Interreg
Baltic Sea Region

EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

ChemSAR

ChemSAR

Operational Plans and Procedures for Maritime Search and Rescue in HNS Incidents 2016 - 2019

EU STRATEGY FOR THE BALTIC SEA REGION
FLAGSHIP

ChemSAR Partners

FINLAND

- Lead partner: Centre for Maritime Studies, University of Turku
- Finnish Border Guard
- Novia University of Applied Sciences
- Helsinki City Rescue Department

SWEDEN

- Swedish Coast Guard

ESTONIA

- Police and Border Guard Board

LITHUANIA

- Klaipėda University

GERMANY

- Free and Hanseatic City of Hamburg
- Central Command for Maritime Emergencies Germany (Haveriekommando)

Turun yliopisto University of Turku

CENTRE FOR MARITIME STUDIES

PELASTUSLAITOS RÄDDNINGSVERKET 1861 HELSINKI HELSINGFORS

KUSTBEVAKNINGEN SWEDISH COAST GUARD

Police and Border Guard Board

HAVARIEKOMMANDO Central Command for Maritime Emergencies Germany

NOVIA UNIVERSITY OF APPLIED SCIENCES

Rajavartiolaitos Gränsbevakningsväsendet The Finnish Border Guard

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Challenge

- Large quantities of different chemica
  transported by sea and the risk of acc

- There is a lack of operational plans or standard operational procedures for SAR operations applicable to cases of HNS incidents in the Baltic Sea Region (f.e. BSMIR).

- Demanding maritime accidents are almost always international in nature, which emphasizes the significance of common procedures and common level of know-how.

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ChemSAR Objective

Uniform operational plans and standard operational procedures (SOP) to **save human lives** in maritime HNS incident areas

Work Package Structure

WP1 Project Management and Administration

WP2 Operational Plans and SOPs for the rescue operations

WP3 E-learning material for SAR operations and HNS incidents

WP4 Chemical data bank

WP5 Pilot activities: tabletop and rescue exercises

Rescue Coordination Centre (RCC)

- SAR Mission coordinator (SMC)

Rescue Operation

- On-scene coordinator (OSC)
- Rescue units

Distress Vessel

- Crew
- Shipping company

Operational Plan and Standard Operational Procedures

E-learning material

Databank

Work shops, meetings etc.

Exercises:

- During project (TTX, SMX, LIVEX)
- Post-project

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ChemSAR Results

- Safer and more efficient rescue operations at sea - more lives saved
- Enchanced transnational co-operation in rescue operations
- More efficient use of the rescue facilities in the Baltic Sea Region
- Increased capacity and competence of the maritime actors
- Decreased harm to the environment

Please visit

http://blogit.utu.fi/ChemSAR

for more information

Project facts:

Project period:	March 2016–February 2019
Total budget:	2.4 M€
Lead Partner:	University of Turku
Priority 3:	Sustainable transport – Maritime safety
Specific objective:	Maritime Safety, to increase Maritime Safety and Security based on advanced capacity of maritime actors

Baltic Sea MIRG

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The Finnish Border Guard

BALTIC SEA MIRG PROJECT (2014-2016)

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The Finnish Border Guard

- Baltic Sea Maritime Incident Response Group (Baltic Sea MIRG) project
- The project will create joint MIRG coordination models and standard operating procedures for the Baltic Sea region and support the harmonisation of MIRG services in Europe
- www.raja.fi/MIRG

PROJECT PARTNERS

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Gränsbevakningsväsendet
The Finnish Border Guard

Project has been open for all parties providing and developing MIRG services in Europe

- Partners in Finland:
  - Finnish Border Guard,
  - Helsinki City Rescue Department,
  - South-West Finland Emergency Services,
  - Finnish Transport Safety Agency
  - Meriturva (Maritime Safety Training Centre)
- Registered foreign partners from Belgium, Estonia, France, Germany, Italy, Lithuania, Netherlands, Poland, United Kingdom
- Nordic MIRG forum partners from Denmark, Iceland, Norway and Sweden,

RISK ANALYSIS

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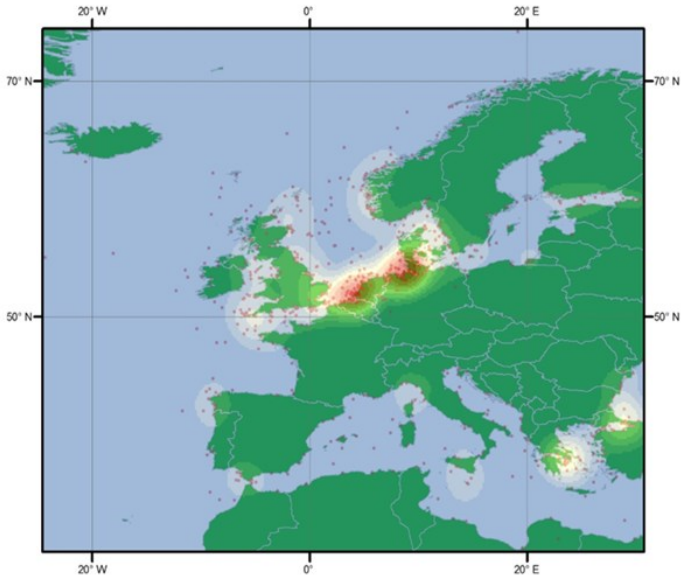
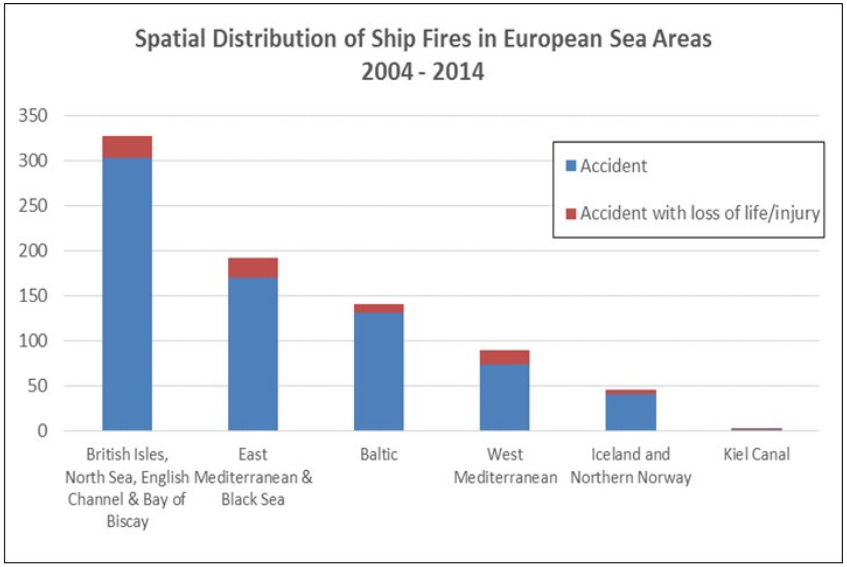
- *Ship fires pose the greatest threat to European maritime safety when the risk is loss of human life or serious injury. Fire poses the greatest threat aboard ro-ro passenger ships.*





- http://niinidigi.kopioniini.fi/mirg_raportti/

SHIP FIRE ANALYSIS

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- An analysis on the seven past ship fires in to develop MIRG services and operational guidelines (7 guidelines).

- 1) m/s Calypso (cruise ship), UK, 2006
- 2) m/v Lemo (cargo ship), Finland, 2008
- 3) m/s Commodore Clipper (ropax vessel), UK, 2010
- 4) m/s Pearl of Scandinavia (ropax vessel), Sw
- 5) m/s Nordlys (ropax vessel), Norway, 2011
- 6) m/v Fernanda (ro-ro vessel), Iceland, 2013
- 7) m/v Purple Beach (cargo ship), Germany, 2015

Photo: Icelandic Coast Guard

- http://niinidigi.kopioniini.fi/Rajavartiolaitos/ship_fire_incident_analysis/

BALTIC SEA MARITIME INCIDENT RESPONSE GROUP PROJECT

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The Finnish Border Guard

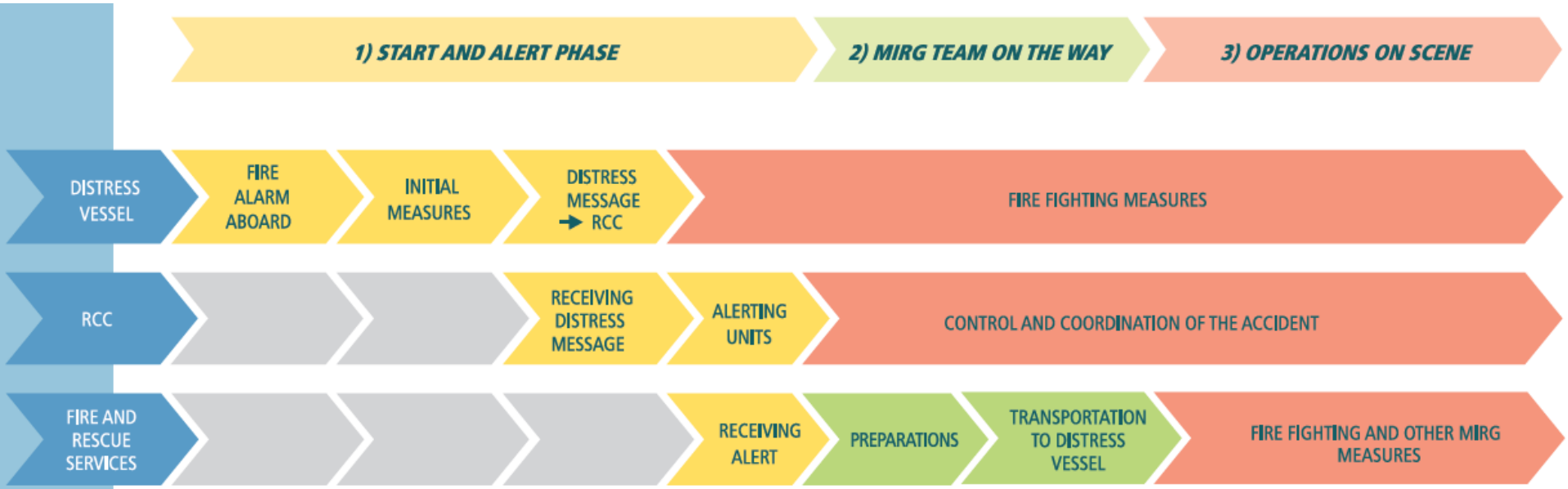

Figure 1 The analysed incident phases and measures (c.f. Ship Fire Incident Analysis, 2016 - Work Package 2)

More information

www.raja.fi/mirg

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FLAGSHIP

Vessel TRIAGE

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The Finnish Border Guard

Aalto University
School of Engineering

Rajavartiolaitos
Gränsbevakningsväsendet
The Finnish Border Guard

VTT

Trafi
Finnish Transport Safety Agency

Liikennevirasto

A method for assessing and communicating the safety status of vessels in maritime distress situations

VIDEO

2:52

https://www.youtube.com/watch?v=ckkv7o5G5L8

Vessel TRIAGE catalyst

COSTA CONCORDIA
13.01.2013
Thyrrenean Sea

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The Finnish Border Guard

Vessel TRIAGE catalyst

LISCO GLOARIA
09.10.2010
Fehnmarn Belt

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VESSEL TRIAGE

Vessel TRIAGE catalyst

AMORELLA
14.12.2013
Archipelago Sea

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VESSEL TRIAGE

Vessel TRIAGE categories

GREEN	YELLOW	RED	BLACK
THE VESSEL IS SAFE AND CAN BE ASSUMED TO REMAIN SO	THE VESSEL IS CURRENTLY SAFE, BUT THERE IS A RISK THAT THE SITUATION WILL GET WORSE	THE LEVEL OF SAFETY HAS SIGNIFICANTLY WORSENED AND EXTERNAL ACTIONS ARE REQUIRED TO ENSURE THE SAFETY OF THE PEOPLE ABOARD	THE VESSEL IS NO LONGER SAFE AND HAS BEEN LOST

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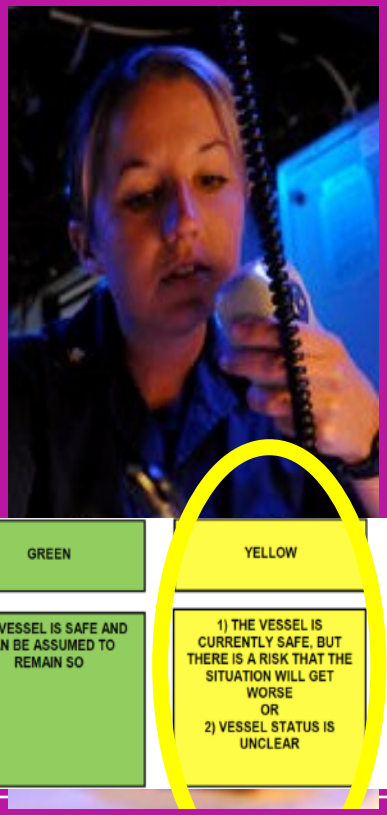
VESSEL TRIAGE

Common Ship Safety Categories and Shared Situational Awareness

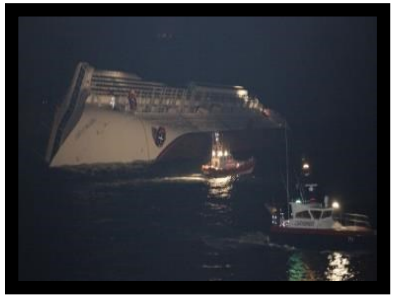
Shore Side Responders | **JRCC / MRCC** | **Distress Vessel** | **Shipping Company**



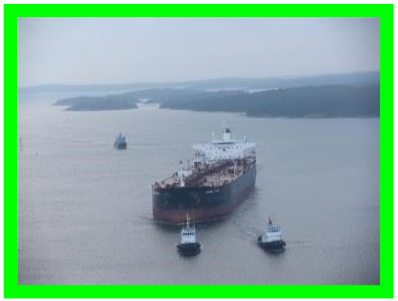
GREEN	YELLOW	RED	BLACK
THE VESSEL IS SAFE AND CAN BE ASSUMED TO REMAIN SO	1) THE VESSEL IS CURRENTLY SAFE, BUT THERE IS A RISK THAT THE SITUATION WILL GET WORSE OR 2) VESSEL STATUS IS UNCLEAR	THE LEVEL OF SAFETY ABOARD HAS SIGNIFICANTLY WEAKENED AND IMMEDIATE EXTERNAL ACTION IS REQUIRED TO ENSURE THE SAFETY OF THE PEOPLE ABOARD	THE VESSEL IS NO LONGER SAFE AND HAS BEEN LOST

… are keys factors for a succesful multiagency operations

Common Ship Safety Categories create a base for Standard Operation Procedures



GREEN	YELLOW	RED	BLACK
Vessel is safe and can be assumed to remain so	Vessel is currently safe, but there is a risk that the situation will get worse	Level of safety has significantly worsened or will worsen and external actions are required to ensure the safety of the people aboard	Vessel is no longer safe and has been lost
OPERATIONAL FOCUS - Damage control or firefighting operations are not or are no longer required. - If there are injured people aboard, the operational focus is on emergency care. - Only patients in need of urgent care are evacuated from the vessel. - Active monitoring of the situation aboard is important.	OPERATIONAL FOCUS The operational focus is on limiting damage / damage control and preparations for possible evacua-tion from the vessel. - In addition to carrying out damage control measures and rescue operations, it is important to determine the actual condition of the vessel. - At the discretion of the master of the vessel, non-essential persons can be evacuated from the vessel. - Proactive measures are taken to stabilise the situation aboard so that its con-dition becomes "green" or alternatively to allocate more time to evacuation and other rescue opera-tions. - Continuous monitoring of the situation aboard is important (risk of the situa-tion turning "red").	OPERATIONAL FOCUS - The operational focus is on evacuation of the vessel. - All non-essential persons will be evacuated from the vessel. - Patient classification may not be able to be carried out aboard the vessel. - If enough resources are available, damage control/ firefighting will be carried out to provide extra time for evacuation. - Emergency towing to shallows could be an alternative to evacuation, or a means of gaining time for actual evacuation. - Continuous monitoring of the situation aboard becomes more important (damage usually spreads progressively = significant risk of the situation turning "black").	OPERATIONAL FOCUS - The operational focus is on rescuing people on the hull as well as searching for and rescuing those in the water. - Patient classification cannot be carried out aboard the vessel. - Operations involving diving or rescue by means of hull penetration are special operations that are planned and decided on separately. - As a rule, additional personnel are not dispatched from land into the vessel.



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VESSEL TRIAGE

Vessel TRIAGE App

free application from "Apple Store" for Ipads

More information

www.raja.fi/vesseltriage

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