78A, Auto Control IIIB KMA20 Audio Panel with MRK BCN, Price - \$63,000.00

1980 PA-28-161 WARRIOR

TTSN: 250 August 80 Annual, Nav. Comm., KX 170B, Transponder KT78A, Price - \$34,000.00

1980 PA-28-161 WARRIOR

TTSN: 250 August 80 Annual, Nav. Comm., KX 170B, Transponder KT78A, Price - \$34,000.00

1977 PA-28R-201T TURBO ARROW

TT-1110 SMOH-120, Comm. Narco 11B 720 Ch., Narco 11A 720 Ch., Nav., Narco 122, Narco 121, ADF Narco 140, MKR BCN & Glidescope, Transponder AT-50A, Auto Control IIIB, Price - \$43,000.00

EXECUTIVE AIR TAXI CORP.

701-258-5024
Box 2223

Bismarck Mun. Airport
Bismarck, ND 58507



EXECUTIVE AIR TAXI CORP.

EXECUTIVE AIR EAST INC.

701-772-7262
RR 2

G.F. Int'l Airport
Grand Forks, ND 58201



EXECUTIVE AIR EAST, INC.

after the dive to about 150 feet altitude and then plunged into the river. The pilot and his small son were killed.

Investigation revealed the aircraft had been modified with an interior tank. The young boy was lying on this tank and became a projectile upon impact. Had he been strapped into a seat, survival was a possibility.

Moving to the fifth accident presentation, the audience heard about a pilot taking off from a private farm strip. His intent was to show friends a ¼ clover leaf. On the dive portion, the pitch oscillated, slanting the nose down to a flat descent with impact following. The plane burned on impact and the

pilot and passenger were killed.

Accidents of the last two are related to careless, reckless flights showing poor pilot judgement, the speaker stated.

Weather played a factor in the next two accidents discussed. In the first one a highly experienced pilot, VFR rated, encountered snow showers. He attempted to fly through the snow showers instead of returning or flying around them. Soon he was in an area where visibility was rated as 0-0.

This resulted in loss of control and a crash due to lack of orientation. Fortunately the pilot and passenger survived.

The other weather related accident occurred in North

Dakota just before Christmas 1979.

Weather at that time was foggy, with a low ceiling, freezing rain and drizzle. The pilot was possibly a victim of "get thereitis," anxious to reach the destination in time for Christmas.

After waiting out the weather for three days, the pilot and family departed at night, flying below cloud level.

The plane began to build ice. In fact a heavy load of ice accumulated. There was no de-icing equipment or lights on the plane. As the plane approached for a landing, the gear was lowered. The plane was stalled and impacted, hitting flat. It slide across the field, through a fence and up a road. The wheels sheared right up through the wings. That was the only reason this accident was not fatal. Had the gear been up there would have been no way to absorb the energy of that impact.

The last accident presented was a landing type accident. The pilot attempted to land in a farm field. The plane caught a power line on the approach. The pilot had landed there before. In this case he either forgot about the power line or did not take proper precaution. The plane flipped. The pilot received serious injuries.

A pointer to avoid overshooting, the audience was told, is to select where the plane will land . . . not just on the runway but at what point on that runway.

Accidents are 100% preventable through increasing knowledge of the plane, regulations; upgrading skills as a pilot and maintaining a professional attitude.

Next: In the next Relative Wind, the issue of cold weather flying will be addressed.

SPECIAL LOW AG-INSURANCE RATES FOR OPERATORS, QUICKEST CLAIM SERVICE.

FOR A TOLL-FREE QUOTE, CALL: 1-800-325-8079



AVIATION UNDERWRITING SPECIALISTS

8301 MARYLAND AVENUE · ST. LOUIS, MISSOURI 63105

L. JOHN WEBER
935 LONGVIEW DR.
ST. CLOUD, MINN. 56301

RALPH A. BAUER
8301 MARYLAND AVE.
ST. LOUIS, MO 63105



"The Superboom For Super Spraying"

- Airfoil constructed — increased payload, reduced drag, improved maneuver ability & handling.
- Improved spray patterns — less vortex by placing the boom lower & aft.
- Save fuel — added lift & less wind resistance.

CALL TODAY!



TRI-STATE AVIATION
P.O. Box 820

Wahpeton, ND 58075
701-642-5777



More Proposed Part 135 Regulations

CAB has proposed a change in passenger insurance and insurance coverage on bodily injury and loss or damage to property. This would effect all air carriers. That manages to lump PART 135 Air Taxi Certificate Holders right along with the big boys.

The deadline for comments is April 15. We make no attempt in this issue of Relative Wind to detail the proposed rule making changes. Both time and space did not allow this.

However, we urge those con-

cerned with this issue to contact Harold Vavra, director of the N. D. Aeronautics Commission, for information on this proposal.

Vavra can also explain the procedure for sending comments to CAB on this issue prior to the deadline.

You may have read in other communications that the deadline was March 12 for comments on these proposed insurance requirement changes. However, latest news from Washington, D.C. is that the deadline was extended to April 15.

Future issues of Relative Wind will follow progress of this proposal and report on its possible effect to PART 135 Air Taxi Certificate Holders (ATCO).

It is apparent that if this proposal passes as originally reported by Vavra, insurance costs will climb, adding to the overall energy and inflation costs already hitting the aviation industry.

The proposal overlooks the fact that an on-demand air taxi operator deals on a one to one basis with his customer and is not a common air carrier.

Future issues of Relative Wind will continue to follow this proposal through the labyrinth known as Washington, D.C. bureaucracy.

Transponders

The message regarding transponders at a recent North Dakota aviation seminar was brief. Transponders must be well maintained. This means periodic inspections at prescribed intervals in approved shops by trained technicians. If you don't have a transponder, get one. If you have one, keep it maintained.

Review Registration Changes

Regulations effecting the aviation industry are constantly modified, added, etc. Here are a few examples. You are advised to check for details.

91.7 shoulder harness . . . relates to use

91.14 seat belts . . . relates to instructing passengers, etc.

91.33 After Dec. 4, 1980 all seat belts must have metal to metal latches.

91.22 Relates to fuel reserve on a VFR flight. This is a new regulation and states fuel reserves for both daytime and night time flights. Check it.

91.52 ELT malfunction . . . relates to how long you can operate prior to fixing and returning to operation.

91.23 relates to fuel reserve on IFR flights.

91.87 relates to IFR alternate airport destination requirements and is now greatly simplified.

91.25 Relates to checking the VOR every 30 days regardless of hours flown. States days rather than flight hours.



FOR SALE

1969 Beech
Musketeer

3300 Total time, 1100
SMOH, NAV-COM Radio

Contact:

ARLYN LAND
701-232-4164

A LOCAL FREE ENTERPRISE SERVING AGRICULTURE!



AGSCO MXL — "The spray early herbicide" for broadleaf weed control
AGSCO 400 — "The hard to kill broadleaf weed herbicide"
HOLEON — Wild oats & pigeon grass
STAMPED — Pigeon grass herbicide
TOXAPHENE —

For information, CALL TOLL FREE:
ND 1-800-342-4770 MN 1-800-437-4600



MILLER CHEMICAL & FERTILIZER CORPORATION

T. E. "TED" WHITMORE — 616/382-6689
P. O. Box 2473 — Kalamazoo, MI 49003

MILLER CHEMICALS DISTRIBUTED BY:
OSTLUND CHEMICAL CO. WILBUR-ELLIS CO.
CASTLE CHEMICAL CO. MINTO FERTILIZER CO.

With electrostatic sprayer

Reduce pesticide, use less water

CROOKSTON—Reduce pesticide consumption anywhere from one-half to two-thirds. Use only one gallon of water per acre instead of the usual 5 to 20 gallons. It sounds almost too good to be true. But FMC Corporation is developing an electrostatic sprayer that was the brainchild of Dr. S.E. Law, University of Georgia agricultural engineer. He explained the revolutionary new sprayer to sugarbeet growers attending the 1980 Sugarbeet Growers Institute here (Mar. 19-20).

And while the electrostatic sprayer has been extensively tested only on cotton in the South, North Dakota State University agronomists see no reason why the sprayer wouldn't work as well on broad-

leaved crops grown in the area.

The principle of the sprayer is to apply a negative electrical charge to very fine spray particles. The particles are atomized and blown into the plant canopy by a high pressure air stream. Once the particles are within the canopy and their momentum slows, the electrostatic forces draw the negatively charged droplets to the positive charge in the plant leaves and stems. When the droplets are deposited, the electrical charge immediately dissipates and the particles are neutralized. The pesticide covers the plant uniformly in very small drops. Charged particles drift less, putting the pesticide on the plant rather than in the atmosphere.

A 12-row sprayer now being produced can perform at 4 miles per hour effectively and cover 15 acres per hour, 150 acres in 10 hours. With two 150 gallon tanks on each side and the recommended rate of only 1 gallon of water per acre, the machine can run all day without stopping for refills.

The power source for the electrostatic charging is a standard 12-volt battery stepped up with a transistorized circuit box smaller than a pack of cigarettes. Earlier machines of this type were not consistently effective because the cloud of dust or spray lost its charge before it was attracted to the plants. The Law-designed sprayer will monitor the cloud charge and automatically adjust the electrical input as needed to get the proper cloud charge and the maximum amount of pesticide deposited on the plants.

The sprayer has been tested primarily for application of insecticides to cotton but the sprayer also did an excellent job of defoliating several hundred acres of cotton and the application volume was sharply reduced. Performances of herbicides and fungicides which require good plant coverage would also be expected to be improved by the electrostatic sprayer.

Company officials expect that the sprayer will retail for about \$50,000. Depending on the number of applications per year and the acres covered, the rig should pay for itself in two to three years since the operator can reduce to half rates or less of pesticides with the same results as full rates.

The manufacturing company officials haven't found a way to make the electrostatic principle work for aerial spraying. And they say also that they don't expect their machine to wipe out the agricultural aviation industry. Even those growers who use ground rigs still have to call in an airplane about 25 percent of the time when conditions are not suitable to operate a ground rig.

Join NDAA

Are you a current paid up member of NDAA? If not, why not? NDAA is the state organization working for the aviation industry.

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

NDAA belongs to the national association and provides a voice in Washington for you.

Aviation is facing some critical issues... fuel, in-

creasing regulations, problems caused by spiraling inflation.

NDAA provides a voice for members facing these issues. NDAA actively researches solutions.

What's that saying? If you are not part of the solution, you are part of the problem?

Just fill out the blank below. Forward your dues and subscription money for Relative Wind or we'll bill you.

Please complete all information pertaining to you:

Industrial member _____ Dues \$100

Regular member _____ Dues \$75

Associate member _____ Dues \$10

Pilot member _____ Dues \$10

Name: _____

Address _____

State _____

Mail to: Larry Lindrud
Box 820
Wahpeton, N.D. 58075