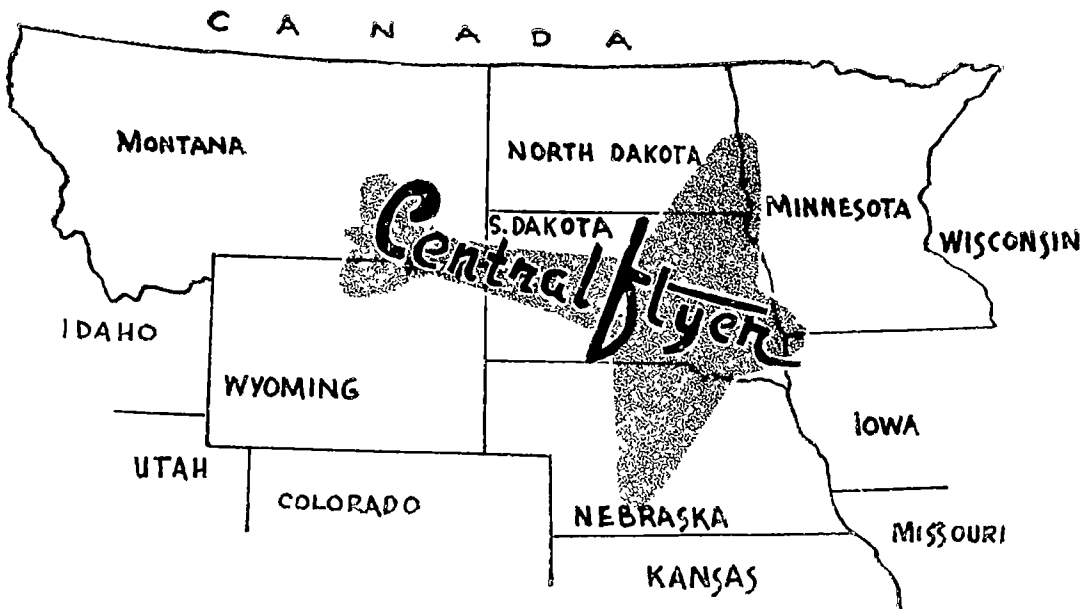


Central Flyer

Continuing "DAKOTA FLYER"

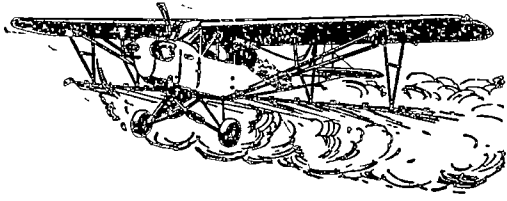
FEBRUARY 1949

20c



*Aviation in the
North Central States*

PLANNING ON — AERIAL OR GROUND SPRAYING?



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Martin
South Dakota

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Vol. IV

FEBRUARY, 1949

No. 2

PURPOSE: "To give information with exactness of truth, not to omit anything that the public has a right to know; to use always an impersonal, yet proper, style without prejudice to rigorous and forceful critical thought"

EditorCARL THOMPSON
Advertising and CirculationELLA THOMPSON

One Year Subscription—2.00
Advertising Rates Furnished Upon Request

CIVIL AERONAUTICS ADMINISTRATION

Third Region

ITINERARY FOR FEBRUARY, 1949

- Feb. 8—Tuesday...Municipal Airport
Jamestown, N. D Flight Tests
- Feb. 9—Wed ...Municipal Airport
Bismarck, N. D.....Flight Tests
- Feb. 10—Thurs...Worth Field
Dickinson, N. D Flight Tests
- Feb. 15—Tues ..Municipal Airport
Grand Forks, N. D. Aircraft, Flight and Written Exams.
- Feb 16—Wed ...Port O'Minot
Minot, N. D.Aircraft, Flight and Written Exam.
- Feb 17—Thurs ..Wright Field
Williston, N. D. Aircraft, Flight and Written Exam.
- Feb. 24—Thurs ...Municipal Airport
Crookston, Minn Aircraft, Flight and Written Exam.

Written Examinations may be taken Monday through Friday of any week at 209 Walker Bldg, Fargo, N. Dak. Aircraft and Flight Tests at Hector Field, Fargo, N. D., may be secured by appointment only.

Fourth Region

AVIATION SAFETY DISTRICT OFFICE No. 8

FOR February, 1949

- Feb 3 —Thurs. ...Municipal Airport
Sioux Falls, South Dakota .. Aircraft, Flight and Written Exam.
- Feb 7—Mon ...Municipal Airport
Huron, South Dakota .. Aircraft, Flight and Written Exam.
- Feb 10—Thurs ...Municipal Airport
Aberdeen, South Dakota Aircraft, Flight and Written Exam.
- Feb 14—Mon...Municipal Airport
Huron, South Dakota Aircraft, Flight and Written Exam.
- Feb. 17— ..Rushmore Field
Rapid City, South DakotaAircraft, Flight and Written Exam.
- Feb 21—Mon...Municipal Airport
Huron, South DakotaAircraft, Flight and Written Exam.
- Feb. 28—Mon ...Municipal Airport
Huron, South Dakota ... Aircraft, Flight and Written Exam.

*Evening Writings

F. W. LUNEBURG
Aviation Safety Agent

Gentlemen's Corner



One of our distinguished women flyers from South Dakota that comes under the category of "Gentlemen's Corner" is Mrs. Dorothy A. Woodward of Longvalley. She received her flying instruction from Halley Airport in Rapid City in 1943. In 1944 she bought a Aeronca Chief in partnership to build up her cross country time. It was then that she really learned the utility of the airplane, flying for repairs, carrying eggs and dressed chickens, plus a few trips with baby chicks for mother and neighbors. Dorothy's private license is dated 1944 and is followed by over 700 hours of flight time. She now owns her second Taylorcraft and besides being very helpful on a large ranch she sells life insurance for Union National Life Insurance Co. As she married a little over a year ago she has this bit of advice to the women "More women should learn to fly as Mr. Husband isn't apt to have both the car and plane at the field."

Dorothy Arnold Woodward did an outstanding job of flying after the recent blizzard in western South Dakota. Besides all the regular marketing flying, she was of great service in spotting of lost cattle and emergency work.

**THIS IS YOUR
NEWSPAPER — WE
WELCOME YOUR
NEWS AND PHOTO-
GRAPHS**

STATE AERONAUTICAL NEWS

For North Dakota

REGISTER 851- AIRCRAFT IN '48

Aircraft registrations for 1948 show an increase of 244 aircraft or 40 per cent over the number registered in 1947. During 1948 the Aeronautics Commission registered 851 aircraft compared with 606 during 1947, according to Harold G. Vavra, Acting Director of the North Dakota Aeronautics Commission.

The North Dakota Aeronautics Commission will pay 53 county treasurers a total of \$10,028.96 which represents the counties apportionment of the 1948 resident aircraft registration fees collected. Total resident aircraft license fees amounted to \$13,371.86 compared to the 1947 collections of \$5,090.31. The county apportionment is 75 per cent of each resident aircraft registration fee as provided by the 1947 Aeronautics Act. The county treasurer in turn must pay the apportionment funds to municipalities within the county owning or operating municipal or public airports. The funds are specifically earmarked for airport construction, maintenance or improvements. Aircraft registration revenue increased 162 per cent during 1948 compared with 1947 which is accounted for by the large increase in the number of resident owned aircraft along with the fact that 1947 registration fees were one half of the normal fee since the law became effective July 1, 1947.

The ten highest counties in aircraft registrations follows:

1. Cass 63 aircraft
2. Burleigh 39 aircraft
3. Ward 38 aircraft
4. Grand Forks 37 aircraft
5. Williams 33 aircraft
6. Hettinger 32 aircraft
7. Walsh 31 aircraft
8. Bowman 29 aircraft
9. Stutsman 27 aircraft
10. Pembina 27 aircraft

The money apportioned to the 53 counties will be paid out to the respective county treasurers the first of February, 1949.

NORTH DAKOTA AERONAUTICS COMMISSION Receipts and Distribution of Aircraft Registration Funds Jan. 1, 1948, Ending December 31, 1948

County	Total for Distribution	County Share (75%)	State Number Share of Air-planes (25%)
Adams	\$ 181.66	\$136.25	\$ 45.41 11
Barnes	179.62	134.72	44.90 11
Benson	183.53	137.65	45.88 13
Billings	33.48	25.11	8.37 4
Bottineau	303.79	230.09	76.70 20
Bowman	426.51	319.88	106.63 29
Burke	45.00	33.75	11.25 3
Burleigh	575.56	431.67	143.89 36
Cass	1171.79	878.84	292.95 63
Cavalier	302.51	226.88	75.63 21
Dickey	108.39	81.29	27.10 5
Divide	275.48	206.61	68.87 16
Dunn	285.31	213.98	71.33 17
Eddy	199.35	149.51	49.84 13
Emmons	30.00	22.50	7.50 2
Foster	337.87	253.40	84.47 21
Golden Valley	239.66	179.75	59.91 14
Grand Forks	547.41	410.56	136.85 37
Grant	101.70	76.28	25.42 6
Griggs	215.92	161.94	53.98 13
Hettinger	490.73	368.05	122.68 32
Hidder	20.25	15.19	5.06 1
LaMoure	140.80	105.60	35.20 9
Logan	15.00	11.25	3.75 1
McHenry	243.42	182.57	60.85 16
McIntosh	82.19	61.64	20.55 4
McKensie	184.01	138.01	46.00 14
McLean	333.64	250.23	83.41 24
Mercer	198.10	148.58	49.52 16
Morton	155.73	116.80	38.93 11
Mountrail	265.10	198.83	66.27 19
Nelson	125.25	93.94	31.31 8
Oliver	22.50	16.88	5.62 2
Pembina	435.75	326.81	108.94 27
Pierce	244.83	183.62	61.21 17
Ramsey	237.33	178.00	59.33 17
Ransom	86.36	64.77	21.59 6
Renville	258.49	193.87	64.62 15
Richland	237.22	215.42	71.80 20
Rolette	150.96	113.22	37.74 9
Sargent	68.52	51.39	17.13 4
Sheridan	69.39	52.04	17.35 4
Sioux	41.26	30.95	10.31 3
Slope	52.12	39.09	13.03 4
Stark	360.84	270.63	90.21 24
Steele	67.13	50.35	16.78 5
Stutsman	502.13	376.60	125.53 27
Towner	358.09	268.57	89.52 22
Trall	332.98	249.74	83.24 19
Walsh	470.93	353.20	117.73 31
Ward	607.37	455.53	151.84 38
Wells	206.14	154.61	51.53 11
Williams	509.76	382.32	127.44 33
	\$13,371.86	\$10,028.96	\$3,342.90 848

*In addition three complimentary registration certificates issued to state agencies.

NORTH EAST WEST SOUTH

CRUISING AROUND OUR AIRPORTS

Investigation of Plane Crash

Investigation of the aircraft accident in which two Pembina county men were killed Sunday, January 2, 1949 near Crystal, N.D. (Thomas Jordan 42, of Hensel, and Joseph G. Gudmundson 34, of Edinburg) has been completed by Pembina County Sheriff Fred O. Spangelo. According to Harold G. Vavra, acting director Aeronautics Commission Spangelo's report revealed that Thomas Jordan of Hensel, the pilot carried a student pilot certificate therefore Jordan was in direct violation of State and Civil Aeronautics Administration rules which prohibit student pilots from carrying passengers. According to the Sheriff's report the aircraft was flown under poor weather conditions, low ceiling and icing conditions.

Sheriff Fred O. Spangelo reported the aircraft was being used for aerial fox hunting. Checking with the records of the State

Game and Fish Department it has been determined that Thomas Jordan did not have a State permit to hunt predatory animals from aircraft. Aerial hunting permits are issued to pilots only having at least 400 hours of total logged flying time of which 200 hours must of been the same type of aircraft. A student pilot cannot qualify for a State permit nor an Aeronautics' Commission low flying waiver. The Piper Cub aircraft destroyed in the crash belongs to the St Thomas Flying Club.

Harold G. Vavra, acting director said "Accidents of the nature where the pilot is not qualified to either carry passengers or engage in aerial hunting is considered a gross violation of air safety rules designed for the welfare of the general public, passengers and individual flyers."

WORLD'S SMALLEST PLANE MAKES ITS BOW IN CALIFORNIA

"El Cajon, Calif.— The Wee-Bee, midget plane, described by its designers as the world's smallest piloted airplane, completed its first flight yesterday.

"The tiny craft, with a wing span of fifteen feet, a length of thirteen feet and weight of only 150 pounds, was a complete success in its first flight, its designers and the test pilot agreed.

"The craft is flown by a pilot lying prone on top of the fuselage, like a winged man. The pilot Bill Bouck, was held on by harness. He reached the controls, inside the plane, through two armholes. Mr. Bouck made several short flights above the runway, taking the plane, up to a height of twenty-five feet. He said he could easily have flown higher.

"The builders, all employed by a San Diego, Calif., aircraft company and all licensed pilots, spent six months of spare time on the plane. It cost them \$200.

FOR FEBRUARY, 1949

spoke on the subject of advertising and sales. He cited several rules in successful relations with John Q. Public.

Tentative plans were made to hold the next meeting at Aberdeen, on March 14th, inasmuch as the state weed conference will be held in that city on March 15 and 16.

STONE IS LAID AT IDLEWILD FOR U. S. BUILDING

The cornerstone for the first permanent building at the New York International Airport at Idlewild, Queens, was laid yesterday afternoon by Howard S. Cullman, chairman of the Port of New York Authority.

While riveting machines being used in construction of the steel framework of the new \$4,500,000 gray brick building were temporarily silenced for the ceremony Mr. Cullman told those present that the three-story structure would be completed by spring. Among the guests at the cornerstone laying were officials of the Civil Aeronautics Administration and the United States Weather Bureau, the two Federal agencies who will occupy the building.

"Delos W. Rentzel, Civil Aeronautics Administrator, who flew to Idlewild from Washington to participate, asserted that passenger air travel throughout the world had increased more than 1,000 per cent during the last ten years and would be stimulated to even greater expansion during the next decade by developments such as Idlewild Airport.

"Mr. Rentzel, recalling that 78 per cent of all commercial airplanes in the world today are American-built, said that the future of aviation was 'limited only by the imagination and energy of the American people' . . .

"Since we opened this International Airport on July 1 there has been a steady growth here of all types of business." Mr. Cullman said. "Plane movements have increased from 760 in July to 1,208 in October, to make a total of almost 4,000 since the airport opened.

"In July we handled 2,375 passengers, and this number increased to 13,400 in October. Altogether, about 35,500 passengers have arrived at and departed for the airport up to now" . . .

PAGE FIVE

SDATA MEET AT HURON

The South Dakota Aviation Trades Association convened at Huron on January 10 for a regular meeting of the association. Attendance was far below average because of the great blizzard in western South Dakota.

Of major interest were the new amendments sought by the association in the current Legislature. Most important of these features is the licensing of aircraft and pilots through the various Counties. This is in preference rather than directly with the Aeronautics Commission. This chapter also exempts aircraft registered annually by the owner from any personal property tax except when the owner fails to use said aircraft, in which case it will be taxed as personal property. Also the collection of sales tax on an aircraft only once, and a reciprocal agreement between other states.

It is also the desire of the association to change the title of the Aeronautics Commission's Executive to Director of Aeronautics.

Mr. Arthur Pugh of Sioux City



Vernard Knoll (center) and his son, Vernard, Jr., are more fortunate than thousands of Western Nebraskans. They received mail and copies of The World Herald from a relative, William Knoll, operator of the Knoll Flying Service at Kearney, who dropped in with the delivery for ranchers in that area during a relief flight. Hundreds and hundreds of farm homes will be without mail service for many days. The picture was taken on the Knoll ranch northwest of Stapleton. The rancher reported 15 head of cattle missing and that others in the area had similar losses.—World-Herald News Service Photo.

BLIZZARD OF '49

Many chapters have been written in the history of aviation, some go unnoticed, yet others leave their imprint on the lives of thousands of people.

Such is the story of aviation and the Blizzard of '49. It would be impossible to make honorable mention of all the people that have flung their planes through the many hazards of cold weather and blizzard conditions of western Dakota's and Nebraska to aid in sickness, food shortage, fuel shortage and the several thousand of lost cattle in this stricken area.

Talking to some of the old timers they start to make comparison to blizzards such as the one in 1888, yet the blizzard of '49 is second to none.

Only the pilots that played such a hero's role in bringing relief to people that were isolated, realized the first terrible impact of the blizzard area. After a few days the Red Cross stepped in and declared the area an emergency. Until that time the pilot's time was donated as they winged their supplies to such areas as Bennett County, Haakon County, Pine Ridge Indian Reservation, The West River, Potato Creek, and the Porcupine area.

The Private and Commercial Pilots, The Red Cross and the

Army are to-day working side by side in alleviating the tense situation. The "air lift" is still hauling tons of Red Cross food to isolated ranches and towns. Blizzard conditions continue to exist in many of the same areas. Pilots have flown passengers, cargoes and special feed which was earmarked to save hundreds of deer and cattle in the hills, doctors and medicine and vital foodstuff. These flyboys rose to meet the occasion.

On each returning trip the pilots brought back important information as the extent of the blizzard damage and where help was needed most. In many instances this was the only communication available as people were cut off from the rest of the world. While these pilots flew their missions of mercy the commercial radio stations played an ever important part in donating free time to ease the minds of the public in informative information on where the loved ones were and the conditions as they were informed.

A program instigated by Rep. Francis Case for dropping livestock feed from Air Force C-47 and C-82. The Air Forces also sent in Helicopters for the emergency. These men were experts in rescue and emergency work as

they had just returned from the daring rescue from Greenland ice cap last month and from here they proceeded to Mexico, where a flood emergency has been declared.

As we go to press blizzard conditions still exist in the north-central states, frequent phone calls are still coming in from snowed-in ranchers needing supplies.

Stories, Articles and quotations from this magazine are authorized with credit line taken from "February Central Flyer."

SAFETY PROGRAM

The Aeronautics Commission is continuing its safety program by distribution of a new safety booklet to all North Dakota airports entitled "Let's Look at Spin Crashes". The booklet is printed by the Civil Aeronautics Board. 60 copies are being mailed to all airports. The safety guide covers:

- 1 Intended Normal Operation of aircraft.
- 2 Loss of Power.
- 3 Showing Off.
- 4 Air-show stunt flying.
- 5 Attempted visual flight in instrument weather.
- 6 Intoxication.
- 7 Crop spraying and dusting.
- 8 Hunting Predatory animals.

Additional copies may be had by dropping a penny post card to the North Dakota Aeronautics Commission, Bismarck, N. D.

STATE AERONAUTICAL NEWS

For Nebraska

NEBRASKA VETERANS

The Department of Aeronautics has made a survey of aviation activities throughout the state, to find out how veterans are entering into aviation activities. The survey also determined that there is a demand for aviation-trained personnel in all forms of business and that VA curtailment of G. I. Flight Training was hindering all aviation business.

Aviation is definitely a growing business and although it offers no restriction as to age, the veteran, because of his wartime training, is the most logical prospect for employment.

The State Department of Public Instruction and Department of Aeronautics have approved 99 flight schools and satellite fields to offer flight training under the G. I. Bill. This training is still available to those who can show justification.

These schools employ a total of 393 trained persons, who are employed in the capacity of airport managers, flight instructors, line-men, bookkeepers and secretaries, A&E mechanics, ground instructors and aircraft sales and charter. Seventeen of these schools need additional personnel. At the present time, 42 per cent of all of the personnel employed by approved flight schools in Nebraska received all or part of their training under the G. I. Bill for the position they now hold.

There are 22 operations approved in Nebraska for aerial crop spraying, who employ not less than 47 commercial pilots. One operation is approved for aerial paper delivery, which employs not less than 2 commercial pilots. Two operations are approved for pipe line and telephone and telegraph line patrol, which employ not less than three commercial pilots. These businesses are all expanding by leaps and bounds and more pilots are needed every day.

There are 3 airlines operating in Nebraska, which employ approximately 400 persons in the State, who act in the capacities of pilot, flight engineer, and ground personnel. CAB recently passed a

new ruling which will require all airlines to employ a flight engineer on all four-engined equipment. To qualify for flight engineer, a person must hold a valid commercial license.

There is a large number of manufacturers, wholesale and retail supply houses, private businesses, farmers and ranchers, and others, employing commercial pilots, and using aircraft in connection with Nebraska businesses. This number is increasing rapidly and is shown through the increased aircraft sales for executive use.

War-trained GI's and veterans trained under the GI bill have accounted for a decided increase in the aviation business in all parts of the U. S., not only from the standpoint of their flying, but through their experience and training spreading the doctrine of safe, efficient and fast travel.

On June 30, 1947, there were 805 registered aircraft in Nebraska. On June 30, 1948 there were 1952 aircraft registered, an increase of 30 per cent. On June 30, 1947 there were 1282 registered pilots in Nebraska. Now there are 3200 pilots registered, showing an increase of 150 per cent.

On June 30, 1947 there were 127 licensed airports in Nebraska, which includes municipal, commercial, private, and personal-use fields. On June 30, 1948 there were 232 registered airports in Nebraska, an increase of 83 per cent.

On June 30, 1947 there were 63 schools approved to offer Veteran training. On June 30, 1948 there were 99 schools and satellites, approved to offer Veteran Training, an increase of 57 per cent.

On June 30, 1948 we had 97 personal-use fields registered with the Department of Aeronautics and used by farmers and ranchers in connection with their operations.

The Nebraska 1948 Federal Airport Program calls for an expenditure of \$2,080,171.00 of public funds. These funds are being spent because of increased aviation activity created largely by the Veteran Flight Training Program.

WAKE IT UP CAREFULLY

Airplanes, Like People, Are Inclined to be Groggy and Irritable if Awakened Rudely

If your plane has not seen frequent use during the winter months, a thorough check-over will pay dividends in smooth performance and longer life.

There is always the possibility that your plane has been bumped by another ship or a workman. A careful examination should be made of wings, fuselage, and propeller, and damaged spots repaired. Propeller alignment needs checking and the bolts must be examined to see that they are tight and safetied.

The engine needs attention after a period of inactivity. The propeller should be pulled through by hand in order to free sticky places and to drain the excess oil from the bottom cylinders in radial engines. Spark plugs need to be taken out and thoroughly cleaned of gum and carbon.

The fuel and lubrication systems should be drained and cleaned of sediment. Oil strainers and drainage points are likely to have accumulated moisture and sludge which will interfere with smooth engine performance if they are not drained.

It is likely that ignition wires, exhaust lines, and controls have not been tightened for several months. Now is the time for a complete examination of everything within the ship which can become loose. Worn pulleys and cables have been responsible for loss of control in many accidents, and spring clean up time is a good opportunity to eliminate the chances of a breakdown in flight.

Pilots need brushing up, too, and a check out will help to correct the bad flying habits which sneak up on the best of us. A good time to improve your pilot ability is in the spring after a period of inactivity. Coordination may be rusty and reactions slow. An hour spent with an instructor is time and money well spent.

MAC SERVICE LETTER



Milk Flown to Isolated Nebraska Town

Still isolated Monday by snow-blocked roads, Grant, Neb., is getting its milk supply by air. Dean Davis (left) and Red Meiners are shown loading milk into a plane at Ogallala, 20

miles north of the Perkins County town Grant has no dairy. Both pilots have flown many aid missions to ranches and isolated farms since the blizzard struck Western Nebraska

last week. Mr. Meiners, manager of the Ogallala airport, hauled in the body of an elderly man who died a natural death in Arthur County 40 miles away.—World-Herald Photo.

ORIGINAL WRIGHT PLANE RETURNED TO U. S.

The original aeroplane with which the Wright Brothers made the first human flight at Kitty Hawk, North Carolina, on December 17, 1903, became the property of the American people December 17, 1948. It will be kept in the custody of the Smithsonian Institution.

By original scientific research the Wright Brothers discovered the principles of human flight. As inventors, builders, and flyers, they further developed the aeroplane. They taught men to fly, and opened the era of aviation.

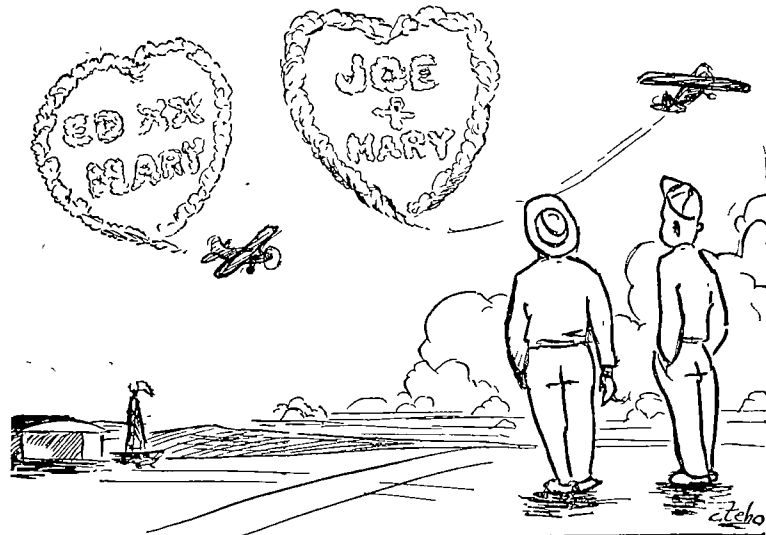
"The first flight lasted only twelve seconds, a flight very modest compared with that of birds, but nevertheless the first in the history of the world in which a machine had raised itself by its own power into the air in free flight, had sailed forward on a level course without a reduction in speed, and had finally landed without being wrecked. The second and third flight were a little longer, and the fourth lasted 59 seconds, covering a distance of 852 feet over the ground against a 20 mile wind."

The historic aircraft, most treasured object in aviation history, was presented by Milton Wright of Dayton, Ohio, on behalf of the estate of Orville Wright Acceptance was by Chief Justice Fred M. Vinson, Chancellor of the Smithsonian Institution.

Vice-President-Elect Alben W. Barkley, a Regent of the Smith-

sonian Institute, delivered the address of acceptance.

The ceremony took place in the North Hall of the National Museum's Arts and Industries Building. Here the Kitty Hawk plane will remain on display, where it will be the first object of attention when anyone enters the building. It will eventually have the place of honor in the new National Air Museum.



"YES, IT SHOULD GET VERY INTERESTING . . ."

STATE AERONAUTICAL NEWS

For Montana

SHORT COURSE IN AERIAL SPRAYING PLANNED

The Montana State College and the Montana Aeronautics Commission are jointly sponsoring a two-day short course on aerial spraying and dusting. The course is to be held at the State College in Bozeman on March 17 and 18.

In general, the course will cover spray equipment, chemical materials and their application, along with the effects on plants and insects. Special emphasis will be placed on spraying and dusting problems pertaining to Montana.

Guest speakers who are specialists in different phases of spraying and dusting will attend. They include Dr. Brown, who is head of all spraying operations for the Royal Canadian Air Force and the Canadian government; Mr. Evenden the entomologist for the U S Forest Service and Department of Agriculture; and Mr. Geiser, who is the chief spraying pilot for the United States Department of Agriculture.

Other notable speakers will include Dr. Pepper and members of his staff of the State College Department of Entomology, and Mr. Robert Warden, a weed control specialist of the State College.

An open discussion is planned to gain the views of the short course participants on the type of regulations, if any, that may be needed to control aerial spraying and dusting in Montana.

AIRCRAFT ACCIDENTS

Two pilots were injured in an airplane crash 15 miles north of Ray, North Dakota January 6, 1949. Ray is located 25 miles northeast of Williston.

The men, Bill McFarlin 24, and Duane Hoehn, 24, both of Ray, were flown to Williston following the accident. Their physician said Hoehn suffered two broken legs above the knee, a fractured kneecap, and bruises about the face. McFarlin suffered a broken arm and bruises about the face.

The Aeronautics Commission received the following accident report from Wilhelm A. Hamre,

State Highway Patrolman: The aircraft involved was an Aeronca NC 29486 owned by Duane Hoehn and John D Tank of Ray, North Dakota. According to the official accident report the plane took off from the airfield at Ray and flew in the general area northwest of the community Duane Hoehn, pilot of the aircraft, holds a private pilot's license with 140 logged flight hours. The passenger, William McFarlin, also holds a private pilot's license. The pilot apparently spotted a fox and turned in steep bank (with about 100 ft of altitude) in an attempt to follow the animal. In the process of executing the steep turn at very low altitude the aircraft crashed to the ground. It is believed that the pilot either stalled in the turn or mis-judged his position in the turn and flew the ship inadvertently to the earth. It is well known that any pilot may lose or gain 100 ft. in a steep banked turn due to misjudgment on the amount of corrective elevator needed to counter-act the loss of

lift in a steep banked turn. Bruce Wright, Williston, North Dakota, manager of Wright's Fling Field inspected the aircraft following the crash and found the controls of the ship worked freely. Ceiling and visibility were unlimited. The aircraft was a total loss.

The pilot, Duane Hoehn, did not have a State Game and Fish Permit for the aerial hunting of predatory animals. The Aeronautics Commission has established a rule that requires at least 400 hours of total logged flying time for all applicants undertaking aerial hunting of predatory animals. In any event the pilot could not qualify for a permit. The accident is being further investigated to determine whether or not the purpose of the flight was for aerial hunting of predatory animals. The pilot did not have a low flying waiver for this activity.

The accident again demonstrates the fact that it does not pay to violate safety rules which are made for the welfare of the pilot and the public generally.

NOTICE!

This firm is a member of the North Dakota Aviation Operators Association. In order to co-operate with the C.A.A. and the State Aeronautics Commission, in the promotion of civilian flying in this state we are pledged to the following:

1. There shall be no reckless or unnecessarily low flying in this area. Not only is this strictly against regulations but its continuance will make the expansion of private flying facilities in this state impossible because of public indignation.
2. All persons guilty of hazardous flying will be blacklisted by the association.
3. All persons blacklisted will be prohibited from flying from any association airport and his or her name will be made public for a period not to exceed one year.
4. All major air ports in the state of North Dakota are members of the association.

WE EARNESTLY SEEK YOUR SUPPORT

The North Dakota Aviation Operators Association is making an attempt to stamp out low and reckless flying in the state of North Dakota. Each member operator is now displaying this large 14x22 poster at their home town airport. They have further asked the cooperation of the states of South Dakota, Montana and Minnesota to make public names of buzz artists for the pro-

tection of the public, and aviation in general. The resolution reads in part, "Whereas the typical Buzz artist is a dangerous pilot and according to all reports of the C. A. A. is foolishly displaying his ignorance of good judgment and good flying ability, and low and reckless flying is contradictory to all rules and regulations of the state and Civil Aeronautics Administration."

"Aviation Information"

Prepared for you by F. Trumbauer
Assistant to Regional Administrator
For Personal Flying Development

Heaters

Comfort and Safety in Flight Depend Upon Proper Maintenance of Heating Equipment.

Heaters for small planes are mostly of the heat exchanger type and use waste heat from the exhaust gases. The essential feature of such a system is a duct which surrounds a portion of the hot exhaust pipe from the engine. Air from outside, or from within the cabin, is passed through the duct and is warmed by the exhaust pipe. An efficient heater will include an enlarged section of the outer duct so that the air will come in contact with a larger area of hot metal.

The heat exchanger has the advantages of simplicity and efficiency. It does not add much weight to the aircraft, and large quantities of warm air are available for winter comfort in the cabin.

The heat exchanger also has disadvantages which must be realized by the pilot of any aircraft which is so equipped. The most dangerous possibility is leakage of carbon monoxide. Gases passing through the exhaust pipe have a temperature of about 1,500 degrees F., and they eat away the metal. A crack or opening in the pipe will allow carbon monoxide to enter the stream of air into the cabin. It is essential that the entire heater unit be examined periodically for corrosion or cracking, and that worn sections be replaced.

Some hot air heaters consist of two exchangers. The first is the same as the one just described and takes heat from the exhaust gases. However, the heated air in the duct does not go into the cabin, but passes through a second exchanger where it heats the air in another duct. There is not much chance of failure in this second exchanger because the air is not hot enough to cause rapid corrosion of the metal. Obviously, the heater with a double set of exchangers is not as likely to throw poisonous carbon monoxide into the cabin. Its lower efficiency is not important in a small plane

because there is plenty of heat in the exhaust gases.

The pilot must always be alert for indications of carbon monoxide poisoning. It can come from a leaky exhaust pipe as well as from a defective heater. Any feeling of drowsiness while flying in a closed cabin is a danger sign. Windows should be opened at once, and exhaust lines thoroughly checked for leaks at the first opportunity.

Flight Maneuvers

Practically any flight maneuvers can be accomplished by a skillful pilot without exceeding the limit load factor. The rule necessary to remember is to make pull ups gradually. At high diving speeds there is also more danger of flutter. The 'NEVER EXCEED' speed on the placard of every certificated airplane represents the upper limit for which the airplane has been analyzed and tested. Although the airways keeps the following rules in plane may be good for higher speeds, its airworthiness at such speeds has not been established and is, therefore considered as a violation of the principles of safe operation. At any speed in this region, in fact, the pilot will have to be extremely careful, as it is an easy matter to produce a dangerous load.

Statistics

Personal Aviation consumed 16½ million hours in 1947 — and traveled 16½ billion miles. For each 10,000 hours of flight instruction there was a 2% accident ratio. 89% of all fatal non-air-carrier accidents are attributed to stall or collision. 66 percent of these accidents are attributed to pilot error, and a great percentage of these accidents could have been eliminated with the proper pilot education.

There were 884 accidents due to pilots attempting to fly in adverse weather, and 666 accidents due to the pilots' selection of bad terrain.

Tailwind Tattler

I see where Bill Odom had to delay his non-stop flight from Honolulu to New Jersey. Bad weather set in and caused the delay. He plans to fly a Beech Bonanza in an effort to set a non-stop record of more than 5,000 miles. The present record is less than half that distance.

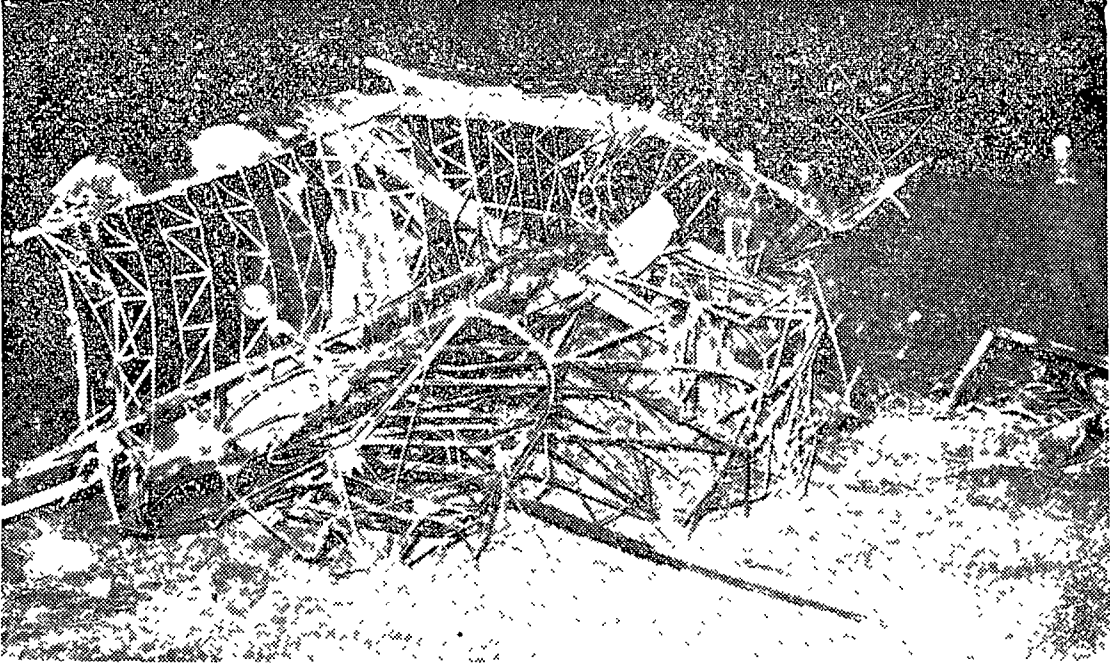
Down in Nebraska I see where Emil Aksamit took to the air to alienate the affections of Mrs. Louis Kramer from her husband, this is all according to Hoyle according to charges on file in the Lancaster County District Court. Mr. Kramer charged that in his campaign Mr. Aksamit lured his wife to Omaha, and buzzed the Kramer home in an airplane. He also parked his plane in front of the Kramer home.

Now Mr. Kramer seeks 25 thousand dollars damage, because he almost lost his wife, and his appetite as well.

Makes no difference if you want to go straight up, or go ahead in this world, but the Army air force "Faster than sound" Bell X-1 has made its maiden flight. It is reported that the tiny plane reached an altitude of 23,000 ft. in one minute and forty seconds. Capt. Charles Yeager, the first pilot to exceed the speed of sound was at the controls. The flight took place out at Murco in California.

A priest, Father Ostran was bit ten by a dog at an Arctic outpost of Igloodik this month. The Royal Canadian Air Force completed a mercy flight to Igloodik and dropped vaccine to the ailing Roman Catholic priest.

In Australia the cattlemen are trying out the possibilities of an airlift to save thousands of dollars each year. At present the cattle are driven several hundred miles from the lonely Kimberley region of western Australia to meatworks on the north coast. The death rate on these long treks is very high.



"RECKLESS AND LOW FLYING" . . . THIS MAY BE THE RESULT. YOU MAY BE NEXT . . . SAVE A LIFE — "YOUR OWN"

Making the Airport Self-Sustaining

By KARL E. VOELTER

Within the past year and a half considerable information has been written and recited on the development of non-aviation revenues at the larger airports. Behind it all however, lies a story of pioneering, so to speak, to which a great amount of the credit due should be directed to that too-often-criticized group, the Civil Aeronautics Administration.

A little more than two years ago, after realization that the general public had become cognizant of the fact that a certain amount of their tax dollar was being allocated to the maintenance of their local airport, and learning further of the prevailing lack of knowledge of the general public in the value of their airport to the community, the CAA set the wheels in motion to really do something about it. It was not unusual to discover, and still is not today, that the great majority of the tax payers generally regard their local or municipal airport simply as a necessary spot for a "chosen few" of the local citizens to land their personal aircraft on, and beyond that to believe that they, the public, apparently subsidize the commercial airlines in the carrying-on of

their vast business of air transportation. To think of their airport as an institution of value to the community, and as a logical spot for commercial development seemed entirely beyond average understanding or conjecture.

The operation of a profitable airport is nothing new to many of us who remember profitable fixed-base operations in years gone by. Those were more or less in the days however, when little operating expense was incurred by municipalities in the maintenance of their airports. Airport permit development was, until a few years ago, practically untouched, and why, I cannot tell you. As a matter of fact, and as a long-time airport manager who presumably possessed all of the money-making propensities known to aviation, I am reluctant to now look back to those days when none of us realized the real worth of commercial development on airports. We call it non-aviation development, or non-aviation revenue, and it means just that. Most of the revenue producing means on successful operated airports today have little or no relation to the operation of aircraft.

As I started to state in the fore-

part of this article, the CAA, being faced with the realism and necessity to do something about this nonaviation revenue producing development, sought the services of about seven of the "old-time" airport managers — men who had reputation as good business men as well as good operators — men who possessed vision in airport development, and especially those who could conduct and absorb the studies they were about to make, and who later could disseminate the information they had gained through contact and perseverance — who were open-minded, and who were willing to learn something about the businesses to which they had devoted many years of their most active lives, and who now realized the necessity of the incorporation of outside businesses on modern airports.

With those few old-timers distributed throughout the U. S. one to each CAA Region, the study was commenced, and almost instantly they became aware of innumerable suitable businesses for airport installations. Today, the results of those studies are favorably reflected from Coast to

(Continued on page 13)

Over My Desk



Dear Editor,

Received our directory and think it will prove very helpful to pilots. Looking through the directory I find you have the wrong information listed for Edgeley airport

The airport you have listed has now been abandoned and the location of the new field is three miles North of Edgeley on the west side of the US highway 281. The present field has one N/S runway 1800 ft long. This next summer we plan to also have an E/W runway about 1800 ft long, and to install a gas pump

Yours very truly
C E KIPP
Edgeley, North Dakota

EDITORS NOTE: It may be a good idea to clip out the above information and insert in our 1949 North and South Dakota Airport and City Directory.

Dear Editor;

Here is my two dollars for renewal of the "Flyer" I hope we don't miss a copy. We enjoy the magazine very much. You're certainly doing a grand job of editing—Our Compliments. I like "Flying high with Marie" too. I'd like my name on her list of those interested in the women's club. I haven't been doing much flying lately but I'm still very enthusiastic about it

Seasons Greetings;
Mrs Andrew Beck
McClusky, North Dakota

Dear Editor,

The directory is swell, and here is my renewal.

Sincerely;
Lorraine Carlson
Washburn, North Dakota

Dear Editor,

Please send me seven of the new airport and city directories. We want one for every airplane on the field

Yours truly;
Joe Haugen
Langdon, North Dakota

Dear Editor,

Received the new directory the other day, Thanks a lot for sending me one, will be the handiest thing for cross-country that I know of

Sincerely;
Emil Kastner
Douglas, North Dakota

Dear Editor;

Think you have done a swell job on the directory, and I hope you have continued success with the new "Central Flyer". I enjoy it a great deal.

Yours truly,
Lloyd Wright
Michigan, N. Dakota

Dear Editor,

I greatly appreciate you sending me this copy of the North and South Dakota Airport and City directory. It is an excellent publication and should prove to be a great value to the private pilot

Sincerely yours,
Barbara Loomis,
Fargo, North Dakota

Dear Editor,

An interesting and worthwhile publication, and a well arranged and informative Directory, at a very important time. Greater success to you and aviation

Sincerely;
L C. Hulett
Mandan, North Dakota

Dear Editor;

At this time we wish to thank you on behalf of our club for your sincere interest and also the very fine publicity received in your magazine in connection with our Air Show.

Trusting our report will reach you in time for this coming issue, and again thanking you for your valuable space, we beg to remain,

Very truly yours,
Estevan Flying Club
Estevan, Sask, Canada
Per Henr Mandel, Sec

MOONEY M-18

"This is the first time I've ever strapped an airplane to my pants and flown away. The Mooney M-18 (I'd call it the Mite) is so tiny that you almost 'strap it on' to fly it."

"This one of the most interesting little personal planes to be produced in recent years. The M-18 has a number of unusual features: a 25-h.p. automobile engine, belt-driven propeller, almost unbelievable operational economy . . . It is a low-wing monoplane made of wood, fabric and metal, and has a manually retracting tricycle landing gear.

"The power plant is a converted Crosley auto engine. In order to use it in a certificated plane, Mooney had to get a CAA type certificate on the converted engine, as well as on the airplane. . .

"Cruising true air speed at 3,600 rpm . . . is 80 mph . . .

"The Mooney's landing characteristics . . . are breath-taking . . . This little plane's landings are as good as its take-offs

"Although Mooney does have his CAA certificate . . . he has not put this little plane on the market. To date he has produced about six . . . Each of these airplanes is being flown by a wide variety of pilots and their comments are being sent back to the factory. Mooney is using this program to determine if there is enough interest in a one-place airplane to justify going into production as well as to work out the bugs."

MAX KARANT
AOPA Asst. Gen'l. Mgr.

Forty-five per cent of personal planes sold in 1947 were equipped at the factory with radio. In 1946 less than 9 per cent were so equipped.

CENTRAL FLYER

We'd Like You to Meet . . .



RALPH LETELLIER, General manager and owner of the Rushmore Flying Service at Rapid City, South Dakota

Ralph began his flying in 1938 while a rancher near Norris, South Dakota, and a member of the "Sky Club" at Rapid City, South Dakota.

His first airplane was a Waco-Standard 4-place which he later sold and purchased a Monocoupe. It was with this airplane that he built up his time and received his commercial license.

In 1946, with a bright outlook on aviation in the Rapid City area he sold out his ranching interest and moved to Rapid City, to form the Rushmore Flying Service. This organization started with only three men and three airplanes. Today Ralph is the owner of the Rushmore Flying Service with a well organized staff and dealers for Aeronca, Ercoupe and Crosley. Interested in aviation in the state of South Dakota, Ralph Letellier is also a vice president of the South Dakota Aviation Trades Association.

Young man fly high
Young man drive Slow
Years will go, and go
Let Union National Life
Make the Old Man's Life
aglow!

CONTACT

Dorothy A. Woodard, Special Agent
Longvalley, South Dakota

MAKING THE AIRPORT SELF-SUSTAINING

(Continued from page 11)

Coast and in neighboring countries beyond the seas. The idea met with immediate acceptance almost everywhere, and we now feel entirely safe in stating that any airport whether it be large or small, can be profitably operated. We are sure that it can be self-sustaining.

In our studies we soon found an outstanding requirement in the necessity for municipalities, wherever possible, to install facilities which would make the airport a part of the community. Depending upon the adaptability of the site and terrain there have been installed such civic welfare facilities as picnic grounds, barbecue pits, tennis courts, baseball diamonds, bowling alleys, archery ranges, and in fact almost any recreation facility found in any well developed community. It may be a surprising fact to many, that in addition to the foregoing ordinary facilities, there have been discovered on certain airports, and still in line with recreation, such projects as the playing of professional football, electric trains, small-arms ranges, and motor-cycle racing. By the inception of facilities adaptable to that particular airport, community interest is established with the result that further development is made much less difficult. The whole idea is to make the citizens cognizant of airport value beyond that exclusively for aircraft.

In perimeter development the possibilities are almost endless. Exploitation has divulged astounding facts. Of course, we have known for many years the value of such enterprises as the airport restaurant which still seems to hold its place as a number one requirement on any airport which expects to be economically operated, and on a self-sustaining basis. Regardless of size of community, or airport patronage, the well designed, high-type operated airport restaurant is always popular and always a "winner."

Frequently in presenting this idea to municipal groups, immediate opposition is presented by them to the extent that "sufficient people are not on our airport to support a restaurant or snack-bar." There is however, no basis for this argument. As long as it's an airport, situated on a highway, and relatively close to

the city which it serves, it is a logical spot for a good eating establishment, and the reason is simple. Everyone who has occasion to "eat out", is continuously in quest of a new and better place to dine. The drive to the airport offers what I am inclined to call, an "escape valve" from the usual routine. When he arrives there, instead of the usual search for a parking space, to which he has become so accustomed, he finds an uncrowded spot to park his car. That in itself is a revelation to most people. When he enters a nice, clean, well-kept restaurant. Light is coming through the windows and there are plenty of them. Picture windows face the airport or landing area. That's something new and unusual to most diners who are accustomed to looking at the same dark, dismal walls in the downtown spots, or at a parked automobile at dirty curbs. He is immediately engrossed in the beauty and activity of the airport, planes landing and taking off, passengers boarding or alighting, student instruction or whatever may be going on at the time. Here is a spot that offers revelation and relaxation.

The food is well served by well-groomed personnel, who have the time and inclination to smile. The prices are not above the average found elsewhere. Doesn't this all sound logical and conducive? We know of airport restaurants throughout the country, some on airports with minimum scheduled service, some on airports where no schedules prevail, that do a remarkably fine business. One airport restaurant chain brags of the fact that their lowest airport restaurant manager draws a monthly salary of \$500.00. Others in the same chain range up to \$1000.00 per month for the manager's salary.

Where the laws do not preclude, it is usually advisable to include a cocktail bar or lounge with the restaurant. This addition is psychologically advantageous to the operation of the restaurant and is usually very profitable to both the operator and the sponsor. The old idea concerning liquor at or near an airport is now entirely outmoded and is seldom considered except by the inexperienced, so do not be deterred in this thinking.

(Mr. Voelter's article will be continued on next month's issue of Central Flyer.)

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or
An **ELDERLY GENTLEMAN**

CHOOSE TO-DAY

Dorothy A. Woodward,
Special Agent

Longvalley, South Dakota
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Company
Lincoln, Nebr

"BUSINESS TAKES TO THE AIR"

"Business has sprouted wings. More and more companies whose executives have to travel long distances are finding that it pays to have their own planes."

"There is some evidence that business use is becoming the most active market for the small plane. Last week, the Aircraft Industries Assn issued a report on sales of non-military aircraft. It showed that sales of four-passenger planes accounted for 65 per cent

of total sales in August, as compared with 47 per cent for the first eight months of 1948, and 37 per cent for the first eight months of 1947.

"The small-plane builders are well aware of this. They are pinning their hopes on the business plane market to make up for the disappointing postwar market for personal planes.

"Business figures that the biggest advantage of a company plane is that it saves executives time. By flying, they can make a business trip in one day which would take at least two or three days by any other form of transportation. More than that, they can land close to out-of-the-way plants that might otherwise take many hours to reach."

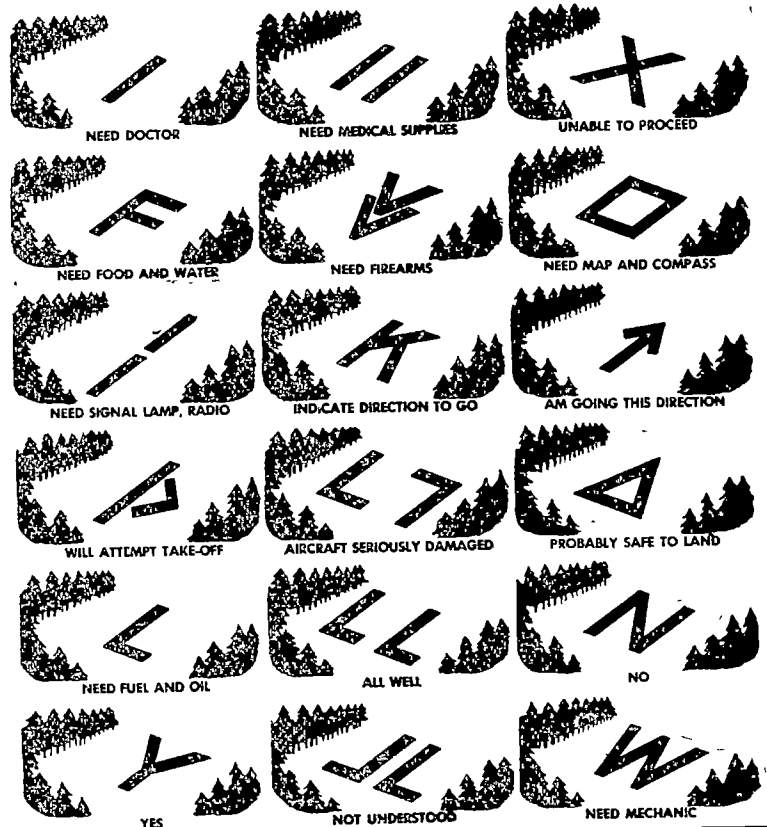
BUSINESS WEEK

How to Talk to An Airplane



Basic signal is still time-tried SOS. All symbols should be at least 10 feet high, and can be supplemented by flares or smoke to attract notice. Pilot acknowledges by rocking wings.

DOWNED airmen, snow-bound trappers, isolated communities—anyone in distress can use these 19 symbols to ask a passing plane for help. They are the official ground-to-air emergency code recently adopted by the Civil Aeronautics Administration. Used in wartime signaling, the symbols can be trampled in snow or laid out with cloth, wood, stones, or anything else that gives a clearly visible color contrast.



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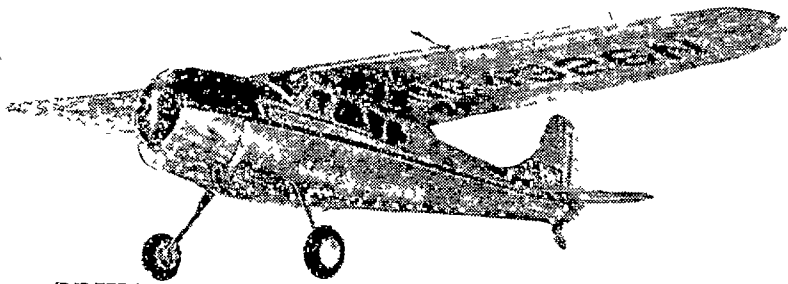
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