Beech Starship sets standards

Each season brings its barage of awa-
tion's natural enemies. As ice and snow
make their annual revisit northward, the
winds of spring, and the thunderstorms
and tomatoes that follow, will begin their
agonizing approach across the plains.

Plows that regularly fly in windy condi-
tions can feel headwinds and turbulence as,
some of the things that cause delay and
delay delays. These conditions repre-
se as the route demands a little extra technique,
but certainly not anxi-
ety.

But pilots who wait for calm air and sun-
ny skies before they venture away from the
earth in their flying machines will be unitedly uncom-
n fortably uncomfortable when they are
forced into a situation where they must
directly confront grey or crosswind condi-
tions. Every month or two, on one of those
days when it "too windy" to fly, any pilot,
who wants to keep progress in the weather
he may face, ought to go fly. If he's never
flown in really windy conditions, 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 twelfth spot. The rule is par-
ticularly 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 blowing at about 15 to 20 knots
blows from the west across the north-south
runway. It was observed by the instructor Sat-
urday that was characterized by rapid melting
piles of snow, and the mud that goes along
with the spring thaw. The student made a
design for the winds as he approached
the field. Here he ran into the wind. He触
chose to land in the grass field. After he
landed, he discovered that he had
landed on a huge mound of snow.

This isn't the place to either explain or
debate the best methods for handling win-
dy take-offs and landings. Each instructor
has his preferred method, and each has a
top that the others may not favor. But in the
end, the pilot's goal should be an
awareness of what wind can do, knowledge
of how to comfortably handle them, knowledge
of what his aircraft's limitations are, and realization that full con-
centration is required on such landings to
carry them off successfully.

A tangential hazard that comes with the
winds of spring and summer is the poten-
tial for damage to airplanes that are in-
properly tied to the ground. Most of us
routinely tie or chain the airplane in place,
but we may do it perfunctorily, or 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-
damaged.

Almost nothing will prevent damage to a
plane parked in the path of a passing thun-
derstorm, 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
* Use rope capable of being tied to anchor points, or

The winds of spring

Wichita, Kansas — Beech Aircraft's next-
generation corporate jetliners Starship I, a
revolutionary new composite airplane
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quantum leap in performance, comfort and
efficiency over conventional business jets.

Starship I is the result of a design
methodology calling for improved speed,
greater fuel efficiency, higher altitude capability,
reduced cabin noise, decreased cabin
noise, improved cabin environment, and
better handling characteristics than ex-
cisting corporate turbo props and jets.

An 85-percent scale testbed version of
Starship I made its first flight August 26,
1983, and by the end of the year had made
65 flights and accumulated over 160 flight
hours in an intensive test program.

Beech is targeting to have a full-pro-
test flight in a Flight Test Certification
program by the end of 1984, and formal
certification and initial customer deliveries
by the end of 1985.

A configured advanced-technology
composite material and titanium, the full-
scale Starship will feature:

* A computer-aided, tandem-wing design
configuration, incorporating a 94'-span

The cockpit of Starship I will feature an
"aluminax" instrument panel, with cathode
ray tubes for all flight, navigation and air-
craft performance monitoring systems.

Starship I has a dry gross weight of
12,000 pounds and will be certified at
26,000 feet. It will feature an 8-foot taller
cockpit, which will be featured at the 1984
Super Bowl in Atlantic City.

The cockpit of Starship I will feature an
"aluminax" instrument panel, with cathode
ray tubes for all flight, navigation and air-
craft performance monitoring systems.

Starship I's safety and performance
characteristics will be enhanced by the
use of materials such as titanium, graphite
and high-strength composites.

The cockpit of Starship I will feature
an "aluminax" instrument panel, with
cathode ray tubes for all flight, nav-
igation and aircraft performance monitoring
systems. Enhanced electronic display
technology will provide a wide range of
flight information to the pilot.

Beech Aircraft is a subsidiary of
Raytheon Company.

A configured advanced-technology
composite material and titanium, the full-
scale Starship will feature:

* A computer-aided, tandem-wing design
configuration, incorporating a 94'-span
airfoil swept wing with 79'-span at each end,
and a 26.5'-span, patented variable geometry forward wing
* Overall airplane length of 40.6' from
tail to the trailing edge of the nose.
* Thru-pusher-propfan turbine engines
located inboard, above and rear to the each aft wing.
* Fuel carried in the blended aft "wet" tanks.
* 0.5 psi cabin pressure differential for a comfortable 8,000-foot altitude at an
airplane altitude of 41,000 feet.
* Rate of climb of 3,000 feet per minute
* Range of 3,800 miles.

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F.A.A. CR 504-10

**Around the state**

LIDGERWOOD

Airport Authority will be deciding upon a hanger layout plan in-

terest for a hanger 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 hanger layout plans, lease forms, or

airport operation standards if your airport needs the informa-

**KINDRED**

Has done some airport perimeter fencing to reduce the trespass-

ing on airport property. The Airport Authority will be halting land

acquisition project and considering some runway painting

**TURTLE LAKE**

Is acquiring airport land and clear zone easements for an airport

site 8W of town. Possible late spring construction of the graded

airfield is likely. The ND Aeronautics Commission recom-

mends that all airport authorities acquire acquisition easements to

protect the runway ends from obstructions. Example easement

forms are available from this office to help facilitate this acquisi-

**LAKE WILMANS 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 run-

way extension southwest. 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 filter. 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 a 5-2600' 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 the secon-

dary 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 $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 con-

struction 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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Arbitrating a landing

Power, attitude and configuration are important when arbitrating a landing. Familiarity with these three cardinal principals of the "go-around" procedures is a must. If you must make a go-around, your first concern is power. The reason you make the decision to abort, full-power must be applied until flying speed and controllability is restored, adding partial power as an initiation for trouble. Carburetor heat should be turned off to maximum 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 attempt is acceptable. 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 tensed 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 if escaped due to his failure to apply full power.

Application of power should be smooth. A yaw movement of the throttle in some aircraft will cause the aircraft to tilt or fall resulting in the loss of precious time. This is especially true with carburetor engine aircraft.

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 falling off. If premature, an aircraft on a go-around must maintain an altitude which will permit a buildup of airspeed beyond the stall point before attempting to gain altitude and execute a turn is made.

The aircraft may be 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 airspeed is regain, in clearing the up aircraft configuration during a go-around, your first concern should be with the flight and your next should be with the flaps and the next the flaps by the flaps. If the flaps are extended, the 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 is available to make the aircraft accelerate to climb speed.

Some pilots are afraid of redstone flaps being lowered in abnormal conditions with losing altitude because they feel it cannot be done in this situation. However, if the aircraft is being flown at a greater than the flap-up stall speed, flaps may be retracted without losing altitude.

Nose should be reduced in angles, 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. Experienced pilots may attempt to force the aircraft off the ground or bank excessively and lose control and stall and other may freeze at the controls until the aircraft is over 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 landing under severe conditions, there are no 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 8,000-foot runway will be shut down sometime in July to do the maintenance and upgrades. 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 at least tracks and wear and tear on the runway, he said.

"Until we get all of the stuff done, we don't really know how much 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 have to do but there's just no other way of doing it," he said. "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 1979. 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 service 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 Comair type aircraft, which could land on another runway.

The runway project will be paid for with $1.2 million from the Federal Airport Improvement Program. The award was announced Friday by Senator Mark Andrews, R-AK, who chairs the Senate Transportation Appropriations subcommittee.

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

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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.

The least expensive concrete option, Northern Improvement Co., Fargo, was the apparent low bidder at $2.74 million, followed by F-M Asphalt, Moorhead, 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 (73.04 million), Border States Paving Inc., Fargo, $2.83 million ($3.05 million), Twin

Continued
On Page 8

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Airport of the month

Weydall Field, Killdeer

The Dunn County Airport Authority created in the late 1970s, has developed for the county in the fall of 1983 a paved 4200 x 50' asphalt runway, taxiway, and 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, 3 helicopters were operating from this 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-storied hangar.

The airport is located approximately 1.5 miles northwest of town and just west of the ND Highway 80.

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.
Montana pilot killed by hijacker

A 64-year-old pilot was shot to death by an armed robber at Biskmarck Airport in Bismarck, Mont., after volunteering to act as the suspect's pilot for release of a 15-year-old hostage the suspect had taken.

On January 11, 17-year-old David C. Keith allegedly robbed a pharmacy and kidnapped 17-year-old William Grose Keith was shot by law enforcement officers at a roadside, where he demanded a pilot, an airplane and a parachute with which he could escape in exchange for the hostage.

Post-Harley Shryock, jr., a veteran of combat missions in Vietnam, Korea and Europe, volunteered to fly the 15-year-old Bismarck Beechcraft Bonanza obtained for the encounter.

At Bismarck Airport, Shryock boarded the aircraft, followed by Keith, who pushed the plane away from the terminal.

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

Shryock died shortly thereafter at St Joseph Hospital in Bismarck, Mont., 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

Now you have three ways and up to three times as long to get your best return from wild oat control.

This year, more than ever, Carbyne® 2EC herbicide gives you the best return on investment from wild oat control. Because Carbyne 2EC has the best two-tank mixes with Carbyne. These combinations cut your cost of wild oat control and open the application window clear up to the four- or five-leaf stage of wild oat.

Take a close look at your wild oat control options this season:

Use Carbyne at the two-stage leaf. This is your best choice for lowest cost wild oat control. This is the treatment that can return you up to twice as much as other post-emergence treatments (chart). Key for every $1 you invest in wild oat control. This means that in most cases of new crop application cost is up to 56% less when you use the best two-stage Carbyne mixes with Carbyne. This herbicidal tool is the best two-leaf stage to four-leaf stage.

Tank mix Carbyne with Hocloid. Where you have heavy wild oat infestations with multiple blends — or where weather leaves you out of the field at the two-stage leaf — you can still get excellent wild oat control at a cost-effective price. Tank mixing is the magic formula for Hocloid (see the label for recommended rates). You can control wild oat from the two-leaf stage clear through the 4-leaf stage.

You'll still save. Cost for the new tank mix treatment is up to 53% less than Hocloid applied alone, and the wild oat control is equally good.

Carbyne 2EC herbicide or Carbyne tank-mix cuts cost and give returns you can take to the bank.

Tank mix Carbyne with Avenge. If you're looking for control of heavy wild oat infestations in harry, wetter wheat, where many spring wheat varieties fail, the ideal tank mix is it. It is up to 53% lower in cost than Avenge alone, and you don't sacrifice wild oat control.

Carbyne plus Avenge provides the largest window of opportunity against wild oat — from the 3-leaf stage to the 5-leaf stage.

Pick the Carbyne program that fits your needs. Now you have the choice you need to best wild oat control. Pick the program that pays off. Pick the application window that meets your needs. See your herbicide supplier for more details on the Carbyne 2EC program that's right for you.
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, Wymore
Secretary: Gerald Beck, Wahpeton
National Director: Ron Dick, Hillsboro
ND Director: Steve Hath, Mohall

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 FBI Gontion Chemical Corp. and the NDSU Extension Service SAFE, meaning Self-Regulated Application and Flight Efficiency, is a compartmentalized 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. These results in 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.

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 assail FAA's Trust Fund aid

The Federal Aviation Administration (FAA) wants general aviation pilots to spend more than 37 percent of their federal argas 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-from-ready Aviation Trust Fund in all, FAA wants to strip the Trust Fund of $17 billion to pay for salaries, pencils, paper clips and other administrative costs Commented AOPA President John L. Baker, whose organization represents more than 200,000 general aviation 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 end of state, is "unconscionable," according to Baker.

Eighth two percent of FAA's $65 billion budget request would flow from the Trust Fund. That represents nearly $4 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 enter that the public gets from only 18 percent 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 proposal was for $997 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 2.5 cents of general aviation's 12 cent per gallon tax on gasoline would go toward airport improvement. Thus, according to AOPA, undermines the original intent of the Trust Fund.

Additionally, what Congress, "authorizes" isn't necessarily what Congress, "approves." Last year, for example, $890 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 argas tax dollars itself as they are to spend improving airports and enhancing the national airspace system. This should not be tolerated in any fashion by the aviation community."

The Ag, I'm told to "fight aggressively" AOPA's attempts to cut the Trust Fund for purposes for which it is not intended.
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 element of aerial shows for many years, and recently ultralights have joined the ranks of aerial entertainments. However, it is not only entertaining when the ultralight operator lands 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 on 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 as 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 excluding areas possibly outside those specified 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 those persons are gathered together, and the possibility of bodily harm from the vehicle in the air, be it ultralight or certificated aircraft.

Furthermore, violations of the rule may occur if flight is taken over areas like school grounds or city open areas during periods when they would normally expect to be open, i.e., when no one happens to be present at the time of the flight. For those seeking further definition of a congested area, perhaps the following words appearing in several HTBB decisions will be of interest. "Congested areas, while often to be avoided in all applicable instances, are readily recognizable from 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 various areas there is also no cut and dry test formula for determining how much open space between dwellings or other buildings implies absence of congestion. The presence of school playgrounds, or an airport (under Part 91), must use his judgement in accordance with the intent of the apprule. 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 prevents innocent persons from harm or potential harm. Local ordinances may further restrict flight activities.

Take, for example, a pilot who overfl ies a rural school near Moose, ID, and landed (no emergency involved) on an unoccupied playground to rest with friends on a nearby hill. The pilot's private was subsequently permitted to take off at any time of day, hour, or day of children and teachers would have been in the area and schoolhouse and likely to be outside at any time of the action, when an emergency was involved, such as the people in the schoolhouse to an unnecessary risk, thus, judgement went against the pilot certified, flown by trained, medical and 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 (FAA 91.79 b). The reason for the rule is that given the known standards to which the aircraft and pilot has been certificated, no harm is likely to come to persons on the ground in the event of an infight 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 overlap congested areas at any altitude, precisely because the vehicle is not bound by any design or construction standards, as is the case the pilot's certificate issued, tested, or medically qualified according to any official standards. The freedom from government controls or standards given to ultralights requires that a proportionately greater measure of protection be provided to innocent persons.

Fargo airport bids lower than expected

Bids for the new Fargo airport ramp and connecting roadway approach came in at about $1 million less than a projected $3.5 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 $2.72 million, followed by F-M Asphalt, Moorhead, at $2.78 million.

In the more expensive asphalt sub-base bids, F-M Asphalt was the apparent low bidder at $3.95 million and Allstate Paving Inc., Maple Grove, Minn., was second lowest at $3.95 million.

Joe Parner, executive director of the airport authority, and board members will determine whether the concrete is adequate at an April 8 meeting of 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, $3.3 million asphalt.
- Northern Improvement Co., $2.7 million ($3.06 million), Border States Paving, Inc., Fargo, $2.63 million ($3.05 million), Twin City Construction Company of Fargo, $2.77 million ($3.95 million), Allstate Paving Inc., $2.80 million ($2.95 million), F-M Asphalt, $2.75 million, ($2.95 million), and Seaman Construction Co., Fargo, $3.46 million ($5.67 million).

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

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**Aviation news briefs**

**NORTHWEST ORIENT**
Set records in December 1984 with the boeing of 45,867 passengers in 48 states. The airline will begin service to Dublin, Ireland in June 1984, the airlines north European city

**REPUBLIC**
Begun 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 160 cities in more than 109 airline departures per day from the Twin Cities.

**G A M A**
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 36.5% fewer aircraft and 25.0% decrease in billings compared to 1982 figures of 4,366 units worth $1.9 billion.

**CAB SURVEY**
GAD Aeronautics Board survey of 56 essential air service points (EAS) show 83% of respondents are satisfied with FAA's handling of EAS. Over 28% of the

**Fargo bids**
(continued from page 4)
City Construction Company of Fargo, $27.7 million ($2.96 million), All-State Paving, Inc, $28.60 million ($2.36 million), F&M Asphalt, $27.6 million ($2.95 million) and Sevensen Construction Co., Fargo, $34.8 million ($3.67 million).

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**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 services. The other three are 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 Argus 150LL and Phillips 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 transit facilities offered by Executive Aviation include a large heated hanger, pilot lounge, conference area, passenger waiting room, coffee room, flight planning room with wall maps and direct line telephone, catering, oxygen refill service, APU, preflight 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 just to provide better service and hours of operation to fulfill the needs of the aviation user. 24-hour line services mean fuel and services are available when they are needed.

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