

SIOS Marine Infrastructure Workshop

KROP – Kongsfjorden Rijpfjorden Observatory Programme

9. oktober 2023

Jørgen Berge, Malin Daase, Daniel Vogedes, UiT



UiT The Arctic University of Norway



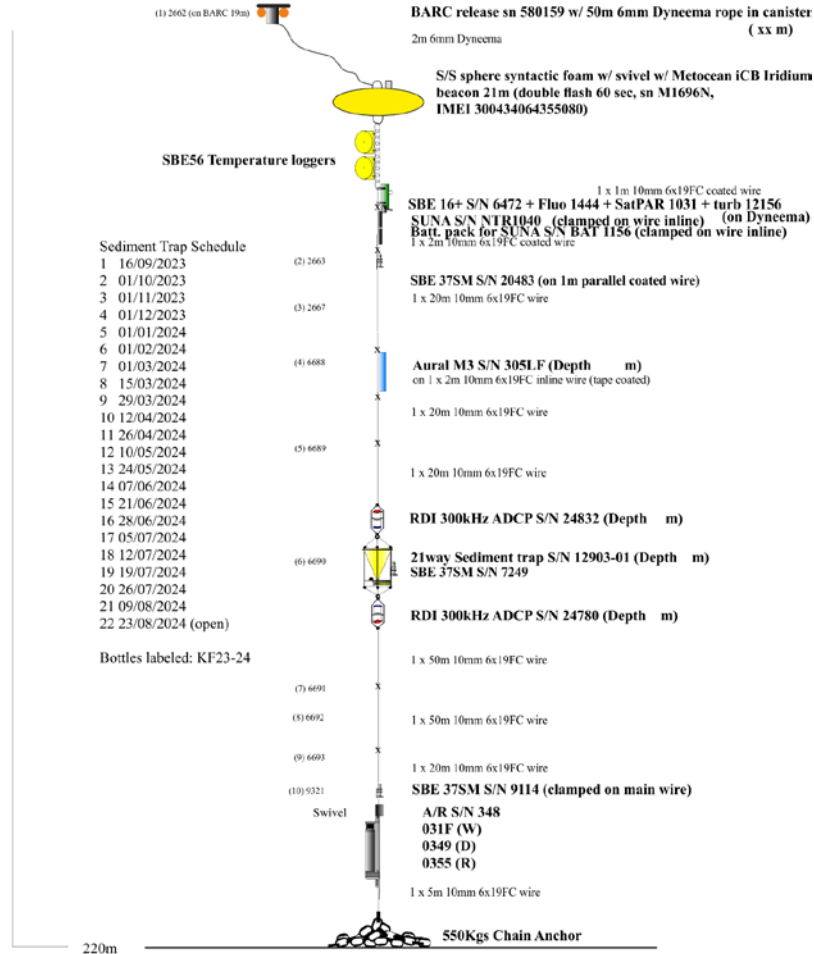
SIOS

SVALBARD INTEGRATED ARCTIC
EARTH OBSERVING SYSTEM

Overview of marine infrastructure / time series

Kongsfjorden 2023-2024

LAT: 78° 57.716'N
 LON: 011° 48.166'E
 DEPTH: target 220m - actual m (ref IHI sounder)
 DEPLOYED: xx:xxUTC xx/09/2023
 RECOVERED: xx:xxUTC xx/xx/xxxx



updated 2023-09-07 11:23UTC

- KF (near KB3) : 2002 – ongoing, Rjipfjorden 2006 – ongoing
- Mostly identical setup over years and fjords
- All data available except:
 - sediment trap (various processing levels)
 - AURAL (data kept by NPI and not shared)
- Successful test of BARC system (anchor recovery and other features)

Instrumentation:

- BARC canister for full recovery incl anchor
- 10 x SBE56 temp logger evenly spaced
- Syntactic foam sphere w/ Metocean Iridium beacon
- SBE16p w/ fluorescence and PAR
- SUNA nitrate sensor
- 3 x SBE37 (top, middle, bottom)
- 2 x ADCP 300 kHz (at 100 m upward and downward)
- McLane 21-way sediment trap
- IXBlue acoustic release
- Anchor: 500 kg old anchor chain

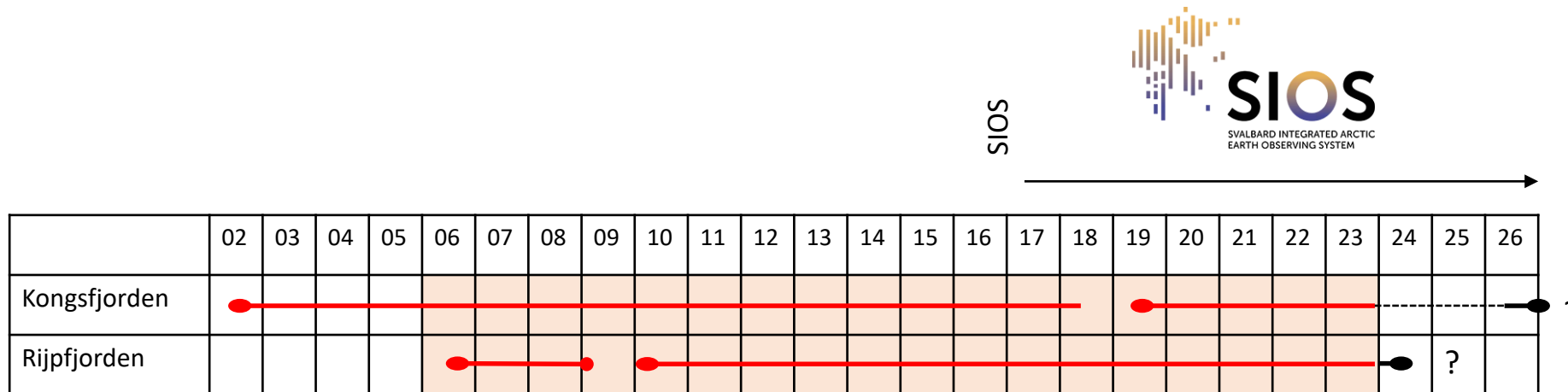
From 2023: change to 10mm Dyneema instead of wire

Outlook, future perspectives

Kongsfjorden: part of the InfraNOR programme, hence in operation throughout 2026. Also part of a planned infrastructure-proposal lead by NORCE

Rijpfjorden: No funding, based on UiT priorities and opportunities

Both observatories need a more longterm commitment!



Main logistical challenges and wishes

- Longterm funding
- One thing is the logistical challenges of putting things in the water / picking them up, but another and equally important issue is the curation, management and use of data.
- Clear and more strategic interplay between different types of infrastructure. E.g. in Kongsfjorden through the marine flagship...how can our observatories contribute towards a more comprehensive understanding of the system?

What you hope to get out of a Svalbard marine infrastructure network

- Opportunities to share logistics (cruises, equipment, manpower, data handling etc)
- A joint and broader interaction between sites and data
- Data sharing!!