

An aerial photograph showing a dense field of white, irregular ice floes floating in a deep blue sea. The ice floes are of various sizes and shapes, with some showing cracks and textures. The water between the floes is a vibrant blue, contrasting sharply with the white ice.

Miljö och Arktis

Harry Robertsson Teknisk Direktör, Stena Rederi AB

Stena Teknik

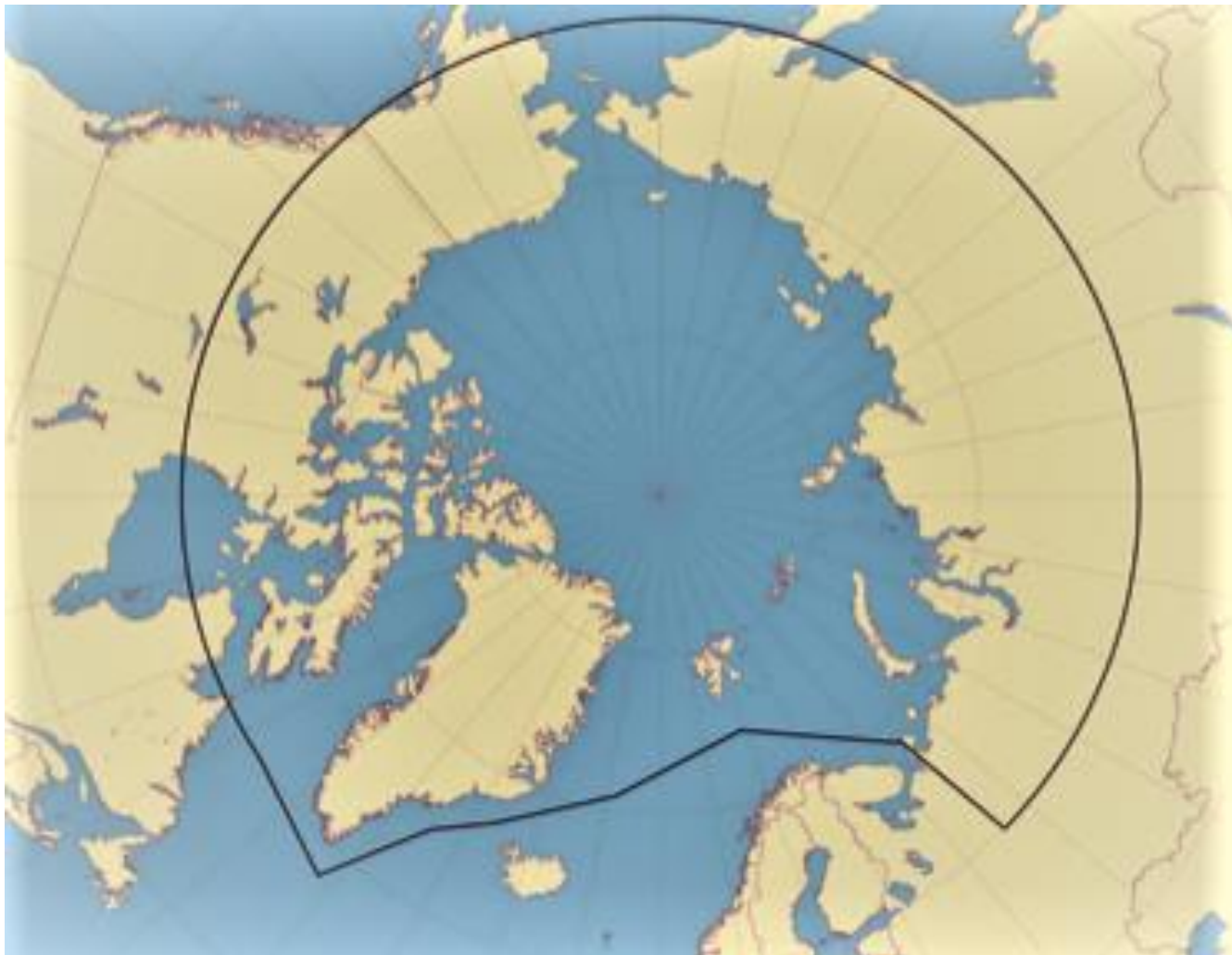


*Vi levererar marinteknisk kunskap och
erfarenhet för ökad konkurrenskraft*

An aerial photograph showing several large, white icebergs floating in dark blue water. The icebergs have jagged, irregular edges and are scattered across the frame. The water is a deep, vibrant blue, contrasting sharply with the white ice. The lighting suggests a bright, sunny day, with some shadows visible on the ice surfaces.

Aktiviteter i Arktis

Arktis enligt Polarkoden



Utveckling av istäcket i Arktis

DEMINISHING SEA ICE

MEDIAN ICE EDGE 1981-2010



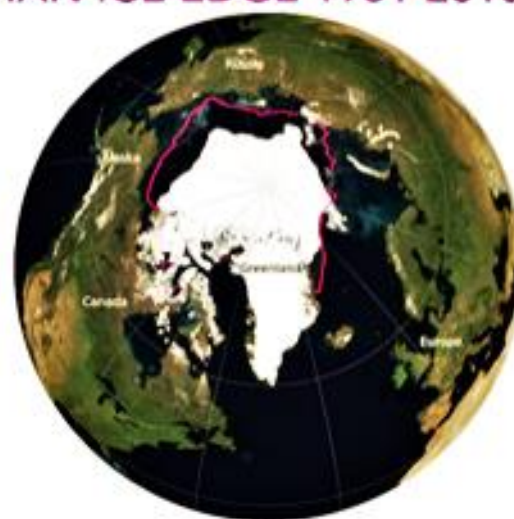
1999

6,1 million sq km



2009

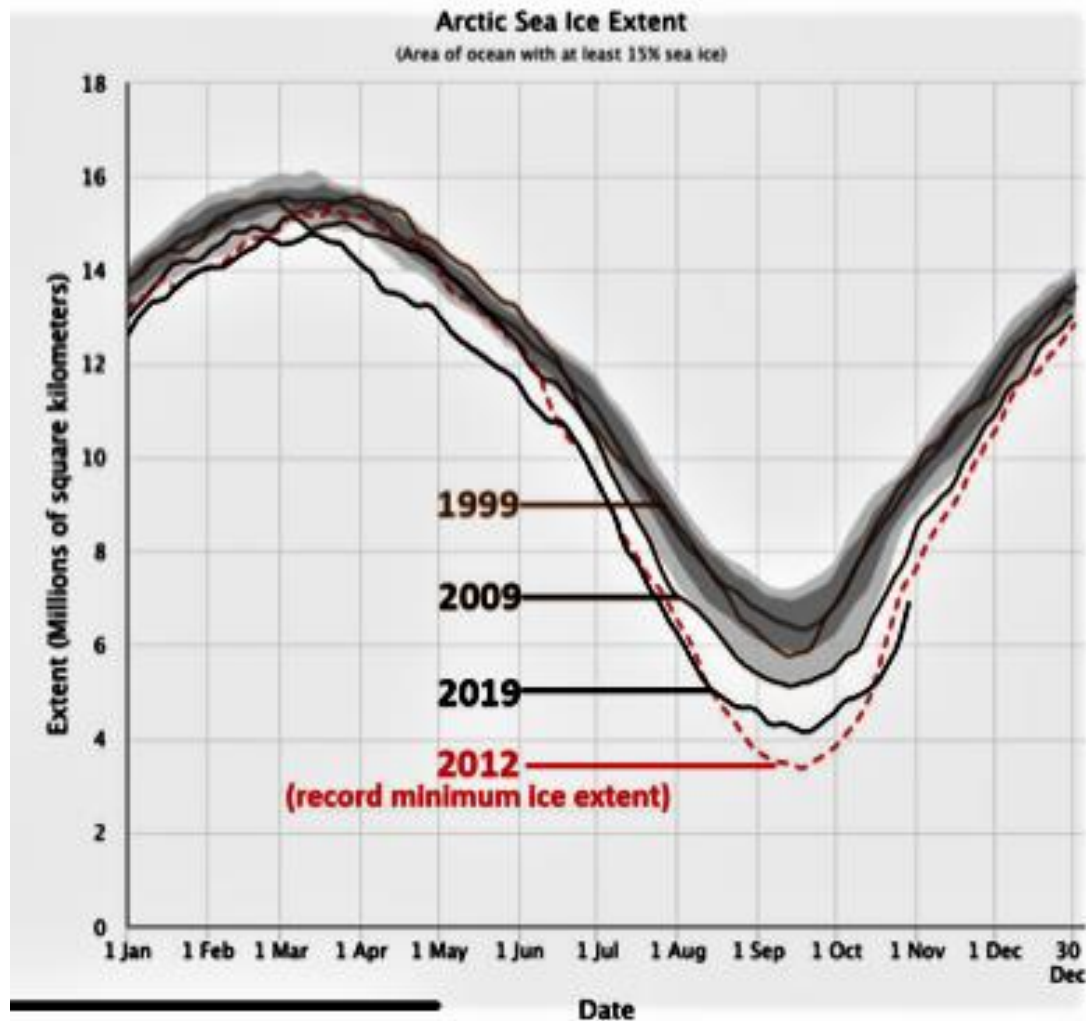
5,3 million sq km



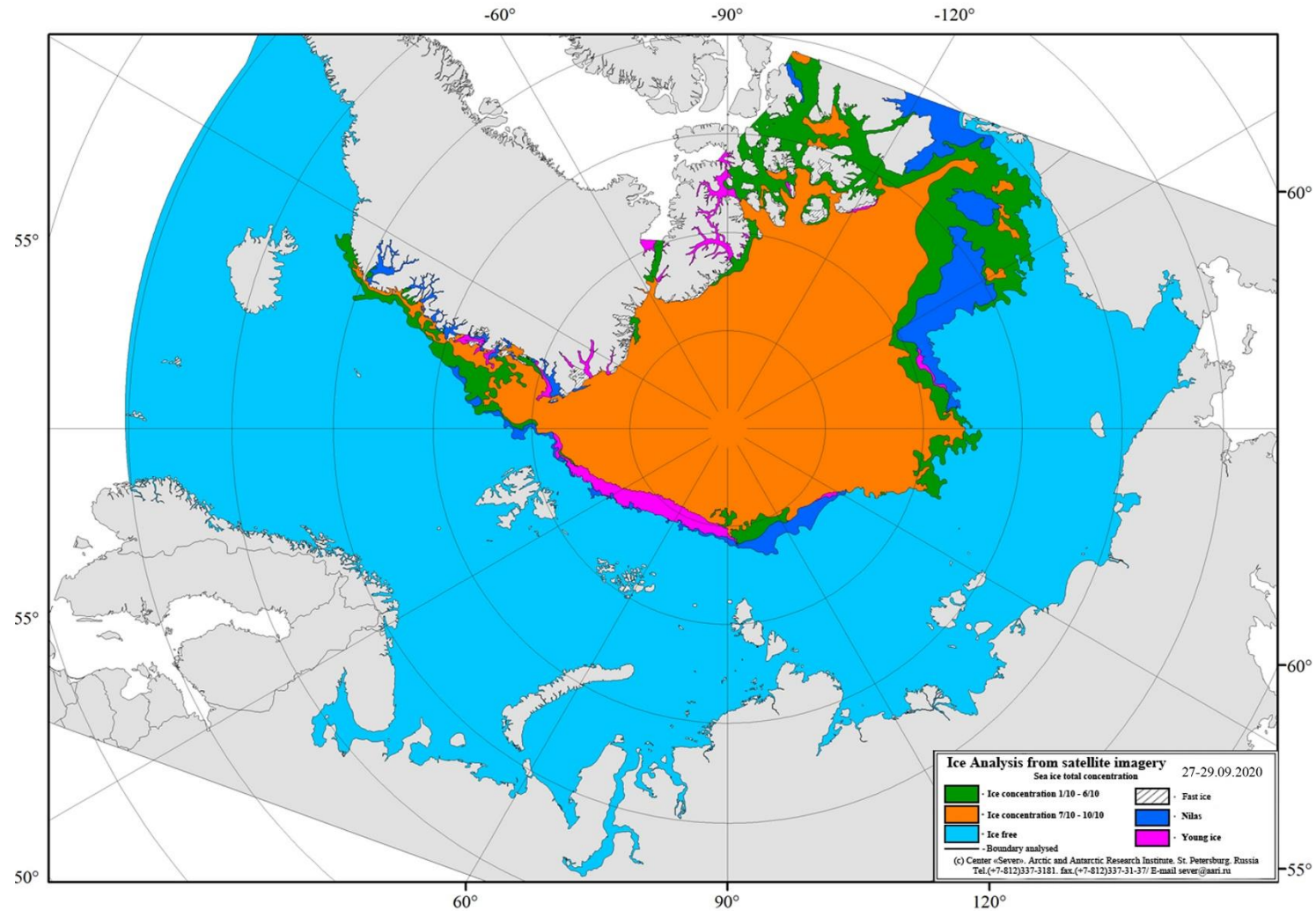
2019

4,3 million sq km

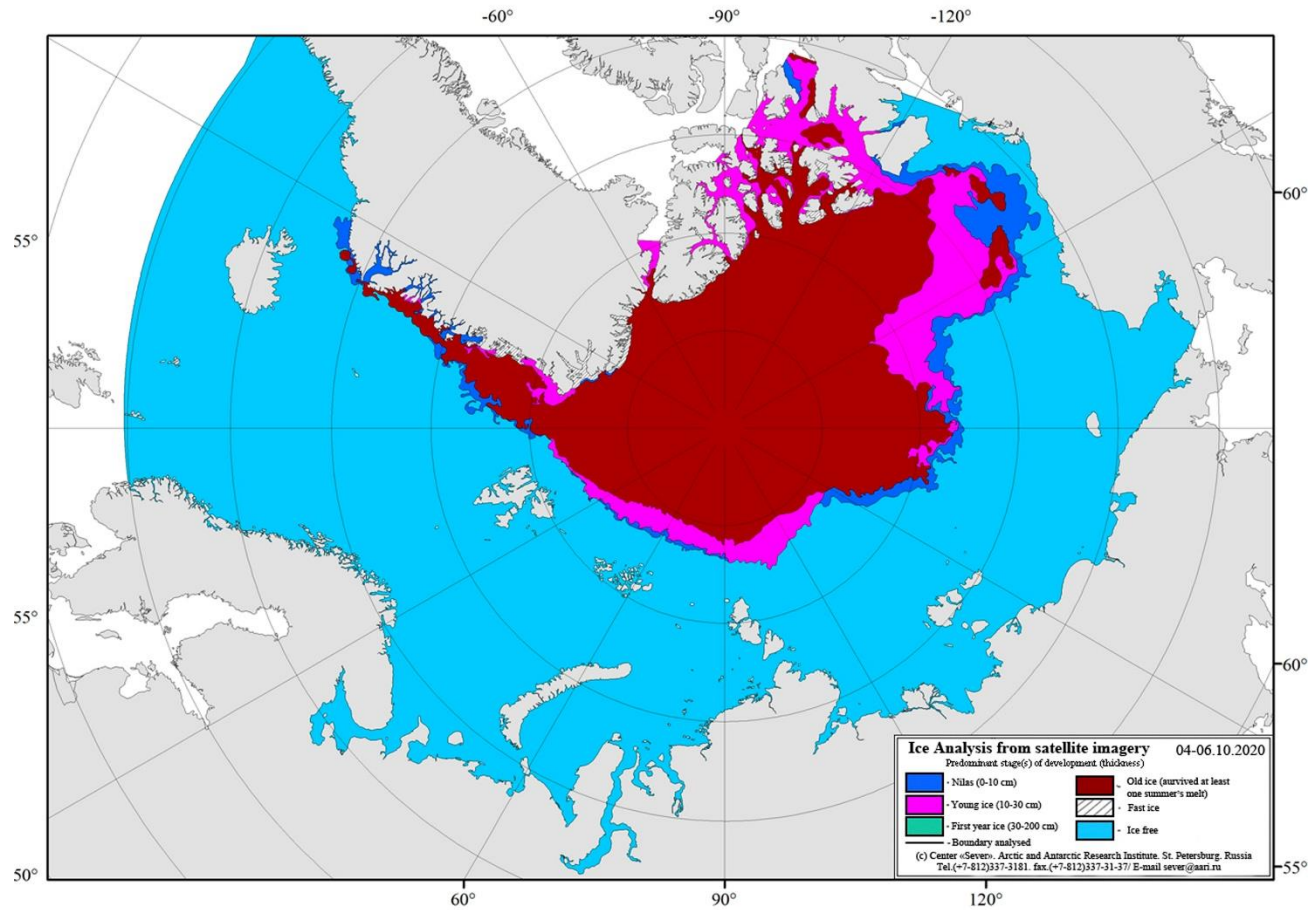
Utveckling av istäcket i Arktis



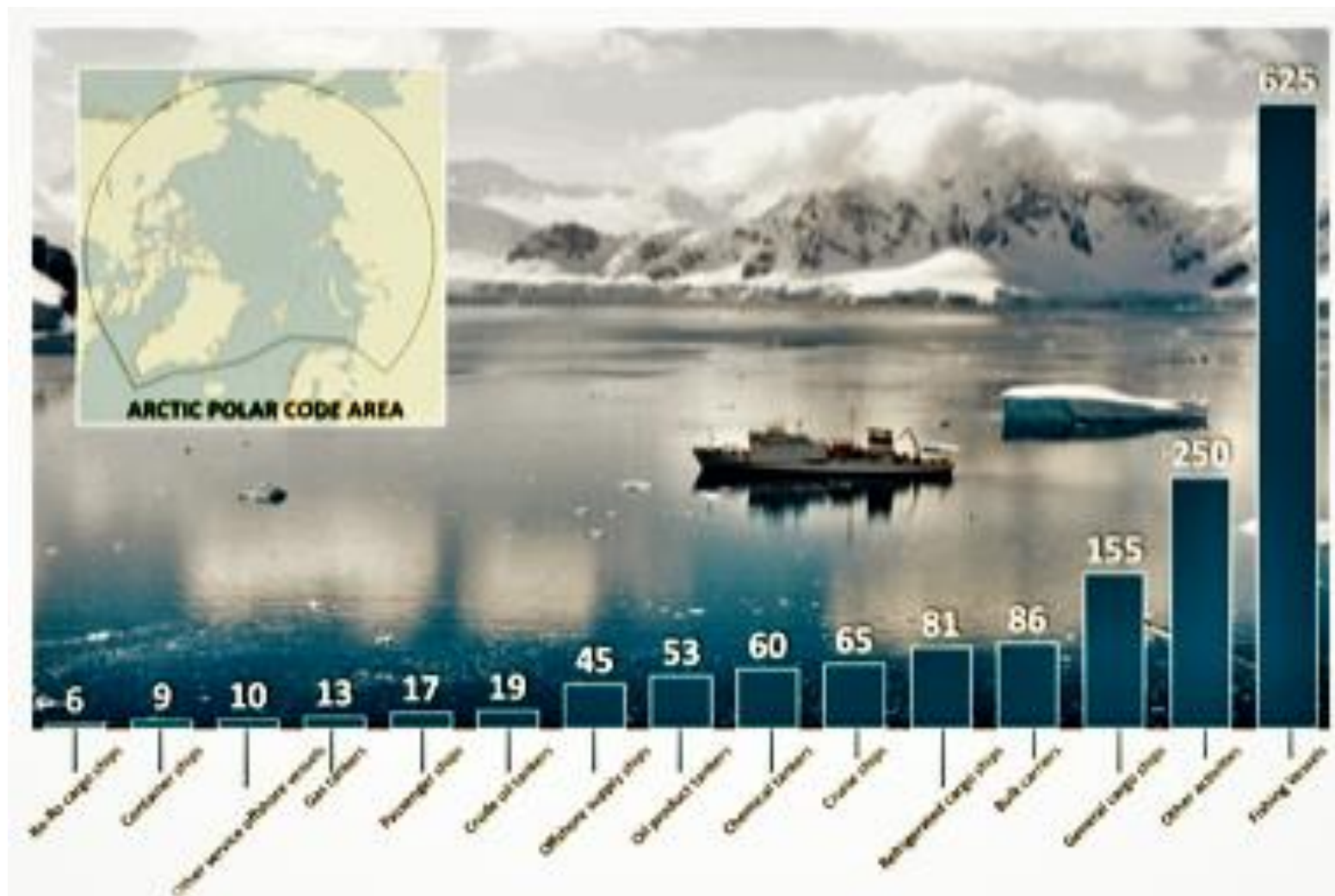
Isläget 27-29 september 2020



Isläget 4-6 oktober 2020



Antal fartyg i Arktis 2018 ca 1500



Exempel på trafikintensitetsökning i Arktis



An aerial photograph showing several large, white icebergs floating in dark blue water. The icebergs have jagged, irregular edges and some show signs of melting. The water is a deep, clear blue. The text "Stena i Arktis" is overlaid on the left side of the image.

Stena i Arktis

Stena Arctica - SWEDARP 1988-89

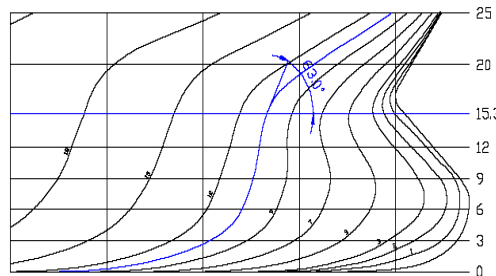
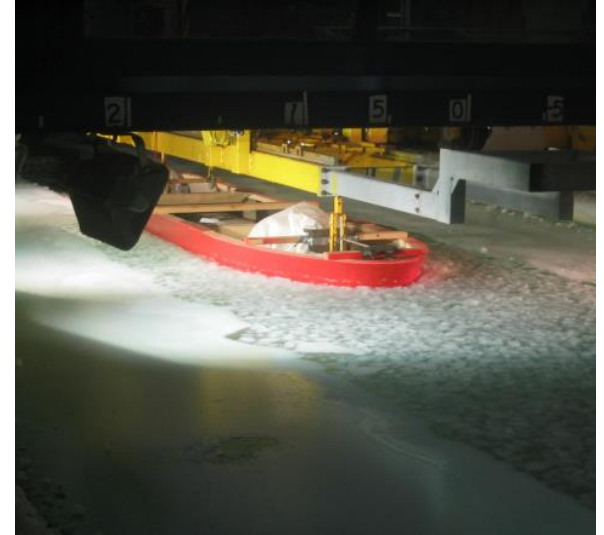


Stena Arctica – Ice Class 1A Super

Developed by Stena Teknik

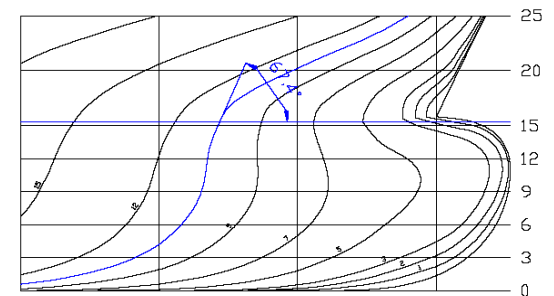
New hull shape resulted into:

- Power reduction of 40%
- Fuel saving of 8% in open water
- Increased Ice Class from 1A to 1A Super
- Increased deadweight



Traditional
ice bulb

=>



Ice bulb developed
for open water

Stena related ships in the Northern Sea Route



SCF Baltica (Stena Arctica's sister vessel), 2010



Stena Polar and Mari Ugland 2013

Stena **DrillMAX ICE**

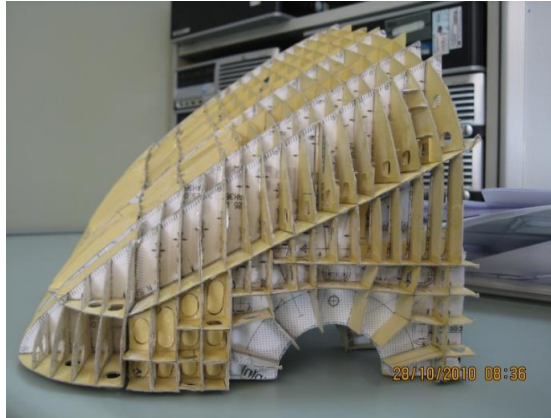


Identical hull form to Stena DrillMAX 1-3

Identical DP performance in open water

Ice class: Polar class PC4

Stena DrillMAX ICE – structure forebody



RR thrusters for Stena DrillMAX ICE

UCC505 5,5MW vs UCC455 5,5MW



UCC505

UCC455



UCC505



UCC505



UCC455

Stena IceMAX – ice model testing



Stena IceMAX – model testing

No ice into the forward thruster
or into the moonpool



First ever DP Test in ice



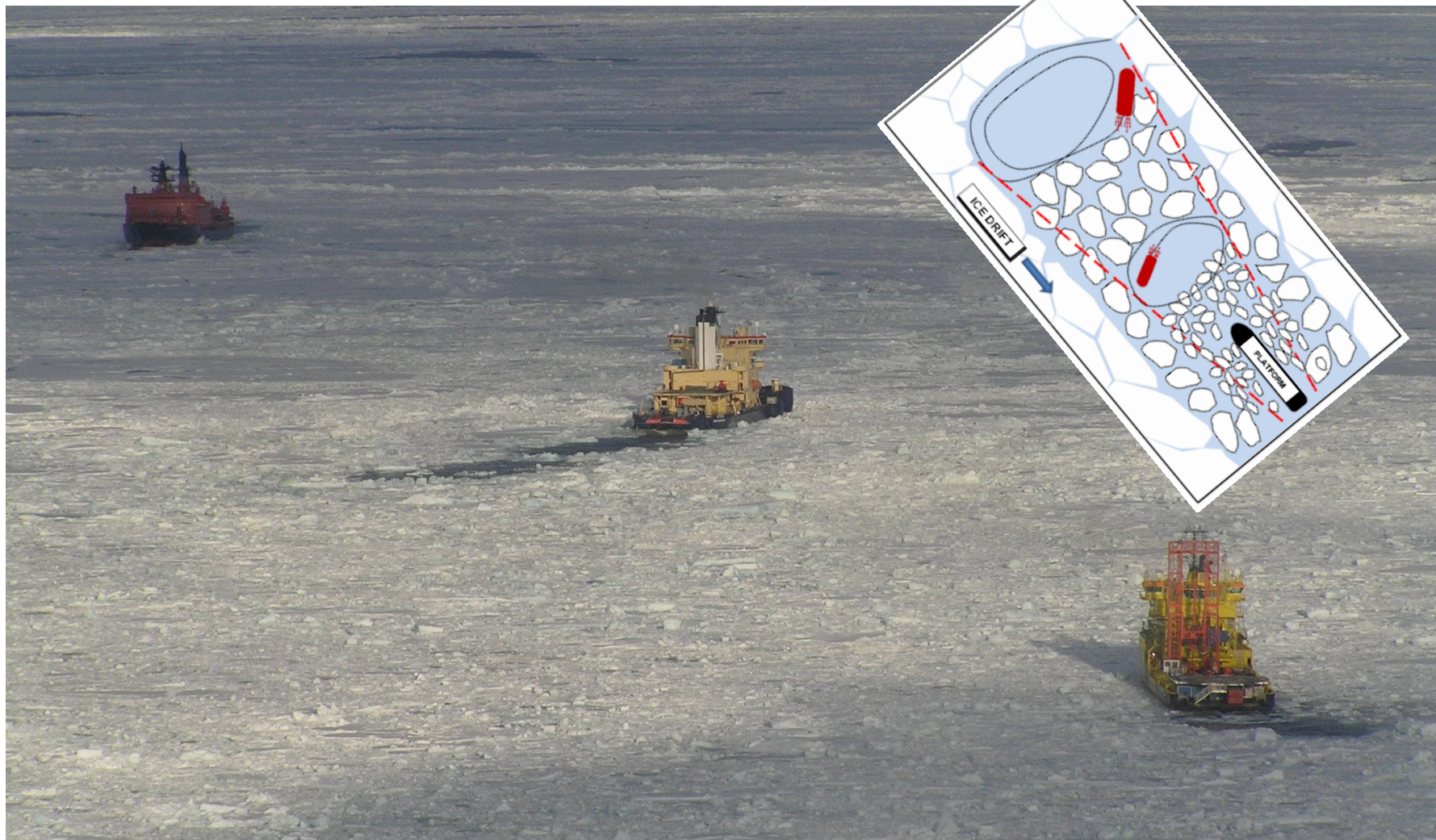
HSVA specially developed their equipment for these tests



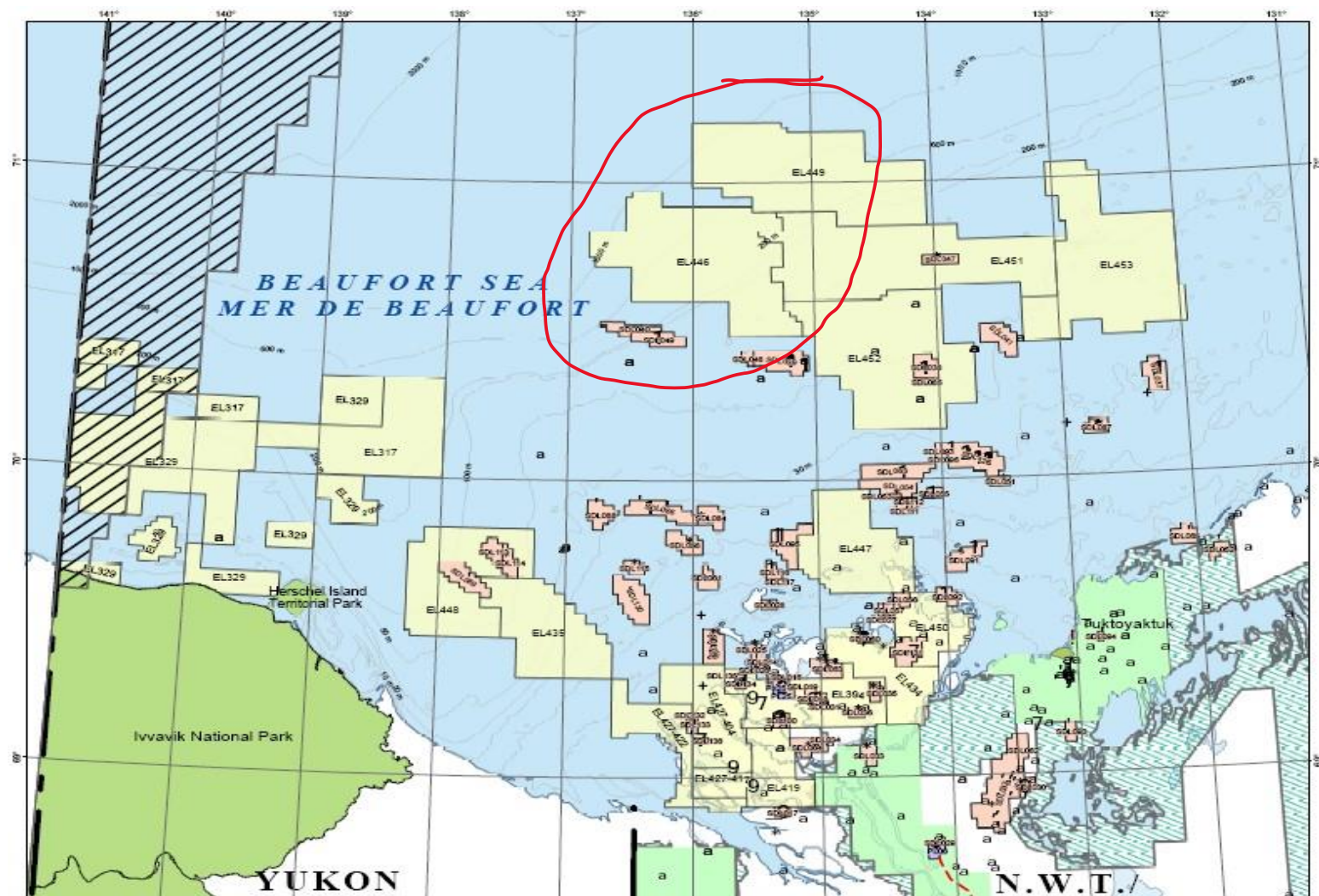
Control panel showing actual power output and thruster positions

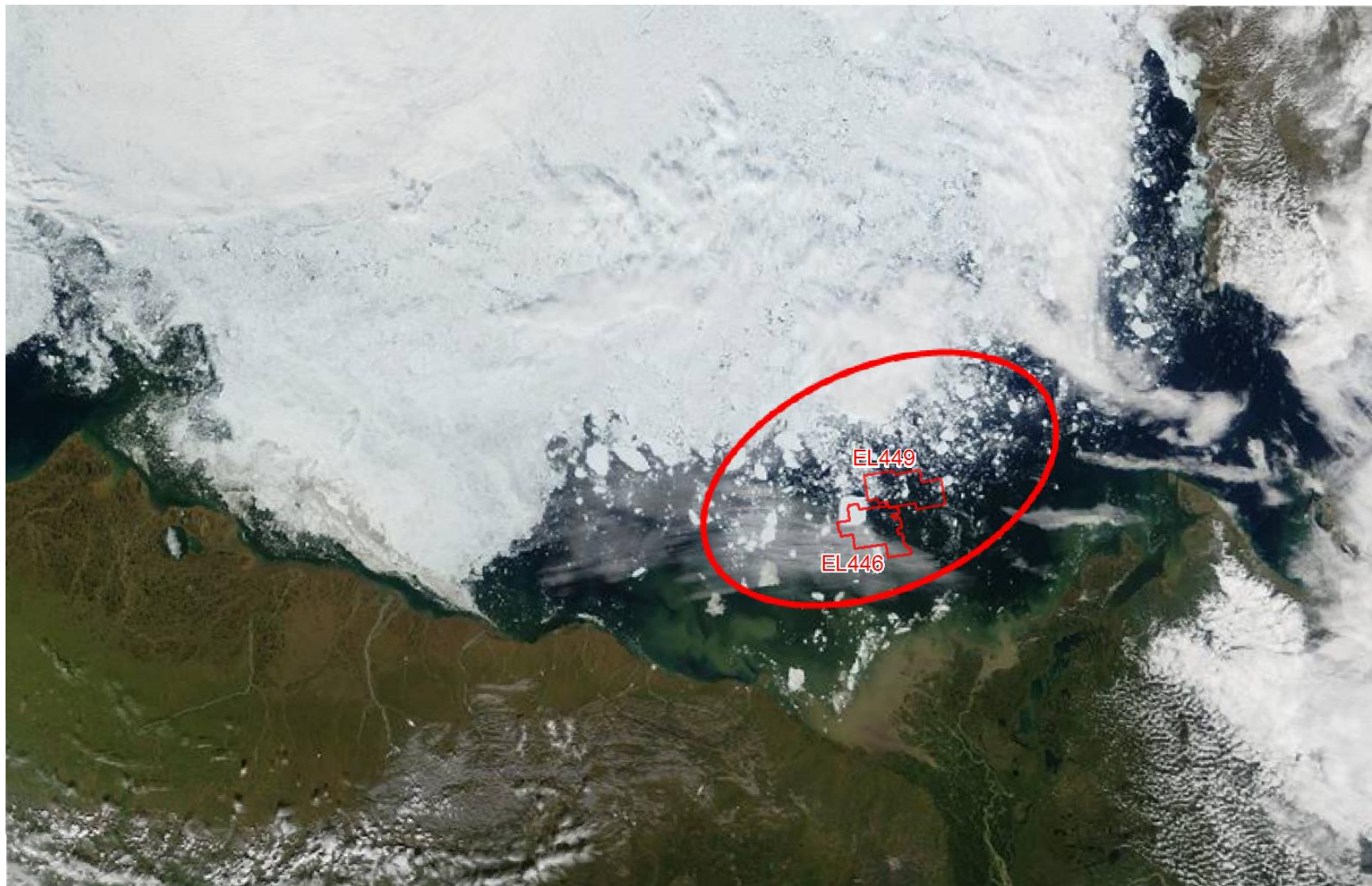
An aerial photograph showing several large, white icebergs floating in a deep blue ocean. The icebergs have jagged, irregular edges and are scattered across the frame. The water between the icebergs is a deep, clear blue, while the ice itself is a bright, almost white color. The lighting suggests a sunny day, with some shadows visible on the ice surfaces.

Stena ice operations









Industrigruppen Svenska Isbrytare



SAAB

SSAB



Stena

Hemsida www.svenskaisbrytare.se
Facebook Industrigruppen Svenska Isbrytare



Några frågor?



**WE
CARE**



**WE
INNOVATE**



**WE
PERFORM**

