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Safety First, Service Always



Canadian Coast Guard/United States Coast Guard – Policy Review



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Great Lakes Icebreaking Conference, St. Catharines, Ontario
October 26-27, 2021



Icebreaking Policies



Icebreaking Operations:

- **Operational Priorities**
- **Level of service**
- **Tiered Waterways**
- **Commercial Icebreaking Policy**

Operational Priorities



- Urgent Response to Vessels: Icebreaking operations to extricate vessels from danger.
 - Exigent Community Services: in direct support of the general public.
 - Facilitation of Navigation – “meet the reasonable demands of commerce” – requires the vast majority of resource hours, governed by tiered waterways and commercial ice breaking policy.
- * Search & Rescue is a separate mission under the Joint Rescue Coordination Center in Trenton (CCG) or the Cleveland SAR plan (USCG) and takes priority over icebreaking operations.

Block Commitments



- A block commitment is a requirement for a Canadian Coast Guard icebreaking service by an identified client or client group in a specific geographic area and in a defined time period. Ideally, the requests can be measured in terms of icebreaker days for a specific type of icebreaker.
- Block commitments are re-examined every 5 years in consultation with our clients – the 2017-2022 draft was shared with the NMAB Subcommittee on October 12, 2017 for review and comments)

<http://www.ccg-gcc.gc.ca/Icebreaking/Icebreaker-Requirements/index>

- Great Lakes: The Canadian Coast Guard plans to continue to deploy two icebreakers from Dec. 21 to April 15 each year. Additional support from the Quebec sector may be provided as needed and when possible in late March.

Icebreaking Services (GL Sector)



- **During the ice season, CCG icebreakers will be maintained in a state of readiness whereby they may respond to a service request within 1 hour. There are several variables that will affect the response time for icebreaker assistance:**
 - Location of the vessel or port requiring assistance
 - weather restrictions: services may be reduced when current and forecast meteorological conditions will not permit successful delivery of the services;
 - severity of ice season: services may be reduced when current and forecast ice conditions will not permit successful delivery of the services;
 - physical restrictions: services will not be provided when hydrographic and/or geographic features of the area under consideration prevent safe operation by a CCG unit;
- safety restrictions: services will not be provided when conditions would unduly endanger CCG crew, ships or equipment, and/or those requesting the services; and
- availability of resources: services will be provided when sufficient CCG units are available.



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Tiered Waterways



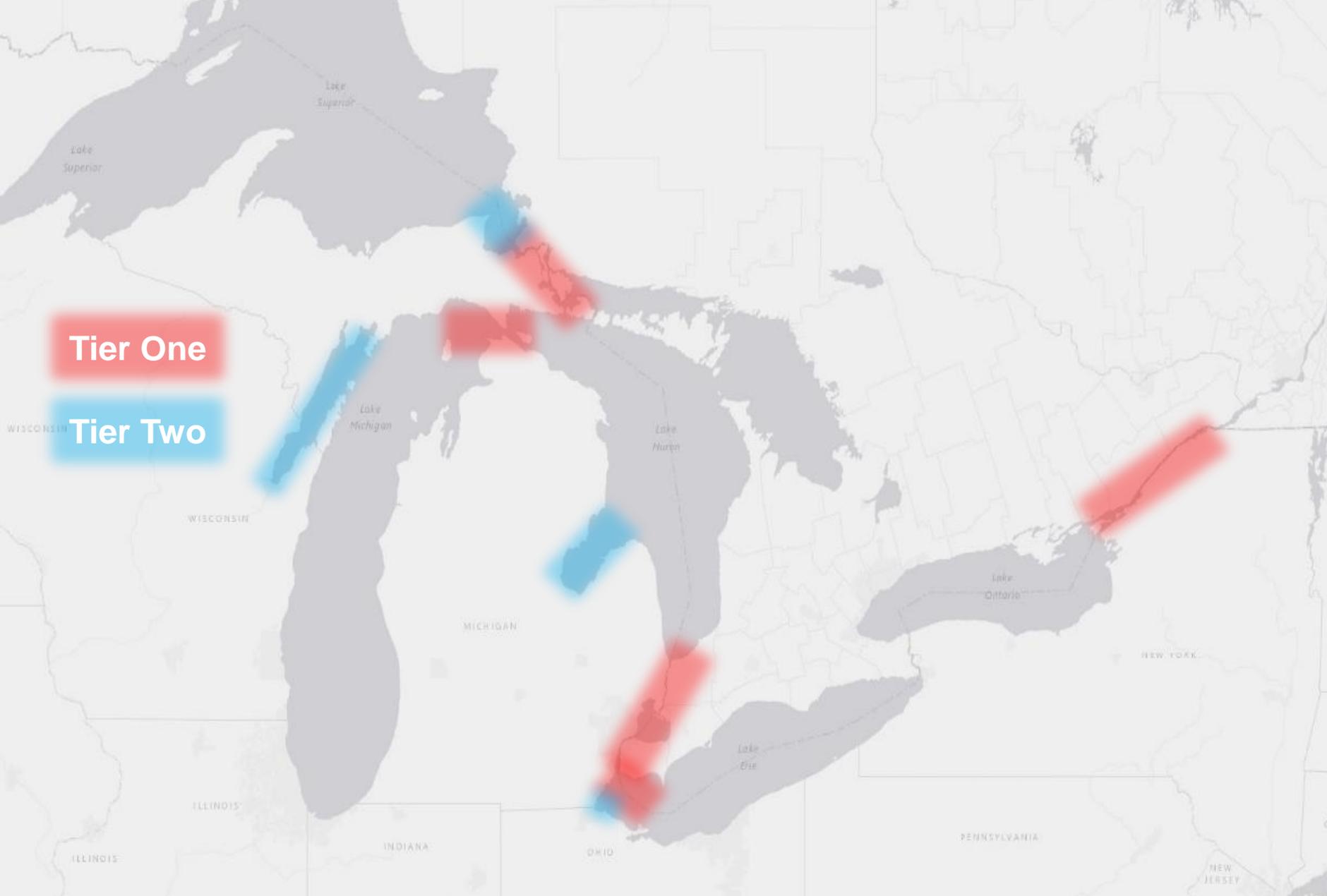
Tier One waterways are those which connect the Great Lakes to one another.

Tier Two waterways are those waters which connect tier one to Tier Three waterways.

Tier Three waterways are the federally maintained channels which connect Tier Two waterways to the various commercial ports.

Tier Four waterways are those docks, shipyards, or other wholly private areas.

Tier One and Two Waterways



Types of Icebreaking



- PI – Preventive Icebreaking (ie: track maintenance) – creating a track by which vessels can transit an ice covered area.
- VA – Vessel Assistance – track grooming or preparation completed within 24 hours of a specific transit activity or request.
- DA – Direct Assistance – directly assisting a vessel that has become beset or escorting a vessel which lacks sufficient power to transit unassisted through an ice covered area.

Navigation Periods



- Extended Navigation Season: Ice begins until Sault Locks close (typically on or around 15 Jan) and the bulk of the commercial fleet reaches their winter layup ports (typically nlt 20 Jan)
- Winter Navigation Season: End of the extended season; officially begins the Monday after lock closure at 0800. Continues until Spring Break Out (on or about 10 March, approx. two weeks before lock opening)
- Spring Break Out: End of winter navigation season until ice no longer impedes navigation.

Winter Navigation Operations



- Due to increased risk during the “winter navigation season” it is reasonable to expect shipping to provide vessels which are capable of handling the ice conditions.
- During the winter navigation season, tracks through the ice will not normally be maintained and will only be established or freshened in advance of known vessel traffic.



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Winter Navigation Ops Con't



- Requests are required to be submitted at least 48 hours prior assisted vessel movement. If abnormal ice conditions exist, which produce a request for direct assistance, the Coast Guard will provide such resources as available and deemed appropriate.
- During this “winter navigation season”, response to requests for direct assistance will be analyzed on a case by case basis.
- If no unusual conditions are present, but the vessel is incapable of handling its own transit, it will first be referred to commercial icebreaking providers regardless of the designation of the waterway.
- When commercial resources are unavailable, under powered vessels will be advised it is not safe to sail.

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

Commercial Icebreaking Policy



Tier One – CG primary.

Tier Two – As resources are available from Tier One waterways, CG will establish and maintain tracks along chartered shipping lanes in Tier Two waterways. Vessel escorts and direct assistance will be left to commercial providers (if available).

Tier Three – CG will not render assistance where commercial providers are available. CG reserves right to continue to escort vessels from Tier Two into a Tier Three waterway in situations when assistance was begun in an area where the conditions inside the Tier Three waterway is comparable.

Tier Four – exigent circumstances only, case by case, no commercial available after careful risk analysis.

Commercial Icebreaking Availability



- Availability: The reasonable time for commercial assistance is defined as their willingness to respond and their capability of being on scene in less time than the nearest government icebreaker.
- The criteria to determine cutter arrival time, in other than Tier one waterways, is the nearest available cutter's readiness status plus the transit time (i.e. the nearest cutter is moored in a B12 status. Availability equals the cutter's recall of twelve hours plus the transit time to the scene.

Impasses



- When commercial icebreaking will meet a vessel in the same period of time or less than Gov't Icebreaker - commercial should be used.
- When a shipping company and commercial provider cannot reach agreement, the shipping company should contact the Sector Ice Officer or the ROC and request icebreaking assistance. The Tactical Commander will evaluate the *impasse* to determine if and when government icebreaking assistance will be available.
- Tactical Commanders are delegated the authority to determine the availability of commercial providers in their AOR and refer the requesting company to the commercial provider.



Convoy & standby area



The Commanding Officer of the icebreaker will determine the number of vessels and order of station for each convoy, with the goal to expedite the movement of the convoy through the ice (not necessarily on "first come-first served" basis although that will be a consideration in the makeup of the convoy). The ships in the convoy are responsible for arranging and maintaining a suitable and safe distance between the vessels.

The icebreaker will designate the radio working channel for the convoy and the required distance to be maintained between itself and the lead ship of the convoy.

Convoy & standby area



Criteria considered to determine the order of the convoy:

- Ice conditions and geographical limitations
- Type of vessels and Power to length ratio (Engine limitations if any)
- Length; width and maneuverability of each vessels
- Number of ships in the convoy

Other: experience of the Captains, relative vessel speeds, destinations, etc.

For safety, vessels proceeding downbound should wait in a safe position in the Southern portion of Lake Huron until directed to proceed down the river. There are very limited safe anchorage or waiting area in the St. Clair River to spend the night if escort cannot be provided in time. Icebreaker Captains will endeavour to give sufficient notice so vessels can be at the ice edge to start the escort without undue delays.

Montreal Ice Office



Operational Posture:

- 6 Ice Officers
- 2 Ice specialists
- **24/7 service**

ICE Office phone number: 514-283-2784 / 1-855-209-1976

Ice Service Specialists: 1-855-201-0086

DFO.IceOpsGreatLakes.GlacesOpsGrandsLacs.MPO@dfo-mpo.gc.ca

The FTP site will be updated and the link will be distributed prior to the first call.

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 (ICE 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 M-F

Call in Number:
203-669-8550

Passcode:
7954375



Questions?

Mr. Brian Smicklas

D9 Icebreaking Supervisor

(216) 902-6065

Brian.A.Smicklas@uscg.mil

Isabelle Pelchat

Icebreaking Superintendent

(514) 283-2410

Isabelle.Pelchat@dfo-mpo.gc.ca