



DUTCH  
SAFETY BOARD



# Lessons Learned from Investigation with Pilotage Involved

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# Dutch Safety Board - Working Areas - Multimodal



## Multimodal Board



### **Mission**

The Dutch Safety Board's aim is the improvement of safety in the Netherlands. Its main focus is those situations in which civilians are dependent on the government, companies or organisations for their safety. The Board solely investigates when incidents or accidents occur and aims to draw lessons from the results of these investigations.

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## Multimodal Board



### Objective of the Board

The Board has the task, with the exclusive aim of preventing future incidents or limiting the consequences thereof, to:

- investigate and establish the causes or probable causes of individual incidents or categories of incidents
- of the extent of the consequences thereof
- to make recommendations accordingly (if necessary)

*art. 3 Kingdom Act concerning Dutch Safety Board*

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Dutch Safety Board

Multi-modal

Independent

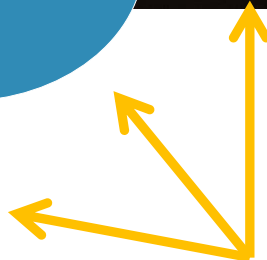
Impartial

Objective

No blame

Mission

Its main focus is those situations in which civilians are dependent on the government, companies or organisations for their safety.



# Different types of investigations

Accident

Organisation

Internal improvement measures

Justice

Investigation and prosecution of illegal acts

Inspectorate(s)

Oversight, enforcement, regulation

Safety Board

Safety lessons & recommendations

[www.safetyboard.nl](http://www.safetyboard.nl)

# Statutory powers – Dutch Safety Board Act 2014

## Access

Investigators are entitled to enter buildings in order to collect information and materials for further (technical) investigation.

## Obligation

Dutch law stipulates that everyone is obliged to provide full cooperation to the investigators in the exercise of their powers.

## When abroad

Investigators work on the basis of agreements contained in treaties and European directives, or on the basis of laws and regulations of the country concerned.



Investigation  
process



Checks and balances

Initial  
Investigation

Determine  
Focus

Investigation  
and Analysis

Consultation

Publishing  
Report

Follow up







# International Cooperation

# Maritime obligation (IMO, EU)

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Very serious casualty



Obligation to investigate

Loss of life

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Total loss of the ship

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Severe pollution

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Serious casualty



Assessment

Fire, explosion, grounding, contact, heavy weather, hull cracking resulting in:

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Structural damage (unseaworthy)

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Pollution (any quantity)

IMO Casualty Investigation Code (Resolution MSC.255(84)) (Marine casualty or incident)

EU Directive 2009/18/EC

*A Marine Safety Investigation should be **separate** from, and **independent** of, any other form of investigation*

# 5 times “Why”

**Why?**

*Emergency proc's* *Training Policy* *Recruitment Policy* *Scheduling* *Regulations* *Spares policy* *Circulars*  
*Maintenance policy* **Manag't/Organizational Factors** *VTS Practices*  
*Safety Manag't* *Equipment design* *Pilots* *Supply of Tugs* *Safety Audits* *Safety Policy*

**Why?**

*Supervision* *Noise* *Poor maintenance* *Familiarisation* *Training* *Communications* *Heat*  
*Safety Manag't* *Drills* *Master/Pilot* *Workload* *SOPs* *Vibration*  
*Health* *Use of Tugs* **Operational Factors** *Stability* *Spares handling*  
*Cleanliness* *BRM* *Food* *Navigational Manag't.* *Culture* *Weather routing*

**Why?**

*Lapse* *Planning error* *Error in intention* *Chemical reaction* *Experience*  
*Fatigue* **Human Error and Other Failure Mechanisms** *Omission* *Corrosion*  
*Oxygenation* *Brittle fracture*  
*Observation error* *Error in action* *Interpretation error* *Wear* *Wave on board*  
*Slip*

**Why/  
How?**

*Human error* *Pipe failure* *Monitoring failure* *Human error*  
*Position error* **Accident Events** *Communication failure*  
*Environmental effect* *Equipment Failure* *Human error* *Hazardous Material effect*

**What?**

*Collision* *Structural failure* *Capsize* *Fatality*  
**Casualty Events** *Fire*  
*Grounding* *Flooding* *Loss of control* *Injury*

Contributing Factors



# Maritime Investigations

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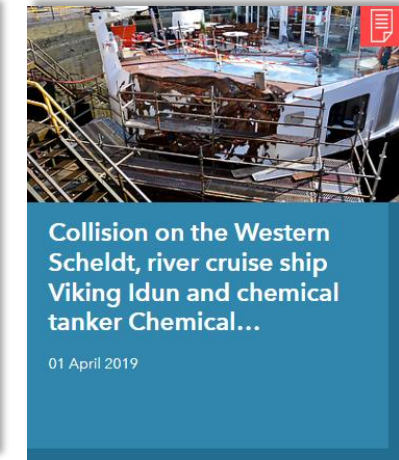




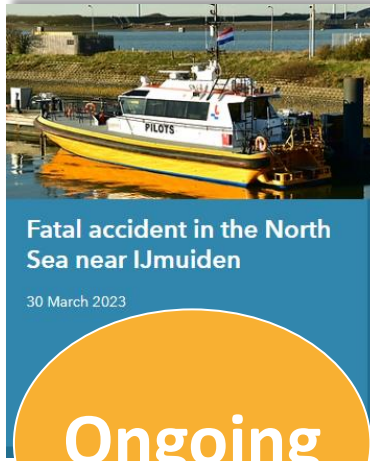


# DSB-Investigations involving pilotage

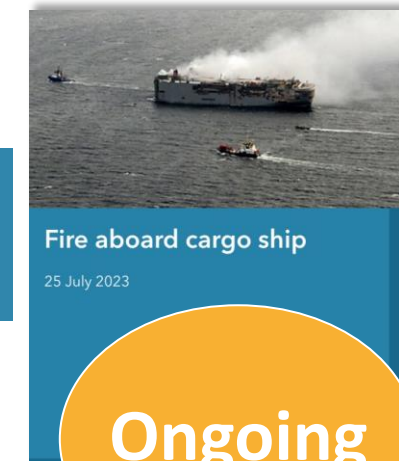
## Pilots



## Tenders



## Others



Ongoing

Ongoing

# Investigations Involving Pilots and Tenders

Flinterstar/Al Oraiq

Clear and concise  
communication

Bow Jubail

Communication

Closed loop communication

Chemical Marketer  
and Viking Idun

Language

RN Privodino

Expectation  
Management

**Risk mitigation**

Pollux and Nord  
Taurus

# Recommendations

## *Flinterstar en Al Oraiq*

- *Commit to safe navigation since safe navigation in piloted waters is a shared task of the bridge team and pilot, and by improving the way navigational information is shared between the bridge team and the pilot*
- *Respect each other, communicate throughout the voyage; work together and stay alert.*
- *Implement mandatory training for ships' crews and pilots and enhance the integration of these items in bridge team- and pilot-procedures. As recommended in IMO Resolution A.960(23) – Adopted 5 December 2003.*
- *Adopt English as the sole language for all ship to shore and ship to ship communications in the Scheldt Region and to amend the relevant publications accordingly.*
- *Implement mandatory training for VTS-operators and pilots focussed on routine procedures for sharing safety information; effective communicating; respect for each other and learning from accidents and incidents.*

# Recommendations



## *RN Privodino*

- *Ensure that it is clear to all persons involved how the lock passage will be undertaken. Make a precise agreed and verified determination of the final position in the lock.*
- *Ensure that whenever agreements are reached on board about the distribution of tasks during sailing and manoeuvres, these agreements are respected and that they do not conflict with the formal role and responsibility of the various persons involved according to their own discipline.*

# Recommendations



## *Pollux and Nord Taurus*

- *Jointly formulate further instructions for pilots on how to act if the pilot cutter and the SWATH are in each other's presence in the vicinity of a pilotage process. Promote compliance with this process that is in line with the exemplary role of the Loodswezen. Look specifically at situations where the pilot cutter is nearby, but is not actively involved in the pilotage operation. Bring these instructions under the attention of the Schelde Coordination Centre and the pilots working on the Scheldt area.*
- *Make an inventory of the pilot vessel in which the Bridge Routine Standard Watch Orders deviate from the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers. Bring Bridge Routine Standard Watch Orders in line with the provisions for keeping a lookout and duties on watch.*





# International Standard for maritime Pilot Operations

## *6.1.1 The maritime pilot organization:*

- Considers the result of audits and of analyses of non-conformities, incidents, accidents and risk events, and of other information to enhance the training of personnel.*

*11.3.1 The organization maintains a documented system to ensure that incidents, accidents and risk events are reported, analyzed and investigated. Risk treatments and/or corrective actions are implemented whenever necessary and practicable. The process should improve safety margins and reduce risk of reoccurrence.*

*12.1.1 The pilot organization establishes and maintains procedures to ensure that non-conformities, incidents, accidents, risk events and complaints are reported, investigated and analyzed in conformity with the objective of improving the management system.*

# International Standard for maritime Pilot Operations

## The objectives of the ISPO are:

- To ensure that the activities of maritime pilot organization are administered with the aim to provide a quality service with due regard for the safety of human life and the avoidance of damage to the environment and property;
- To encompass existing good practice;
- To provide a recognizable framework for international application that can be audited.



**All maritime pilot organizations have a public task and should ensure that safety has the highest priority.**

# Ongoing Dutch Safety Board Thematic Study

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**Intensified use North Sea**

**Background and intensified use of  
North Sea-area**

**North Sea Pilotage Area?**

**Any other suggestions?**



Thanks for your attention .....

