McKinnon, Superintendent of Education for the Mackenzie District, and they will be shipped to Aklavik by air express as soon as transport can be arranged. These recordings will include well-known Canadian legends such as The Bell of Caughnawaga, The Witch Canoe and The White Crane; dramatized Canadian history; tales of adventure such as Moby Dick, David Copperfield and The Adventures of Tom Sawyer; and a number of programmes about the Canadian Parliament. Other series are known as: Adventures in Speech, Musical Playtime and Health and Physical Education.

Station CHAK is Canada's most northerly radio station and is operated by military personnel on the same voluntary service lines as the Army's broadcasting station CFWH in Whitehorse, Yukon. The broadcast transmitter was built in the spring of 1947, using the parts of a dismantled "ham" radio set, by Sergeant-Major R.A. MacLeod, formerly of Vancouver, and other military personnel of the Northwest Territories and Yukon Radio system stationed at Aklavik. Although originally conceived as a means to transmit emergency messages to the 1.800 native and white trappers in the area. CHAK made the most of its opportunity to relieve the monotony and isolation of northland life and began broadcasting both recorded and live programmes. Regular newscasts are also featured by the station and personal messages are transmitted from townfolk to their kin who could not be reached normally without many days travel by dog team.

CHAK also broadcasts amateur shows, quiz programmes and church services, with new ideas and features being added as the service grows. The addition of the educational broadcasts is another forward step.

ORGANIZE AIR LIAISON GROUP: An Air Liaison Group of the Canadian Army Reserve Force, known as No. 2 ALG, with sections operating at various RCAF Auxiliary stations across the Dominion, is now being organized, the Minister of National Defence announces.

No. 2 Air Liaison Group is the Reserve Force counterpart of No. 1 Air Liaison Group, at present functioning with the Canadian Army Active Force, and serves as a link between the Reserve Force of the Army and the RCAF Auxiliaries. Sections of No. 2 ALG will attend the same training parades as the RCAF Auxiliary squadrons to which they are attached, and will keep the squadrons advised upon military matters. They will also lecture the RCAF Auxiliary on Army - Air co-operation and air support work.

During the initial stages of organization it is the aim of No. 2 ALG to enlist as many war-experienced air liaison officers as possible so that they may train newcomers, but courses will be available later for members of the group at the Joint Air School at Rivers, Man., during the summer months. It is anticipated that all sections of the group will undergo the authorized 30 days annual training plus 15 days specialist training, common to all Reserve Force units.

## INDIAN HEALTH SURVEY

IN REMOTE NORTHLAND: More than 700 Indians in the James Bay area of Ontario and Quebec have been given complete physical examinations and about 500 have been X-rayed for tuberculosis in the first phase of an intensive study of Indian life in the remote sections of the Canadian northland. Announcement of the completion of the first part of the project is made by Mr. Paul Martin, minister of National Health and Welfare, Mr. J.A. Glen, minister of Mines and Resources, and Dr. R.P. Vivian on behalf of a group of university scientists.

The survey is being sponsored by a committee from the Canadian universities, headed by Dr. Vivian, professor of health and social medicine at McGill University, Montreal, and is financed jointly by the Canadian Life Insurance Officer's Association, the Department of Mines and Resources and the Indian health services of the Department of National Health and Welfare.

Heading the medical group was Dr. F.F. Tisdall, professor of paediatrics at the University of Toronto: Doing special schentific studies were Dr. W.H. Sebrell, Washington, D.C., a nutrition ist with the United States Public Health Services; Dr. P.E. Moore, Ottawa, director of Indian health services. Department of National Health and Welfare; Dr. Elizabeth Chant Robertson of the Sick Children's Hospital, Toronto; Dr. Charles MacMillan of the department of health; and; social: medicine; McGill University, Montreal: Dr. William C: McIntosh of the Royal College of Dental Surgeons. Toronto: Gordon Stockley. Toronto, an X-ray technician loaned by the tuberculosis prevention division of the Ontario Department of Health; Dr. G. Gordon Brown, professor of anthropology: at the University of: Toronto, and Michel Sym of Winnipeg, scientific photographer. They were assisted by Dr. T. J. Orford, Indian health services resident : doctor : at Moose Factory, Ont., and by three departmental nurses, Misses M. Crowe, Minnie Halkett; and Patricia Leuty.

## ANTHROPOLOGICAL: STUDIES

Two anthropologists, Bruce: Kerr of: the University of: Toronto, and Dr. John J. Honingmann, Yale University, New Haven, Conn., are remaining at Attawap iskat and Rupert's House where: they: will obtain further: data on Indian life by living with a band during the winter months. Their reports, as: well; as: the medical records, will; be studied by: university: and government officials with; a view to finding; a pattern for future: studies, both; for Indians and for others.

In addition to general physical examinations the scientists took careful records of the nutritional status and physical condition of the Indians at Rupert's House, Moose Factory, Attawapiskat and Albany River. They studied the Indians eating habits in relation to his economic status. More Than 700 Indians were given complete dental examinations, and a large number of scientific pictures of oral conditions were obtained.

The party's X-ray plant: with: its portable

generating apparatus was used more than 500 times. The X-ray plates are being interpreted under the supervision of Dr. G.C. Brink, Toronto, director of the Ontario Department of Health's tuberculosis prevention division.

'Transportation was by train, chartered plane and boat. The group was caught in one of the worst storms on record in James Bay and missed shipwreck by a narrow margin. They were held up by storms for several days in the mouth of the Albany River but were able to land and examine 153 Indians who were camped there.

The studies planned by the committee, which may have far-reaching effects on the future economic and health status of Canadian Indians, were endorsed by the Parliamentary committee appointed to study revision of the Indian Act.

## SHIFTING MAGNETIC POLE

DAILY MOVEMENT: Confirmation of an earlier announcement by the Department of Mines and Resources regarding the position of the Magnetic North Pole was made today: by R. Glenn Madill, Chief of the Magnetic Division of the Dominion Observatories, who stated that the Pole is located on northern Prince of Wales Island. (Canadian Weekly Bulletin: September 19.)

The Pole shifts its position continuously, Mr. Madill said, moving about daily in an area whose diameter, under normal conditions, is fifty miles. During periods of magnetic disturbance, however, this diameter may be twice as great.

From observations taken in the environs of Prince of Wales Island, it was found that the Pole normally moves from its maximum southerly position to its maximum northerly position between noon and midnight, reversing its direction in the remaining twelve hours of the day. Mr. Madillipointed out that these conclusions are based on studies so far made of the findings of Dominion Observatory officials, whose return to Ottawa September 10 from an airborne expedition to the area of the Magnetic North Pole created such wide public interest. Supporting their findings are those of Cameron Cumming who journeyed north on the United 'States ice-breaker "Edisto" which transported supplies to meteorological stations in the

Commenting on the recent announcement of the United States Army Air Corps that there are secondary poles on Bathurst Island and Boothia Peninsula, Mr. Madill said that precise and complete observations made on the ground on Bathurst Island by Cumming, and on Boothia Peninsula by Serson and Clark, produced no evidence to support this claim.

Mr. Madill said, however, that the findings of the United States party were of scientific interest since they demonstrated that valuable magnetic observations could be made from the air through use of the best type of navigation instruments.

## PULP & PAPER INDUSTRY

NEW RECORDS ESTABLISHED: For the seventh consecutive year the pulp and paper industry of Canada showed gains in: 1946 over: the previous year, establishing new records in all manufacturing phases of the industry, according to the Dominion Bureau of Statistics. The gross: value of products, reached a new peak of \$527:814:916 as compared with \$398:804:515 in 1945, an increase of 32.3 per cent, while the net value of products, at \$258; 164; 578, was 43. 1 per cent greater. Cost of materials and supplies used amounted to \$223, 448, 338, a gain of 24.6 per cent. Salaries and wages paid totalled \$101; 364, 636, an increase of 26 per cent, and average employees at 44,967 showed a gain of 12.4 per cent.

One hundred and thirteen mills operated in 1946, an increase of four over the previous year. The 87 mills manufacturing pulp produced 6,615,410: tons valued at \$287,624,227, as compared: with: 5,600; 814: tons: valued: at: \$231, -873; 122 in 1945, representing: increases in quantity and value of 18:1 per cent and 24 per cent, respectively. Of this 1946: total, 74:4 per: cent, or 4,921,967. tons valued; at \$156,-881,969, was produced by combined pulp and paper mills for their own: use in paper-making, equal to increases of 24.4 per cent in tonnage and 34.8 per cent in value over the 1945 figures. Close to 21.5 per cent of the total pulp production: was.made: for: export, : with tonnage 0.3 per: cent. and. value. 11.8 per. cent higher than in 1945. The remainder, about four per cent of the total production, was made for sale in Canada: and showed increases: both in quantity and value of: about 19.7 per; cent and 24.5 per: cent, respectively.

Groundwood pulp formed 60.5 per cent of the total quantity of pulp made in Canada in 1946. Unbleached sulphite accounted for 18:3 per cent, more than three-fourths consisting of "news" grade and the remainder of "strong" pulp. Bleached sulphite made up 9:3 per cent, of which about three-fifths was paper pulp and two-fifths dissolving pulp, the latter used in the production of rayon, celanese, cellophane and pulp-based plastics. Sulphate pulp represented 8:5 per cent of the total, mechanical screenings one per cent, chemical screenings one per cent, defibrated and exploded fibre 0.7 per cent and all other pulp 9.6 per cent.

The province of Quebec leads in the manufacture of pulp with 52.3 per cent of the total for 1946, and Ontario second with 27.8 per cent. New Brunswick, British Columbia, Nova Scotia and Manitoba follow in that order, British Columbia accounting for 7.9 per cent and the three other provinces for 12 per cent.

The 82:mills making paper in 1946 produced 5,347;118 tons of paper and paper boards valued at \$396,956;390 as compared with 4;-359,576 tons valued at \$282,837,614 in 1945, representing increases of 22.7 per cent in tonnage and 40.3 per cent in value. Increases in the quantity of paper produced were shown