

METEOROLOGY

Canadian Scientists Attack Unknowns of Arctic Frontier

CANADA has launched a strong offensive against the unknowns of her great northern frontier.

The Canadian Meteorological Service, directing activities of the Polar Year 1932-33 in this country for the International Commission, has sent three new parties of scientists in the field to pioneer along a northerly front of about 2000 miles and has reinforced a fourth permanent station farther to the south. Their activities are closely tied in with those of French and Danish scientists in Greenland and Americans in Alaska.

The most northerly point, Coppermine on Coronation Gulf of the Arctic Ocean, has been occupied by R. C. Jacobsen of the University of Toronto and two radio operators. They are well located to observe the inflow of air from the Arctic which affects the climate of practically all North America. This is the most westerly of the three far-north stations.

The principal station of the three is at Chesterfield Inlet on the northwest shore of Hudson Bay. It is manned by the largest party under the direction of F. T. Davies, former magnetician of the Byrd Antarctic Expedition. The Chesterfield Inlet post, 475 miles from the north magnetic pole, is the nearest point to the pole at which continuous magnetic records will be taken during the Polar Year. As a part of their work, scientists at this station also expect to measure the height of the aurora by photographing the phenomenon simultaneously from Chesterfield Inlet and from a location 20 miles distant.

Prof. Arthur H. Compton of the University of Chicago, Nobel Prize physicist, joined this party for a brief period with his cosmic ray apparatus. He left this equipment to be operated by the staff of the station.

Another temporary observatory has been set up by J. E. Lilly of Acadia University at Cape Hope's Advance on the southern shore of Hudson Strait midway between Hudson Bay and the Atlantic Ocean. His work includes complete surface, meteorological and upper air observations.

In addition to these far northern observing points which the Canadians

have equipped for the International Polar Year ending Aug. 31, 1933, activity of the permanent magnetic observatory at Meanook, Alberta, has been increased.

British scientists are also reinforcing the work of the Canadians. They have reestablished a station at Fort Rae, about 400 miles south of Coppermine, which they occupied jointly with Canadians during the first International Polar Year 50 years ago.

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ENGINEERING

Highway Is Built On Crest of Mountains

AN AUTOMOBILE drive has been built for 34 miles along the top of the Blue Ridge Mountains in Virginia. This road runs across flat plateau lands at an elevation of 3,000 feet, skirts near the tops of two peaks slightly more than 4,000 feet high and tunnels the spur of a mountain. Its termini are on two state highways.

It was built by the U. S. Bureau of Public Roads to become a part of the proposed Shenandoah National Park. Grading has been practically completed, but the road will be hard surfaced only after it has had plenty of time to settle. The entire road will therefore probably not be ready for travel next summer, H. K. Bishop, chief of the Division of Construction of the Bureau of Public Roads, explained. A few miles at the northern end have, however, been opened to traffic.

Many points along the route afford views for scores of miles both to the east and to the west from the narrow top of the ridge. The Valley of Virginia and ridges of the Alleghany mountains lie to the west while the flatter Piedmont section of the state stretches eastward.

In spite of the fact that the road follows the rough crest of a mountain ridge, it was built at extremely low cost and with very easy grades and curves, accordingly to Mr. Bishop. Great care in choosing the route made this possible, he said. One may travel in safety at 45



NEAR LARGE CITIES

A large portion of the country's population is near the new mountain top drive in the Blue Ridge mountains of Virginia. Washington is only about 75 miles distant by air line, Philadelphia 200, New York 280, Pittsburgh 140, Cleveland 270 and Cincinnati 320.

miles an hour while from both sides of the car he views scenery more than 2,000 feet below and miles distant.

The completed 34-mile section of road is in the center of a projected 90-mile length to follow the crest of the Blue Ridge for the length of the Park.

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STANDARDS-PSYCHOLOGY

Specifications Given for Readable Auto License

LICENSE PLATES will be much more legible in future if the advice of psychologists is followed in selecting the finish, colors, and size and shape of letters.

Only 28.9 per cent. of plates are visible at the distance you would expect to read them, it was found in the course of experiments conducted in the psychological laboratory of Iowa State College under the direction of Dr. Alvhh R. Lauer.

The ideal plate should have a dull finish, Dr. Lauer concludes. Dark letters such as greens or blacks are best, and they should be printed on a light background. Bright yellow is very good for background. Difference in color is not so important, however, as difference in ability to reflect light. Numbers should be three times as high as they are wide, and the space between them should be half as wide as the number itself.

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