

Bering Strait and Arctic Transits

PREPARED BY:

Marine Exchange of Alaska
(Data including 2024)



Introduction

The Arctic is undergoing rapid environmental changes that are forecasted to significantly alter maritime traffic. Baseline data on current traffic patterns and area usage are useful in anticipating the future needs of the maritime community operating in the Arctic.

In 2009, the Marine Exchange of Alaska (MXAK) began recording vessel traffic through the Bering Strait and Arctic region by monitoring the AIS (Automatic Identification System) transmissions of vessels equipped with this technology. International maritime treaties require all vessels over 300 gross tons, and all passenger ships engaged in international trade to be equipped with AIS. In 2016 U.S. Coast Guard regulations expanded the AIS carriage requirement to all

commercial vessels over 65' in length, including fishing vessels and towing vessels over 26 feet in length. As the cost of AIS equipment decreased over time many vessels not required to carry have installed AIS transceivers. As a result, more vessels are now transmitting information on AIS than in 2009 when MXAK first started recording maritime activity in the Bering Strait.

This report provides a summary of AIS equipped vessel transits in 2024 and makes comparisons to data gathered over the past decade.

For more comprehensive and refined data on vessel transits in the Arctic, please contact the Marine Exchange of Alaska (info@mxak.org).

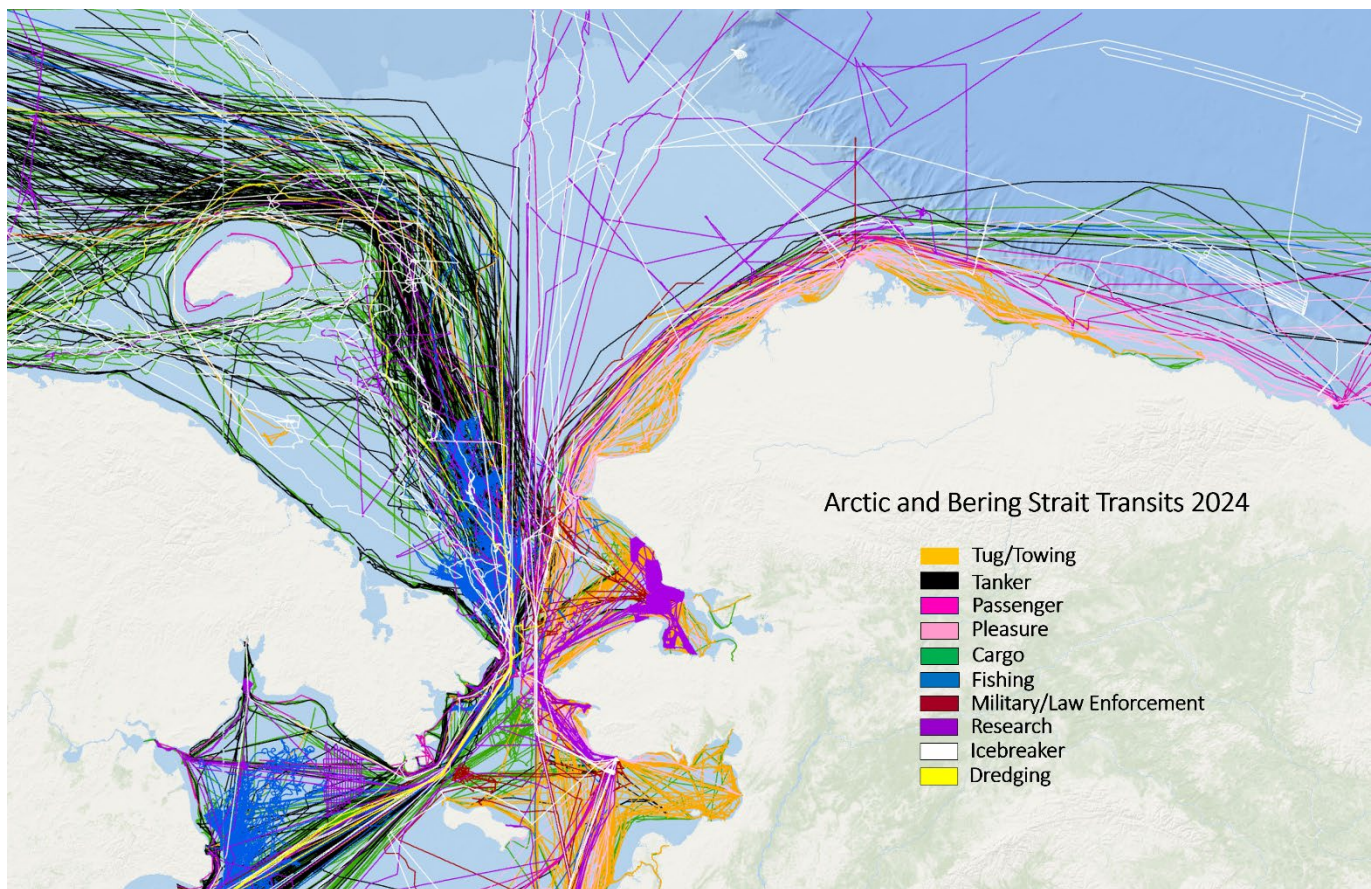


Figure 1. Transits through the Bering Strait, by vessel type, during 2024. Vessel type was determined by AIS broadcast and Lloyd's List Seasearcher.

The Bering Strait

In Table 1, northbound and southbound vessel transits were recorded as they passed over a virtual line between the closest points of mainland in the strait. While vessels could report multiple transits over the passageline throughout the year, they were limited to one northbound and one southbound transit per day in analysis.

Figures 1 and 2 were built by using the MMSI's of vessels that posted a transit across the Bering Strait passageline at least once during the year. Vessels that stayed north or south of the Strait for the entire year are not displayed in these figures.

Table 1. All AIS-identified transits from 2010 through 2024.

Year	Northbound	Southbound	Total
2010	128	114	242
2011	124	115	239
2012	154	162	316
2013	171	173	344
2014	130	125	255
2015	232	220	452
2016	158	182	340
2017	164	196	360
2018	183	175	358
2019	241	236	477
2020	267	290	557
2021	278	277	555
2022	252	257	509
2023	319	362	681
2024	325	340	665

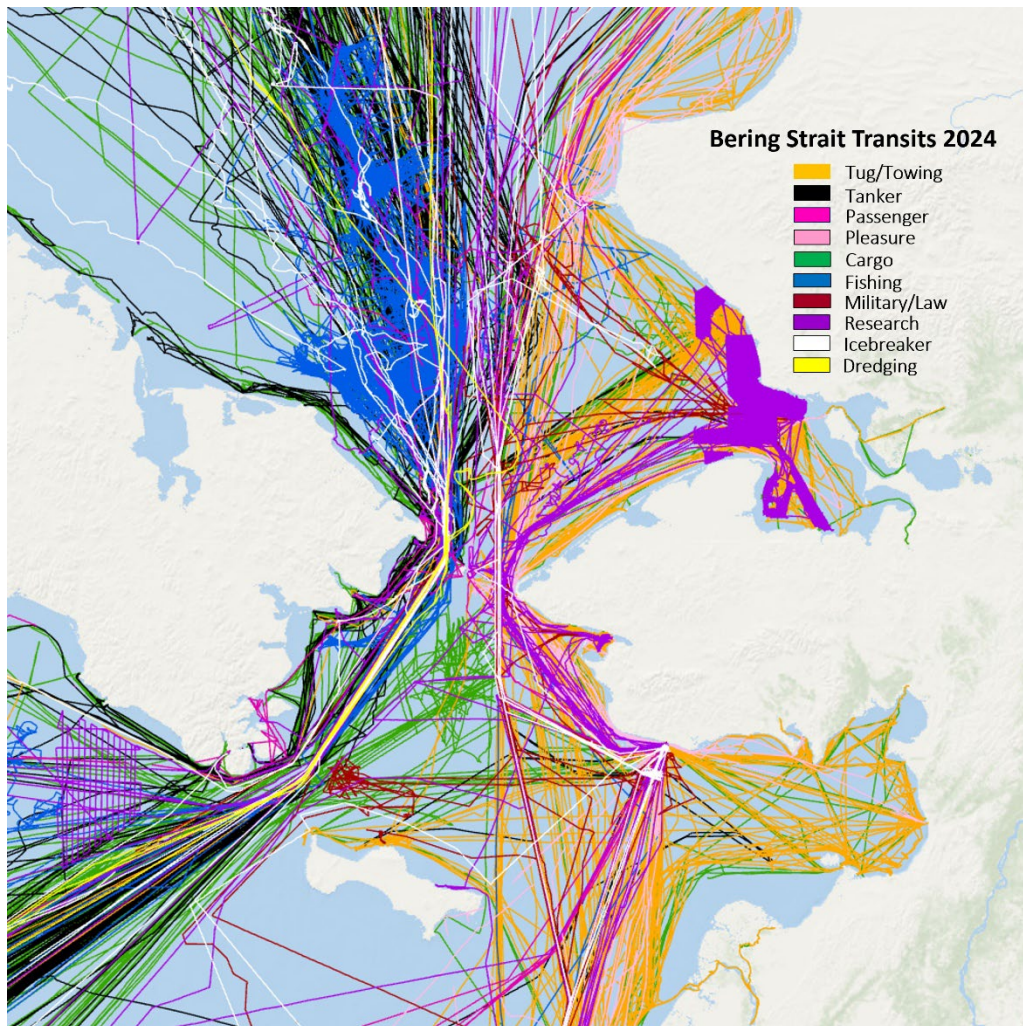


Figure 2. Transits through the Bering Strait in 2024.

Vessel Types

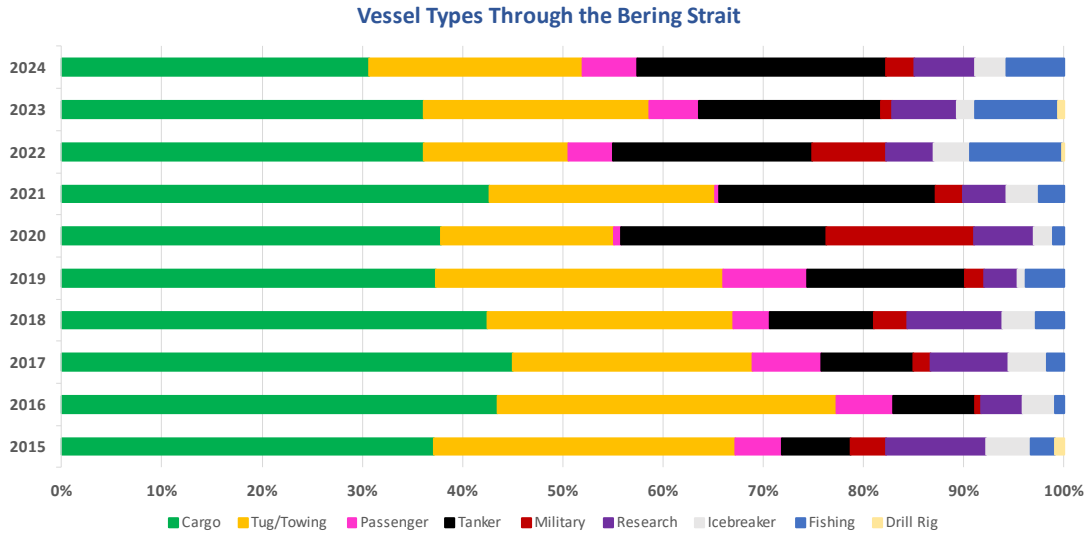


Figure 3. Percentages of yearly transits by vessel type.

In Figure 3 vessels were categorized by self-reported AIS types. Ships that identified as “Other” or otherwise not self-identified were categorized using the Lloyd’s List Seasearcher. Fishing vessel increases in 2017 and 2018 may be due to U.S. Coast Guard’s expanded AIS carriage requirements; but the increased number of fishing vessels in 2022 is notable. Figure 4 breaks down vessel types by side of the Bering Strait they transit. While ships on either side are analogous in most categories, cargo vessels are not. Cargo vessels on the U.S. side are typically regional landing craft, averaging 28 meters in length. On the Russian side the average length of a cargo vessel is 160 meters.

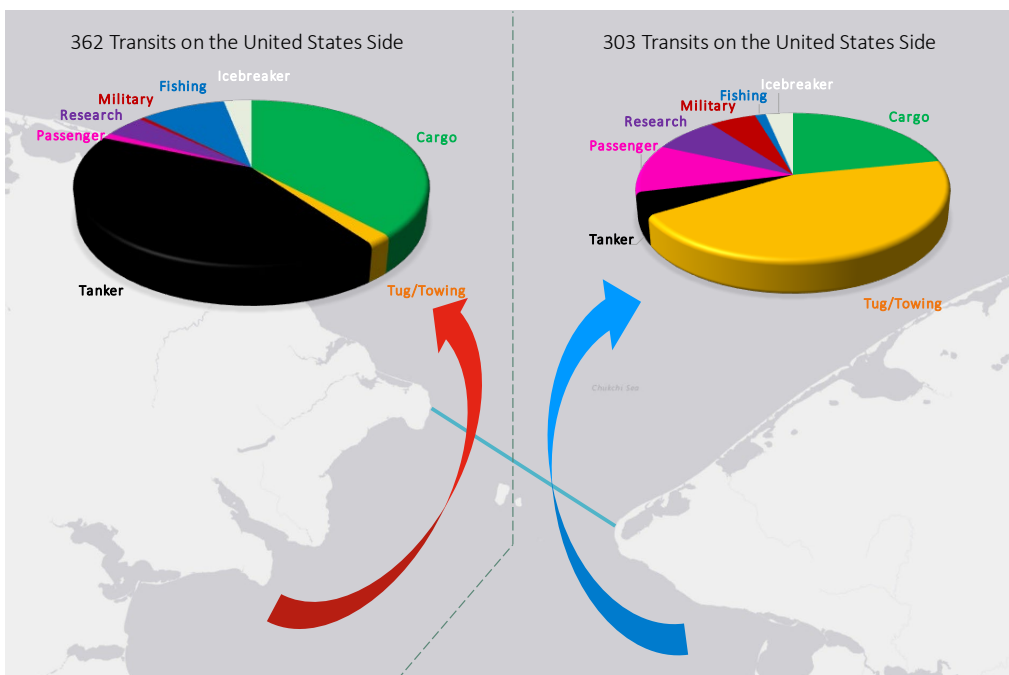


Figure 4. Vessel types on each side of the Bering Strait in 2024.

Season Lengths

Figure 9 looks at the first and last dates that vessels crossed (either north or south) through the Bering Strait. In the winter of 2020 transits continued past the end of the calendar year into the next January and February. That pattern repeated for the 2021 and 2022 seasons. No transits through the Bering Strait have been recorded in the first months of 2025.

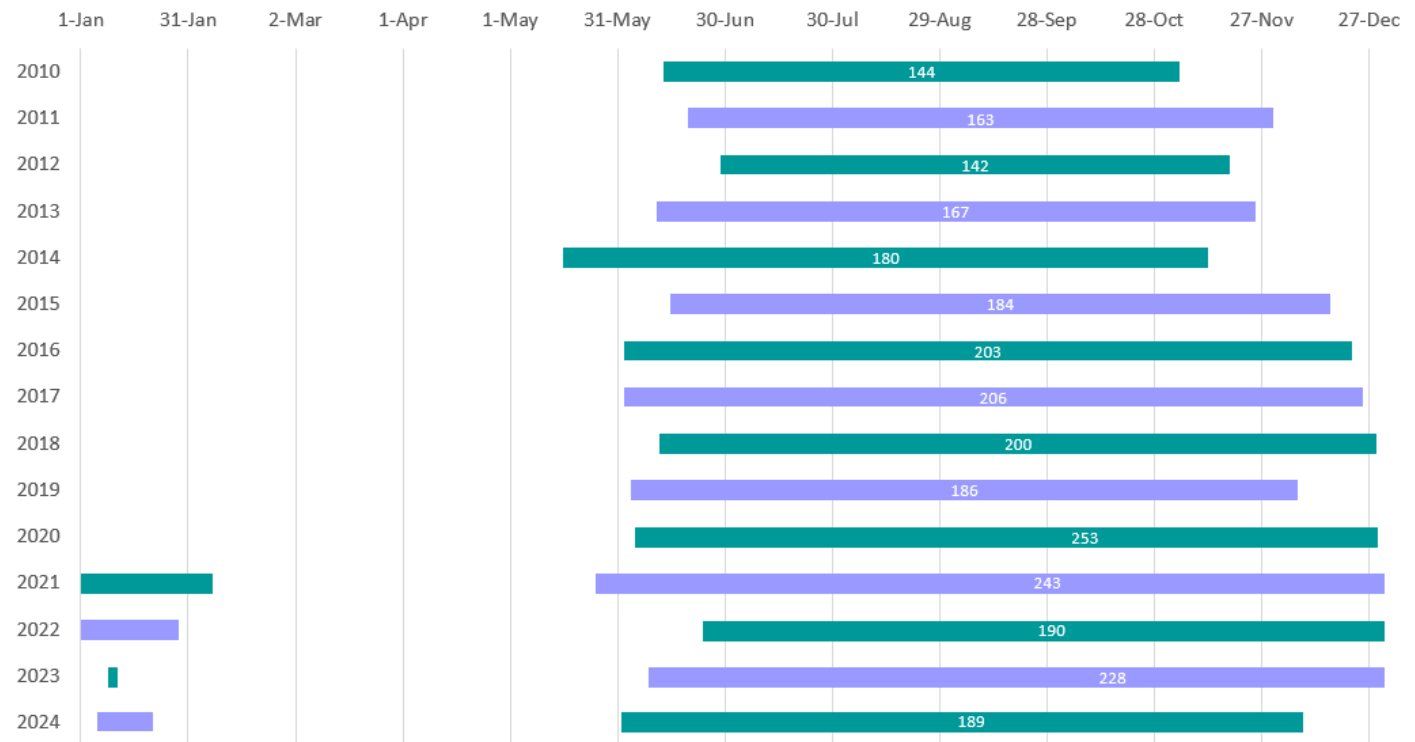


Figure 9. Shipping season lengths based on the first and last AIS transmission date in the Bering Strait.