

Icebreaker Oden a research platform





I/B Oden

- **Owned and operated by the Swedish maritime organisation**
- **Science logistics organised by Swedish Polar Research Secretariat (SPRS)**
- **Built in 1989, L: 108m, W: 32m D: 8.5m**
 - Diesel Mechanical 24 500hpr**
 - Unique icebreaking capacity 4 engines and 2 propellers with nozzles**
 - Water flush and heating system. Economy speed open water 11 kts**
 - Average speed in Arctic ice 4 kts**
 - Bunker capacity, 4500m³ : 100days (50% effect)**

Personnel

23 crew, ~35 scientists, ~12 expedition logistics

Arctic scientific expeditions

1991, 1996, 2001, 2002, 2004, 2005, 2007

Antarctic scientific expeditions

2006/07, 2007/08, 2008/09

Felxible platform

Stationary lab of 90m² in 3 rooms

- Seawater intake systems; stainless steel and PVDF plastic, 50 L/min
- Gas distribution system, 2 fume hoods, clean room

Multibeam, bridge deck

- Kongsberg EM120
- Sub bottom profiler SBP120
- Meteorology system
- HRPT satellite receiver

Oden deck 4

- 6x20ft lab containers

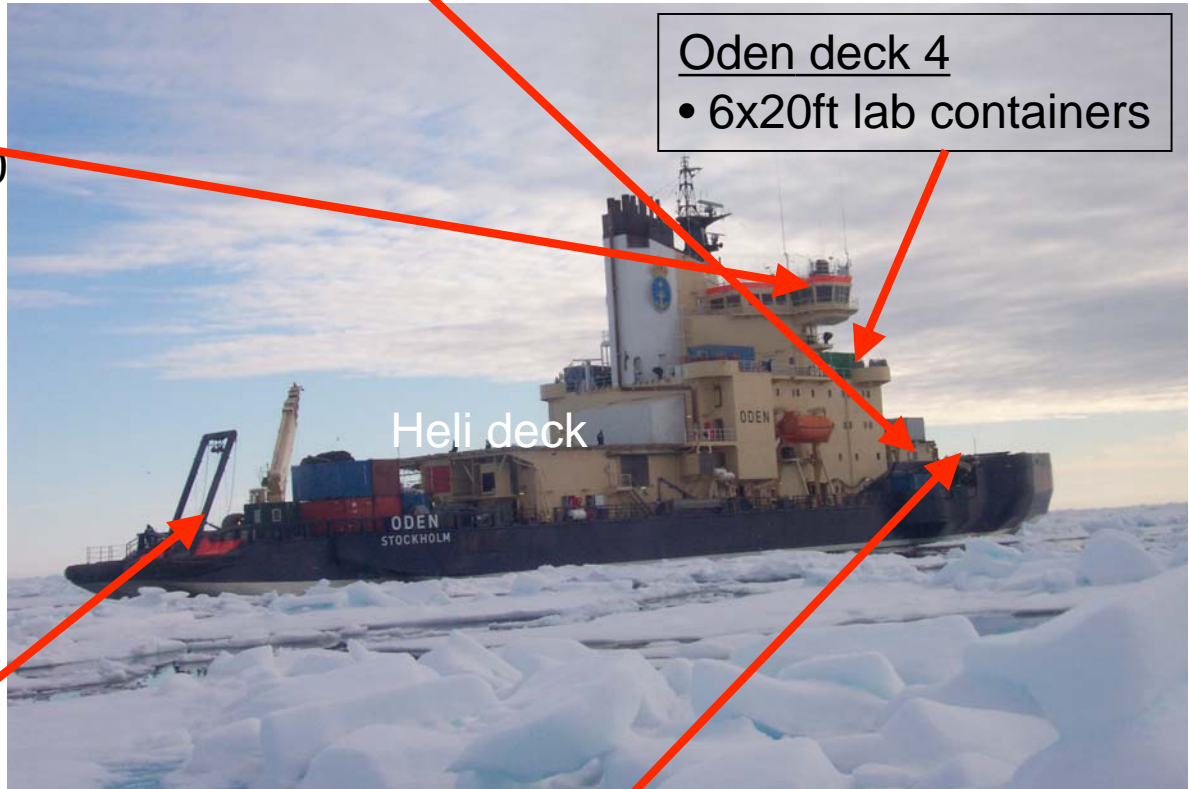
Heli deck

Aft deck

- 20 tonnes A-frame
- 6x20ft lab containers
- 2x20ft CTD container
- Container mounted winches
- CTD winch 6000 m

Stern

- CTD-winch, CTD A-frame 1500 kg instrument weight
- CTD container for rosette sampling
- 12x20ft lab containers



Swedish-US Antarctic collaboration



Oden Southern Ocean (OSO)

- The NSF chartered the *I/B Oden* for breaking ice at McMurdo Base in Antarctica during six seasons
- 20 days for science in Antarctic waters
- 2006/2007, 07/08, 08/09, 09/10, 10/11, 11/12
- A number of Swedish (VR) and NSF funded projects

2009

**Multibeam test,
Svalbard**

**LOMROG II,
Denmark/Swedish
research program**

Oden comes back from Antarctica through
the Pacific and Bering Sea-Strait 2011?

2010

**Industry project
Arctic/Antarctic?**

2011

**Ridge and Slope Study of
the Eastern Arctic Ocean
(RISSEARC), part I and II**

GEOTRACES, part I

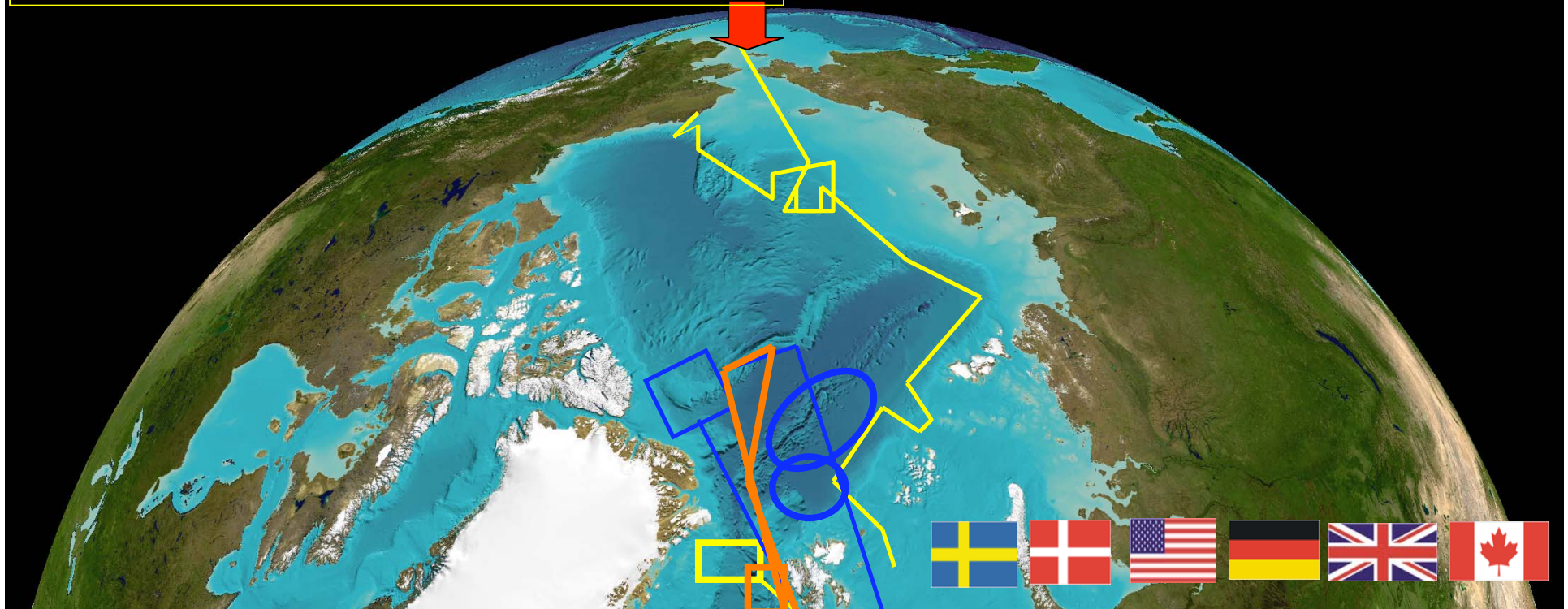
**GEUS, Denmark
Continental shelf project**

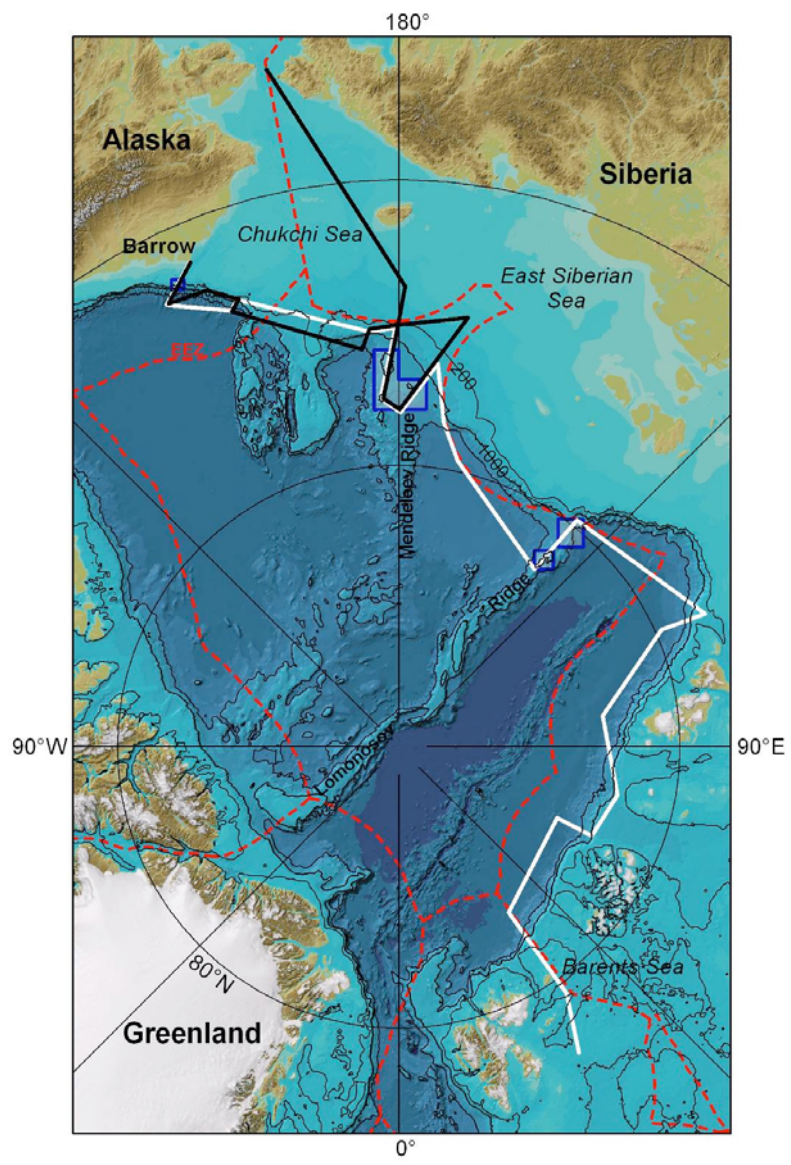
2012

**Biogeochemical
processes**

GEOTRACES, Del 2

**LOMROG III,
Denmark
Continental shelf
project**





2009

Swedish-US(NSF) collaboration

2012

