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Hatton Eielson museum now open to public Sundays

By Nancy Erickson Johnson

Many pilots have earned their license while in the armed forces, but when Carl Ben Eielson of Hatton enlisted in the air services of the United States Army, he was one of an adventuring few. Back in 1917, he was one of about 35 pilots flying in that branch of the service.

While not as well known now as Charles Lindbergh or Amelia Erhardt, Eielson had attained worldwide fame before his death in 1929 during an Arctic blizzard. And, in his hometown, the people have accumulated memorabilia about the famous flier and installed it in his boyhood home.

Until recently, his sister Alam Eielson Osking resided in the home. The townspeople, through the local historical society, recently purchased the home from Eielson's nephew.

Since the home had been in the family since 1908, the historical society purchased it complete with furnishings on the first floor and an antique bedroom suite on the second floor, according to Eileen Osking Mork, Eielson's niece. She explained Eielson's personal belongings, a propeller from a plane, and his trophies and medals are included in the home, which is now called the Hatton Eielson Museum.



The childhood home of Carl Ben Eielson in Hatton, N.D. is now a museum with tours open to the public on Sunday afternoons. (Photo by Nancy E. Johnson)

Mork had the opportunity to talk about her childhood home and the Eielson family during the open house held July 25 and 26 at the museum. She said her mother, Alma Osking had always hoped the home would be turned into a museum and few changes have been made. "I am thrilled that the home will be turned into a museum. I know it will be kept up and everything will be in-

tact," she said.

Hannah Eielson Barnard, one of Carl Ben's sisters, came from Florida to help prepare the house for the grand opening. She said she appreciated the reactions of visitors to the museum, when they oohed and aahed over the beautiful furnishings and mementos.

Photos of Mount Eielson, the Eielson Air Force Base and talk of the Eielson Observatory remind visitors Carl Ben Eielson hasn't been forgotten. The mountain and air force base named after the flier are in Alaska, the place where he gained his fame and lost his life.

Reviewing the short life of Eielson, it is found he was the third of nine children, born in 1897 in Hatton. After graduating from high school in 1914, he enrolled in the University of North Dakota at Grand Forks, was a good student and active in outside interests, such as sports and debate.

Not really sure what he wanted to do with his life, Eielson transferred to the University of Wisconsin but stayed only one semester. With the first World War going on, it was hard to stay in college. On January 17, 1917, he enlisted in the air service of the United States Army.

By the time he was certified to fly, the

Carl Ben Eielson was one of N.D. adventuring few 'Back in 1917, he was one of about 35 pilots flying . . .'

war was over and he was mustered out of the service.

Using his flying experience, Eielson became a barnstormer. He had talked other members of the community into forming the Hatton Aero Club in 1920 and the club purchased a Curtiss Standard Model J. According to the local residents who remember those flights, he was better than the posters advertised.

The Aero Club plane was eventually wrapped around a telephone pole at the end of a make-shift runway, but Eielson was unhurt. He did quit flying and return to college, finally getting his bachelor's degree in 1921.

Before the war, Eielson had thought of practicing law as a career, and followed through by attending Georgetown University in Washington, D.C. in the fall of 1921. But, by going to Washington Eielson ended up right back to flying.

Through an acquaintance, he was offered the job as principal of a Fairbanks, Alaska school. He arrived in Fairbanks in the fall of 1922 and gained a reputation for going around trying to interest Alaskans in aviation.

Eielson eventually learned of some stunt jobs and had a Jenny shipped to Alaska. By 1924, he had convinced Congress to try airmail delivery service in the state. He was awarded a contract to make 10 trips from Fairbanks to McGrath, a distance of more than 300 miles.

Eielson was to receive \$2 per mile for the delivery, where it had cost almost twice as much with dog teams. He could make the trip in five to six hours, while the dog teams took nearly a month for the run.

In the report Eielson filed on the first delivery, he noted the first leg of the journey took less than three hours. So, rather than warm up a cold engine in the morning, he decided to return to Fairbanks, expecting to arrive about dusk.

Until the halfway point on the return trip, everything was going smoothly. Gradually, he realized he had gotten off course. The report of this February

continued on page 2



On hand for the July open house at the Carl Ben Eielson home, now a museum, were Hannah Eielson Barnard, one of Carl's sisters, and his niece, Eileen Osking Mork.

He got pilot's job for Alaska air dash

from page 1
flight goes on from there.

"By this time it was pitch dark. I could not believe that I had gotten 50 miles off my course after the same compass course had brot me to Lake Minchumina (the halfway point). I could not see the light of Nenana, so I left the river going east. I thot I must have gotten on the Katishna river, and that I was following it back to Mount McKinley as the country looked flat in the pitch darkness. The sky was entirely overcast; not a star showed. I wandered around completely lost for almost an hour. Then I knew that the river I had left was the Tanana. I saw a light, so I cut my altitude and went down to it. It must have been a trapper's cabin near the Chatanika river. I was tempted to set the ship down there and have a nice place to sleep but knew I would wreck it if I did. I went back to the big river I had left and after following it for some time I saw a light in the distance. I hit for it and it turned out to be my home field. There was a light in front of the hanger."

Postmaster General Mew and President Coolidge both wrote and commended Eielson when they read the report of the delivery. But he still didn't get a contract for airmail delivery in Alaska.

In the fall of 1924, Eielson went back to law school, but that didn't last long. Within a few weeks, Eielson had enlisted in the Army Air Service.

Following work in plane development and inspection at Langley Field,

Virginia, Eielson worked carrying mail in the south. By the summer of 1925, he had returned to Hatton and had almost given up the idea of commercial flying.

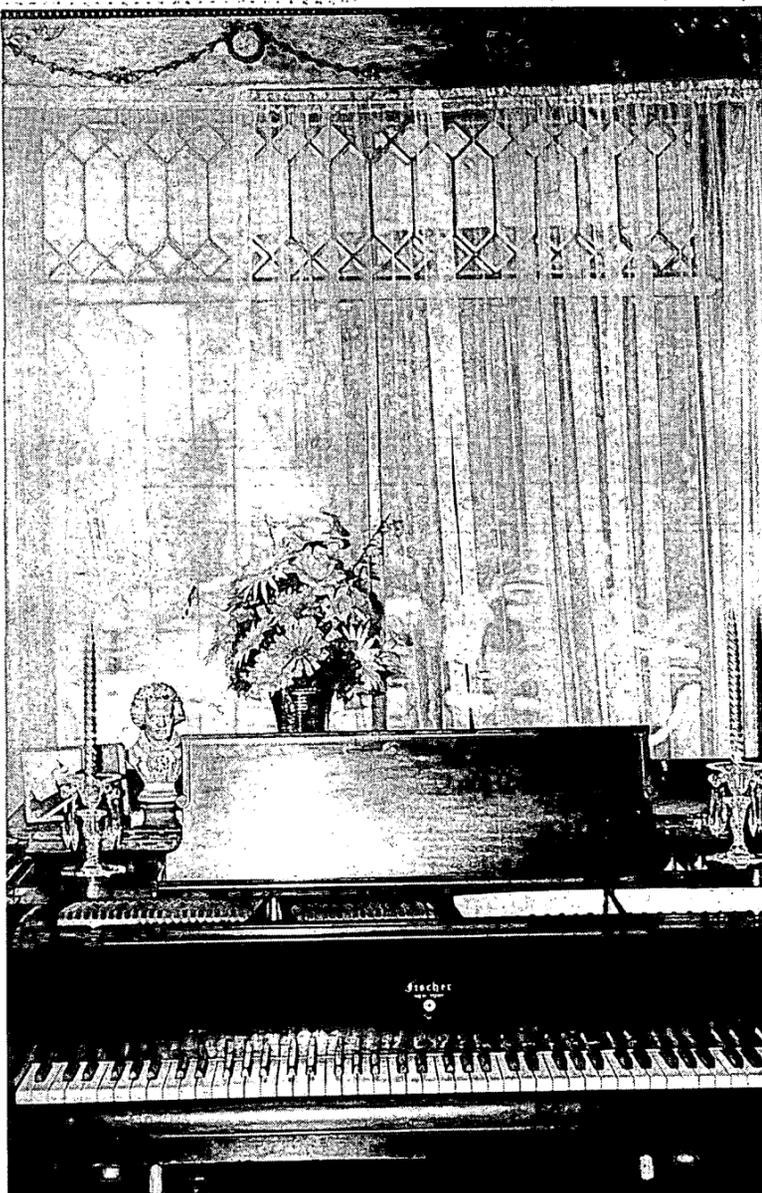
While at Langdon one evening, Eielson received a telegram from Velhjalmur Steffannson, asking him to come to New York. Based on the work Eielson had done in Alaska, Steffannson had recommended him to Captain George Hubert Wilkins. Wilkins was making plans for an air dash from Alaska to Spitzbergen. Eielson got the job as pilot.

A try at making this flight over the top of the world was doomed to failure in 1926. Three planes were taken for the try, two crashed and the third burned. Despite those problems, Eielson and Wilkins were ready to make the try when heavy fogs forced the group to return to the United States.

In February of 1927, Wilkins, Eielson and others again returned to Alaska. On one of the test flights, the two were forced to land during darkness and they were found there on a floating ice cake the next morning. They waited out a storm, and then walked over 100 miles back to a settlement.

This expedition was also abandoned but Wilkins was determined to make this flight over the top of the world. The two adventurers then had a plane constructed especially for the flight, a Lockheed Vega.

After returning to Alaska in February continued on page 3



This scene in Eielson home reflects a time when family entertainment centered around the piano and the piano was often a part of social gatherings. (Photos of Eielson home by Nancy E. Johnson)

Aviation safety seminar slated

The Federal Aviation Administration will conduct an Aviation Safety Seminar and Forum for all aviation users and interested persons on Wednesday evening, October 14, at Chester Fritz Auditorium located on the University of North Dakota campus in Grand Forks, North Dakota, according to Arthur Varnado, Director of FAA's Rocky Mountain Region. The seminar will begin at 7:00 p.m.

"The purpose of the aviation seminar," said Varnado, "is to provide a forum for discussion of safety topics and a means for users of the aviation system to communicate with the FAA. It is important for us to hear firsthand from the people who use the system on how we in the FAA are doing our job and

how we can best serve the needs of aviation in the area," he added.

The meeting, one of a series of meetings to be held in the six-state Rocky Mountain Region, is open to the public and anyone interested in aviation is invited. Safety topics will include accident cause factors, winter flying operations, and landing accidents.

Varnado will be accompanied by members of his staff in the program areas of flight standards, airway facilities, air traffic, airports, and planning. They will be available to answer questions or discuss any problems that are presented.

Those attending the seminar can enter

the nation-wide GAMA "Safe Pilot 81" Sweepstakes, and the winner will receive a \$50,000 airplane or flight training. Attendance will also meet the FAA's Pilot Proficiency Award Program's requirement to attend a safety

Runways painted

Bill Swanston of Traffic and Striping Company, Box 1963, Fargo, N.D. has offered to provide marking on non-instrument general aviation runways including centerline and numerals with paint and reflective beads which meets specifications of the State Highway Department, while in the vicinity of an airport for a quotation of about \$1,500 per runway. He has a contract to do state roads. His telephone in Fargo is 293-7325.

Chemical facts

The use of plastics began in 1869 when an Albany typesetter named John Wesley Hyatt perfected a celluloid billiard ball to replace the ivory pool-room spheres that previously had come from elephant tusks.

Petrochemicals were introduced in the 1920s. In rapid succession came synthetic solvents, organics and fibers, cellophane, plastics, thermal cracking of crude oil, synthetic rubber, cyclopropane anesthetic, vitamin capsules, sulfa drugs and improved fertilizers, pesticides, insecticides and fungicides.

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Additional information concerning the seminar may be obtained by contacting the Flight Standards District Office in Fargo, N.D. (701-232-8949).

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from page 2

of 1928, the two tested the plane. But, before they could take off at Point Barrow, a new runway had to be built through the snow drifts.

Finally, they were ready to take off on April 15. After a take off through between snow banks, the two were airborne for more than 20 hours. They flew through storms and thick fog on their way over the top. As they approached Spitzbergen, they encountered a terrific blizzard and their only alternative was to land.

For five days, the two lived in their plane on Dead Man's Island. When they were finally able to leave, there were only 20 gallons of fuel left in the plane. Much of that was used trying to get the Vega off the ground in the extreme cold and through high snowdrifts. Once they were airborne, it was a 20 minute flight to Spitzbergen and the completion of the unbelievable trip.

The pair was enthusiastically welcomed in Europe, as well as the United States. They were feted by the entire state of North Dakota, as well as numerous cities.

After that feat, the two went off to Antarctica, taking the Vega and another plane just like her. Again, they found they had to build a runway before any flying could be done. Using hand-powered rakes and shovels, they cleared a runway of 2500 feet.

On December 20, they made the first flight over the Antarctic continent. This flight of 1200 miles included the discovery of six new islands. By the time the group left Antarctica, the discoveries made forced the entire map of the continent to be changed.

After their return to the states in 1929, Eielson was awarded in Distinguished Flying Cross. President Hoover also presented him the Harmon Trophy, the highest recognition any flier can receive. Only Charles Lindbergh and Richard Byrd had received this trophy before Eielson.



A July open house drew visitors to the Eielson home, now a museum. Note the fine wood stairway and decorative work in the archway.

Now Eielson had many opportunities to choose from. He could go back to the Antarctic or he could return to Alaska. Since he had dreamed of putting together an Alaskan airline, Eielson took the opportunity to represent an American syndicate in the consolidation of current air systems.

With the backing of this syndicate, Eielson was able to buy independent airlines, creating a merger which is now known as Alaskan Airways. He was named vice president and general manager of the new company.

This new airline had just been created a ship was frozen in the ice off the coast of Siberia. Eielson arranged to rescue the passengers and cargo. Eielson flew in one plane and another plane was flown in at the same time. Both planes found the Nanuk and removed six passengers and some cargo during a storm.

Bad weather kept the planes on the ground for a few days, but on November 9, they ventured out. The first plane returned soon after take off, the pilot saying the weather was too bad.

When Eielson and his mechanic Earl Borland didn't return, the search was

on by Canada, the U.S. and Russia. The wreckage of the plane was found in January of 1930, 90 miles from the Nanuk. When the plane was found, it was impossible to tell what had caused the crash. The altimeter read 1,000 feet in the crashed plane, which had hit at high speed, spreading debris over 200 yards.

Borland's body was found under the snow and ice by mid-February and Eielson's body was found soon after that. Much of the excavation work was done by the Russians, and the map of where they found all the parts of the airplane, as well as the bodies, is hanging in the museum.

About 15,000 people attended the funeral held in March in Hatton. Eielson was buried in the family plot at the cemetery north of Hatton. A memorial arch has been erected at the cemetery.

And for those just driving by the little community in the Red River Valley, a plane mounted in a small park is next to the sign proclaiming Hatton the Home of Carl Ben Eielson.

For those interested in touring the museum, the hours are from 1 to 5 p.m. each Sunday afternoon.

Close your flight plan!

Remembering to close your flight plan can save thousands of dollars in unnecessary expenditures. A pilot who carelessly neglects to cancel his VFR flight plan will trigger the following actions within one-half hour (fifteen minutes if jet aircraft) after his ETA.

1. The FSS at destination will attempt to locate the aircraft by checking adjacent airports that can be reached by government circuits or local telephone. If this procedure does not locate the aircraft, the departure station is notified.

2. If the aircraft is not located within one hour after its ETA, (one-half hour for jet aircraft) an information request is sent to the departure station, to the Rescue Coordination Center and to FSS along the flight route. On receipt of the information request, FSS records are checked and a communication search is made by telephone to airports along the flight route.

3. If the replies to the information request are negative or if the aircraft has not been located within one and one-half hours of its ETA, the destination FSS transmits an alert message (ALNOT) to all circuits serving the search area and the Rescue Coordination Center. If necessary, the search is expanded to the range of the aircraft. On receipt of an ALNOT, stations conduct an extended search. If necessary, commercial communication facilities and local law enforcement agencies are used.

4. If the extended communications search fails to locate the aircraft, or if one hour has elapsed since ALNOT transmissions, (whichever occurs first) the responsibility is transferred to the Rescue Coordination Center, and an air and surface search is instituted. Each hour that the search continues, costs are incurred for men and equipment. This becomes an unnecessary expense if some pilot carelessly forgot to cancel his flight plan.

Part 91.83 (d) states "When a flight plan has been activated the pilot in command, upon cancelling or completing the flight under the flight plan, shall notify an FAA Flight Service Station or air traffic control facility."

Control towers do not automatically close VFR flight plans since they may not be aware that a particular flight is on a flight plan. The FSS is as close as the aircraft radio or a telephone. A little extra attention will help to make air search and rescue more effective and it will also save some money.

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Dickinson slates promo blitz

Dickinson Municipal Airport Authority announced a two part promotional blitz to increase airline passenger boardings at Dickinson on Big Sky Airlines, according to David Halstead, Chairman.

The blitz will combine an advertising promotion with a special rebate plan to passengers purchasing airline tickets, on Big Sky Airlines, which will begin on October 1st and continue through December 31, 1981.

The Airport Authority's advertising is projected to purchase a total of 56 TV spots of about 30 seconds each on two TV stations at Dickinson, along with 360 radio spots of 30 seconds each on two radio stations in Dickinson and nine ads in the local daily press and 5 ads in the local advertiser.

Ticket Rebate

The Dickinson Airport Authority will initiate an airline ticket rebate beginning on October 1, 1981 to December 31, 1981 in which the Airport Authority will provide \$20.00 rebate on each one-way east-bound ticket purchase on Big Sky Airlines VIA Bismarck and \$40.00 for

each round trip ticket purchased between Dickinson and Bismarck. The passenger must originate at Dickinson to be eligible for the rebate.

Passengers purchasing a ticket between Dickinson and Williston OR BEYOND will receive a \$25.00 rebate for a one-way ticket and \$50.00 for a round trip. Passenger must originate at Dickinson.

With the rebate program, the cost of flying from Dickinson will be reduced considerably.

Airport Authority members enthusiastically support this type of program as it will mean better air service and better facilities to the community of Dickinson.

This promotion, if successful, will enable the Dickinson Airport to be classified as a commuter airport, if 2,500 passengers are enplaned during the fiscal year October 1, 1981 through October 1, 1982. At present, Dickinson's airport is classified as a general avia-

tion airport and does not receive as much financial assistance from the federal ADAP program under this classification. If Dickinson can meet its goal of 2,500 enplaned passengers per year, it will be in position to obtain greater financial assistance for airport improvements from the FAA in the future.

Passengers entitled to a rebate, can receive it by returning the original receipt ticket boarding coupon and enclosing a self-addressed stamped return envelope to the Dickinson Municipal Airport, Box 1037, Dickinson, North Dakota 58601. In all cases the passenger must originate at Dickinson to qualify for a ticket rebate.

In the past 12 months, Dickinson enplaned about 1,737 passengers on Big Sky Airlines. Dickinson's goal is to gain at least 763 passenger boardings in the next 12 months or an average increase of 2 additional passenger boardings per day to reach its goal of 2,500 annual passenger boardings.

Big Sky Airlines Cooperates with Dickinson's innovation

Dickinson has long sought a low-line more direct air route between Dickinson and Billings, Montana. On a schedule change effective October 19,

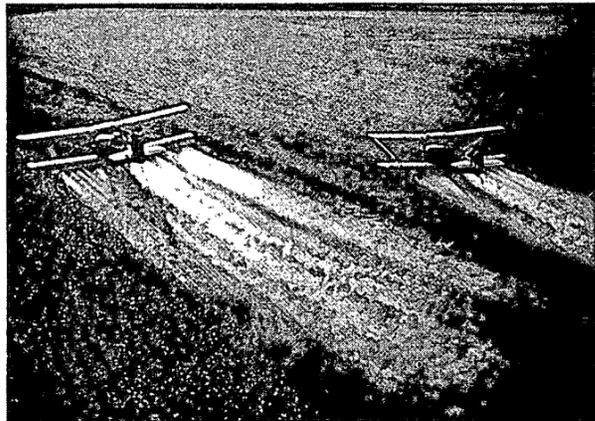
1981, Big Sky Airlines, in addition to its air service between Williston, Dickinson and Bismarck, will inaugurate a new route between Dickinson, Sidney and Billings, Montana. Under this plan, a Cessna 402C aircraft will originate from Dickinson at 5:30 a.m. to Billings with one-stop at Sidney, Montana, arriving in Billings at 7:50 a.m. This pattern will operate Monday through Friday. This new route will connect at Billings with Frontier Airlines to Denver and with Northwest Airlines at Billings to the Pacific Northwest cities including Great Falls, Missoula, Spokane and Seattle, Washington.

The return flight from Billings will leave at 9:15 p.m. with a stop at Sidney, Montana and arrive at Dickinson at 11:15 p.m., where the aircraft will overnight.

On Saturday and Sunday, the Cessna 402C service between Dickinson and Billings will stop at Glendive and Miles City, Montana.

The \$50.00 ticket rebate program for a round-trip will also apply to passengers originating at Dickinson to points on this new route including Sidney, Glendive, Miles City and Billings, Montana, according to Richard Prehal, Manager of the Dickinson Municipal Airport.

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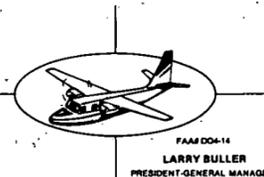
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Airline traffic takes big dip

Commercial airline traffic was down 16.3 percent in North Dakota last month, according to a report provided Wednesday to the state Aeronautics Commission.

Harold Vavra, commission director, prepared traffic figures to illustrate impact of the strike by the Professional Air Traffic Controllers Organization.

The percentage of decline was based on a comparison of August traffic with July figures.

Bismarck showed 23,975 passengers

boarding and deplaning in August, down 15.3 percent from the 28,320 in July. Statewide, there were 69,793 air passengers in August, a drop of 13,567 when compared with the 83,360 recorded the previous month.

Figures for the state's eight commercial airports indicated an August passenger decline ranging from 7.4 percent at Dickinson to 17.3 percent at Fargo, Minot and Jamestown.

"What this showed is that a strike of the nature of the controllers problem affected thinking of individual

passengers" about whether they would be able to make connections at Chicago, Denver and other large centers, Vavra said.

He predicted that air traffic will rebound from the declines in October and November.

Vavra also submitted a report showing that the North Dakota passenger load for Big Sky, a commuter airline based in Billings, Mont., was 4,778 for August, down 16 percent or 912 people statewide from the 5,690 in July.

Big Sky showed 1,747 passengers boarding or deplaning in Bismarck during August, down 19.5 percent from the 2,170 in July. Big Sky passenger traffic at Dickinson was down only 7.4 percent, to a total of 262 in August.

By consensus, the commission directed Vavra to write a letter commending Transportation Secretary Drew Lewis and Federal Aviation Director J. Lynn Helms for their handling of controllers in the strike.

Bismarck Tribune Wed., Sept. 9, 1981

NORTH DAKOTA

AIRLINE PASSENGER DROP IN NORTH DAKOTA IN AUGUST, 1981 COMPARED WITH JULY, 1981 DURING FAA AIR TRAFFIC CONTROLLERS STRIKE WHICH BEGAN ON AUGUST 3, 1981.

City	Total Enplaned and Deplaned Passengers-July '81	Total Enplaned and Deplaned Passengers August, '81	Drop in Passengers In August, 1981 Compared with July '81	Percent Reduction in August, 1981 Compared with July, 1981
BISMARCK	28,320	23,975	4,345	15.3% Reduction
FARGO	28,371	23,457	4,914	17.3% Reduction
GRAND FORKS	12,620	10,661	1,959	15.5% Reduction
MINOT	10,960	9,068	1,892	17.3% Reduction
DEVILS LAKE	256	222	34	13.3% Reduction
DICKINSON	283	262	21	7.4% Reduction
JAMESTOWN	555	459	96	17.3% Reduction
WILLISTON	1,995	1,689	306	15.3% Reduction
TOTALS	83,360	69,793	13,567	16.3% Average Reduction in Passengers Statewide

NORTH DAKOTA

AIRLINE PASSENGER DROP ON BIG SKY AIRLINES' SYSTEM IN NORTH DAKOTA IN AUGUST, 1981 COMPARED WITH JULY, 1981 DURING FAA AIR TRAFFIC CONTROLLERS STRIKE

City	Big Sky Airlines Total Enplaned and Deplaned Passengers in July, 1981	Big Sky Airlines Total Enplaned and Deplaned Passengers in August, 1981	Drop in Passengers in August, 1981 Compared with July, 1981	Percent Reduction in August, 1981 Compared with July, 1981
BISMARCK	2,170	1,747	423	19.5% Reduction
DEVILS LAKE	256	222	34	13.3% Reduction
DICKINSON	283	262	21	7.4% Reduction
GRAND FORKS	431	399	32	7.4% Reduction
JAMESTOWN	555	459	96	17.3% Reduction
WILLISTON	1,995	1,689	306	15.3% Reduction
TOTALS	5,690	4,778	912	16.0% Average Reduction in Passengers Statewide

Eight airport-aid grants approved

The North Dakota Aeronautics Commission approved state airport-aid grants for paying fifty percent of the cost of improvements and equipment at eight general aviation airports totaling \$82,000, according to Harold G. Vavra, Director.

Airports receiving grants are:

Bottineau-\$24,500-Supplemental amount for paving runway, taxiway, apron and for clear zones.

Breckenridge-Wahpeton-\$22,190-for purchase of land, for runway extension.

Crosby-\$2,115-for runway seal and purchase of radio control of runway lights.

Killdeer-\$7,625-for gravel apron, water

well, runway lights and and install water and sewer.

Lakota-\$10,000-Supplemental amount to pave runway, taxiway and apron.

Mohall-\$5,225-for fencing, install water and sewer and for purchase of grass mower.

Richardton-\$350.00-for runway markers and reseed turf runway.

Westhope-\$9,908-for runway crack major repair and drainage and purchase of tractor and mower.

State funds are received for these projects from a 4 percent excise tax on the sale price of aviation motor fuels sold in North Dakota.

Safety at Dickinson...

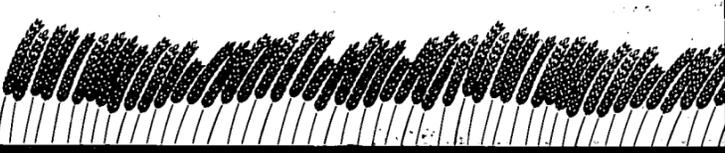
Richard (Dick) Prchal, Manager of the Dickinson Municipal Airport announced that the Rocky Mountain Region of the FAA has agreed to install a VASI (approach lighting) on the Northwest-Southeast runway at the Dickinson Municipal Airport. The system is to be

installed 100% out of F&E funds of the Federal Aviation Administration. Prchal said that the Dickinson Airport Authority will install strobe lights on both ends of the runway at its own expense to further enhance night safety at the Dickinson Airport.

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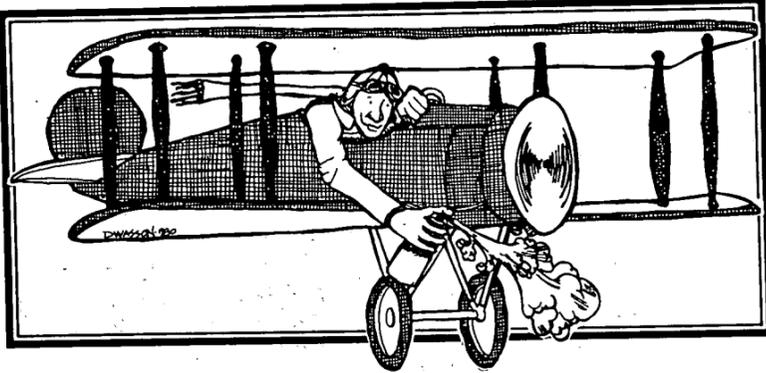
Safe laundering important, too

Safety is very essential for anyone working with pesticides. When handling pesticides, solutions may accidentally be spilled or sprayed on wearing apparel. Because pesticides can be absorbed into the body through skin, it is important that clothing worn when applying pesticides be handled with special care.

Ruth R. Gulbrandson, clothing and design specialist with the North Dakota State University Cooperative Extension Service, reports here on recent research findings in the safe laundering of clothing worn when applying pesticides.

A research study, **Methyl Parathion Removal from Denim Fabrics by Selected Laundry Procedures**, was recently completed at the University of Nebraska by C.B. Easley, J.M. Laughlin, R.E. Gold and D.R. Tupy.

The investigation included three formulations of methyl parathion: emulsifiable concentrate, encapsulated and a wettable powder.



Fabrics selected for the study were denim of 100 percent cotton and 50/50 cotton/polyester blend. The fabrics were cut into 3 1/2" x 3 1/2" (8x8 cm) swatches, immersed in the methyl parathion formulations, removed and air dried.

The following laundry procedures were examined for their effectiveness in the removal of methyl parathion from the fabrics:

Pre-rinse: Each contaminated swatch was pre-rinsed for two minutes in warm water at 49 degrees C, then laundered in a 12-minute hot water (60 degrees C.) phosphate detergent wash and rinsed twice in warm water.

Phosphate detergent wash: This procedure was the same as in procedure above, except for omitting the pre-rinse cycle.

Phosphate detergent wash plus an ammonia laundry additive (3.5 percent to 4 percent ammonia concentration): The ammonia laundry additive was added to the wash cycle.

Phosphate detergent wash plus a bleach laundry additive: A liquid chlorine bleach laundry additive (5.25 percent sodium hypo-chloride) was added to the wash cycle.

The results of the study showed:

Pre-rinsing was effective in a more thorough removal of methyl parathion from the fabric.

In this study, there was no difference in the removal of methyl parathion from the cotton or cotton/polyester fabric.

When comparing the use of ammonia and bleach as a laundry additive, bleach was slightly more effective than ammonia in removing methyl parathion from the fabric.

Researchers participating in this study strongly recommend that:

Garments be pre-rinsed, laundered in hot water and rinsed thoroughly.

Garments be line dried, not machine dried. If laundering does not remove pesticide residue from garments completely, it can accumulate in the dryer. Additional loads of clothing will then absorb the residue.

Washing machines be cleaned after washing clothing worn when applying pesticides.

To clean a machine, run it through a complete wash cycle with hot water and detergent, and no clothing, advises the specialist. If pesticide residue is left in the washer, additional loads of clothing could absorb the residue.

Additional research is in progress on safe methods of laundering clothing worn while applying pesticides, Gulbrandson reports.

Chemistry facts

Antoine Lavoisier, the French chemist who died on the guillotine in 1794, is commonly considered the father of modern chemistry by virtue of his studies of oxygen. He formulated his theory of the conservation of matter and laid the basis for chemical nomenclature.

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What causes crop damage

Producers must take into account other factors besides herbicides if their crops are showing signs of injury, recommends Duane Berglund, extension agronomist at North Dakota State University. Too often herbicides are blamed for the damage while other factors may be the cause.

Look for extra holes in leaves or stems, stem injury and root pruning caused by insects or rodents. Ragged, yellow chlorotic and deformed leaves could be due to a plant disease.

Also look for patterns of crop damage in the field, suggests Berglund. The herbicide or fertilizer applicator may not have been adjusted correctly or soil types may vary within a field. The coarse textured, sandier soils usually show more injury than the heavier, fine textured clay soils.

Wind abrasion is a problem in row crops such as sunflower, dry beans and soybeans, especially on drier, coarse textured, sandy soils. Herbicide drift problems from neighboring fields

could also occur.

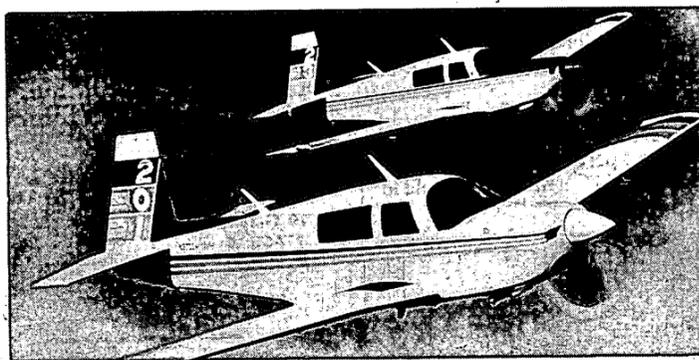
Other factors to consider include: applying too high a rate of herbicide, improper fertilizer placement, using the wrong herbicide for the particular problem, improper agitation of a herbicide mixture, not following the label correctly, improper methods of application of severe weather conditions such as excessive rainfall, hail, drought, frost and high daytime temperatures.

When evaluating the damage on crops, don't be too hasty! Give the plants a chance to recover. Check growing points to see if the plants have potential for recovery.

Know the history of the field and the possibility of herbicide residue carryover from the year before. Keeping good records of the chemicals applied, the rates, the time of day, daily temperatures plus the wind speed and direction will help determine the factor or factors causing your crop damage, adds Berglund.

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Around the state

- ASHLEY** has traded some of its existing airport land for a new parcel of land to develop 4,750' of turf runway. They will also move some obstructions located north of the E-W grass strip which is currently rough due to grass clumping.
- MEDORA** The Aeronautics Commission is looking into plans to develop a 4400' grass strip on top of the butte where the existing airport is located.
- WESTHOPE** has plans to do a seal coat job next year on their runway. The runway has 43 large cracks caused by flood damage in the middle 1970s which must be cut out. Crack repair and drainage ditch cleanup will be done this fall.
- TOWNER** must explore the possibility of county supported mill levy to help fund the pavement job needed on the airport. The Airport Authority has acquired the land NW of the runway 16 end to insure its ownership of the runway approach surface.
- RICHARDTON** Thanks to Hebron, the Richardton Airport will receive Hebron's extra daylight boundary markers. Richardton has a 4000' turf runway west of town but is hard to find from the air. The center area of the runway is the smoothest with grass clumping along the edges.
- LEEDS** may have a new airport location in five years or so due to the Highway #2 project passing through the airport land. Pilots note the unmarked powerline SE of the airport during landings and take-offs.
- DRAYTON** Airport Authority is reviewing plans for the future such as land acquisition, runway extension, pavement and clear zone easements. This community is the only one out of five airports in the County without pavement.
- ELLENDALE** has a chip seal project on all asphaltic surfaces completed. A new one plane hangar has just been built. Future plans are to develop or gravel auto parking area.
- LAMOURE** has 8 aircraft and 2 helicopters based on the airport. The airport has just added a seal oil to rejuvenate the asphalt cement to hold the chips in place. Future plans will be to fill the cracks with a permanent rubberized crack filler.

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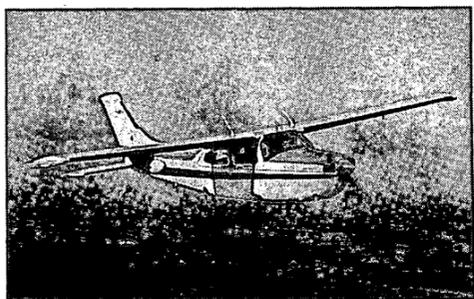
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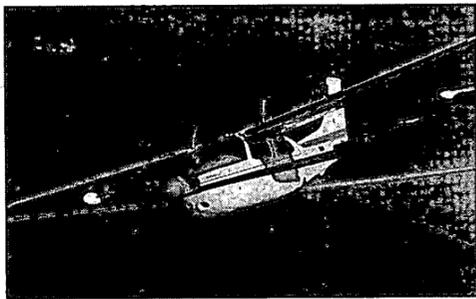
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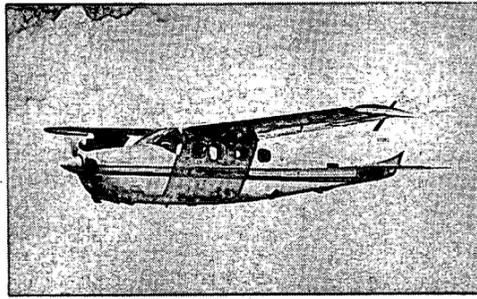
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