NUCLEAR CLOUDS STUDIED

The evolution and path of nuclear clouds are carefully monitored and charted by the Canadian Weather Service, it was stated recently by Mr. Léon Balcer, the Minister of Transport. Mr. Balcer said that Canada, in common with other countries, had access to all weather data in the northern hemisphere and was a party to all agreements of the World Meteorological Organization.

At the Central Analysis Office located in Montreal, weather data are analysed on a hemispheric scale, while at weather offices across Canada local analyses are carried out to provide information direct to users in the area. These analyses are essential in the monitoring of nuclear explosions and the prediction of the path of nuclear debris.

TRACKING BUOYANT FALLOUT PARTICLES

Following a nuclear detonation, a large number of small particles are released into the atmosphere to an altitude in excess of 100,000 feet. Some are heavy enough to fall to the ground immediately. Others are buoyant, and it depends on meteorological factors such as turbulence and precipitation when they will reach the ground.

It is therefore necessary, Mr. Balcer said, to determine the drifting motion of such particles through a study of prevailing air currents at all levels and on a hemispheric scale. For the larger detonations, which penetrate well into the stratosphere, this study is being carried out in the Weather Services Central Analysis Office in Montreal.

For lower-yield detonations, where the major part of the cloud is concentrated at the base of the stratosphere, the monitoring of the trajectories is the responsibility of the Arctic Forecast Team in Edmonton and the Royal Canadian Air Force Forecast Office at Ottawa. These three offices, as part of the Canadian Weather Service, can monitor and predict trajectories of nuclear clouds originating anywhere in the northern hemisphere.

Mr. Balcer indicated that, during the coming weeks, official statements would be made from the Toronto headquarters of his Department's Meteorological Branch covering the trajectories of nuclear radioactive clouds that would pass over North America. "Already there has been noticed what is called a 'pressure jump' on the microbarograph, an instrument which measures changes in the atmospheric pressure, as a result of the most recent large-scale detonation", he added.

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BANDED GEESE AID RESEARCH

Aluminum bands fastened to the legs of 12,000 geese now flying over southern Canada and the northern U.S.A. may yield valuable information on migration. These birds, which are blue and snow geese, were banded in the Koukdjuak River-Bowman Bay area of Baffin Island last summer by a Canadian Wildlife Service team led by Dr. Louis Lemieux.

Working farther north than any previous banding team, Dr. Lemieux's banders, who included two Eskimos from Cape Dorset, took advantage of the moulting period of the geese to facilitate their work. During this time, which follows the hatching of the goslings, the birds are incapable of flight and banders herd the grounded goslings and geese into pens.

Very little is known of the migratory routes taken by the geese or their mortality rate. The return of bands from geese that have been downed for any reason will enable wildlife scientists to plot migration routes and calculate the morality rate.

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ILO EXPERT TO SENEGAL

Mr. J.V. Morin, business agent for the regional office of the United Packinghouse Workers of America in Montreal, left Canada on November 5 to undertake an assignment of four months' duration in the Republic of Senegal, under the ILO's Workers Education Programme, by arrangement between the Government of the Republic of Senegal and the International Labour Office.

Mr. Morin's duties include advising the responsible trade unions of the methods of organizing and administering a workers education programme and developing a programme for workers in the fields of trade union legislation, evolution of ideas, economical matters, productivity and professional organization.

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OCTOBER SEAWAY TRAFFIC

The 1961 trend, already noted in monthly traffic reports, of increased downbound and decreased upbound cargo traffic moving through the St. Lawrence Seaway is again reflected in preliminary toll-traffic statistics recently released by the Seaway entities for the current navigation seaway through the month of October.

For the Montreal-Lake Ontario section, however, the month shows an increase of 19 per cent for both upbound and downbound traffic, compared with October 1960. The total of both upbound and downbound cargoes for October 1961 was 3,474,317 tons, an increase of 561,701 tons, or 19.3 per cent, over October of last year. For the April-through-October period, the upbound 1961 tonnage was 9.3 per cent less than that recorded for 1960, while the downbound traffic increased by 29.6 per cent over last year's figures. Total cargo tonnage for the same period of 1961 was 20,186,605, up by 2,137,570 tons, or 11.8 per cent, from the 1960 total of 18,049,035.

Both upbound and downbound cargoes *via* the Welland Canal section for October 1961 were greater than for October 1960. Upbound traffic increased by 10.9 per cent and downbound by 7.4 per cent, resulting in an overall increase of 8.4 per cent, 4,241,218 tons this October and 3,913,890 tons last October. The total Welland Canal traffic shows a net increase of 2.6 per cent for the April-through-October period, with 26,747,800 tons in 1961 and 26,077,862 tons in 1960.