

Eastern Arctic

At the end of May the bergy water area in southern Nares Strait was more extensive than normal. Ice in Lancaster Sound remained mobile throughout the winter and at the end of May a bergy water area had already developed in the western section of the Strait. Normally most of Lancaster is consolidated at the end of May. Otherwise ice conditions are close to normal.

June 2005

Winds were generally light and variable throughout June except moderate northwesterly over the archipelago during the second half (Figure 29, page 25). Temperatures were generally above normal over most areas during the month of June (Table 2, page 12) allowing the ice to melt at a moderate pace. Bergy water areas in southern Nares Strait and in western Lancaster Sound expanded rapidly and at mid-June Lancaster Sound was for the most part bergy water. The bergy water lead along the western shore of Greenland expanded northward to near 75N at the end of the month which is near its normal position. Ice concentration in Davis Strait remained less than normal throughout June. Prince Regent Inlet fractured in late June. At that time ice conditions in Foxe Basin were less severe than normal as a loose ice area was developing in the centre of the basin. Otherwise conditions were near normal. The departure from normal ice concentration chart for June 13 (Figure 12, page 13) indicates that there is a lot less ice than normal in Eastern Baffin Bay, eastern Barrow Strait as well as in Western Lancaster Sound.

Ice conditions and the departure from normal ice concentration chart, at mid-June, can be seen on page 13, figure 11 and 12 respectively.

July 2005

Winds were for the most part light and variable over most of the eastern Arctic area during the first half of July. During the second half winds were generally moderate from the southeast over Baffin Bay but moderate northerly elsewhere (Figure 30, page 25). Reported temperatures were in general near normal. (Table 2, page 12).

Ice melted rapidly along the northwestern coast of Greenland and in northern Baffin Bay and a bergy water route across northern Baffin Bay to Thule established itself during the third week of July. The bergy water area in northwestern Baffin Bay expanded southward along the Baffin Island coast. Lancaster Sound remained, for the most part, bergy water but pieces of broken fast ice occasionally drifted in the western part of the sound. Eastern Barrow strait fractured late in the month. Admiralty Inlet, Pond Inlet, Jones Sound, Kane Basin, as well as Pelly Bay fractured during the third week of July which is, for most areas, near normal events. Eureka Sound started to fracture late during the first week in July and bergy water areas developed shortly thereafter. Eureka Sound was entirely fractured by

the last week of the month. At that time Norwegian Bay had also fractured completely. Easier than normal ice conditions prevailed in Foxe Basin throughout July.

Ice conditions and the departure from normal ice concentration chart, at mid-July, can be seen on page 14, figure 13 and 14 respectively.

August 2005

Winds were generally light northeasterly over all areas in August except moderate westerly over Foxe Basin during the second half of August (Figure 31, page 26). Temperatures were above normal everywhere (Table 2, page 12). Ice in Baffin Bay continued to melt at a rapid pace and was all gone by the end of the month which is close to two weeks earlier than normal. The same trend was also notice over Foxe Basin where most of the ice has melted by the end of August. The only exception was some old ice drifting from Fury and Hecla Strait into the northwestern section of the Basin. This condition in Foxe Basin is normally encountered late into the third week of September. Eureka Channel became mainly bergy water during the second week in August. Close to very close pack conditions prevailed in Norwegian Bay during the first two weeks of August but conditions improved rapidly afterwards and conditions during the second half of August were much easier than normal. The transit through Jones Sound was more difficult than normal at the beginning of August but conditions improved to near normal during the latter part of the month. Lancaster Sound remained mainly bergy water throughout August while loose ice was generally found in eastern Barrow Strait into Resolute. Pelly Bay itself remained open water throughout the month but the southern section of the Gulf of Boothia reported close to very close pack conditions. Southern Prince Regent Inlet and northern Gulf of Boothia experienced a gradual decrease in ice concentration but loose ice was still found over those areas at the end of August.

Eureka Sound was mainly bergy water at the end of August except for loose ice persisting over the northern section. Wellington Channel and McDougall Sound fractured about a week into the month but the area between LCI and Cornwallis Island remained consolidated throughout the summer season. Pelly Bay was mainly open water by mid-month but close to very close pack thick first year and old ice persisted in southern Prince Regent Inlet throughout the rest of the month. Bergy water developed in northern Admiralty Inlet within a week into August. The fracture of Viscount Melville Sound allow for a continuous flow of mainly old ice into Barrow Strait and western Lancaster Sound specially during the second half of August so at the end of the month there was more ice than normal over these above mentioned areas.

Ice conditions as well as the departure from normal ice concentration chart, at mid-August, are shown on page 15, figure 15 and 16 respectively.

September 2005

Generally a light to moderate northwesterly flow continue to predominate over the High and Central Arctic while a light and variable flow was generally reported over Baffin Bay and Foxe Basin (Figure 32, page 26). Reported temperatures have been generally above normal except near Normal over Pelly Bay area (Table 2, page 12).

Bergy water continued to predominate over Baffin Bay except for the continuous flow of mainly old ice drifting down from Nares Strait into the extreme northwest section of the bay and into the entrance to Jones Sound. Lancaster Sound, Prince Regent Inlet as well as eastern Barrow Strait remain bergy throughout September except for new ice developing late in the month. Significant amount of first year and old ice persisted in southern Gulf of Boothia and in the approach to Pelly Bay, but not as much as normally. New ice started to develop in above areas during the last week of the month. Eureka Sound remained bergy water until the last week of September at which time new ice started to develop. A lot less ice than normal was found in Norwegian Bay at the beginning of September but new ice started to develop near mid-September and was covering the entire bay a week or so later.

Ice conditions and the departure from the normal ice concentration chart, at mid-September, are shown on page 16, figure 17 and 18 respectively.

Table 2: Temperatures and departures from normal (°C)

Stations	June		July		August		September	
	Temp.	Depart.	Temp.	Depart.	Temp.	Depart.	Temp.	Depart.
Eureka	4.8	3.1	7.2	1.7	4.9	2.4	-4.6	3.3
Resolute	0.4	0.8	3.9	-0.1	3.7	2.3	-3.3	1.7
Pond Inlet	2.8	1.2	6.4	0.6	5.4	1.4	0.1	1.9
Clyde	1.3	0.8	5.0	0.8	5.1	1.3	0.4	0.7
Hall Beach	1.3	0.7	5.2	-0.6	5.7	1.2	0.6	1.1
Pelly Bay	2.6	-0.3	8.2	-0.5	8.5	2.1	-0.5	-0.6

Figure 9: Temperature trend at Resolute, June - September 2005

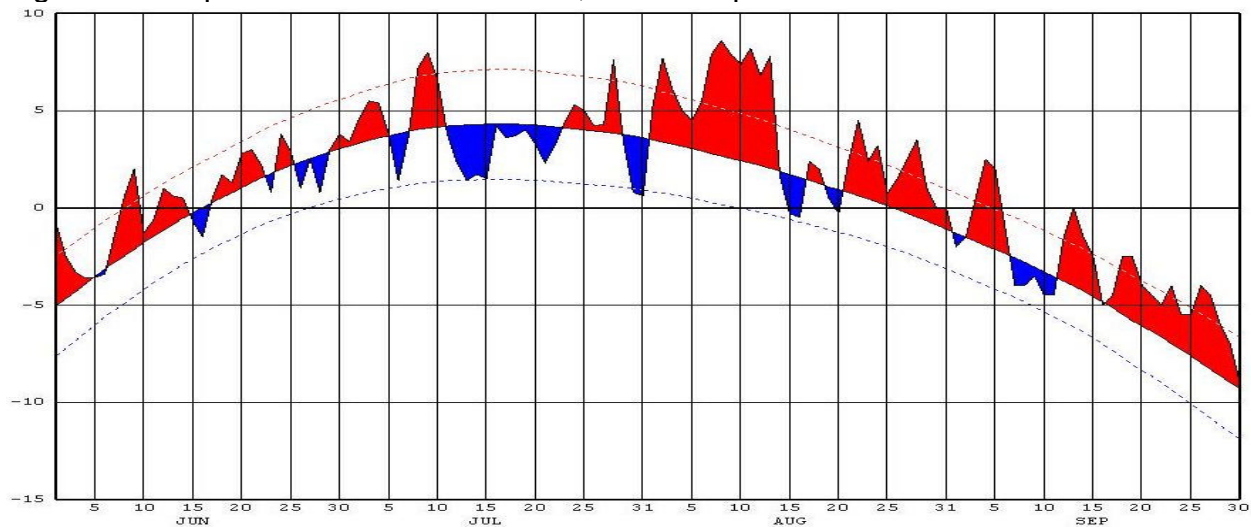


Figure 10: Temperature trend at Hall Beach, June - September 2005

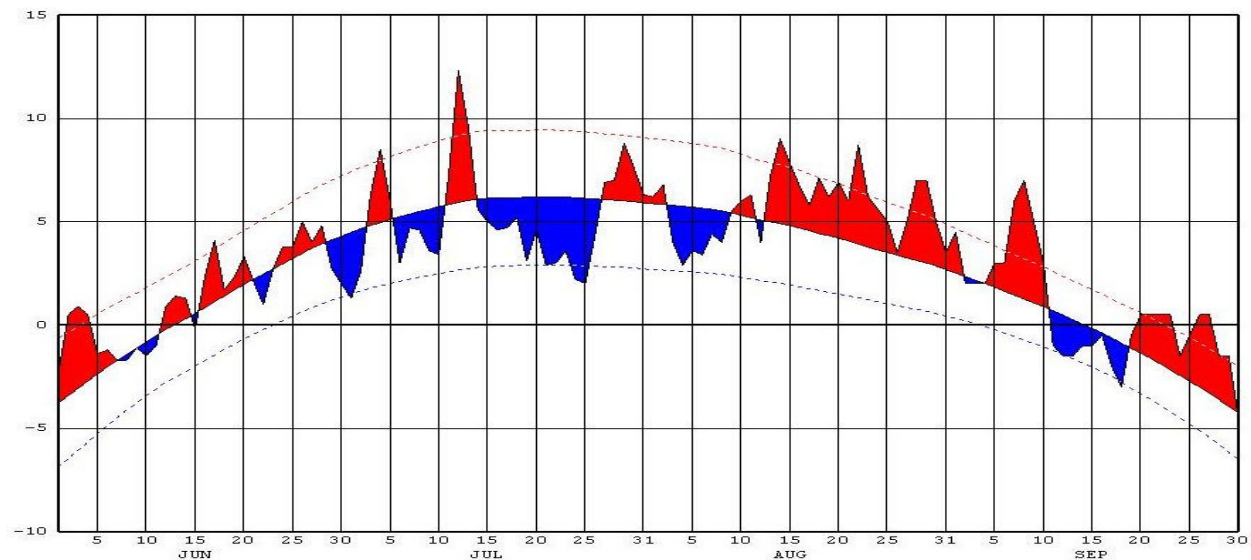


Figure 13: Eastern Arctic Regional chart 18 July 2005

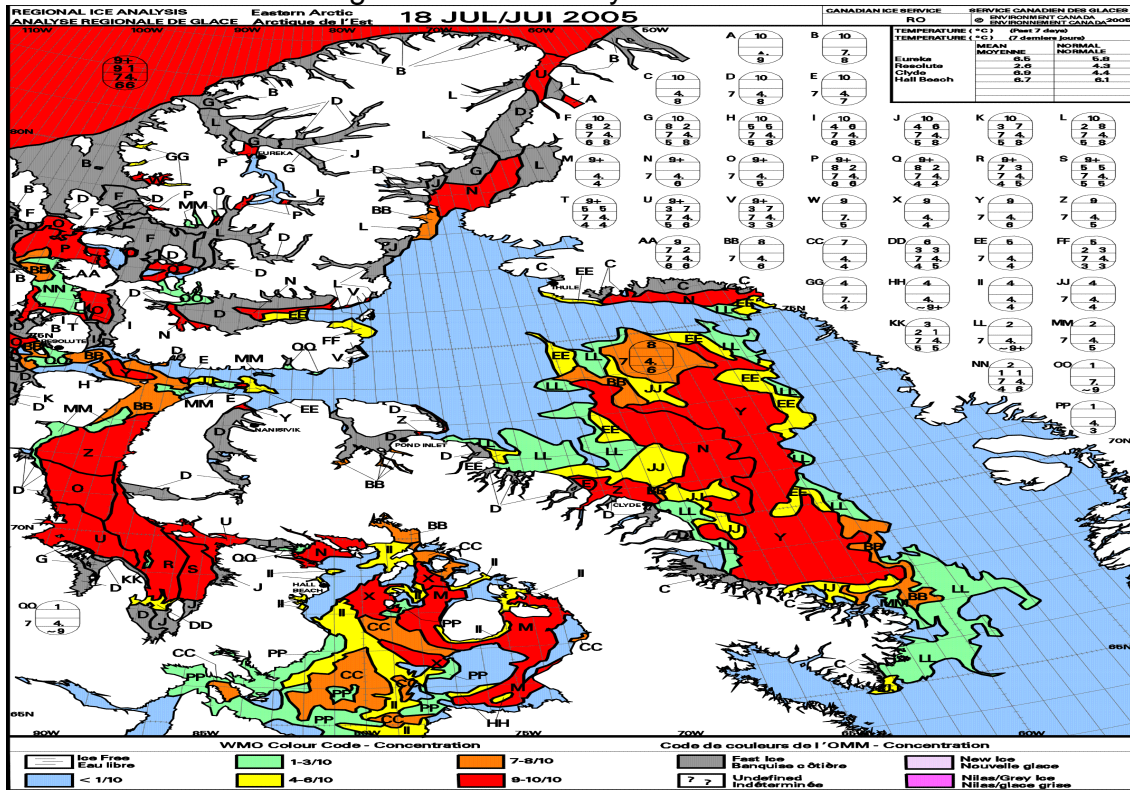


Figure 14: Departure from normal ice concentration, Eastern Arctic – 18 July 2004

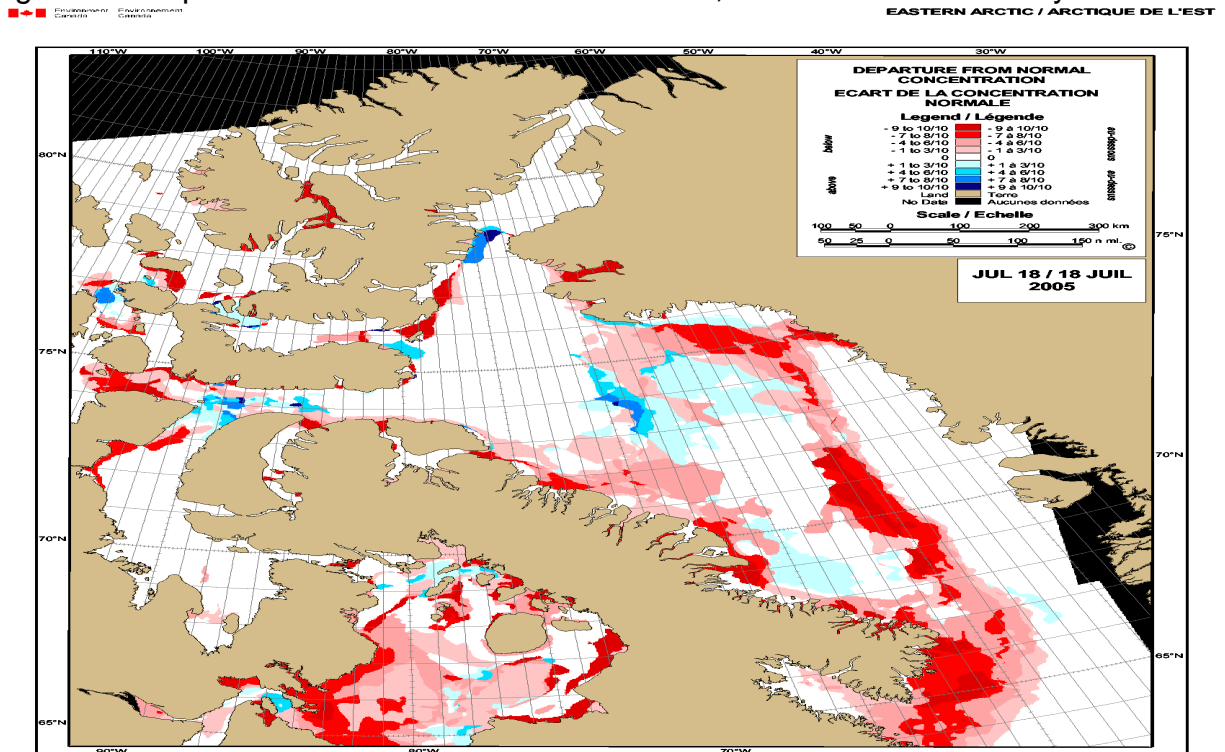


Figure 15: Eastern Arctic regional – 15 August 2005

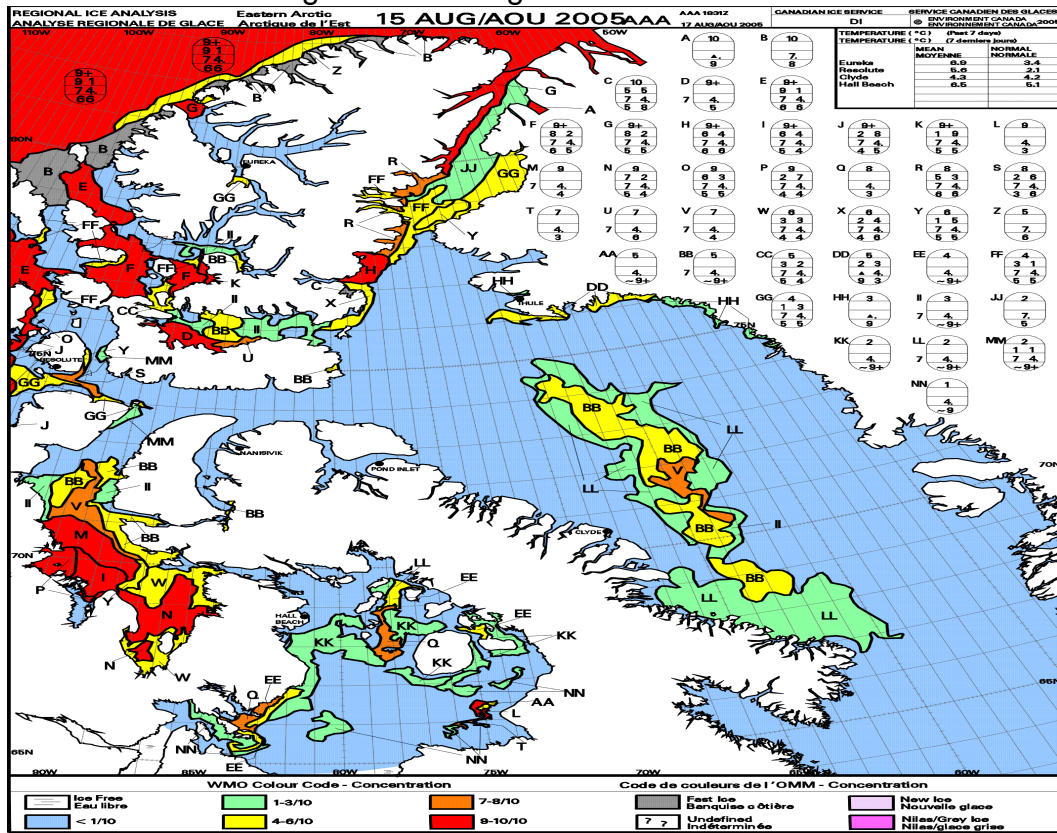


Figure 16: Departure from normal ice concentration, Eastern Arctic–15 August 2005

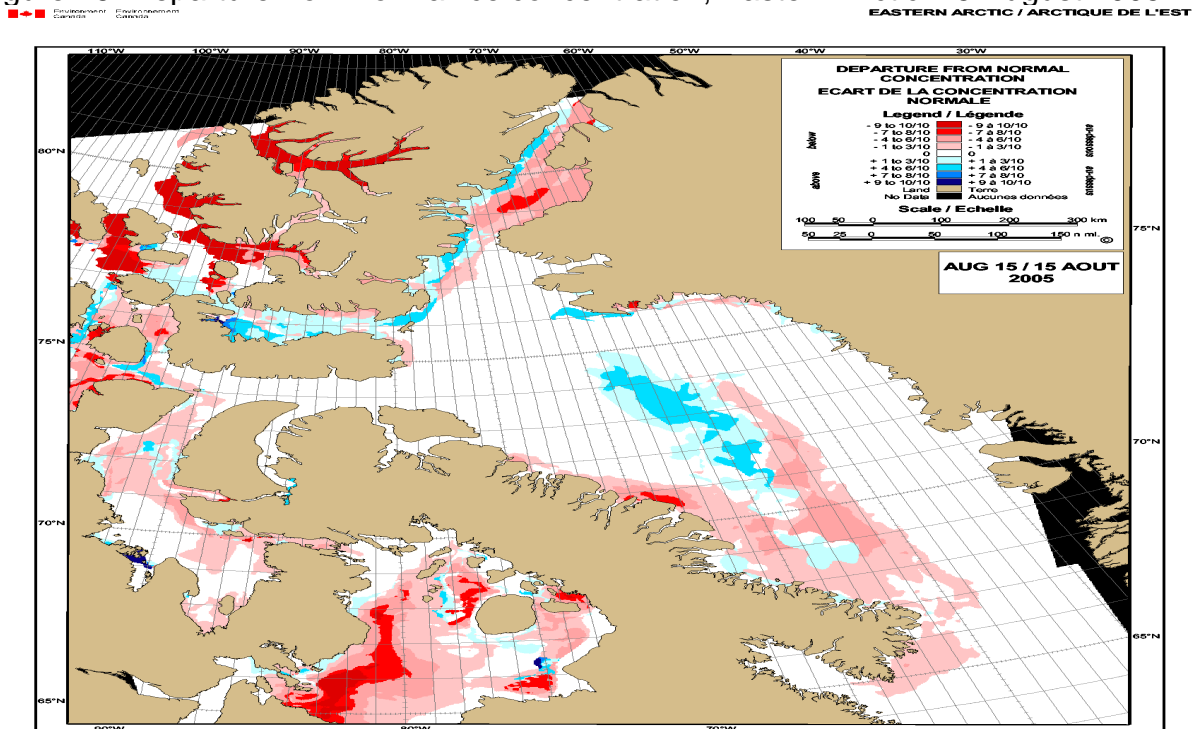


Figure 17: Eastern Arctic regional chart – 19 September 2005

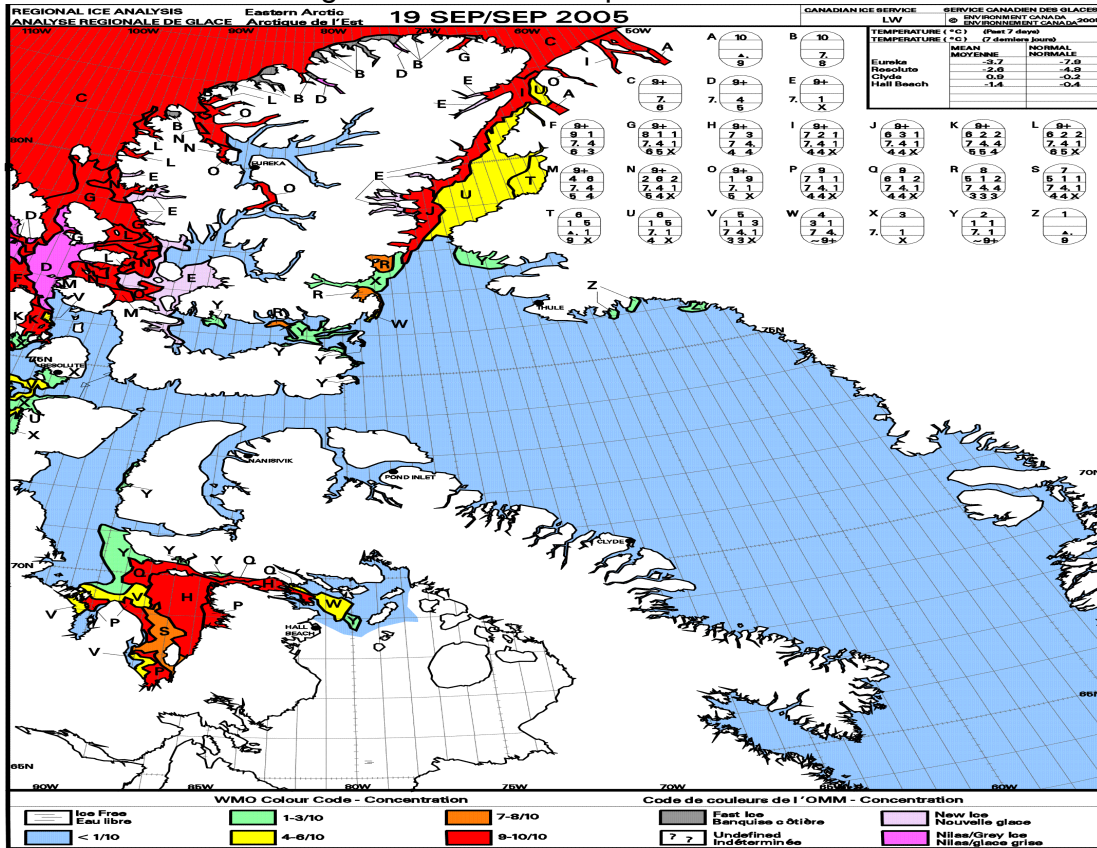


Figure 18: Departure from normal ice concentration Eastern Arctic–19 September 2005

