

CORRESPONDENCE

"ICE STREAMS"

Under the above title in the *Polar Record*, Vol. 7, No. 48, 1954, p. 185–86 and p. 231–32, I have noted with interest the remarks of Dr C. W. M. Swithinbank and Dr J. H. Roscoe. As the latter rightly maintains, there is definite need for clarification of the name in terms of its significance, when applied to this special flow-phenomenon of an inland ice sheet. In my chapter in *The Antarctic today*, entitled "Antarctic glaciers and glaciology", p. 33–34, I endeavoured to stress the special character of these discrete ice streams within the body of the inland ice, and I cited Hayes's remark that they represent a previously unclassified type of glacier. But his term "depression glacier", for several reasons, one of which is mentioned by Swithinbank, seems to be undesirable. Nor are many of the other terms suggested very much better, since they do not emphasize the special character of the feature, and its particular environment. The name "channel glacier", proposed by Roscoe, has a good deal in its favour, for, as he says, these features act as channels for massive movements of glacier ice, and may well follow definite drainage channels in the rock floor. But all these proposals, and certainly that of "ice stream", which is susceptible to variable connotation, appear to be unsatisfactory, unless given some qualification dependent on their particular environment. I should offer, therefore, for consideration three alternatives, viz.: "inland ice stream", "continental ice stream" or "arterial glacier", with preference for "inland ice stream". Thus qualified, this particular kind of ice falls into an appropriate geographical category, and its special character receives emphasis.

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We have read with interest Professor Odell's letter printed above. There is an important aspect, however, upon which he makes no comment, but which is mentioned by Dr Roscoe.

Not only do we need a term to describe the feature as such, but we need one which can be used in conjunction with a place-name, e.g. "Mertz Ice Stream". It must therefore be as brief as possible—"Mertz Inland Ice Stream" is cumbersome and thus probably unacceptable to place-name authorities. The term must also translate with ease into a number of languages. What would a Scandinavian think of "inlands-is-ström"? Norwegians already use "is-ström" for this type of glacier; not for a strip of sea ice.

These features appear both in inland ice sheets *and* in ice shelves; the type of ice sheet is not relevant. Moreover, since there are at least two examples in Dronning Maud Land where a stream debouches upon and continues in an ice

shelf, it would create an additional difficulty if we had to separate the two—particularly in a place-name. It is already clear that as the Antarctic continent is mapped we are going to need names for a great many of these features.

These considerations have led us to favour “ice stream” by itself, although a longer term might well be more explicit.

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DEFINITION OF “ICE RISE”

The note on “Suggested terms for ice features” by Roberts, Roots, and Swithinbank (*Polar Record*, Vol. 7, No. 49, 1955, p. 331–32) has led to the term “ice rise” being provisionally applied to certain features associated with the northern Ellesmere Island ice shelf (*Arctic*, Vol. 8, No. 1, p. 20). If this usage is acceptable, it is suggested that the proposed definition of “ice rise” should be emended to read: “A mass of ice resting on rock, and surrounded either by an ice shelf, or partly by an ice shelf and partly by sea *and/or ice-free land.*”

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[The writers of the note on “Suggested terms for ice features” agree that the definition be amended accordingly. See p. 7.]

DISCOVERY OF T-3

In perusing the Notes section of Vol. 7, No. 50, of the *Polar Record*, my eye fell with great interest on the report appearing on p. 416 devoted to Soviet sightings of ice islands, and especially on the following sentence of the second paragraph: “This (an ice island) is identified with T-3, first sighted by the U.S. Air Force in August 1950 in lat. 75° 24' N., long. 173° W. In fact, the original discovery of T-3 was made neither by United States nor Soviet aircraft, but by the Royal Canadian Air Force in April 1947, when it was sighted north of the Canadian arctic archipelago.”

While, at this stage, no real importance should be attached to such matters as the discovery of ice islands, I think that, for the sake of the record, the actual facts should be related. The ice island that became designated T-3 was first sighted at 08-35, G.M.T., 27 April 1947, by the crew of the U.S. Air Force B-29 aircraft No. 45-21869, a few miles north of Isachsen Peninsula, Ellef Ringnes Island, in approximately lat. 79° 50' N., long. 104° W. As the senior officer present on this flight, I have taken the preceding data from my flight notes.

Of course, the confusion over the original sighting of T-3 is not hard to explain. In the first place, the so-called first U.S.A.F. sighting of T-3 in August 1950 actually means the first sighting of the ice island by a particular