

CHAPTER 6

ICE ISLANDS FROM THE ELLESMERE BREAKOFF: WAS COOK'S 'BRADLEY LAND' A SIGHTING?

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Abstract

Cook's controversial report of what he determined to be "new land" at 84 degrees North latitude on his journey toward the Pole, and which he designated "Bradley Land" after his backer, has been but one of many issues debated about his expedition. The description prompted an Arctic historian Moira Dunbar, to write some 40 years ago, that Cook may well have observed one of the earliest sightings of an ice island in the Arctic Ocean. If so, it would go toward rehabilitating much of his account. Experience in the Arctic Ocean basin prompts a re-examination of Cook's claims. The ice islands of our time no doubt existed as other breakoffs from Ellesmere Island's glacier in 1908. Cook's account should be examined in light of our modern understanding of oceanic and atmospheric circulations.

High over the cold, vast Arctic Ocean, the radar officer in a converted B-29 Superfortress droning toward the North Pole stared unbelievably into his scope. There, outlined against the characteristic pattern of the ice pack, was radar's picture of land—an island rising from deep sea where no land should be.

Quickly the airman called the plane commander on the interphone and verified the position as 300 miles north of Point Barrow, Alaska. He sketched the discovery on his chart and marked the date—August 14, 1946. I think this marked chart and accompanying report turned in by the 72d Photo Reconnaissance Squadron at Ladd Air Force Base, Fairbanks, Alaska, should rank with the important documents of Arctic exploration.

This young American had not discovered new land, as he believed. But he had provided a key which was to unlock one of the Far North's old mysteries and give his country a valuable base closer to the Pole than men had ever lived in comfort and safety.

For me personally, that key opened the door to a white world of scientific discovery and adventure. I was first commander of America's northernmost outpost, and for a quarter of a year lived 150 miles and less from the very top of the world.

After the B-29's return other airmen roared over these northern wastes to confirm the existence of what was now termed "Target X." They looked down on the robin's-egg blue of lakes, the steely glint of rushing streams, and a coast 20 to 40 feet high rising from the tumbled sea ice of the polar pack.

Rocks, they reported, jutted from a wind-swept plain. Patches of earth showed darkly. In vain did the pack, destroyer of explorers' ships, attack the island's shores. Giant fragments piled under coastal cliffs attested the strength of this 200-square-mile mass.

But, mysteriously, it was several miles from where it had first been plotted. There could be only one answer. Target X was drifting island of ice!

"Ptarmigan" flights—planes sent regularly over the North Pole by Air Weather Service to observe conditions there—were alerted to watch for more ice islands. They found two other large ones drifting far from land in the central Arctic basin. Canadian flyers later discovered some 40 smaller fragments in the channels of their country's Arctic archipelago.

Gentle parallel swells, or waves of ice, from a few inches to 15 feet high and from 800 to 1,000 feet apart, crossed the islands' relatively flat surfaces. Imperviousness to the battering of the pack suggested frozen fresh water, harder and stronger than salt ice. Thicknesses of 200 feet or more, 20 times that of the sea ice, were deduced from their height above sea level.

Somewhere along an Arctic shore a giant glacier must be spawning these immensities. But where was such a glacier? Narratives of early explorers supplied an important clue.

Lt. Pelham Aldrich, member of the British Arctic expedition headed by Sir George Wares in 1875-6, and Rear Adm. Robert E. Peary 30 years later, had seen a unique ice foot, or shelf, fast to Ellesmere Island's north shore and extending far seaward. This was apparently a glacial remnant, part of the prehistoric ice that once covered Ellesmere and the surrounding sea as an icecap now covers the interior of Greenland (page 494).

A puzzled Peary wrote a description of the shelf that perfectly fits today's ice islands. Later we were to land on Ellesmere ourselves, and, by comparing corings, match islands to the glacial shelf still extending 10 miles to sea in places.

It is thus still true that there are no icebergs in the Arctic Ocean; bergs as we know them in the Atlantic break from "live," moving glaciers when they reach the sea. Arctic ice islands, much older and larger, have split off from the dead Ellesmere shelf. The process must have been rapid since the turn of the century, for Peary described a far more extensive ice foot than now exists - further evidence of a steady warming in the Arctic.

From a geographer's point of view, the most interesting result of recent ice island studies is a possible solution to mysteries of "new lands" never seen again after "discovery". Crocker Land, sighted by Peary in 1906 and marked on Arctic maps until Comdr. Donald B. MacMillan in 1914 disproved its existence, may well have been an ice island.

So might Keenan Land, President's Land, and Sannikov Land. Takpuk Island certainly was. Its discoverers, an Eskimo, Takpuk, and the crew of his sloop, landed there in 1931, photographed it, and left still thinking it was land, but their photographs show an ice island.

No discredit reflects upon the brave and experienced Arctic explorers of another day. Men of the Air Force, including that radar-man, can testify that ice islands closely resemble lar

particularly when the viewer is walking around on one on a summer day.

Discovery, history, old mystery are one thing; our Air Force missions of today and tomorrow another. What use could be made of ice islands in the Arctic, repository of vital secrets of ocean and weather?

For more than 2,000 years the unpredictable pack had denied man more than brief and hazardous visits to its domain. To this day, no ship can smash through it at will. Some have managed to buck and thread a way into the ice in summer. Winter locked them fast; the fortunate ones came out again, but many fine vessels perished.

Lt. Comdr. George Washington De Long's *Jeannette* was crushed in 1881, a mishap which cost the gallant naval officer his life. In the same year Leigh Smiths an intrepid Arctic explorer, lost *Eira*, a specially built steam yacht, which sank in two hours. Some seven years earlier *Tegetthoff*, under Lts. Karl Weyprecht and Julius Payer of the Austrian military forces, was crushed and abandoned.

The British have left many ships in the Arctic, among them the ill-fated Sir John Franklin's *Erebus* and *Terror*. Other casualties are *Karluk*, used by Vilhjalmur Stefansson's Canadian Arctic Expedition of 1913-1918, and the Russian icebreaker *Chelyuskin* smashed in 1933.

Sledges can move perilously across the pack, but they carry little. The men who first came by air had no stable platforms for their camps, supplies, and scientific instruments. But here, at last, in the form of ice islands, were the platforms.

In January, 1952, the Alaskan Air Command organized "Project Icicle." Its mission was twofold: to establish on an ice island a weather-reporting station for Air Weather Service and a geophysical research base for Air Research and Development Command. I was placed in charge.

A first consideration was selection of the island. Of the three in the polar sea, old Target X, now named T-1, had drifted back home to Ellesmere. T-2, which squarely crossed the geographical Pole, was leaving our field of action (page 497 and map, page 493).

We took T-3, about a quarter the size of T-1 and slightly more rugged of surface (pages 490, 495). By the time we were ready, it should be 120 miles from the Pole, although this was of no practical importance as long as the island stayed well at sea in an area where no weather data were being obtained.

Preparations kept us at Ladd Field during January and February. Then we flew to Thule, in Greenland, an Air Force base so new that we pioneered the supply route from Alaska.

About the Author

Colonel Joseph O. Fletcher has recently been a senior research associate at the University of Colorado in environmental sciences and until 1989 was assistant research administrator at the National Oceanic and Atmospheric Administration. He has degrees from the University of Oklahoma, MIT and the University of California and an honorary doctorate from the University of Alaska. As commander of the strategic reconnaissance squadron in the Arctic, he established the research station on T-3. Later Colonel Fletcher was a research scientist at the Rand Corporation and research professor of atmospheric sciences at the University of Washington.

SECTION III

DID POLITICS SUBVERT HISTORY?

REVISITING THE CONTROVERSY

