

The New Editor

Mr. M. V. Hambly, the new Editor of *Arctic*, has a background of science and technology, and economic geography; he is a qualified librarian, and is a graduate of the universities of Bristol and Glasgow. He has published several articles as a result of research into the Soviet economy and industry, and has made translations from French, German, and Russian.

Mr. Hambly will be completely responsible for the June and subsequent issues of the journal.

The Eskimo Drum Dance

The drum dance which combines the booming beat of a large tambourine drum with poetic song and dance is perhaps the most pleasurable and intense expression of Eskimo culture. This art is particularly refined among the Copper Eskimos around Coronation Gulf. While real appreciation of it requires an actual participation hardly possible for non-Eskimos, the overt features may be outlined from ethnographic accounts^{1,2,3}.

Drum dancing used to take place mainly in winter, when the Copper Eskimos congregated for breathing-hole sealing, or whenever visitors from afar were met. A large snowhouse used to be made, performance outdoors being tabu^{1:184}, though not today as it appears from the cover picture of this issue of *Arctic*. Decorative festive dress was worn including at times a striped dancing cap surmounted by a loon's beak. Up to about fifty persons might crowd inside, the men forming an inner circle and the rest along the walls.

If necessary, the yard-wide drum head of thin dehaired caribou skin is moistened to tighten it to give the desired rumbling resonance. The rim is a thin wood strip two to three inches wide with a handle attached to it. Large and quite heavy, the drum takes strength and practice to be wielded in one hand. Women can lower it for ease. Beating is done on the rim from below with a heavy foot-long stick, the men striking on opposite points of the hoop in alternation while women beat closer to the handle. To begin, the performer sounds a few beats as if testing the instrument, waves it up and down or taps lightly and rapidly on the skin from below. Starting the song, he beats the rim and lets the drum swivel to meet the stick. The audience joins in the singing, commonly led by the performer's spouse, freeing him to

concentrate on drumming and dancing and to be transported into an exalted joyous state. With knees slightly bent the dancer moves around the small inner circle, shifting from foot to foot, sometimes hopping lightly. The music is basically in 2/4 time, and the simplest drumming is two equal beats per measure, the tempo ranging from about fifty to eighty measures per minute. A common variation is to beat strongly on the left side of the drum then stop the swing back almost soundlessly on the right. For more complexity this single beat measure may be alternated with the regular double one. Sometimes the heavy beating is suspended while the singing continues unabated. Also "rolls" might be inserted by lightly tapping the skin at four beats per measure. Occasionally the dancer whoops for joy. Carried away, he might continue for over an hour, passing from song to song with scarcely a pause. Other performers wait their turn which eventually comes as the drum dance stretches through the night.

Copper Eskimos call a song *pisik* if the performer drums and *aton* if he only dances with abandon while the drumming is done by another or not at all, but in both categories the song itself is much the same^{3:9,20}. Almost everyone has his own song, often simply new words to old tunes. Song alteration by substitution, addition, or combination of words is common, and a dance song usually strings two unrelated compositions together to last ten or fifteen minutes. A good part of the singing is done with burden syllables, e.g., ya-ya iya iya aiya iya ai yaa, meaningless but carrying the melody and rhythm. Short sections of words fit in for interesting verse structures. Metaphor abounds, caribou, for example, being "the high topped one" or "one with warble fly maggots" while muskoxen are "the big black ones." Most songs are about hunting, fishing, travel, or drum dancing itself, usually glorifying achievements or striking experiences. Other major subjects are shamanizing and social failings in shaman's and derision songs. Another kind, songs of the departed, are more sentimental and philosophic. Then there are non-dance songs of magical incantations for good weather, hunting success, and for invoking spirits.

Drum dancing is an important focus for social life. It, together with the shamanistic seance which often accompanies it, is one of the few group activities which are not directly economic in consequence. Not only does it intensify interaction and sentiment within the local group, it helps establish relations with strangers. Individuals can be formally linking

as dancing associates, *mumiqatik*, a major kind of extra-kinship partnership which along with seal sharing and spouse exchange extends the network of social interaction and economic cooperation. But although such socioeconomic aspects may be seen, the drum dance should be first considered in its essence as the prime aesthetic manifestation of Eskimo life.

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Airborne Temperature Survey of Harrison Bay

INTRODUCTION

During 10 August 1973 while conducting an oceanographic program in deep waters off the North Slope of Alaska, an opportunity arose to make an airborne radiation thermometer (ART) flight to map the surface water temperature of Harrison Bay (Fig. 1). Little is known about the oceanography of the Bay.

Yet this zone may well come under considerable, if not great, environmental stresses stemming from present localization of resource development and exploitation. This paper presents a summary of the results of the low-altitude ART flight.

MEASUREMENT TECHNIQUE

A Barnes Engineering Company PRT-5, 9.5-11.5 μ Infrared Radiometer with a field of view of 2 degrees was used to make the 3-hour flight over Harrison Bay. The temperature survey was carried out using 2 helicopters from the icebreaker USCGC *Glacier*, flying a grid pattern and measuring the surface temperature along the flight track. The flight was conducted at a nominal altitude of 46 metres, with a flight speed of 150 km./hr. Navigation was done by visual contact with the coast and by radar tracking from the *Glacier*. Clear, cloud-free conditions existed in the entire study area during the survey. Continuous winds (> 3.0 m./sec.) mixed the surface waters so that the radiometer measurements are representative of bulk temperature rather than the skin temperature of the water.

The ART equipment was calibrated before, during, and after the flight. A temperature-controlled water bath and a mercury thermometer were used for calibration. At the beginning and end of the flight, calibration temperatures were obtained from sea surface measurements (expendable bathythermograph, bucket thermometer) made from the ship while the helicopter was overhead. The ART measurements are considered to be within $\pm 0.6^\circ\text{C}$. of the true surface temperature.

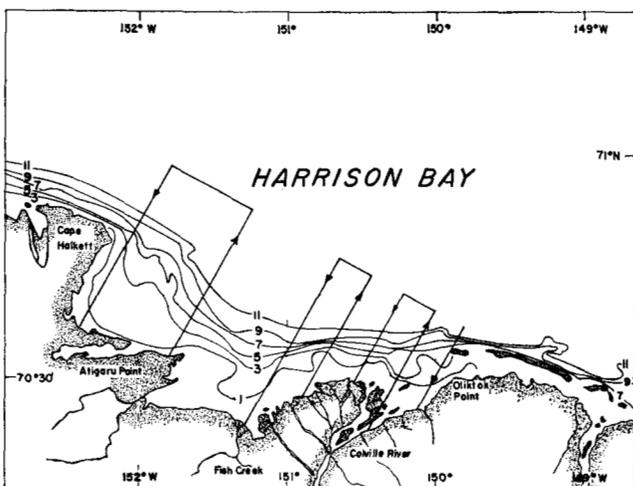


FIG. 1. Location of ART flight pattern over Harrison Bay, 10 August 1973. Included is the bathymetry (in metres) of the Bay.