European Transport Safety Council

# ETSC UPDATE:

# EU MARITIME SAFETY POLICY AND RESEARCH

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## OVERVIEW

**Although maritime transport and travel has a relatively low death and injury rate when compared to road travel, the consequences of a bad accident are very real, sometimes far reaching and very costly.**

| Mode | Total socio-economic costs per fatality ( million) |
|---|---|
| Road | 3.6 |
| Rail | 2.1 |
| Air | 2.7 |
| Water | 9.8 |

**ETSC 1997 Transport accident costs and the value of safety**

**The repercussions of a large loss of life in a passenger-carrying vessel can reverberate for many years and take their toll not only on families, but also on businesses, small economies and even governments (Herald of Free Enterprise 1987, Estonia 1994 and Express Samina 2000). The consequences of oil pollution on local flora and fauna, a holiday beach, or on a local fishing community, can be severe.**

**The EU continues to be active in the maritime safety field and, over the last 10 years, accident reduction initiatives have been a key area for the Common Transport Policy.**

**This edition of ETSC Update describes and summarises the current status of recent Commission plans to improve maritime safety. It highlights recent findings from Community research programmes and revisits the recent ETSC reports on accident investigation and safety data.**

## ACCIDENT INVESTIGATION AND SAFETY DATABASES IN THE EU

**Two new ETSC reports have been compiled recently by Europe's leading accident investigation specialists and transport accident statisticians setting out the need for essential EU action in accident investigation and data gathering.**

**Effective EU policymaking on maritime safety which balances safety with economic and environmental objectives needs to be informed by a range of statistical and in-depth data on maritime and inland waterway accidents, incidents and casualties.**

**The reports draw attention to the fact that fully comprehensive data on accidents and casualties in EU waterborne transport are, however, scarcely available and hardly accessible. Not all countries keep a systematic, publicly available record of the safety situation in their territorial waters or economic zones and the databases that exist are highly incompatible. Reporting at IMO level is incomplete. The best source of data, the Lloyds Maritime Information Service (LMIS), has major gaps. It does not, for example, include inland waterway transport, nor does it indicate accident causation factors.**

**Unlike the aviation sector, there are no arrangements at EU level for accident investigation and reporting and this now needs to be addressed, especially in view of the large number of initiatives being taken in other aspects of EU maritime transport policy.**

**The reports conclude that better arrangements need to be set up to contribute to a better understanding of maritime safety needs and to allow monitoring of EU maritime policies. In**

**particular, attention needs to be given as soon as possible to the following:**

**- Independent accident investigation and reporting**

**Only a few Member States have independent organisations for the investigation of marine accidents: Finland, the Netherlands, Sweden and the United Kingdom. There is, therefore, a strong case for the EU to require, as they have in aviation, that all Member States should be mandatorily required to establish arrangements for independent marine accident investigation and to report the results of accident investigations.**

**At the same time, ETSC believes that greater emphasis needs to be given in the campaign to improve safety at sea, to investigating accidents in the fishing industry as well as fatal accidents involving leisure craft.**

**- Mandatory reporting of accidents and incidents**

**An EU-wide system of mandatory reporting of maritime accidents and serious incidents for inclusion in a European central database needs to be established.**

**As a primary measure, all EU flag vessels should be obliged to report any accident or incident (industrial or ship accident) to the Flag State. EU Flag States should be obliged to investigate and forward their findings to the European central database. ("Serious accident" means an accident or injury/illness making the ship unseaworthy, resulting in pollution or incapacitating an individual more than 72 hours. "Incident" means "near miss").**

**EU databases on accidents and incidents need to include accidents and incidents occurring to commercial ships - inland waterway vessels, cargo vessels of less than 500 GT, fishing vessels above 12 m in length, as well as vessels which are solely used for national traffic. These types of vessels, which are outside the scope of the IMO database, have a relatively high accident involvement compared to other vessels. Better information on the type and causes of accidents and incidents in these categories would allow a systematic analysis of the major problems and countermeasures in these categories.**

**In the meantime, annual summaries of maritime accidents in European waters and involving vessels registered in EU countries from the LMIS database should be published annually to provide basic information on accident and casualty frequency.**

**- Safety studies**

**Many marine accidents have common features which, once accurately identified, can be used to underpin far-reaching safety improvements. There is, therefore, a need at EU level for safety studies - detailed analysis of samples of accidents - for the benefit of all Member States.**

**Summary of recommendations**

**The European Commission should :**

1. **Bring forward urgently a Directive requiring Member States to set up independent arrangements for maritime accident investigation.**
2. **Establish an EU-wide system of mandatory reporting of maritime accidents and serious incidents for inclusion in a European central database.**
3. **Publish annual summaries of maritime accidents in European waters and involving vessels registered in EU countries from the LMIS database to provide basic information on accident and casualty frequency.**
4. **In the event of an EU Maritime Safety Authority being established and having a regulatory role, set up new organisational arrangements independent of this regulator to:**

- **maintain a European database of accident and incident statistics as well as more general statistics for the accurate calculation of exposure data,**
- **initiate and maintain an EU system for monitoring the implementation and the effects of any safety recommendations,**
- **initiate safety performance indicators,**
- **initiate a database on injury causation and**
- **encourage further co-operation between the independent accident investigation authorities in Member States.**

**Transport accident, incident and casualty databases: Current status, future needs, ETSC 2001 ; Transport accident investigation in the European Union. ETSC 2001 www.etsc.be**

## EU POLICY DEVELOPMENTS SINCE MARCH 2000

**The Erika I package**

**In reponse to the sinking of the "Erika" on 12 December 1999 and the widespread public concern which followed, the Commission proposed in March 2000 a set of measures to enhance maritime safety and to prevent the marine environment from being polluted by oil spills. This package of measures, known as Erika I, consists of proposals on Port State Control, Classification Societies and the draft regulation on the gradual ban of single-hull oil tankers. Discussion on these proposals continues in all the EU institutions.**

**1. Port State Control - Standards in respect of shipping using Community ports**

**Since Directive 95/21/EC was adopted, substantial efforts have been made - particularly under the auspices of the Paris Memorandum of Understanding on Port State Control - to improve the uniformity and efficiency of inspection procedures. However, important disparities still remain within the Community and ships that pose a high risk to the environment and safety are not inspected with sufficient rigour when they call at European ports.**

**The initial Commission proposal (COM/2000/0142) for a Directive concerning the enforcement of international standards for ship safety, pollution prevention and on-board living and working conditions, in respect of shipping using Community ports and sailing in the waters under the jurisdiction of the Member States, proposed the following:**

1) **to ban manifestly sub-standard ships from European waters,**
2) **to introduce an obligation to inspect ships posing a high risk to maritime safety and the marine environment,**
3) **to follow-up the results of these inspections,**
4) **to inform the flag State and the classification societies,**
5) **to verify the financial guarantee covering the pollution risk,**
6) **to encourage transparency of information on the ships inspected or detained in accordance with the Directive,**
7) **to monitor the application of the Directive and assess the performance of Member States.**

**In addition, Article 17 of Directive 95/21/EC stipulates that Member States must provide information on the number of Port State Control inspectors and the number of individual ships entering ports in a representative calendar year. While this information enables the Commisson to verify compliance with the 25% threshold for inspections laid down in Article 5(1), it is insufficient to carry out a detailed examination of the proper application of the Directives provisions and to initiate, where necessary, infringement proceedings against defaulting Member States.**

**Consequently, potential lax practices in Community ports are not detected and the risks of varying safety standards and distortion of competition between ports persist. The Commission, therefore, proposed to increase the frequency for the reporting of these data (particularly on the movements of ships in ports, in order to be able to carry out a detailed examination of the conditions under which the Directive is being applied), annually rather than every three years as at present, and adding new items to the list of information to be submitted to the Commission. A new Annex is added to the draft Directive, requiring Member States to provide detailed information to the Commission on movements of ships in ports, classified according to various criteria (age, flag, size, etc.).**

***The European Parliament's view***

**The recommendation (A5-0140/2001) tabled by Mark Watts (PES, UK) was discussed in the Parliament's Regional Policy, Transport and Tourism Committee (RETT) in April and was adopted in the Plenary session of 14th June 2001. The following were agreed:**

- **Ships not fitted with Voyage Data Recorders (VDRs or "black boxes") in compliance with international or Community law should be refused access to EU ports. Furthermore, the extension of refusal of access to categories of ships for which the carriage of the VDR is not mandatory is unacceptable. It represents a distortion of the scope of the Directive, which is solely intended to verify whether the ship complies with the international**

**requirements and not to impose indirectly additional equipment requirements,**
**- all cargo and passenger ships over 300 tonnes gross should be equipped with this technology within five years,**
**- the Commission was called on to review the implementation of the new Directive no later than 36 months after its entry into force.**

***ETSC view***

**Few ships are equipped with voyage data recorders (VDR) and progress within IMO over the years to adopt a broad fitting policy has been painfully slow, although revision to Chapter V of SOLAS was agreed in late 2000 to enable VDR to be fitted to passenger ships and ro-ro ferries from July 2002 for new ships and from first survey for existing ships.**

**Many vessels are fitted with some form of limited recorders but these rarely record more than a few parameters, such as the course steered. ETSC recommends that the EU takes the lead in requiring the mandatory fitting of voyage data recorders in all new vessels (other than ro-ro ships and high-speed ferries that are covered by Directive 99/35/EC).**

**2. Ship inspection – classification societies**

**The Commision proposal (COM/2000/0142, 21-3-2000) amending Council Directive 94/57/EC covers the Community-wide recognition to be met by recognised organisations. It sets out controls and sanctions, and the requirements that should be met by these organisations.**

**Recognition of classification societies**
**The proposal covers:**
- **the granting of the recognition which will ensure that compliance with the Directive by the organisations seeking recognition, as well as their good record on safety and pollution performance, is assessed in a centralised and harmonised manner,**
- **the suspension and withdrawal of the recognition by the Commission through the comitology procedure,**
- **the simplification and enhancement of the procedure for monitoring the recognised organisations,**
- **the liability of the classification societies.**

**Requirements to be met by recognised organisations**
**The classification societies of the International Association of Classification Societies (IACS) have adopted and implemented the so-called "Transfer of Class (TOC) Agreement", aimed at avoiding the unacceptable practice of ships changing class in order to avoid carrying out the requested repairs ("class hopping").**

**The Commission proposes that :**
**- the main provisions of this Agreement should be made compulsory at Community level, and for all the organisations recognised on the basis of the Directive, whether they are members of the IACS or not,**
**- the certificates of a ship changing class can be issued by the gaining organisation only after all outstanding recommendations, surveys, conditions of class, operating conditions or operating restrictions issued against the vessel by the losing classification society have been properly dealt with,**
**- the recognised organisations shall disclose more information on their classed fleets, and on changes, suspensions and withdrawals of class, in order to enhance transparency. Also, they are required to communicate to the Port State Control authorites all overdue surveys, overdue recommendations, conditions of class, operating conditions or operating restrictions issued against a ship, in order to tighten the net around sub-standard ships,**
**- the recognised organisations will no longer be able to make use of non-exclusive surveyors to carry out statutory tasks. The exclusive surveyors shall only be authorised to operate on-board those types of ships of which they have an extensive knowledge.**

**The new requirements aim to strengthen the working procedures of the classification societies in order to enhance the quality of their performance and, in turn, maritime safety and pollution in general. The implementation of these rules will be monitored by the Commission and the Member States in the framework of the inspections of the recognised organisations to be carried out on the basis of the Directive.**

*The European Parliament's view*

**The recommendation tabled by Josu Ortuondo Larrea (Greens/EFA, Spain), on inspection of ships and classification societies (COD/2000/0066) was discussed in April 2001 by Parliament's RETT and in the Plenary session in June 2001. The issues that were adopted concern:**
**-the financial liability of the societies in case of an accident caused by inadequate inspection work carried out by them and sets the upper and lower limits for compensation, in case of personal injury or death, between 4 and 7 million Euro,**
**-the consultation between recognised organisations on technical standards but without reference to IMO Resolution 847(20).**

*The Council of Ministers view*

**In February 2001 the Council of Ministers adopted a common position on these measures which would produce greater flexibility in the mandatory inspection provisions for Member States.**

**3. Single hull oil tankers**

**The Commission proposal (COM/2000/0142, 21-3-2000) aims to accelerate the phasing out of single hull oil tankers operating under the flag of the Member States or in traffic to and from EU ports beyond the timetable currently in force through the international Convention on the Prevention of Pollution from Ships (Marpol 73/78).**

**This proposal specifies the age limits and end-dates by which single hull oil tankers have to comply with the double hull or equivalent design requirements of Regulation 13F of Annex I of the Marpol 73/78 Convention: they are either lower than the ones specified in the Regulation 13G or apply to these categories of tankers which, because of their size, are not covered by that Regulation. Also, they correspond to those already applying to vessels operating in US waters.**

**Compliance with these requirements will be imposed as a condition of access to EU ports for all oil tankers of 600 tonnes deadweight and above, irrespective of the flag they fly. Furthermore, all oil tankers of that size category flying the flag of a Member State will have to comply with the accelerated phasing-in scheme of the double hull or equivalent design standards.**

**In addition, and as a complementary measure, the proposal foresees the replacement of the differential charging system for port and pilotage dues as laid down in Council Regulation 2978/94/EC. At the moment the system fails to differentiate between single hull and double hull oil tankers both equipped with segregated ballast tanks.**

*The European Parliament's view*

**The European Parliament adopted the Commission's proposal in December 2000 (COM/2000/0848).**

*The Council of Ministers view*

**The EU Transport Council in their meeting of 27/28 June 2001 agreed - as a common position - on the draft Regulation on the accelerated phasing-in of double hull or equivalent design requirements for single hull oil tankers.**

**The Council recalled that, last April, during the session of the Maritime Environment Protection Committee (MEPC) of the International Maritime Organisation (IMO) in London, a world-wide agreement was reached on this issue. They believed that this agreement needed to be transposed in Community legislation.**

**The Erika II package – December 2000**

**In December 2000, the Commission came forward with a second package of proposals designed to improve safety at sea, known as Erika II. These cover:**

- **the establishment of a European Maritime Safety Agency,**
- **the establishment of an EU monitoring, control and information system for maritime traffic,**
- **the creation of a fund for compensation for pollution damage.**

**1. European Maritime Safety Agency**

**The aim of the Commission proposal (COM/2000/0802, 6-12-2000) is the creation of a European Maritime Safety Agency (EMSA) which will provide the Commission and Member States with support in applying and monitoring compliance with Community law and in assessing the effectiveness of the measures in place.**

**According to the provisions of the proposal the Agency will have a staff of about 50,**

**mainly with a background in the national maritime administrations and industry.**

**Function of the EMSA:**

**The main functions of the Agency are envisaged as follows:**

- **Technical assistance in preparing proposals for amendments to Community legislaton particularly in the light of changes in international rules.**
- **On-the-spot inspections of the conditions under which Port State Control is carried out by Member States.**
- **Organisation of appropriate training activities.**
- **Collection of data and operation of databases on safety at sea that will, amongst other things, enable the Commission to draw up a "black list" of sub-standard shipping. All information would be placed at the disposal of Member States' inspectors, who would thus immediately have at their finger tips all data relating to a ship and be able to detain it if necessary.**
- **Tasks relating to the monitoring of shipping and the management of traffic data.**
- **The assessment and auditing of the classification societies.**
- **Participation in, or co-ordination of, activities relating to investigations following an accident at sea.**
- **Provision of assistance to the EU candidate countries, in order to assess the manner in which their maritime administrations meet their obligations as flag States and port States.**

**The Commission proposed that the Agency shall only act at the request of the Commission.**

**The work programme of the Agency for the coming year will be adopted before 30 October each year and after consultation with the Commission.**

***The European Parliament's view***

**In its June Plenary session, the European Parliament adopted the report by RETT on a European Maritime Safety Agency (rapporteur Emmanouil Mastorakis, PES, GR).**

**Parliament believes the Agency should be more independent of the European Commission than had been proposed. Also it did not want to see representatives from the Parliament on its Administrative Board in view of the need for the proper separation of powers. MEPs also felt the Agency should be able to carry unannounced on-the-spot inspections.**

**2. Maritime monitoring**

**The Commission proposal (COM/2000/0802, 6-12-2000) on a Directive establishing an EU monitoring, control and information system for maritime traffic provides in particular for:**

**- improving the identification of ships heading for European ports and monitoring all ships in transit in areas of high traffic density or hazardous to shipping, and requiring ships sailing in Community waters to carry transponder systems so that they can be automatically identified and constantly monitored by the coastal authorities,**
**- extending the reporting requirements already provided for by Directive 93/75/EEC to other dangerous or polluting goods and, in particular, to bunker fuels carried on board, given the highly polluting nature of these products,**
**- simplifying and harmonising the procedures relating to the transmission and use of data on dangerous or polluting goods carried by ships, notably through the systematic use of electronic data interchange (EDI),**
**- requiring ships calling at Community ports to carry black boxes (or voyage data recorders), in order to facilitate the investigation of accidents,**
**- stepping up the development of common databases and the interconnection of the stations responsible for managing the information gathered under the Directive,**
**- ensuring closer monitoring of ships posing a particularly serious threat to maritime safety and the environment and requiring information about them to be circulated among Member States, to enable the latter to identify dangerous situations sooner and take preventative action necessary in respect of such ships,**
**- enhancing the powers of intervention of Member States, as coastal States, where there is an accident hazard or threat of pollution off their coasts (territorial waters and the high seas). Member States will thus be able to order the re-routing of a ship posing a threat to their coasts, to instruct the ship's master to stop a pollution risk, to put an assessment team on board or to**

**impose mandatory pilotage or towerage of the ship and**
**- requiring Member States to take measures to receive ships in distress in ports of refuge, and prohibit ships from leaving ports in exceptional weather conditions involving a serious threat to safety or the environment.**

***The European Parliament's view***

**On 14th June 2001 the European Parliament approved the report by Dirk Sterckx (ELDR, B), (COM (2000) 802). This report supports and, in several places, strengthens the Commission proposal. The main amendments agreed were:**
**- the broadening of the concept of a place of refuge to include protected points along the coastline designated by the competent authorities where vessels may take shelter if there is no port nearby. In addition, a Member State or a port which accommodates a ship in distress should be able to count on prompt compensation for any costs or potential damage which would encourage them to provide assistance,**
**- in maritime areas outside territorial waters, all ships sailing under EU flags or calling at Community ports should participate in a vessel traffic system, which provides weather forecasts, traffic routes and other services. MEPs were against imposing a general Europe-wide ban on ships leaving port in gale conditions, saying such decisions depended on a range of factors and should be left to the discretion of local authorities and the ship's master,**
**- the installation of voyage data recorders (VDR or black boxes). This equipment is vital to the smooth operation of the monitoring, control and information system for maritime traffic. Parliament took the view that it was unacceptable, especially for the ships most at risk, for the installation of black boxes to be delayed,**
- **in exceptionally poor weather and sea conditions threatening the environment or the life of crew and passengers, the competent national authorities should inform the master of the ship intending to leave or to enter a port and give appropriate recommendations. The master then would be allowed not to follow such a recommendation, stating the reasons for his decision, but the authorities would retain the right to suspend the departure or entry of the ship.**

***The Council of Ministers view***

**The Council, pending examination of the Opinion of the European Parliament at its first reading (see above), agreed on a common position to the Draft Directive.**

**3. Fund for damage compensation**

**The proposal (COM/2000/0802, 6-12-2000) complements the existing international two-tier regime on liability and compensation for oil pollution damage by tankers by creating a European supplementary fund, the COPE Fund, (Fund for Compensation for Oil Pollution in European waters) to compensate victims of oil spills in European waters.**

**The COPE Fund :**
**- will only compensate victims whose claims have been considered justified, but who have nevertheless been unable to obtain full compensation under the international regime, owing to insufficient compensation limits. The current ceiling is EUR 200 million. Compensation would thus be based on the same principles and rules as the current international fund system, but subject to a ceiling which is deemed to be sufficient for any foreseeable disaster, i.e. EUR 1.000 million,**
**- could be used to speed up the payment of full compensation of victims. The COPE Fund will be financed by European oil receivers. Any person in a Member State who receives more than 150.000 tonnes of crude oil and/or heavy fuel oil per year will have to pay its contribution to the COPE Fund, in a proportion which corresponds to the amounts of oil received and**
**- will only be activated once an accident that exceeds, or threatens to exceed, the maximum limit provided by the IOPC Fund has occurred in EU waters.**

**The proposed regulation, in addition to the provisions on liability, includes an article introducing financial penalties for grossly negligent behaviour by any person involved in the transport of oil by sea. This penalty will be imposed by Member States outside the scope of liability and compensation and will thus not be affected by any limitation of liability.**

***The European Parliament's view***

**In the Plenary Session of 14th June 2001, the European Parliament endorsed the report by Mr Alain Esclopé (EDD, F) on the Fund for damage compensation**

**(COD/2000/0326) and adopted a number of amendments to tighten up the proposed legislation. In addition, Parliament wanted the COPE Fund to provide for advance provisional payments within six months because victims were often left in difficult circumstances whilst waiting for the first payments to come through. Moreover, not only oil receivers but all operators involved in the transport of oil, including shipowners, should contribute to the compensation fund.**

***The EU Council of Ministers view***

**At its session last December, the Council agreed on the need to ensure a proper and, as far as possible, global regime for liability and compensation in cases of oil pollution damage and reached an agreement on a common approach concerning the position to be defended by the delegations of the Member States and the representatives of the Commission in the IMO negotiations.**

**Training and recruitment of seafarers**

**According to the Communication from the Commission to the Council and the European Parliament on the training and recruitment of seafarers (COM/2001/0188, 6-4-2001), there has been a 40% decline in the number of EU seafarers since the early 1980s. It is estimated that the shortage of officers in the EU might reach around 13,000 in 2001, rising to some 36,000 by 2006.**

**The current lack of EU seafarers has implications for maritime safety. Well trained seafarers means safer navigation, more efficient operations and good ship maintenance.**

**Preserving a high-quality system of maritime training in the EU is vital for the survival of EU seafarers, the competitiveness of the European maritime industry and the enhancement of safety and environmental protection. Public authorities, shipowners and maritime academies need to work together to ensure that the Member States' maritime education and training systems meet all the requirements of the regulatory framework, of modern technology, and of the global shipping industry, including a good knowledge of the English language.**

**The Commission also recommends that Member States and social partners implement urgent measures to ensure a sufficient number of study places for cadets wishing to train on-board, provide EU seafarers with continuous updating and/or upgrading courses, and increase the mobility of EU seafarers.**

**Bulk carriers**

**The Commission proposal on safe loading and unloading of bulk carriers (COM/2000/0179, 22-5-2000) seeks to reduce the risks of excessive stress and physical damage to the ship's structure during cargo-handling operations, by laying down requirements for those ships and terminals and by establishing harmonised procedures for cooperation and communication between those ships and the terminals.**

**The proposal seeks to :**

- **strengthen the role of the competent authority, by obliging it to halt loading or unloading operations should the safety of the crew of the ship be endangered,**
- **to establish a legal framework in the Community for applying, in a harmonised way, the relevant provisions of the Code of Practice for the Safe Loading and Unloading of Bulk carriers (BLU Code), which was adopted by the IMO in 1997 through IMO Assembly Resolution A.862(20). Further, wants to ensure that the five main principles referred to in the operative part of this IMO Assembly Resolution are implemented as essential requirements. This operative part urges contracting Governments in whose territories solid bulk cargo loading and unloading terminals are situated to introduce port by-laws to the effect that:**

4. **terminal operators are required to comply with the relevant IMO Codes and recommendations on ship/port co-operation and to appoint a "terminal representative" as stipulated in section 1.6 of the Annex to Resolution A.797(19),**
- **the master is responsible at all times for the safe loading and unloading of the ship, the details of which should be confirmed with the terminal operator in the form of an agreed loading or unloading plan,**
- **in the event of non-compliance with the agreed loading plans or any other situation which endangers the safety of the ship, the master has the right to stop the loading or unloading; and port authorities have the right to stop the loading or unloading of solid bulk**

**cargoes when the safety of the ship carrying cargoes is endangered.**

- **lay down the procedures for monitoring of and reporting on the established procedures. In order to effectively monitor the implementation of the envisaged harmonised procedures and to assess their safety enhancing impact, the proposal foresees in a system of surveillance by the Member States, including random inspections of loading or unloading operations at the terminals,**
- **provide that Member States have to report on a bi-annual basis the results of their monitoring efforts to the Commission.**

**All bulk carriers, irrespective of their flag, that fall within the SOLAS definition of bulk carriers and the terminals in the Community used for the loading and unloading of solid bulk cargoes (with the exclusion of grain) are covered by the Directive.**

***The European Parliament's view***

**On 20th March 2001 the Commission agreed to the majority of amendments adopted by the European Parliament in the report (COM/2001/208) drafted by Mr Rijk van Dam (EDD/NL).**

***The EU Council of Ministers view***

**The EU Council of Ministers adopted a common position on the 28th June 2001 on this proposal. The common position introduces limited technical changes compared to the proposal submitted by the Commission that concern primarily the scope of the Directive and the procedure for certification of the quality control systems. Also, the Council leaves it up to the Member States to designate the authority empowered to apply the Directive.**

**Maritime Safety**

**The European Commission decided on the 18th July 2001 to pursue infringement proceedings against several Member States which do not fully respect European legislation on maritime safety as they have not informed the Commission of the national measures required. The Commission sent reasoned opinions to:**

**1. *Luxembourg, Belgium, the Netherlands, Greece, Germany and the United Kingdom for non-communication of national measures on port State control.***
**These Member States have not communicated national measures transposing Commission Directive 1999/97/EC. Its purpose is to strengthen Port State Control provisions in the Community by better targeting the ships selected for inspection and focusing resources on the more likely substandard ships. It also introduces an obligation to publish information concerning ships detained in Community ports on a monthly basis as a way to raise safety awareness within the shipping industry.**

***2. Luxembourg, Belgium, the Netherlands, Ireland, Greece, Portugal, Austria, Sweden and Finland for non-communication of national measures on mandatory surveys for passenger ships.***
**Commission Directive 1999/35/EC provides for mandatory surveys, regardless of flag, of ro-ro ferries and high-speed passenger craft providing regular services to or from Community ports. Member States, as host States, are required to carry out surveys prior to the start of a service, thereafter at regular intervals as well as whenever a significant change occurs in the operating circumstances. Where these inspections reveal dangerous non-conformity with safety standards, host States shall prevent such ferries and crafts from operating these regular services.**

***3. Commission has brought Belgium before the Court of Justice for the non-communication of national measures on fishing vessels.***
**Belgium failed to communicate national measures transposing an amendment to Directive 1999/19/EC. The amendment introduces radio communication requirements in line with the International Maritime Organisation guidelines.**

# EU RESEARCH PROGRAMMES

**(See European Commission website for further info : http://europa.eu.int/comm/transport/extra/)**

| Project | Aim | Results |
|---|---|---|
| **FSEA: Concerted action on formal approaches to risk assessment for sea-borne trans-port in European waters.** | **To establish a common level of knowledge within European shipping of systematic methods to assess the levels of safety and the environ-mental impact of shipping. Further, the action deals with the risk associated with human factors.** | • **An evaluation of the current state-of-the-art of present methodologies, including particular the following:**<br>**-Formal Safety Assessment methodology, which is seen as a valuable tool for establishing a general overview of risks and risk control, covering people, property and the environment, for rule-making purposes.**<br>**–Environmental Indexing of ships.**<br>**–Environmental Accounting of individual ships.**<br>**–The Green Award System.**<br>**–The International Marine Safety Rating System (IMSRS) which constitutes an approach based on management system audits and physical condition checks.**<br>**–The particular Port State Control approach which focuses on the identification of deficiencies on ships and their follow-up, using a scoring system in order to reduce the number of sub-standard ships.**<br>**–Human and organisational factors assessment, in which several approaches were identified, mainly concentrating in human errors on the one hand and emphasising the importance of management and environment on the other hand.**<br>• **A review of current assessment practice and risk assessment approaches in other industries.**<br>• **A study of the current state of the art of databases, data availability, applicability and suggestions for an accident/incident reporting scheme, which included indications for data collection based on a common approach.**<br>• **An analysis of the integration of the human and organisational factors in safety and environmental assessments.**<br>**A review of the current regulatory requirements and techniques for rule making, which in general revealed that regulatory systems are lacking clear statements of safety approaches. The Concerted Action suggested that an introduction of risk based approaches could help to structure the principles of new regulations.** |
| **ICE ROUTES: The application of advanced techno-logies to the routing of ships through sea ice.** | **To demonstrate the feasibility of an ice routing tool that would provide safer and more efficient ship transport in ice-infested sea regions.** | **- an analysis of current ice charting and ship routing in the Northern Sea Route, which relies on manually interpreting sea ice conditions and the characteristics of icebreakers and convoy ships. This task included analysis of helicopter ice reconnaissance and high resolution Synthetic Aperture Radar (SAR) images used for tactical navigation,**<br>**- a computer program called FRAM to identify and optimise vessel routes in ice-infested sea by calculating a set of alternative routes and selecting the most appropriate for specified preferences related to cost or time effectiveness; FRAM is a prototype which is not capable of covering all aspects necessary for commercial application, but which demonstrates the principal possibilities and advantages of the automatic solution,**<br>**- two ice charting concepts, i.e. the Fuzzy Expert System (FES) and Neural Networks (NN), that build on artificial intelligence to deliver satellite-based information for practical ship routing without the need for human image interpretation, which is found to be very time consuming, demanding and subject to ambiguity.** |
| **PHOENIX: Identification** | **To identify and quantify all para-** | **-a database incorporating information on 955 vessels involved in fire-related incidents between 1990 and 1995;** |

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| **and quantification of the variables and parameters that aid in evaluating fire risks on board ships in accordance with their condition.** | **meters and variables potentially contributing to the outbreak of fire on various types of vessel.** | **the database structure was build on twelve variables, ranging from general data about the ship or the registered flag, to parameters related to the outbreak of fire and the subsequent measures,**<br>**-two computer programs for analysis and prevention of fire on-board ships; FIRST (Fire Simulation Tool) has been developed to simulate fire propagation for a typical ship layout and proved capable of doing so for free fire propagation,**<br>**-software-based checklists for ship inspectors that allow the analysis of implemented safety measures for fire prevention; the tool helps to assess pre-accident as well as post-accident conditions on the vessel,**<br>**-a case study on fire propagation in the form of a computer simulation that included a typical compartment set-up with outfitting, furniture and division bulkheads; the outputs were typical fire related parameters like temperature, thermal energy and smoke rate.** |
| **SAFECO: Safety of shipping in coastal waters.**<br>▪ | **To supply policy-makers, regulators and actors in the shipping community with a modeling framework to allow the comprehensive evaluation of potential shipping risks.** | **-the development of a radar-based Collision Avoidance Advisory System (CAAS) that has been tested in simulator exercises and on-board vessels during test trials,**<br>**-the development of a Simulator Exercise Assessment system (SEA),**<br>**-the development of the Marine Accident Risk Calculation System (MARCS) to quantify risk levels and the effect of risk control options in defined geographical areas,**<br>**-the development of a risk model for maritime propulsion systems which allows the identification of critical components in the context of enhanced maintenance strategies,**<br>**-the development and analysis of databases for marine casualties which help to understand and model the causes and conditions resulting in ship accidents,**<br>**-the further development of structural integrity models for reliability assessment of ship design and maintenance strategies,**<br>**-the development and implementation of a risk model for the port of Rotterdam area,**<br>**-the development of a numerical model for navigator performance that has been validated in test cases, resulting in the provision of sailing trajectories to defined ports as a function of parameter variations,**<br>**-the further development of models and data to quantify the effects of ship maneuvering capabilities,**<br>**-the development of a model to assess the effects of personal and organisational factors in the light of the International Safety Management Code (ISM).** |
| **TECHNISEC: Technical Secretariat of the VTMIS Thematic Network.** | **Vessel traffic services to improve vessel traffic control.** | **The concerted action has covered a rather large range of activities which may be divided in four categories consisting in:**<br>**- collecting and processing relevant data,**<br>**- identifying and justifying concepts and,**<br>**- opening the way to further investigations and facilitating the actual implementation of adequate information systems,**<br>**- disseminating the information.** |

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| **VTMIS-NET: Vessel Traffic Management and Information Services Net-work. (http://europa.eu.int/comm/transport/extra/final_reports/waterborne/VTMIS_NET.pdf)** | **To create pan-European methods and platforms for exchanging informa-tion based on already existing systems and services, whether on a local, regional, national or EU level to be used indepen-dently.** | **- Improve the efficiency of VTS/VTMIS by improving communication between existing systems,<br>- Improve dissemination of traffic information for traffic and transport operations management,<br>- Provide access to vessels' data,<br>- Provide access to cargo data, where required for safety reasons,<br>- Reduce communication / reporting,<br>- Improve contingency planning,<br>- Disseminate marine pollution information,<br>- Make use of traffic images, for example in SAR operations.** |

| Project | Aim |
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| **ATOMOS II: Advanced technology to optimise maritime operational safety, integration & interface.** | **To develop conceptual standards for a safe and efficient ship control center and an open integrated ship control system. The aim will be towards fast cost- effective operation and interconnection between system modules for improved command, control, alarm and information systems.** |
| **BERTRANC: Methodology of safety in marine operations.** | **To improve maritime safety by gaining a thorough understanding of the existing safety procedures and methodologies currently employed by Member States and by gaining an appreciation of other transport systems and operations modes which could be employed in the maritime sector.** |
| **CASMET: Casualty analysis methodology for maritime operations.** | **The establishment of a common methodology for safety in maritime operations and for analysing the impact of the human element on maritime safety.** |
| **DISC : Demonstration of Integrated Ship Control Systems.** | **- The establishment of a basic European/international integrated ship control standard, including the identification of suitable technologies and operational, safety and efficiency-improving functions to be adopted by the standard<br>- The establishment of the minimum requirements for the feasibility demonstration and validation of the core technologies involved in the suggested standard, and their integration into one coherent system** |
| **FASS: Fast ships safety – operational safety requirements, procedures and training tools.** | **To widen the understanding of the safety risks attached to the rapidly increasing deployment of high-speed craft in European waters and, in particular, heavy traffic areas.** |
| **HANDIAMI : Investigation of the employment of disabled persons in the maritime industry e.g. new shore based jobs and the problems of disabled passengers in access and emergency situations.** | **- To undertake a detailed comparative analysis of the level of existing provisions for disabled passengers in the maritime and other transport sectors,<br>- to develop introductory training material for managers and staff in the maritime industry,<br>- to promote the employment and retention of disabled maritime workers, and<br>- to highlight any safety specific issues that impact on ship design, operation and training.** |
| **INCARNATION: Efficient inland navigation information system.** | **To examine the feasibility of providing vessel traffic information services for inland waterways. The project will examine the requirements for providing river navigators with operational traffic images from shore-based radar and other information sources.** |
| **INDRIS: Inland Navigation Demon-strator for River Information Services.** | **- To demonstrate VTMIS for Inland Navigation which involves the definition of RIS (River Information Services),<br>- To harmonise communications on European inland waterways and to provide a methodology and guidelines for the development of these communications in order to achieve this harmonisation across Europe,<br>- To harmonise the reporting procedures in European inland waterways.** |
| **INSPIRE: Innovative** | **To demonstrate how, within selected trade corridors, short sea shipping can** |

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| **ship pilot research** | **be made more competitive, as part of the total transport chain. Thus, it is hoped that ships may take over a larger part of European transportation, thereby easing the congestion on roads and railways, with positive effects for trade and environment. Through studies of existing trade, ports, ships and management systems, INSPIRE aims at recommending practical solutions, which may improve the overall effectiveness of European short sea shipping and provide a framework for the expansion of the fleet. In the course of the studies, IT-based tools will be developed, suitable for analysis of any trade corridor involving a sea leg, independent of whether it is a point to point or a multi-port connection.** |
| **Intelligent Shipping Operations** | **- To develop perspective thinking on the impact of the information society in the world of shipping.**<br>**- To provide an advanced view and future perspectives on 'intelligent shipping operations' (high quality, safe and efficient) that meet societal demands for sustainable transport, mapping potential solutions to the organisational and technical issues mentioned.**<br>**- To asses the user requirements as well as the functional requirements for solutions to organisational and technical challenges.**<br>**- To assess the operational integration of generic telematics and IT techniques with a view to support demonstrations.**<br>**- To assess the full potential of technologies in view of further automation of shipping operations and maintenance, under normal conditions (navigation and port operations) and in case of emergency situations.**<br>**- To assess the potential of linking shipborne information and communication systems with shore-based management and information systems in order to improve overall shipping operations and integrate them into the overall transport chain.**<br>**- To outline requirements to procedural harmonisation and estimate potential benefits from full equipment interoperability in shipping.**<br>**- To establish the background for pilot implementations and demonstrations of solutions.** |
| **INTRA-SEAS: Safety & economic assess-ment integrated management of multi-modal traffic in ports.** | **To provide a safety and economic assessment of the performance of port-related intermodal transport management together with the development of software simulation tools to assist in the assessment.** |
| **MARCOM : is looking at the impact of multicultural and multilingual crews on maritime communications.** | **To enhance safety and efficiency on ships, particularly those operated by multi-European crews, by developing :**<br>**- verbal and non verbal tools for communication,**<br>**- training packages to extend communication skills,**<br>**- a pilot syllabus for teaching maritime English,**<br>**- clear instructions of the language that should be used in emergencies,**<br>**- improved manuals and other printed instructions on board,**<br>**- guidelines to help crews avoid cross-cultural tensions.** |
| **MASIS: Human element in man/machine interface and interaction to improve safety and effectiveness of transport for the European fleet.** | **The improvement of human behavior and performance on board ships, particularly in an emergency. Practical tools and procedures will be developed for effective human-machine interfaces so as to reduce the impact of the human element in marine accidents.** |
| **MBB: Maritime Black Box.** | **To provide complete and reliable information on the circumstances on board ships suffering accidents, so those lessons may be learnt for their future prevention.** |
| **MASSTER: Maritime standardised simulator training exercises register.** | **To harmonise maritime education and aid the standardisation of simulator exercises.** |
| **SAFECO II: Safety of shipping in coastal waters : Demonstration of risk assessment techniques for communication and** | **Is focused on risk analysis and the application of risk analysis methods to assess improvements in safety, environmental performance and cost effectiveness. The SAFECO II project builds on a risk model developed in the first SAFECO project. It is concerned with demonstrating the application of risk analysis methods to the assessment of the safety, environmental and financial benefits of improved technologies and procedures for communication and information exchange in a shipping traffic context.** |

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| **information exchange.** | |
| **SEALOC: Assessing concepts, systems and tools for a safer, more efficient and lower operational cost of the maritime transport of dangerous goods.** | **To provide recommendations for the improvement of safety in maritime transport of dangerous goods in Europe, through the implementation of telematic solutions. To achieve this, three case studies will be carried out using a Formal Safety Assessment methodology.** |
| **THALASSES: New Technology and the Human Element in Maritime Transport.** | **- Identification of trends in the development of new technologies in maritime transport and their impact on the demand for human resources,**<br>**- Identification of changing 'working cultures' in maritime transport,**<br>**- Analysis of the changing role of ships' crews within the context of reduced manning,**<br>**- Identification of the areas where socio-economic impacts of new technologies can be expected (e.g. disappearance of jobs, new job profiles) and application of an appropriate assessment methodology for socio-economic impacts,**<br>**- Development of future scenarios of technology implementation in maritime transport,**<br>**- Suggestions for encouragement measures and guidelines by the EU and/or the national registers in order to assist ship owners to adopt new technologies leading to increased competitiveness.** |

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