

## METEOROLOGY

# Regular Flights Over North Pole

Discovered hundreds of times, the North Pole is routine turn-around point for airmen stationed in far north, learning to live with extreme cold.

By WADSWORTH LIKELY

► THE NORTH POLE has been "discovered" something like five or six hundred times by now. Nobody knows for sure.

In fact, Arctic explorers and the men of the Armed Forces who have to work in the cold north do not really care very much. Col. Bernt Balchen, long-time Arctic traveller and now commander of the 10th Air Rescue Squadron, says he has visited the Pole "three or four times," he doesn't know which.

Planes of his outfit have crossed the Pole somewhere between 30 and 50 times, Col. Balchen says, but nobody keeps a record of it. It is crossed only when it happens to be on the route of one of the flights.

The 375th Weather Reconnaissance Squadron makes routine flights every other day from Alaska to the Pole and back. Back in November the 375th celebrated their 375th flight to the top of the world. Probably another 75 flights since then have actually reached the Pole.

Before these regular flights were established other Air Force personnel visited the Pole on exploratory missions. Nobody knows how many times.

## Once Unattainable Symbol

Once the symbol of something unattainable except by great courage and physical effort, the Pole is now merely a convenient turn-around point on a weather flight. Only 42 years ago the fact that it had been reached by Admiral Robert E. Peary was the occasion for banner headlines and for angry controversy. Now a crossing of the Equator is the occasion for more ceremony than a visit to the Pole.

The discovery of the Pole, in 1909, was the occasion for a heated, world-wide controversy. Admiral Peary's claim was disputed by Dr. Frederick Cook, but geographers and scientists gave the palm to Peary.

The Pole was not reached again until 1926 when Admiral Richard E. Byrd flew over it in a plane. Three days later, on May 12, the Amundsen-Ellsworth-Nobile expedition flew an airship over the Pole. Nobile accomplished this again in 1928.

The Pole was walked on a second time when a Soviet expedition landed several planes on an ice floe near the top of the world in May, 1937. Four members of the

expedition were left on the ice. They set up camp, established radio contact with Moscow and the outside world, made scientific observations, and stayed on the floe for nine months.

When they were finally taken off by a Soviet ice-breaker in February, they had travelled with the currents between 1,000 and 1,500 miles from the Pole. They had drifted two-thirds the way down the east coast of Greenland.

The Russians established the depth of the Arctic Ocean at the Pole as being more than 14,000 feet. They learned new things about the currents of the Arctic Ocean, about the existence of life in polar regions, about weather and about the possibilities of life on an ice floe.

In those days, they shared this kind of new knowledge with the rest of the world.

The war brought a halt to efforts to reach the Pole. However, cold weather living, knowledge of cold regions became

matters of concern to the armed forces of the world. Alaska became a training ground for troops, its islands a scene of battle, its skies a background for planes.

## Arctic Ocean a Frontier

After the war, as relations with Russia became strained, the Arctic Ocean became a frontier, the North Pole a sort of boundary marker on the line between the east and the west.

Knowledge of the Arctic, its land and its ocean, then became more important than ever. The United States, remembering that Soviet trip on the ice floe and the extensive Arctic research carried on by the Russians through the 1920's and 30's, took steps to increase its knowledge.

Col. Balchen is one man who knows the Arctic. A pilot in two Air Forces, the Norwegian and the American, the Colonel knows the northern ocean by heart from Spitsbergen around through Greenland to Alaska. During the war he captured Germans who had set up weather stations in Greenland, flew supplies to Norwegian underground fighters and was an expert



**THE NORTH POLE**—This is the turning point for the routine weather flight made every other day from Fairbanks, Alaska, by the 375th Weather Reconnaissance Squadron of the Air Force.

for the armed forces on cold weather operations. Now he is convinced that if the "cold" war becomes "hot" it still will remain cold, in the weather sense.

Men can live comfortably in the Arctic, even at the North Pole, if they are sufficiently well trained and supplied. Col. Balchen points to the fighting last winter in Northern Korea. If the men had been trained in cold weather fighting, he believes, things might have gone better for them.

### Adrift on Ice Floes

Looking toward the possibility of military operations in the Arctic in the event of another war, Col. Balchen has set men adrift on ice floes. Last spring a party of soldiers spent a short time on a floe, but they had to be evacuated.

It was not a lack of proper equipment, because Col. Balchen believes with his mentor, Fridtjof Nansen, that first necessity for life in the Arctic is good equipment and plenty of it. No, the men had simply picked the wrong kind of floe. But they are learning how to choose livable ice floes.

A recent discovery of the men of the 375th, on their flights to the Pole, may help considerably in the problem of living on the Arctic Ocean. They discovered, last year, three huge floating "islands." The largest was 25 miles wide, and, it was estimated, they are up to 200 feet thick.

If many of them exist, here are solid bases for landing strips, for camps and for scientific observations.

The islands, unlike the floes, are thought to be formed from ice built up on the shores of Arctic islands and broken off by a combination of wind and tide. Many more than the three already discovered might exist, Air Force officers believe. They were never seen before because observers did not know what to look for.

While the possibilities of these islands are being further investigated, Col. Balchen wants to experiment with living on the smaller, more dangerous ice floes.

### Seek Approval for Camps

To test rescue equipment, clothing and food, and the endurance of man, he wants to set up nine camps, spaced out in the Beaufort Sea and the ocean along the 145th parallel from Alaska—right up to the North Pole.

This project is not yet approved by higher authorities, but Col. Balchen hopes it will be.

The men camped on the North Pole may even attempt to duplicate the feat of the four Russians in 1937. Col. Balchen believes that their observations of currents ought to be checked. Besides he believes that his men can do much more. The Russians had terrible equipment, he says.

With nine camps, evenly spaced out—at the start—a systematic check could be made on Arctic Ocean currents. There is still controversy over the flow of waters

in the ocean. Already, Col. Balchen has observed a current which flows in a big circle around the Beaufort Sea, just north of Alaska, with the part nearest the coast going eastward.

But Col. Balchen is not satisfied. Sitting at a desk in the Pentagon, he is eager to be back in his beloved North. He calls himself a one-man Chamber of Commerce for the Arctic. And he will not count his time wasted in the military maze if he can sell the idea that more of our soldiers and airmen need Arctic training.

Science News Letter, June 2, 1951

### PUBLIC HEALTH

## Lead Poisoning Is Summertime Hazard

► FOR SOME unknown reason lead poisoning among children occurs during mid-summer and warm weather, the Baltimore City Health Department points out. Five suggestions for protecting children from this hazard are given as follows:

1. Prevent your child from chewing painted objects. Most cases of lead poisoning in children occur between 18 months and three years of age. This is the time when children are teething and like to bite and chew. Watch such children carefully and do not let them chew painted surfaces (especially repainted woodwork) such as window sills, cribs, high chairs or other furniture, or toys. Inspect these surfaces for tooth marks to see if your child has chewed them. Give the child safe objects to chew, such as clean teething rings or hard rubber toys.

2. Prevent your child from eating dried paint flakes. Paint may crack and flake from old heavily coated surfaces. Children are known to pick up these flakes from the sill or the floor and eat them. Remove old paint from window sills before repainting with lead-free paint.

3. Use only paint which does not contain lead for repainting indoor surfaces, furniture or toys. Whenever you paint indoors read the label on the paint can carefully and be sure the paint does not contain lead. Do not buy paint for indoor use unless it is free from lead. If you are a tenant and the owner of the home is starting to paint indoors, be sure he uses lead-free paint.

4. If you use lead paint for outdoor painting and have some left over, do not use the remaining paint for work inside the house.

5. If your child has eaten paint containing lead, he may begin to show the signs of lead poisoning. If you see the following signs in your child, take him to the family physician at once for an examination and explain what has happened: Pains in the stomach, frequent nausea or vomiting, persistent constipation, irritability, frequent headache or convulsions.

Science News Letter, June 2, 1951

### INVENTION

## Patent Machine to Pick Up Stones from Plowed Soil

► THE BACK-BREAKING job of picking up stones on gravelly soil after plowing can now be done by a machine drawn by a farm tractor but operated by its own power. Stones are picked up by an inclined grating with teeth to dig into the earth on its forward edge. Pick-up is assisted by a toothed rotating cylinder. Stones are carried upward along the incline to be dumped into a truck. Inventor is Alois Louis Cintula, Norwood, Mo., awarded patent 2,553,240.

Science News Letter, June 2, 1951

# BOOK SALE

Publishers' Clearance Makes Possible \$2-\$2.75 Savings. Titles in Physics, Mathematics, Biology, Mechanics, etc.

1. **THE MALE HORMONE** by Paul De Kruif. Fascinating, controversial account of effects of testosterone on sexuality, vitality, longevity. Orig. \$2.50. Now \$3.98
2. **WHAT IS LIFE?** by J. B. S. Haldane. Modern research in biology, anthropology, chemistry, genetics, zoology, etc. 242 pp. Pub. at \$3.00. Now \$3.98
3. **YANKEE SCIENCE IN THE MAKING** by Dirk J. Struik. Encyclopedic 430-page study of 19th Century science development. Material on Gibbs, Dana, Peirce, Audubon, hundreds of others. Pub. \$5. Now \$9.98
4. **HISTORY OF BIOLOGY** by Eric Nordenskiöld. Most comprehensive and authoritative work. 325,000 words. Pub. at \$6.00. 629 pp. Now only \$2.98
5. **THE SCIENTISTS SPEAK**. Ed. by W. Weaver. Shapley, Hillier, Oppenheimer, Trecy, Bridgman, Hooton, and 74 other top scientists discuss latest research in their fields. Pub. at \$3.75. 369 pp. \$3.98
6. **PROGRESSIVE SHOPWORK** by Poljack, Ellbers. Tools, woodworking, metalworking, wiring. 139 illustrations making this one of the most helpful manuals available. Pub. at \$2. Now \$3.98
7. **MECHANICS**. Famous first-year level course by Prof. Sears of M. I. T. 348 pp. Pub. at \$3.50. Now \$1.69
8. **DIFFERENTIAL AND INTEGRAL CALCULUS**. Introductory self-study course with answers, by Prof. Murnaghan, Johns Hopkins U. 502 pp. Now \$2.49
9. **FEAR, WAR AND THE BOMB**: Future technical developments and political consequences by P. M. S. Blackett, Nobel Prizewinner. Pub. at \$3.50. Now only \$3.98
10. **THE ATOMIC STORY** by John W. Campbell. 279 pp. Theory of the uranium pile, plutonium production, atomic strategy, etc. Pub. at \$3. Now \$1.69
11. **PLANE AND SPHERICAL TRIGONOMETRY**. Self-study course with answers and five-place tables by Prof. J. Taylor, Colgate U. 350 pp. Now \$3.98
12. **LIFE STORIES OF THE GREAT INVENTORS** by D. L. Thomas. 300 pp. Pub. at \$1.98. Biographies of Whitney, Morse, Diesel, Marconi, De Forest, Watt, 14 others with portraits. Now \$1.25
13. **PROGRESSIVE ELECTRICITY**. Pub. at \$2.00. 200 illustrations. Government tested course on batteries, motors, instruments, transformers. Now \$3.98

## 14. THE HOME BOOK OF MONEY SAVING FORMULAS

By P. Doring. Big 440-page book. Hundreds of formulas for beverages, glue, cleansers, textiles, metallurgy, cosmetics, gardening, photography, inks, etc. Should save you \$20 or more first year of use. Tells where to buy ingredients. Easy, economical. Only \$1.25

### MAIL TODAY. QUANTITIES LIMITED

Dover Pubs., Dept. SNL2, 1780 B'way, N.Y.C. 19.								
Send books circled below postpaid:								
1.	2.	3.	4.	5.	6.	7.	8.	9.
10.	11.	12.	13.	14.				
I am enclosing \$.... in full payment.								
10-day UNCONDITIONAL MONEY-BACK GUARANTEE.								
NAME.....								
ADDRESS.....								