



A PRACTICAL APPROACH TO



SEA TRAFFIC MANAGEMENT

IN THE ARCTIC

Per Setterberg, project manager MICE
activity leader MONALISA



It's all about
situational awareness...

- 
- 
- *Analyse the Arctic operating environment and security arrangements from the perspective of comprehensive concept of security, and **develop shared situation awareness.***



*With more activities in the Arctic, there is an increasing need to monitor and understand how such activities affect the security of Canada's marine transportation system. **Situational awareness is key** to decision-making, not only for security purposes but also for safety, environmental and economic reasons.*



*Development towards increased shipping in Arctic waters involves a greater risk for accidents... **Greater awareness of traffic** at sea, in the air and on land helps to **reduce the risks** of accidents. Active efforts in terms of preventive measures, surveillance and rapid accident response can reduce the risks...*



*In order to meet the greatest number of requirement drivers and support sustainable Arctic growth safely, the CMTS recommends that the United States make it a priority [to] **support maritime domain awareness**, for vessel monitoring and vessel management schemes...*





How to develop this **situational awareness**?

- Traffic situation – who is where



How to develop this **situational awareness**?

- Traffic situation – who is where
- Intentions
- Follow-up

Awareness needs to be
forward-looking!



Forward-looking awareness

- Early warnings
- Corrective action
- Breaking chains of events!

But **only** if we can do it
in **real(ish) time!**

By the way, what is **real(ish) time**?

Well, we went over the top:

- 15 sec. – 3 min. update intervals
- 3-5 sec. latency
- 0,04 % downtime > 6 min.
Icebreaker Oden's 28 day journey Sweden – Greenland and back, August 2013.

The **business case**, tomorrow

- Substantial cost reduction potential
 - Route exchange and messaging standard in nav equipment (MONALISA)
 - Sharing of communication link (LRIT and SSIS requirements)

The **business case**, future

- Satellite AIS
 - Real(er) time monitoring
(today: no 24/7 satellite coverage)
 - Shorter latency
(today: aiming at 30 minutes)
- Satellite VHF? Comms **to** the ship?

Take-away #1

WHY?

Arctic shipping must be
Safe and Environmental,
Efficient and Economical.



Take-away #2

HOW?

MICE brings forward-looking awareness to remote places. Today.



Take-away #3

THE COSTS?

Affordable today,
cheaper tomorrow



MICE

Ready when you are!



Thank You!

Per Setterberg
Innovation Coordinator
Swedish Maritime Administration
Mob +46 708 191242
per.setterberg@sjofartsverket.se

Project web site
www.sjofartsverket.se/mice

