

**Seasonal Summary
for the Canadian Arctic
Summer 2005**



**Produced by the Canadian Ice Service
December 06, 2005**

Table of Contents

Hudson Bay and Approaches	1
June 2005.....	1
July 2005.....	1
August 2005.....	2
Eastern Arctic	7
June 2005.....	7
July 2005.....	7
August 2005.....	8
September 2005	9
Western Arctic	15
June 2005.....	15
July 2005.....	15
August 2005.....	16
September 2005	16

Table of Tables

Table 1: Temperatures and departures from normal (°C) for Hudson Bay.....	3
Table 2: Temperatures and departures from normal (°C) for Eastern Arctic.....	10
Table 3: Temperatures and departures from normal (°C) for Western Arctic.....	18

Table of Figures

Figure 1: Temperature trend at Churchill, June – September 2005.....	3
Figure 2: Temperature trend at Iqaluit, June – September 2005	3
Figure 3: Hudson Bay regional chart – 13 June 2005.....	4
Figure 4: Departure from normal ice concentration Hudson Bay –13 June 2005	4
Figure 5: Hudson Bay regional chart – 18 July 2005.....	5
Figure 6: Departure from normal ice concentration Hudson Bay – 18 July 2005.....	5
Figure 7: Hudson Bay regional – 01 Aug. 2005.....	6
Figure 8: Departure from normal ice concentration Hudson Bay – 01 Aug. 2005.....	6
Figure 9: Temperature trend at Resolute, June – September 2005.....	10
Figure 10: Temperature trend at Hall Beach, June – September 2005	10
Figure 11: Eastern Arctic regional chart – 13 June 2005.....	11
Figure 12: Departure from normal ice concentration, Eastern Arctic–13 June 2005.....	11
Figure 13: Eastern Arctic Regional chart – 18 July 2005.....	12
Figure 14: Departure from normal ice concentration, Eastern Arctic – 18 July 2005.....	12
Figure 15: Eastern Arctic regional – 15 Aug. 2005.....	13
Figure 16: Departure from normal ice concentration, Eastern Arctic–15 Aug. 2005.....	13
Figure 17: Eastern Arctic regional chart – 19 Sept. 2005	13
Figure 18: Departure from normal ice concentration Eastern Arctic–19 Sept. 2005.....	14

Canadian Ice Service

Figure 19: Temperature trend at Tuktoyaktuk, June – September 2005 18
Figure 20: Temperature trend at Cambridge Bay, June – September 2005..... 18
Figure 21: Western Arctic regional chart – 13 June 2005..... 19
Figure 22: Departure from normal ice concentration, western Arctic – 13 June 2005 ... 19
Figure 23: Western Arctic regional – 18 July 2005..... 20
Figure 24: Departure from normal ice concentration, Western Arctic – 18 July 2005.... 20
Figure 25: Western Arctic regional chart – 15 Aug. 2005 21
Figure 26: Departure from normal ice concentration, Western Arctic–15 Aug. 2005..... 21
Figure 27: Western Arctic regional chart – 19 Sept. 2005 21
Figure 28: Departure from normal ice concentration Western Arctic–19 Sept. 2005..... 22
Figure 29: 1000 mb pattern for June 1–15 and 16-30 23
Figure 30: 1000 mb pattern for July 1–5 and July 16-31 23
Figure 31: 1000 mb pattern for August 1–15 and 16-31 24
Figure 32: 1000 mb pattern for September 1–15 and 16-30..... 24

Hudson Bay and Approaches

Due to significantly higher than normal temperatures in May, ice conditions at the end of May were in general 10 days to three weeks earlier than normal. The only exception was over northwestern Hudson Bay where May's temperatures were slightly below normal and ice conditions were close to normal. The last of the ice in Goose Bay melted during the last week in May.

June 2005

Winds were generally light and variable over the first half of June but increased to light to moderate westerly for the second half (Figure 29, page 25). Above normal temperatures continued to prevail in June over most areas (Table 1, page 5). As a result ice melt continued at a rapid pace. This was more apparent along the Labrador coast where ice was disappearing at a near record pace. At the end of the month the Labrador coast was almost clear of sea ice except for the extreme northern section. Open water areas started to develop in southern Ungava Bay and northern Hudson Strait near mid-June and expanded gradually during the rest of the month. The northwestern section of Hudson Bay did not change significantly during the first half of June but rapid melting occurred and wide open water areas developed during the second half. At the end of June, James Bay was generally open water except for loose ice persisting over its northwestern section. At that time a large open water lead existed along the eastern shore of Hudson Bay south of Inukjuak while open drift conditions prevailed northward along the shore. Conditions in Frobisher Bay remained closed to normal during the entire month of June but were generally easier than normal in its approaches. At the end of June ice conditions were about 10 days earlier than normal except near 3 weeks earlier along the Labrador coast.

Ice conditions as well as the departure from normal ice concentration chart for mid-June are shown on page 6, Figure 3 and Figure 4, respectively.

July 2005

Above normal temperatures continued to prevail during the month of July except near normal over the northeast section of Hudson Bay (Table 1, page 5). Over Hudson Bay winds were generally light to moderate from the southwest during the first half of July but moderate northwesterly during the second half. Winds were generally light to moderate southerly along the Labrador coast throughout July. (Figure 30, page 25).

Warmer than normal temperatures, as well as prevailing southwesterly winds, contributed to a rapid melting of the ice in Hudson Bay and James Bay. James Bay became open water in early July while Hudson Bay was almost entirely open water by the end of the month except for a very small area of loose ice that was persisting north of Churchill. The open water route along the eastern shore of Hudson Bay developed during the second week of July which is near normal. Bergy water became predominant along the entire Labrador coast during the second week of July and in Ungava Bay and

Hudson Strait during the last week of the month. The open water route to Churchill had developed by the last week of the month which is a near normal event.

Rapid ice melt was also noticed in Davis Strait and at mid-July the southern ice edge was located at the entrance to Cumberland Sound while the Sound itself was mainly bergy water. At that time the last of the ice in Frobisher Bay had just melted. At the end of the month loose ice areas were still found in the northern section of the Davis Strait.

Ice conditions as well as the departure from normal ice concentration chart for mid-July are shown on page 7, figure 5 and figure 6, respectively.

August 2005

Near normal temperatures were generally reported in August (Table 1, page 5). Winds were generally light and variable except moderate westerly over the northern section during the second half of August (Figure 31, page 26). The last patch of ice in northwestern Hudson Bay melted early in the month. Foxe Channel was mainly open water by mid-August. The ice edge in Davis Strait retreated north of Cape Dyer shortly after mid-month.

Ice conditions as well as the departure from normal ice concentration chart for the beginning of August are shown on page 8, figure 7 and figure 8, respectively.

Canadian Ice Service

Table 1: Temperatures and departures from normal (°C)

Stations	June		July		August		September	
	Temp.	Depart.	Temp.	Depart.	Temp.	Depart.	Temp.	Depart.
Nain	8.3	2.2	12.4	2.3	10.8	0.2	8.3	1.6
Iqaluit	4.2	0.7	7.7	0.2	7.1	0.3	3.4	1.2
Kuujuaq	9.1	2.1	12.4	1.1	11.3	0.8	7.0	1.4
Cape Dorset	3.4	1.1	6.4	-0.7	6.1	0.3	2.3	0.9
Churchill	7.6	1.0	14.6	2.8	12.8	1.3	6.8	1.1
Moosonee	11.0	-1.4	15.1	-0.6	12.4	-2.5	12.2	1.7
Kuujuarapik	8.5	1.6	14.8	4.2	13.8	2.5	9.7	2.4

Figure 1: Temperature trend at Churchill, June – September 2005

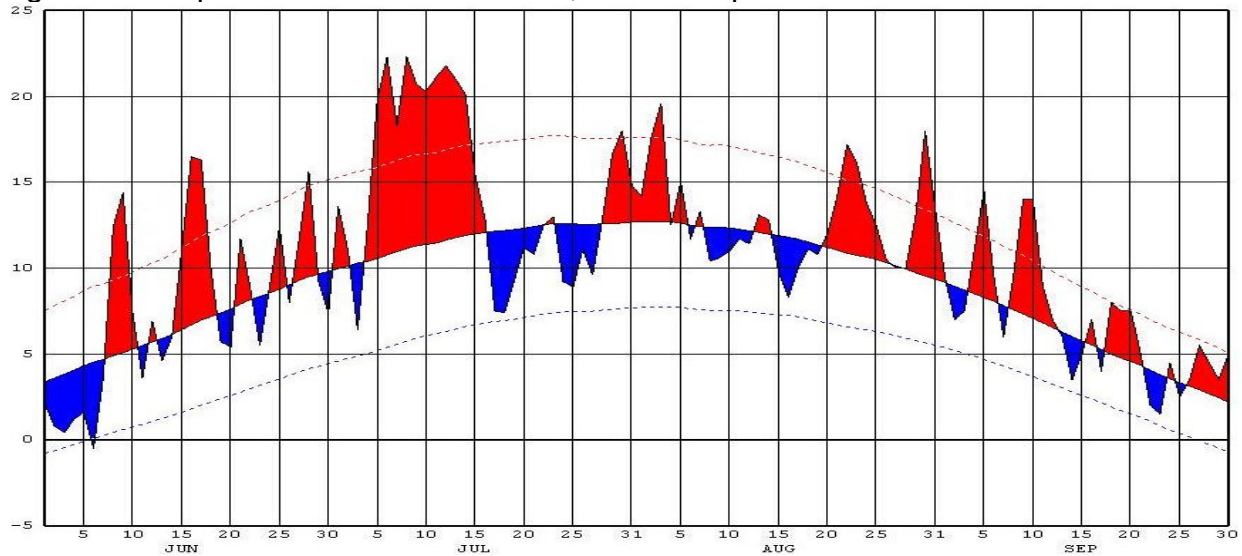


Figure 2: Temperature trend at Iqaluit, June – September 2005

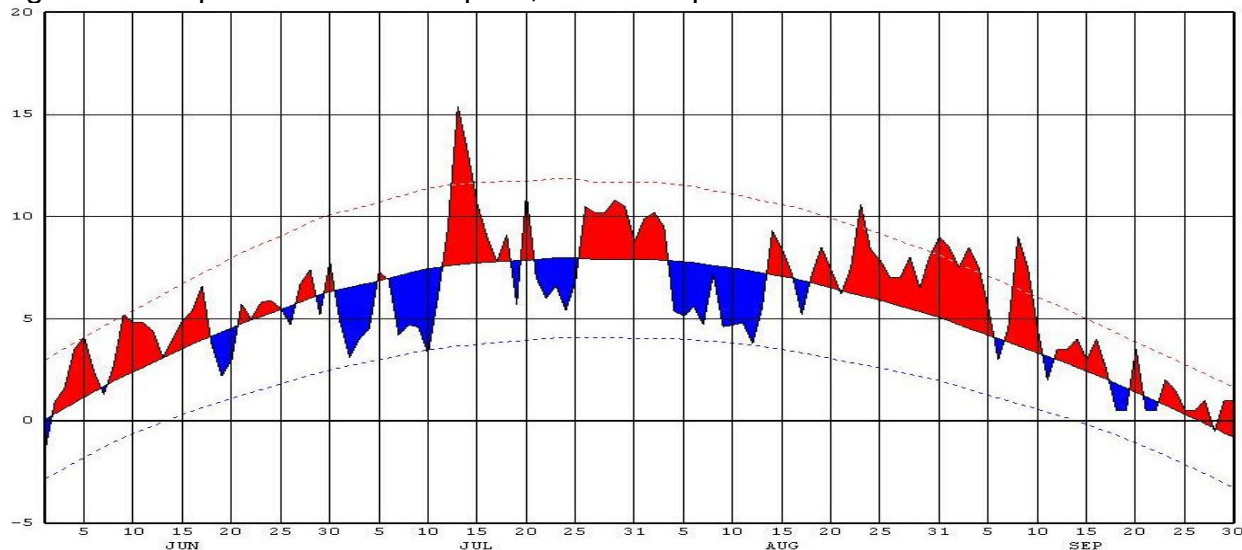


Figure 3: Hudson Bay regional chart - 13 June, 2005

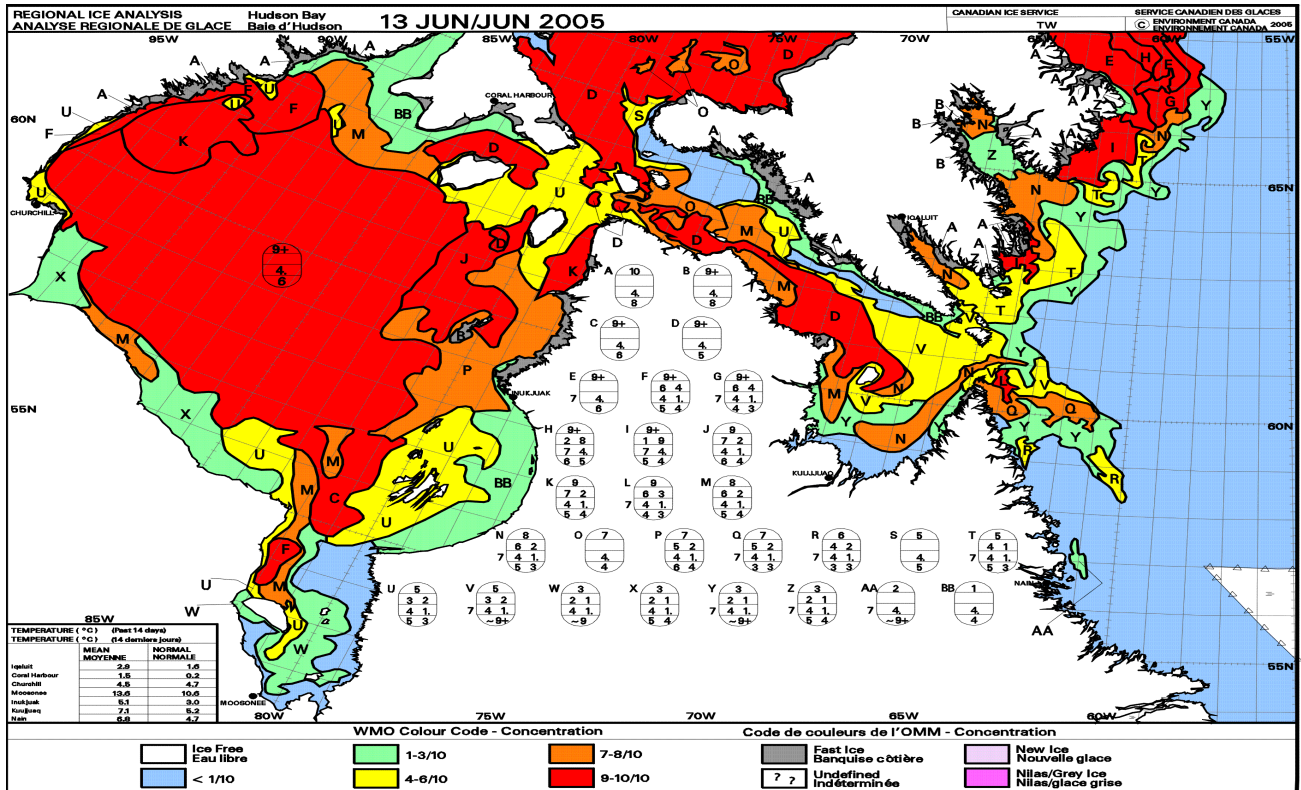


Figure 4: Departure from normal ice concentration Hudson Bay -13 June.

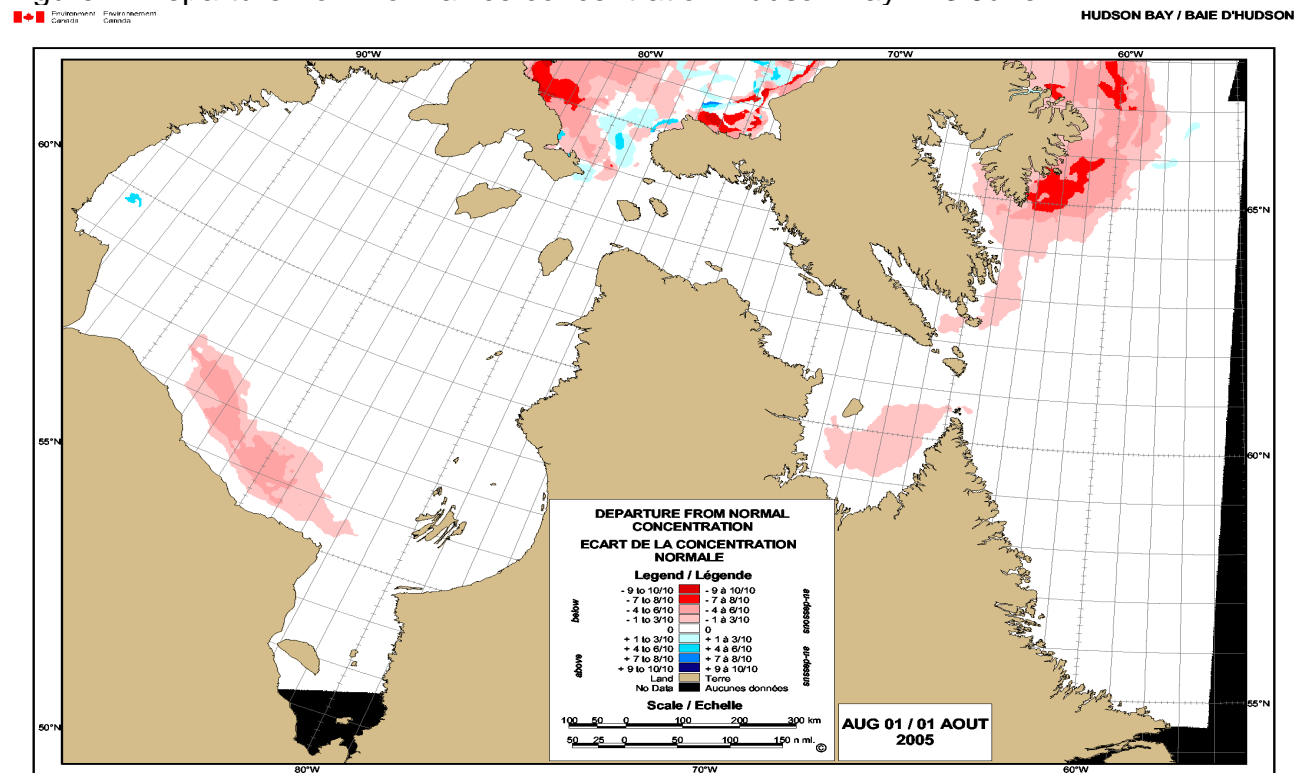


Figure 5: Hudson Bay regional chart – 18 July 2005

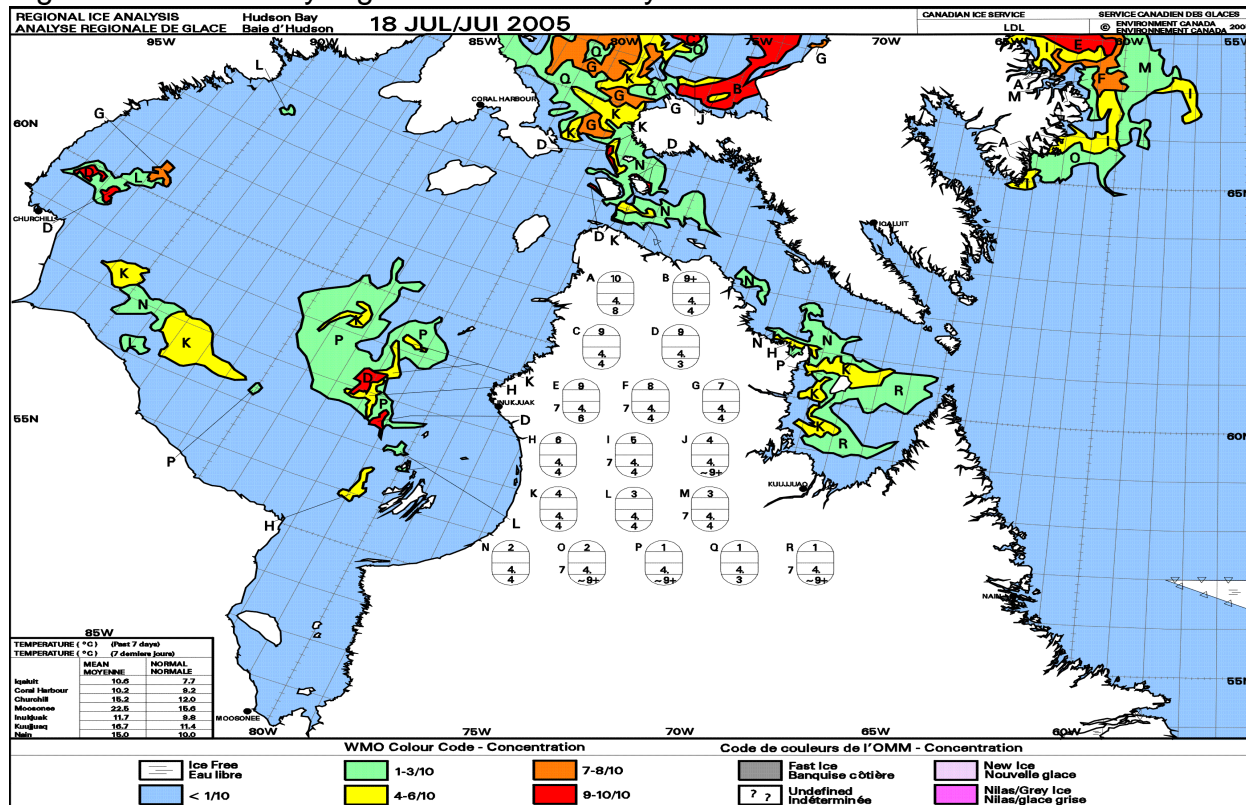


Figure 6: Departure from normal ice concentration Hudson Bay – 18 July 2005

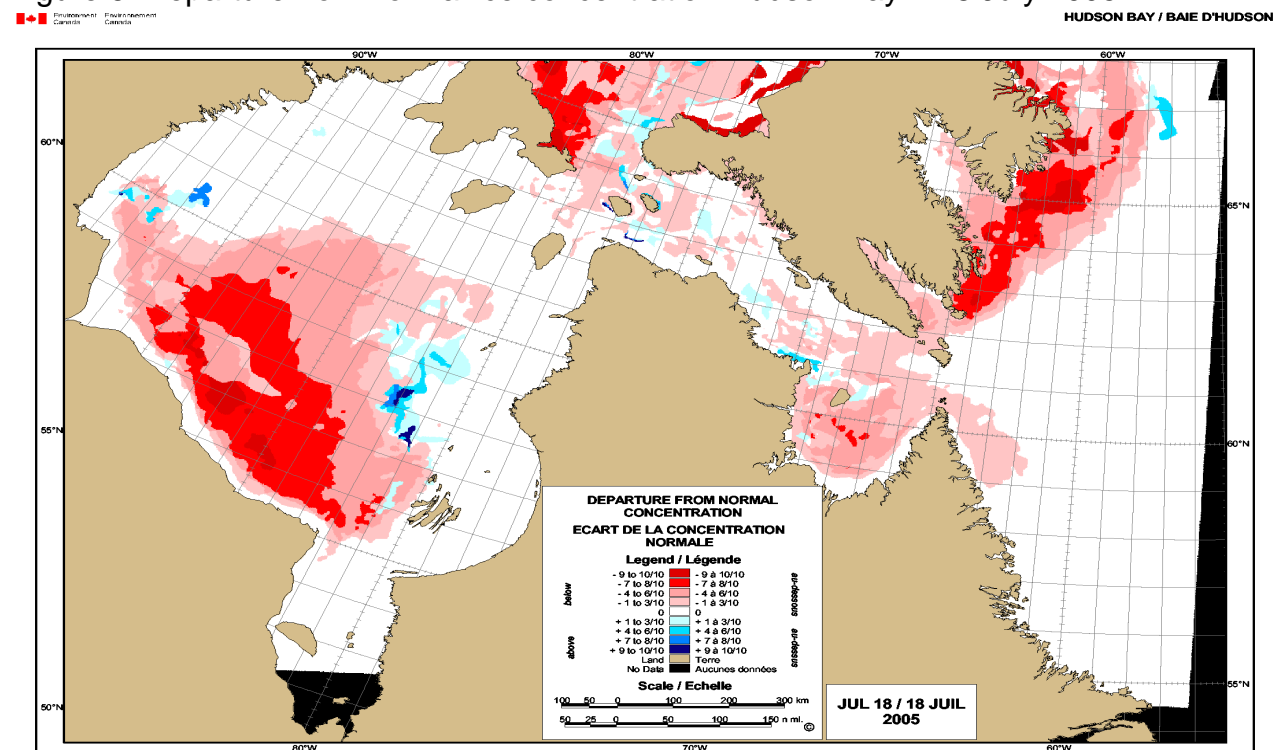


Figure 7: Hudson Bay regional – 01 August 2005

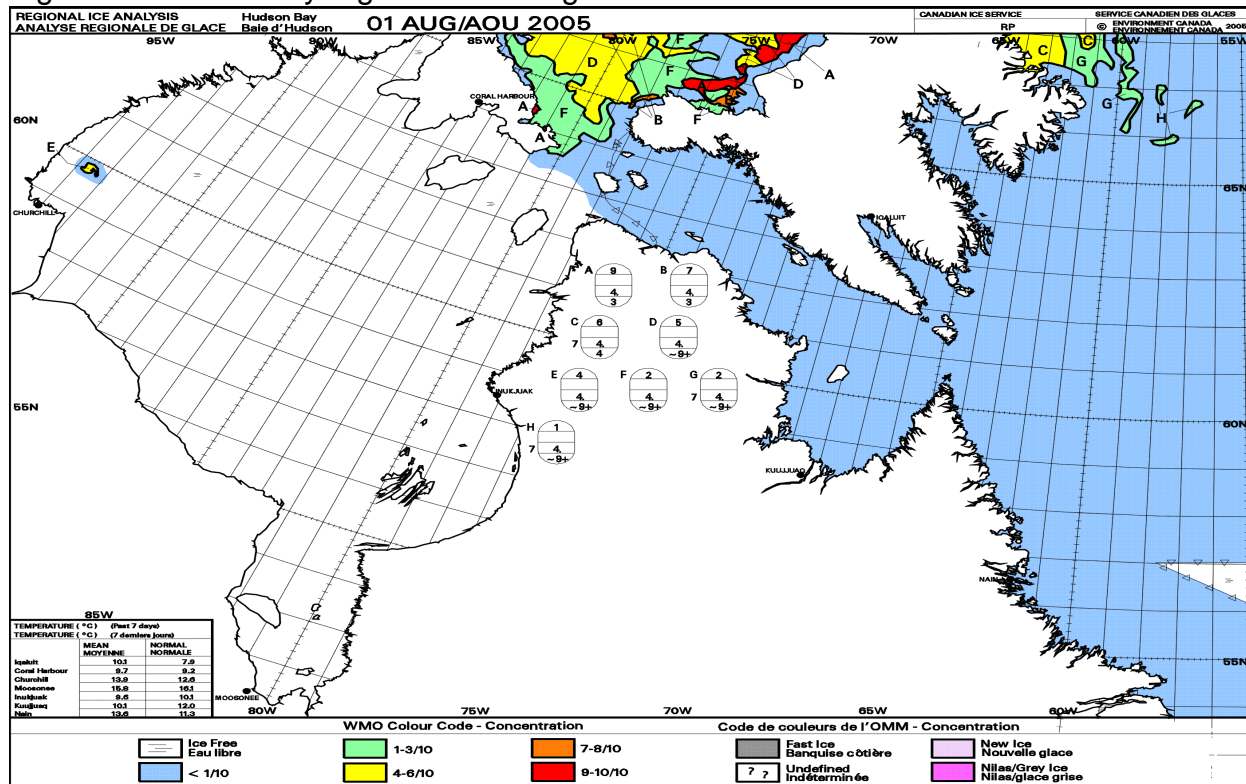


Figure 8: Departure from normal ice concentration Hudson Bay – 01 August 2005

HUDSON BAY / BAIE D'HUDSON

