

Marine accident investigation

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- Introduce main principles of the AI directive
- Elaborate on some of the principles in the AI Directive
- Describe similarities and differences to the IMO Casualty Investigation Code

The 'Accident Investigation Directive'

Directive 2009/18/EC
Mandatory for EU States (and EEA)
In force June 2009
To be transposed by 17 June 2011

CASUALTY INVESTIGATION CODE
Came into force 1 January 2010

- What is a safety investigation?
- What are the scope and the obligations?
- What is an accident investigative body?
- How is a safety investigation organised among the Member States?
- What is the outcome of a safety investigation?
- What are the differences between the AI Directive and the IMO Casualty Investigation Code?

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Flag States - Port States - Coastal States



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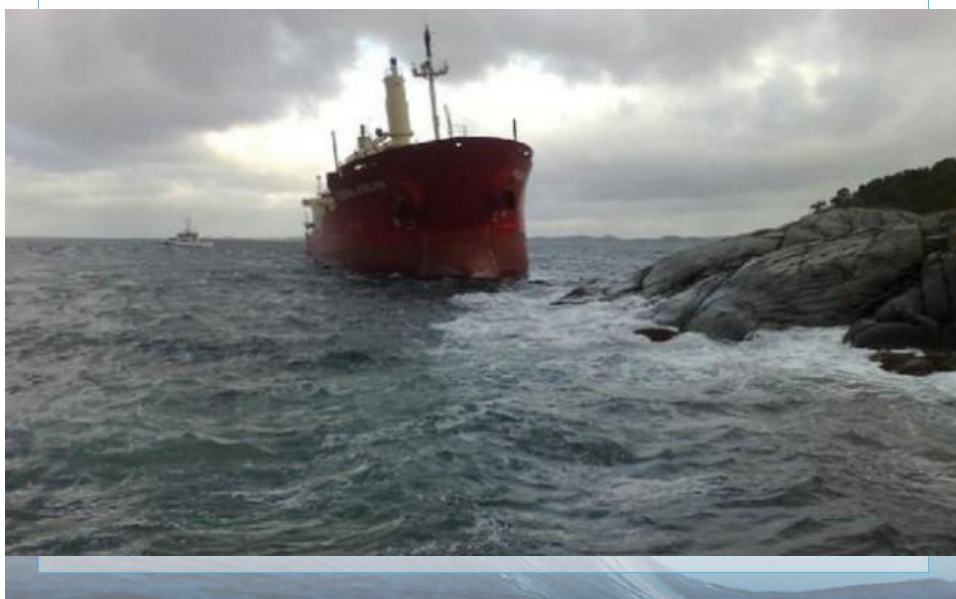
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Final Report No 9/2000

Fatal accident caused by broken mooring line



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Types of 'investigations'

- **Criminal enquiries** by:
 - Government administrations (maritime, incl. coastguard)
 - Police forces
 - Determining if laws have been breached incurring a possible penalty
- **Civil proceedings** brought by:
 - Hull underwriters
 - P & I Insurance
 - Classification Societies
 - Cargo interest
 - Determining who is to blame, financial liability
- **Safety investigation**

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The purpose of safety investigations



Purpose:

- “The purpose of this Directive is to improve maritime safety and the prevention of pollution by ships, and so reduce the risk of future marine casualties...”
- “Investigations ... shall not be concerned with determining liability or apportion of blame.”

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**Safety investigation:
Improve safety in order to
prevent future similar occurrences**

Directive 2009/18/EC, Article 1

Investigate marine accidents in order to answer

- What happened?
- Why did it happen?
- What can be done to prevent similar accidents in the future?
- Description of sequence of events
- Identify underlying conditions
- Describe the safety problem and proposal to solve it

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What happened?

The vessel suffered a catastrophic failure of her hull in way of her engine room



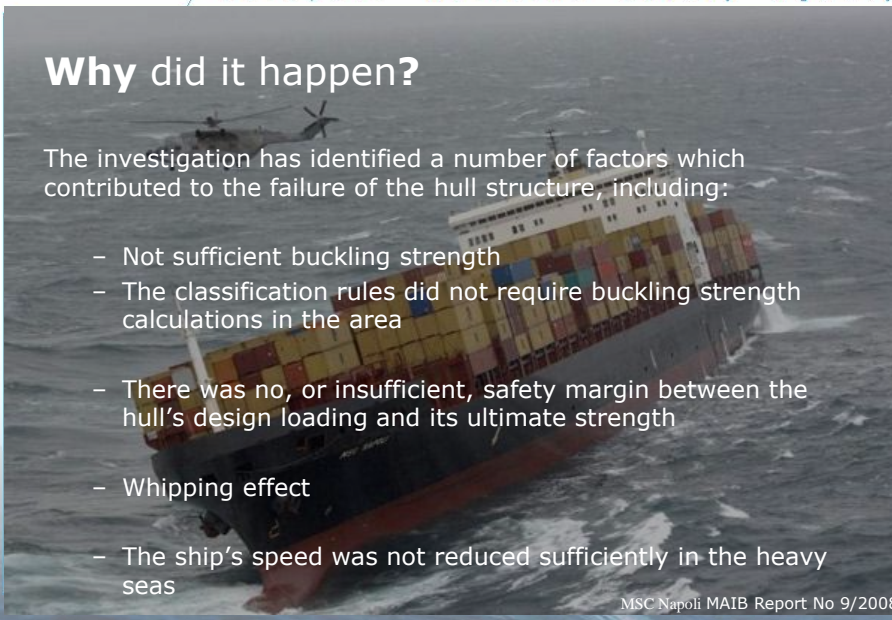
MSC Napoli MAIB Report No 9/2008

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Why did it happen?

The investigation has identified a number of factors which contributed to the failure of the hull structure, including:

- Not sufficient buckling strength
- The classification rules did not require buckling strength calculations in the area
- There was no, or insufficient, safety margin between the hull's design loading and its ultimate strength
- Whipping effect
- The ship's speed was not reduced sufficiently in the heavy seas



MSC Napoli MAIB Report No 9/2008

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What can be done to prevent similar accidents in the future?

1500 ships screened,
of more than 12 ships required remedial actions

Safety recommendations:

- To IACS
- International Chamber of Shipping
- The ship management company (ISM – DOC Holder)

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MSC Napoli MAIB Report No 9/2008

Scope

Applicable to *marine casualties and incidents* that:

- involve ships flying the flag of one of the Member States
- occur within Member States' territorial sea and internal waters as defined in UNCLOS (12 nm)
- involve other substantial interests of a Member State



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Directive 2009/18/EC, Article 2

Obligations to investigate

- **Very serious casualties:**
 - safety investigation **required**
- **Serious casualties:**
 - **preliminary assessment**;
 - **justification** in case of not undertake a safety investigation
- **Less serious or marine incidents:**
 - Investigative body to decide

Note: Within scope

Directive 2009/18/EC, Article 5

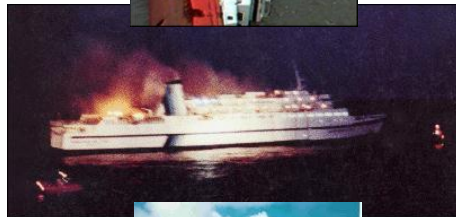
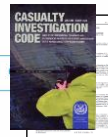
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Very Serious Casualty:

'is a marine casualty involving the **total loss** of the ship or a **death** or **severe damage** to the environment'

Severe damage to the environment means as evaluated by the State(s) affected or the flag State, as appropriate, produces a major deleterious effect upon the environment.

Directive 2009/18/EC, article 3 and MSC.255(84)



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Investigative bodies

Member States shall ensure that the safety investigations are conducted under the responsibility of:

- Impartial permanent investigative body
- Independent in its organisation, legal structure and decision-making of any party whose interests could conflict with the task entrusted to it
- Qualified investigators
- Free access to factual casualty data

Directive 2009/18/EC, Article 8

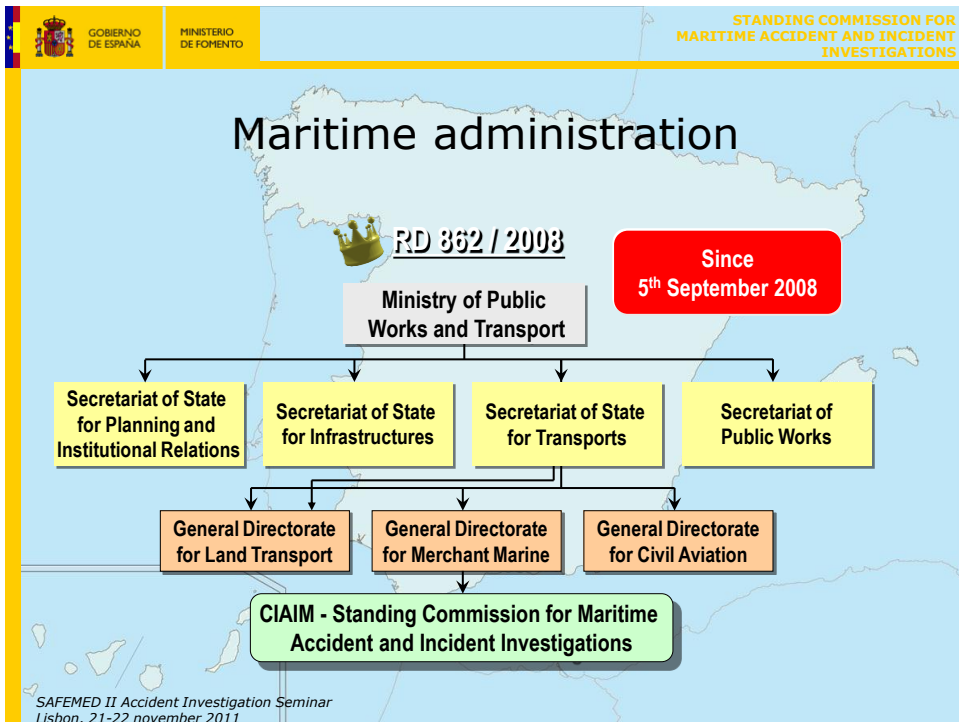
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What does it mean by independent, impartial body?

- Investigations shall be carried out as effectively and rapidly as possible
- Independent from criminal or other parallel investigations held to determine liability or apportion blame
- Not unduly precluded, suspended or delayed by reason of such investigations
- Endowed with necessary powers
- Carry out safety investigations in an unbiased manner
- Independent in its organisation, of any party whose interests could conflict with the task entrusted to it.
- Individual investigators to have a working knowledge and practical experience
- Ensure ready access to appropriate expertise, as necessary
- Activities entrusted may be extended to gathering and analysing of data , ..., insofar as these activities do not affect independence or entail responsibility in regulatory, administrative or standardisation matters.

Directive 2009/18/EC, article 4 and 8

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European Maritime Safety Agency

Leading of and participation in safety investigations

- A marine casualty or incident should only be subject to **one** safety investigation
- Cooperation to rapidly agree who will be the **lead investigating Member State**
- Parallel investigations limited to exceptional cases and Commission must be notified of reasons why
- A **Substantially interested Member State** has equal rights to evidence and their point of view taken into account



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Directive 2009/18/EC, Article 7

AI investigators to have the right to

- Free access to any site
- Access to evidence, wreckage
- Examination and analysis of items
- Free access to VDR data, ...
- Free access to results of examinations of the bodies and victims
- Interview witnesses in the absence of any person whose interests could be considered as hampering the safety investigation
- Obtain survey records
- Call for assistance of authorities in the respective States

Directive 2009/18/EC, Article 8

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Confidentiality

....shall ensure that the following records are not made available for purposes other than the safety investigation, unless ...overriding public interest in disclosure of it:

- All witness evidence and other statements ...
- Records revealing the identity of persons who have given evidence ...;
- Medical or private information regarding persons involved ...

Directive 2009/18/EC, Article 9

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The outcome of safety investigations

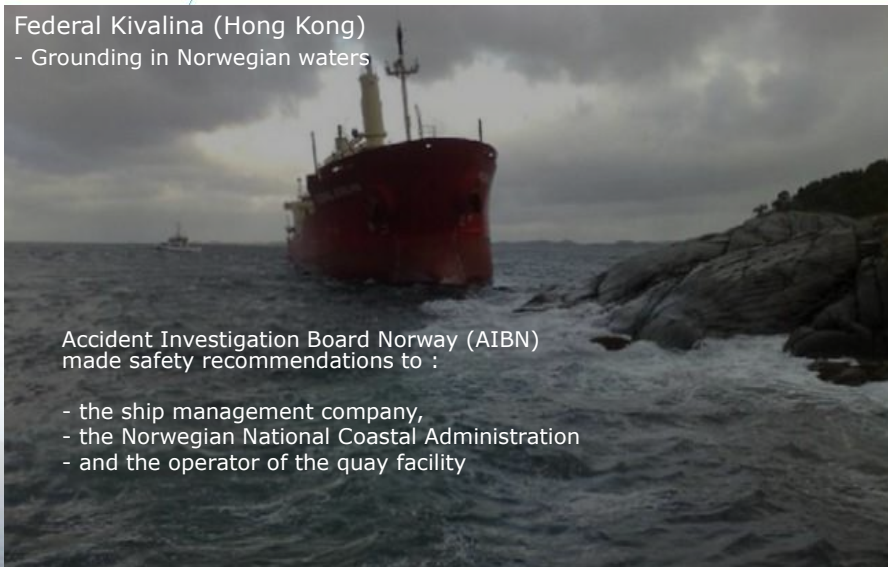


- Accident Reports
 - Every effort to publish within 12 months
 - Reports to be supplied to Commission (EMSA)
- Safety Recommendations
 - Shall in no circumstances determine liability or apportion blame
 - MS to ensure recommendations are duly taken into account by recipients by following up procedures

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Directive 2009/18/EC, Article 14, 15 and 16

Federal Kivalina (Hong Kong)
- Grounding in Norwegian waters



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Accident Investigation Board Norway (AIBN)
made safety recommendations to :

- the ship management company,
- the Norwegian National Coastal Administration
- and the operator of the quay facility



Accident
Investigation Board
Norway



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Reports













This list includes reports in English and reports including an English summary. The complete list of all published reports are found on our Norwegian pages. Information on ongoing investigations is published in Norwegian only.

Search: Publication year: Not selected Text: Search

Advanced search

Your search resulted in 13 hits

Summary in english Report in english

Lang.	Report	Accident category	Ship name	Occurrence date	Location
	2011/03	Personal injury	Bow Cecil	08.03.2010	In the seas outside Brasil
	2011/02	Capsize	Monica IV	08.09.2009	Approach to Skudeneshavn
	2010/11 eng	Personal injury	Star Ismene	16.12.2008	Nantong, China
	2010/10 eng	Collision	Sundstrøm / Kapitän Lust	03.07.2009	Drogden renne, Copenhagen, Denmark
	2010/09 eng	Personal injury	Nysand	24.10.2008	Forusstranda
	2010/08	Lost ship	LILAnne	11.03.2009	Vestfjorden, Norway
	2010/04 eng	Grounding	Crete Cement	19.11.2008	Aspønd Island in the Oslo Fjord, Norway
	2010/03	Grounding	Richard With	06.01.2009	Trondheim, Norway
	2010/02	Personal injury	Nesebu	06.01.2009	
	2010/01 eng	Grounding	Federal Kvalna	06.10.2008	Årsund, Norway
	2009/05	Capsize	Marina	02.03.2009	
	2009/04	Personal injury	Nordstar	07.10.2008	Northwest of Malé

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Home Contact Website in het Nederlands



ABOUT THE SAFETY BOARD PROCEDURE SECTORS INVESTIGATIONS PRESS FREQUENTLY ASKED QUESTIONS

SECTOR SEA SHIPPING COMPLETED INVESTIGATIONS

Reporting an incident:
0800 MELDOVV
0800 6353 688

- Accident with hatches MS Arlow Sky, Bilbao
September 21, 2010 - August 4, 2011 - Full
- Hawser breaks during mooring, Soyo - Angola
April 1, 2010 - July 21, 2011 - Short


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SEARCH
Website Investigations

Completed investigations

- Aviation
- Construction and service
- Crisismanagement and relief
- Defense
- Health
- Industry, pipelines and networks
- Inland shipping
- Railways
- Road traffic
- Sea Shipping
- Water

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MARINE ACCIDENT INVESTIGATION BRANCH

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06 December 2011

Publications

- ☐ Safety Bulletins
- ☐ Safety Digests
- ☐ Safety Studies
- ☐ Investigation Reports
- ☐ Annual Reports
- ☐ Recommendations Reports
- ☐ Completed preliminary examinations
- ☐ Accident Flyers
- ☐ Information leaflets
- ☐ Freedom of Information
- ☐ Copyright Information
- ☐ Search publications
- ☐ Email Alert Subscriptions

Publications

We endeavour to identify and analyse the relevant issues and make recommendations aimed at preventing similar accidents in the future. The lessons learnt can be found in a variety of MAIB publications.

[Search all MAIB publications](#)

10 most recent publications:

- Liquid Vortex Accident Investigation Report**
 Report on the serious injury on board the yacht Liquid Vortex on 28 May 2011. Report No 25/2011.
 Published 1 December 2011
- Our Boy Andrew Accident Investigation Report and Safety Flyer**
 Report and accompanying Safety flyer on the investigation of a fatal accident to the skipper of fishing vessel Our Boy Andrew, 9 miles east of Eddystone Rocks on 24 March 2011. Report No 23/2011.
 Published 17 November 2011
- Commodore Clipper Accident Investigation Report and Safety Flyer**
 Report and accompanying Safety flyer on the investigation of the fire on the main vehicle deck of Commodore Clipper while on passage to Portsmouth on 16 June 2010. Report No 24/2011.
 Published 15 November 2011
- Discovery and Breadwinner Accident Investigation Report**
 Report on the investigations into the loss of the skipper from fr Discovery during single-handed fishing operations 3 miles east of Fraserburgh on 9 October 2010 and the loss of the skipper from fr Breadwinner while fishing single-handedly 5.5 miles east of Score Head, Bressay on 20 January 2011. Report 22/2011.
 Published 3 November 2011.
- Sapphire II and Silver Chord Accident Investigation Report**
 Report on the investigation into the collision between Sapphire II and Silver Chord resulting in the foundering Sapphire II off Stornoway, Scotland on 12 January 2011. Report No 21/2011.
 Published 13 October 2011
- Philipp and Lynn Marie Accident Investigation Report**
 Report on the investigation of the collision between MV Philipp and FV Lynn Marie 6nm south of the

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Bundesministerium für Verkehr, Bau und Stadtentwicklung

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BSU
Bundesstelle für Seunfalluntersuchung
Federal Bureau of Marine Casualty Investigation

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Search results 1 to 10 from a total of 14

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Investigation Report 251/09

date of issue 01 February 2011

Collision involving the AURORA and the TRANSANUND during an overtaking manoeuvre on the Elbe on 29 June 2009.

[Investigation Report 251/09 \(pdf/3568-KB\)](#)

Investigation Report 305/09

date of issue 01 February 2011

Collision between MF SCHLESWIG-HOLSTEIN and SY MAHDI on 24 August 2009 3 nm north-east of the Puttgarden ferry port.

[Investigation Report 305/09 \(pdf/2640-KB\)](#)

Investigation Report 41/09

date of issue 01 December 2010

Collision on the Kiel Canal between MT VASI and MT BIRTHE THERESA on 12 February 2009 at 0300 h

[Investigation Report 41/09 \(pdf/6262-KB\)](#)

Investigation Report 07/10

date of issue 15 November 2010

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European Marine Casualty Information Platform (EMCIP)

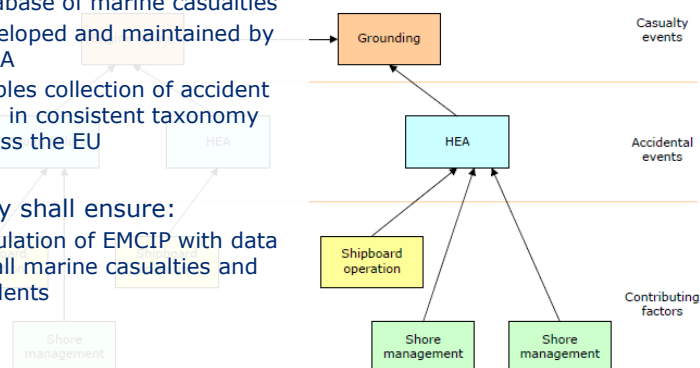
EMCIP Model

EMCIP:

- Database of marine casualties
- Developed and maintained by EMSA
- Enables collection of accident data in consistent taxonomy across the EU

AI body shall ensure:

- population of EMCIP with data for all marine casualties and incidents



Directive 2009/18/EC, Article 17

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International obligations to investigate

UNCLOS

MARPOL 73/38

SOLAS 74

SOLAS 08 Amendments

Chapter XI-I, Regulation 6, Additional requirements for the investigation of marine casualties and incidents

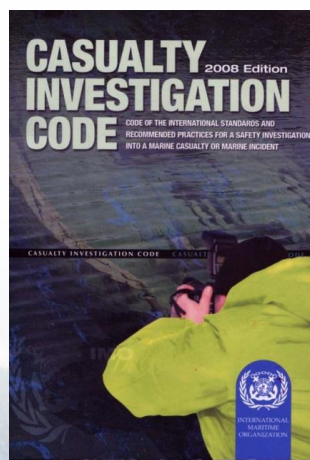
... each Administration shall conduct investigations of marine casualties and incidents, in accordance with the provisions of the present Convention, as supplemented by(Casualty Investigation Code) ...

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The objective of safety investigations

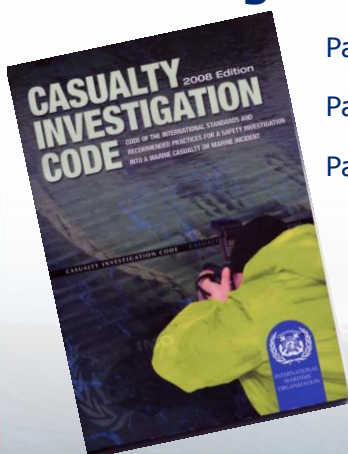
"..conducted with the objective of preventing marine casualties and marine incidents in the future.", by "..uncovering the causal factors and other safety risks; "

(IMO Casualty Investigation Code, Resolution MSC.255(84).



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IMO Requirements for Accident Investigation [Resolution MSC.255(84)]



Part I - General

Part II- Mandatory Standards

Part III- Recommended practices

Came into force 1 January 2010

Also applicable:

Resolution A.849(20) adopted 27/11/97,
amended by Resolution A.884(21) adopted
11/97- guidance is still relevant

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IMO Casualty Investigation Code - key points

Mandatory:

- Investigations to be impartial and objective
- Investigations shall be conducted into very serious marine casualties (Flag State)
- Substantially interested States to be notified
- A substantially interested State may conduct a parallel investigation
- Cooperation to the extent practical
- Substantially Interested States are to be consulted (unless maintaining confidentiality is not guaranteed)
- Investigation reports made public
- Requirement to report at least very serious casualty data to IMO (GISIS online system facilitates this process)



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IMO Casualty Investigation Code- key points

Recommended:

- Flag State investigation body should be independent
- Investigating State should allow participation to the extent practicable
- Evidence should, so far as national laws allow, be prevented from admission in civil/criminal proceedings
- Prior to report publication, there should be 30 days consultation to allow interested parties to comment



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Summary – Investigation principles (AI directive)

- Safety investigations
- Investigations to be conducted by impartial, permanent investigative bodies, independent in their organisation
- Obligations
 - Obligation to investigate all 'very serious casualties'
 - Conduct preliminary assessments for 'serious casualties'
- Flag state, within territorial waters, substantially interested State
 - Only one investigation and with cooperation of others
 - Scope of conduct of the investigation to be decided by the AI body/bodies
 - Common methodology
 - Effective cooperation to be enabled by formation of PCF
- Investigation reports published within 12 months
- Accident data to be populated in EMCIP
- Member State to follow up safety recommendations

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Within EU:	Worldwide under IMO Casualty Investigation Code:
Mandatory and enforceable	Less stringent obligations