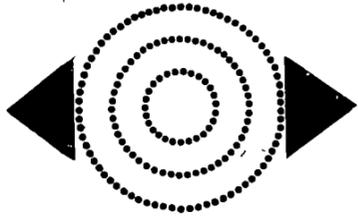


# ND Beacon



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VOLUME 2 NUMBER 4

APRIL 15, 1984

## Beech Starship sets standards

Wichita, Kansas - Beech Aircraft's next-generation corporate Jetfan, Starship 1, is a revolutionary new composite airplane designed from a clean computer screen as a quantum improvement in performance, comfort and efficiency over conventional business aircraft.

Starship 1 is the result of a design criteria calling for improved speed, greater fuel efficiency, higher altitude capability, increased cabin size, decreased cabin noise, improved cabin environment, and better handling characteristics than existing corporate turbo props and jets.

An 85-percent scale testbed version of Starship 1 made its first flight August 29, 1983, and by the end of the year had made 68 flights and accumulated over 160 flight hours in an intensive test program.

Beech is targeting to have a full-size prototype flying in a flight test certification program by the end of 1984, and formal certification and initial customer deliveries by the end of 1985.

Constructed of advanced-technology composite materials and titanium, the full-size Starship will feature

- \* A computer-aided, tandem-wing design configuration, incorporating a 54' 7"-span aft-located swept wing with 7'9" Tipsails at each end, and a 26' 5 6"-span patented variable geometry forward wing
- \* Overall airplane length of 45' 5" from nose to the trailing edge of the Tipsails
- \* Twin pusher-propfan turbine engines located inboard, above and to the rear of each aft wing
- \* Fuel carried in the blended aft "wet wing"
- \* 8.5 psi cabin pressure differential for a comfortable 8,000-foot cabin altitude at an airplane altitude of 41,000 feet
- \* Rate of climb of 3,300 feet per minute
- \* Gross weight of 12,500 pounds

Starship 1 will be powered by two Pratt & Whitney PT6A-60 engines flat-rated to 1,000 shaft horsepower each, and will have a maximum cruise speed in excess of 400

miles per hour. It will be capable of above-the-weather flight at FL 410 (41,000 feet), with range capability, cabin amenities and docile handling characteristics that will exceed those of the Super King Air, the airplane which has dominated the corporate turboprop market for more than a decade.

Floor-to-ceiling aisle height will be 65.8 inches, approximately 8.8 inches more than a Super King Air 300, and cabin length will be 26'5", four-and-a-half feet longer than a 300 Aircraft height, from ramp to the top of the Tipsails, will be 12'9".

The cockpit of Starship 1 will feature an "all-glass" instrument panel, with cathode ray tubes for all flight, navigation and aircraft performance monitoring systems.

State-of-the-art electrical circuitry, making extensive use of multiplexing, is used throughout to provide the necessary redundancy required for contemporary business aircraft operations in virtually all weather conditions.

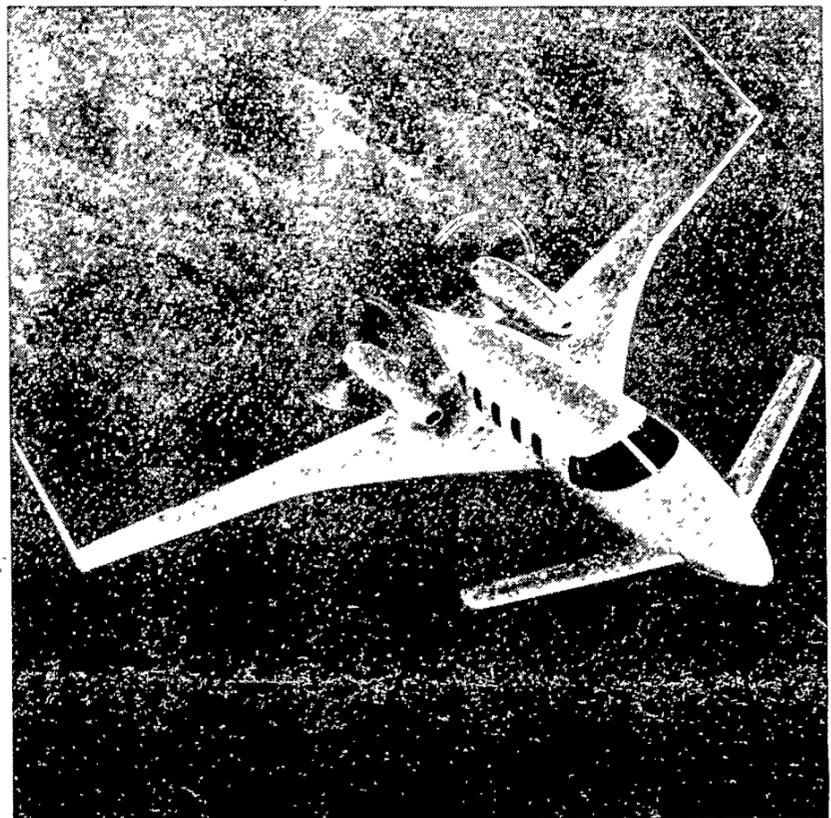
The cabin is five-and-a-half feet across - nearly a foot wider than a Super King Air's. It features a dropped aisle unencumbered by spar structure and seats which swivel as well as recline.

A refreshment center will provide space for up to eight hot meals, and chilled beverages served in fine glassware, as well as the normally-expected cold and hot beverage service amenities. Executive work tables provide room to hold a briefcase and still offer a substantial work area.

Six basic interior configurations will be offered, with a choice of options that will encompass virtually limitless possibilities for variation. A typical cabin would likely feature a four-seat forward club section and an aft seat facing a two-place divan. The refreshment center would also be located aft.

Fifty cubic feet of baggage space would be available with this arrangement, all accessible from the cabin.

Starship's overall interior is finished in a



Starship 1

one-piece headliner and one-piece side panels, which are covered with a soft, padded material. The headliner and side panels are secured on isolation mounts to further enhance cabin acoustics and eliminate vibration.

Indirect lighting provides basic cabin illumination, while each seating position has an individual reading light and fresh-air

vent. High fidelity speakers are mounted in the headliner, as are "no-smoking" and "fasten seatbelt" signs.

Price for Starship 1, with standard Super King Air avionics, is projected to be \$2.9 million in 1984 dollars.

Beech Aircraft is a subsidiary of Raytheon Company.

## The winds of spring

Each season brings its barrage of aviation's natural enemies. As ice and snow make their annual retreat northward, the winds of spring, and the thunderstorms and tornadoes that follow, will begin their spotty appearance across the land.

Pilots who regularly fly in windy conditions find headwinds and turbulence as some of the things that create delay and discomfort, and they see crosswind landings as part of the routine that demands a little extra technique, but certainly not anxiety.

But pilots who wait for calm air and sunny skies before they venture way from the earth in their flying machines will be unusually uncomfortable when they are forced into a situation where they must directly confront gusty or crosswind conditions. Every month or two, on one of those days when it is "too windy" to fly, any pilot, who wants to stay prepared for the weather he may face, ought to go flying. If he's nervous about windy landings, he should go up with an instructor first.

One of the earliest rules we learned as pilots is that a landing hasn't ended until the airplane is safely rolling to a stop at its hangar or tie-down spot. The rule is particularly true in windy conditions - and

forgetting it then can have the more drastic effects.

A student pilot learned the rule recently at a Connecticut airport on a landing that ended a dual cross-country flight. March winds were blowing at about 15 to 20 knots from the west across the north-south runway. It was otherwise a sunny Saturday that was characterized by rapidly melting piles of snow, and the mud that goes along with the spring thaw. The student made adjustments for the winds as he approached from the north. His Cherokee touched once on the 1,900-foot runway, was airborne momentarily, then touched again and stayed down. The student had obviously worked hard for his landing, and probably relaxed as his craft slowed at the end of the strip. Moments later, its left main wheel was mired in the slush and mud. A bruised ego was the only casualty. But it happened because the student focused his attention on his instructor, rather than on control of the airplane until it was parked back at the ramp.

Takeoff and landing mishaps that result from errant winds make up a very large portion of General Aviation's annual accident toll. Though there's usually little personal injury that results, damage to airplanes can

be substantial.

In 1975, "unfavorable wind conditions" were cited by the National Transportation Safety Board in 321 aircraft mishaps, 18 of them fatal. An accident cause that is frequently concurrent with such a citation is "pilot failed to maintain directional control." That one was listed as a cause or factor 348 times in 1975, according to statistics.

This isn't the place to either explain or debate the best methods for handling windy takeoffs and landings. Each instructor has his preferred method, and each has a tip that the others may not offer. But in the end, the pilot's goal should be an awareness of what winds can do, knowledge of how to comfortably handle them, knowledge of what his aircraft's limitations are, and realization that full concentration is required on such landings to carry them off successfully.

A tangential hazard that comes with the winds of spring and summer is the potential for damage to airplanes that are improperly tied to the ground. Most of us routinely tie or chain the airplane in place, but we may do it perfunctorily, for our methods are seldom tested by the

elements.

There is no official government count of airplanes wind-damaged in their parking places. But insurers pay out tens of millions of dollars each year for wind-claims.

Almost nothing will prevent damage to a plane parked in the path of a passing tornado, but the FAA recommends some techniques and advice to protect aircraft from less severe surface winds.

- Use rope capable of withstanding a 3,000 pound pull
- Tie ropes to rings provided, not to struts
- Leave an inch or so of slack, but no so much that a plane will jerk against the rope as it rocks in the winds
- Use a knot that won't slip
- Be sure the rope is fastened as well to the ground as to the airplane
- Use gust locks to protect the airplane's control surfaces from damage

After a winter of worry about snow and ice, we need to refresh ourselves on the intensity of spring and summer storms. The winds and gusts that they generate can be lethal to airplanes, whether in the air or on the ground.

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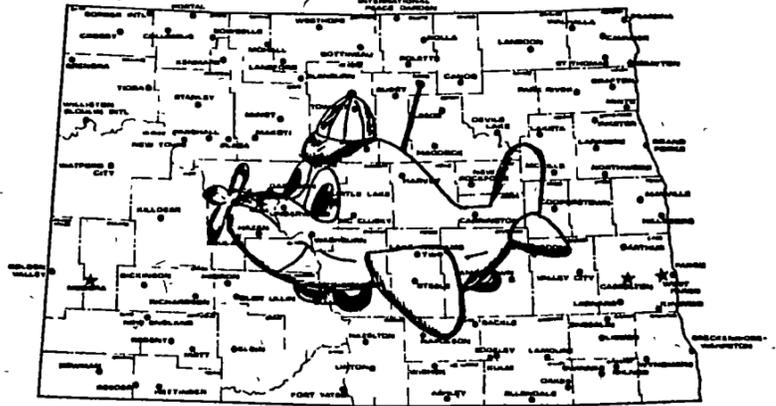
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# Around the state



- LIDGERWOOD** Airport Authority will be deciding upon a hangar layout plan. Interest for a hangar on the newly developed airport Northwest of town may be coordinated with a terminal building. This airport is not yet open for public use, since the grass growth on the landing surface must take hold and firm up. Remember to contact the ND Aeronautics Commission for hangar layout plans, lease forms, or airport operation standards if your airport so needs the information.
- KINDRED** Has done some airport perimeter fencing to reduce the trespassing on airport property. The Airport Authority will be finalizing land acquisition project and considering some runway painting.
- TURTLE LAKE** Is acquiring airport land and clear zone easements for an airport site SW of town. Possible late spring construction of the graded turf runway is likely. The ND Aeronautics Commission recommends that all airport authorities acquire avigation easements to protect the runway ends from obstructions. Example easement forms are available from this office to help facilitate this acquisition of the approach/departure airspace areas.
- LAKE WILLIAMS TOWNSHIP** The Township Airport Authority will be considering a maintenance project due to a county road seal coat project nearby. Airport managers of Airport Authority members should contact their Highway District Officers for a construction project date nearby their airport.
- CAVALIER** The Airport Authority will be reviewing a preliminary plan for runway extension southward. They also will plan to do a crack filling and seal coat project as funds allow this year.
- NEW TOWN** Will be crack filling the several year old asphalt surfaces with a rubberized filler. The city streets will be sealed and they may decide to seal coat the airport asphalt surfaces in the summer also.
- ARTHUR** Airport Authority will review a future airport development plan. The present runway is N-S 2600'x85' turf landing surface but has a road at the south end approach.
- NORTHWOOD** Has actively sought and will receive township support financially for maintenance of the airport. They have contacted eight secondary townships and discussed their participation for the airport. For further advise on this airport support by a township, feel free to call the ND Aeronautics Commission.
- DICKINSON** Earth Builders, Inc., and Veigel Engineering, two Bismarck firms, recently completed a \$1.4 million project at the Dickinson airport. The Project included strengthening the main runway for jet traffic, site grading for a precision instrument landing system, and construction of a crosswind runway and taxiway system. In June, when Earth Builders, Inc., installs a porous friction course seal on both runways, the airport will become the third major one in North Dakota with the rubberized anti-skid surface. The others are Jamestown and Grand Forks according to a press release.

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# Aborting a landing

Power, attitude and configuration are important when aborting a landing. Familiarity with these three cardinal principals of the "Go-around" procedure is essential.

If you must make a go-around, your first concern is power. The instant you make the decision to abort, full-power must be applied until flying speed and controllability is restored, adding partial power is an invitation for trouble. Carburetor heat should be turned off to maximize power.

It is difficult to explain why some pilots hesitate to apply full-power at the moment they decide to go-around. It may be the pilot is indecisive or he believes that the landing can still be accomplished. In some instances the pilot may simply be unaware of the amount of inertia that must be overcome before an aircraft, that is settling toward the ground, can regain sufficient airspeed to become controllable and capable of regaining altitude.

An inexperienced pilot, in this tension filled situation, may be concerned about the position of other aircraft in the pattern or on the ground, and fail to notice that his aircraft is continuing to lose altitude or airspeed due to his failure to add full-power.

Application of power should be smooth. A jerky movement of the throttle in some aircraft will cause the engine to falter resulting in the loss of precious time. This is especially true with carburetor type engines.

Altitude is critical close to the ground and when power is added, it takes a deliberate effort on the part of the pilot to keep the nose from pitching up prematurely. An aircraft on a go-around must maintain an attitude which will permit a buildup of airspeed beyond the stall point before attempt to gain altitude or execute a turn is made.

A pilot may be so concerned about gaining altitude when it is necessary to abort a landing that he may attempt to gain altitude quickly by pulling the nose up prematurely, especially when the runway is limited and

there are obstacles to clear.

Just remember when you abort a landing, you must accept the fact that an airplane will not climb until it can fly and it will not fly below stall speed. It may be necessary to lower the nose briefly to trade altitude for airspeed as the go-around is begun.

In cleaning up the aircraft configuration during go-around, your first concern should be with the flaps and your next the landing gear (if retractable), since the drag induced by the flaps is more serious. Aircraft are designed to be able to climb with the flaps fully extended at sea level. However, if the go-around is begun just above stall speed or in a high density altitude condition, it may require more thrust than what is available to make the aircraft accelerate to climb speed.

Some pilots are afraid of reducing flaps because of their concern with losing altitude because they feel it cannot be spared in this situation. However, if the aircraft is being flown at a greater than the flaps-up stall speed, flaps may be retracted without losing altitude.

Flaps should be reduced in stages, if manually controlled, to avoid an abrupt loss of lift or possible stall. A pilot should follow the recommendations of the aircraft flight manual, which may differ greatly from one aircraft to another.

The most difficult obstacles to overcome in an emergency go-around are mental ones. Inexperienced pilots may attempt to horse the aircraft off the ground or bank excessively and lose control and stall and other may freeze at the controls until the aircraft is past the point where a successful go-around may be executed. Some make simple but costly mistakes like failing to ease off the flaps and carrying out other critical functions. How do you avoid this situation? Practice on a regular basis. Practice under safe conditions where there are no conflicts with other traffic and preferably under the guidance and watchful eye of an experienced flight instructor.

# Runway repairs to interrupt service

Commercial air travel in Bismarck will be grounded for about two weeks this summer when the airport's main runway is closed for repairs.

The 8,800-foot runway will be shut down sometime in July to do the maintenance and upgrading work, John VanMiddlesworth, airport assistant manager, said Friday.

Other runways will be open, but none can handle the large jets that now stop in Bismarck.

Spokesmen for three of the commercial carriers serving Bismarck said their companies are looking at the options but have not made any decisions.

VanMiddlesworth said a study will begin soon to determine the extent of the work to be done on the main runway.

"Based, then, on that information we may be adding an overlay to the runway to bring the strength up, or just a leveling course. On top of that, we're going to add a porous friction course," he said.

The porous friction course, or popcorn seal, cuts down on hydroplaning and increases braking effectiveness, VanMiddlesworth said. The leveling course may be needed because of wheel tracks and wear and tear on the runway, he said.

"Until we get all of the study done, we don't really know how much work we will be doing," he said.

The one thing that is certain is that the runway will have to be closed for a time.

"Whatever the work is, it will be done

about mid-July," VanMiddlesworth said. "The runway will be closed from 10 days to two weeks, which we hate to do but there's just no other way of doing it."

It will not be the first time maintenance has closed the main runway.

The airport was closed to commercial air traffic for four days in September 1978. At that time, the two commercial carriers handled the situation in different ways.

Republic Airlines, which was then North Central, simply cancelled all flights. Frontier Airlines flew to Minot and bused passengers to and from Bismarck.

One option this time is for the airlines to use smaller aircraft for two weeks.

Although the main runway is the only one equipped to handle the jets that now serve Bismarck, smaller commercial aircraft can land on a north-south runway, VanMiddlesworth said. Other small planes can also use other runways.

He noted that Republic Airlines at one time used the smaller Convair type aircraft, which could land on another runway.

The runway project will be paid for with \$12 million from the federal Airport Improvement Program. The award was announced Friday by Senator Mark Andrews, R-ND, who chairs the Senate Transportation Appropriations subcommittee.

Money in the Airport Improvement Program is generated through such user fees as ticket and fuel taxes, VanMiddlesworth said.



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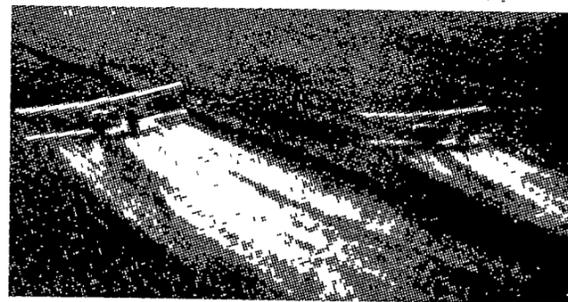
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## Fargo bids lower than expected

Bids for the new Fargo airport ramp and connecting runway approach came in at about \$1 million less than a projected \$3.7 million cost.

The Municipal Airport Authority heard bids from seven construction companies, each with two bids for concrete or asphalt sub-base material.

On the least expensive concrete option, Northern Improvement Co., Fargo, was the apparent low bidder at \$2.74 million, followed by F-M Asphalt, Moorehead, at \$2.76 million.

In the more expensive asphalt sub-base bids, F-M Asphalt was the apparent low bidder at \$2.95 million and Allstate Paving Inc., Maple Grove, Minn., was second lowest at \$2.95 million.

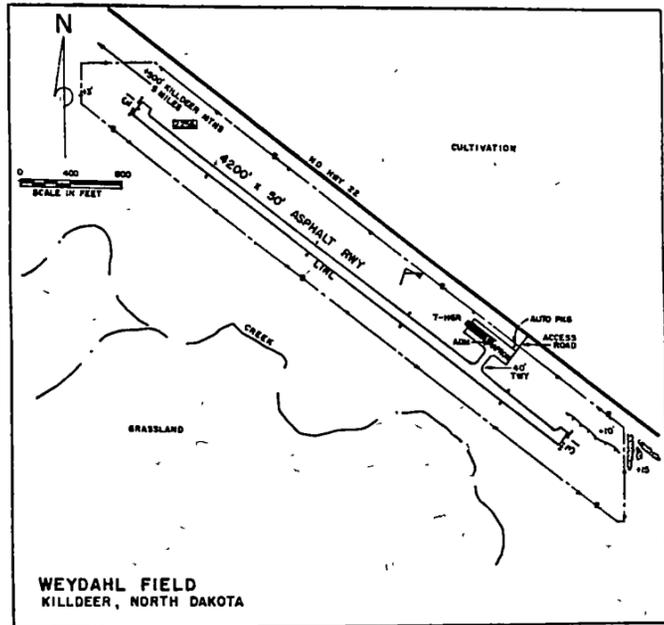
Joe Parmer, executive director of the airport authority, said board members will determine whether the concrete is adequate at an April 9 meeting. The Federal Aviation Administration and engineers for the project will make reports to the authority on the subject.

Other bids (rounded) for concrete and asphalt included:

Johnson Construction, Fargo, \$3.08 million, concrete, (\$3.18 million asphalt), Northern Improvement Co., \$2.7 million (\$3.04 million), Border States Paving, Inc., Fargo, \$2.83 million (\$3.05 million), Twin

Continued  
On Page 8

## Airport of the month



### Weydahl Field, Killdeer

The Dunn County Airport Authority created in the late 1970's, has developed for the county in the fall of 1983, a paved 4200'x50' asphalt runway, taxiway, apron, auto parking and access road. The airport pavement was needed since the grass growth was very sparse and the landing surface soft and loose.

The airport was very active in the early 80's due to oil development, exploration, and seismographic activity. At one time, 6 helicopters were operating from the airfield for oil related activity.

The airport has low intensity runway lights. A trailer house is used as a terminal

building which is parked alongside the single airport building, a 5-slotted T-hangar. The airport is located approximately 1.5 miles northwest of town and just west of the ND Highway #22.

The airport paving development was possible due to a paving contractor doing work nearby and receiving a good bid price. Negotiations and change orders by the engineer enabled the project to be scaled down to match the financial capability of the Dunn County Airport Authority. A state grant from the ND Aeronautics Commission assisted in the costs for this construction.



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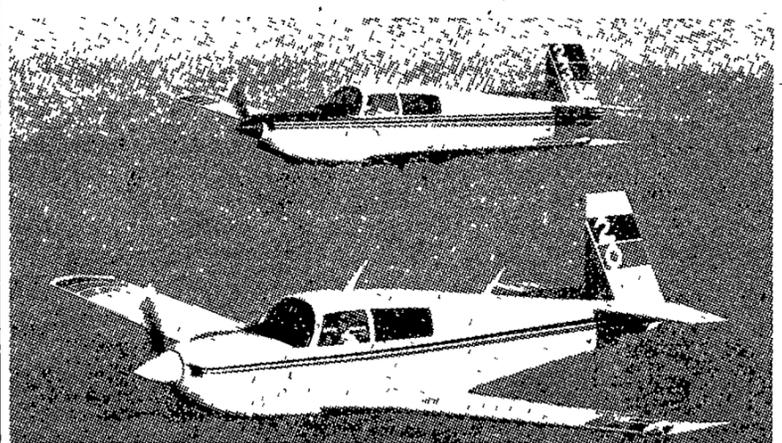


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## Northern Airways doing well

March 30 - Bismarck -- Northern Airways President and CEO, Mr. Jon Harty, gave the ND Aeronautics Commission meeting a status report on the progress of Northern's new air service in North Dakota. Mr. Harty stated that the passenger load had increased each week since the start of the new service on March 1st. They had forecasted that it would take 60 to 90 days to obtain the numbers Northern wanted to see for this period. Northern has reached 80% of the forecast within the first 30 days of operation.

Mr. Harty had thought there would be what he called soft spots in passenger load from BIS to FAR but much to the contrary has happened. It now appears that the heavy traffic is from BIS to FAR and the soft loads are from FAR to BIS.

If you wish to book your flight through your favorite travel agent they now have the necessary tickets stock and reports to help service you and Northern Airways. Along with the ticket stock to the travel agencies, the flight schedule will be listed in the OAG Official Airline Guide as of the 15th of April. A new two-letter designator has been assigned to Northern Airways by the FAA so that it can be included in the national system for all major air carriers and feeder lines. The new designator for Northern is 3N. Jon said, "The FAA looks

like they ran out of two letter and had to go to a number and letter combination. It (the 3N) might indicate three cities served in North Dakota." You can also use your American Express or Visa or MasterCard for flights booked with Northern Airways.

Along with billboard advertising and newspapers, Northern is using a Telemarketing program to contact individuals and businesses that do a lot of work in the three cities Northern serves. Aggressive sales don't hurt, either, stated Jon.

Northern had 98% completion factor the first month of operation. Only one flight had to be cancelled due to bad weather. To help the company better service the commuter, Northern will have on line by April 15th, a new Piper Navaho Chieftan. "We are looking at a larger aircraft for sometime in April or May of this year but will not be put into service before July '84." Was John's reply to a question regarding larger aircraft that might be added to the fleet.

When asked about passenger count, Mr. Harty replied, "we are loading 23 passengers per day which reflects 80% of the forecast as I stated earlier. About 50% of the bookings are now being handled by travel agencies."

## Airline deregulation affects Bismarck and Fargo

Deregulation of the scheduled airlines began in 1979. In a five-year period between March 1979 and March 1, 1984, North Dakota's two largest cities, Bismarck and Fargo, experienced a slightly greater number of airline passenger seats being offered daily and the addition of new commuter air service.

Bismarck experienced the greatest change since deregulation began. In 1979, Bismarck was served by three major airlines and no commuter air carriers. These were Frontier, Northwest, and North Central Airlines.

In March, 1984, Bismarck was being served by four major airlines including Frontier, Northwest, Republic and Western Airlines and two commuter airlines, which are Big Sky Airlines, and Northern Airways. Big Sky Airlines began service to Bismarck in July, 1980, Northern Airways in January, 1983 and expanded to include Fargo on March 1, 1984 and Western Airlines started service at Bismarck on November 15, 1983.

Fargo was added to Northern Airways route on March 1, 1984 providing commuter service between Fargo and Bismarck and Grand Forks.

In 1979, Bismarck had 34 daily arrival and departure airline flights provided by three airlines with 3,122 seats to and from

Bismarck daily. In 1984, Bismarck has 34 daily arrival and departure flights being provided by six airlines, four of which are major airlines and two are commuter air carriers. The six airlines in 1984 provide Bismarck with 3,176 seats daily compared with 3,122 seats in 1979, a slight increase.

Fargo in 1979 had 32 daily arrival and departure airline flights which provided Fargo with 3,624 seats daily. In 1979, Fargo was served by three major airlines including Frontier, Northwest and North Central Airlines.

In 1984, Fargo has 32 daily arrival and departure airline flights, the same as 1979 and is served by three major airlines, including Frontier, Northwest and Republic and one commuter airline, with 3,640 passenger seats daily to and from Fargo, a small increase.

Both Bismarck and Fargo are enjoying a substantial level of air service in 1984 when compared with 1979, when the total number of enplaned passengers are compared at each city between 1979 and 1984.

In 1979, Bismarck enplaned a total of 186,226 airline passengers compared with 123,431 in 1983 calendar year. Fargo in 1979 enplaned a total of 198,222 passengers compared with 149,701 in 1983.

## Montana pilot killed by hijacker

A 64-year-old pilot was shot to death by an armed robber at Polson Airport in Polson, Mont., after volunteering to act as the suspect's pilot in exchange for release of a 13-year-old hostage the suspect had taken.

On January 11, 27-year-old David C. Keith allegedly robbed a pharmacy and kidnaped 13-year-old William Crose. Keith was stopped by law enforcement officers at a roadblock, where he demanded a pilot, an airplane and a parachute with which to effect an escape in exchange for the hostage.

Pilot Harry Lee Shryock, Jr., a veteran of combat missions in Vietnam, Korea and Europe, volunteered to fly the single-engine Beechcraft Bonanza obtained for the escape.

At Polson Airport, Shryock boarded the aircraft, followed by Keith, who pushed the youth away after climbing aboard.

A few minutes later, a police sharpshooter reportedly wounded the suspect while negotiations were under way, and the suspect shot Shryock in the head. Police fired again, wounded the suspect a second time.

Shryock died shortly thereafter at St. Joseph Hospital in Polson. Keith was expected to survive.

Keith had an extensive criminal record in the state of Washington.

Shryock was a commercial pilot and carpenter, and had been constructing a homebuilt airplane. He is survived by a wife, two daughters, three sons, a sister and six grandchildren.

Aviation - May 1984

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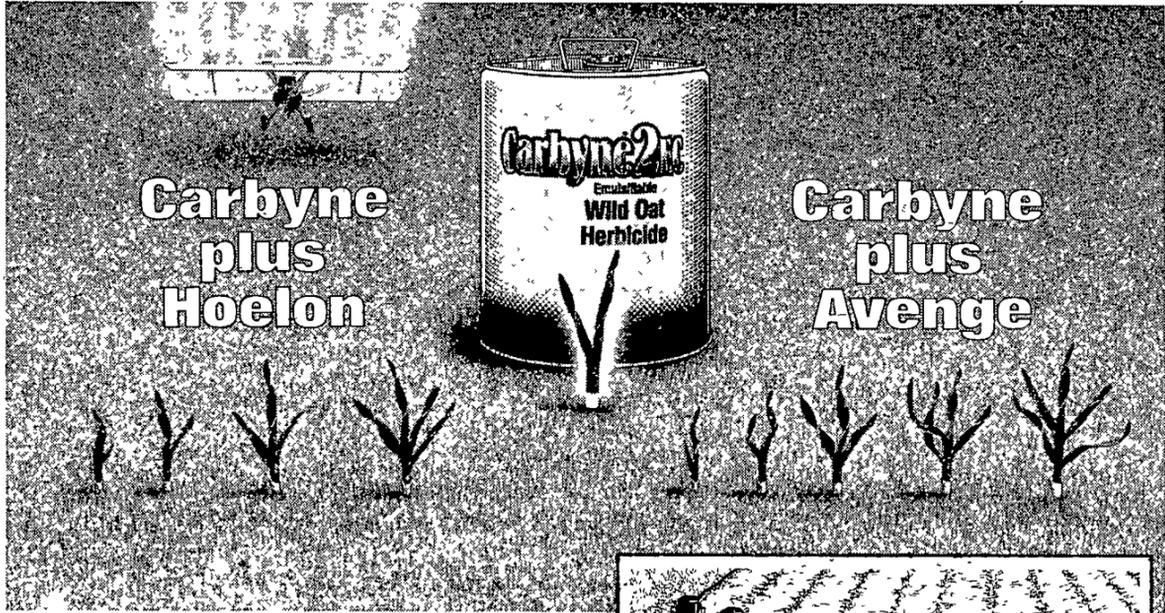
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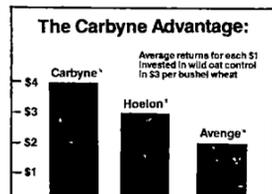


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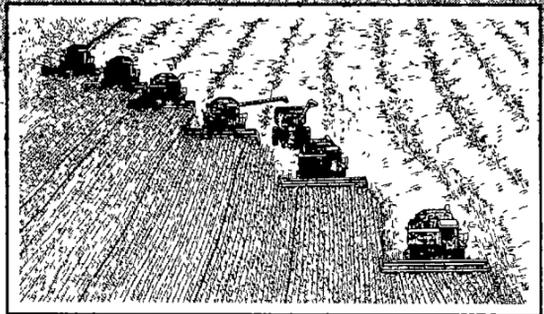
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You'll still save. Cost for this brand new tank-mix treatment is up to \$3 less than Hoelon applied alone, and the wild oat control is equally good.

\*Montana State University Data, 1982



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## NDAAA to conduct operation SAFE

Elected at the recent combined convention of the ND Aviation Council, the following new officers of the ND Agricultural Aviation Association have agreed to participate in Operation SAFE along with the state's agricultural operators

President  
Lyn Thompson, Harwood  
Vice President  
Dan Thompson, Wyndmere  
Secretary/Treasurer  
Gerald Beck, Wahpeton  
National Director  
Ron Deck, Hillsboro  
NW Director  
Steve Hett, Mohall  
NE Director  
Dick Helldorson, Cavalier  
SW Director  
Boyd Trester, Sentinel Butte  
SE Director  
Bob Odegaard, Kindred

Under the Operation SAFE program, a series of pattern and deposition tests are scheduled to be held at Hillsboro, Harvey and Mohall. Sanctioned by the National Agricultural Aviation Association, Operation SAFE will be conducted by the NDAAA, in conjunction with PBI Gordon

Chemical Corp and the NDSU Extension Service SAFE, meaning Self-regulated Application and Flight Efficiency, is a computerized method of measuring a spray plane's actual chemical deposition and swath accuracy, thereby offering a more exact method of adjustments and calibration to the aircraft's dispersal system. This results in a more efficient application and reduction in drift potential in today's high tech farming operation and increases the performance of the ag chemicals that today's farmer uses as invaluable tools.

These tests will start at 8:00 a.m. on the following dates and include a short ground school clinic:

Hillsboro - May 7, 8 (May 9, weather alternate), Harvey - May 10 (May 11, weather alternate); Mohall - May 12 (May 14, weather alternate)

Also this year, "The Wings Of Agriculture," a series of informative 1 minute tapes, will be distributed statewide to be aired on radio. These tapes are informative, public service messages designed to keep area farmers and public informed of the actual operation of the state's agricultural aircraft and farm chemicals on a weekly basis.

## Pilot groups assails FAA's Trust Fund aid

The Federal Aviation Administration (FAA) wants general aviation pilots to spend more than 37 percent of their federal avgas taxes - more than four cents per gallon - to fund the agency's administrative costs. Labeling FAA's FY 85 budget proposal "outrageous," Aircraft Owners and Pilots Association (AOPA) charged the administration with making the "premeditated and illegal" raid on the surplus-ridden Aviation Trust Fund.

In all, FAA wants to strip the Trust Fund of \$1.7 billion to pay for salaries, pencils, paper clips and other administrative costs. Commented AOPA President John L. Baker, whose organization represents more than 265,000 taxpaying pilots, "Not only is that an outrageous act against the integrity of the Trust Fund, it also is illegal because it's \$500 million more than the law permits." Congress authorized no more than \$1.2 billion for the agency's operation and maintenance which, in and of itself, is "unconscionable," according to Baker.

Eighty-two percent of FAA's \$5.6 billion budget request would flow from the Trust Fund. That represents nearly \$4.6 billion for FY 85. "The tragedy of those figures," said the AOPA president, "is that, once again, the administration failed to recognize the true public benefit of aviation. To infer that the public gains from only 18% of general aviation activity ignores the reality of its diverse and widespread

public contributions."

Baker added aviation is not and never has been an activity only for the selected few, but represents efficient, economical transportation benefiting all Americans, and should be recognized as such.

Although FAA's request for \$987 million to fund its Airport Improvement Program (AIP) is \$187 million more than the authorized FY 84 level, it still represents only 21 percent of proposed Trust Fund expenditures. In other words, only 25 cents of general aviation's 12 cent per-gallon tax on avgas would go for airport improvement. This, according to AOPA, undermines the original intent of the Trust Fund.

Additionally, what Congress "authorizes" isn't necessarily what Congress "appropriates." Last year, for example, \$993 million was authorized for airport improvements, with only \$745 million actually appropriated, according to W. Lawrence Graves, AOPA vice president for Federal Legislative Affairs.

"The bottom line," Baker said, "is that FAA wants to spend nearly as much avgas tax dollars itself as they want to spend improving airports and enhancing the national airspace system. This should not be tolerated in any fashion by the aviation community."

AOPA vowed to "fight aggressively" FAA's attempts to gut the Trust Fund for purposes for which it is not intended.



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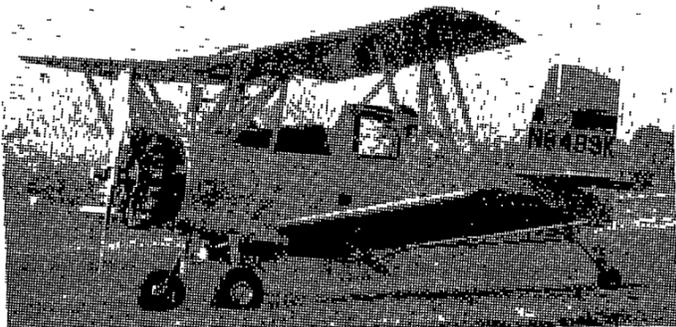
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# Open space vs. occupied ground

*The term "congested area" in regard to low level flight operations does not necessarily mean "heavily populated" to the FAA. Local law enforcement authorities may take a stringent view toward low flying in their community.*

Aircraft stunts have been a popular diversion at outdoor gatherings for many years, and recently ultralights have joined the ranks of aerial entertainments. However, it is not very entertaining when the ultralight operator finds himself the recipient of a civil penalty (which can be as high as \$1,000 for each offense) on the charge of flying over a congested area. In some cases there has obviously been a clear disregard of the Federal Aviation Regulations under which they operate (Part 103), which forbids flight over congested areas at any altitude.

On the other hand there may be some honest confusion over the meaning of the term, "congested" as applied here. Originally, a medical term meaning "an accumulation of blood," congested has recently become a well-used demographic term referring to accumulations, or even unexpected accumulations, of people. However, the actual number of persons required to imply congestion is not specified. Many pilots assume that a congested area is always a city or town or fair grounds or sporting area where hundreds of persons live or are temporarily massed.

That is simply not true. In upholding civic penalties assessed by the FAA, the courts in various states have ruled that, in some cases, as few as three persons may constitute a congestion. It all depends upon the conditions under which these persons are gathered together, and the potential threat of bodily harm from the vehicle in the air, be it ultralight or certified aircraft.

Furthermore, violations of the rule may occur if overflights take place over areas like school grounds or open air theaters during periods when they would normally expect to be populated - even if no one happens to be present at the time of the overflight.

For those seeking further definition of a congested area, perhaps the following words appearing in several NTSB decisions will be of interest. "Congested areas, while difficult to define in all applicable instances, are readily recognizable from the air because of the pilot's unique perspective from the cockpit." These words clearly place the responsibility for making a reasonable determination on the pilot.

In regard to rural areas there is also no cut and dried formula for determining how much open space between dwellings or

other buildings implies absence of congestion. The operator of an ultralight, or an aircraft (under Part 91.79), must use his judgement in accordance with the intent of the applical rules. FARs 91 and 103 are designed to allow persons to operate various airborne vehicles for their own personal business or recreation, but only in a manner that protects innocent persons from harm or potential harm (Local ordinances may further restrict flight activities).

Take, for example, a pilot who overflew a rural school near Moline, KS and landed (no emergency involved) on an unoccupied playground to visit some friends on a nearby farm. The pilot's certificate was subsequently suspended for violating FAR Part 91.79 (b). Why? Because a judge who ultimately heard the airman's appeal said the pilot should have realized that, given the time of the year and hour of day, children and teachers would have been inside and schoolhouse and likely to be outside at anytime. The pilot's action, when no inflight emergency was involved, subjected the people in the schoolhouse to an unnecessary risk, thus, judgement went against him.

Certified aircraft, flown by trained, tested and medically qualified persons, are permitted to fly over congested areas at an altitude of 1,000 feet or higher above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft (FA 91.79 (b)). The rationale of this rule is that given the known standards to which the aircraft and pilot has been certified, no harm is likely to come to persons on the ground in the event of an inflight emergency of any kind.

However no aircraft may be flown at any altitude in circumstances which do not permit, in the event of power failure, that an emergency can be made without undue hazard to persons or property on the ground.

Ultralights, operating under Part 103 on the other hand, are not permitted to overfly congested areas at any altitude, precisely because the vehicle is not bound by any design or construction standards, nor is the pilot necessarily trained, tested, or medically qualified according to any official standards. The freedom from government controls or standards given to ultra-light operations requires that a proportionally greater measure of protection be provided to innocent persons

# Fargo airport bids lower than expected

Bids for the new Fargo airport ramp and connecting runway approach came in at about \$1 million less than a projected \$3.7 million cost.

The Municipal Airport Authority heard bids from seven construction companies, each with two bids for concrete or asphalt sub-base material.

On the least expensive concrete option, Northern Improvement Co., Fargo, was the apparent low bidder at \$2.74 million, followed by F-M Asphalt, Moorehead, at \$2.76 million.

In the more expensive asphalt sub-base bids, F-M Asphalt was the apparent low bidder at \$2.95 million and Allstate Paving Inc., Maple Grove, Minn., was second lowest at \$2.95 million.

Joe Parmer, executive director of the airport authority, said board members will determine whether the concrete is adequate at an April 9 meeting. The Federal

Aviation Administration and engineers for the project will make reports to the authority on the subject.

Other bids (rounded) for concrete and asphalt included:

Johnson Construction, Fargo, \$3.08 million, concrete, (\$3.18 million asphalt), Northern Improvement Co., \$2.7 million (\$3.04 million), Border States Paving, Inc., Fargo, \$2.83 million (\$3.05 million); Twin City Construction Company of Fargo, \$2.77 million (\$2.96 million), All-State Paving Inc., \$2.80 million (\$2.96 million); F-M Asphalt, \$2.76 million, (\$2.95 million), and Sornsin Construction Co., Fargo, \$3.46 million, (\$3.67 million).

Parmer said construction on the airplane approach and apron could begin prior to construction of the terminal itself, as early as May 1.

Forum - 3/27/84

## WEATHERLY AIRCRAFT SALES & SERVICE



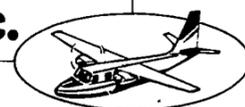
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**WANTED:** Articles for the North Dakota Beacon. Call Doug Keen, 258-5556

## Fargo FBO expands

On April 1, 1984, Executive Aviation, Inc. of Fargo, North Dakota became the only privately held aviation fuel dealer in the state to offer 24-hour fuel and line services. In so doing, Fargo is now the fourth airport in North Dakota to offer 24-hour fuel and line service. The other three being Grand Forks, Minot, and Bismarck which are owned and operated by the respective city governments. By being open 24-hours, 7-days a week, Executive Aviation will be able to better serve the needs of the flying public. With the use of Phillips Avgas 100LL and Philjet-Jet A, Executive Aviation has the fuel most wanted by aviation customers.

Executive Aviation recently installed its own company unicom for its customers to use for fuel orders, rental cars, taxis and other needs. The unicom is on frequency 128.9 - call EXECUTIVE-UNICOM. Executive Aviation has been in Fargo

since January of 1980 offering Air Taxi Services, Cessna Aircraft Sales and Service, Cessna Pilot Center flight training, aircraft rental, hangar and ramp storage and some of the fastest fuel service available.

The transient facilities offered by Executive Aviation include a large heated hangar, pilot lounge, conference area, passenger waiting room, coffee room, flight planning room with wall maps and direct line phones, catering, oxygen refill service, APU, preheats and quick turn arounds. Company President, Peter B. Hall, and Line Department Manager, Mike Campli, say that with the above service and the 24-hour line service, "Executive Aviation is doing this to provide better service and hours of operation to fulfill the needs of the aviation user. 24-hour line services means fuel and services are available when they are needed."

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## Aviation news briefs

### NORTHWEST ORIENT

Set records in December 1984 with the loadings of 45,307 passengers in 48 states. The airline will begin service to Dublin, Ireland in June 1984, the airlines ninth European city.

### REPUBLIC

Began service to Des Moines, Iowa and Tulsa Oklahoma on February 1, 1984. The airline now serves 30 states in its route system. The Minnesota-based airline now serves 140 cities with more than 109 airline departures per day from the Twin Cities.

### GAMA

The General Aviation Manufacturer's Association called 1983 "a tough and challenging year". The nation's manufacturers of general aviation aircraft delivered 2,691 planes with nearly \$1.5 billion in 1983. This represents 36.9% fewer aircraft and 26.5% decrease in billings compared to 1982 figures of 4,266 units worth \$1.9 billion.

### CAB SURVEY

Civil Aeronautics Board survey of 560 essential air service points (EAS) show 83% of respondents are satisfied with FAA's handling of EAS. Over 28% of the

communities felt their service today to be "superior" to that prior to deregulation, 38% described their service as "comparable" and 33% described it as "inferior".

### ELVIS CONVAIR DISPLAY

Elvis Presley's customized Convair 880 will be placed on display at the late singer's Graceland Mansion in Memphis, Tennessee this month. Amenities include a queen size bed, an easy chair, a dining room for eight, two bathrooms with gold plated fixtures, a quadraphonic stereo system, a galley, a close-circuit TV system, and two sitting rooms.

### SPACE COLONIES

NASA Administrator James M. Beggs believes his agencies future could include a manned space station in lunar orbit within about 20 years and a manned colony on the moon's surface by about 2010. Beggs also predicted by about 2030, an initial station on the surface of Mars be under construction, and by 2060, a manned colony on Mars would be "healthy and growing".

### FRONTIER HORIZON

Flew 25.2 million revenue passenger miles last month for a 48.4% load factor.

## Fargo bids

(continued from page 4)

City Construction Company of Fargo, \$2.77 million (\$2.96 million); All-State Paving Inc., \$2.80 million (\$2.96 million); F-M Asphalt, \$2.76 million (\$2.95 million); and Sornsin Construction Co., Fargo, \$3.46 million (\$3.67 million).

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