#### **ANNUAL REPORT - 2009**

Standing Commission for Maritime Accident and Incident Investigations - CIAIM

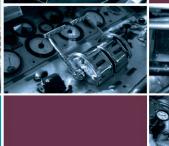
















MINISTERIO DE FOMENTO

## ANNUAL REPORT

2009

STANDING COMMISSION FOR MARITIME ACCIDENT AND INCIDENT INVESTIGATIONS



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## EXTRACT FROM ROYAL DECREE 862/2008, DATED 23 MAY

The Standing Commission for Maritime Accident and Incident Investigations will investigate serious and very serious maritime accidents and incidents when lessons learned can be obtained for maritime safety and for the prevention of marine pollution originating from vessels.

In no case will the purpose of the investigation be to determine any fault or responsibility.



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## INTRODUCTION

With the approval and publication of Royal Decree 862/2008, dated 23 May, the investigation of accidents has taken on a new direction. The creation of a new Standing Commission for Maritime Accident and Incident Investigations that is more independent and with highly qualified personnel completely dedicated to the investigation represents a transcendental change in the ambitious project of improving maritime safety and preventing marine environmental pollution by using as a preventive tool the valuable recommendations derived from the in-depth investigations that are carried out of maritime accidents.

From the establishment of the Plenary Commission on the 22nd of January 2009 until the end of the year the activity of the Commission has to a great extent been focused on balancing the investigation tasks with which it is charged, and the definition of an administrative structure that will help it to carry these tasks out.

The intense work carried out during the first half of the year, even though not resulting in the start of the investigation work as such, did result in the defining of its administrative system, the finding of a proper location for its facilities, the drafting and approval of internal regulations, and served to set the basis for cooperation between the newly created Commission and other national as well as international organizations, whose contribution

has been and always will be essential for achieving its objectives. I would like to offer special thanks to the Directorate General of the Merchant Navy and to the Maritime Rescue and Safety Agent (SASEMAR), without whose collaboration it would have been impossible for this commission to complete the initial tasks it had been assigned..

However, if I had to highlight one important development from throughout the year which would mark the actual start of the Commission's activity, this would undoubtedly be the incorporation of the technical administrative personnel. From the personal assessment that I may now make, after having performed my duties as Commission Secretary for 14 Months, and from the objectivity provided by assessing the situation from my new position in the Ministry of Public Works Subsecretary Cabinet I can affirm that this personnel, in conjunction with the members of the Plenary, are the true keys to the Commission's success in achieving its objectives, regardless of how complicated these may be.

During the second half of the year, the workload handled by the Commission greatly surpassed the capacity that can be handled by such a reduced number of investigation team members. However, the great efforts, enthusiasm and dedication demonstrated by all its members enabled them to complete a large number of investigations, six of which were able to be

completed in 2009, resulting in numerous recommendations collected in their respective reports, which have been made public through the Commission's webpage and are echoed in this report. Their



disclosure is the end of the investigation process, but at the same time it is the start of an awareness and prevention campaign that I believe in the long term will result in a reduction of accidents.

I want to finish by thanking the current Secretary of the Commission for granting me the opportunity to write this introduction, in this way allowing me to personally contribute to the first annual report published by this Commission. I hope that the new legislative changes that are on the horizon, the increase in the investigation team personnel, the addition of more experienced professionals and the wise advice of the members of the Plenary, will over time lead to an appreciation of the great importance of the work carried out by the Maritime Accidents and Incidents Standing Commission in terms of improving maritime safety.



Sonia Barbeira Gordon

## NATURE, LEGAL STATUS AND ORGANIZATION

The Maritime Accidents and Incidents Investigating Standing Commission (CIAIM) is a collegial body assigned to the General Secretariat for Transports, charged with carrying out the investigation of the technical causes for:

- Maritime accidents and incidents involving Spanish civilian vessels.
- Maritime accidents and incidents involving foreign civilian vessels when these occur within Spanish waters or Spanish territorial seas, and those occurring outside these when Spain has substantial interests at stake.

The CIAIM and its activity are regulated by Royal Decree 862/2008 dated 23 May. In accordance with this regulation, the investigations carried out by CIAIM are aimed at establishing the technical causes of the accident as well as making recommendations that will prevent accidents from occurring in the future. In no case shall the purpose of the investigation be to determine any fault or responsibility.

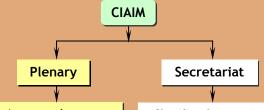
The organizations that comprise the CIAIM are the Plenary and the Secretariat.

The Plenary Commission is charged with validating the classification of the accidents or incidents and approves reports and recommendations provided after a technical investigation has been conducted.

It is comprised of the following members:

- The President, appointed by the Minister for Public Works and Transports
- The Vice President, a civil servant from the Technical General Secretariat of the Ministry for Public Works and Transports
- A board member proposed by the Merchant Marine Officers Association (COMME).
- A board member proposed by the Naval Architects and Marine and Oceanic Engineers Association (COIN).
- A board member proposed by the Nautical and Fishing Graduates Association (AETINAPE).
- A board member proposed by El Pardo Model Basin (CEHIPAR).
- A board member proposed by the Public Works Studies and Experimentation Centre (CEDEX).
- A board member proposed by the General Secretariat for the Seas, of the Ministry for the Environment and for Rural and Marine Affairs.
- A board member proposed by the Spanish Meteorological Agency (AEMET).
- A board member proposed by the Autonomous Community where the accident has occurred.
- The Secretary, appointed by the Minister for Public Works and Transports. Will participate in plenary deliberations with voice but without voting rights.

The Secretariat falls under the Plenary Commission Secretary and carries out the investigation work as well as the reports that will be studied and approved afterwards by the Plenary. The investigation team, comprised of career Public Administration civil servants belongs, to the Secretariat.



- Approves the preliminary classification of accidents and incidents proposed by the Secretary
- Approves the reports, conclusions and recommendations proposed by the Secretary when the technical investigation has been completed.
- Classifies the severity of the accidents
- Carries out the investigations and drafts the technical reports
- Coordinates with other states with substantial interests in the accident
- Compiles the information required for the investigation, acquiring it from other administrations, organizations or entities.
- Submits the reports to the Plenary for approval
- Sends the reports approved by the Plenary to the interested states and relevant International Bodies (EMSA, IMO)

## **ACTIVITY OF THE PLENARY**

The Plenary of the Standing Commission for Maritime Accident and Incident Investigation formally began its activities on the 20th of January 2009, the date of its first meeting.

From the establishing of the Commission in June of 2008 until that time the organizations that participated in the CIAIM Plenary designated their representatives, primary and alternate. Afterwards, their membership to this organization was formalized via their appointment as CIAIM board members by the Ministry for Public Works and Transports.

The establishing of this collegial body is a landmark step in the investigation of maritime accidents in Spain. For the first time decisions regarding these investigations are made by an organization independent of the Maritime Administration.

The CIAIM Plenary is an organization completely independent of competent public maritime safety authorities, with complete capacity to make decisions and come to agreements. The composition of the Plenary reflects the legislation's commitment to guaranteeing this independence, as demonstrated by the fact that none of the members of this organization come from the Secretariat of State for Transports.

Its configuration as a collegial body provides an additional guarantee of independence and rigour in its decision-making, as it ensures that no one party can impose its criteria on the rest,

given that a consensus is required in order to reach agreements.

The composition of the Plenary also illustrates the multidisciplinary nature this body is required to have. By encompassing the main areas of society, it is able to interpret all the facts and circumstances surrounding maritime accidents and to propose efficient and realistic solutions to the problems detected.

In the year 2009 the Plenary met on eight occasions. In this first year, the activity of the Plenary was a result of maritime accidents as well as of its status as a recently-formed body, without established working procedures or methods. In collaboration with the Secretariat, therefore, an enormous effort was necessary to handle the two primary lines of work that were undertaken:

- Drafting and Implementation of the Plenary's working procedures and its relationship with the Secretariat: and
- Drafting of the tasks listed in the regulation for the Plenary regarding the investigation of maritime accidents.

This dual function was present during the Plenary meetings in 2009. Worthy of note are the primary agreements that were reached and tasks that were undertaken during these meetings to address and assess the complexity of the work carried out during this first phase by the CIAIM Plenary.

#### <u>First meeting (20th of January).</u> Establishment

The primary achievement of this meeting was the formal establishment of the Plenary. Attending this meeting were the Secretary of State for Transports, and the Director General of the Merchant Navy who also hosted it, since CIAIM still did not have its own headquarters.

The first president of CIAIM was Mr. Francisco Javier Villanueva Santaulari, who after expressing his thanks for being entrusted with the duties of the CIAIM President, outlined the priorities that he thought should be set for the Commission in order to improve the performance of its functions:

- To maintain significant international activity, in its dual role of actively participating in international forums regarding maritime safety and pollution prevention, while maintaining good relations with other organizations in charge of accident investigations from other countries.
- To foster the training of investigating personnel through the technical team's regular attendance at courses and international seminars, as well as to facilitate the exchanging of investigators with other Commissions.

During this meeting, all the accidents reported since the establishing of the Commission were reviewed and classified, in this way validating the preliminary investigation work that had been initiated upon these by the Secretariat.

It was also necessary to entrust a series of tasks to the Secretariat in order to cover the needs of the Commission. These were:

- The drafting of a proposal for an Internal Operations Regulation for the Commission.
- Requesting an increase in the Job Positions List (JPL) assigned to the Secretariat, because it was considered to be insufficient for handling the expected workload. At the time the Plenary was established the JPL listed four investigators.
- Process the endorsement of management orders with investigating organizations (CEHIPAR and CEDEX) to provide technical/scientific support to the Commission.

#### Second meeting (6th of May)

The period of more than three months that elapsed from the establishment of the Plenary until its second meeting was used by the Secretariat to efficiently make progress on the assigned tasks.

In this way, at this second meeting, a Draft copy of an Internal Operating Regulation was available, which was then approved by the Plenary.

Likewise, the Plenary was notified of the outcome of the specific request to provide the Secretariat with the administrative and investigating personnel as per the original Job Positions List. The Secretariat was comprised of the following personnel:

- Commission Secretary
- 1 Head of Area Investigator
- 3 Heads of Service Investigators
- 3 administrative assistants

Given the amount of work to be carried out by the Commission, the Plenary deemed this workforce to be insufficient, re-emphasizing the need to increase it as soon as possible.

During this period, the Commission's webpage (http://www.ciaim.es) was also launched and the computer applications for recording and managing documentation and investigation reports were developed within the Secretariat.

During the meeting of the Plenary, the accidents reported to the CIAIM since the beginning of the year were also discussed, which came to a total of fourteen.

#### Third meeting (29th of May)

The main new discussion item with respect to the previous meeting was the confirmation that a training course would be provided in accident investigations for CIAIM's investigating personnel, which was jointly organized by this body and the Directorate General of the Merchant Navy. This was an essential requirement for the accreditation of investigating personnel.

Between the second and third meeting, twelve accidents were reported to the Secretariat, which the Plenary discussed and classified.

#### Fourth meeting (24th of June)

A fundamental point of discussion during this meeting was the scope of Directive 2009/CE, by which the primary principles that govern the investigation of accidents in the maritime transportation sector were established.

This Directive was published in the Official Journal of the European Union on the 28th of May, and sets a deadline of 17 June 2011, for its transposition to national law.

The Plenary discussed the implications of the coming into effect of this Directive and its impact on the work and structure of the Commission.

#### Fifth meeting (8th of September)

In this meeting, the Plenary discussed and approved the first two investigation reports carried out by CIAIM; specifically, the explosion of the engine on the vessel GEMA B at the port

of Barcelona, and the sinking of the SAVINOSA barge at the port of Tarragona.

Since the previous meeting of the Plenary, the Ministry for Public Works and Transport was restructured, resulting in a change of affiliation for the CIAIM, which resulted in its relationship with the Ministry now to be carried out through the Under Secretariat instead of through the General Secretariat for Transports as previously established.

#### Sixth meeting (30th of September)

In this meeting, the president to date, Mr. Francisco Javier Villanueva Santauri, announced that he had submitted his irrevocable resignation to the Minister for Public Works and Transport. He expressed his desire to stay in the position until a new President was appointed.

Also during this meeting it became evident that the CIAIM was beginning to attract media attention, since several stories related to accidents that had occurred during this period had been published, such as the accident of the fishing vessel HERMANOS LANDROVE, in which one person perished.

During the period between sessions the Secretariat drafted responses to numerous Parliamentary questions regarding the operation of the CIAIM posed in the *Congreso de los* 

Diputados (Spain's lower chamber of Parliament).

The report corresponding to the collision of the tug BLANCA S at the port of Melilla was approved.

#### Seventh meeting (10th of November)

In addition to discussing and agreeing on the final assessment of the twelve accidents reported since the previous meeting of the Plenary and approving the reports of two new accidents, the Secretariat announced several tasks that had been carried out:

- Processing of the request to increase the number of investigator job positions,
- Connection with the information systems of the directorate General of the Merchant Navy in order to be able to directly query the data of any ship under Spanish flag, or of any of its crewmembers,
- Beginning of the process for the transposition of Directive 2009/18/CE.

#### **Eighth meeting (15th of December)**

The activity of the CIAIM Plenary in 2009 closed on its eighth meeting, which began with the transfer of powers from the outgoing President to the new President, Mr. Eduardo Cruz Iturzaeta.

Apart from the normal activity of the Plenary, which consisted in the classification of maritime accidents and the approval of investigation reports, at this meeting, the Secretariat reported that one of the goals that had been set from the start of the first Plenary meetings had been reached: the addition of new personnel to the CIAIM's workforce.

The Comisión Ejecutiva de la Interministerial de Retribuciones (Executive Committee on Interministry payrolls) approved the creation of seven new job positions at the CIAIM: six investigators and one systems analyst.

At the close of this eighth meeting of the year, the Plenary had discussed the classification of all the accidents reported to the CIAIM since its establishment in 2008, and approved the six reports corresponding to the first investigations that had been completed. Also, its task of supporting the Secretariat in the challenge of establishing the CIAIM was essential for this body to be able to, at the end of 2009, set the foundation upon which to base its activities in the future.

## **OPEN INVESTIGATIONS**

2009 was the first year of effective activity of the Standing Commission for Maritime Accident and Incident Investigations (CIAIM) after its establishment in June of 2008, even though this activity was conditioned by several events that had taken place throughout the year, which are listed below.

- The incorporation in March of the required administrative support personnel.
- The incorporation in May of three investigators, which made it possible increase the rate at which investigations are completed and published in their corresponding reports.
- The change in affiliation that took place in June for CIAIM from the Secretaria General de Transporte to the Subsecreteria de Fomento, due to the reorganization of the Ministerio de Fomento that took place this year.

As a summary of the activity carried out during the year, the following numbers can be highlighted:

- 88 accidents reported
- 41 open investigations
- 8 Plenary meetings
- 6 published reports
- 44 safety recommendations provided

#### **Timeliness of the reporting**

All of the accidents that occurred in 2009 were initially reported to the CIAIM by a Maritime Authority.

Of the 41 accidents to be investigated, 20 were reported to the CIAIM the same day or the day after they occurred.

After having analyzed this data, we must take into account that sometimes the Maritime Administration becomes aware of incidents days after they have occurred and, therefore, their reporting to the CIAIM cannot occur any earlier.

The numbers also indicate that, as the year 2009 progressed, reporting times were shortened. This can be explained by taking into account that 2009 was the first year of effective activity for the CIAIM and, therefore, reporting procedures improved at the different Maritime Authorities as the accidents occurred.

#### Open investigations in 2009

In 2009, a total of 88 accidents were reported to the CIAIM, of which 41 were classified by the Plenary as worthy of being investigated, and 47 were considered not worthy of investigation.

Accidents investigated / dismissed in 2009								
Accidents	N°.	%						
Accepted for investigation	41	47%						
Dismissed	47	53%						
Reported	88							

The reasons why the Plenary may dismiss an accident vary, but all of these concur in that they do not meet the requirements established by current regulations in order for an accident to be investigated.

As an example, on occasions the CIAIM is notified of an accident that occurred in international waters involving a vessel with a foreign flag and in which no Spanish citizen was injured, nor were Spanish interests affected. It is also common to receive reports of small collisions in territorial waters between Spanish vessels with barely any material damages.

In all of these cases, the report is received and sent to the CIAIM Plenary, which has the authority to decide if an accident is to be investigated or not.

Listed in the following tables are the 41 investigations opened throughout the year.





	Open investigations in 2009 (1/2)												
N°.	Date Ship involved		Type of ship	Type of accident (see Annex 2)	Severity (see Royal Decree 862/2008)								
1	03/01/2009	GEMA B	CONTAINER	EXPLOSION	VERY SERIOUS								
2	24/01/2009	BRAGA	GENERAL CARGO	LISTING	VERY SERIOUS								
3	22/02/2009	MONTE GALIÑEIRO	FISHING VESSEL	FOUNDERING	VERY SERIOUS								
4	05/03/2009	MSC FANTASIA	CRUISER	OPERATIONAL ACCIDENT	INCIDENT								
5	13/03/2009	VOLCAN DE TAUCE	RO-RO	LISTING	INCIDENT								
6	19/03/2009	ANCHOUSA PLAYA DAS DUNAS	FISHING VESSEL FISHING VESSEL	COLLISION	SERIOUS								
7	23/03/2009	PLAYA DEL MAR	FISHING VESSEL	FOUNDERING	VERY SERIOUS								
8	29/03/2009 KELBO		RECREATIONAL	OPERATIONAL ACCIDENT	VERY SERIOUS								
9	13/02/2009	VIRGEN DEL FARO	FISHING VESSEL	LISTING	INCIDENT								
10	28/03/2009	URDANETA	RECREATIONAL	GROUNDING	SERIOUS								
11	23/04/2009	ALONSO OCAÑA	FISHING VESSEL	FOUNDERING	VERY SERIOUS								
12	29/03/2009	VALLE DE ELDA	FISHING VESSEL	OPERATIONAL ACCIDENT	VERY SERIOUS								
13	22/04/2009	COSTA CORDAL HERMANOS LEÓN	FISHING VESSEL FISHING VESSEL	COLLISION	INCIDENT								
14	20/05/2009	CRISTO	FISHING VESSEL	FOUNDERING	VERY SERIOUS								
15	20/04/2009	SUPER FAST CANARIAS	RO-RO	COLLISION	INCIDENT								
16	03/05/2009	ALGATECSA UNO	FISHING AUXILIARY	FOUNDERING	INCIDENT								
17	11/05/2009	MAX ESTRELLA DE JOAQUIM	MERCHANT VESSEL FISHING VESSEL	COLLISION	SERIOUS								
18	14/05/2009	MAR ROCIO	TANK	OPERATIONAL ACCIDENT	INCIDENT								
19	02/05/2009	MAR VIRGINIA	CHEMICAL	LOSS OF PROPULSION	SERIOUS								
20	26/05/2009	NUEVO BONITA	FISHING VESSEL	FLOODING	INCIDENT								

Investigaciones abiertas en 2009 (2/2)											
Nº.	Date	Ship involved	Type of ship	Type of accident (see Annex 2)	Severity (see Royal Decree 862/2008)						
21	27/05/2009	LE MORNE	RECREATIONAL	FIRE	VERY SERIOUS						
22	02/06/2009	CANCONIO	FISHING VESSEL	FOUNDERING	VERY SERIOUS						
23	10/06/2009	VIRTUS	MERCHANT	LOSS OF CONTROL	INCIDENT						
24	01/07/2009	VILLA DE AGUETE	FISHING VESSEL	FOUNDERING	VERY SERIOUS						
25	29/08/2009	FURACÁN	FISHING VESSEL	CAPSIZING	VERY SERIOUS						
26	11/08/2009	SICHEM COLIBRI	CHEMICAL	LOSS OF CONTROL	SERIOUS						
27	08/09/2009	HERMANOS LANDROVE	FISHING VESSEL	CAPSIZING	VERY SERIOUS						
28	30/06/2009 PEIX MAR TREINTA RIO HUELVA UNO		FISHING VESSEL FISHING VESSEL	COLLISIION	VERY SERIOUS						
29	09/07/2009	09/07/2009 PEIX MAR TREINTA Y UNO		FIRE	SERIOUS						
30	06/09/2009	NOSA CANTIGA	FISHING VESSEL FOUNDERING		VERY SERIOUS						
31	30/07/2009	GERMANS GIL LILLI 2	FISHING VESSEL RECREATIONAL	COLLISION	VERY SERIOUS						
32	17/09/2009	MAYKOP EL GALAN	MERCHANT FISHING VESSEL	COLLISION	SERIOUS						
33	25/09/2009	LA MAR SALADA	RECREATIONAL	EXPLOSION	VERY SERIOUS						
34	03/10/2009	ARRILLON	SPECIAL SERVICES	FOUNDERING	VERY SERIOUS						
35	09/10/2009	YAIZA SÉPTIMO	FISHING AUXILIARY	CAPSIZING	SERIOUS						
36	27/10/2009	CUNCHIÑAS	RECREATIONAL	CAPSIZING	VERY SERIOUS						
37	28/10/2009	SHENZHEN	MERCHANT	CONTACT	SERIOUS						
38	03/11/2009	ACECHADOR	FISHING VESSEL	FLOODING	SERIOUS						
39	12/11/2009	NOU ESQUITX	FISHING VESSEL	FIRE	VERY SERIOUS						
40	20/11/2009	PESCABON	FISHING VESSEL	OPERATIONAL ACCIDENT	VERY SERIOUS						
41	26/11/2009	XA ME VEDES SPORT	FISHING VESSEL RECREATIONAL	COLLISION	VERY SERIOUS						

#### **Consequences**

In the 41 accidents investigated in 2009, 48 ships or vessels were involved, with 19 people dead, 5 missing, 8 seriously injured and 12 mildly injured. In 19 accidents ships or vessels were lost, while in 22 cases the ships involved in the accidents either suffered no damages or the damages were reparable.

Consequences suffered by people in the 41 investigations that were opened in 2009						
People	N°.					
Deaths	19					
Missing	5					
Serously injured	8					
Midly injured	12					

Consequences suffered by ships or vessels in the 41 investigations that were opened in 2009									
Ships or vessels N°. %									
Lost	19	40							
Recovered	29	60							
Involved	48								

# STATISTICS OF THE OPEN INVESTIGATIONS

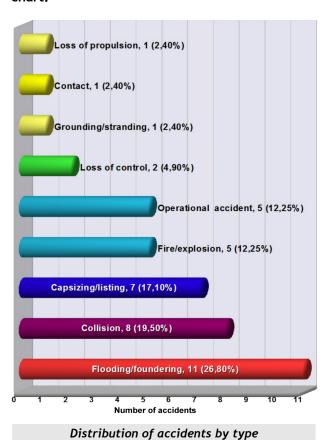
Below we show different graphs and diagrams that summarize the maritime accidents and incidents statistics that occurred in the year 2009.

The following data is presented:

- Distribution of the accidents classified by type.
- Distribution of the accidents classified by the type of vessel involved.
- Joint distribution of the accidents according to the type of accident and type of vessel involved.
- Geographical distribution of the accidents...
  - o According to the location of the accident
    - By Autonomous Community
    - By Maritime Authority
    - By Autonomous Community and type of vessel
  - According to the reporting location
    - By Autonomous Community
    - By Maritime Authority
- Distribution of the lost vessels.

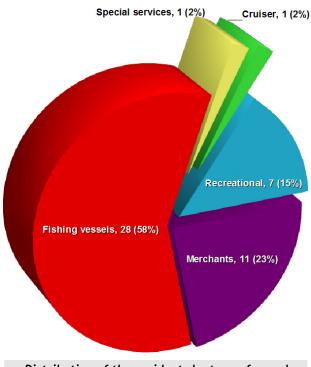
#### Distribution by type of accident

In accordance with the taxonomy used by the European Maritime Safety Agency (EMSA), included in Annex 2, the distribution by type of accident can be summarized in the following bar chart.



#### Distribution by type of vessel

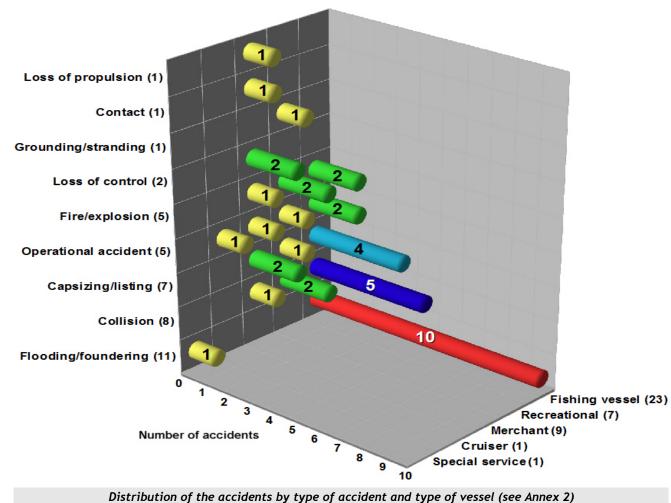
Using the taxonomy defined by the European Maritime Safety Agency (EMSA), included in Annex 2, the following distribution of accidents by type of vessel involved was obtained.



Distribution of the accidents by type of vessel



#### Joint distribution by type of accident and type of vessel



### <u>Geographical distribution of the accidents</u>

In accordance with their geographical distribution, the 41 accidents investigated in 2009 can be classified according to the following criteria:

- According to the area where the accident occurred.
- 2. According to the area where the Maritime Authority reporting the accident to the CIAIM is assigned

Both classifications are not equivalent, since accidents occurring off shore are normally reported by the Maritime Authority for the area where the affected vessel has interests (for example, a ship whose base port is in the maritime province, or whose ship owner has their place of business in that province).

It is therefore relevant to submit both classifications. The first one provides an idea of the geographical distribution of the accidents

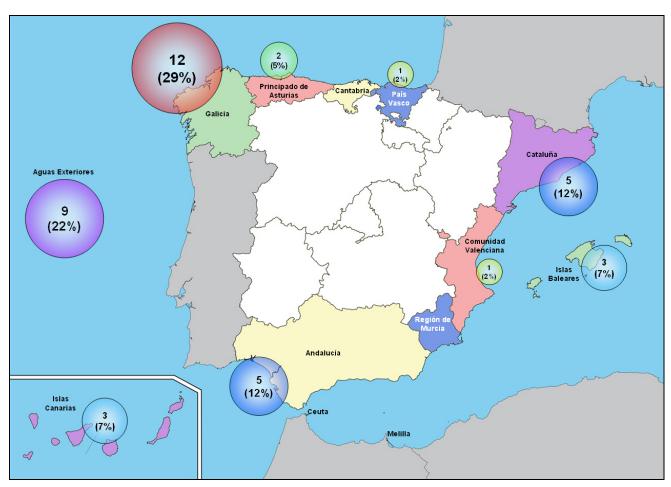
and the second one provides a map of the Autonomous Communities that have been affected the most by these accidents.

In this regard, it is worth mentioning the case of Vigo, from where a total of 6 accidents were reported in 2009. Of these, only 1 occurred in waters near the Galician coast, while the other 5 accidents occurred far away from Spain's exclusive economic zone or from the SAR (Search and Rescue) zones under Spanish responsibility. This can be explained because Vigo is the base port for a major deep-sea fishing fleet, whose vessels operate in fishing grounds spread throughout the world.

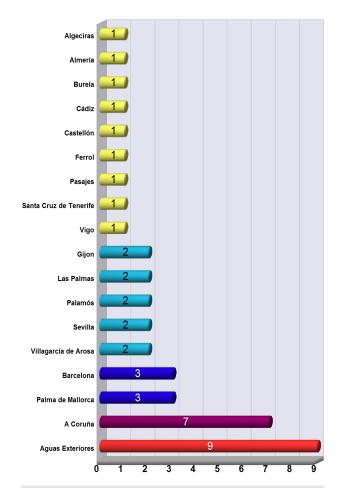
Therefore, an accident involving a fishing vessel while operating at a remote fishing ground has consequences that are mainly felt at its base port, where the economic interests exploited by the vessel are located and where crewmembers normally have personal ties.



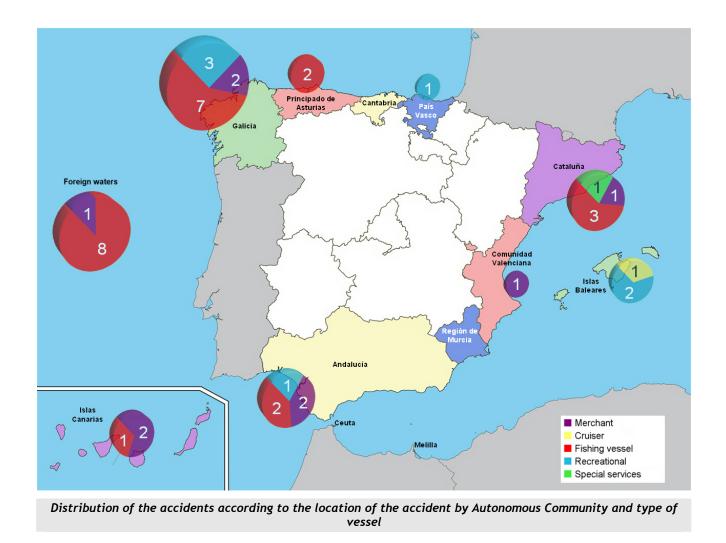
#### According to the location of the accident



Distribution of the accidents according to the location of the accident by Autonomous Community

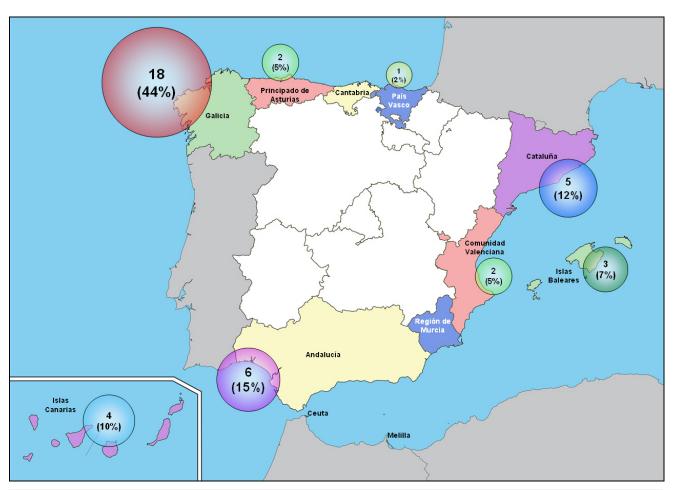


Distribution of the accidents according to the location of the accident by Maritime Authority

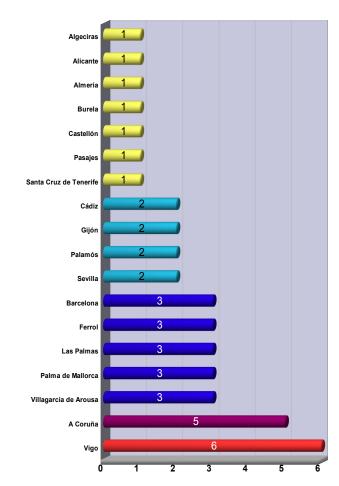




#### **According to the reporting location**

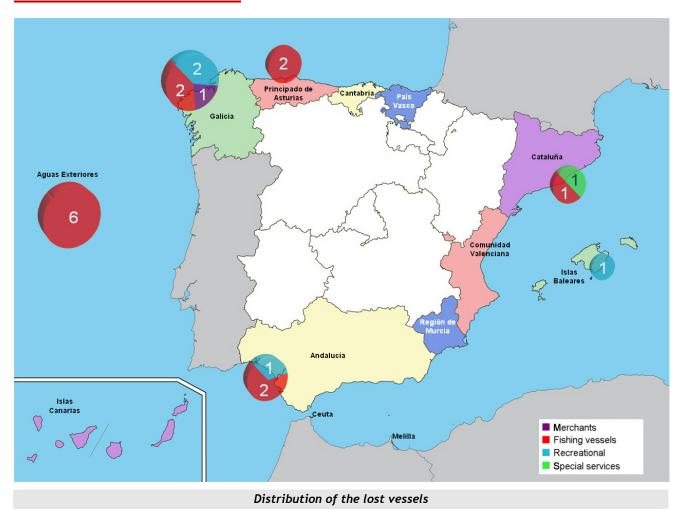


Distribution of the accidents according to the reporting location by Autonomous Community



Distribution of the accidents according to the reporting location by Maritime Authority

#### **Distribution of the lost vessels**





## **PUBLICATIONS**

#### In 2009, the CIAIM published six reports corresponding to Investigations that were completed. A summary of these reports follows:

TECHNICAL RE	TECHNICAL REPORT A-01/200			Accident on b the main engi		hip GEMA B	on the 3rd of January 2009	, caused by an explosion locate	ed inside
			GENERAL INFO	RMATION					
On the 2nd of January 2009, an explosion occurred in the engine room of container ship GEMA B when she was carrying out the departure manoeuvre from the port of Barcelona. As a consequence of the explosion, one of the crewmembers was killed and another was injured.						III III III III III III III III III II	MANUAL CONSISSA		
DATE			CURCTANITIALLY		GEMA B	GRUPO BOLUDA			
	Barc	elona port	TYPE	Explosion	SUBSTANTIALLY INTERESTED	Spain			
PLACE	Lat.		SEVERITY	Very serious	STATES	Spain			
	Lon.		S.A.R.	No	517.125				
				INFO	RMATION ON THE V	ESSELS INVO	OLVED		
			FLAG	Spain	TYPE OF SH	IP	Container Ship	POLLUTION	No
G	ЕМА В		SEVERITY	Very serious	PORT OF DEPAR	RTURE	Barcelona	DEATHS / MISSING	1
G	LINA D		DAMAGES	Yes	PORT OF DESTIN	ATION	Santa Cruz de Tenerife	INJURED	1
			SINKING	No	TYPE OF VOY	AGE	National	UNINJURED	21
	CONCLUSIONS								

The investigation determined that the accident was caused by the rupturing of the oil film on the forward port shaft support bearing bushing of the second order distribution system, also called the damper, due to a failure in the lubrication system.

#### RECOMMENDATIONS

Five safety recommendations were issued to the engine manufacturer and the ship owner, recommending improvements in the design, installation and maintenance of the engine.

TECHNICAL RE	PORT	A-02/2009	TITLE	Investigation	ge SAVINOSA at the Port of T	Tarragona, on September 9th, 2	2008			
			GENERAL INFO	ORMATION		2,000				
DESCRIPTION	The bunker barge SAVINOSA sank on September 9th 2008 at the Port of Tarragona with its bow remaining above water. As a consequence of the sinking, a large amount of fuel and oil was spilled into the ocean.  DATE  9 september 2008  TIME  -05:30 LT								124 A	
DATE										
	Tarragona port T		TYPE	Foundering	SUBSTANTIALLY		SAMOON			
PLACE	Lat.		SEVERITY	Serious	STATES	INTERESTED Spain				
	Lon.		S.A.R.	No	STATES					
				INFC	RMATION ON THE	VESSELS INV	OLVED			
			FLAG	Spain	TYPE OF SH	HP	Bunker barge	POLLUTION	239 m <sup>3</sup>	
CA	VINOS A		SEVERITY	Serious	PORT OF DEPA	RTURE	Tarragona	DEATHS / MISSING	0	
SA	SAVINOSA		DAMAGES	Yes	PORT OF DESTIN	NOITAN	Tarragona	INJURED	0	
	SINKING Yes TYPE OF VOYAGE					In port	UNINJURED	3		
	CONCLUSIONS									

The investigation carried out by CIAIM concluded that the cause of the sinking was the progressive entry of water in the afterpeak through a crack below the fender profile at the stern's port side edge. The cause of the crack was probably due to an impact operation overload due to the poor design and material condition of the fenders, the ship's as well as the dock's, and a high angle of incidence of the vessel with the pier during the docking and undocking manoeuvres.

#### RECOMMENDATIONS

Six safety recommendations were provided, directed at preventing and controlling the appearance of weak points in the structure that is subjected to fatigue due to improper load operations, as well as controlling the load conditions and guaranteeing the water tightness of closure elements.

TECHNICAL RE	TECHNICAL REPORT A-03/200			Investigation of Port of Melilla		ug boat BL	ANCA S, on the 29th of Decem	ber 2008, against a floating pi	er at the	
GENERAL INFORMATION										
On the 29th of December 2008, during a normal departure, tug boat BLANCA S was stuck going ahead way and without steering, travelling approximately 150 m before running aground at port. As a result of the accident, considerable damages were suffered by the pier as well as the recreational vessels that were docked to it.					0 e					
DATE	29 dec	cember 2008	TIME	22:00 LT				BETAGE 2		
	Ме	lilla port	TYPE	Contact	SUBSTANTIALLY INTERESTED	Snain			THE RESERVE TO SERVE	
PLACE	Lat.		SEVERITY	Serious	STATES	Jpu				
	Lon.		S.A.R.	No						
				INFO	RMATION ON THE	VESSELS IN	VOLVED			
			FLAG	Spain	TYPE OF SH	HP	Tug	POLLUTION	No	
RI	ANCA S		SEVERITY	Serious	PORT OF DEPA	RTURE	Melilla	DEATHS / MISSING	0	
DL.	HINCH 3		DAMAGES	Yes	PORT OF DESTIN	NOITAN	Melilla	INJURED	0	
			SINKING	No	TYPE OF VOY	'AGE	In port	UNINJURED	4	
	CONCLUSIONS									

The accident occurred because the vessel lost steering capability because the autopilot was engaged, which prevented the skipper from manually controlling the manoeuvre. It was the first time that the skipper had taken command of that vessel and he was probably not sufficiently familiarized with its systems and control mechanisms.

#### RECOMMENDATIONS

The recommendations in this case emphasized the advantages of providing the proper training to new crews that begin to provide services, as well as encouraging and assisting new crews to familiarize themselves with the specific technologies of each vessel prior to performing their jobs on board.

TECHNICAL RE	PORT	A-04/2009 [1/2]	TÍTLE		n of the collision be Gulf of Rosas	etween the	F/V ESTRELLA DE JOAQUIM	and the M/V MAX, on the 11th	n of May	
GENERAL INFORMATION										
DESCRIPTION	a Spa Leon, that (France did no	nish flag, want it collided woriginated for the constant of th	as returning to ith the general rom Middleburg sequence of the em from contine	Rosas after merchant ver g (Netherland e impact, bot uing to sail, v	sel ESTRELLA DE JOA performing work in ssel MAX, under a S ds) bound for Poo th vessels suffered with the greater dan el crewmembers su	n the Gulf of lovakian fla rt-la-Nouvel damages the nage suffere	of g, le	27.34.52.09		
DATE	11	may 2009	HOUR	16:47 LT	T SUBSTANTIALLY Spain		WIN III		1	
	5' off	Cap Norfeu	TYPE	Collision	SUBSTANTIALLY INTERESTED	Эрані				
PLACE	Lat.	42°12,3N	SEVERITY	Serious	STATES	Slovakia				
	Lon.	003°28,8E	S.A.R.	No		1		Committee of the Commit		
				INF	ORMATION ON THE	VESSELS IN	VOLVED			
			FLAG	Spain	TYPE OF SI	HIP	Bottom trawler	POLLUTION	0	
ESTRELLA	N DE IO	A OLUM	SEVERITY	Serious	PORT OF DEPA	RTURE	Rosas	DEATHS / MISSING	0	
LJINLLLA	A DL 30.	AQUIM	DAMAGES	Yes	PORT OF DESTI	NATION	Rosas	INJURED	5	
			SINKING	No	TYPE OF VO	YAGE	Coastal	UNINJURED	0	
			FLAG	Slovakia	TYPE OF SI	HIP	General cargo	POLLUTION	0	
	MAX		SEVERITY	Less serious	PORT OF DEPA	RTURE	Middleburg (Netherland)	DEATHS / MISSING	0	
			DAMAGES	Yes	PORT OF DEST	ΓΙΝΑΤ.	Port-la-Nouvelle (France)	INJURED	0	
			SINKING	No	TYPE OF VO	YAGE	Short international	UNINJURED	6	

TECHNICAL REPORT	A-04/2009 [2/2]	TÍTLE	Investigation of the collision between the F/N 2009, in the Gulf of Rosas	/ ESTRELLA DE JOAQUIM and the M.	/V MAX, on the 11th of May
	(	GENERAL INF	ORMATION		
On th			he fishing vessel ESTRELLA DE JOAQUIM, under	Ł.	VI

#### DESCRIPTION

On the 11th of May 2009, when the fishing vessel ESTRELLA DE JOAQUIM, under a Spanish flag, was returning to Rosas after performing work in the Gulf of Leon, it collided with the general merchant vessel MAX, under a Slovakian flag, that originated from Middleburg (Netherlands) bound for Port-la-Nouvelle (France). As a consequence of the impact, both vessels suffered damages that did not prevent them from continuing to sail, with the greater damage suffered by the fishing vessel. The five fishing vessel crewmembers suffered minor contusions.

DATE	11	may 2009	HOUR	16:47 LT
	5' off Cap Norfeu		TYPE Collision	
PLACE	Lat.	42°12,3N	SEVERITY	Serious
	Lon.	003°28,8E	S.A.R.	No

SUBSTANTIALLY INTERESTED STATES

Spain Slovakia



#### **CONCLUSIONS**

The investigation carried out by CIAIM determined that neither of the vessels had any technical problems that caused the collision. The steering, propulsion and navigation systems of both vessels were operational and, in summary, the accident was caused by dereliction of supervision and watch duties on the part of the personnel in charge of the navigation of both vessels.

Non-compliance on the part of the B/M MAX was probably a result of excessive fatigue on the part of the crew as a result of excessive work duties performed in a continuous fashion, which is neither in compliance with Community Directives nor with IMO recommendations regarding fatigue.

On the other hand, the non-compliance on the part of the F/V ESTRELLA DE JOAQUIM, was caused by the absence of the skipper at the bridge, thereby neglecting navigation safety.

#### RECOMMENDATIONS

In this case, CIAIM provided four recommendations directed at Public Administrations and all officers for them to be aware of the deficiencies detected during the investigation.

TECHNICAL REP	ORT A-05/2009	TÍTLE		ccident that occurred on board the vessel MAR VIRGINIA on the 2nd of May 2009, caused by a failure in cylinder o. 1 of the primary engine, resulting in the total loss of the propulsion system				
GENERAL INFORMATION								
	On the 2nd of May 2	2009, the ch	emical tanker vessel MAR VIRGINIA was sailing					
	between Tenerife	and Huelva	with a load of 6,537 tons of benzene					

DESCRIPTIÓN	On the 2nd of May 2 between Tenerife concentrate, when i causing a temporary	and Huelva its primary e	with a load ngine failed, c	d of 6,537 to	ons of benzene
DATE	2 2000	HOUD	40.24 LT		

DATE	2 may 2009		HOUR	18:21 LT		
PLACE	Atla	antic Ocean	TYPE	Loss of propulsion	SUBSTANTIALLY INTERESTED	Spain
	Lat.	33°40,4N	SEVERITY	Serious	STATES	
	Lon	10°34 3W	SAR	No		



#### INFORMATION ON THE VESSELS INVOLVED

MAR VIRGINIA	FLAG	Spain	TYPE OF SHIP	Chemical tanker	POLLUTION	0		
	SEVERITY	Serious	PORT OF DEPARTURE	Tenerife	DEATHS / MISSING	0		
	DAMAGES	Yes	PORT OF DESTINATION	Huelva	INJURED	0		
	SINKING	No	TYPE OF VOYAGE	National	UNINJURED	13		

#### CONCLUSIONS

From the detailed study of all the documentation and technical reports that were acquired from the accident, the Commission concluded that the failure of the engine was caused by the seizing of the no.1 cylinder, possibly due to failure in the operation of the injector, which led to inadequate combustion, eliminating the lubricating oil film covering the cylinder, and generating metal friction between the sleeve and the piston that caused the piston to seize.

#### **RECOMMENDATIONS**

Although it was considered an unforeseeable event, two recommendations were provided to ship owners, emphasizing the importance of the maintenance of engines and alarm systems inside rooms that do not have permanent crews assigned.

TECHNICAL RE	PORT	A-06/2009	TÍTLE	Investigación de la zozobra del B/P HERMANOS LANDROVE, a 16 millas al Norte del cabo Prior, el 8 de septiembre de 2009					
GENERAL INFORMATION									
DESCRIPTIÓN  On the 8th of September 2009, the fishing vessel HERMANOS LANDROVE, with seven personnel on board, tipped over about 16 miles off the coast, in good weather conditions. As a consequence the skipper died but the rest of the crew was rescued.									
DATE	8 sep	tember 2009	HOUR	02:35 LT	STATES				
	Car	ntabric NW	TYPE	Capsizing					
PLACE	Lat.	43°50N	SEVERITY	Very serious					
	Lon.	008°21W	S.A.R.	Yes					
				INFOR	MACIÓN DE LOS BU	QUES IMP	LICADOS		
			FLAG	Spain	TYPE OF SHIP		Fishing Wessel	POLLUTION	0
HERMANOS LANDROVE		SEVERITY	Very serious	PORT OF DEPARTURE		PORT OF DEPARTURE Cedeira		DEATHS / MISSING	1
		DAMAGES	Yes	PORT OF DESTINATION		Cariño	INJURED	0	
			SINKING	No	TYPE OF VOYAGE		Fishing, national	UNINJURED	6
CONCLUSIONES									

During the investigation of this accident, the CIAIM observed the existence of numerous irregularities on the vessel, which had been subjected to several unauthorized modifications of its structure and was being operated under conditions that were not accounted for in the stability book. These irregularities contributed, even in good weather conditions, to the capsizing of the vessel. It was also confirmed that the crew was not properly trained on how to act during an emergency.

#### RECOMENDACIONES

As a result of the investigation, the CIAIM provided twenty recommendations directed at Public Administrations, at ship owners and crewmembers of fishing vessels, at shipyards, designers and Classification Societies. The common point in these recommendations is the oversight of modifications made to vessels and of the manner in which these are carried out.

# ANNEX 1 RECOMMENDATIONS PROVIDED

In the reports approved during 2009 by the Plenary of the CIAM, a total of 44 safety recommendations were provided for the purpose of preventing similar accidents from occurring in the future. They were grouped according to three different criteria:

- 1) Addressee. Three categories were considered:
  - Public Administrations
  - Persons: Natural or legal persons, unequivocally determined. (Examples: the ship-owner, the skipper, the construction shipyard, etc.)
  - Collectives: group of persons, not individually determined. Typically, in this group would be the fishing guilds, ship owners, ship designers, etc.
- 2) Subject. In this Commission, to date, the following types have been identified.
  - Training and awareness campaigns. It is recommended that some administrations or collectives carry out training campaigns among the members of certain collectives (e.g. skippers), normally to refresh knowledge or raise awareness regarding the need to strictly comply with protocols (e.g. use of the GMDSS during emergencies).
  - Compliance with existing regulations and protocols. It is recommended that persons and collectives (e.g. shipyards) be stricter in complying with regulations (e.g. by not

- carrying out unauthorized modifications to vessels).
- Training and familiarization with the job position. It is recommended that training be provided to crewmembers or employees regarding the specific aspects of their jobs.
- Safety management. It is recommended that improved operating procedures be implemented where they did not exist or were deficient.
- Technical inspection. It is recommended that the government intensify inspections regarding specific technical aspects of vessels (e.g. the steering gears) when defects in its operation have been detected.
- Operational inspection. It is recommended that the government intensify inspections regarding specific operational aspects of vessels (e.g. minimum crews, certifications).
- Maintenance. It is recommended, generally, that ship-owners and crews emphasize the maintenance of specific items that have led directly to accidents (e.g. drain ports, bilge alarms).
- Implementation of improvements in designs. It is recommended, generally to designers and manufacturers, to implement improvements in designs, taking into account the deficiencies noted during the safety investigations, even when their implementation is not mandatory (e.g. avoid asymmetries in fuel tanks).

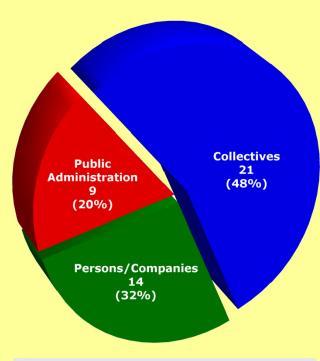
- Sanctioning procedures. It is recommended that sanctions for certain behaviours be increased.
- 3) New or existing regulation. It is worth differentiating between recommendations which propose the implementation of a new regulation or protocol, and those which are meant to encourage compliance with existing procedures or regulations.

The following pages contain a list of the recommendations distributed according to the aforementioned classification criteria, as well as a listing of all the recommendations issued.

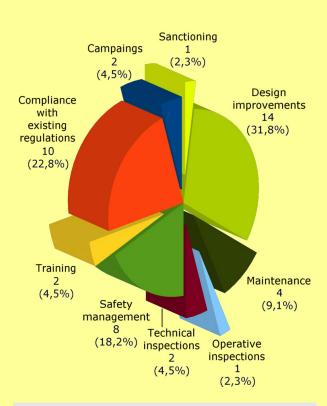
# Recommendations according to the addressee

# Recommendations according to the subject

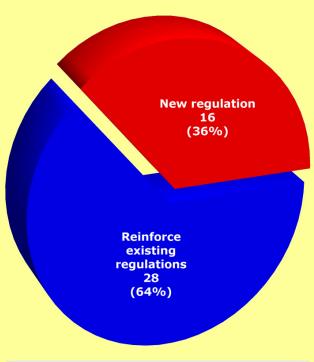
Recommendations: a new regulation or protocol is proposed, vs. compliance with existing regulations is encouraged



Recommedations according to the adresee



Recommendations according to the subject



Recommendations: a new regulation or protocol is proposed, vs. compliance with existing regulations is encouraged

No	Recommendation	Report	Addressee	Text	
1	R-2009-A1-1	A-1/2009	engine manufacturer	It would be advisable that the damper be provided with a safety feature to prevent a possible failure in the lubrication systems of bearings for the system's sprockets and counterweights. Specifically, said system should include temperature probes in the areas adjacent to the aforementioned support bearings that would generate an alarm when an abnormal rise in temperature is detected.	
2	R-2009-A1-2	A-1/2009	engine manufacturer	Filters should be placed in the lubrication line for the bearing in order to remove any impurities that may have been transported by the lubricating oil, as well as sensors that would warn against an abnormal drop in the lubricating system pressure established by the manufacturer.	
3	R-2009-A1-3	A-1/2009	engine manufacturer	Incorporate a flame guard system on propulsion engine crankcase safety valves in order to minimize the outward propagation of flames.	
4	R-2009-A1-4	A-1/2009	engine manufacturer	The manufacturer should establish a specific maintenance protocol for the equipment that guarantees safe operation and prevents failures like the one that occurred.	
5	R-2009-A1-5	A-1/2009	shipowner	Follow the specifications for the materials stated by the engine manufacturer during repairs conducted on its equipment and components.	
6	R-2009-A2-1	A-2/2009	crewmembers	The crew must ensure they check the actual situation of the ship load after each loading and unloading operation, and maintain the daily probe record updated.	
7	R-2009-A2-2	A-2/2009	shipowner	This type of vessel should have an on-board checklist that is verified periodically, keeping the daily record updated, and which at least incorporates the checking of: / The water tightness of closure elements in the underwater body, and particularly the tank covers, including the status of their shutoff wing valves and vent pipes / The draught condition of the vessel / The condition of the mooring system.	
8	R-2009-A2-3	A-2/2009	tripulacion	Avoid surpassing the admissible loads for operating the vessel during docking and undocking manoeuvres.	
9	R-2009-A2-4	A-2/2009	shipowner	Ensure fenders are available on the piers as well as on the vessels, and that they are properly designed for the type of dockings and undockings that are going to be carried out.	
10	R-2009-A2-5	A-2/2009	port authority	Maintain the fenders for the piers and vessels in perfect physical condition in order to ensure they function properly.	
11	R-2009-A2-6	A-2/2009	shipowner	Frequently carry out rigorous controls of the deformations that may cause dangerous cracks to appear in the hull of the vessel, particularly in the fender profile area.	
12	R-2009-A3-1	A-3/2009	shipowners	Even though the specifications of the STCW agreement are not applicable to this type of vessel due to its tonnage and traffic, it would be advisable for companies that have tugs with azimuth thrusters to apply what is established in Regulation 1/14.4 of the aforementioned agreement, so that they make a commitment to assigning seafarers to each and every one of their vessels, who are familiarized with their specific functions and with all the vessels' devices, facilities, equipment, procedures and characteristics that are pertinent for carrying out these functions under normal or emergency situations.	

No	Recommendation	Report	Addressee	Text
13	R-2009-A3-2	A-3/2009	shipowners	When a crew that is accustomed to working on a specific tug begins working on a new tug that has more advanced technology, involving propulsion as well as the remote control of the engines and communication systems, they must be provided with the required training in order to familiarize them with the new devices and operating procedures.
14	R-2009-A3-3	A-3/2009	shipowner	In a similar fashion, it is recommended that the company incorporate a procedure for preparing plans and instructions, including applicable checklists for the most important operations that are carried out on board regarding the safety of the vessel, and to define the tasks that must be carried out, assigning them to qualified personnel.
15	R-2009-A3-4	A-3/2009	shipowner	Procedures and checklists must include the requirement to maintain the autopilot disengaged, except when the tug is in navigation mode, as well as to carry out a verification when the docking and undocking manoeuvres have been completed and when the vessel is not providing a service.
16	R-2009-A3-5	A-3/2009	shipowner	Likewise, the checklists must include checks prior to providing a service, and the verification of the autopilot controls and the position of the azimuth thrusters in order to ensure that the tug responds to manual steering commands carried out by the skipper.
17	R-2009-A3-6	A-3/2009	shipowner	It would be advisable for the autopilot control panel to feature a protection that prevented involuntary engagement of the autopilot.
18	R-2009-A3-7	A-3/2009	port authority	When it comes time for assigning a tug to provide a service at a port, it should be verified that the dimensions, power and pull capacity of the tug are appropriate for the service to be provided at the port, as well as that the location and dimensions of the dock assigned to the tug are appropriate for facilitating the proper manoeuvring of the tug.
19	R-2009-A4-1	A-4/2009	skippers, captains and officers	Encourage skippers, captains and officers with navigation watch responsibility to strictly comply with the RIPA, especially regarding evaluating situations and reacting with enough time in those cases where a risk of collision exists.
20	R-2009-A4-2	A-4/2009	Administration	Carry out awareness campaigns in the maritime and fishing sectors to increase awareness regarding: / The need to strictly comply with the RIPA / The special danger that leaving a vessel's bridge unattended represents / The low reliability of the data obtained from the radar regarding targets located at a short distance, especially when the scale selected is not the proper one / The need to properly adjust the false echoes reducer filter, known as anticlutter.
21	R-2009-A4-3	A-4/2009	maritime administrations	Remind maritime Administrations regarding the application of SEVIMAR Regulation IV/14, which requires subscribed Governments to adopt measures that guarantee, from a safety of human life at sea point of view, that vessel crews are adequate in number and are properly qualified.

No	Recommendation	Report	Addressee	Text	
22	R-2009-A4-4	A-4/2009	maritime administrations	Encourage Maritime Administrations to be aware of the risk of allowing vessel crews to not comply with maximum working hour limits, taking the necessary measures to correct the situation.	
23	R-2009-A5-1	A-5/2009	shipowners	An effective and permanent maintenance system to ensure optimum operation of the Propulsion Engine is recommended, all of this while taking into account the manufacturer's specifications.	
24	R-2009-A5-2	A-5/2009	shipowners	In unattended engine rooms, it is essential that the entire alarm system of essential services be maintained operational.	
25	R-2009-A6-1	A-6/2009	Administration	To pay close attention during monitoring and inspections of fishing vessels regarding safety, with particular regard to the modifications that may have been carried out without their approval.	
26	R-2009-A6-2	A-6/2009	Administration	To intensify oversight of embarked crews, ensuring they coincide with what is listed in the vessel's crew list.	
27	R-2009-A6-3	A-6/2009	Administration	To formulate and impose more severe and exemplary sanctions on those that commit safety infractions, due to the unwarranted danger they pose to human beings, property and the environment.	
28	R-2009-A6-4	A-6/2009	Administration	To require that escape routes be adequate so that crewmembers can use different evacuation routes in case of emergency.	
29	R-2009-A6-5	A-6/2009	Administration	To carry out training and awareness campaigns regarding loads, stability, safety and emergency procedures at sector Fishing Guilds and collectives.	
30	R-2009-A6-6	A-6/2009	shipowners and crewmembers	To strictly comply with load, stability and safety instructions.	
31	R-2009-A6-7	A-6/2009	shipowners and crewmembers	To not carry out modifications to vessel structural and/or safety elements without the prior approval from Maritime Authorities.	
32	R-2009-A6-8	A-6/2009	shipowners and crewmembers	To monitor the status and the proper and uninterrupted operation of drain ports.	
33	R-2009-A6-9	A-6/2009	shipowners and crewmembers	To carry out periodic emergency drills.	
34	R-2009-A6-10	A-6/2009	designers	To design on-deck water evacuation systems that do not incorporate or easily incorporate permanent closures.	
35	R-2009-A6-11	A-6/2009	designers	That designs guarantee easy access, for cleaning and maintenance purposes, to the vessel's safety elements, such as the drain ports.	
36	R-2009-A6-12	A-6/2009	designers	To take into account the ergonomics of their designs.	
37	R-2009-A6-13	A-6/2009	designers	To avoid as much as possible asymmetries in the fuel tanks and, in any case, to introduce load level indicating systems that are fast, easy to use and fool proof.	

No	Recomendación	Informe	Destinatario	Texto	
38	R-2009-A6-14	A-6/2009	designers	To appropriately analyze escape routes, allowing for several evacuation routes in case of emergency.	
39	R-2009-A6-15	A-6/2009	designers	To make every effort to improve safety measures.	
40	R-2009-A6-16	A-6/2009	designers	To take into account the causes of fishing vessels' sinkings and accidents.	
41	R-2009-A6-17	A-6/2009	shipyards and shops	Under no circumstances are they to carry out modifications to vessels that affect their drainage and safety elements in general without the express authorization of the competent Maritime Authority.	
42	R-2009-A6-18	A-6/2009	shipyards and shops	Under no circumstances are they to carry out modifications that alter the safety of vessels without the express authorization of the Maritime Authority.	
43	R-2009-A6-19	A-6/2009	classification societies	To pay close attention during monitoring and inspections of fishing vessels regarding safety, in particular regarding modifications that may have been carried out without approval from the proper Authority.	
44	R-2009-A6-20	A-6/2009	classification societies	To require that escape routes be adequate so that crewmembers may use different evacuation routes in case of emergency.	





# ANNEX 2 CLASSIFICATIONS USED BY THE EUROPEAN MARITIME SAFETY AGENCY

## **Casualty events**

Capsizing/Listing is a casualty where the ship no longer floats in the right-sideup mode due to: negative initial stability (negative metacentric height), or transversal shift of the centre of gravity, or the impact of external forces. When the ship is tipped over until disabled is called capsizing; when the ship has a permanent heel or angle of loll is called listing.

Collision - a casualty caused by ships striking or being struck by another ship, regardless of whether the ships are underway, anchored or moored. This type of casualty event does not include ships striking underwater wrecks. The collision can be with other ship or with multiple ships or ship not underway.

**Contact** - a casualty caused by ships striking or being struck by an external object. The objects can be: floating object (cargo, ice, other or unknown); fixed object, but not the sea bottom; or flying object.

**Damage to equipment** - damage to equipment, system or the ship not covered by any of the other casualty type.

**Grounding/stranding** - a moving navigating ship, either under command, under power, or not under command, drifting, striking the sea bottom, shore or underwater wrecks.

**Fire/explosion** - an uncontrolled ignition of flammable chemicals and other materials on board of a ship:

- Fire is the uncontrolled process of combustion characterised by heat or smoke or flame or any combination of these.

- Explosion is an uncontrolled release of energy which causes a pressure discontinuity or blast wave.

Flooding/foundering is a casualty event when the ship is taking water on board. Foundering will be considered when the vessel has sunk. Foundering should only be regarded as the first casualty event if we do not know the details of the flooding which caused the vessel to founder. In the chain of events foundering or flooding can be the last casualty event in this case there is the need to add accidental events.

**Flooding** - refers to a casualty when a vessel takes water on board and can be:

- **Progressive** if the water flow is gradually.
- Massive if the water flow is considerable.

Loss of control - a total or temporary loss of the ability to operate or manoeuvre the ship, failure of electric power, or to contain on board cargo or other substances:

- Loss of electrical power is the loss of the electrical supply to the ship or facility;
- Loss of propulsion power is the loss of propulsion because of machinery failure;
- Loss of directional control is the loss of the ability to steer the ship;
- Loss of containment is an accidental spill or damage or loss of cargo or other substances carried on board a ship.

**Hull failure** - a failure affecting the general structural strength of the ship.

**Missing** - a casualty to a ship whose fate is undetermined with no information having being received on the loss and whereabouts after a reasonable period of time.

### Operational accident:

Accident where a person is injured or killed, not involving in a ship casualty,

### Ship type

Cargo ship: designed for the carriage of various types of cargo, goods or products and up to a maximum of 12 passengers, for commercial gain.

**Fishing vessel:** any vessel equipped or used commercially for catching fish or other living resources of the sea.

**Passenger ship:** designed to transport more than 12 passengers.

**Service ship:** designed for special services.

**Inland waterway vessel:** intended solely or mainly for navigation on inland waterways.

**Recreational craft:** boat of any type, intended for sports or leisure purposes.

**Navy ship:** any ship operating under a navy or other military organisation.

**Submersible:** vessel which primarily operates under water. Although it can rely on surface support it may not have to be physically connected to support facilities during the operations.

WIG: multimodal craft which, in its main operational mode, flies by using ground effect above the water or some other surface, without constant contact with such a surface and supported in the air, mainly, by an aerodynamic lift generated on a wing (wings), hull, or their parts, which are intended to utilize the ground effect action.

**Unknown** means that it is not possible to identify the ship type.

