

**Seasonal Outlook  
Great Lakes  
Winter 2014-2015**



**Issued by the North American Ice Service**

**3 December 2014**

## **Lake Superior**

### **Winter temperature and ice forecasts.**

Average to slightly below average air temperatures are forecast for the 2014-2015 winter season. Normal ice coverage is expected.

### **Thunder Bay.**

Outlook for December... In the second week, open drift to close pack new and thin lake ice along the shores. Very close pack new and thin lake ice west of Pie Island.

Outlook for January...In the first week, close to very close pack thin and medium lake ice. At the end of January, consolidated medium lake ice except for close to very close pack thin lake ice northeast of Pie Island.

Outlook for February...Consolidated medium lake ice will become thick lake ice in the first week.

### **Nipigon and Black Bays.**

Outlook for December... In the first week, the northern portion of Black Bay will consolidate with thin lake ice. In the second week, close to very close pack new and thin lake ice will cover the western third of Nipigon Bay. By the end of the month, most of Black Bay will be consolidated with thin and medium lake ice. Nipigon Bay will be covered with new and thin lake ice and the north-western portion of the bay will be consolidated medium lake ice.

Outlook for January...In the second week, consolidated with medium lake ice thickening to thick lake ice.

Outlook for February...Consolidated with thick lake ice.

### **From Grand Marais Minnesota to the entrance to Nipigon Bay.**

Outlook for December...Open water.

Outlook for January...In the second week, patches of new lake ice with some medium lake ice forming along the shore. In the last week, becoming open drift to close pack thin lake ice along the shore.

Outlook for February...By mid-month, becoming open drift to close pack medium lake ice with some thick lake ice north of Isle Royale. Elsewhere, very open to open drift thin and medium lake ice within 15 nautical miles of the shore.

### **From Grand Marais to Duluth.**

Outlook for December...Open water.

Outlook for January...Generally open water. By mid-month, close pack thin with some medium lake ice within 20 nautical miles of Duluth.

Outlook for February...In the second week, very open drift to open drift thin lake ice with some medium lake ice within 20 nautical miles of the shore. Close pack medium with some thick lake ice within 20 nautical miles of Duluth.

### **Southern Lake Superior west of Keweenaw Peninsula.**

Outlook for December...Chequamegon Bay will be consolidated with thin lake ice in the third week. A narrow band of new and thin lake ice will develop near the shore from near Chequamegon Bay and westward by the end of the month.

Outlook for January...Consolidated ice in Chequamegon Bay will thicken to medium lake ice in the first week. By mid-month, new and thin lake ice will form within 15 nautical

miles of the shore from the Keweenaw Peninsula to Duluth. Thin lake ice thickening to medium lake ice near the Apostle Islands. In the last week, new and thin lake ice with some medium lake ice up to 20 nautical miles offshore from the Keweenaw Peninsula to Duluth. Consolidated medium lake ice around the Apostle Islands.

Outlook for February...Consolidated ice near the Apostle Islands and in Chequamegon Bay becoming thick lake ice in the first week. After mid-month, the ice will extend up to 30 nautical miles offshore. Areas of thick lake ice near the shores.

### **Southern Lake Superior east of the Keweenaw Peninsula.**

Outlook for December...Ice free to open water.

Outlook for January... Narrow band of new and thin lake ice will form along the shore in the third week.

Outlook for February... Narrow band of new and thin with some medium lake ice along the shore. Very open drift to open drift thin and medium lake ice up to approximately 30 nautical miles eastward of the Keweenaw Peninsula. After mid-month, open drift to close pack thin and medium lake ice will extend 20 to 30 miles offshore. Consolidated thick lake ice along portions of the shore.

### **Whitefish Bay.**

Outlook for December...New and thin lake ice forming in the northeastern section after mid-month.

Outlook for January...In the second week, consolidated medium lake in the southern and eastern sections. After mid-month, patches of new and thin lake ice in the remainder of the bay.

Outlook for February...In the first week, very close pack medium lake ice except for consolidated thick lake ice in the southern and eastern sections. Near the end of the month, consolidated medium lake ice will become consolidated thick lake ice. Very close pack medium and thick lake ice elsewhere.

### **From Whitefish Bay northwards to Michipicoten Bay.**

Outlook for December...Open water.

Outlook for January...Open water except patches of new lake ice with some thin lake ice along portions of the shore.

Outlook for February...Close to very close pack thin lake ice with some medium lake ice along portions of the shore by mid-month.

### **From Michipicoten Bay to the entrance to Nipigon Bay.**

Outlook for December...Ice free to open water.

Outlook for January...Open water except isolated strips and patches of new lake ice with some thin lake ice along portions of the shore.

Outlook for February...Isolated patches of thin lake ice with some medium lake ice along portions of the shore.

### **Elsewhere in Lake Superior.**

Outlook for December...Ice free to open water.

Outlook for January...Ice free to open water.

Outlook for February...Open water. By mid-month, occasional open drift to close pack medium and thin lake ice over the middle portion of the lake west of the Keweenaw Peninsula.

## **Lake Michigan.**

### **Winter temperature and ice forecasts.**

Near normal temperatures are expected from December to February. Near normal ice conditions are forecast.

### **Green Bay.**

Outlook for December...In the second week, close pack new and thin lake ice in the southern third of the bay. Consolidated thin lake ice in the Bays de Noc in the third week. In the last week, very close pack thin lake ice in the southern third of Green Bay.

Outlook for January...By the second week, consolidated medium lake ice in the Bays de Noc and close to very close pack medium lake ice in the southern third of Green Bay.

Elsewhere, open drift to close pack thin lake ice except for a large area of open water in the northern third of the bay. By mid-month, most of Green Bay will be covered with thin and medium lake ice. Near the end of the month, consolidated medium lake ice over the southern and northern third, with very close pack medium lake ice in the rest of the bay.

Outlook for February...In the first week, consolidated ice in Green Bay and the Bays de Noc becoming thick lake ice. Close to very close pack medium and thick lake ice will be present in the northern third of Green Bay.

### **Northeastern Lake Michigan.**

Outlook for December...After mid-month, narrow band of new and thin lake ice along portions of the northern shore.

Outlook for January...In the first week, very close pack thin lake ice to up to 20 nautical miles off the northeastern shore and near the Straits of Mackinac. Patches of new and thin lake ice will spread from the north shore to Beaver Island. By mid-month, a 20 nautical miles wide band of close to very close pack thin with some medium lake ice will be present along the northeast shore of the lake and into the Straits of Mackinac. At the end of the month very close pack thin and medium lake ice from the northeast shore to Beaver Island. Patches of open drift to close pack new and thin lake ice will spread westward to the entrance to Green Bay. Consolidated medium lake ice will form within 10 nautical miles of the northeast shore and into the Straits of Mackinac.

Outlook for February...In the first week, consolidated medium lake ice becoming thick lake ice northeast of Beaver Island and in the Straits of Mackinac. Very close pack medium lake ice in Little Traverse Bay. By the end of the month consolidated thick lake ice will extend to Beaver Island.

### **Elsewhere in Lake Michigan.**

Outlook for December...Ice free to open water.

Outlook for January... By mid-month, patches of new and thin lake ice along the southern and southeastern shores of the lake.

Outlook for February...By mid-month, patches of ice along the southern and southeastern shores of the lake thickening to the medium lake ice. Ice destruction will begin in the second half of February. Isolated patches of ice are expected to be present along the southern and southeastern shores at the end of the month.

## **Lake Huron and Georgian Bay.**

### **Winter temperature and ice forecasts.**

Near normal temperatures are expected over Lake Huron from December to February.  
Near normal ice conditions are forecast.

### **North Channel.**

Outlook for December... By mid-month, very close pack new and thin lake ice in sheltered bays.

Outlook for January...In the first week, very close pack new and thin lake ice with some medium lake ice in a narrow band along the northern shore and in the eastern and western sections of the channel. Consolidated medium lake ice in sheltered bays. The channel will be completely ice covered at the end of the third week. At that time, the eastern and western ends of the channel will be consolidated with medium lake ice. Channel will be consolidated by the end of the month.

Outlook for February...Consolidated with thick lake ice.

### **St Mary's River.**

Outlook for December...Open drift to close pack new and thin lake ice in the shallower portions of the river. By mid-month, consolidated thin lake ice in the shallower portions and close pack thin lake ice elsewhere.

Outlook for January...Consolidated with medium lake ice in the second week.

Outlook for February...Consolidated thick lake ice.

### **South of Manitoulin Island westward to North-western Lake Huron.**

Outlook for December...Open water.

Outlook for January...Strips and patches of new and thin lake ice forming along the shore in the second week. A narrow band of new and thin lake ice will form along the shore by the end of the month.

Outlook for February...A narrow band of new and thin lake ice occasionally within 10 nautical miles of the shore.

### **North-western Lake Huron near the Straits of Mackinac.**

Outlook for December...After mid-month, new and thin lake ice in sheltered bays along the north shore.

Outlook for January...In the second week, consolidated thin lake ice along the north shore. By mid-month, very close pack thin with some medium lake ice from Bois Blanc Island westward into the Straits of Mackinac. In the last week, consolidated medium lake ice along the north shore and south and west of Bois Blanc Island into the Straits of Mackinac.

Outlook for February...Consolidated thick lake ice along the north shore and south and west of Bois Blanc Island into the Straits of Mackinac. Strips and patches of thin lake ice with some medium lake ice to the north and to the east of Bois Blanc Island.

### **From north-western Lake Huron to Saginaw Bay.**

Outlook for December...Isolated patches of new lake ice along the shore by mid-month.

Outlook for January... In the second week, a band of new and thin lake ice forming within 15 nautical miles of the shore.

Outlook for February...A band of new and thin lake ice with some medium lake ice within 20 nautical miles of the shore.

### **Saginaw Bay.**

Outlook for December...Close pack new and thin lake ice in the second week. By the end of the month, patches of consolidated medium lake ice along the shore. Elsewhere, close to very close pack thin lake ice in the bay.

Outlook for January...Ice will thicken to the thin and medium lake ice stage by mid-January. By the end of the month, the bay will be consolidated with medium lake ice.

Outlook for February...Consolidated with thick lake ice.

### **The southern and eastern shore of Lake Huron.**

Outlook for December...Generally open water with isolated patches of new ice forming along the shores near the end of the month.

Outlook for January...Narrow areas of new and thin lake ice along the shore. At the end of the month, thin lake ice with some medium lake ice forming within 20 nautical miles of the eastern and southern shores. Consolidated medium lake ice developing in sheltered bays along the Bruce Peninsula.

Outlook for February...In the second week, close to very close pack thin and medium lake ice over the extreme southern end of the lake. Areas of thick lake ice along portions of the shore by mid-month.

### **Georgian Bay.**

Outlook for December...New and thin lake ice forming in sheltered bays along the eastern shore in the first week. Consolidated thin lake ice forming along the north-eastern shore in the last week.

Outlook for January...Consolidated thin lake ice along the north-eastern shore thickening to consolidated medium lake ice in the first week. In the second week, band of new and thin lake ice forming within 15 nautical miles of the northern and eastern shores.

Outlook for February...Consolidated ice will thicken to the thick lake ice stage in the first week. Thin and medium lake ice developing within 30 nautical miles of the north shore. By mid-month, very close pack thin and medium lake ice over northern and eastern sections of the bay. Elsewhere, open drift thin and medium lake ice over the bay. An area of open water will occasionally be present over the south-western section of the bay.

### **Elsewhere in Lake Huron.**

Outlook for December...Ice free.

Outlook for January...Ice free to open water.

Outlook for February...Occasional patches of thin and medium lake ice except open water over the central section of the lake.

## **Lake Erie and Lake St. Clair**

### **Winter temperature and ice forecasts.**

Near normal temperatures are expected from December to February. Near normal ice conditions are forecast.

### **Lake St Clair and the Western Basin.**

Outlook for December...In the second week, new and thin lake ice forming in the eastern portion of Lake St. Clair and in sheltered bays in the Western Basin. Open drift to close pack new and thin lake ice over the Western Basin and Lake St Clair near the end of the month.

Outlook for January...In the second week, consolidated thin lake ice in Sandusky Bay. By the end of the second week, close to very close pack thin and medium lake ice over Lake St Clair and the Western Basin. Consolidated medium lake ice forming over the south-eastern portion of Lake St Clair near the end of the month.

Outlook for February...In the first week, very close pack medium lake ice. By mid-month, very close pack medium lake ice with some thick lake ice. Areas of consolidated thick and medium lake ice forming in sheltered bays and over the eastern portion of Lake St Clair by mid-month.

### **The rest of Lake Erie.**

Outlook for December...After mid-month, close pack new and thin lake ice in Long Point Bay.

Outlook for January...By mid-month, narrow bands of new and thin lake ice along portions of the shore and consolidated medium lake ice in Long Point Bay. Near the end of the month, very close pack new and thin lake ice with some medium lake ice over the western portion of the lake. Elsewhere, bands of new and thin lake ice along the shores except very close pack medium lake ice near Buffalo.

Outlook for February...Close to very close pack medium lake ice with some thick lake ice in the first week. In the third week, consolidated thick lake ice near Buffalo and in Long Point Bay.

## **Lake Ontario.**

### **Winter temperature and ice forecasts.**

Near to above normal temperatures are expected from December to February. Near to below normal ice conditions are forecast.

### **Northeastern Lake Ontario.**

Outlook for December...Isolated areas of new and thin lake ice in sheltered bays near the end of the month.

Outlook for January...In the first week, open drift to very open drift new lake ice with some thin lake ice from Kingston and eastward. In the third week, strips and patches of new and thin lake ice along the shore near Trenton and eastward. Close to very close pack thin lake ice with some medium lake ice over the north-eastern section.

Consolidated medium lake ice in the St Lawrence River and in sheltered bays.

Outlook for February...By the end of the first week, close to very close pack thin lake ice with some medium lake ice over the north-eastern section. New and thin lake ice in a narrow band along the shores of Prince Edward County westward to near Trenton.

Consolidated medium lake ice thickening to thick lake ice near mid-month.

### **Bay of Quinte.**

Outlook for December...Consolidated thin lake ice near the end of the month.

Outlook for January...Consolidated thin lake ice thickening to medium lake ice near mid-month.

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Outlook for February...Consolidated medium lake ice thickening to thick lake ice near mid-month.

### **Elsewhere in Lake Ontario.**

Outlook for December...Ice free to open water.

Outlook for January... Ice free to open water. Isolated patches of new ice forming along the shores after mid-month.

Outlook for February... Isolated areas of new lake ice along the shores.



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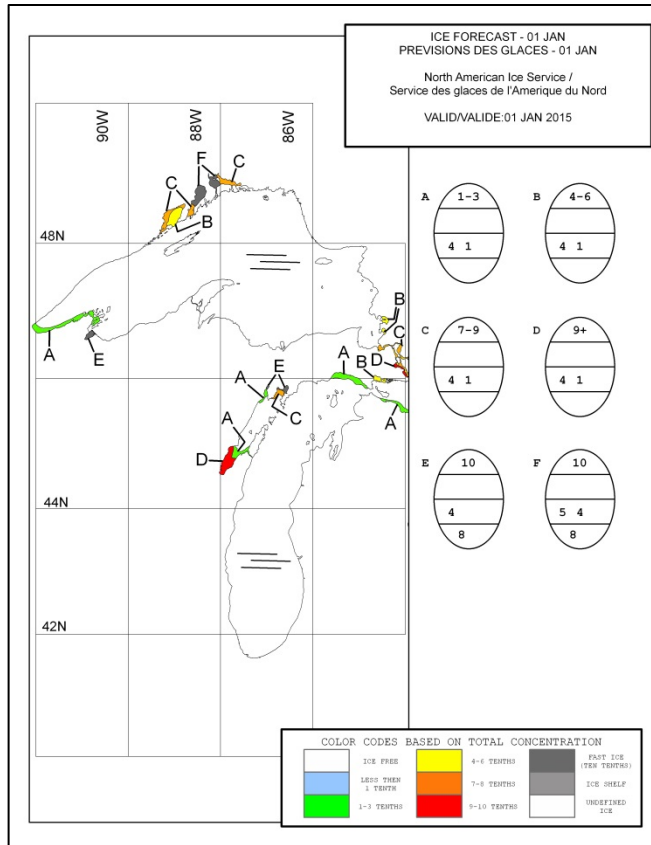


Figure 1: Expected ice conditions – western Great Lakes – 1 January 2015

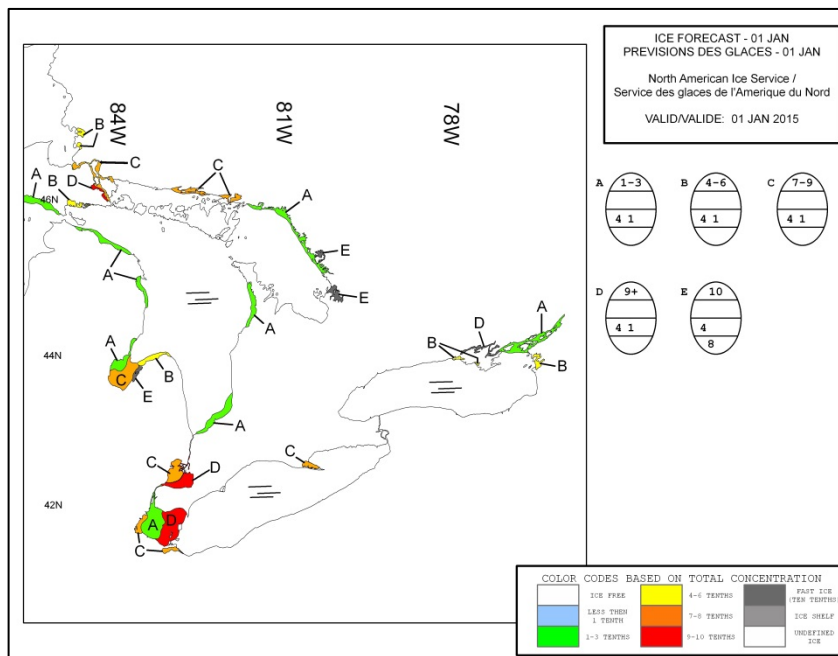


Figure 2: Expected ice conditions – eastern Great Lakes – 1 January 2015

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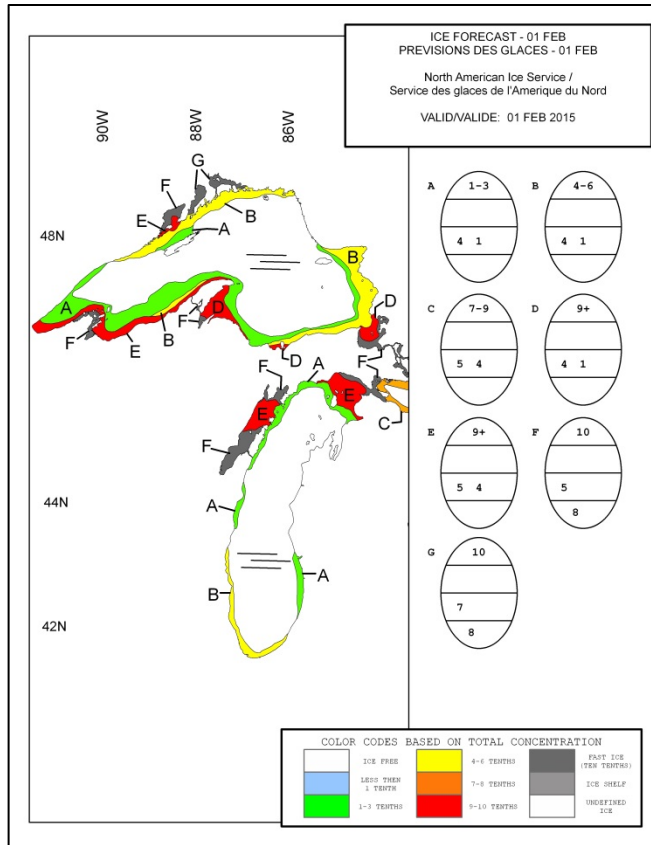


Figure 3: Expected ice conditions – western Great Lakes – 1 February 2015

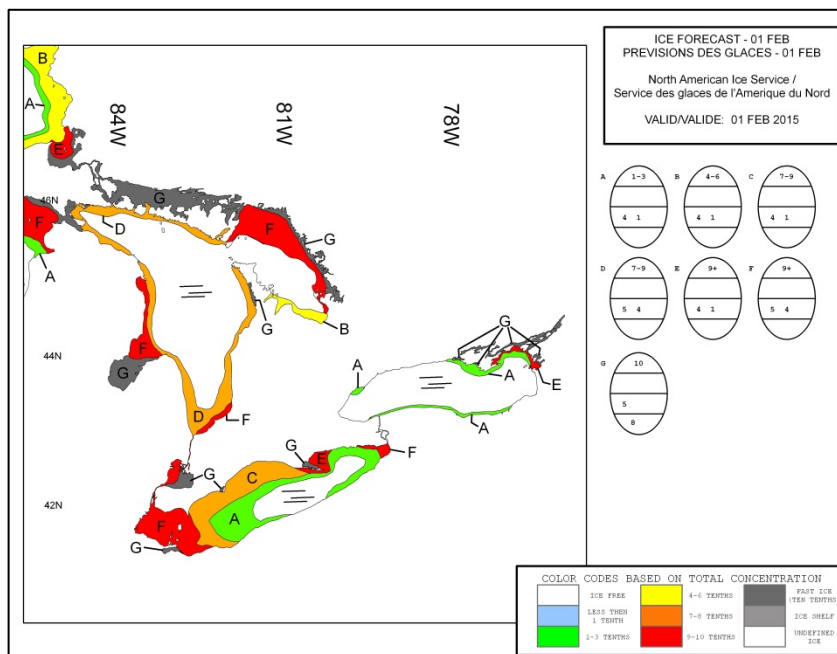


Figure 4: Expected ice conditions – eastern Great Lakes – 1 February 2015

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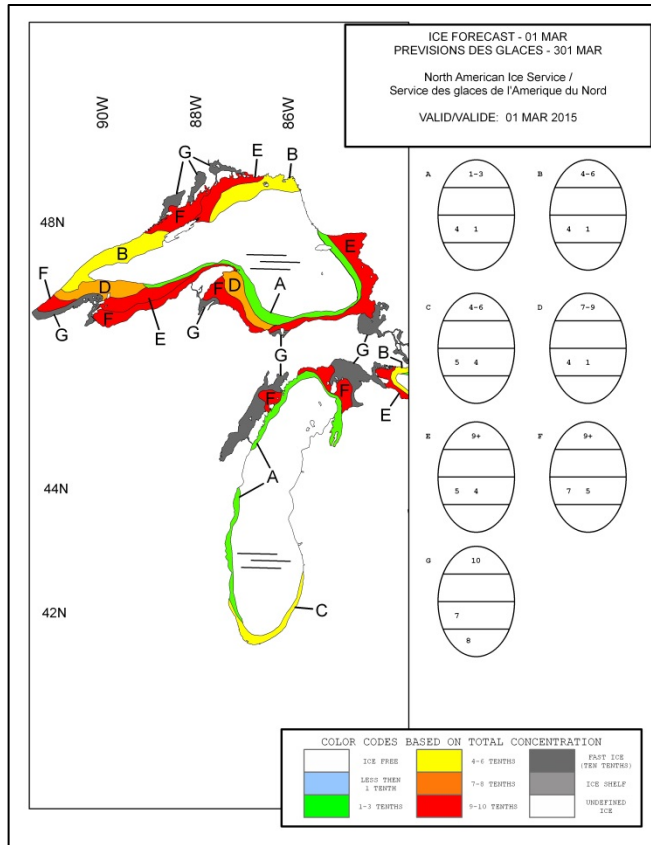


Figure 5: Expected ice conditions – western Great Lakes – 1 March 2015

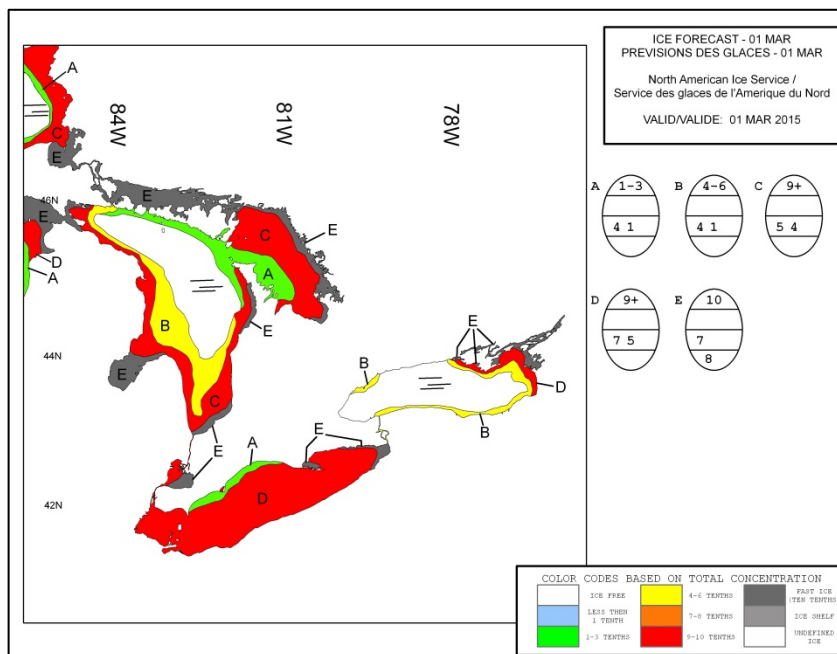


Figure 6: Expected ice conditions – eastern Great Lakes – 1 March 2015