



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne



Safety First, Service Always



GREAT LAKES ICEBREAKING MEETING OCTOBER 21ST 2015



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Security



United States
Coast Guard 

2014-2015 Season Review



- Introduce new CG personnel
- Ice Coverage
- Ice Breaking Operations
 - U.S. Coast Guard
 - Canadian Coast Guard
- Lessons Learned

USCG D9 Staff



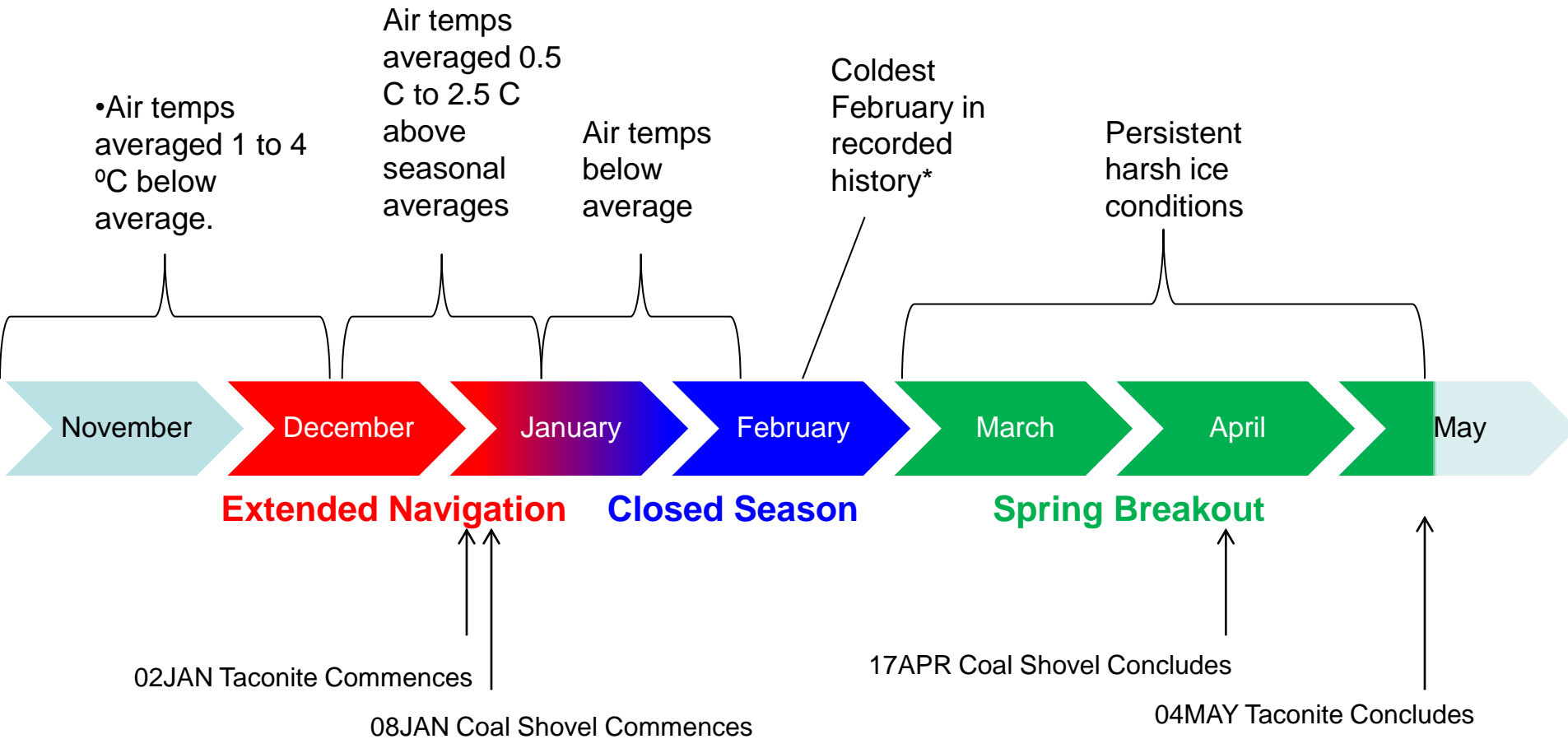
- **Captain Paul Arnett – Prevention Division Chief**
 - 216-902-6046
- **Commander Tony Maffia – Waterways Management**
 - 216-902-6064
- **Lt Commander Steven Kingsley – Ice OPS Supervisor**
 - 216-902-6065
- **Lt Junior Grade Matt Stroebel – OPS Scheduler**
 - 216-902-6060
- **Lt Junior Grade Rachel Christensen – Ice Policy**
 - 216-902-6066

Canadian Ice Office Staff

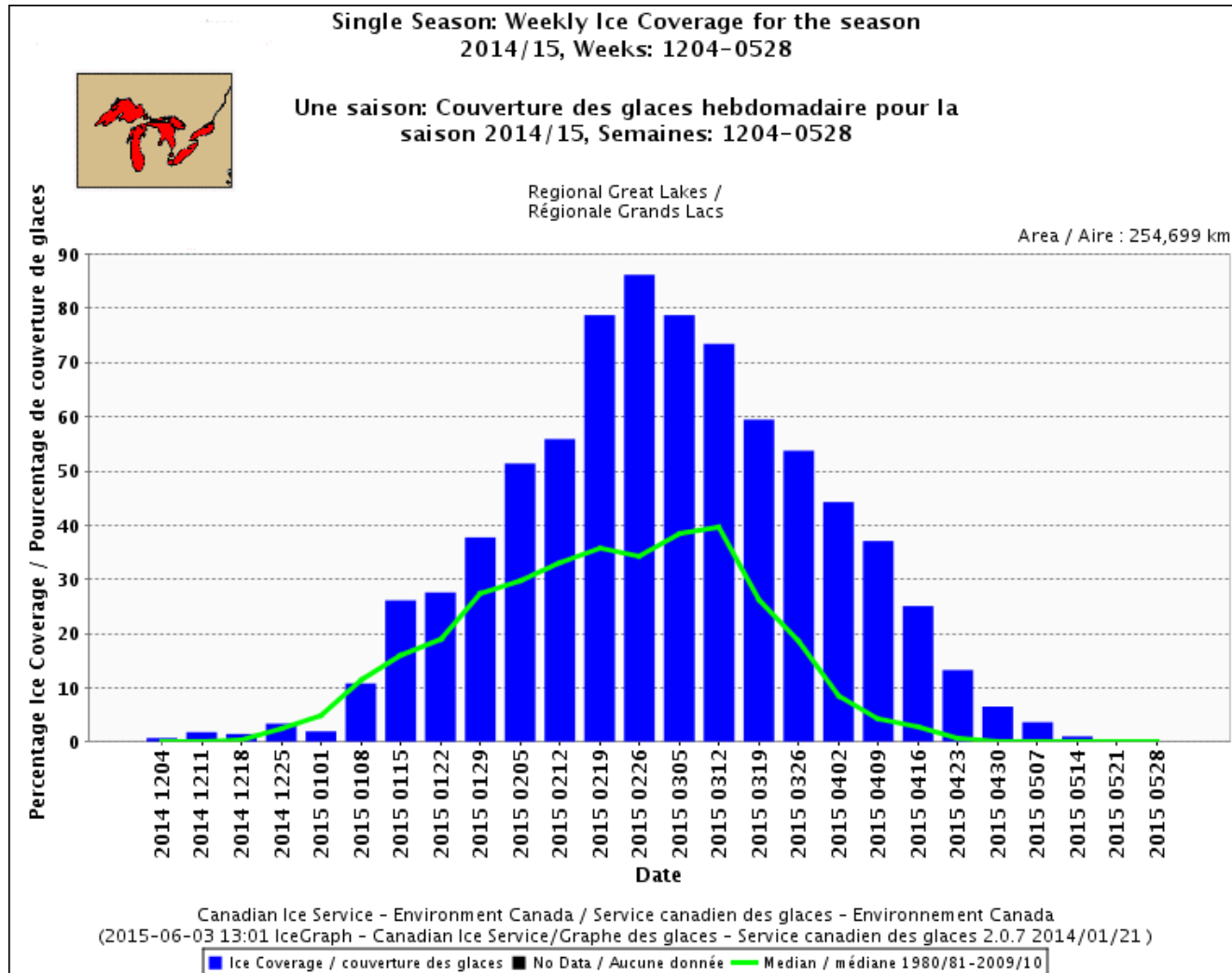


- **Mike Desormeaux. Regional Operation Center Superintendent**
 - **514-283-0530**
- **Isabelle Pelchat. Icebreaking Superintendent**
 - **514-283-2410**
- **Ice Operations Officers**
 - **1-855-209-1976. / 514-283-1745**
- **Ice Specialist Officer**
 - **1-855-201-0086. / 514-283-1752**

ICE COVERAGE 2014-2015



ICE COVERAGE 2014-2015



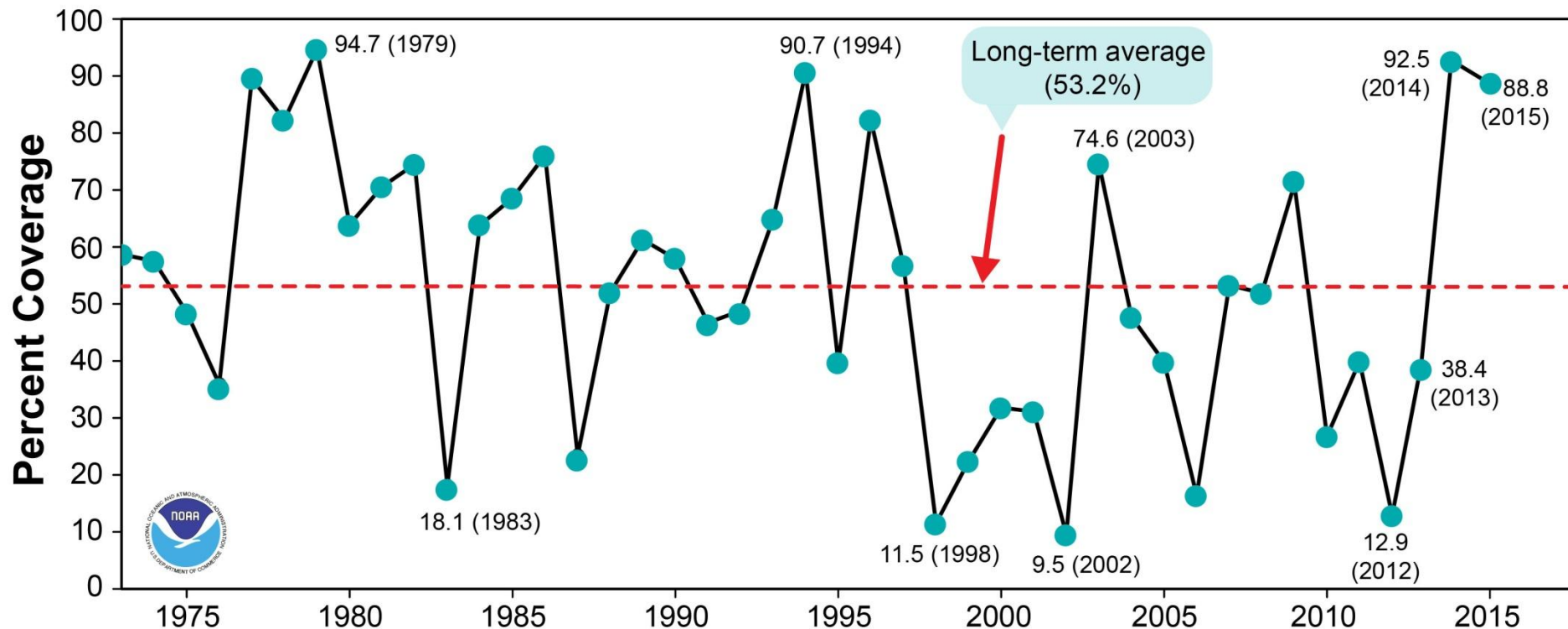
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ICE COVERAGE 2014-2015



Great Lakes Annual Maximum Ice Coverage 1973-2015

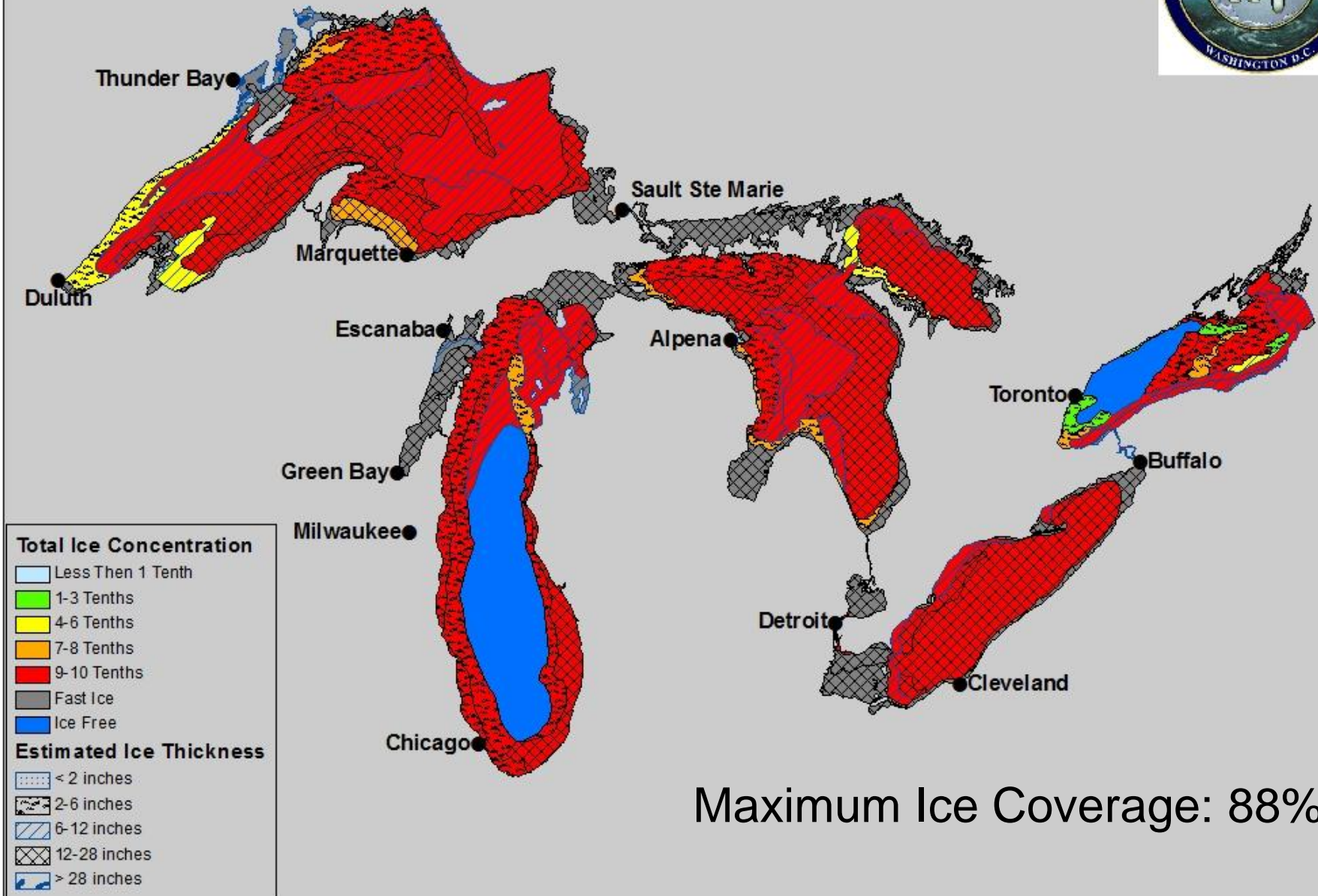


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District 9: Great Lakes Ice Chart

Tuesday, February 24, 2015



GREAT LAKES BREAKOUT 2015



MODIS 06 APR 1807Z

Pressure Ridge

- **15-mi x 3-mi x 8-ft**
- "Solid Wall"
- "Pickup sized" chunks
- Tracks closing in behind

Whitefish Bay

Lakers in Whitefish Bay - 6 April 2015



Photo by CGC ALDER

2015 SPRING BREAKOUT CONDITIONS



- Lake Superior (west): 24" plate with 18" brash accumulations and 4' windrows.
- Lake Superior (east): 40" plate with windrows measured to 10'.
- St. Mary's River: 40" plate ice with 18" brash accumulations.
- Straits of Mackinac: 36" plate ice with 36" brash accumulations and 3-4' windrows.



140' WTGB (6)
(5 during SLEP)



225' WLB (2)



240' WLBB (1)

Commissioned	1978-1987	1996-2004	2006
Length (ft)	140	225	240
Beam (ft)	37.5	46	58
Horsepower	2500	6200	9000
Ice Breaking Capability	22 in @ 3 kts in backing and ramming with bubbler system	14 in @ 3 kts in backing and ramming	32 in @ 3 kts. 12 ft through ridges by backing and ramming

OPERATION TACONITE



- **Commenced operations began on 02 January 2015.**
 - 122 days of ice breaking
 - 6,805 hours
 - assisted 677 commercial vessels transits
 - 353 of these transits required direct ice breaking assistance
 - Operation Taconite ended on 04 May 2015

OPERATION COAL SHOVEL



- **Commenced operations on 08 January 2015.**
 - 100 days of ice breaking
 - 2,429 hours
 - Assisted 153 commercial vessel transits
 - Operation Coal Shovel secured on 17 April 2015

CANADIAN ICEBREAKERS



CCGS DES GROSEILLIERS



CCGS SAMUEL RISLEY



CCGS GRIFFON and CCGS MARTHA BLACK



Commissioned	1982	1984	1970-1984
Length	98 m (322 ft)	69.7 m (229 ft)	71.3 m (234 ft)
Beam	19.5 m (64 ft)	13.7 m (45 ft)	14.9 m (49 ft)
Horsepower	10141 kW (1400 hp)	6595 kW (9000 hp)	6000 kW (8200 hp)
Ice Breaking Capability	3 kts through uniform first year ice 900 mm (3 ft).	3 kts through uniform first year ice 600 mm (2.0 ft)	3 kts through uniform first year ice 600 mm (2.0 ft)



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CCG OPERATIONS



CCGS SAMUEL RISLEY

117 Icebreaking days



CCGS GRIFFON

114 Icebreaking days

Fleet Totals:

3400 hours

(2,545 escorting hours)

(342 direct icebreaking assists)

CCG LEVELS OF SERVICE



Great Lakes response time: 8 hours

Out of 353 assistances, we reached our level of service 230 times

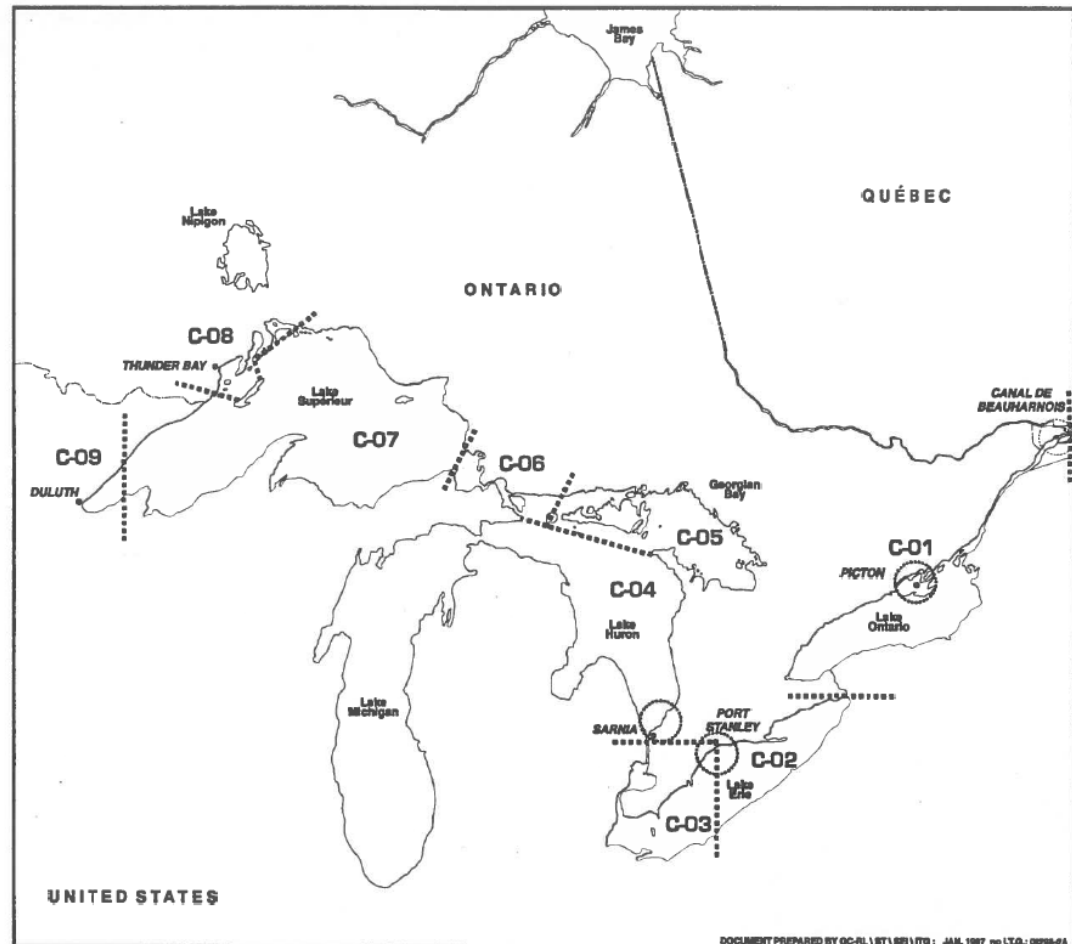
65 percent achievement

CANADIAN ICE OPERATIONS AREAS



GREAT LAKES: ICE OPERATIONS SERVICE AREAS (BLOCK COMMITMENTS)

IODIS* Areas of operations



*Icebreaking Operations Data and Information system



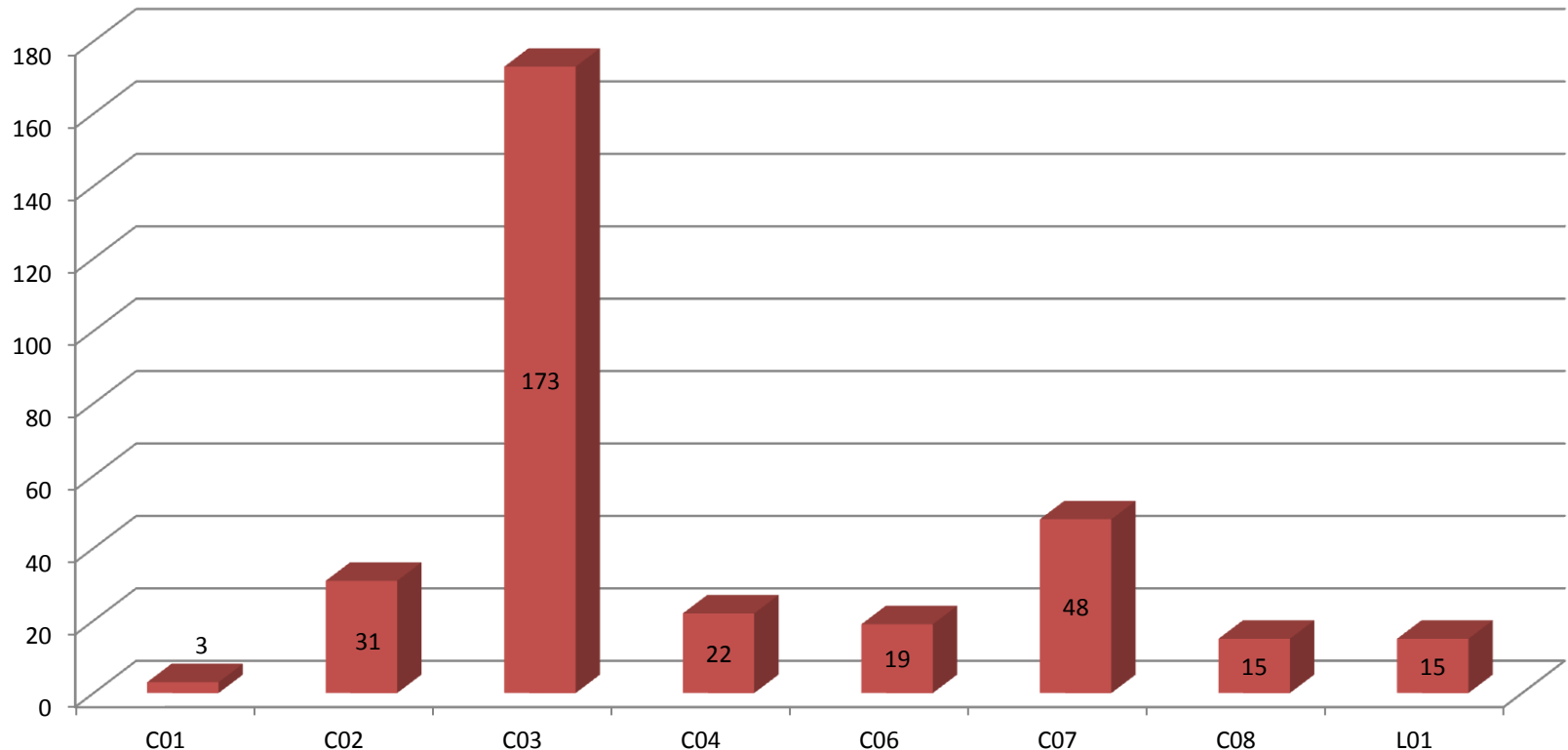
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CANADIAN ICE SERVICES BY AREA



Number of services by IODIS* Areas



Note: Absence of data for areas C05 and C09 is because of absence of activity.

*Icebreaking Operations Data and Information system



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USCG Performance Standards



	TACONITE	COAL SHOVEL
Search and Rescue Responses	0	1
Urgent Vessel Response Requests	4	0
Exigent Community Service Requests	0	5
Navigation Assistance Requests	541	54
Vessels Assisted	677	153
Waterway Restrictions	17	6
Waterway Closures	2	3
Tier 1 Availability	72%	98.8%



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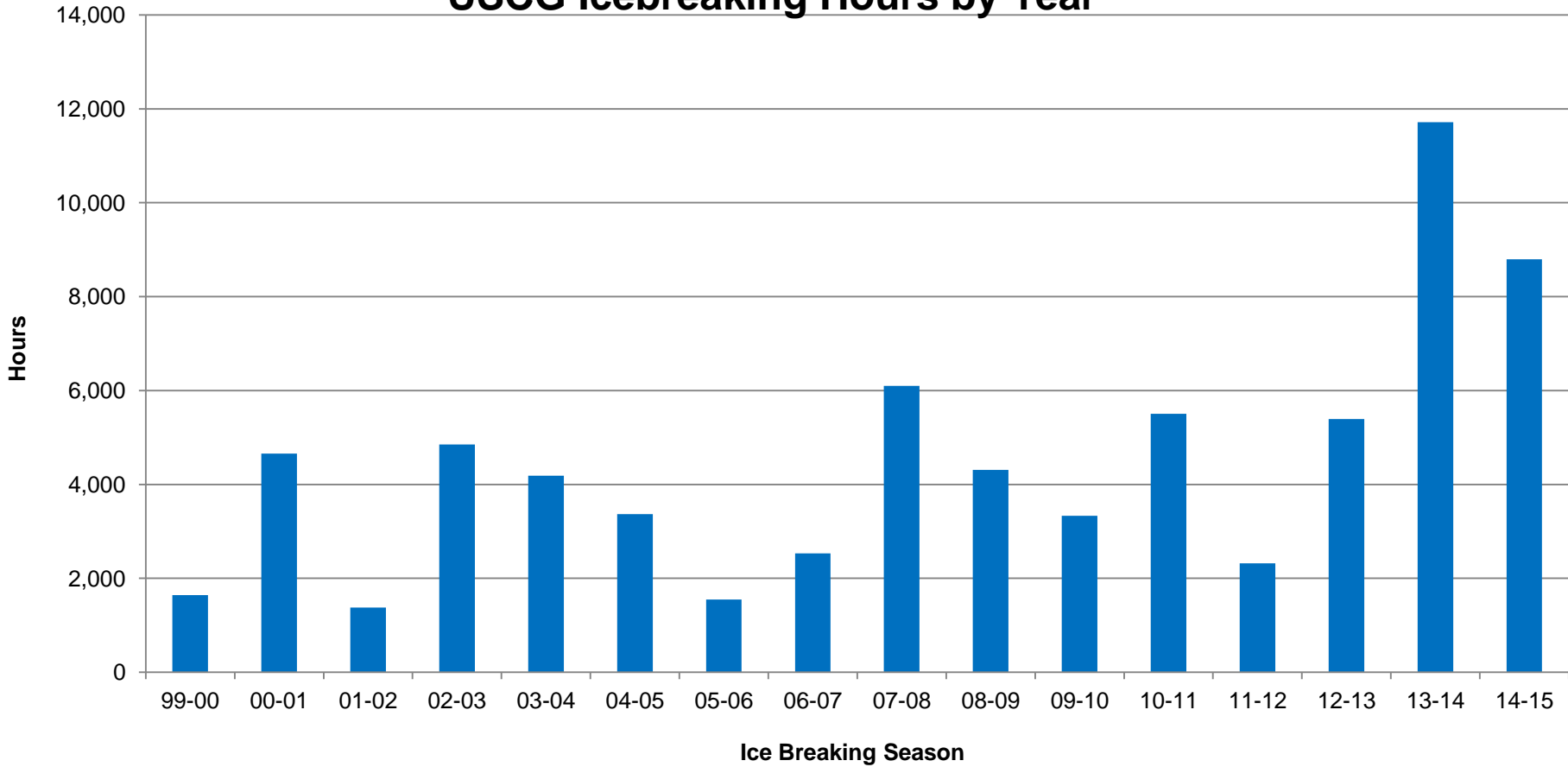
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USCG D9 Icebreaking Hours Last 16 Years



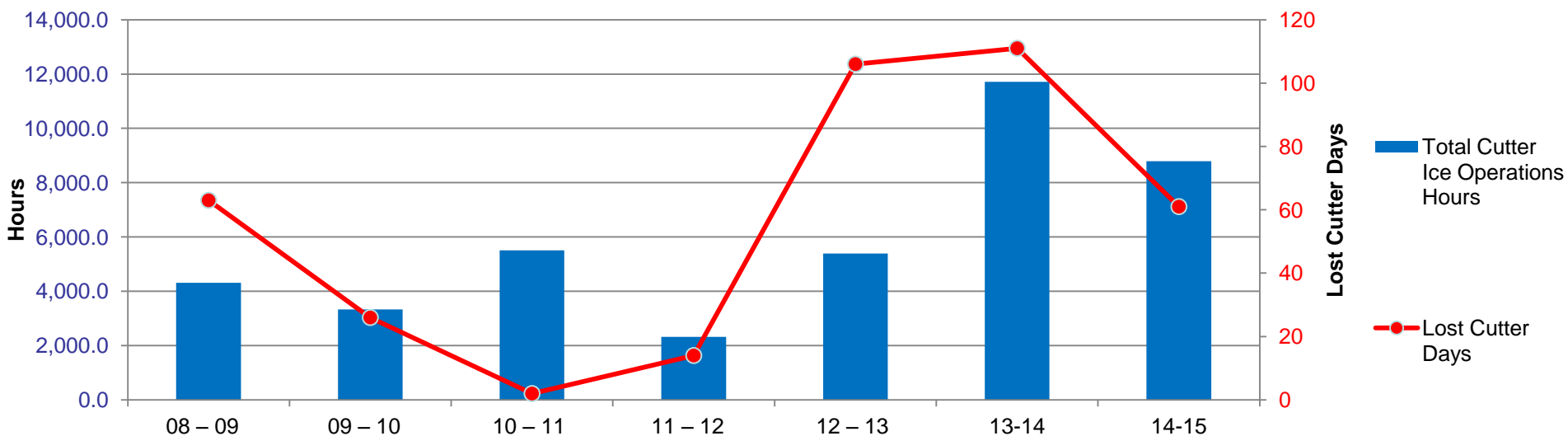
USCG Icebreaking Hours by Year



USCG Lost Cutter Days (Historical)



Cutter Hours and Lost Cutter Days



	08 - 09	09 - 10	10 - 11	11 - 12	12 - 13	13-14	14-15	Average
Total	63	26	2	14	106	111	61	55

MORRO BAY Service Life Extension Project (SLEP)



Project Completion in 2020

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



2014-2015 What went well...



- Strong partnership with USCG Tactical Commanders, CCG, fleet and industry through daily ice calls
- Teamwork and adaptability of USCG and CCG icebreaker fleets – persevered through extended spring breakout
- International effort to clear St. Clair River ice jam
- Addition of PIERRE RADISSON and MARTHA L. BLACK during Spring Breakout

Tactical Commander Recommendations



- Study vessels that routinely struggle in the ice and create transit criteria for vessels to operate independently
- Anticipate ice conditions based on recent weather- advise industry early of conditions and challenges
- Study ice conditions and implement an Ice Conditions Rating Scale
- Implement a Marine Transportation System Recovery Unit (MTSRU)
- Review and improve current communications capabilities

Tactical Commander Recommendations



- Improve Ice Officer training to include a PQS and additional area familiarization
- ID need for additional Canadian assets earlier in the season
- Continue Coal Shovel's study of freezing degree days (FDD).
- Stagger CCG crew swaps so that only one ship is down at a time

Questions?

