Raymond Heinemeyer, Bismarck and J. M. Kurke, Fargo were elected directors from North Dakota at the annual meeting of the International Northwest Aviation Council held at Yakima, Washington September 25-27, 1955. Raymond Heinemeyer is manager of the Bismarck Municipal Airport and Vice Chairman of the North Dakota Aeronautics Commission. Col. John M. Kurke is Wing Commanding Officer of the North Dakota Civil Air Patrol. Also attending the Council meeting from North Dakota were Leland Brand, Taylor, Member of the State Aeronautics Commission and Harold O. Varra, Director.

Wallace Hart of Emmett, Idaho was elected President succeeding Al Baxter of Yakima. The 1956 annual meeting will be held at Boise, Idaho. One hundred fifty registered for the annual meeting from the Northwest states and Canada.

NORTH DAKOTA SPRAY PILOTS GET EXPERIENCE DUSTING COTTON IN SOUTHERN STATES

Several North Dakota pilots extended their aerial dusting operations to southern states in the past six weeks. The infestation of boll weevil and boll worm was creating a condition almost as desperate as the army worm infestation in the Red River Valley last year, according to Daniel Wakefield, owner of Wakefield Flight Service, Devils Lake, North Dakota. Dan spent five or six weeks at Canton, Mississippi where he hired out as a pilot with a local dusting organization. Canton, Miss. is located in the central part of the state about 160 miles from the Gulf of Mexico.

Editor's Note: Dan can claim some fame for his work in Mississippi, since the Editor received a copy of the Madison County Herald, Canton, Mississippi entitled: "A Hazardous Day in Life of Cotton Duster". The story is complete with pictures of dusting operations and one of Wakefield standing near the Aercona duster with a heading, "An Old Bold Pilot". The local firm for which Wakefield worked stated that: "He's the best I've seen. All the farmers try to get him to dust their cotton". It is apparent that southern farmers like the type of work done by North Dakota dusting pilots, since others in the state in the southern states this year got compliments on the quality of work and coverage by the cotton growers.

It so happened that the infestation of boll weevil in cotton came after the regular North Dakota spraying season, so that this work was something extra for those pilots who wanted to taste more hazardous flying than is found in North Dakota.

Wakefield said that in some respects aerial spraying in North Dakota is like a Sunday School Picnic compared with the hazards involved in dusting cotton in the south. As in most areas the greatest hazard is man made namely, highline and telephone wires. In many small cotton fields power lines cross them without benefit of any visible poles in the field, since the poles are hidden by trees on the side of the field. In many instances telephone wires are run on the same pole as the highline, only below them at a height making it impossible to fly beneath the wires. This can be a fooler as one pilot said: "You should be able to see a tree, but a powerline—that is something else again".

Dan reports that the area where he worked is quite wooded with trees that seem to be about 100 feet tall and in some cases they are located around a three to five acre field of cotton. In this area the average cotton field is from 10 to 15 acres. The biggest one that Wakefield dusted was in the order of 70 acres.

Cotton this year in many southern areas was the rankest that many a farmer could recall with some cotton as high as five feet tall. This made it impossible for the farmer to get a tractor into the field to dust for the boll worm and boll weevil. The same fields are often dusted as many as six or eight times at four to five day intervals. This, of course, is an advantage for both the pilot and operator. Dan reports that they dusted with the following chemicals: Arsenate of lead, parathion, benzene hexachloride and toxaphene. During the latter part of the season they applied a defoliant which is very effective in that it speeds up harvesting.

Wakefield said that both Piper Cubs and Aeronas used for dusting had the wind-shield and all window glass removed in order to prevent the pilot from breathing too much dust. He noted that the first day or two a pilot has a "wind tossed" feeling.
NORTH DAKOTA SPRAY PILOTS GET EXPERIENCE DUSTING COTTON IN SOUTHERN STATES (Con-
t'd)

This additional drag also changed the flight characteristics of the airplane some-
what.

Dan further advised that those pilots that are interested in cotton dusting, that
there probably will be plenty of work available since the rate of attrition is
definitely higher there than in North Dakota. He also believes that a good
aerial spraying and dusting course could reduce many of the accidents.

Warren Walkinshaw, Argusville, N.D. operated three 450 HP Boeing Stearman's
in the West Memphis, Tenn. area and in Mississippi dusting cotton for about a month
to six weeks. Warren reported similar conditions with most of the fields being
small and requiring a dive bombing approach over obstructions. Warren also reported
that the going rate of four cents per pound and 15 pounds per acre did not make it
very profitable for operators coming in from the outside, considering the hazards
involved. Warren put out three to four hundred thousand pounds of dust while down
there.

Other North Dakota operators down south this year were Vince Bums, Northwood;
Marburger Bros., Williston; and William Goughnour, Carrington, N.D.

DOWNDRAFTS

Editor's Note: The following information is a partial quotation taken from a Pilot's
Newsletter of a scheduled air carrier and is reprinted for your information.

"It is wise to refresh from time to time our thinking about the need for cau-
tion and judgement when landing on airports where dropoffs at the end of the runways
present vertical walls over which it is necessary to approach.

"During periods of strong winds, substantial downdrafts should be anticipated.
Similar downdrafts may be encountered on very hot days where the heated runway and
relatively cool adjacent wooded areas set up a local circulation. As if the dow-
ndrafts weren't bad enough, the sheer wall at the end of the runway compounds the
hazard especially on short runways.

"Certainly, under no condition should extremely short landings be attempted over
these dropoffs. Downdrafts are sufficiently unpredictable to make it unwise to
assume none exists even on cool, calm days.

"It is not good technique to make low flat, power-on approaches over such ob-
structions. Assuming the same airspeed, a higher approach, with a little less
power and a greater rate and angle of descent should produce an increased margin of
safety. Hanging on the props in a nose-high attitude is no way to tangle with a
downdraft I'm sure you will agree.

"Taking on extra airspeed takes the curse of downdrafts but unhappily can
produce other evils. Balancing one problem against the other takes sound judgement
and experience. There is no cure-all method for flying through downdrafts at the
end of cliff-like approaches to runways. The intent here is to focus on the problem
and urge alertness, judgement, and care."

In this column we will accept a limited number of FOR SALE AND WANTED TO BUY ITEMS

WANTED TO BUY

Wanted Cessna model 140 airplane. Desire 1948 year or later. Contact Raymond Kolb,
Lemmon Aircraft, Lemmon, South Dakota.

FOR SALE

For sale one Warner 145 HP engine with less than 50 hours since major overhaul.
Engine removed from plane to install bigger engine. Also for sale some Fairchild
24V-9 parts, oil tanks, spars, gas tanks, two wings that may be repaired, two
ailerons for 24V-9 Fairchild. Also have inner and outer engine cowling for 145 HP
Fairchild and one new 145 HP propeller and an engine mount to fit a F-24. Contact
D. T. Jones at Fort O'Minot, Minot, North Dakota.

NEW WIND SOCKS

Airtex Products Company, 22 Union Street, Morrisville, Pa. has brought to our
attention a new line of wind socks which may be obtained with safety slogans in-
scribed on the sock.
NEW WIND SOCKS (Cont'd)

Standard replacement wind socks are available from the above company without the inscription at the following prices:

18 in. dia. and 8 ft. long ........ $ 6.75
24 in. dia. and 8 ft. long ........ 7.25
36 in. dia. and 10 ft. long ........ 11.00
36 in. dia. and 12 ft. long ........ 13.25

The above wind socks are also available with a safety slogan inscribed on each side such as "Check the Weather", "Safety First", "File a Flight Plan" for $2.00 extra for each wind sock. When purchased in lots of 12 or more there is a 15% discount. Prices are FOB Morrisville, Pennsylvania.

WANTED TWO AERIAL SPRAYING PILOTS FOR FOREIGN WORK

Wanted two competent spray pilots for foreign work. Pilots must have commercial license with instructors rating, plus A & B rating. Salary open. Contact Duane Stueb, President, Air Activities, Inc., Hector Airport, Fargo, North Dakota.

TREES, FENCES HAZARD TO SMALL PLANES—CAA

WASHINGTON, D. C.—More small-plane accidents involved collisions with trees, fences, and other objects on the ground than any other type of mishap, according to an analysis of accident reports received by the Civil Aeronautics Administration, U.S. Department of Commerce, during the month of August.

Reports on 312 accidents of various types were received during the month. Many of these small-plane accidents were minor, since any incident causing more than $100 damage to the aircraft is defined as an "accident". There were, however, 35 fatal accidents causing 52 fatalities.

As usual, most of the accidents could have been prevented if pilots had followed good operating practices. Experience offered no immunity to accidents; pilots with long experience contributed to some of the most easily avoidable incidents set forth in the reports.

There was, for example, the airline transport pilot with 9872 hours of flight time. In his spare time, he delivered small single-engine planes for a manufacturer in Pennsylvania.

While he was so engaged one pleasant day, cruising at 4500 feet over a dry lake in California, he released his safety belt and reached into the back compartment for a map. At that instant, the aircraft encountered turbulence. The pilot was thrown to the ceiling and knocked unconscious. He did not regain consciousness until after the plane had crash-landed itself on the desert floor.

The pilot had been acquainted with turbulence, of course. But his experience in transport aircraft, which take moderate turbulence in their stride, failed to prepare him for the jolt which such turbulence can deliver to a small aircraft. Nowadays, he never forgets to keep his seat belt fastened, regardless of how nice the weather looks.

In another accident, a commercial pilot's 4200 hours did not impress him with the importance of keeping out of thunderstorms and turbulent weather when flying small aircraft. He took off in the face of "a little storm developing near the airport," and suffered a broken leg in consequence.

"I remember a strong tail wind," the pilot's report said. "Then I noticed a haystack on my left, and the wing was blowing out from a strong east wind. Then my airplane seemed to pivot to the left, and after it completed a turn, I hit a violent downdraft."

"I went down just like an elevator and with a lot of forward speed. I remember using full throttle and full elevator control just before I hit the ground."

The tabulation of small-plane accident reports received by the CAA in August was as follows:

Groundloop.............................................37
Wheels-up Landing................................9
Hard Landing....................................20
Collapse or Retraction of Landing Gear......9
Undershoot.......................................23
Overshoot........................................27
Nose-Up or Nose-Over............................17
Collision with Trees, Fences, Other Objects...77
### TREES, FENCES HAZARD TO SMALL PLANES—CAA (Cont'd)

<table>
<thead>
<tr>
<th>Collision with Ground or Water</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stall or Spin</td>
<td>61</td>
</tr>
<tr>
<td>Airframe Failure</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>312</strong></td>
</tr>
</tbody>
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**MUST NOTIFY CAA**

Owners who sell their aircraft must notify the Civil Aeronautics Administration immediately, under newly-effective Regulations of the Administrator. Notification formerly was required only when there was a change of address.

Under the new regulations, the burden is on the former owner to notify the CAA immediately of the sale or export of a plane. Then the new owner, before he can fly the aircraft, must mail to the CAA a completed Application for Registration form, a bill of sale or other evidence of ownership, and $4 registration fee. As soon as this is mailed, he can fly the aircraft for 60 days since the aircraft legally is "deemed registered" whenever the owner has "submitted" the required documents to the CAA.

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**HETTINGER, N.D. Installs Runway Lights**

(Completes Airport Improvements)

The Editor has been advised by Alvis Cora, Chairman of the Airport Board, that the Board in cooperation with the City of Hettinger and the Hettinger Chamber of Commerce has completed an extensive modernization program at the Hettinger Municipal Airport. Al Cora, who is also Mayor of Hettinger and a pilot, says that the improvements to the local municipal airport are in keeping with the increased use of air travel for business and pleasure. It is also a step toward making air travel easier and safer. The Chairman of the Airport Board, in a letter to the editor, urges all pilots to use Hettinger's facilities whenever they are in the area.

The NW-SE runway has been hard surfaced and oiled together with a taxi strip from the NW-SE runway to the main hangar. Seventy-five feet in the center of the NW runway is hard surfaced and oiled, with an additional 12½ feet on each side of the hard surfaced runway, which has been graveled; and a usable runway of 160 feet wide by 3,500 feet long. There are no obstructions at either end of the NW-SE runway.

In addition there is a 2,600 ft. N-S turf runway with no obstructions, and a 2,600 ft. E-W turf runway with no obstructions.

Runway lights have been installed on the NW-SE runway, with the side runway boundary lights only on the south side of the runway, and three end boundary lights on each end. The lights will be on from dark to 10 o'clock Mountain time. The lights may be turned on for anyone wanting them after 10:00 p.m. by circling town.

Orville Alexander is the local operator at the airport. He holds an A&P license and a commercial pilots certificate. A qualified A&P is in attendance during daylight hours with a shop equipped to do major repair work. 90 Octans gasoline is available for aircraft.

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**WAHPTON MUNICIPAL AIRPORT TO CONSIDER RUNWAY LIGHTS**

Harold G. Vavra, director of the Aeronautics Commission, is scheduled to meet with the Chairman of the Airport Committee of the City of Wahpeton and the Wahpeton pilots club on October 19th to discuss the availability of federal aid airport funds for improvements at the Wahpeton Municipal Airport. The City is considering the installation of runway lights and double-ending of the beacon light. Richard Dyer is the local operator at the Wahpeton Municipal Airport.

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**IDEAS FOR PROMOTING BUSINESS -- FOR FIXED BASE AVIATION OPERATORS**

The editor in getting around the state sees and hears of many different ideas for promoting aviation business by fixed base operators. These ideas are passed along for what they are worth.
Several North Dakota fixed base operators find that it pays to advertise aviation services whether it be by the press or radio.

For example, one fixed base operator contracts with a local radio station for 300 spot advertisements annually on a yearly contract basis. This way he gets a special rate which is lower than usual, with the option of utilizing the spots whenever he directs, as long as the 300 are used during the contract year.

The nature of this operator's business may dictate the advertising of GI student instruction during the early spring, fall and winter; the advertising of aerial crop control services in the summer or calling attention to repair services available. This type of advertising, to a certain extent, helps control the type of business coming to his door. In the summer this operator may want to devote 80% of his time to aerial crop control work, thus he will steer his advertising in this direction. A short spot radio advertisement does not necessarily sell student instruction; however, it should be aimed at arousing interest of the young man and the extent that he or she will drive out to the airport to get more details. The selling job comes when the prospect enters the operator's place of business. Then it is up to you.

The same type of advertising may be placed in the local press. Here again the aim is to arouse the interest of the individual to the point of action. The same approach may be taken through the medium of television; however, the cost may be higher.

Another approach is direct mail. In the case of selling aviation services, repairs, gas and oil to pilots that own airplanes, your best bet may be direct mail to the actual pilots in the area. Remember the State Aeronautics Commission prepares an annual mimeographed list of some 1,200 pilots in the state with addresses. This may be obtained upon request to the Aeronautics Commission.

What about charter business? Any city of 1,500 population or more has distributors and dealers in various products that have one or more salesmen on the road covering a wide territory. The salesman in question may be spending three-fourths of their time driving and one-fourth of their time selling or contacting customers. One fixed base operator in a city of less than 8,000 population in North Dakota surveyed several distributors and found that in one or two instances sales personnel took three or four days to cover an area (major cities) driving an automobile, when it could be covered in one day by chartering a plane. The result—the operator obtained an excellent charter account. In this instance the distributor is dollars ahead, since it costs money to keep a salesman on the road on expense account.

A fixed base operator that began business about a year ago in a city of a little over 5,000 population in North Dakota has developed some novel ideas for promoting student and charter business.

In this case his operation at the Municipal Airport was new and the operator wanted the local citizens and the area farmers to know that the airport had an operator who was set up for charter, aerial crop spraying and student instruction. How could this be accomplished in the minimum of time with the minimum expense? The County has a newspaper with a circulation of something over 6,000. The operator approached the editor of the newspaper with the suggestion that the paper start an aviation column which would carry strictly news about the municipal airport and the various activities there. This suggestion was acceptable to the editor, but who would write such a column? Who was best qualified for such a job, other than the man who made the airport and its activities his interest and livelihood. The operator thus became the airport reporter. At present he writes a story of from 1,500 to 2,500 words which appears every two weeks in the local newspaper which has county-wide circulation. Of course, the stories must be objective. They cover airport activities which is news. The column covers the names of new students, pilots that fly-in, and general aviation activity. The important thing is that the citizens of this City and County probably found out more about this particular airport and what transpires there in six months than they probably learned in five years previously. It is obvious that objective stories are bound to create local community interest among potential students, businessmen and others.

The City in question does not have any manufacturing of any size; however, there are several medium-sized dealers and distributors who have salesmen traveling over a large area to major cities in the state. As a result of investigating situations of this type, this operator has built up a Charter business which now runs from $300 to $500 per month, which is considered excellent for a city of this size.

Another idea which may be useful to those operating GI flight training schools. The problem is how to reach potential students that are entitled to GI benefits under the GI Bill and who are veterans of the Korean Action. Several operators have gone to their County Auditor and secured the names and addresses of discharged Korean veterans. It is no problem then to make a direct mailing to the Veteran telling him of your flight training program. Most counties list three or four hundred Korean Veterans.