

Great Lakes Icebreaking Webinar



05 March 2018

LCDR Zac Bender



Homeland
Security

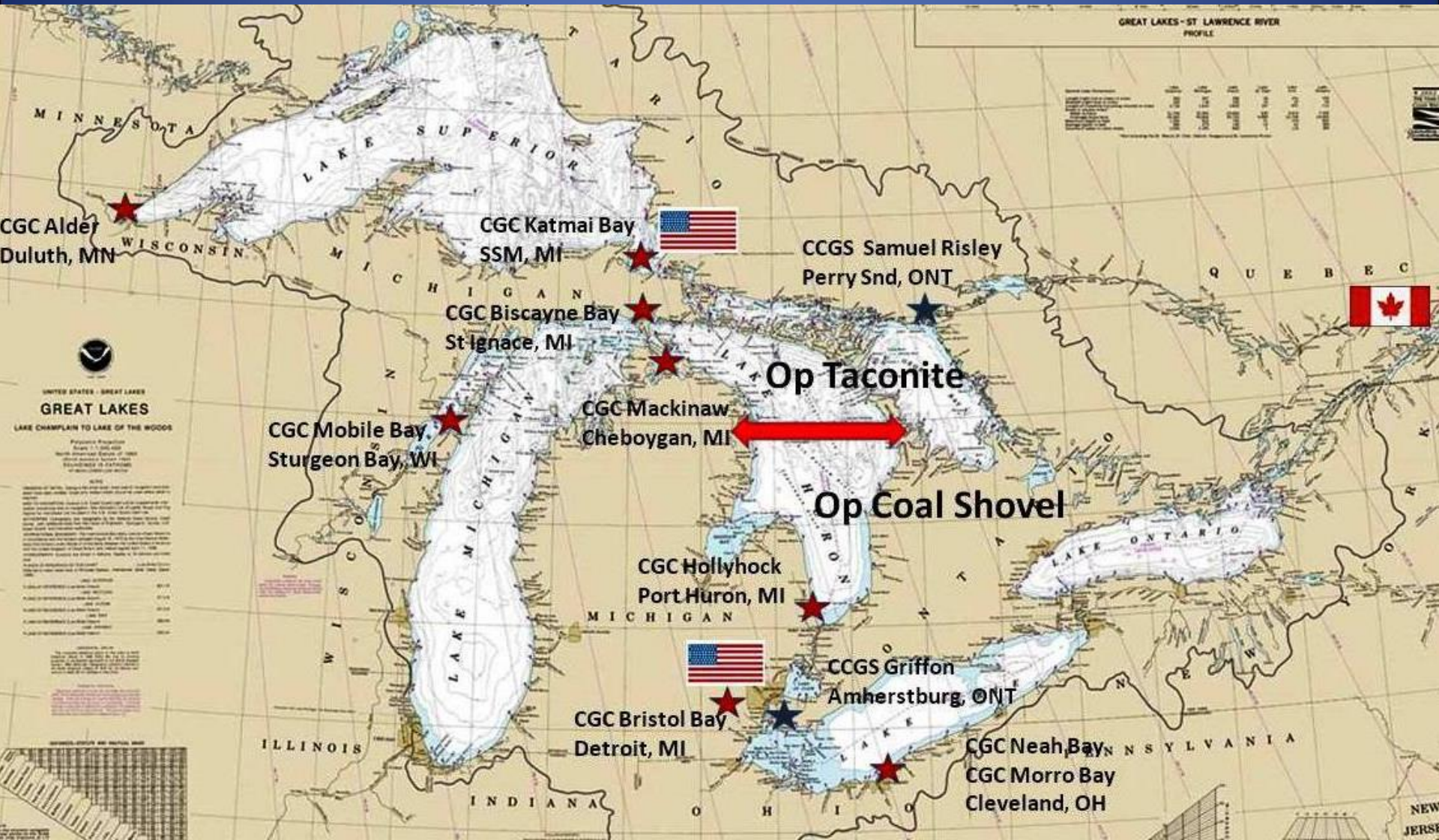
United States
Coast Guard 

USCG 9th District Waterways Management Branch

- **Captain Amy Beach – Chief, Prevention Division**
 - 216-902-6046
- **Commander Tony Maffia – Chief, WWM Branch**
 - 216-902-6064
- **Lt Commander Zac Bender– Icebreaking Supervisor**
 - 216-902-6065
- **Lt Jason Radcliffe – OPS Support**
 - 216-902-6060
- **Lt Rachel Christensen –DOMICE Support/Schedule**
 - 216-902-6066



Great Lakes Ice Breaking



Why We Break Ice

➤ Urgent Vessel Response

- Extricate vessels from danger.

➤ Exigent Community Service/Flood Control

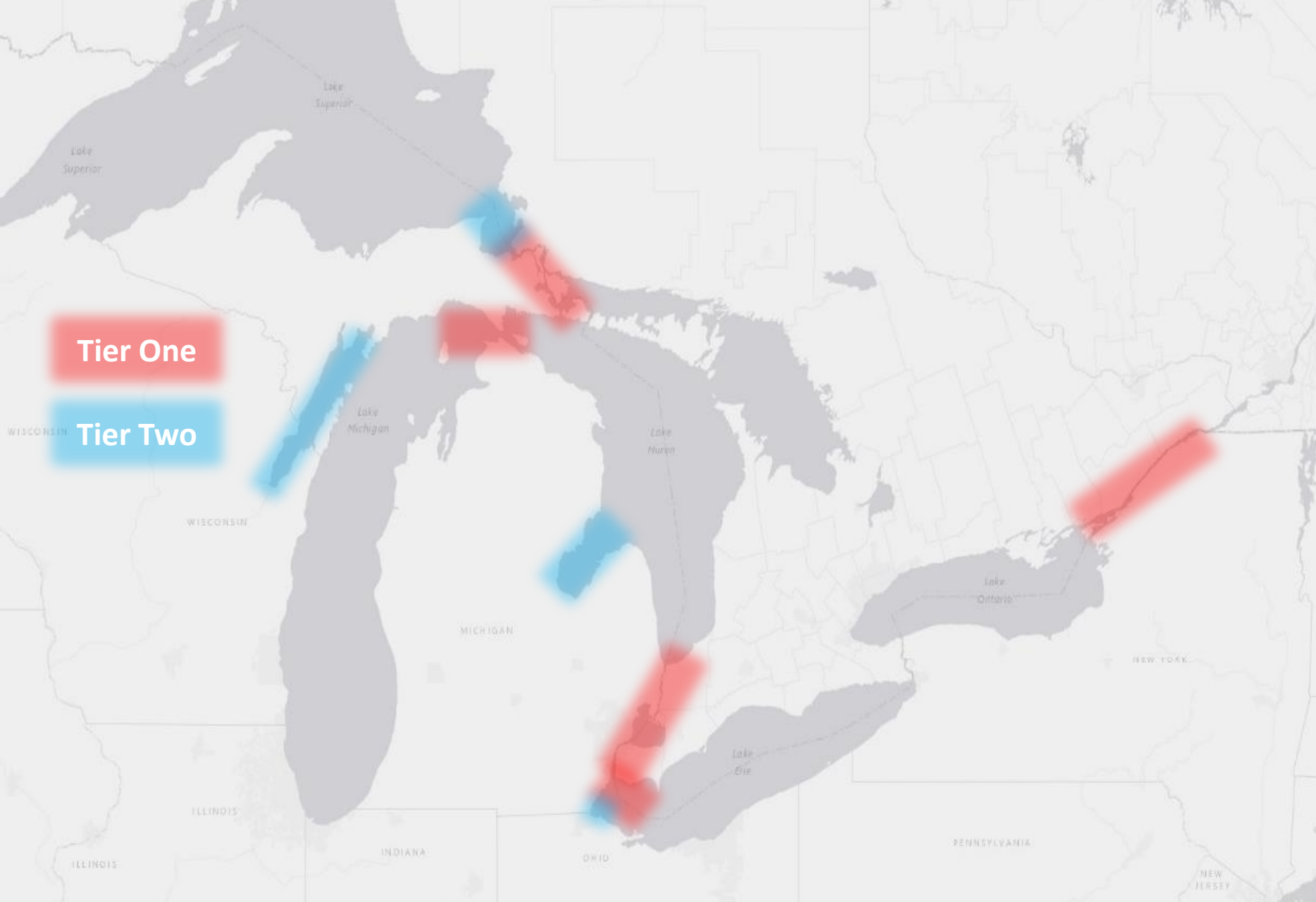
- Direct support of the general public.

➤ Facilitate Navigation

- “meet the reasonable demands of commerce”



Tier One and Two Waterways



EMPLOYMENT OF ICEBREAKERS

WATERWAY CLASSIFICATIONS	ICE BREAKING ASSISTANCE	OPERATIONAL PHASES OF ICE BREAKING
TIER ONE	PI / VA / DA	Extended, Winter, Breakout
TIER TWO	PI VA* / DA *	Extended, Breakout (Winter Season Upon Request)
TIER THREE	PI* / VA* / DA *	Extended, Breakout (Winter Season Upon Request)
TIER FOUR	Exigent Only*	Extended, Winter, Breakout

* = If Commercial Assistance not available

PI – Preventive Icebreaking

VA – Vessel Assistance




DA – Direct Assistance



Homeland Security



9th District Icebreaking Fleet

	140' WTGB (6)	225' WLB (2)	240' WLBB (1)
			
Yrs commissioned	1978-1987	1996-2004	2006
Length	140 ft	225 ft	240 ft
Beam	37 ft 6 in	46 ft	58 ft
Displacement	662 Long Tons	2000 Long Tons	3625 Long Tons
Horsepower	2500	6200	9000
Icebreaking Capability	22 in@ 3kts 36 in backing and ramming Bubbler system	14 in @ 3kts 36 in backing and ramming	32 in @ 3 knots 12 ft through ridges by backing and ramming

140 WTGB Service Life Extension Project (SLEP)

Project Completion in 2020

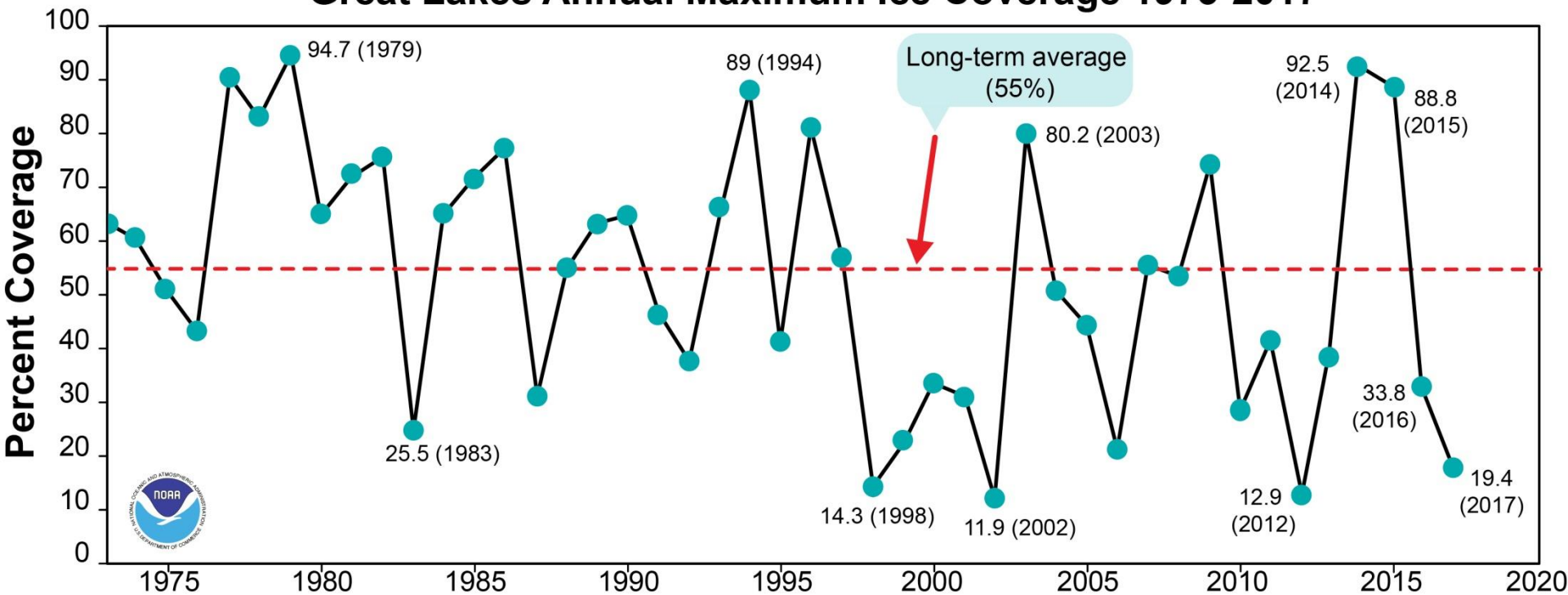
D9 will continue to have 5 operational WTGB's per ice season



Major Upgrades



Great Lakes Annual Maximum Ice Coverage 1973-2017



GREAT LAKES SURFACE ENVIRONMENTAL ANALYSIS (GLSEA)



Analysis Date: JD 016 01/16/2018

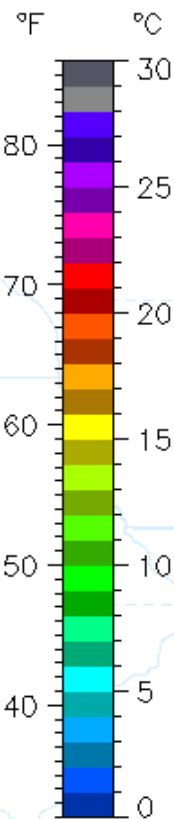
Percent Pixels with Data within +/-10 Days: 69.8%

Date of last ice analysis: 1/16/2018

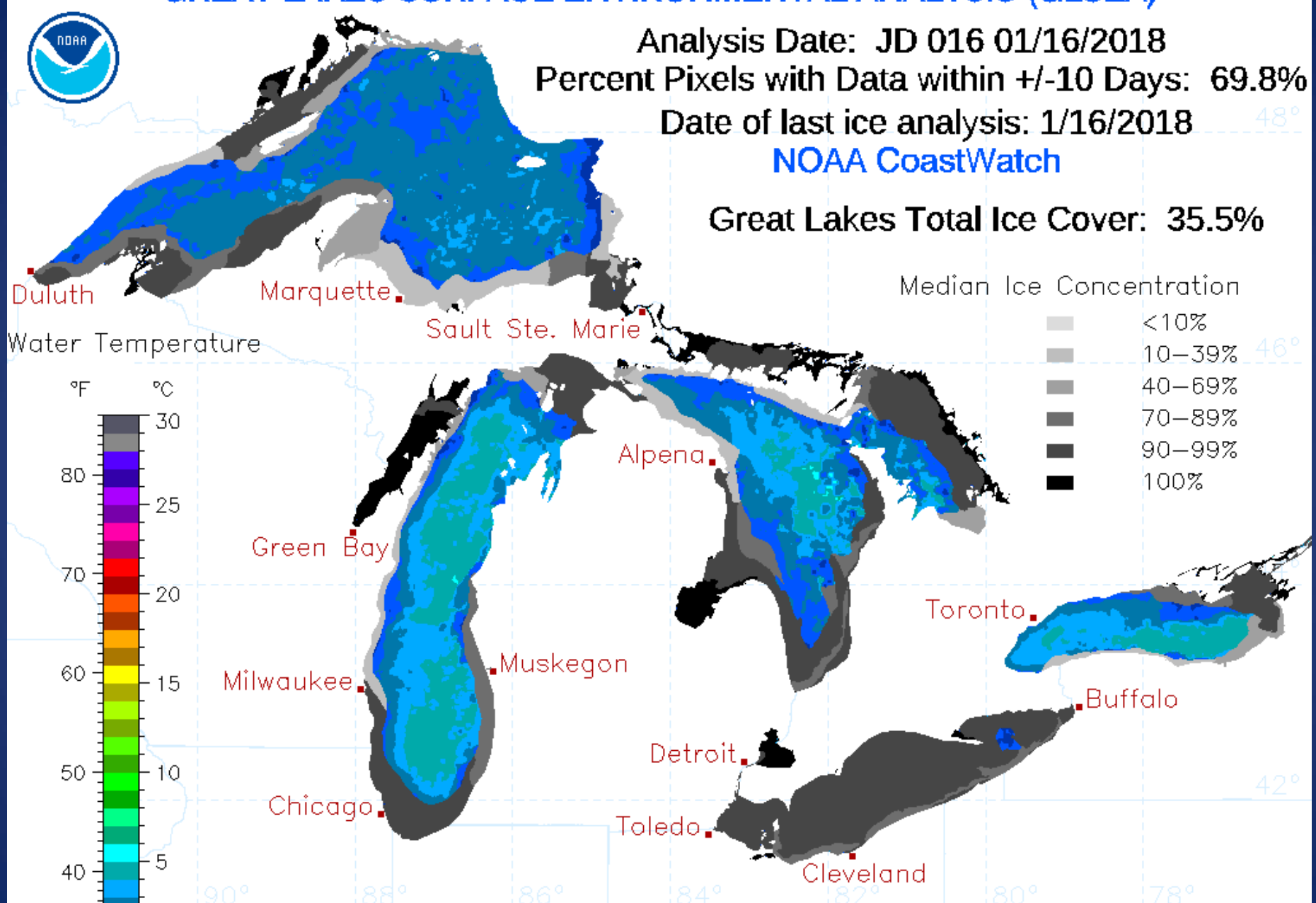
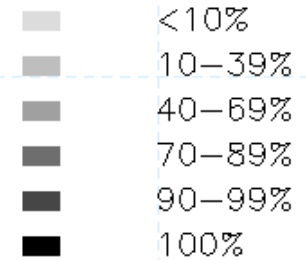
NOAA CoastWatch

Great Lakes Total Ice Cover: 35.5%

Water Temperature



Median Ice Concentration



Great Lakes Environmental Research Laboratory
National Ice Center

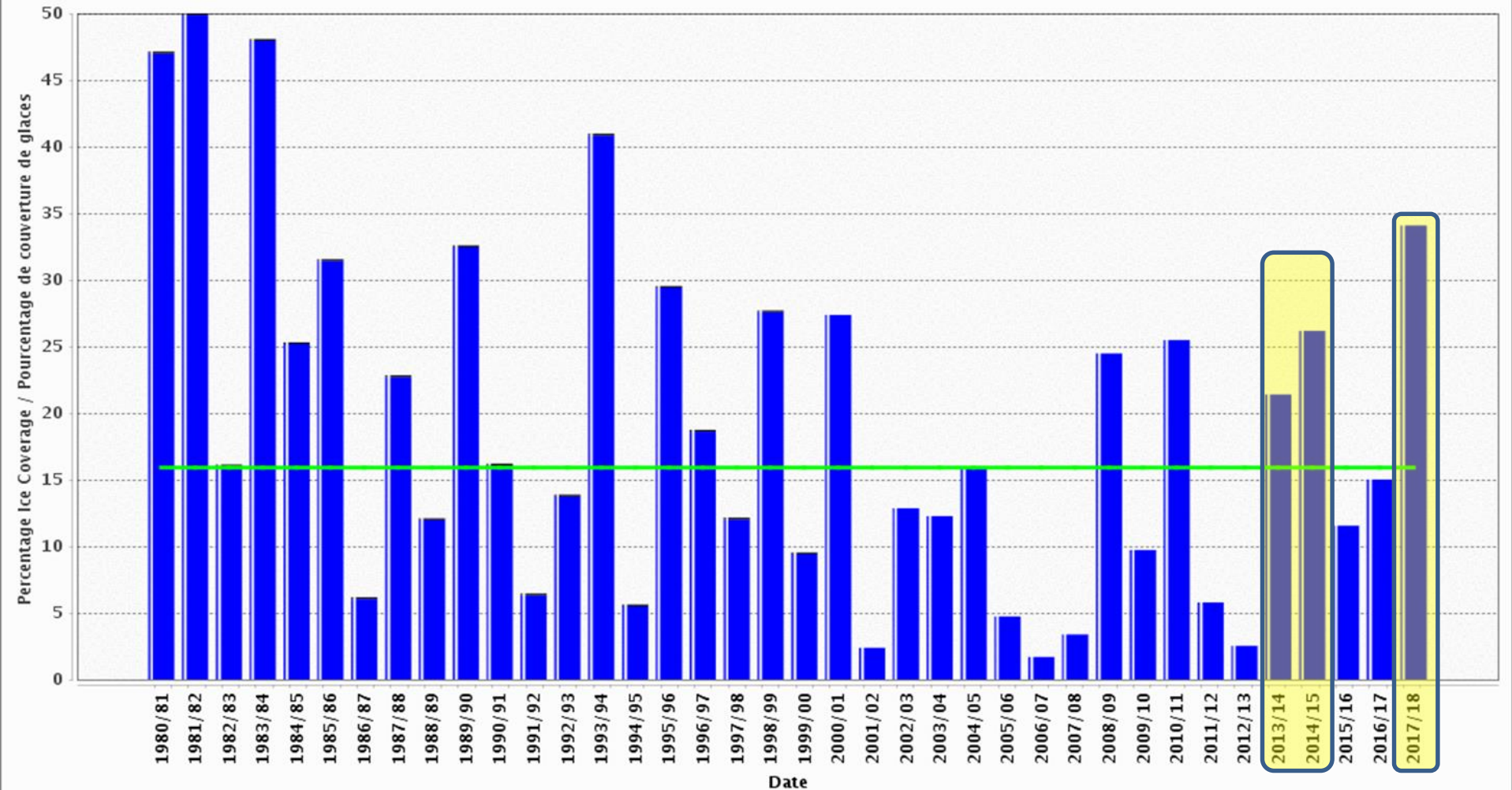
Same Week: Historical Ice Coverage for the week of
0115, seasons:1980/81-2017/18



Même semaine: Couverture des glaces historique pour la
semaine du 0115, saisons:1980/81-2017/18

Regional Great Lakes /
Régionale Grands Lacs

Area / Aire : 254,674 km²



Canadian Ice Service - Environment Canada / Service canadien des glaces - Environnement Canada
(2018-01-16 19:12 IceGraph - Canadian Ice Service/Graphe des glaces - Service canadien des glaces 2.0.7 2014/01/21)

■ Ice Coverage / couverture des glaces ■ No Data / Aucune donnée — Median / médiane 1980/81-2009/10

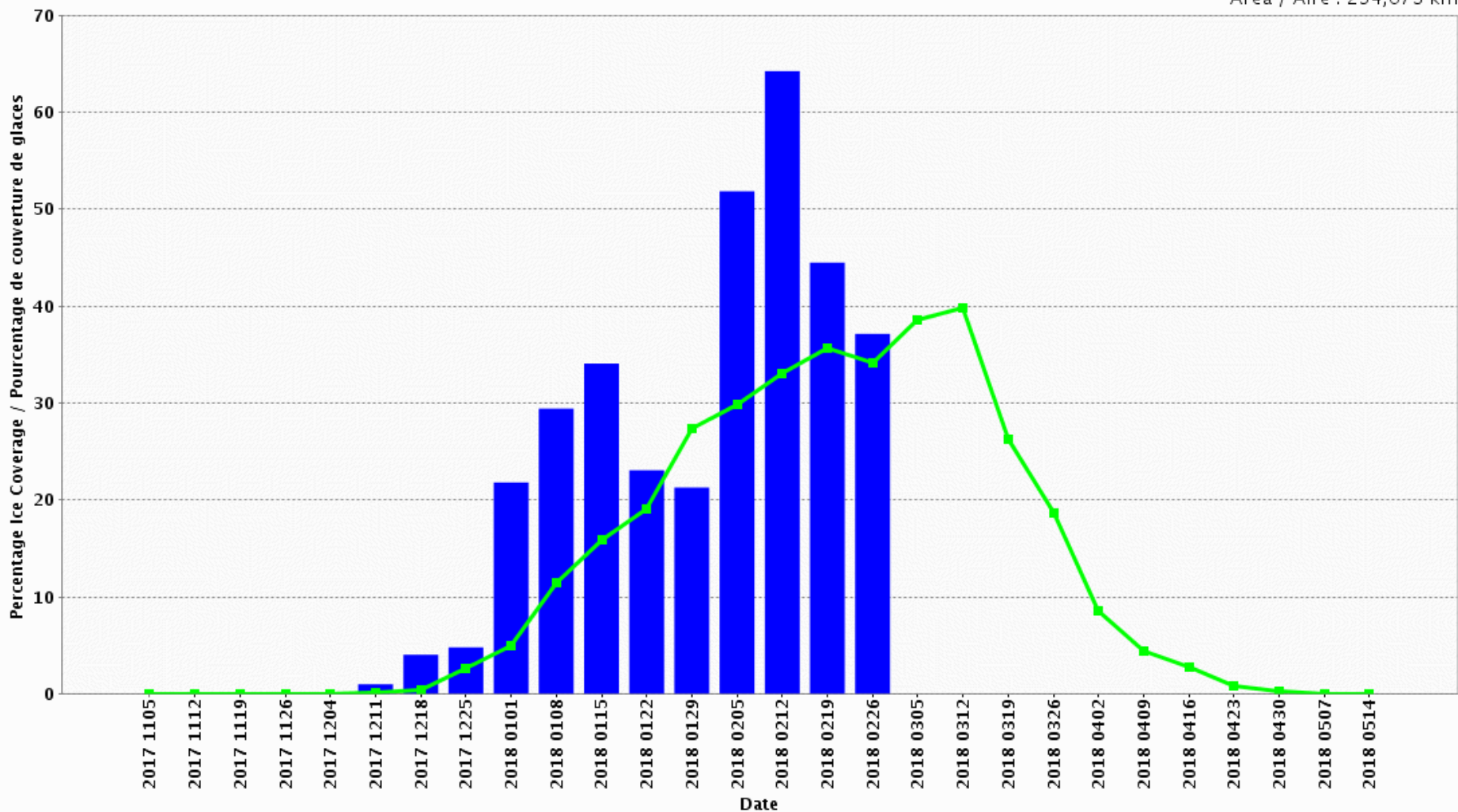
**Single Season: Weekly Ice Coverage for the season
2017/18, Weeks: 1105-0514**



**Une saison: Couverture des glaces hebdomadaire pour la
saison 2017/18, Semaines: 1105-0514**

Regional Great Lakes /
Régionale Grands Lacs

Area / Aire : 254,673 km²



Canadian Ice Service - Environment Canada / Service canadien des glaces - Environnement Canada
(2018-02-27 16:03 IceGraph - Canadian Ice Service/Graphe des glaces - Service canadien des glaces 2.0.7 2014/01/21)

■ Ice Coverage / couverture des glaces ■ No Data / Aucune donnée ▲ Median / médiane 1980/81-2009/10

Daily Ice Breaking Calls

The purpose of this call is to communicate with the Great Lakes shipping industry where the US and Canadian Coast Guard icebreaking assets will be operating based on existing and forecasted conditions, as well as validating requests for icebreaking service/assistance we have received from the shipping industry.

Typical Agenda:

- Welcome (USCG D9 staff)
- Ice conditions and weather forecast/ questions (Environment Canada Ice Specialist)
- Canadian CG Asset employment/ questions (ROC Montreal)
- Operation COAL SHOVEL brief/ questions (Sector Detroit)
- Operation TACONITE brief/ questions (Sector Sault Ste Marie)
- General questions from shipping industry
- Closing- next call date (USCG D9 Staff)

Calls are held at 10:00 Eastern Time

**Call in Number:
877-950-2463**

**Passcode:
62697718**

To be added to the distribution list send an e-mail to:
Zachary.C.Bender@USCG.mil

Questions?

