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Hydrographic conditions off West Greenland during 1973

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The location of the hydrographic sections occupied by R/V *Adolf Jensen* is shown in Fig. 1.

The Fylla Bank section (II) was worked in January, February, March, May, June, August and October, the sections III and IV were worked in July.

In January subzero temperatures were found in the upper layers down to about 50 meters depth. In the deeper layers off the western slope of the bank relatively high temperatures were found with a maximum exceeding 5°.

In February, March and May the water temperatures were very low in the upper 100 meters in the Fylla Bank area.

In June and August the summer heating has caused relatively high temperatures in the upper 50 meters. The polar component of the West Greenland Current was apparently relatively weak during the summer as no negative temperatures were found off the western slope of Fylla Bank.

In August the temperatures in the Irminger component of the West Greenland Current were lower than usual and did not reach 4° in the layers below 300 meters.

In October an inflow of warm water had occurred in the deeper layers where the temperatures exceeded 5°.

Off Sukkertoppen (section III) the summer heating had caused fairly high temperatures in the upper layers in July. In the northernmost section off Holsteinsborg (section IV) the temperatures were still low in the upper 100 meters in July.

The temperature sections are shown in Fig. 2 to 6.

The cold conditions which have existed in West Greenland waters since 1969 thus still persisted in the late winter and spring months, but in the summer and autumn months some improvement seems to have occurred in the upper layers.

Fig. 7 shows the five years running means of anomalies of sea surface temperatures up to 1971 calculated from Jens Smed's surface anomalies (Smed, up to 1971). The temperatures are now situated at the same low level as before the twenties.

Reference

Smed, J. Monthly anomalies of the surface temperature of areas of the Northern North Atlantic. *Ann. Biol. Copenhagen*, up to 1971.

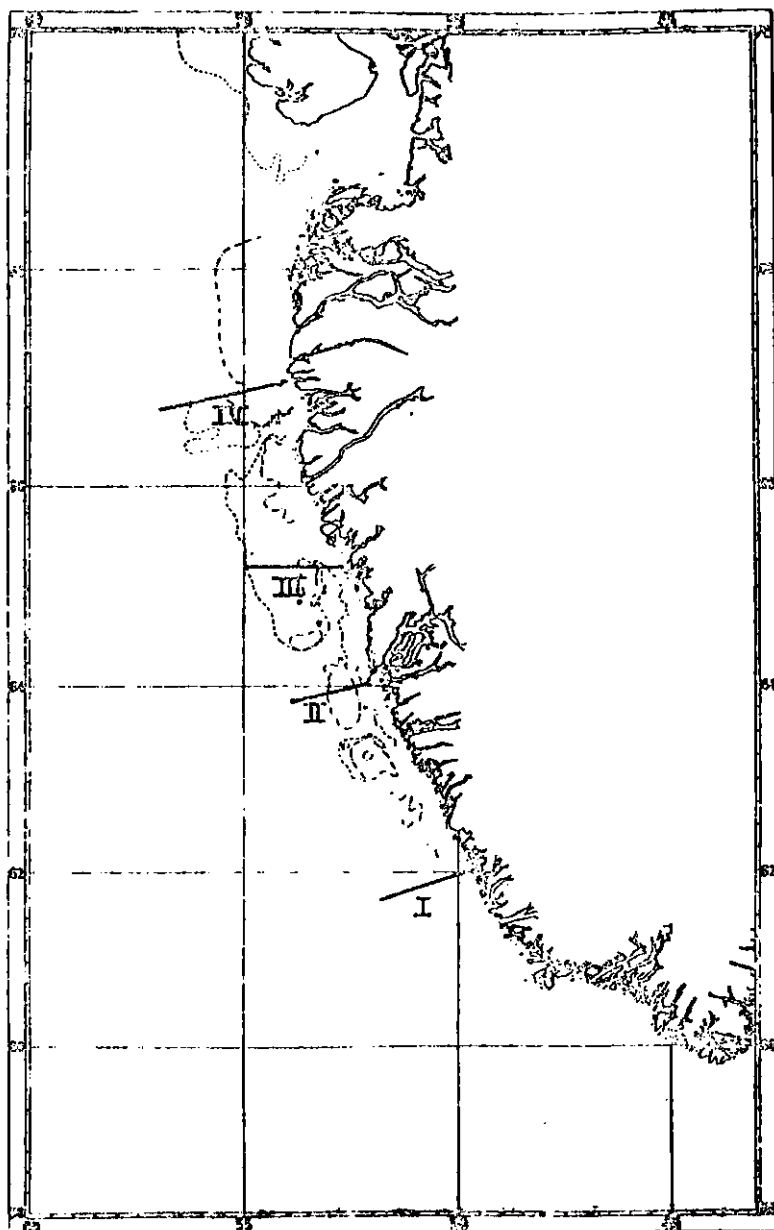


Fig. 1. Location of hydrographic sections off West Greenland.

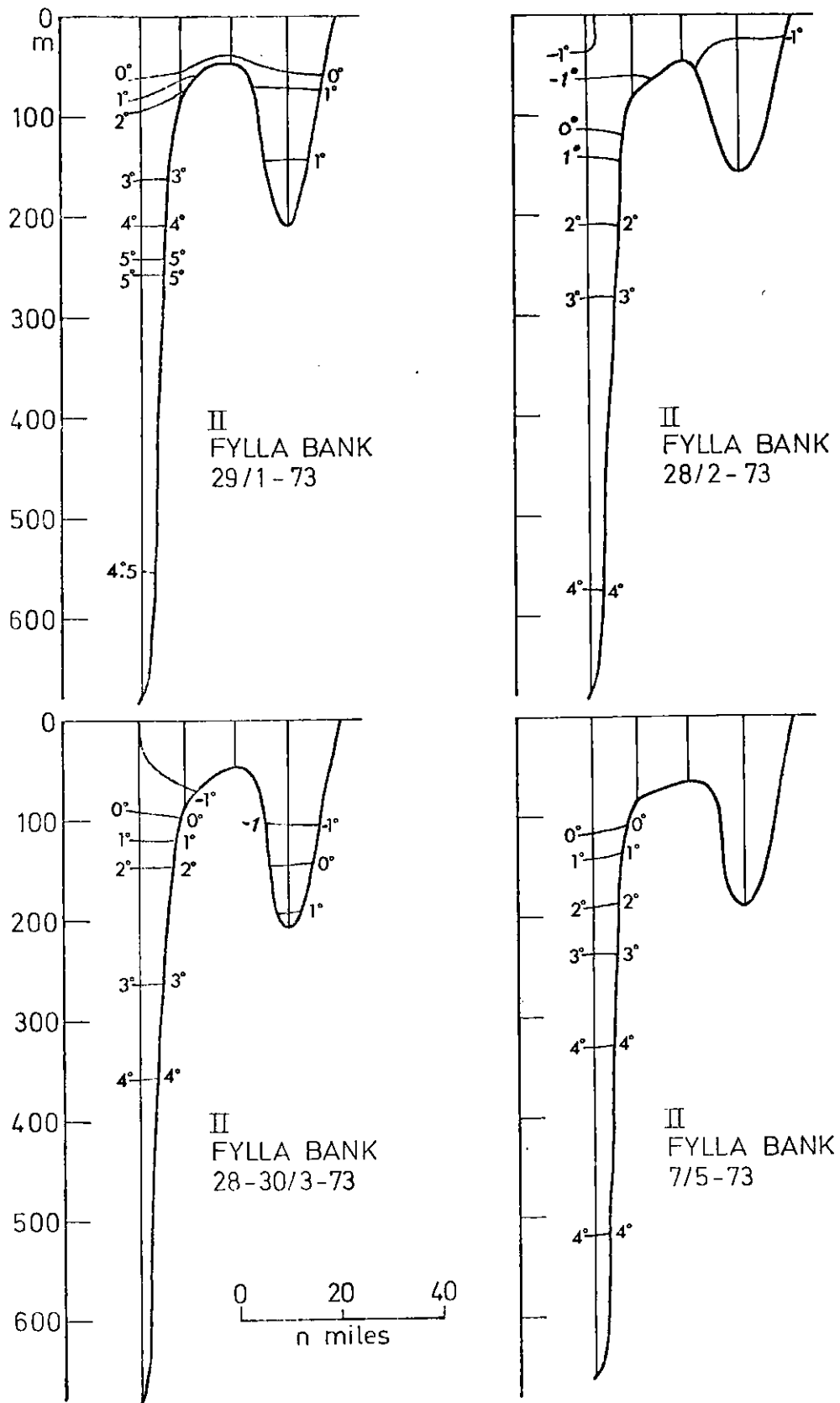


Fig. 2. Temperature sections across Fylla Bank in January, February, March and May.

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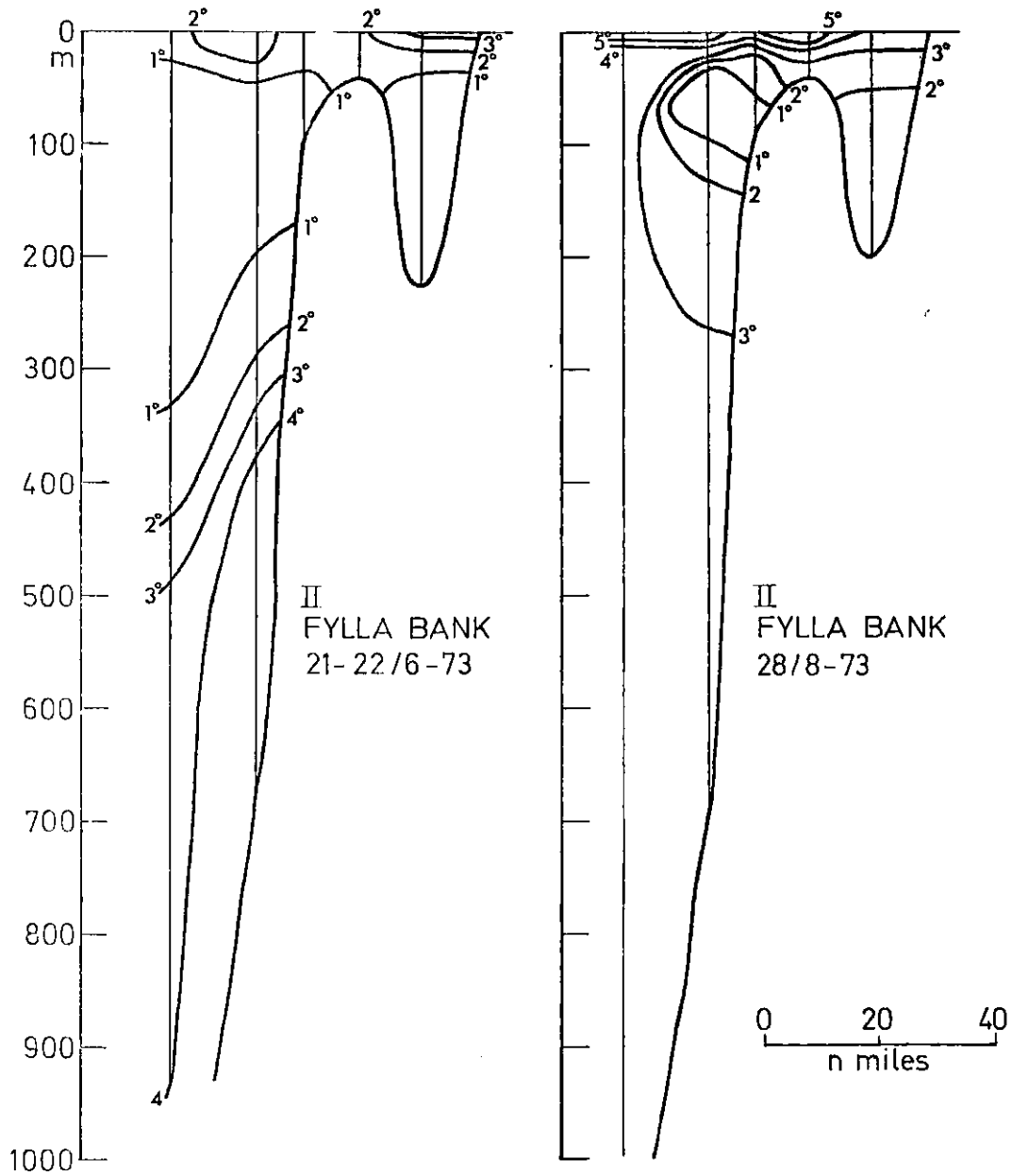


Fig. 3. Temperature across Fylla Bank in June and August.

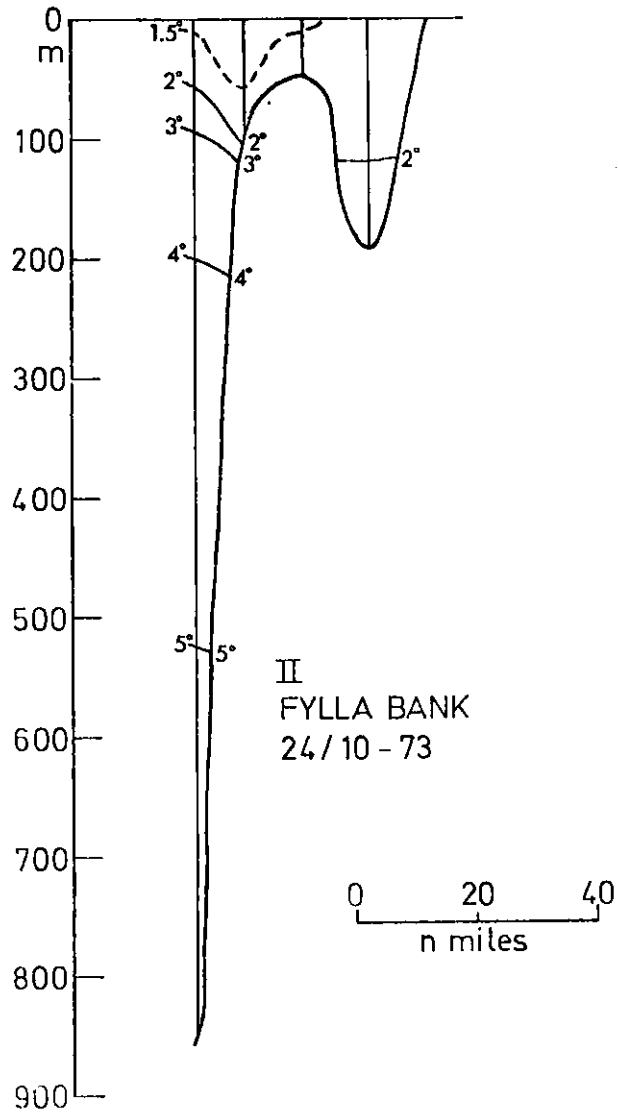


Fig. 4. Temperature section across Fylla Bank in October.

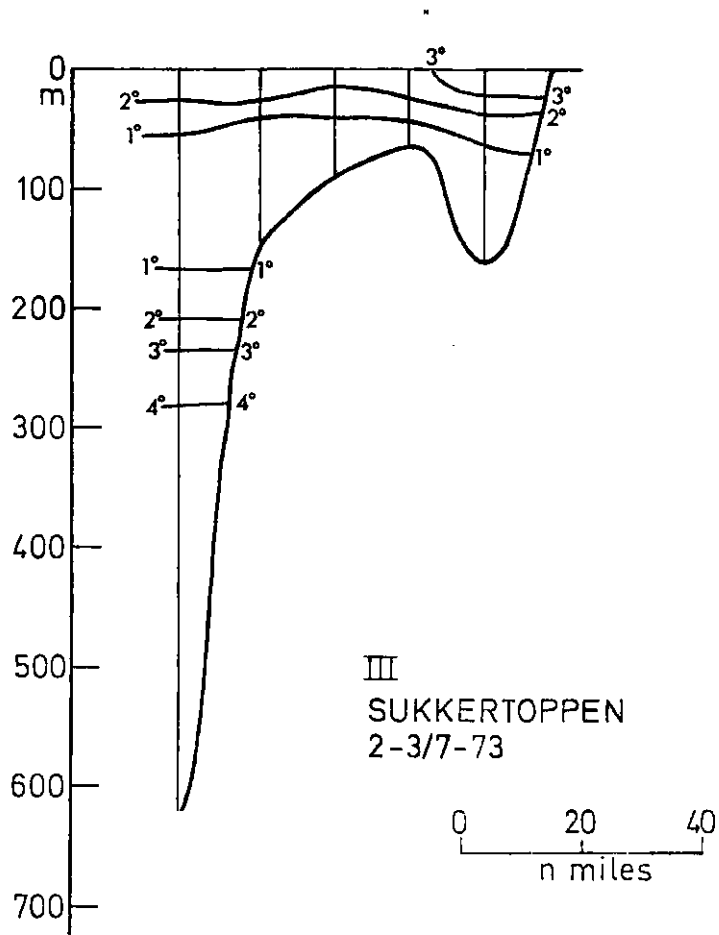


Fig. 5. Temperature section off Sukkertoppen in July.

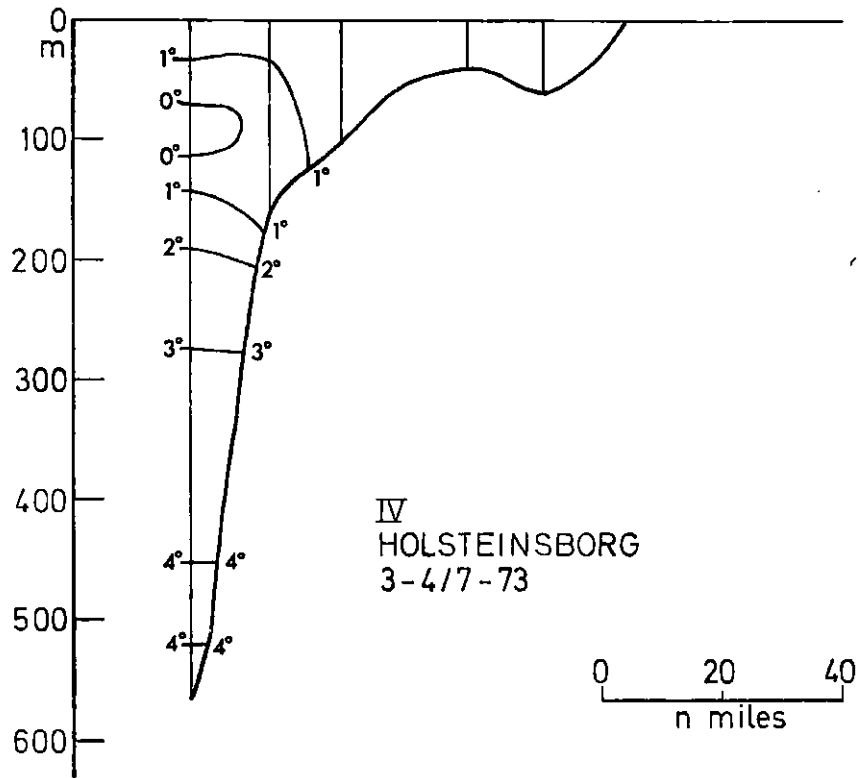


Fig. 6. Temperature section off Holsteinsborg in July.

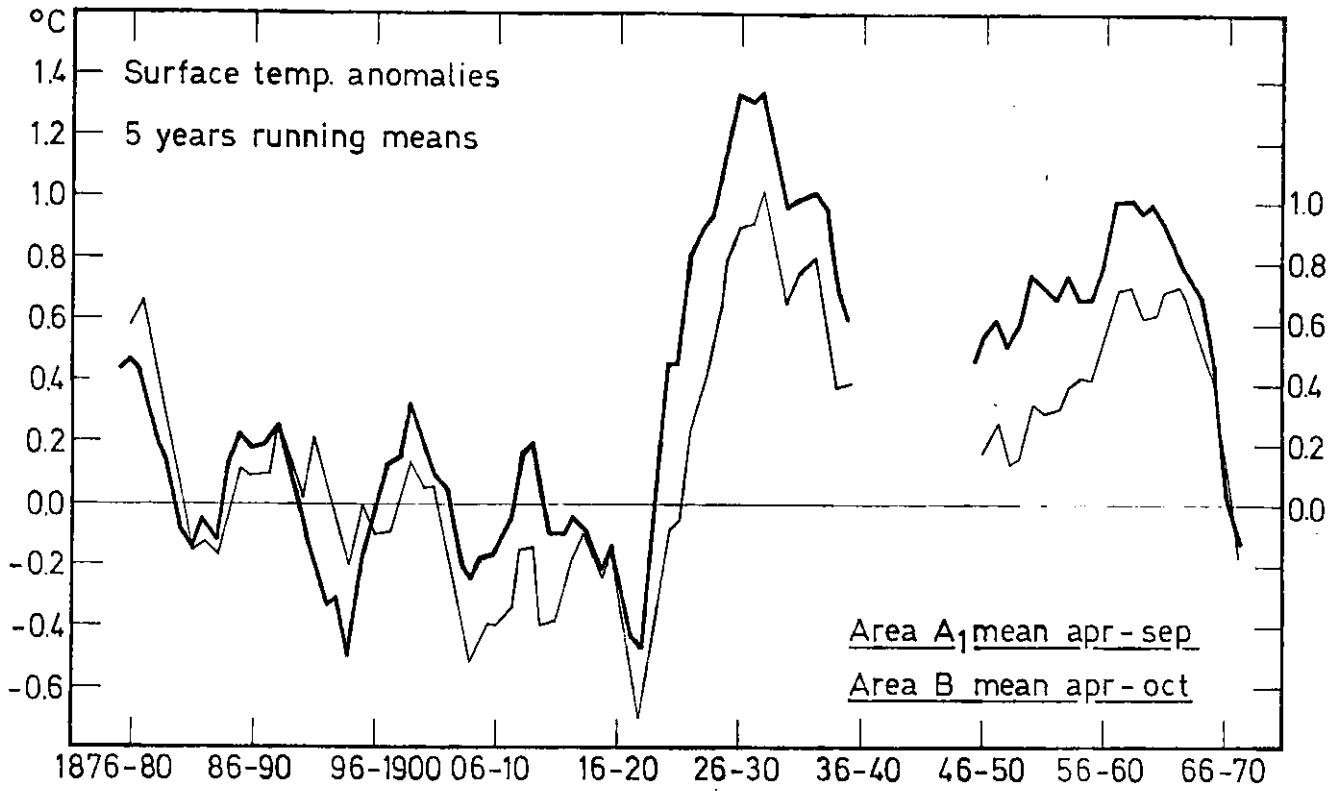


Fig. 7. Sea surface temperature anomalies, 5 years running means. A<sub>1</sub> (thick line) West Greenland area. B (thin line) South Greenland area.