

(Meeting presentation available in another document.)

Chair Ulf Siwe welcomed participants and opened the meeting at 12:30

### Tour de table – Short intro of everybody online

<b>F-</b> Fl - Seppo Mäkinen (Me)			<b>N</b> nielbo		
<b>US</b> Ulf Siwe, PA Safe			<b>SR</b> Susanna Relander		
<b>MJ</b> Mr. Juha-Matti Korsi			<b>AE</b> Anja Eikermann - GER - Federal Maritime and Hy...		
<b>MG</b> Maciej Grzonka			<b>P</b> pekuja		
<b>G</b> Gundars.Kilis			<b>OS</b> Orsolya Schulz		
<b>SK</b> Signe Klusa			<b>PN</b> pekka niittyä		
<b>MS</b> Mr. Sami Vesterinen			<b>VA</b> Vesa Arki		
<b>M</b> M_ZAKARAUSKAS			<b>RM</b> Raitis Mürnieks - Maritime Administration of Lat...		
<b>RV</b> Rémi Vesvre - Swedish Transport Agency			<b>JT</b> Jarkko Toivola		
<b>DM</b> Dina Matusova			<b>V</b> Vytautas		
<b>NH</b> Niklas Hehenkamp (DLR)			<b>ET</b> EST-Teemo Toomsalu		
<b>KN</b> Kenmartti's Notetaker (Otter.ai)					

Dietrich Thoma (?), DE

### Inspirational speakers

Regional exercises – BALEX, Maciej Grzonka, Polish Maritime Search and Rescue Service.

### Questions, Answers and Comments

Open sea exercise is practiced every year, good int'l co-operation. Shore exercise not practiced every year and more actors, also non-governmental. Beach exercise requires more management from organizers.

Interesting that popcorn is used to simulate oil spills. Has similar properties and is environmentally friendly.

Current challenges in civil maritime security in the region, Commander Pekka Niittylä, Finnish Border Guard

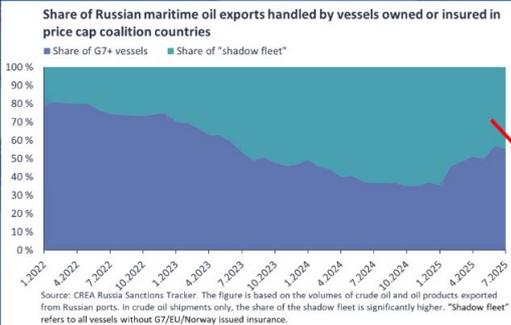
### Challenges related to the Shadow Fleet

Shadow fleet poses a very significant risk to marine environment and safety in Northern Baltic

- Amount of oil transported is in same level than before the war and sanctions (~ 80 oil tankers / week)
- Vessels are old → increasing number (25 %) older than 20 years
- Half of the vessels does not carry reliable insurance certificate from western P&I → cleaning costs for EU and coastal state
- Technical condition
- Crew competence in ice navigation?

**RISKS**

- Lives lost at sea
- Environmental damage
- Maritime supply chains
- Maritime safety
- And many other implications should a major accident occur



Time Period	Share of G7+ vessels (%)	Share of "shadow fleet" (%)
1-2022	~80	~20
4-2022	~75	~25
7-2022	~70	~30
10-2022	~65	~35
1-2023	~60	~40
4-2023	~55	~45
7-2023	~50	~50
10-2023	~45	~55
1-2024	~40	~60
4-2024	~35	~65
7-2024	~30	~70
10-2024	~25	~75
1-2025	~20	~80
4-2025	~15	~85
7-2025	~10	~90

Source: CREA Russia Sanctions Tracker. The figure is based on the volumes of crude oil and oil products exported from Russian ports. In crude oil shipments only, the share of the shadow fleet is significantly higher. "Shadow fleet" refers to all vessels without G7/EU/Norway issued insurance.

Lively discussion on the shadow fleet and GNSS jamming and spoofing in the Northern Baltic Sea.

It was noted that an oil spill in the Gulf of Finland would close the sea area fully for oil recovery, preventing any shipping in the area.

Harsh winter conditions pose high risk for an accident. Ice conditions also make oil spill recovery extremely difficult.

Common EU approach is needed for vessel inspection in the Baltic Sea.

## Jamming & Spoofing



### Jamming

- Strong radio signal superimposes GNSS signal
- Acquisition and tracking denied

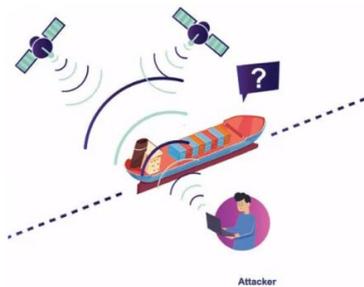


Figure 1 Jamming

### Spoofing

- Attacker sends manipulated GNSS signals
- Target acquires and tracks „fake“ signal  
→ False position assumed

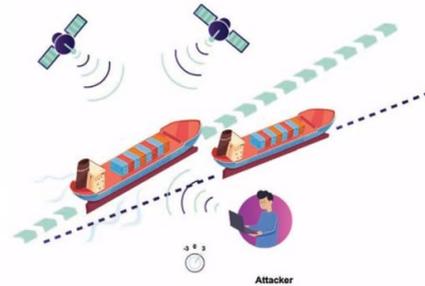


Figure 2 Spoofing

Lively discussion followed.

It was asked, if there are web-pages to follow the positioning situation? A reply came among the participants, that Lloyds keeps such information, against payment.

R-mode technology is intended for coastal navigation and not precise enough for fairway navigation. A good backup and redundancy.

Discussion continued round the participants, what are the main maritime security challenges. Following issues were mentioned.

- Underwater infrastructure - security incidents, difficult when involving more than one country
- Shadow fleet, old vessels, weak/no insurance, AIS gaps. Sailing close to territorial waters. Swift change of flag, name and shipping line. HELCOM recommendation(s) will be amended due to shadow fleet.
- No legal measures to intervene. International legal framework. New approaches needed. A network on coastal safety & security authority - common situational awareness center. MRSC
- GNSS Spoofing and jamming - hydrographic survey difficulties is yet another consequence. International Civil Aviation Organization (ICAO) assembly condemned Russia two weeks ago. Estonia preparing similar input to IMO.
- Russian EEZ Naval exercises close to neighbouring territorial waters. One consequence is the Russian navy forcing vessels to detour.
- Maritime Risk management tools, how to handle alternative fuels and prevent hazards. Human knowledge on alternative fuels.
- Places of refugee, discussion on location (HELCOM WG on this issue)
- Lack of resources (human, equipment). Oil pollution response, human knowhow, procedures.
- Government cutbacks in maritime related authorities' operation.
- Alternative fuels arriving to ports, human knowledge

Chair enquired how participants feel on setting the scene and discussion.

- More emphasis on presentations or networking discussions? -> good balance
- Sometimes discussions bring good "nuggets"

Meeting was closed at 15:06.