U.S. National Ice Center

PRESS RELEASE

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Arctic Sea Ice Reaches Maximum Extent

01APR2025, Suitland, MD — The U.S. National Ice Center (USNIC) has determined the 2025 maximum Arctic sea ice extent occurred in mid-March 2025 with an area of 14.47 million square kilometers. This estimate is based on the Multisensor Analyzed Sea Ice Extent (MASIE) product, which is created jointly with the National Snow and Ice Data Center (NSIDC), and is ultimately derived from analysis on the USNIC's Interactive Multisensor Snow and Ice Mapping System (IMS).

Analyses for the 2024/2025 winter season indicated a maximum 3-day average of 14.47 million square kilometers between 20-22 March. USNIC maximum ice extent is determined based on a 3-day average to account for short-term spatial variability in the sea ice edge location. The 2025 Arctic sea ice extent maximum is the lowest recorded in the period of record which began in 2006 when the IMS analysis increased in resolution to 4km. The 2025 maximum also occurred later than the 19-year average maximum date of 09 March. This was the second latest date of maximum seasonal ice coverage, with the latest date in the period of record on 22 March 2012.

The USNIC analyst-driven IMS MASIE estimate is corroborated by the NSIDC, who announced that Arctic sea ice likely reached its maximum extent for 2025 at 14.33 million square kilometers on 22 March. This estimate, slightly different from the USNIC estimate, is based on a 25-kilometer resolution ice concentration product from satellite microwave radiometers. USNIC's IMS uses a variety of satellite observations which are interpreted by an analyst to determine the presence of ice at a 1km resolution. The slight differences also stem from the varying missions of each institution, the methodology, and the spatial resolution of the data sources used to identify the presence of sea ice.

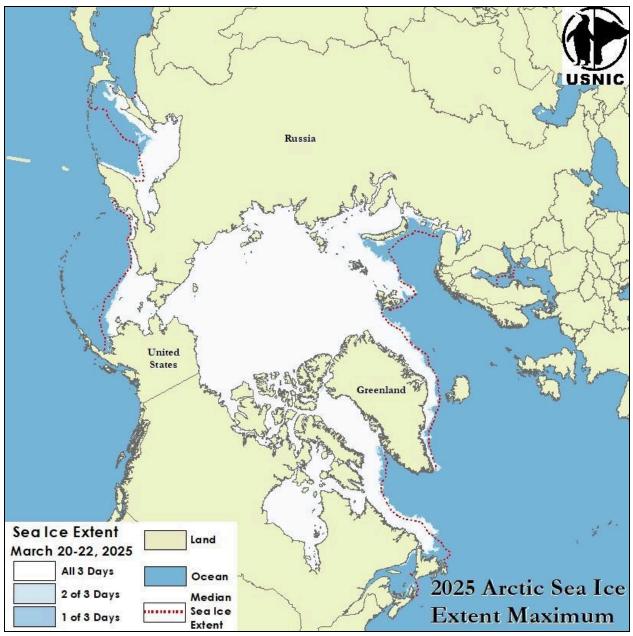


Figure 1: Maximum sea ice extent for 20-22 March, 2025 as analyzed by USNIC's IMS at 1km resolution. The red dashed line shows the 1981-2010 median extent for 21 March as calculated by NSIDC.

The USNIC is a multi-agency partnership between the U.S. Navy, NOAA, and the U.S. Coast Guard that provides strategic-, operational-, and tactical-level ice and snow products, ice forecasting, and related environmental intelligence services for the U.S. government. To access daily products, weekly products, archival data and much more of USNIC data in various formats, visit the USNIC webpage at: https://usicecenter.gov/Products

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