

ARCTIC SHIP TRAFFIC DATA

# ASTD

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ADMINISTRATION*

**PAME**  
Protection of the Arctic Marine Environment



# PAME'S SHIPPING WORK

## MAIN TOPICS

- The Polar Code
  - Arctic Shipping Best Practice Information Forum
  - Interpretation of the Polar Code
- Heavy Fuel Oil and other fuels
- Invasive Species
- Underwater Noise
- Wastewater from ships
- Arctic Tourism
- Port reception facilities
- POLARIS
- 2012 Cape Town Agreement
- Arctic Shipping Traffic Data



ARCTIC SHIP TRAFFIC DATA

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## ABOUT ASTD

- **Background:** Need to collect and distribute accurate, reliable, and up-to-date information on shipping activities in the Arctic.
- Comprehensive Arctic shipping activity database
  - Satellite and terrestrial AIS data from USA and Norway
- Detailed statistics on multiple aspects, including:
  - Number of ships in the Arctic
  - Types of ships in the Arctic
  - Fuel use and fuel consumption
  - Ship emissions
  - Traffic in specific areas in the Arctic (EEZ's, LME's, Polar Code Area, etc.)
  - Number of ships in Arctic Ports

## ASTD GOAL

- Provide authoritative and reliable data for different analyses performed under the realm of the Arctic Council
- Promote Arctic research and development by offering high quality data

ARCTIC SHIP TRAFFIC DATA

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## USERS

- Around 350 users from over 80 affiliations
- Government Agencies and Ministries
  - Environmental agencies
  - Coast Guards
  - Transport Authorities
- Universities and researchers

## EXAMPLES

- Understand shipping impacts on marine mammals
- Traffic patterns in specific areas
- Risk analysis of shipping routes
- Relationship between diminishing sea ice and Arctic shipping traffic



# ASTD

## Access to ASTD

### No access fee

Participating Arctic State Approved Government Agencies and Ministries

Arctic Council Permanent Participants, Working Groups and Task Forces.

Full time students & Bona Fide Media Organizations (limited access).

### Fee for Access

Not-for-Profit Professional, Academic, Research, and Environmental Organizations.

Arctic Council Observer States and Observer Organizations.

# ASTD GEOGRAPHIC SCOPE

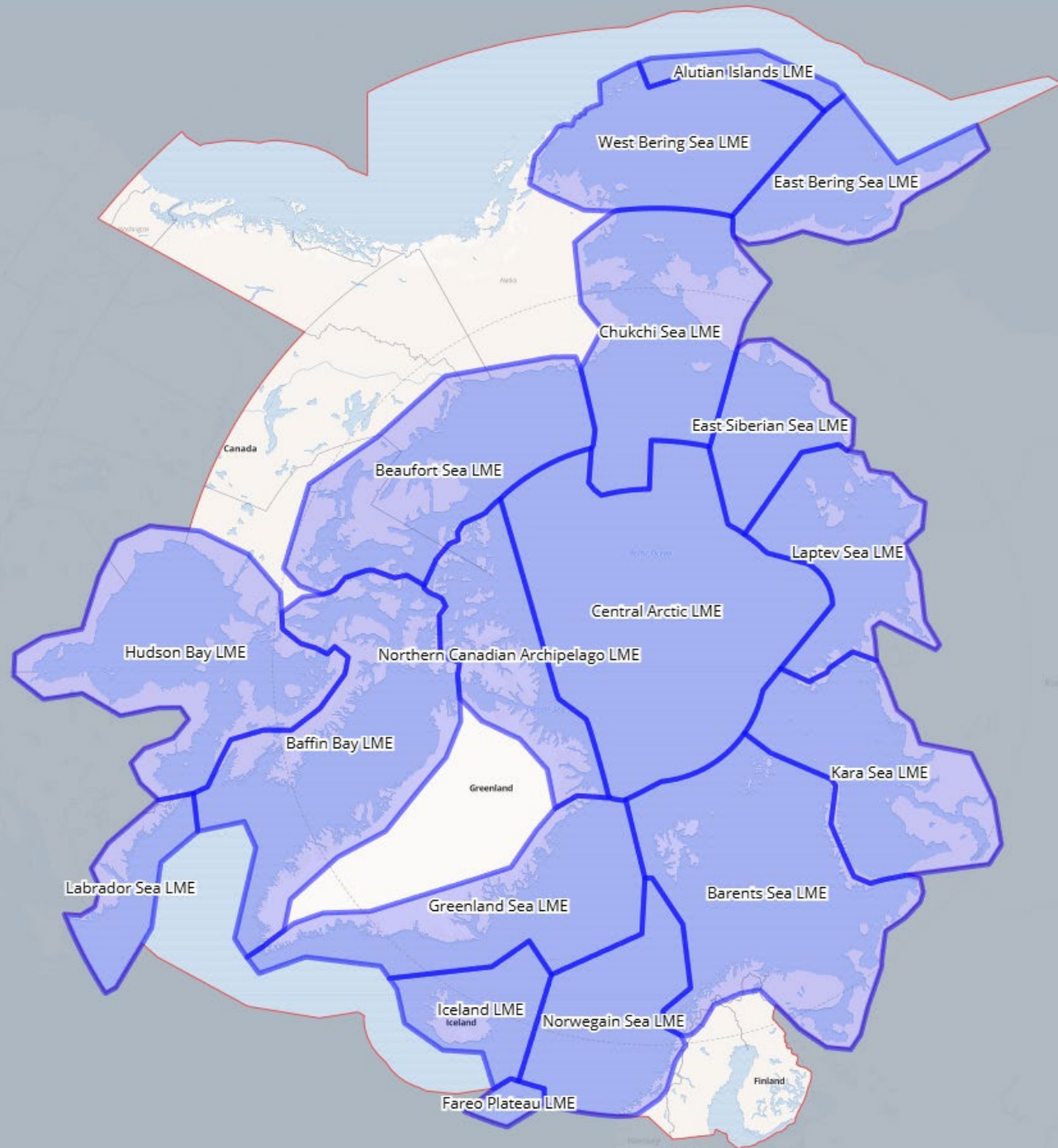


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# ASTD GEOGRAPHIC SCOPE

## LME'S



# ASTD GEOGRAPHIC SCOPE

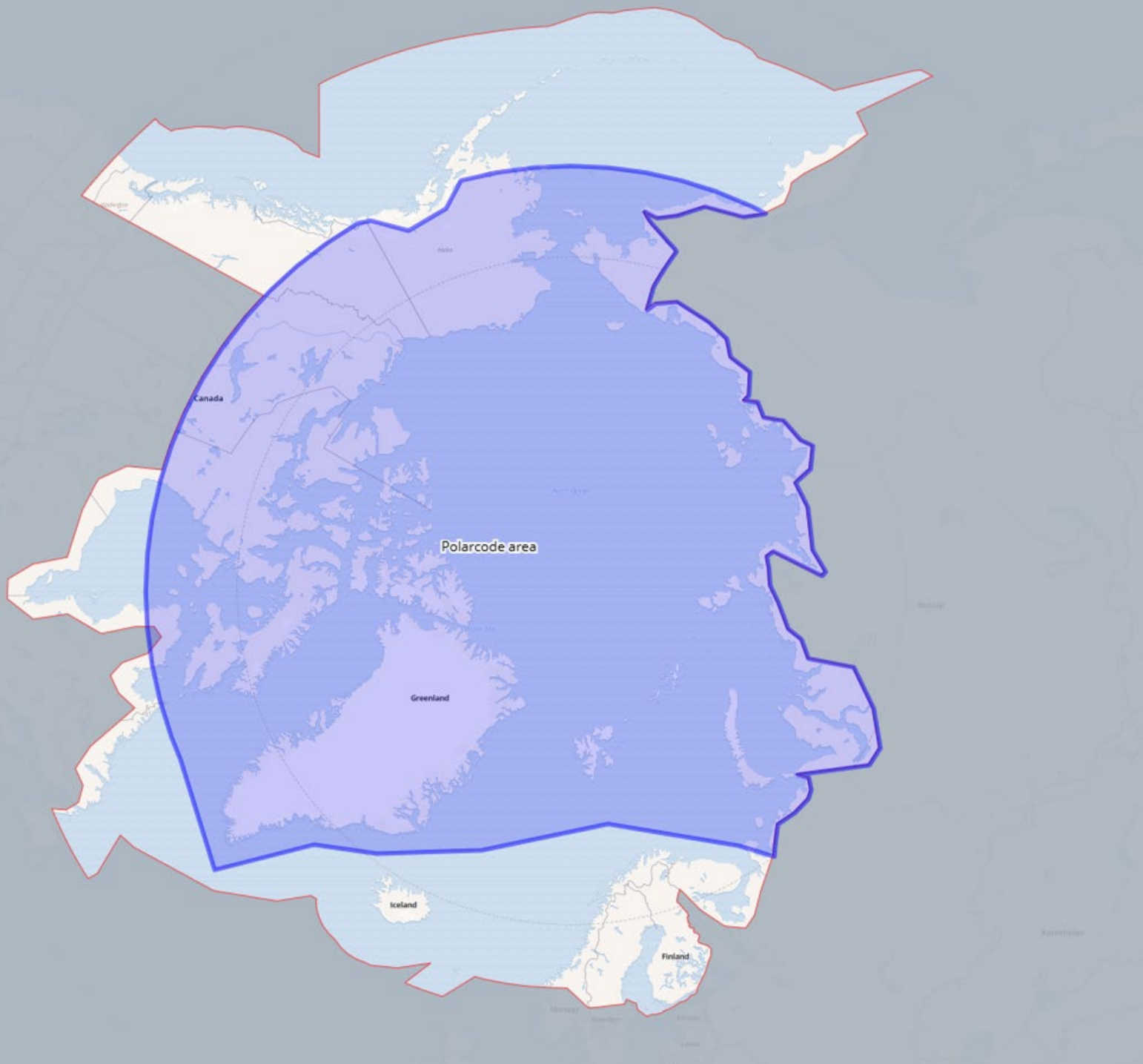
## EEZ'S





# ASTD GEOGRAPHIC SCOPE

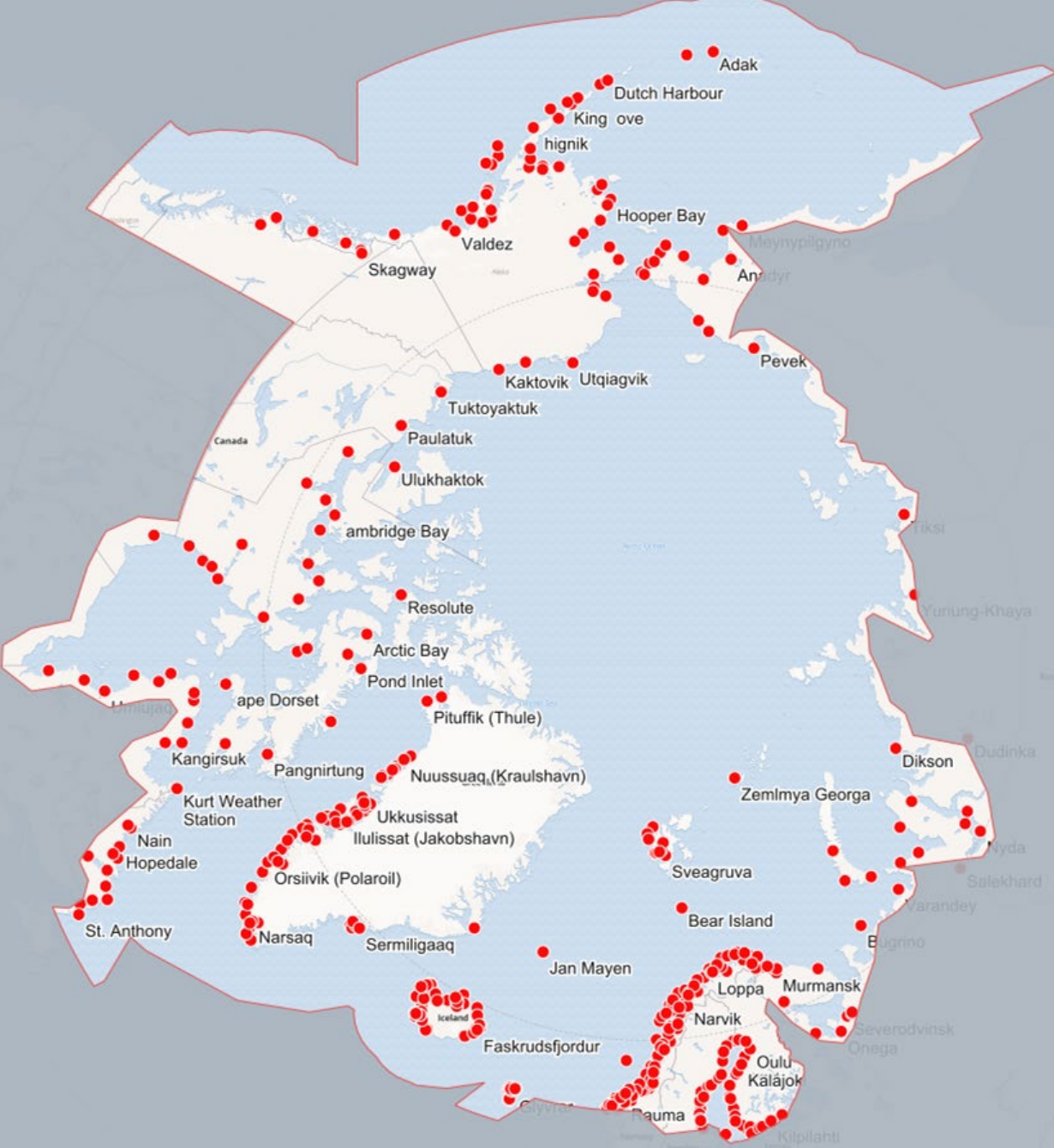
# POLAR CODEA AREA



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# ARCTIC PORTS



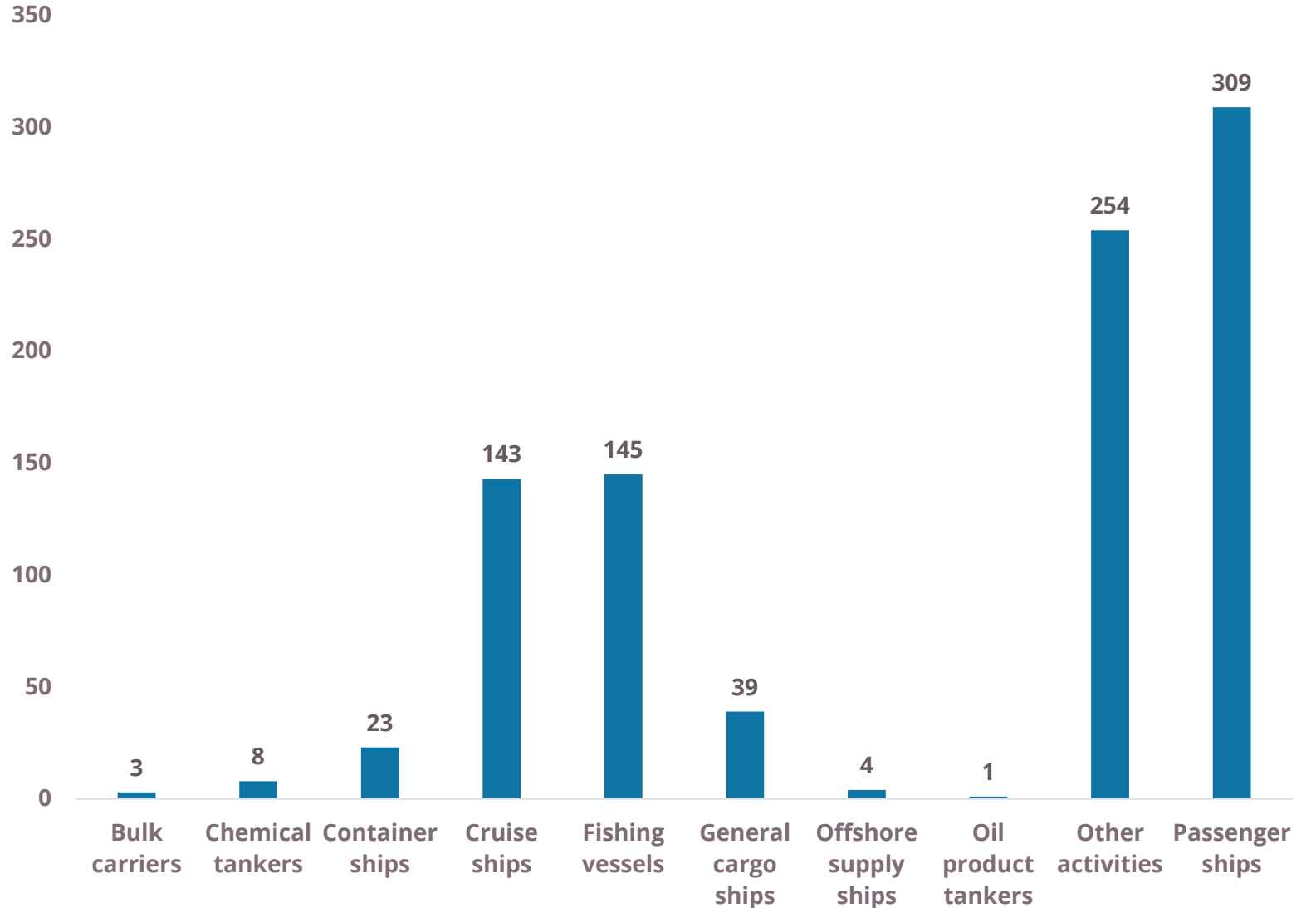
# ARCTIC PORTS

## AKUREYRI, ICELAND



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A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
portname	period_name	mmsi	imonumber	vesselname	flagcode	iceclass	norwegianshiptypename	lloydsshiptyname	lloyds5_cat	yearofbuild	fuelquality	deadweight	draught	lengthregistered	passenge	grosstonnage	vesselsizedescription
1	Akureyri	2024-07	266463000	9739824 THUN VENERN	SWD	FS Ice Class 1A	Chemical tankers	Chemical	Chemical/Products Tanker	2018	4	17999	9	0	0	12770	10000 - 24999
3	Akureyri	2024-07	246697000	9211535 BITHAV	NTH	FS Ice Class 1A	Chemical tankers	Chemical	Chemical/Products Tanker	2000	6	6384	7	0	0	4980	1000 - 4999 GT
4	Akureyri	2024-07	244820418	9164562 SAMSKIP SKAFTAFELL	NTH	FS Ice Class II	General cargo ships	General Cargo	General Cargo Ship	2000	6	5584	7	96	0	4450	1000 - 4999 GT
5	Akureyri	2024-07	244860282	9196943 SAMSKIP HOFFELL	NTH	FS Ice Class II	General cargo ships	General Cargo	General Cargo Ship	2000	6	5536	7	96	0	4454	1000 - 4999 GT
6	Akureyri	2024-07	244860282	9196943 SAMSKIP HOFFELL	NTH	FS Ice Class II	General cargo ships	General Cargo	General Cargo Ship	2000	6	5536	7	96	0	4454	1000 - 4999 GT
7	Akureyri	2024-07	304011027	9199256 THESEUS	ABB	FS Ice Class 1B	General cargo ships	General Cargo	General Cargo Ship	2000	6	2500	4	0	0	1846	1000 - 4999 GT



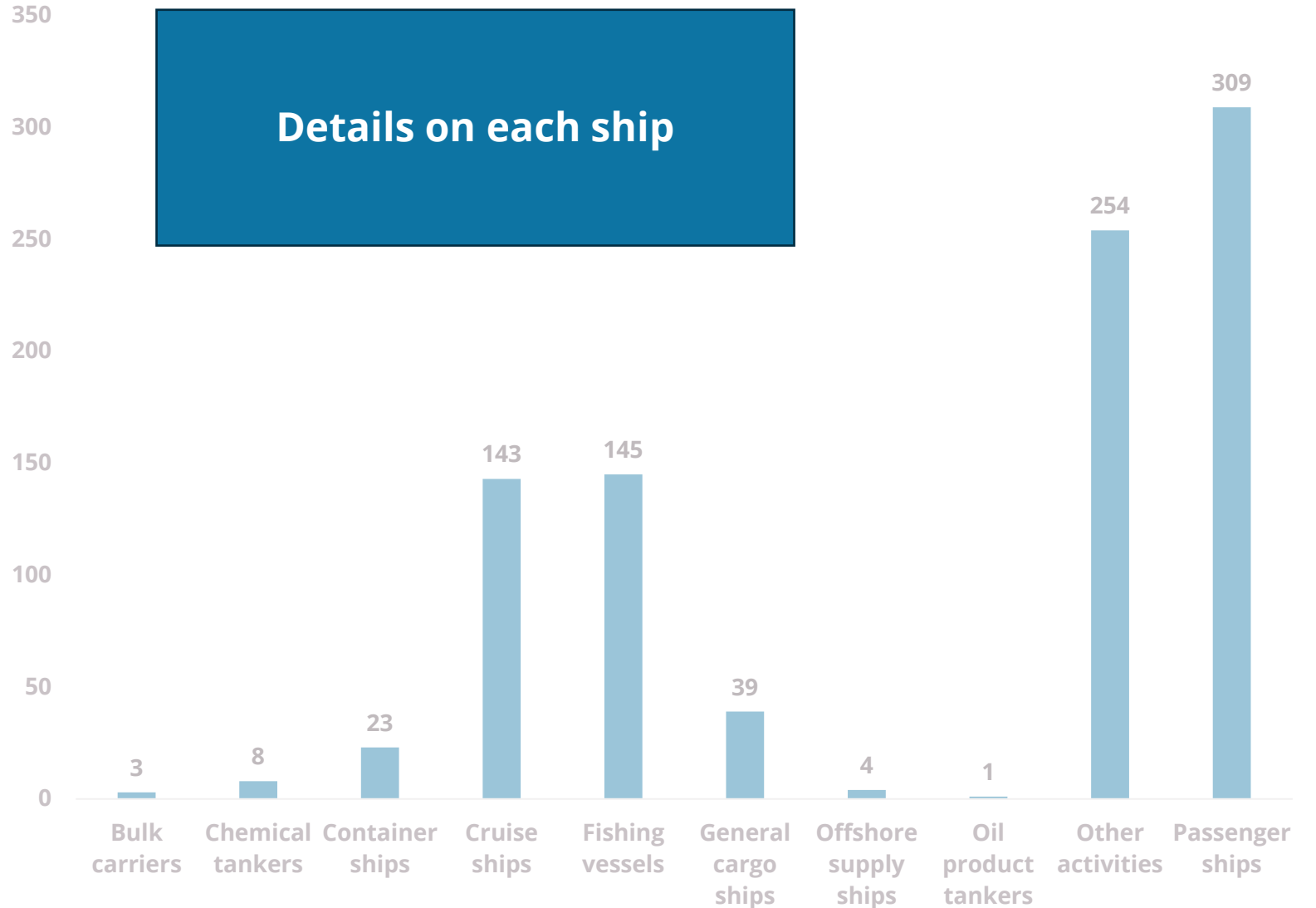
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	portname	period_name	mmsi	imonumber	vesselname	flagcode	iceclass	norwegianshiptype	lloydsshiptype	lloyds5_cat	yearofbuild	fuelquality	deadweight	draught	lengthregistered	passenge	grosstonnage	vesselsizedescription
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# AKUREYRI, ICELAND

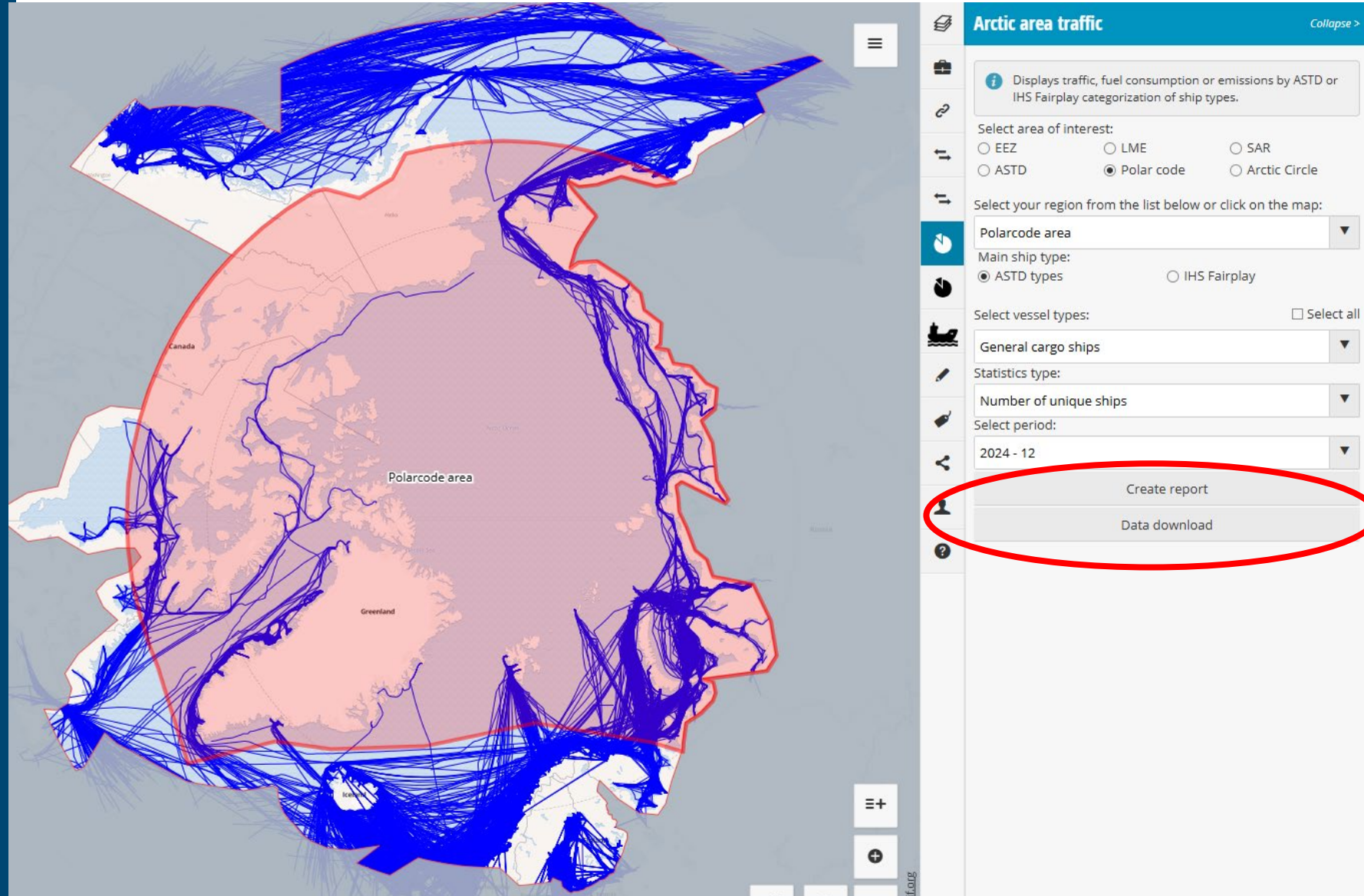


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## Details on each ship

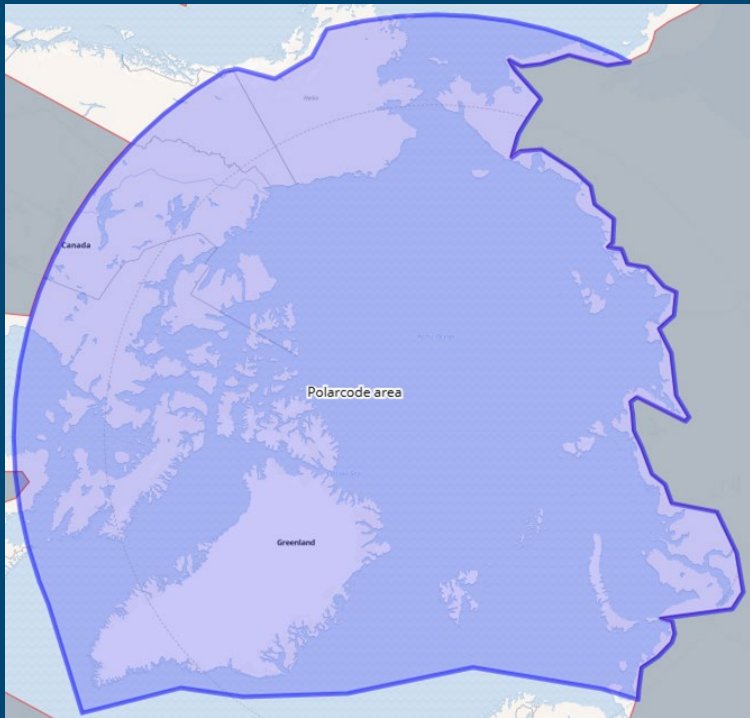


# DOWNLOAD CAPABILITY





# ARCTIC SHIPPING ANALYSIS

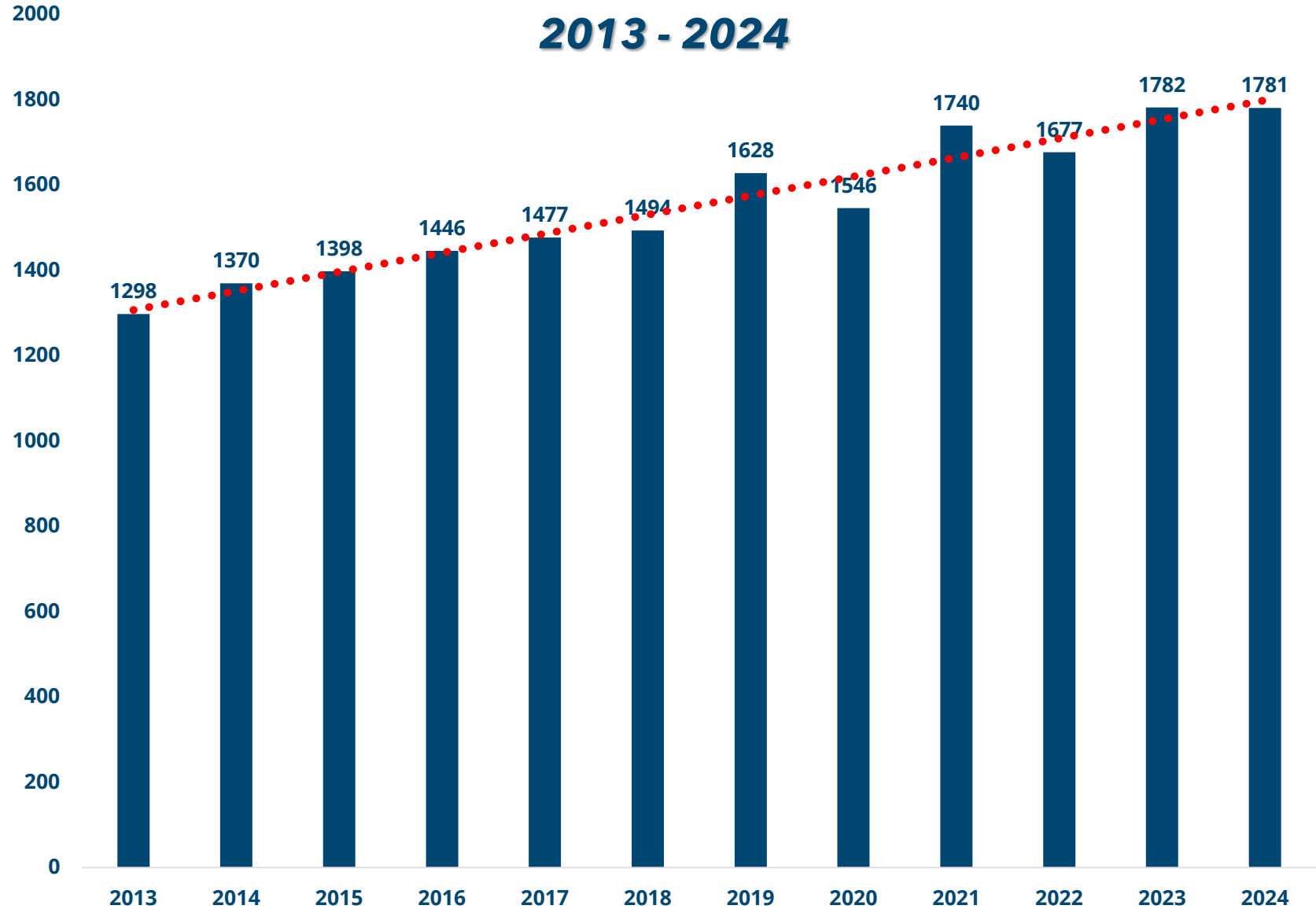


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# UNIQUE SHIPS

## ARCTIC POLAR CODE AREA

2013 - 2024



# UNIQUE SHIPS BY TYPE

## ARCTIC POLAR CODE AREA

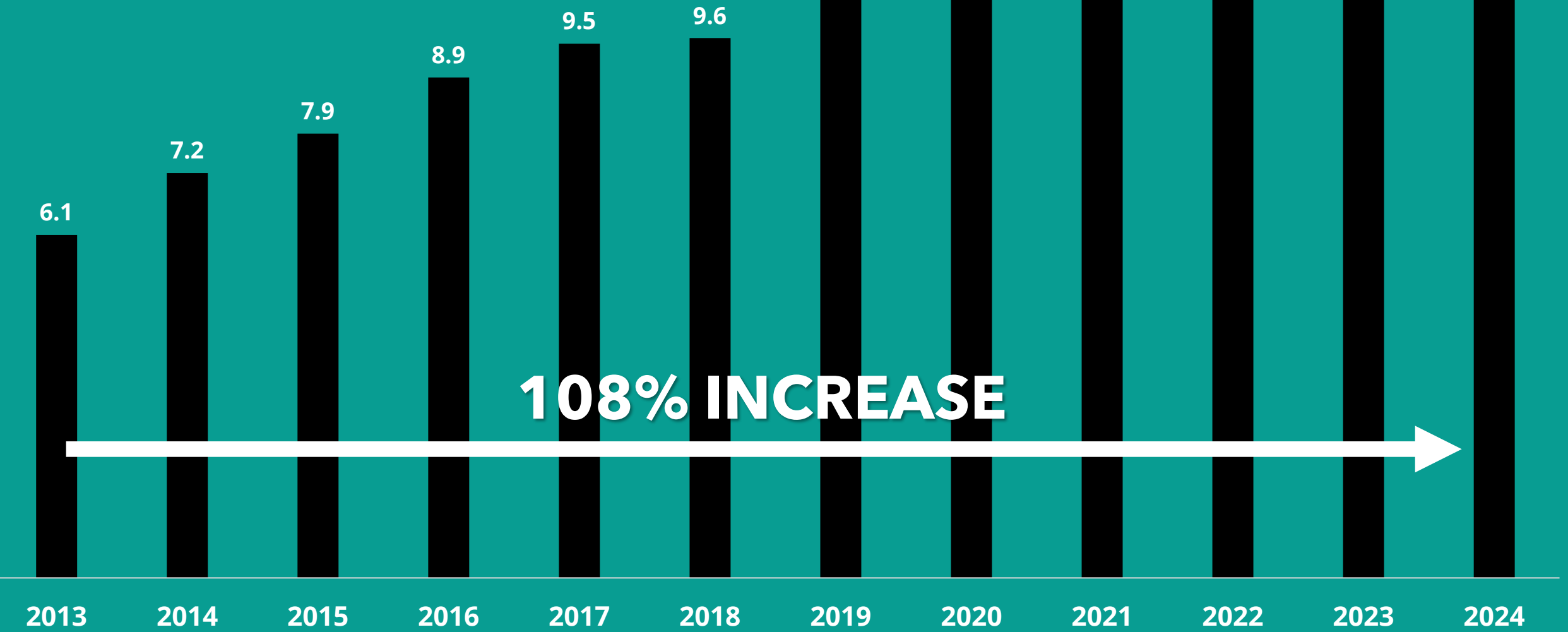
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Ro-Ro cargo ships	6	8	12	6	7	6	6	6	9	9	8	8
Dredging vessels	11	14	12	12	4	3	7	19	16	6	9	11
Other service offshore vessels	10	16	12	8	13	10	10	12	13	8	11	11
Container ships	12	6	8	8	12	9	6	11	7	8	13	15
Yachts	7	9	9	12	8	9	14	5	10	21	19	26
Passenger ships	10	14	12	17	14	17	17	9	13	15	20	18
Crude oil tankers	12	10	9	14	17	19	26	24	18	16	31	46
Gas tankers	1	0	1	0	4	13	24	26	26	26	31	43
Offshore supply ships	25	52	41	25	36	45	45	51	52	31	44	38
Chemical tankers	42	45	54	50	50	60	60	53	47	55	53	58
Oil product tankers	62	70	58	47	58	53	55	55	58	54	53	54
Research vessels	62	70	59	58	60	53	48	47	50	51	54	56
Refrigerated cargo ships	71	68	77	76	92	81	81	89	83	81	90	89
Cruise ships	58	58	55	63	63	65	73	7	12	78	96	87
Other activities	55	65	60	72	67	67	67	69	85	81	104	98
Bulk carriers	71	66	78	78	75	86	106	98	96	114	119	111
Towing / Pushing vessels	76	71	87	79	79	80	93	97	119	104	121	133
General cargo ships	141	160	164	199	182	155	174	187	219	183	181	187
Fishing vessels	566	568	590	622	636	663	716	681	807	736	725	692
<i>Total</i>	<b>1298</b>	<b>1370</b>	<b>1398</b>	<b>1446</b>	<b>1477</b>	<b>1494</b>	<b>1628</b>	<b>1546</b>	<b>1740</b>	<b>1677</b>	<b>1782</b>	<b>1781</b>



# DISTANCE SAILED

## ARCTIC POLAR CODE AREA

MILLIONS OF NAUTICAL MILES: 2013 - 2024




**108% INCREASE**



# ARCTIC SHIPPING ANALYSIS

## CASE STUDY: MARY RIVER MINE



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- Our Operation >
- Life at Mary River >
- Ship Locations >



### Careers with Baffinland

Want to work with Baffinland? [Click here.](#)

### Mary River Mine

Baffinland Iron Mines Corporation (Baffinland)'s Mary River mine site on Baffin Island, Nunavut, Canada, is one of the most northern mines in the world. Amongst the richest iron ore deposits ever discovered, the Mary River Property consists of nine-plus high-grade iron ore deposits that can be mined, crushed, and screened into marketable products.



# ARCTIC SHIPPING ANALYSIS

## CASE STUDY: MARY RIVER MINE

**PAME**

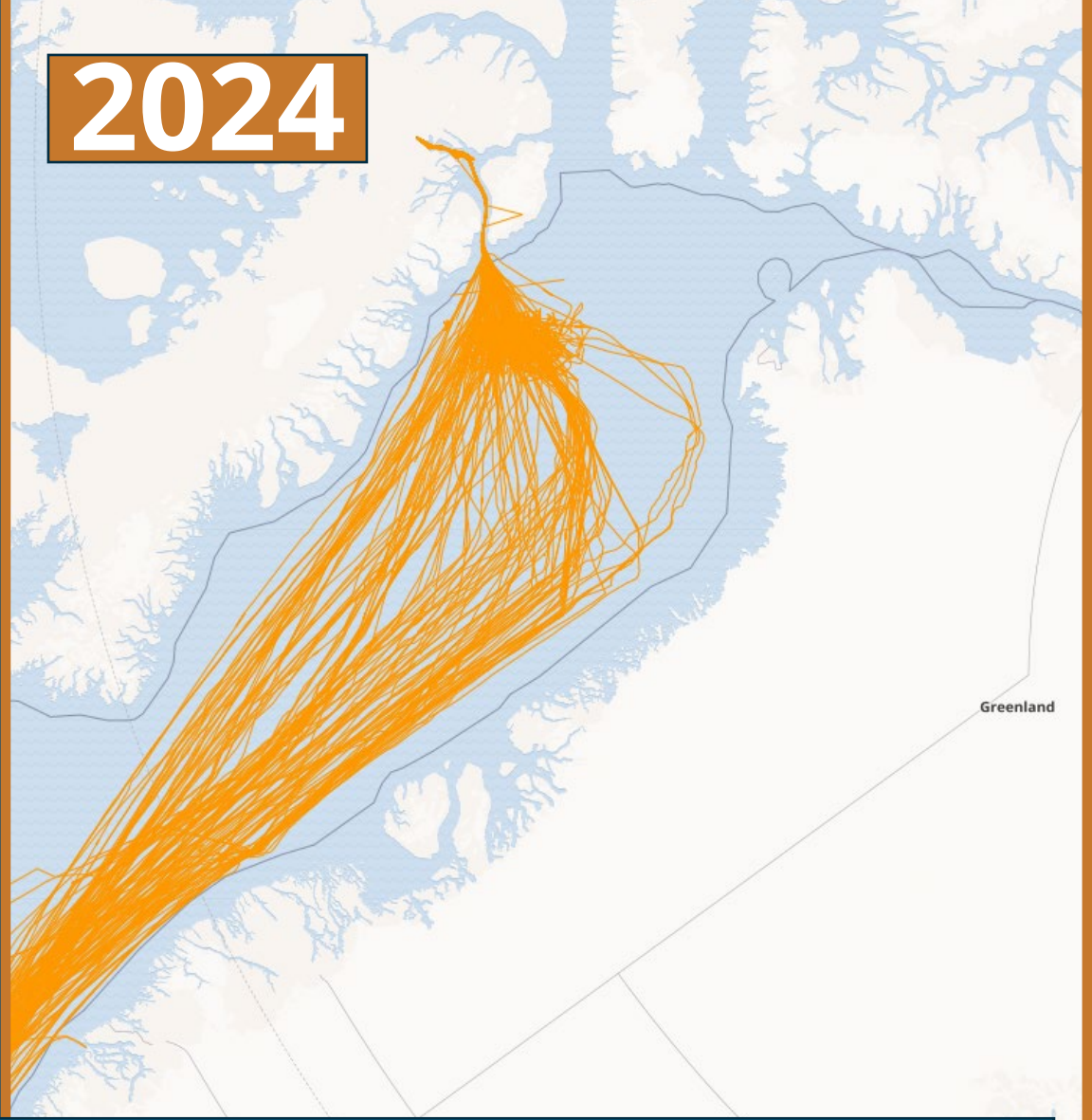
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2013



2024



# BULK CARRIER TRAFFIC

All vessel sizes

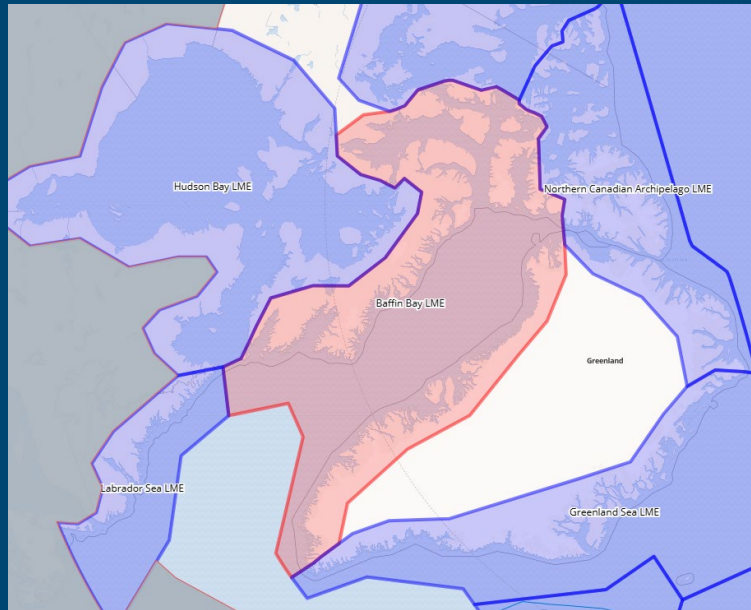


All vessel sizes



# ARCTIC SHIPPING ANALYSIS

## CASE STUDY: MARY RIVER MINE



# SAILED DISTANCE – BULK CARRIERS *BAFFIN BAY LME*

**2013**

**3.559 nm.**

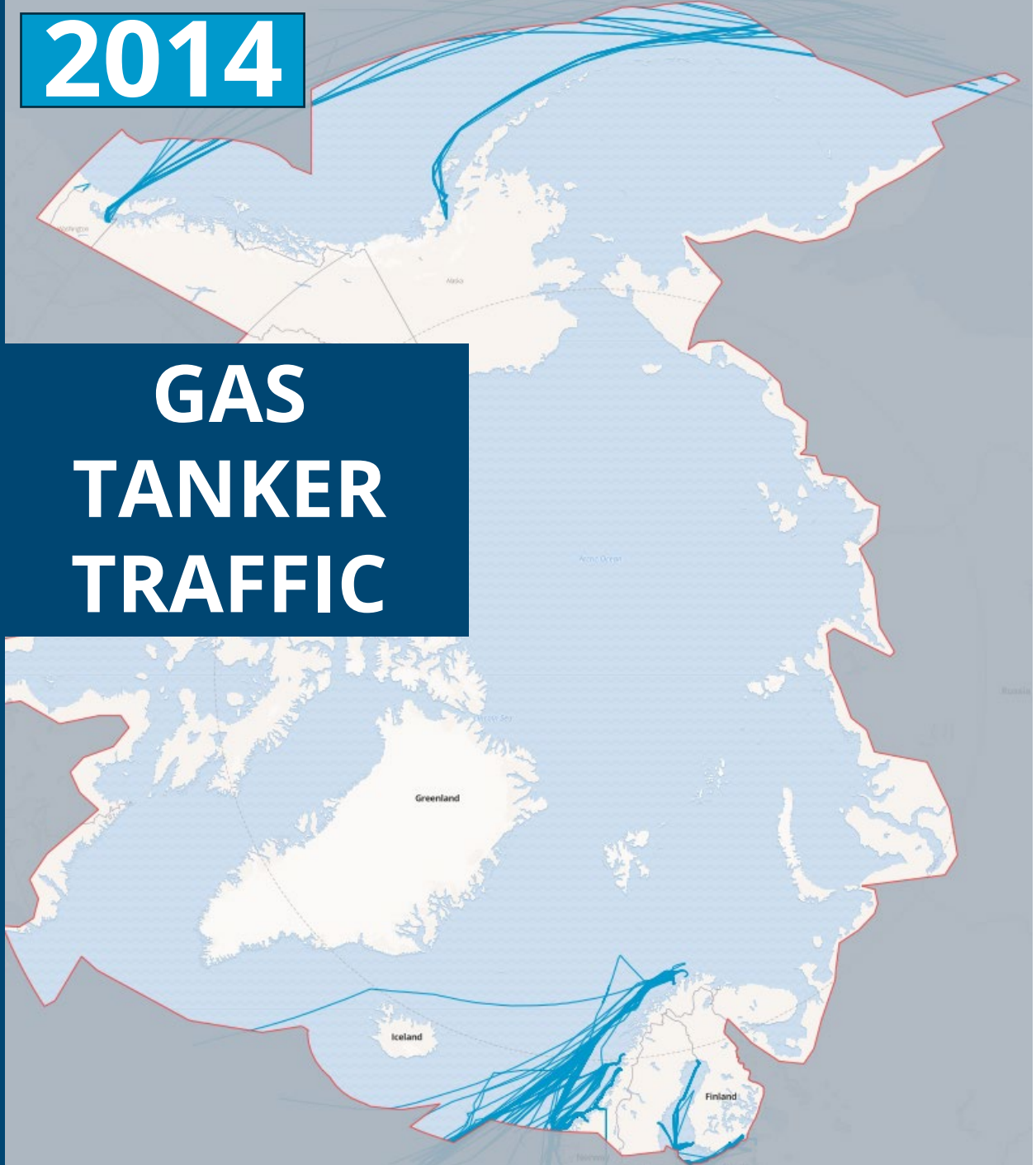
**2024**

**191.453 nm.**

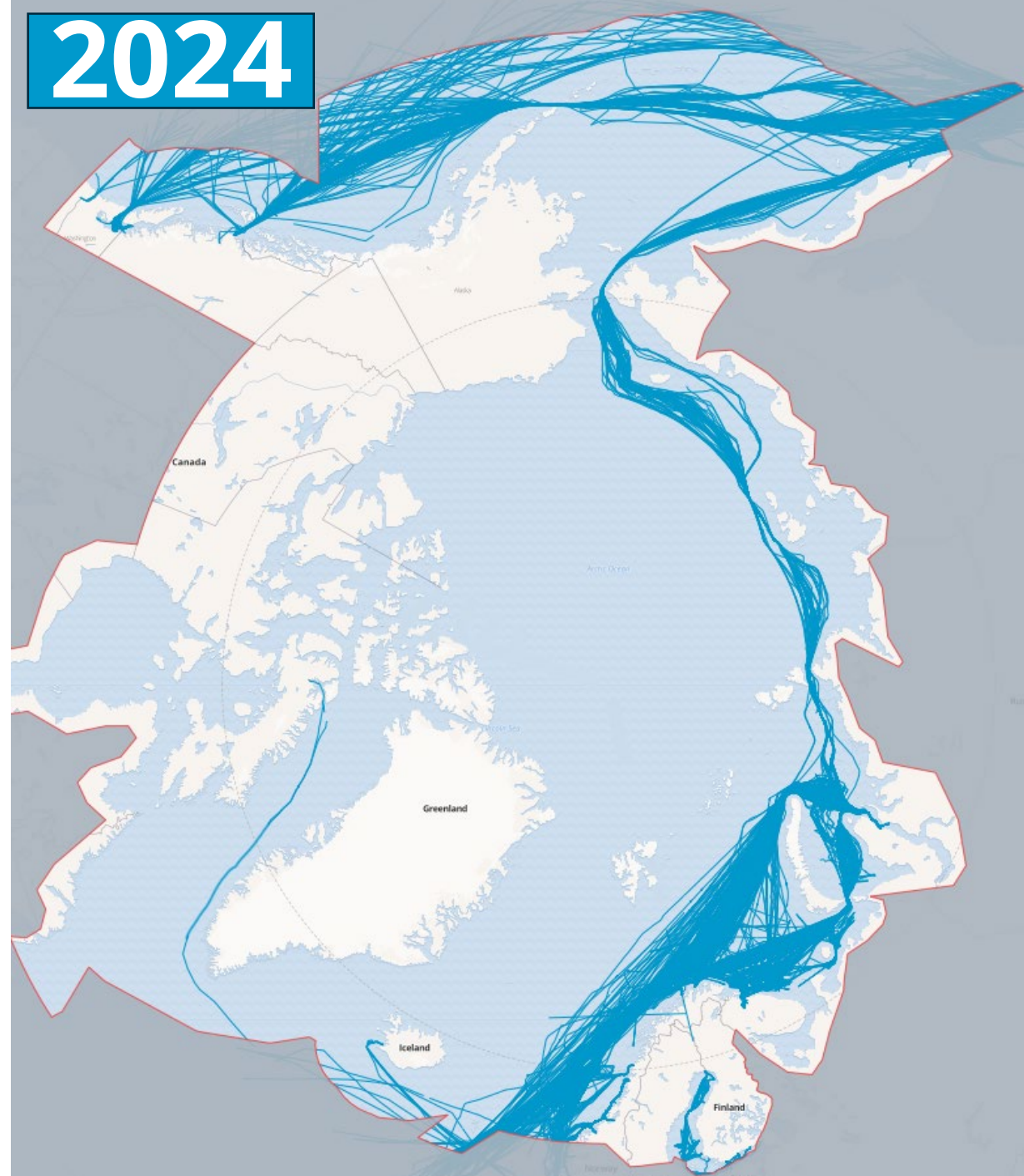


**2014**

**GAS  
TANKER  
TRAFFIC**



**2024**



# SAILED DISTANCE – GAS TANKERS

## ARCTIC POLAR CODE AREA

ARCTIC SHIPPING  
ANALYSIS

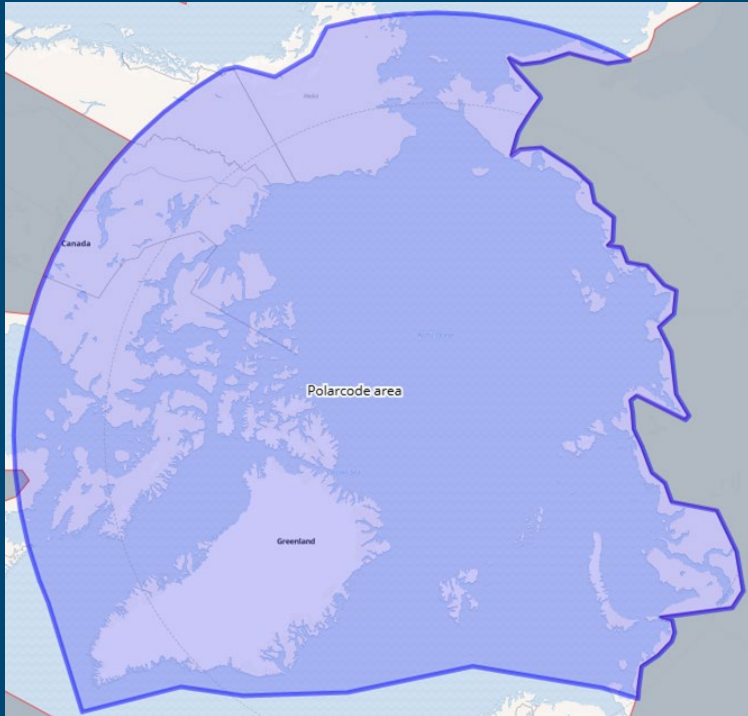
CASE STUDY:  
GAS TANKERS

2014

0 nm.

2024

877.650 nm.



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