

graphs of an RIP as it had been sitting on the bottom for a year just south of Cape Clarendon, Melville Island. The exceptional clarity of the water permitted observations to be made by natural illumination to depths greater than 300 feet. In fact, off Melville Island, the external fixtures of PISCES could be clearly seen by natural illumination to a depth of 700 feet. Despite the transparency of the waters, the view of the underside of the sea ice proved to be disappointing. The view upward and forward presented a view of the ice as a background of patchy shades of grey, as a consequence of the ice acting as a secondary source of illumination. Against this background, the occasional seal could be seen, but at no time could the PISCES approach a seal, nor did any under-sea mammal exhibit sufficient curiosity to approach PISCES. As a result, the mammal investigations were more effectively carried out with the aid of the ship's helicopters.

It is a generally accepted hypothesis that *fail-safe* mechanisms in submersibles will result in a rapid rise to the surface. However, when operating near sea ice the possibility of being inadvertently perched under a floe is not small. The accidental loss of a manipulator arm from PISCES off Melville Island, although the loss occurred at the surface, produced a large increase in buoyancy. At this time the dive had been terminated by the impending intrusion of a large polar floe into the dive area. Although normal underwater communications existed, and procedures for control were followed, it is clear that homing and communication devices must be positioned on a submersible so as to remain effective while the submersible is pressed up under the sea ice. Rescue under these conditions could then be effected by the icebreaker mother ship. Under these circumstances, the release of a large volume of dye would be an effective way to indicate the location of the submersible relative to cracks produced by the icebreaker.

The operation of a small submarine in the summer sea ice was dependent on the correct choice of favourable conditions, which were in turn subject to the whims of ice movement and weather. PISCES proved to be a versatile, manoeuvrable and well-instrumented work boat, and was effective in introducing the scientists to the undersea environment of the Arctic Archipelago.

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A. R. Milne

Defence Research Board of Canada
Victoria, B.C.

¹Milne, A. R. 1968. Noise Under Sea Ice is Studied. *Canadian Shipping and Marine Engineering News*, March, pp. 65-66.

Indians in Siberia

In the very centre of Siberia, on the vast snow-covered expanses that adjoin the great Siberian river of Yenisei where there are 62 square kilometres of land to every man, live Indian tribes that settled there many years ago. Little is known of the history of these Indians, called Evenks, before they were discovered by the Russians early in the seventeenth century.

The word "Evenk" means "he who runs swifter than a reindeer". One cannot imagine an Evenk without a reindeer (see frontispiece), just as one cannot picture a bedouin without a camel. The reindeer is an indispensable means of transportation in the snow-covered expanses of Siberia. Its hoofs are wide and it does not fall through the thickest snow. Out of reindeer skin the Evenks make clothes and footwear that are cold- and damp-resistant and are essential in this area of the world where the mercury sometimes drops to -60°C . They live in tents made of reindeer skin that very much resemble Indian wigwams. Their favourite food is cooked reindeer meat and finely cut pieces of raw frozen fish.

At present there are about 25,000 Evenks in the Soviet Union; they live mostly in Central Siberia where they inhabit the Evenk National Area. Once this land was overgrown with giant sequoias and was washed by the warm Fern Sea. Later volcanic eruptions covered it with an enormous amount of magma and now it has an unusual surface resembling that of the moon.

A fish called taimen (the salmon trout) is the symbol of this land. From ancient times the Evenks used to cut its image upon the trees as a sacred sign. According to the beliefs of the Evenks, the land itself is a raft

supported by taimens. Maybe it was on such a raft that the ancestors of the Evenks crossed the Bering Strait to the American continent where, as no skeletons of anthropoid apes have so far been discovered, the population is assumed to be of foreign origin. It is interesting to note that the investigations conducted by the Department of Anthropology of the Institute of Ethnography of the U.S.S.R. Academy of Sciences, and by the Chair of Anthropology of Moscow University, have proved that there exists not only a similarity in appearance between the Evenks and the American Indians, but also that the Evenks of Central Siberia, like the Indians, have very few people of the *B* blood group, and that they have many common customs and a very similar mentality.

At the beginning of the present century a new mystery was added to the previous mysteries of this land: a fiery ball resembling the sun swept through the sky on 30 July, 1909, making the superstitious Evenks fall to their knees as if at the sight of a deity. Then a thundering explosion was heard in the taiga. "As if the earth had broken through," the Evenks who witnessed the event recall. The explosion broke age-old trees as if they were matches in an area with a radius of 20 kilometres. Seismological apparatus recorded that the air blast encircled the earth twice. Up to the present day scientists continue to dispute the nature of the Tungus meteorite — whether it was a meteorite, a comet, or maybe a spaceship from another planet.

The majority of ancient Evenk songs told of unhappy love, poor hunting or diseases. They reflected the tragedy of a people exhausted by combating severe nature. According to incomplete data, three quarters of the Evenk tribes died out during the last century. There were no schools, and not a single populated locality upon the enormous territory that covered an area only a little smaller than England and France put together. They used to write in the papers in those days that "life was just glimmering faintly" there.

At the time when Louis Morgan, an outstanding American scientist and humanist, wrote that America would have to answer to the civilized world for its treatment of the Indians, the Russian public also sounded the alarm concerning the fate of the Evenks who were becoming extinct.

Tsar Nikolai the Second excused this indifference to the sufferings of this small people by the aphorism: "Russia is ruined by its great distances". The tsarist officials put forward a *theory* that the Evenks were ostensi-

bly unable to comprehend civilization and this had a disastrous effect upon these people. The home life of the Tungus (as the Evenks were called in Russia at the time) served as a sort of standard of wild life: at the industrial exhibitions a Tungus tent was usually put up for general observation and in it a Tungus family would live with their belongings.

Tura, the capital of the Evenk National Area, is situated at the junction of two rivers: the Podkamennaya Tunguska and the Kuchum. It is a small Siberian town with wooden houses built on piles driven deep into the frozen ground. The town cannot be judged by the usual standards, for only some 40 years ago on its present site stood a lonely hut inhabited by a merchant who traded with the hunters. It was from here that the rebirth of the peoples inhabiting northern Russia started. The first cultural centre in the Area was built here with a boarding-school, a veterinary clinic, a library, a laundry with a bath and a hostel with a club.

This cultural centre became an outpost of civilization in the remote taiga where the Evenks learnt everything beginning with how to use soap and how to read and write. At present Tura is the administrative centre of the Area with a medical college of the peoples of the Far North, a people's theatre and a branch of the Scientific-Research Institute of Agriculture of the Far North that deals with problems of hunting and trapping, a base for large geological expeditions that investigate the Evenk area. At present a new hotel is being built in the town, a wide-screen cinema and a TV centre. Thirty new Evenk settlements have been built. Tura is connected with them by regular air routes.

Nadezhda Kombagir, deputy chairman of the District Executive Committee, is the daughter of a hunter. She graduated from a teacher's training college and worked as a teacher for several years. Nadezhda cited several interesting figures that testify to the progress made by the people. The average length of life of the Evenks used to be 35 years before the Revolution. Now it is 70. The birth-rate here — 34.5 babies to every thousand people — is higher than the average birth-rate of the country.

Completely illiterate formerly, the Evenks have now caught up in education with the inhabitants of the other regions of the country. They now have their own alphabet, literature and art. The Evenk Folk Dance Ensemble has recently given a number of successful concerts in Moscow.

The Evenks possess a fine understanding of nature and a keen sense of colour and there-

fore reveal a great aptitude for the fine arts. Evenk pencil artists can be found in almost every settlement. The ancient Evenk art of embroidery is being revived too.

Recently the paper *Soviet Evenkia*, which is published in both the Russian and Evenk languages, together with the local broadcasting studio, the Evenk Scientific-research Institute of Language, Literature and History, and the local sociologists circulated a questionnaire among the inhabitants of the District. The answers they received testified to the change in the mentality of the Evenks.

Every inhabitant of the Area watches 42 films a year at an average, 868 papers and magazines are subscribed to by every thousand people; there are 15 books to every inhabitant at the state and collective farm libraries. The great Russian poet Alexander Pushkin (1799-1837) used to dream of the time when his works would be read by "the now wild Tungus". At present the Evenks read Pushkin both in Russian and their native language.

The chief occupations of the Evenks are, as before, hunting and reindeer-breeding. The Area is actually looked upon as the fur factory of the country. The sable, the polar fox and the squirrel are hunted and on the farms the silver fox, the mink and the muskrat are bred. An Evenk hunter or reindeer-breeder earns an average of 1,500 roubles a year (1 rouble amounts to \$1.10). In the settlements the Evenks live in wooden houses. The state gives 10-year loans to those who build their own homes, and the sum is paid back in monthly instalments that amount to the price of a hunter's knife!

Many children from hunters' and reindeer-breeders' families spend their childhood in crèches and boarding-schools where they are completely provided for by the state. At the large educational institutions of the country, such as Moscow University, places are reserved specially for Evenk youth who can enter the institutes without having to compete.

In every Evenk settlement there is a hospital and a club with a cinema and library. If qualified medical assistance is required it is offered free of charge, and specialists fly out on planes from Tura to all parts of the Area.

The Evenks have their own representative in the Soviet parliament. He is Vasili Uvechan, a former hunter and shepherd who has received an education in Moscow and is now Master of Sciences (History) and the author of more than 30 works on the history of the peoples of the North. He speaks several foreign languages fluently.

The Evenk National Area has a great future before it; it is extremely rich in minerals. Under the basalt plateau lies the Tungus coal basin, which is the largest in the world. Its reserves are estimated in astronomical figures. There are also considerable reserves of non-ferrous metals, iron, salt, building materials and oil.

The graphite works, the first-born of Evenk industry, already produces casting graphite. The deposits of Iceland spar, which are also the largest in the world, are being developed. The northernmost hydro-electric power plant is being erected on the polar river of Khantaika. Surveying work is being conducted at present with a view to building two more hydro-electric power plants. One, the Nizhne-Tungusskaya, will have a capacity of 7 million kilowatts, while the Igarskaya will produce 5 million kilowatts. Both plants will supply electric power for developing industry.

Jean Katser

Novosti Press Agency

Eskimo Bird Names at Chesterfield Inlet and Baker Lake, Keewatin, Northwest Territories

The list below was compiled during a stay of about two months, 27 May to 21 July 1967, at Chesterfield Inlet and during a few days spent at Baker Lake in the course of the homeward journey. At Chesterfield Inlet my principal native informants on bird names were Krakok, a man about forty-five years old who had lived part of his earlier life at Daly Bay (about 50 miles further north) and a twelve-year-old boy Koluvar, who early in his childhood had been brought from Iglulik to Chesterfield by his father and who often accompanied me on bird-watching walks. Koluvar, through his father, had learnt some Iglulik versions of bird names but also knew those in use locally. The Baker Lake names were collected from a man about fifty years old, Kchlaiyuk, with one of his sons acting as interpreter.

According to Boas¹ these people belong to the tribe he called the Kinepitu or Agutit.

I conceive the principal virtue of the list here given to lie in the explanations of the basic meaning of the native names for which I am indebted to the scholarship of Father E. Fafard, O.M.I. From the meanings of the bird names it will be evident that in the case of many only the context in which they are

