

Utvikling av e-navigasjonsløsninger

Innovasjonskonferansen e-nav.no 2017



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Last slide from 2016 presentation on Maritim data com. Why do we need VDES?

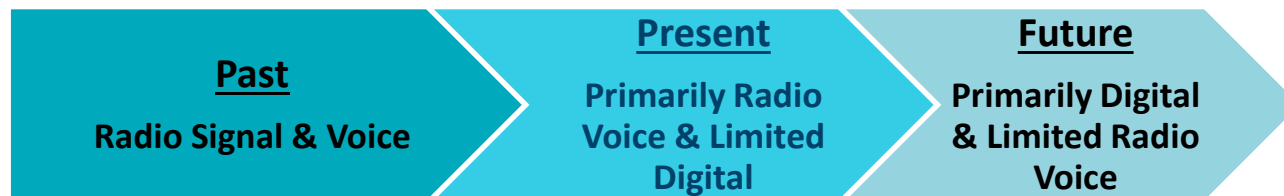


- Designing services; ongoing in IALA MSP Working group



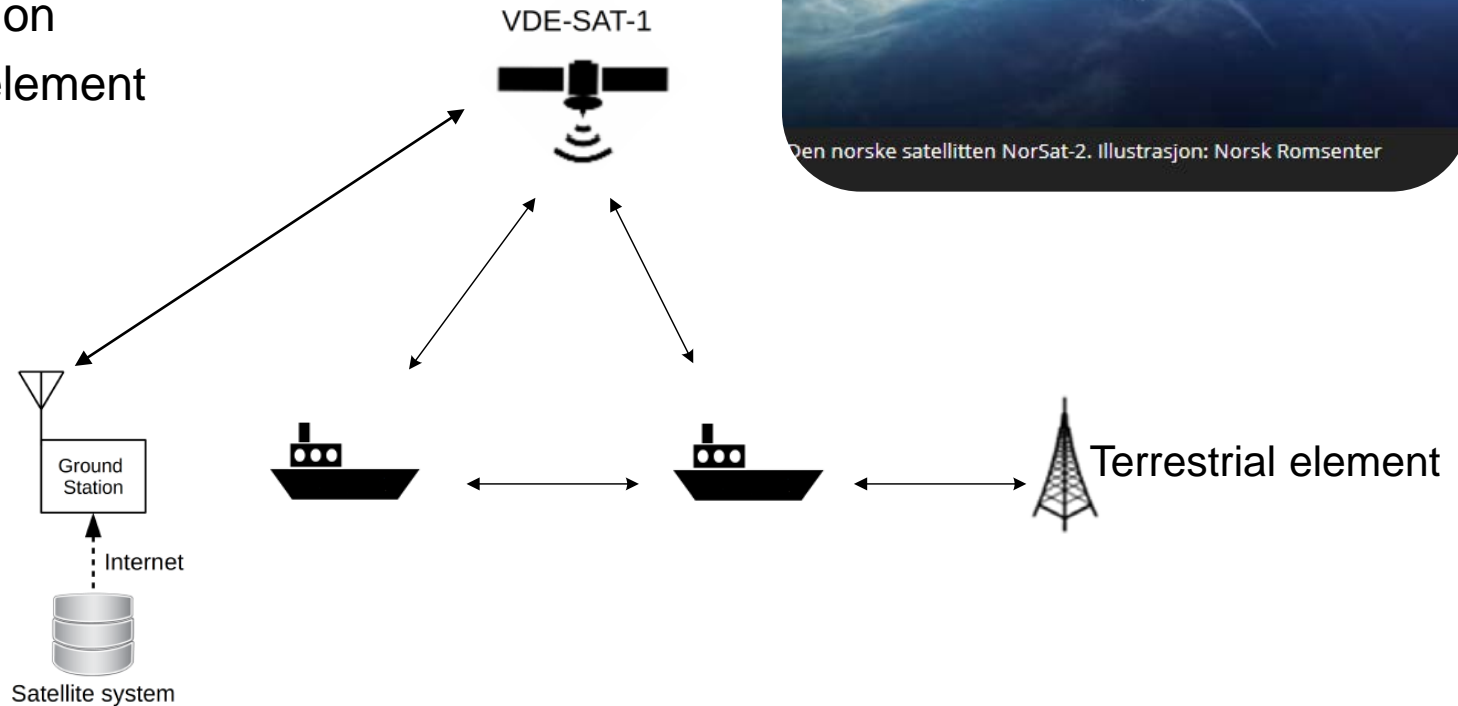
What do we want to achieve

- Migrate from conventional to digital services
- Integrate new digital services
- Better information flow between shore and ship will increase efficiency and coordination
 - Automated ship to shore reporting
- Agreed e-Navigation solutions - Solution 4
 - Integration and presentation of available information in graphical displays received via communication equipment



Communication system

- Could be VDES consisting of
 - Mobile station
 - Base station
 - Satellite element



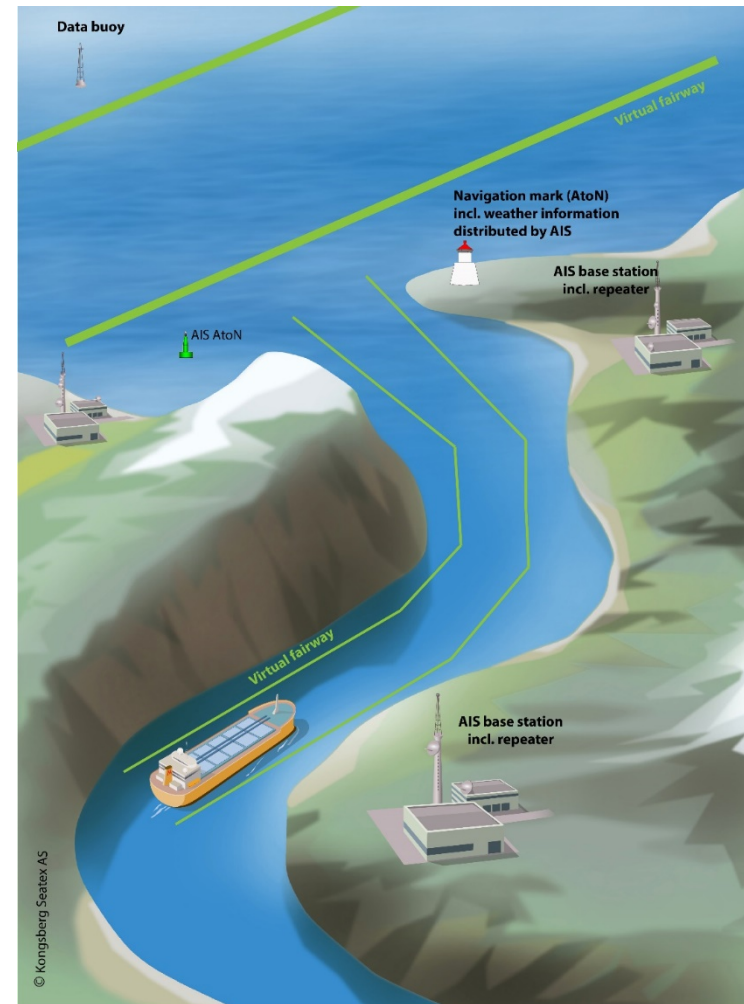
Identified Maritime Service Portfolios (MSP)

- IALA Guideline on MSP, ed. 1.0 (draft)

#	Identified Services	#	Identified Services
1	VTS Information Service (INS)	11	Nautical Chart Service
2	Navigational Assistance Service (NAS)	12	Nautical Publications service
3	Traffic Organisation Service (TOS)	13	Ice navigation Service
4	Local port Service (LPS)	14	Meteorological information service
5	Maritime Safety Information (MSI) Service	15	Real time hydrographic and environmental information service
6	Pilotage service	16	Search and Rescue Service
7	Tug Service	17	Aids to Navigation
8	Vessel Shore Reporting	18	Communication service
9	Telemedical Assistance Service (TMAS)	19	PNT and Augmemntation
10	Maritime Assistance Service (MAS)	20	Anti-piracy information

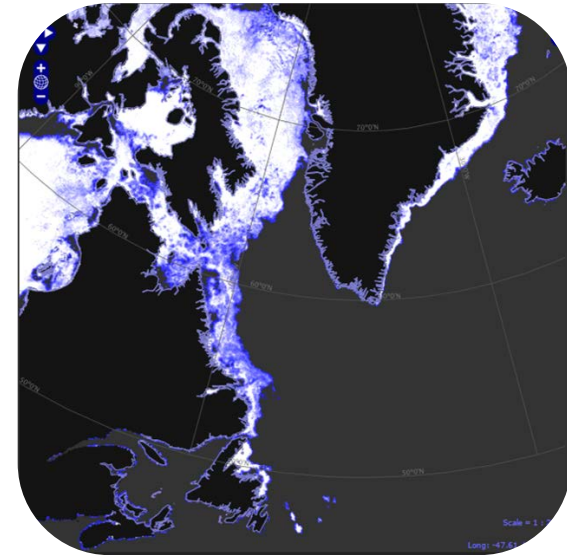
Low hanging implementations

- Extensive use of AIS AtoN's and lanes
 - Electronic marking of lanes to be presented in ECDIS/RADAR
 - Mark “where to sail” instead of “where not to sail”
 - Can be important in polar and remote areas where there is a lack of navigation infrastructure
 - Dedicate areas for autonomous shipping in the future



Ice services in polar regions

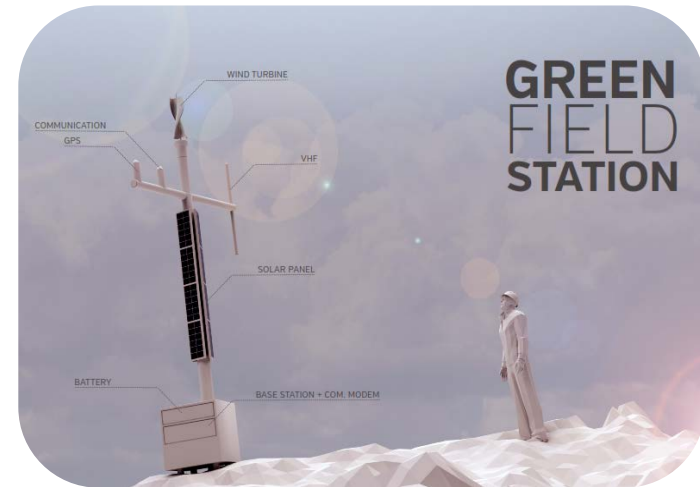
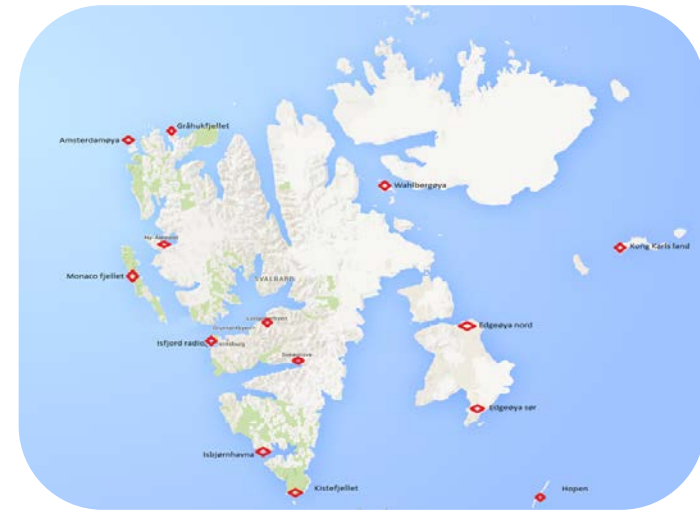
- More important due to increased traffic in polar regions
- Examples on services;
 - Ice condition information and operational recommendations/advice
 - Ice condition around a vessel
 - Vessel routing
 - Vessel escort and ice breaking
 - Ice patrol





Infrastructure on Svalbard to support services

- Ongoing establishment of infrastructure
 - Standard AIS base stations
 - Greenfield AIS base stations
 - Maritime Broadband Radio (MBR)
 - Supporting data communication between Kystverket (beredskap), Kystvakten, Sysselmannen and shore
- Important for SAR, Oil spill recovery, etc.



Autonomy and services

- Autonomous vessels will be a part of the maritime picture in the future
- Autonomous vessels will be an enabler for new services
 - Information exchange between ships and ship-shore
 - Type of ship, anti-collision, logistics (just in time arrival), route updates, dedicated lanes for autonomous vessels
- More important to establish good platforms for automatic ship to shore reporting



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Cato Giil Eliassen
Product Manager,
Navigation and Infrastructure
cato.eliasen@kongsberg.com



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