

# Vessel TRIAGE categories: examples

## YELLOW

**THE VESSEL IS CURRENTLY SAFE,  
BUT THERE IS A RISK THAT THE  
SITUATION WILL GET WORSE**



**Rajavartiolaitos**  
Gränsbevakningsväsendet  
The Finnish Border Guard



# Vessel TRIAGE categories: examples

**RED**

**THE LEVEL OF SAFETY HAS  
SIGNIFICANTLY WORSENERED AND  
EXTERNAL ACTIONS ARE  
REQUIRED TO ENSURE THE  
SAFETY OF THE PEOPLE ABOARD**



**Rajavartiolaitos**  
Gränsbevakningsväsendet  
The Finnish Border Guard



# Vessel TRIAGE categories: examples

**BLACK**

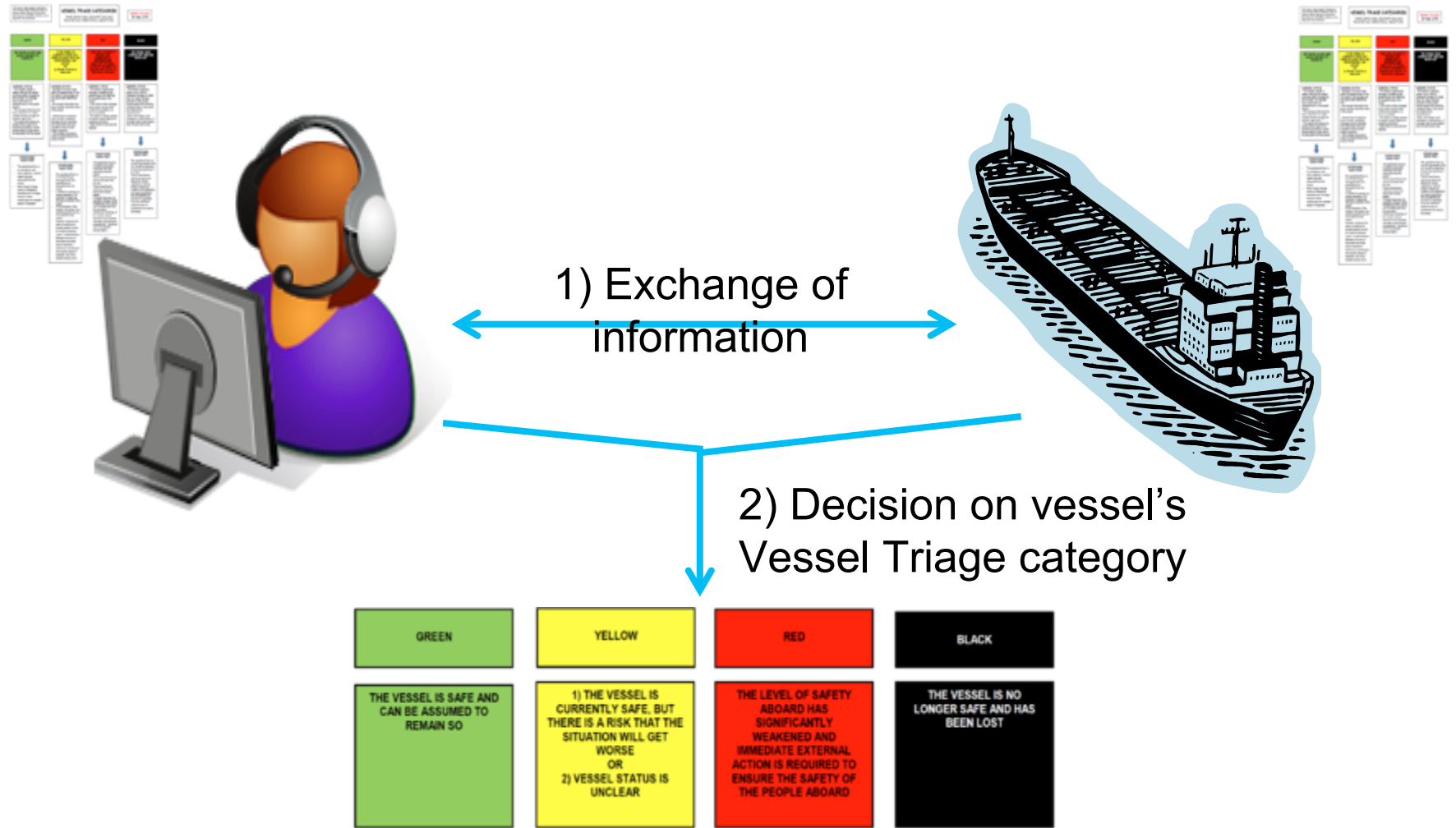
**THE VESSEL IS NO LONGER SAFE  
AND HAS BEEN LOST**



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The Finnish Border Guard



# Common language



# Threat factor matrix

Threat factors	GREEN	YELLOW	RED	BLACK
<b>Flooding</b>	Flooding affects a limited or contained space and has no effect on the vessel's stability and seaworthiness.	Flooding can be kept under control with pumps and watertight compartments, but the seaworthiness of the vessel is restricted.	Extensive flooding or progressive flooding to undamaged watertight compartments. Flooding cannot be kept under control and poses a direct danger on the entire vessel.	Flooding is so severe that evacuation operations are no longer possible. <b>OR</b> Vessel has capsized or sunk.
<b>Listing, decrease of stability</b>	Listing or decrease of stability does not affect the seaworthiness of the vessel.	Seaworthiness of the vessel is restricted due to a decrease of stability or a notable list.	Large heel angles. The seaworthiness of the vessel is significantly impaired, its stability is threatened and there is an imminent need to evacuate.	Stability is decreased to such an extent that evacuation operations are no longer possible. <b>OR</b> Vessel has capsized or sunk.
<b>Decrease of manoeuvrability</b>	Vessel's manoeuvrability is hampered, but the vessel can still proceed on its course.	Vessel has lost its manoeuvrability, but is still capable of emergency anchoring or drifting safely.	Vessel has lost its manoeuvrability and is not capable of emergency anchoring or drifting safely.	(Not applicable)
<b>Black-out</b>	Functions important for ship operations are kept running by backup systems while the fault is repaired.	Operational capability of the vessel is limited: Backup systems do not work as planned <b>OR</b> functions important for ship operations are kept running by backup systems, but the fault cannot be repaired at sea.	A full black-out of long duration that cannot be repaired at sea poses a direct danger on the entire vessel.	(Not applicable)
<b>Fire, explosion</b>	Fire has been extinguished and there is no danger of reignition <b>AND/OR</b> the consequences of an explosion do not affect the vessel's safety.	Fire or explosion affects only a limited area and can be brought under control with the vessel's own or external damage control/ firefighting resources.	Fire cannot be kept under control <b>OR</b> the consequences of an explosion pose a direct danger on the entire vessel.	Conditions on board the vessel are not survivable. The consequences of the fire or explosion pose a direct danger to persons aboard. <b>OR</b> Vessel has been destroyed.
<b>Danger posed by hazardous substances</b>	Release of hazardous substances on board does not pose any danger on the vessel.	Release of hazardous substances on board poses a danger in certain sections of the vessel, but	Release of hazardous substances on board poses a direct danger on the entire vessel.	(Not applicable)

# Threat factor matrix – example

Threat factors	GREEN	YELLOW	RED	BLACK
<b>Flooding</b>	Flooding affects a limited or contained space and has no effect on the vessel's stability and seaworthiness.	Flooding can be kept under control with pumps and watertight compartments, but the seaworthiness of the vessel is restricted.	Extensive flooding or progressive flooding to undamaged watertight compartments. Flooding cannot be kept under control and poses a direct danger on the entire vessel.	Flooding is so severe that evacuation operations are no longer possible. <b>OR</b> Vessel has capsized or sunk.



# Working principle for categorization

Threat factors	GREEN	YELLOW	RED	BLACK
<b>Flooding</b> <b>YES</b>	Flooding affects a limited or contained space and has no effect on the vessel's stability and seaworthiness.	Flooding can be kept under control with pumps and watertight compartments, but the seaworthiness of the vessel is restricted.	Extensive flooding or progressive flooding to undamaged watertight compartments. Flooding cannot be kept under control and poses a direct danger on the entire vessel.	Flooding is so severe that evacuation operations are no longer possible. <b>OR</b> Vessel has capsized or sunk.
<b>Listing, decrease of stability</b> <b>YES</b> <b>YES</b>	Listing or decrease of stability does not affect the seaworthiness of the vessel.	Seaworthiness of the vessel is restricted due to a decrease of stability or a notable list.	Large heel angles. The seaworthiness of the vessel is significantly impaired, its stability is threatened and there is an imminent need to evacuate.	Stability is decreased to such an extent that evacuation operations are no longer possible. <b>OR</b> Vessel has capsized or sunk.
<b>Decrease of manoeuvrability</b> <b>YES</b>	Vessel's manoeuvrability is hampered, but the vessel can still proceed on its course.	Vessel has lost its manoeuvrability, but is still capable of emergency anchoring or drifting safely.	Vessel has lost its manoeuvrability and is not capable of emergency anchoring or drifting safely.	(Not applicable)
<b>Black-out</b> <b>NO</b>	Functions important for ship operations are kept running by backup systems while the fault is repaired.	Operational capability of the vessel is limited: Backup systems do not work as planned <b>OR</b> functions important for ship operations are kept running by backup systems, but the fault cannot be repaired at sea.	A full black-out of long duration that cannot be repaired at sea poses a direct danger on the entire vessel.	(Not applicable)
<b>Fire, explosion</b> <b>NO</b>	Fire has been extinguished and there is no danger of reignition <b>AND/OR</b> the consequences of an explosion do not affect the vessel's	Fire or explosion affects only a limited area and can be brought under control with the vessel's own or external damage control/firefighting	Fire cannot be kept under control <b>OR</b> the consequences of an explosion pose a direct danger on the entire vessel.	Conditions on board the vessel are not survivable. The consequences of the fire or explosion pose a direct danger to persons aboard.

# Vessel TRIAGE category

GREEN

THE VESSEL IS SAFE  
AND CAN BE ASSUMED  
TO REMAIN SO

**YELLOW**

**THE VESSEL IS  
CURRENTLY SAFE, BUT  
THERE IS A RISK THAT  
THE SITUATION WILL  
GET WORSE**

RED

THE LEVEL OF SAFETY  
ABOARD HAS  
SIGNIFICANTLY  
WEAKENED AND  
IMMEDIATE EXTERNAL  
ACTION IS REQUIRED  
TO ENSURE THE SAFETY  
OF THE PEOPLE  
ABOARD

BLACK

THE VESSEL IS NO  
LONGER SAFE AND  
HAS BEEN LOST

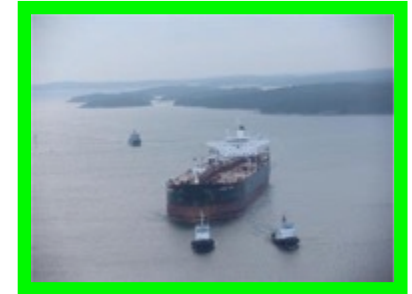




# Operational focus based on Vessel TRIAGE classification



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
<b>OPERATIONAL FOCUS</b>	<b>OPERATIONAL FOCUS</b>	<b>OPERATIONAL FOCUS</b>	<b>OPERATIONAL FOCUS</b>
<ul style="list-style-type: none"> <li>- Damage control or firefighting operations are not or are no longer required.</li> <li>- If there are injured people aboard, the operational focus is on emergency care.</li> <li>- Only patients in need of urgent care are evacuated from the vessel.</li> <li>- Active monitoring of the situation aboard is important.</li> </ul>	<ul style="list-style-type: none"> <li>- The operational focus is on limiting damage / damage control and preparations for possible evacuation from the vessel.</li> <li>- In addition to carrying out damage control measures and rescue operations, it is important to determine the actual condition of the vessel.</li> <li>- At the discretion of the master of the vessel, non-essential persons can be evacuated from the vessel.</li> <li>- Proactive measures are taken to stabilise the situation aboard so that its condition becomes "green" or alternatively to allocate more time to evacuation and other rescue operations.</li> <li>- Continuous monitoring of the situation aboard is important (risk of the situation turning "red").</li> </ul>	<ul style="list-style-type: none"> <li>- The operational focus is on evacuation of the vessel.</li> <li>- All non-essential persons will be evacuated from the vessel.</li> <li>- Patient classification may not be able to be carried out aboard the vessel.</li> <li>- If enough resources are available, damage control/ firefighting will be carried out to provide extra time for evacuation.</li> <li>- Emergency towing to shallows could be an alternative to evacuation, or a means of gaining time for actual evacuation.</li> <li>- Continuous monitoring of the situation aboard becomes more important (damage usually spreads progressively = significant risk of the situation turning "black").</li> </ul>	<ul style="list-style-type: none"> <li>- The operational focus is on rescuing people on the hull as well as searching for and rescuing those in the water.</li> <li>- Patient classification cannot be carried out aboard the vessel.</li> <li>- Operations involving diving or rescue by means of hull penetration are special operations that are planned and decided on separately.</li> <li>- As a rule, additional personnel are not dispatched from land into the vessel.</li> </ul>



# Vessel TRIAGE

## Regulatory development



**Rajavartiolaitos**  
Gränsbevakningsväsendet  
The Finnish Border Guard

# IMO implementation process



**Finnish Transport Safety Agency and Finnish Border Guard will submit the Vessel Triage initiative IMO approval:**

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- 2015** Vessel TRIAGE METHOD has been presented to ICAO-IMO Joint Working Group with a proposal for testing and a long term goal to implement it in the IAMSAR Manual
- 2016** Vessel TRIAGE METHOD is submitted to NCSR 3. Proposed to be include to the IAMSAR Manual as long-term aim. Proposed and agreed to recommend further testing.
- 2017** Feedback Vessel TRIAGE tests will be submitted to NCSR 4

**GOAL** Vessel Triage method included to the IAMSAR 2019 edition.

# NCSR3 concerns and comments to Vessel TRIAGE

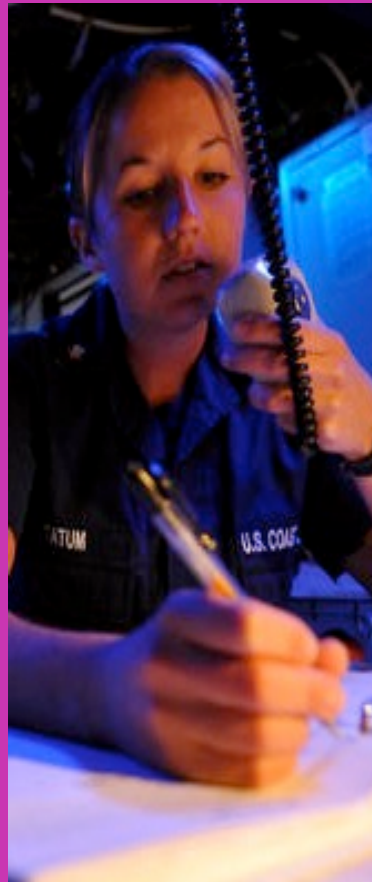
- Valid for all accidental situations
- No additional workload to crew
- Benefit to communication should be confirmed
- SAR response decisions should not become Master responsibility
- No conflict with existing emergency assessment and communication methods
- Application should be consistent between individuals
- Communication procedures should be harmonized across multiple SAR regions
- Regulatory implications should be accounted for

# Shared Situational Awareness

**Shore Side  
Responders**



**JRCC / MRCC**



**Distress  
Vessel**



**Shipping  
Company**



# Vessel TRIAGE App



**Rajavartiolaitos**  
Gränsbevakningsväsendet  
The Finnish Border Guard



***”No: Vessel TRIAGE is not the answer  
to life, the universe and everything.  
But it will help improve understanding.  
And that alone makes it worthwhile”***

David Jardine-Smith IMRF secretary



**Rajavartiolaitos**  
Gränsbevakningsväsendet  
The Finnish Border Guard



**Thank you!**

**The Finnish Border Guard (HQ)  
SAR Unit  
Commander Petteri Leppänen  
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