



# **Performance Audit**

## **Preventing and Dealing with Pollution from Ships at Sea and in Ports**

**Report by the Auditor General**

**July 2003**



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# Abbreviations

<b>AFM</b>	Armed Forces of Malta
<b>CEDRE</b>	Centre de Documentation de Recherche et d' Experimentation sur les Pollution Accidentelles des Eaux
<b>CPD</b>	Civil Protection Department
<b>DOC</b>	Document of Compliance
<b>ERCC</b>	Emergency Response Command Committee
<b>EPD</b>	Environment Protection Department
<b>EUROSAI</b>	European Organisation of Supreme Audit Institutions
<b>FIPOL</b>	Oil Industry Pollution Compensation Fund
<b>FSC</b>	Flag State Control
<b>FSCI</b>	Flag State Control Inspection
<b>IACS</b>	International Association of Classification Societies
<b>ILO</b>	International Labour Organisation
<b>IMO</b>	International Maritime Organisation
<b>IOPP</b>	International Oil Pollution Prevention Certificate
<b>ISM</b>	International Safety Management Code
<b>ITOPF</b>	International Tanker Owners Pollution Federation Limited
<b>MARPOL</b>	International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto
<b>MEPA</b>	Malta Environment Planning Authority
<b>MMA</b>	Malta Maritime Authority
<b>MMoU</b>	Memorandum of Understanding on Port State Control in the Mediterranean Region
<b>MSD</b>	Merchant Shipping Directorate
<b>NMPCP</b>	National Marine Pollution Contingency Plan
<b>OPRM</b>	Oil Pollution Response Module
<b>P&amp;I Club</b>	Protection and Indemnity Mutual Insurance Club
<b>Paris MoU</b>	Paris Memorandum of Understanding on Port State Control
<b>PCCU</b>	Pollution Control Coordinating Unit
<b>PRF</b>	Port Reception Facilities
<b>PSC</b>	Port State Control
<b>PSCI</b>	Port State Control Inspection
<b>PSCO</b>	Port State Control Officer
<b>REMPEC</b>	Regional Marine Pollution Emergency Centre for the Mediterranean Sea
<b>SAI</b>	Supreme Audit Institution
<b>SMC</b>	Safety Management Certificate
<b>SOLAS</b>	International Convention for the Safety of Life at Sea
<b>STCW</b>	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers
<b>UNCLOS</b>	United Nations Convention on the Law of the Sea



# Executive Summary

## Introduction

1. The Value for Money Section of the National Audit Office (NAO) carried out the performance audit: 'Preventing and Dealing with Pollution from Ships at Sea and in Ports' during the period May 2001 – October 2002. The main objectives of the audit were to establish whether:

- national policy regarding preventing and dealing with pollution is being implemented and enforced;
- government measures to prevent pollution from ships are efficient and effective;
- government measures to deal with pollution from ships are timely and effective.

2. Various governmental entities, namely the Merchant Shipping Directorate (MSD) and the Ports Directorate, both within the Malta Maritime Authority (MMA), the Environment Protection Department (EPD), the Armed Forces of Malta (AFM), the Oil Pollution Response Module (OPRM), and the Civil Protection Department (CPD), are involved in the prevention of, and dealing with, marine pollution from ships.

## Prevention of pollution from ships

3. Government policy regarding the prevention of maritime pollution is expressed in local legislation and international conventions ratified by Malta.

4. Ship Surveys and Flag State Control Inspections (FSCIs), together with Port State Control Inspections (PSCIs) performed on foreign vessels visiting Malta, contribute towards the

prevention of marine pollution from ships worldwide. The MSD is responsible for these operations.

5. A number of deficiencies identified during the audit were considered to inhibit the effectiveness of the MSD's flag State control regime.

6. The MSD was not monitoring the status of statutory certification of Maltese ships<sup>1</sup> on an ongoing basis. The MSD was not in a position to confirm from its records that some of the Maltese ships selected in a random sample were covered by the required statutory (survey) certificates/endorsements, and had to resort to various Classification Societies in order to obtain this information, which confirmed that all the sampled ships were duly covered by valid certification. Nevertheless, there is a risk that the MSD may not become immediately aware if any of its ships are not covered by valid certification, and consequently of the need to take timely action as may be required.

7. Routine FSCI targeting criteria were not documented. FSCIs performed during 2001 did not fully satisfy the MSD's informal targeting criteria. The MSD was in the process of developing an IT system that would support a risk-weighted FSCI targeting system that takes into account considerations of relative age, category, history of detentions, etc.

8. There were weaknesses in internal controls in connection with the engagement of foreign inspectors to perform FSCIs abroad and the quality assurance of their work. Policies and procedures relating to these processes were not documented.

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<sup>1</sup> In the context of this report, 'Maltese ships' are ships registered under the Malta flag.



9. At present, the Malta flag features on the black list of the Paris Memorandum of Understanding on Port State Control<sup>2</sup> as a medium risk flag, on the basis of the number of detentions imposed on Maltese ships by foreign port authorities. The current efforts of the MSD to set up a robust flag State control regime to ensure that merchant ships sailing under the Malta flag maintain the required safety and pollution prevention standards have been noted.

10. PSCIs performed by the MSD on visiting foreign ships in 2001 fell short of the target established by the Memorandum of Understanding on Port State Control in the Mediterranean Region (MMoU). The mechanisms for targeting ships for PSCIs in accordance with the MMoU were not in place. However, it was reported that the MSD was substantially exceeding the MMoU inspection target during 2002.

### Dealing with pollution from ships

11. Malta's response in order to deal with pollution from ships in the surrounding sea and in its ports is documented in the National Marine Pollution Contingency Plan (NMPCP). The plan sets the response required to deal with situations ranging from common low level spillage in and around Maltese ports to large scale pollution incidents. In addition, the Ports Directorate within the MMA has a Ports Contingency Plan for dealing with spills of up to 10,000 litres.

12. On 1 March 2002, the OPRM was transferred from the Environment Protection Department within the Ministry for the Environment to the Works Division in the Ministry for Resources and Infrastructure. On the same day, the Environment Protection Department, who owned the NMPCP prior to that date, became part of the Malta Environment and Planning Authority (MEPA), now within the Ministry for Rural Affairs and the Environment. As a result of these transfers, ownership of the NMPCP became unclear.

13. The NMPCP was not supported by funds budgeted specifically for its ongoing development, and for personnel training on a national basis at least once yearly.

14. A formal procedure to appoint personnel in the roles defined in the NMPCP was not in place. The communications network has not yet been formalised.

15. Maintenance and development of the NMPCP, including follow-up of recommendations emerging from the 1999 simulation exercise, have not been carried out since its delivery in 1999. A major disaster scenario has not been tested.

16. Key personnel in the main government entities involved in the NMPCP did not consider that this contingency plan had been officially approved.

### Conclusions

17. This audit has determined that measures to prevent and deal with pollution from ships were generally in place. However, a range of deficiencies has been identified.

18. Structures and procedures, including inspection criteria, and information systems relating to ship inspections are critical areas which need to be kept under continuous focus by the MMA. An extensive project is underway within the 2002 national European Union pre-accession programme for Malta, aiming to improve the quality and safety of shipping.

19. Issues relating to the ownership, approval, management and operations of the National Marine Pollution Contingency Plan, need to be resolved as a matter of priority, in order to maintain clear lines of accountability and ongoing commitment by the government entities involved.

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<sup>2</sup> Vide Appendix IV.



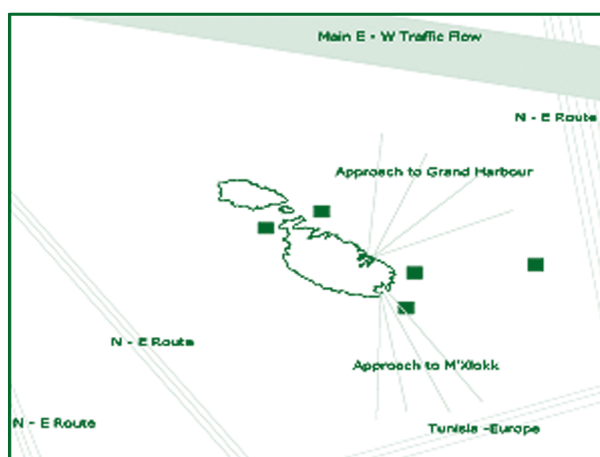
# Part 1

## Introduction

**1.1** The National Audit Office (NAO) carried out a performance audit entitled 'Preventing and Dealing with Pollution from Ships at Sea and in Ports', initially during the period May 2001 – April 2002. The exercise was later extended to include issues arising from the exit meeting held in August 2002. These issues were reviewed by the NAO between August and October 2002. Various government entities, namely the Malta Maritime Authority, the Environment Protection Department, the Armed Forces of Malta, the Oil Pollution Response Module, and the Civil Protection Department, are involved in the prevention of, and dealing with, marine pollution from ships.

**1.2** The purpose of the audit was to confirm whether there are adequate policies, procedures and controls to prevent and deal with pollution from maritime activities.

**Chart 1 – Approximate location of main maritime traffic flows and routes around Malta<sup>1</sup>**



*Note: Offshore sites designated for bunkering activities are indicated by boxes.*

<sup>1</sup> Source: State of the Environment Report for Malta 1998, p299.

**1.3** This audit was also performed on the basis of the NAO's membership of the European Organisation of Supreme Audit Institutions (EUROSAI). EUROSAI recommended that audits related to the theme of preventing and dealing with pollution at sea be carried out in parallel on a regional basis during 2001/2. A number of Supreme Audit Institutions (SAIs) in Europe, and particularly in the Mediterranean basin, have confirmed their participation in the parallel audits.

**1.4** This part of the report seeks to define the audit environment by highlighting the potential risks and vulnerabilities from marine pollution from ships, and introduces the various government entities involved. A brief outline of the relevant international conventions regulating maritime activities is provided in Appendix II.

## Background

**1.5** Malta's geographical proximity to major maritime traffic routes<sup>2</sup>, together with bunkering, transshipment activities at the Malta Freeport, and other shipping activities in our ports, pose potential risks to human health, and to our environment. A major maritime accident causing pollution in or around Maltese territorial waters could threaten human health and the environment, and could have serious economic repercussions, including, for instance, severe damage to our tourist industry.

**1.6** Such risks are usually associated with spills of oil, fuels or other harmful substances. Whilst the risk of a massive spill is ever present, the available data indicates that, to date, chronic low level pollution by oil and petroleum products in our coastal waters has become increasingly significant. Fortunately so far, no major oil spill (over 1000 tons) has occurred in Maltese territorial

<sup>2</sup> Source: State of the Environment Report for Malta 1998, p299.



waters<sup>3</sup>, which could lead to a massive stranding of oil on our shores.

**1.7** Besides our vulnerability as a small island State, the central Mediterranean has a relatively high volume of maritime traffic, and the associated risks of incidents are consequently high.<sup>4</sup>

**1.8** 7,219 vessels of an aggregated 109,171,260 tonnage visited Maltese ports (and territorial waters) between October 2000 and September 2001.<sup>5</sup> The risk of marine pollution from ships, however, spreads beyond national territorial waters.

### Government environmental policy

**1.9** Government's environmental policy, in connection with the subject of this audit, is expressed in paragraph 4 of the Environmental Protection Act 2001 which states that: "It shall be the duty of the Government to protect the environment for the benefit of the present and future generations and to that effect ..... to take such preventative and remedial measures as may be necessary to address and abate the problem of pollution and any other form of environmental degradation in Malta and beyond, in accordance with the polluter pays principle and the precautionary principle"; and ..... "to combat all forms of pollution".

**1.10** Government policy regarding the prevention of marine pollution is not only expressed in local legislation and international conventions<sup>6</sup> ratified by the Maltese Government, but also in various policy declarations made by Government.

### Preventing marine pollution from ships

**1.11** The prevention of marine pollution from ships is essentially an international concern. Over

<sup>3</sup> A radius of 12 nautical miles.

<sup>4</sup> Source: State of the Environment Report for Malta 1998, p298.

<sup>5</sup> Source: Malta Maritime Authority Annual Report, October 2000 - September 2001, p23.

<sup>6</sup> A brief outline of international conventions ratified by Malta relating directly or indirectly to marine pollution appears in Appendix II.

time, shipping and the prevention of marine pollution from ships have been regulated by various international conventions, European Union directives, local legislation, and regional Memoranda of Understanding between the responsible Administrations of various countries.

**1.12** The implementation of Government's policy to prevent marine pollution, both within and beyond national territorial waters, entails that action taken by the relevant Maltese authorities contributes towards the prevention of deliberate or accidental discharge of hazardous substances<sup>7</sup> into the sea. Pollution of the marine environment is also prevented through safe shipping. In this context, safe shipping refers to the minimising of risks that may cause shipping accidents (such as sub-standard vessels and equipment, unqualified crew, etc.).

**1.13** The main local laws regulating maritime activities in territorial waters are the Malta Maritime Authority Act 1991, the Merchant Shipping Act 1973, the Port Regulations 1966, and the Dangerous Cargo Ships, Marine Terminal and Facilities and Bunkering Regulations 1966.

### Regional Co-operation

**1.14** Co-operation in Combating Pollution of the Mediterranean Sea by Oil and other harmful Substances in cases of Emergency was the subject of the second protocol of the Barcelona Convention 1976. In order to ensure better co-ordination, a Regional Centre, now called the Regional Marine Pollution Emergency Centre for the Mediterranean Sea (REMPEC), was created in 1976 and based in Malta.

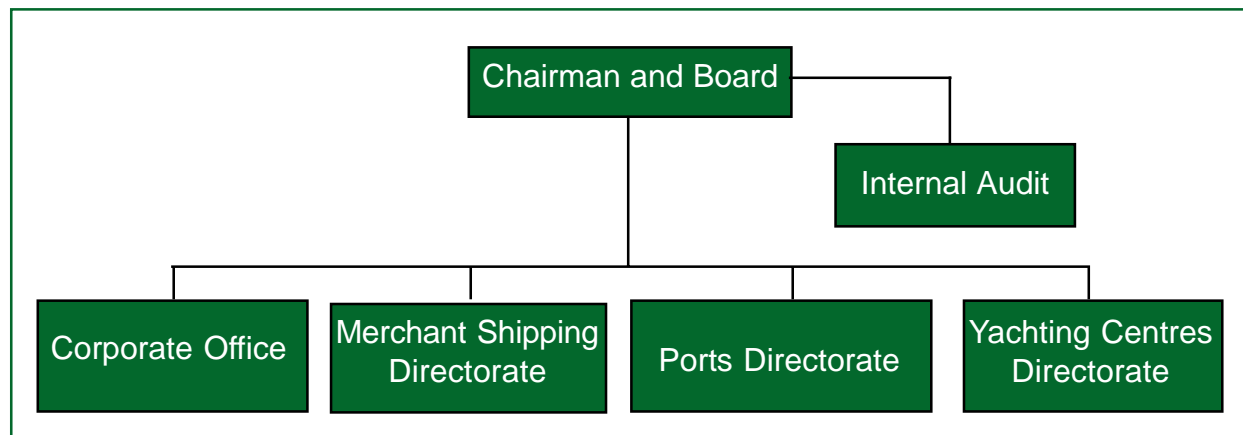
**1.15** Together with seven other maritime Administrations, Malta is a signatory to the Memorandum of Understanding on Port State Control in the Mediterranean Region (MMoU). This document, signed by Malta on 11 July 1997, commits the signatories to take all necessary steps to ratify a number of relevant international instruments; to establish and maintain an

<sup>7</sup> As defined in paragraph 2 of the Environmental Protection Act 2001.





Chart 2 – Malta Maritime Authority organisation chart (as at end 2001)



effective system of port State control; to achieve, within three years from its coming into effect, an annual total of inspections, on a set priority selection basis, corresponding to 15% of the estimated number of foreign merchant ships entering the State's ports in 12 months; and to consult, co-operate and exchange information with each other in order to further the aims of the Memorandum.

## Malta Maritime Authority

**1.16** The Malta Maritime Authority Act 1991, as amended in 2000, stipulates that "it shall be the function of the Malta Maritime Authority ..... without prejudice to the provisions of the Environment Protection Act to prevent and control pollution by oil or any other substances of any port or approaches thereto". The Act also states that the Malta Maritime Authority is responsible to advise Government on matters relating to marine pollution prevention and control.

**1.17** The Malta Maritime Authority (MMA) is the government entity responsible for regulating shipping in Maltese territorial waters and ports. The MMA, which falls within the remit of the ministry responsible for Transport, is the flag State Administration of one of the leading ship registers in the world,<sup>8</sup> and is responsible to regulate and control the registration of ships and yachts sailing under the Malta flag. At the

<sup>8</sup> Source: Malta Maritime Authority. As at end December 2001, the Malta flag occupied the fifth place in the world top list of ship registers.

end of September 2001, 3055 vessels were sailing under the Malta flag.<sup>9</sup> In addition, the MMA is responsible to regulate, control and administer all matters relating to merchant shipping and marine pollution prevention, in accordance with the Merchant Shipping Act and various international conventions.

**1.18** The Malta Maritime Authority comprises three Directorates, each headed by an Executive Director, namely the Ports Directorate, the Merchant Shipping Directorate and the Yachting Centres Directorate. Supporting these Directorates is a Corporate Office. This audit focused mainly on ship surveys and statutory certification and inspections performed by, or on behalf of, the Merchant Shipping Directorate.

**1.19** An organisation chart of the MMA is presented above.

### Merchant Shipping Directorate

**1.20** The main functions and duties entrusted to the Executive Director Merchant Shipping are to regulate, control and administer all matters related to merchant shipping and marine pollution prevention and control provided under the Merchant Shipping Act or any related legislation.<sup>10</sup>

**1.21** As part of its function as a maritime Administration, the Merchant Shipping

<sup>9</sup> Source: Malta Maritime Authority Annual Report October 2000 – September 2001, p29.

<sup>10</sup> Source: Malta Maritime Authority Annual Report October 2000 – September 2001, p28.

**Table 1 - Flag State Control Inspections performed in Maltese and foreign ports during 2000 and 2001**

	2000			2001		
	Number of Inspections	Percentage of Registered Ships*	Percentage of Inspections	Number of Inspections	Percentage of Registered Ships*	Percentage of Inspections
Foreign Ports	596	36.08%	96.60%	605	38.68%	96.34%
Local Ports	21	1.27%	3.40%	23	1.47%	3.66%
Total	617		100%	628		100%

\* Excludes Maltese yachts and fishing vessels.

Directorate (MSD) ensures that Maltese ships<sup>11</sup> are surveyed and covered by statutory certification. This work is delegated to a number of Classification Societies. The MSD also performs Flag State Control Inspections and Port State Control Inspections. These measures contribute towards preventing pollution of the marine environment from ships.

**1.22** Merchant ships are unable to operate unless they hold valid statutory certificates. The prime responsibility for compliance with the requirements laid down in the international maritime conventions lies with the shipowner/operator; responsibility for ensuring such compliance remains with the flag State.<sup>12</sup> Flag State Control Inspections are performed to ensure that ships registered under the Malta flag maintain standards required by international law and local legislation, as well as MMA requirements. The MSD makes use of the services of foreign inspectors to inspect Maltese ships in foreign ports. In addition, as far as practical the MSD

<sup>11</sup> In the context of this report, 'Maltese Ships' refer to ships registered under the Malta flag.

<sup>12</sup> Source: Paris Memorandum of Understanding on Port State Control: Port State Control at work – Basic Principles.

takes the opportunity to inspect Maltese ships when they visit Malta. The numbers of Flag State Control Inspections performed by the MSD during 2000 and 2001 are indicated in Table 1.

**1.23** The MSD also carries out Port State Control Inspections. The purpose of such inspections is to ensure that ships, irrespective of flag, leaving Maltese waters on international voyages are maintained in accordance with the required international standards.

**1.24** Port State Control Inspections are generally unannounced inspections<sup>13</sup> and performed by the MSD on a selection of foreign vessels visiting Maltese ports. The MSD determines the scope and depth of Port State Control Inspections, in terms of the MMoU. It is required that any deficiencies in a vessel's structure, equipment, manning or procedures are to be rectified as soon as possible. In the case of deficiencies which are clearly hazardous to safety, health or the environment, the MSD should detain the ship or stop the operation in the course of which the deficiencies were revealed.

<sup>13</sup> Source: MMoU website, regarding Port State Control - Basic Principles.



The MSD is also empowered to prosecute the vessel's owner, operators, or crew if such action is deemed necessary.<sup>14</sup>

**1.25** In order to enhance shipping safety and minimise marine pollution risks associated with shipping, regional agreements encourage the sharing of Port State Control Inspection data collated through the performance of such inspections by various countries. During 2000 and 2001, MSD inspectors performed 70 and 114 Port State Control Inspections respectively.

operations of the Ports Directorate. The Ports Directorate informed the NAO that remedial steps were being undertaken in 2002.

Port reception facilities

**1.29** The international convention MARPOL 73/78 (vide Appendix II) seeks to reduce marine pollution by controlling or prohibiting discharges from ships. Signatory States are to ensure the provision of adequate port reception facilities (PRF) for oil and chemical residues, garbage and sewage.

**Table 2 - Port State Control Inspections performed in Maltese ports during 2000 and 2001**

Year	Number of inspections	Ships visiting Maltese ports available for PSCI
2000	70	786
2001	114	835

**1.26** As at end 2001, the MMA employed 17 inspectors to perform local inspections (that is, both flag State and port State control). During 2000 and 2001, the direct cost of performing inspections in foreign ports amounted to Lm124,145 and Lm151,406 respectively.

Ports Directorate

**1.27** The Ports Directorate within the MMA is responsible for pollution control inspections on domestic commercial vessels and various activities, in and around Maltese ports. This process was not based on documented policies and implementation plans, including inspection targeting criteria and coverage.

**1.28** In the circumstances, the NAO could not form an objective opinion on the inspection

**1.30** At the time of the NAO audit, Malta had not signed Annexes 3, 4, 5 and 6 of the MARPOL Convention. However, Annexes 4 and 6 were not yet in force.

**1.31** Although Malta does not yet have a comprehensive policy on PRF, certain services are, in fact, provided. Barges to collect waste oils, bilgewater and dirty ballast water are in service. The Malta Dry Docks also operates a tank-cleaning unit. Garbage is collected by licensed operators. Whilst Malta does not have a major chemical industry, facilities to dispose of hazardous waste in Malta are limited.

**1.32** At the time of the NAO audit, Malta was in the process of entering into a twinning partnership with an EU State, in order to study the implementation of Directive 2000/59/EC on port reception facilities for ship-generated waste and cargo residues. This was being arranged through the EU Negotiating Team, and the study was to be funded by the EU.

<sup>14</sup> Source: Merchant Shipping Act, Chapter 234, article 371 (1).

### Dealing with pollution from ships

**1.33** The National Marine Pollution Contingency Plan envisages three tiers of magnitude of oil spillage:

- 1<sup>st</sup> Tier – low level: less than 10 tons;<sup>15</sup>
- 2<sup>nd</sup> Tier – medium level: 10 to 1000 tons; and
- 3<sup>rd</sup> Tier – high level: over 1000 tons.

**1.34** The entities involved in dealing with potential spillage are described below:

#### Environment Protection Department

**1.35** The Environment Protection Department (EPD), within the Malta Environment and Planning Authority (MEPA) now in the Ministry for Rural Affairs and the Environment, performs the role of overall regulator in environmental matters. Prior to 1 March 2002, the EPD was part of the Ministry for the Environment. With regards to maritime pollution, the EPD performs its role by monitoring that environmental legislation and international conventions relating to marine pollution are observed. Moreover, the EPD monitors the level of marine pollution in Maltese ports.

**1.36** In addition to the function of regulator, the Pollution Control Co-ordinating Unit (PCCU) within the EPD is responsible to maintain a record of all reported oil spills within Malta's territorial waters. However, oil spills may not necessarily emanate from ships; in some instances, spillages were traced to fuel storage depots on land.

#### Oil Pollution Response Module

**1.37** The Oil Pollution Response Module (OPRM) is responsible to supervise the cleaning up of low to medium level oil spills. The clean-up operation may be carried out by the OPRM and, where possible, the polluter would be charged for the operation. A fine may also be imposed on

<sup>15</sup> In addition, the Ports Directorate within the MMA has a Ports Contingency Plan for dealing with spills of up to 10,000 litres.

the polluter by the EPD, according to an established formula.

**1.38** The OPRM, which was originally a Unit within the PCCU, was recently transferred to the Works Division of the Ministry for the Environment. On 1 March 2002, the Works Division became part of the Ministry of Resources and the Infrastructure, whilst the EPD became part of the Malta Environment and Planning Authority (MEPA).

**1.39** As at the end of 2000 and 2001, 7 personnel were employed in the OPRM. During 2000 and 2001, operational costs incurred by this module amounted to Lm67,339 and Lm51,708 respectively.

#### Civil Protection Department

**1.40** The Civil Protection Department (CPD) now within the Ministry for Justice and Home Affairs is responsible to deal with high level spillage, greater than 1000 tons. Such spillage would be considered a national disaster and would need to be dealt with at the national level with promptness and efficiency, and with international assistance, in order to minimise environmental damage and serious economic repercussions. The CPD does not operate a separate unit directly responsible to deal with marine pollution from ships; the CPD would therefore perform a co-ordinating role. However, its Marine Section, which had a staff compliment of twelve (11 per cent of the total employees at the CPD) and are mainly engaged in Search and Rescue operations, would also be utilised in the operation.

#### Armed Forces of Malta

**1.41** The Armed Forces of Malta (AFM) has the responsibility to monitor Maltese coastal waters, by means of air and marine patrols, for any oil spills and to provide assistance in cases of emergency. In this connection, monitoring for signs of pollution around the waters of the Maltese islands is only one of the AFM's objectives of air and marine patrol, which are primarily to safeguard national security and the enforcement of law and order within Maltese territorial waters.



## **Audit objectives**

**1.42** Many of the audit criteria are derived from international regulations, conventions ratified by Malta, and the MMoU. For the purpose of this audit, the relevant criteria have been grouped into three main audit objectives, which seek to establish whether:

- national policy regarding preventing and dealing with pollution is being implemented and enforced;

- government measures to prevent pollution from ships are efficient and effective;
- government measures to deal with pollution from ships are timely and effective.

**1.43** The scope and methodology adopted in undertaking this audit are attached at Appendix I.

# Part 2

## Prevention of Pollution from Ships

### Introduction

**2.1** This section of the report evaluates operations related to the prevention of marine pollution from ships. The report will discuss ship inspection initiatives related to flag State control, namely, ship surveys and Flag State Control Inspections (FSCIs) as well as Port State Control Inspections (PSCIs) performed by the Merchant Shipping Directorate (MSD) of the Malta Maritime Authority. Flag State control and port State control initiatives contribute towards ship safety and pollution prevention from ships worldwide.

### Flag State Control

**2.3** Article 94 of the United Nations Convention on the Law of the Sea (UNCLOS) broadly stipulates the duties of the flag State.<sup>1</sup> In particular, every State shall maintain a register containing the names and particulars of ships flying its flag. Flag States are required to ensure, on an ongoing basis, the safety of ships and that pollution prevention measures are in place.

**2.4** Such measures shall include ship surveys performed by qualified surveyors at established

**Table 3 – Breakdown of Maltese ships by category as at 31 December 2001**

Ship category	Number of ships	Ships (percentage)	Gross tonnage	Gross tonnage (percentage)
Tanker	351	2.44%	11,491,044	42.52%
Bulk Carrier	413	26.41%	10,108,848	37.42%
Passenger	58	3.71%	188,164	0.70%
Cargo	608	38.87%	5,129,988	18.99%
Other <sup>2</sup>	134	8.57%	100,000	0.37%
<b>Total</b>	<b>1,564<sup>3</sup></b>	<b>100%</b>	<b>27,018,044</b>	<b>100%</b>

**2.2** The issues of ship safety and pollution prevention are inextricably linked, as defects relating to ship safety inevitably increase the risks of marine pollution. Consequently, whilst the focus remains on pollution prevention, the measures discussed in this chapter address both issues.

<sup>3</sup> Includes 60 domestic commercial vessels. These are ships which do not sail beyond local waters, and include Gozo Channel ferries, vessels used for harbour cruises, and workboats used within the port industry. Domestic commercial vessels are monitored by the Ports Directorate, and are not subject to the MSD's FSCIs. The total figure also includes a number of ships, termed as 'Bareboats – Out', registered in terms of Part IIA of the Merchant Shipping Act 1973 – Bareboat Charter Registration. Although such ships are registered in Malta, their control falls under the responsibility of other Administrations. The NAO was not provided with details of these ships. However the MSD contended that the number was small, and would not have a significant impact on the NAO's analysis.

<sup>1</sup> A flag State is a State that allows a ship to fly its flag, and that grants the ship its nationality.

<sup>2</sup> The 'Other' category includes barges, tugs, search and rescue vessels, supply vessels and work/repair ships.



intervals as required by the various Conventions. Certificates of registration are renewed annually by the MSD on condition that all valid statutory certificates are in order, following the required ship surveys performed on its behalf by various Classification Societies. In addition, flag States conduct Flag State Control Inspections. In the case of the Malta Flag, most FSCIs are performed by foreign ship inspectors overseas engaged by the MSD.

**2.5** As at end December 2001, the Maltese register recorded 1,564 merchant ships totalling circa 27 million gross tonnage.<sup>4</sup>

### Statutory (Survey) Certificates

**2.6** Statutory certificates are issued following ship surveys that are performed to ensure vessels' compliance with shipping standards, including pollution prevention measures, as established by international conventions.

**2.7** These certificates are valid for up to five years, subject to the positive outcome of renewal, annual and/or intermediate ship surveys and inspections. Currently, there is a move to harmonise the validity periods of all certificates.

**2.8** Merchant ships require the following statutory certificates:<sup>5</sup>

- Safety Equipment;
- Safety Radio;
- Safety Construction;
- International Safety Management;
- Load Line;
- International Oil Pollution Prevention.

**2.9** As stated in Part 1: Introduction, the prime responsibility for compliance with the requirements laid down in the international maritime conventions lies with the shipowner/operator; responsibility for ensuring such compliance remains with the flag State.

<sup>4</sup> Yachts and Fishing Vessels were excluded from the NAO analysis.

<sup>5</sup> A brief description of the statutory certificates listed, including period of validity and vessel applicability is attached at Appendix V.

**2.10** The MSD delegates statutory (survey) certification work to a number of Classification Societies (Classes), who issue certificates on behalf of the Government of Malta. Costs are borne by the vessels' owners. The NAO noted that although there were standing instructions from the MSD to the Classes, as well as communications between them on a per vessel basis, the responsibilities of the Classes were not regulated by formal agreements with the MSD. The MSD was working towards the adoption of a model agreement, proposed by the International Maritime Organisation (IMO).

**2.11** There are around 45 Classes, ranging from one-man certifying agencies to large organisations. The MSD only accepts certification by certain Classes, mainly the members of the International Association of Classification Societies (IACS). These are listed in MSD Notice No. 48 dated 15 May 2002. A further three Classes listed in the Notice may be acceptable at the time of registration, but would not be acceptable in the event of a transfer to them from an IACS member. Professional reputation varies even among the IACS members.<sup>6</sup>

**2.12** A random sample of 362 merchant ships out of 1,564 registered with the MSD was analysed to establish whether the sampled ships' statutory certificates were in order (that is, they held main certificates supplemented by the relevant annual and/or intermediate endorsements, as at 31 July 2002).<sup>7</sup> Out of the 362 sampled ships, 296 ships required a total of 1990 statutory certificates.<sup>8</sup>

**2.13** Where possible, the NAO obtained confirmation of the certification through on-line data made available by various Classes. Where

<sup>6</sup> Paris MoU Annual Report 2001: Model 2 - Detentions of ships with class-related detainable deficiencies per Classification Society.

<sup>7</sup> Results emerging from this sample are at the 95 per cent confidence level and five per cent confidence interval for the whole group. Where applicable, the confidence intervals of sub-groups within the entire sample widens as their sizes get smaller.

<sup>8</sup> Ships that do not require statutory certification, as listed in Paragraph 2.8, include domestic commercial vessels and ships whose gross tonnage is below limits specified in the relative international conventions.



such information was not available through a Class's website, relevant documentation was sought from the MSD's files.

**2.14** The NAO did not find sufficient documentation at the MSD's Offices, or on-line confirmation on the Classes' websites, to provide assurance that 418 of the required statutory certificates/endorsements were held.<sup>9</sup> The MSD addressed this issue by requesting the relevant Classes to provide the missing information, which was received by the MSD in all cases by 31 October 2002. Confirmation that all the sampled Maltese ships held valid certification as at a given date is reassuring.

**2.15** On the other hand, the MSD was not seeking timely confirmation, on an ongoing basis, that its ships were being surveyed/inspected, and that the relative statutory certificates were being issued/endorsed, by the Classes when due. This is because the MSD assumed that the Classes would be fully responsible to perform survey and certification work delegated to them in a timely and effective manner.

**2.16** The MSD was fully relying on the Classes to report back immediately, in the event that such work had not been carried out by due date, or that deficiencies prevented the issue of the relative certificates/endorsements.

**2.17** Over-reliance on the Classes diminishes the MSD's direct control over the statutory certification of its fleet. There is a risk that if relevant information from the Classes does not reach the MSD, the latter may not become immediately aware if any of its ships are not covered by valid certification, and of the need to take timely action as may be required in the circumstances.

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<sup>9</sup> The NAO notes that it may be possible to obtain secondary or indirect confirmation of the existence and validity of a vessel's statutory certificates, in the following instances:

- where a flag State inspector has ticked the relative section in the checklist during a recent FSCI;
- where the vessel has emerged from a recent PSCI with a clean bill of health as regards certification.

This approach was not considered by the NAO to be sufficiently conclusive for the purpose of this audit.

### Flag State Control Inspections

**2.18** A Flag State Control Inspection consists of a detailed inspection of the vessel, focusing mainly on the safety and statutory certification of the ship, crew, navigational equipment and pollution prevention controls. FSCIs performed by the MSD are not linked to statutory surveys. The MSD utilises these inspections as an additional and independent measure to ensure adequate flag State control. FSCIs also provide the MSD with an opportunity to perform quality control checks on ship surveys performed by the Classes.

**2.19** FSCIs specifically cater for environmental considerations by ensuring that all ships exceeding 400 gross tonnage (150 gross tonnage in the case of tankers) carry a valid International Oil Pollution Prevention Certificate (IOPP), and that oil pollution prevention controls are in place, including properly documented procedures, suitable equipment maintained in good working order, and evidence that drills were carried out regularly and effectively.<sup>10</sup>

**2.20** The NAO evaluated Flag State Control Inspections performed by the MSD in 2001 by establishing whether:

- i. targeting of ships for inspection was effective, that is, ships that pose the biggest threat of pollution were selected for inspection;
- ii. adequate internal controls were in place at the MSD to ensure the quality of inspections.

### Pre-registration and first-month Flag State Control Inspections

**2.21** In February 2000, the MSD reviewed its guidelines for the registration of merchant ships older than 15 years. These guidelines were intended as further assurance of the seaworthiness of ships being registered, as required in terms of Section 12 (a) of the Merchant

<sup>10</sup> FSCIs performed in 2001 indicated that Maltese ships held valid IOPP Certificates, except for a few minor irregularities.





**Table 4 – Flag State Control Inspections of merchant ships carried out in 2001<sup>11</sup>**

Ship Category	Number of inspections in 2001	Percentage of all inspections in 2001	Number of ships registered as at end 2001	Ships inspected as a percentage of ships registered as at end 2001
Tanker	221	35.19%	339	65.19%
Bulk Carrier	173	27.55%	413	41.89%
Passenger	17	2.71%	31	54.84%
Cargo	207	32.96%	608	34.05%
Other	10	1.59%	113	8.85%
<b>Total</b>	<b>628</b>	<b>100%</b>	<b>1,504<sup>12</sup></b>	<b>41.76%</b>

Shipping Act. By tightening controls over the registration of older ships, the guidelines also contribute towards minimising the threat of pollution to the marine environment.

**2.22** The MSD's Notice No. 36 dated 16 February 2000 laid down, *inter alia*, the following guidelines:

- As a rule, merchant ships aged 25 years and over were not to be registered.
- Registration of merchant ships aged 20 years and over was subject to prior FSCI (pre-registration FSCI).
- Registration of merchant ships aged 15 years and over, but less than 20 years, required FSCI within one month of registration (first-month FSCI).

**2.23** Pre-registration and first-month FSCIs are the same as other FSCIs, except that they are targeted to specific ships at the time of registration. A negative outcome of an inspection could preclude registration under the Malta flag. However, the MSD's Notice No. 36 emphasised that the final decision on the registration and seaworthiness of a vessel was to remain at the discretion of the Directorate.

**2.24** The same random sample of 362 files (vide paragraph 2.12) was analysed to identify, *inter alia*, whether merchant ships registered between 1 March 2000 and 30 September 2001 conformed with these guidelines. The sample included 49 ships aged 15 years and over, registered during this period.

**2.25** The NAO analysis revealed that the MSD had complied with Notice No. 36. In a few cases, ships were presented late for inspection.

Criteria for targeting of Flag State Control Inspections

**2.26** During 2001, the MSD performed a total of 628 FSCIs.

**2.27** The MSD was using an informal risk-weighted system, based on semi-official and undocumented criteria, as overall guidelines to determine the selection of ships requiring Flag State Control Inspection:<sup>13</sup>

- (a) All merchant ships categorised as oil and chemical tankers, bulk carriers over ten years old, and passenger ships, are to be inspected at least once annually.
- (b) All merchant ships aged over 15 years are to be inspected at least every 24 months.
- (c) Depending on a merchant ship's history of detentions, contraventions and casualties.

<sup>11</sup> Source: MSD databases.

<sup>12</sup> Excludes 60 domestic commercial vessels, which were not being subjected to FSCIs.

<sup>13</sup> In accordance with the MSD's undocumented practices, ships aged less than five years, non-propelled vessels (e.g. towed barges, but can also include floating docks and oil rigs), and ships under 500 gross tonnage were not being targeted for FSCIs. The NAO was informed that, in the case of ships aged less than five years, this practice had been adopted only for the time being (2-3 years).



(d) Any other Maltese ship at the discretion of the MSD.<sup>14</sup>

**2.28** The following points emerged from the NAO's analysis of the MSD's FSCI targeting practices:

- Table 4 indicates that inspections performed in 2001 were biased towards tankers. This is positive since this vessel type may be considered as posing one of the largest threats to the marine environment. However, the number of inspections carried out in 2001 fell short of the MSD's declared aim under criterion (a), mainly in respect of annual inspections of bulk carriers aged over 10 years.
- 527 of all FSCIs performed in 2001 (84 per cent) were carried out on the older merchant ships (over 15 years). This is in line with FSCI targeting, as a priority, of the more risk-prone merchant ships. In fact, the number of inspections carried out in 2001 marginally exceeded the MSD's declared aim under criterion (b).
- In the absence of records relating to the targeting criteria, under which particular ships were targeted, it was not possible to confirm which ships were inspected under criteria (c) and (d).
- The MSD's FSCI targeting criteria excluded ships under 500 gross tonnage. Through this practice, the MSD was omitting to inspect vessels that require statutory certificates even though they are less than 500 gross tonnage.

### Merchant ships not subjected to Flag State Control Inspection

**2.29** The random sample of 362 files (vide paragraph 2.12) was analysed to identify ships

<sup>14</sup> For practical purposes, such as quality assurance of FSCIs performed by foreign inspectors/companies and for economic reasons, the MSD adopted the practice that Maltese merchant ships are, when possible, targeted for inspection when visiting Malta. 23 FSCIs were carried out locally during 2001.

that had not been inspected since registration. 290 of the 362 merchant ships were eligible for FSCIs.

**2.30** The NAO analysis revealed that:

- Up to the end of 2001, FSCIs had not been performed on 19 out of the 290 sampled merchant ships emerging from the sample (6.6 per cent). A number of them were already being inspected in 2002, at the time of this audit.
- Five of the 19 ships not inspected by the MSD were detained once each in foreign ports between July 1999 and May 2001, following ship inspections under various port State control regimes.
- A further two ships, out of a group of 25 ships (8 per cent), which were not subjected to FSCIs in accordance with MSD practice not to target ships aged less than five years, were also detained within the same period. This raises the question whether the MSD's practice not to target such ships for FSCI should be reviewed as early as possible.

### Detained merchant ships

**2.31** During 2001, 152 ships registered under the Malta flag were detained in foreign ports following Port State Control Inspections performed by the signatories of the Paris MoU.<sup>15</sup> In view of the relatively high number of detentions in 2001, the Malta flag remained on the Paris MoU's black list. However, on a three-year rolling average, the Malta flag's ranking within this list improved from 'medium-to-high' to 'medium' risk.

**2.32** Port State Control Inspections could be used by a flag State as an indicator of the

<sup>15</sup> Vide Appendix IV. 42 of these detentions were due to Class-related deficiencies. This Class-detention rate was marginally higher than the average for the flag States listed in the Paris MoU annual report for 2001. Class-related deficiencies refer to instances where detentions are based on deficiencies relating to statutory activities conducted by Classification Societies on behalf of the vessels' flag States.



effectiveness of its Flag State Control Inspection regime. The NAO sought to establish a relationship between ships registered, FSCIs performed, and detentions in foreign ports.

**2.33** Chart 3 illustrates a comparison, for each of the merchant ship categories, of the percentage of ships registered in the category as at end 2001, with the relative percentages of FSCIs performed, and the percentages of detentions following Port State Control Inspections abroad in 2001. For example, tankers make up 23 per cent of the Maltese fleet; 35 per cent of all inspections in 2001 were carried out on tankers; 20 per cent of detentions during 2001 involved tankers.

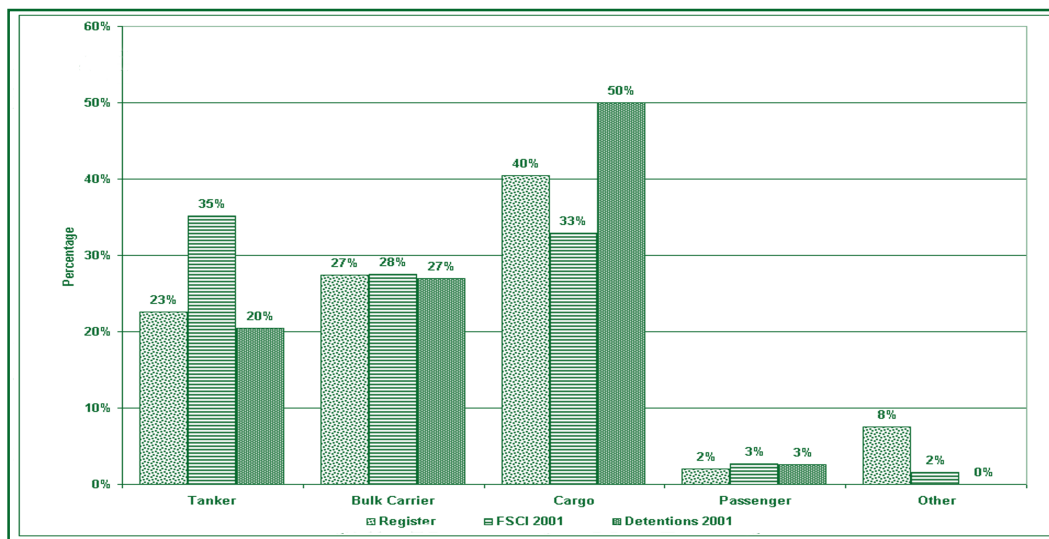
**2.34** Chart 3 also illustrates significant differences, in the cargo and tanker categories, between the percentages of FSCIs performed by the MSD and the relative detention rates of these categories of merchant ships following Port State Control Inspections in the Paris MoU regions.

**2.36** Tankers clearly pose a greater risk in terms of the potential spillage of oil and chemical pollutants. However, other categories of ships may carry harmful substances and large quantities of oil. For example, the larger type of container ship may contain 10,000 tonnes of oil, or more, as fuel. To put the risk into perspective, the National Marine Pollution Contingency Plan envisages that the impact of an oil spill of over 1000 tonnes (vide paragraph 1.40) would be a national disaster.

Internal control and quality assurance of Flag State Control Inspections

**2.37** The NAO evaluated whether internal control mechanisms exercised by the MSD were adequate to ensure the effectiveness of Flag State Control Inspections. Bearing in mind that the large majority of FSCIs are performed abroad, internal controls relating to such inspections can be segmented into two broad categories, namely internal controls related to the selection of foreign

**Chart 3 - Detained Maltese ships and Flag State Control Inspections performed in 2001**



**2.35** The opportunity cost of the MSD's bias of FSCIs towards tankers (35 per cent of all FSCIs on 23 per cent of ships registered, compared with 20 per cent of all detentions) may have been that cargo ships suffered a higher percentage detention rate (33 per cent of all FSCIs on 40 per cent of the register, compared with 50 per cent of all detentions).

officials/companies to perform FSCIs abroad, and post-inspection controls to ensure the integrity and quality of inspections.

**2.38 Policies and procedures** – General principles and broad parameters of FSCIs are collated in the Malta Maritime Authority's internal



## Performance Audit - Preventing and Dealing with Pollution from Ships at Sea and in Ports

document “*Guide to Safety Inspectors*”.<sup>16</sup> This document outlines the main aim of inspections, that is, to enhance the operational safety levels of all ships on the register. It includes references to local legal requirements and the relative IMO conventions, and instructions that compliance with the conventions should be a prime consideration when conducting an FSCI.

**2.39** The MSD did not have documented policies and procedures covering the engagement of foreign inspectors, the allocation of ship inspections to individual officials, and the process of reviewing FSCIs carried out.

**2.40** The absence of documentation could lead to:

- incomplete, erroneous or non-standard processes;
- lack of resilience in the absence of key personnel; and
- diminishing overall internal control.

**2.41 Segregation of duties** – An important element of internal control is segregation of duties. This has the function of ensuring that duties which may lead to conflicting interests are not carried out by the same person(s). For control purposes, the duties which need to be segregated are the engagement of inspectors, the allocation of FSCIs, and the review of the relative reports. Deficiency in this regard had been identified in an internal audit report dated January 2002. The MSD had implemented the internal audit recommendation, and consequently, at the time of the NAO audit, adequate segregation of duties was in place.

**2.42 Engagement of inspection officials / inspection companies** - The large majority of Flag State Control Inspections are carried out in foreign ports. As stated earlier, for economic and mobility reasons the MSD utilises the services of foreign officials/companies to carry out FSCIs in foreign ports.

**2.43** The MSD did not have a tendering procedure for the engagement of foreign

inspectors. The NAO was informed that prospective inspectors themselves apply for such positions, listing their qualifications, work experience and references. The MSD evaluates applications by:

- ensuring that qualifications comply with the minimum stated in Annex 4 of the Mediterranean MoU;
- confirming work experience indicated in the application with the previous employer (e.g. a Classification Society or a flag State);
- confirming that the applicant does not work for a Classification Society; and
- verifying references.

**2.44** The MSD requires that foreign inspection officials should not, at the same time, work for a Classification Society or flag State, in order to avoid potential conflicts of interest. Occasionally, however, this is tolerated, as long as such work is performed on a non-exclusive basis. The MSD admitted that, in some cases, it has not been possible to confirm all details in applications, such as references.

**2.45** Formal contracts were not drawn up; foreign inspectors were being engaged merely by a faxed Agreement. Although this approach provides the MSD with hire and fire flexibility, in the absence of a formal contract it may prove difficult for the MSD to hold an inspection official accountable for his actions. In circumstances of proven negligence, the MSD may only be in a position to discontinue the relationship with the inspection official / company.

**2.46 Quality assurance of FSCI reports** - The NAO was informed that the MSD seeks to evaluate the quality of FSCIs performed abroad from the reports submitted by the inspection officials / companies.

**2.47** The MSD’s officials carry out such evaluation on the basis of their own experience, and from relevant information emerging from ship surveys performed by Classification Societies. This evaluation process is seen to be weak since

<sup>16</sup> Undated document.



the MSD reviewing officials may have no way of ascertaining, at the time, that an inspection had been carried out in sufficient depth. In addition, items certified to be in order may have been examined superficially or may not have been examined at all.

**2.48** The MSD's own "*Guide to Safety Inspectors*", which places the onus for the depth of an inspection on the official engaged, calls for a robust quality assurance programme.

**2.49** Possibly, a more effective means of quality assurance are the FSCIs which are carried out by the MSD's own officials when Maltese ships visited Malta. However, the number of these FSCIs was very small in comparison with FSCIs performed abroad. (In 2001, only 23 FSCIs - 3.7 per cent - were performed in Malta out of a total of 628 FSCIs on merchant ships worldwide.)

**2.50** The MSD only tracked the outcome of Port State Control Inspections on Maltese ships in foreign ports in specific cases which warranted immediate attention. Whilst a Flag State Control Inspection is more comprehensive than a Port State Control Inspection, records of deficiencies emerging from the latter inspections could be checked against FSCI reports submitted by the MSD's inspection officials from abroad.

### Initiatives to strengthen Flag State Control

**2.51** The MSD has embarked on direct initiatives to strengthen its flag State control. The initiatives include subjecting older ships to more stringent controls at the time of registration and, as a rule, not registering ships of over 25 years. The MMA's latest annual report recorded that, between October 2000 and September 2001, a number of ships, in aggregate representing a significant gross tonnage, were either not accepted for registration, or were struck off the register. Such action is also deemed to address the negative ranking of the Malta flag according to the Paris MoU listing.

**2.52** The upgrading of information systems within the 2002 national pre-accession programme for Malta, including the integration of databases, should raise the level of the MSD's management control.

**2.53** The MSD stated that available human resources were insufficient to ensure full completion of the FSCI programme in the period under review.<sup>17</sup> The NAO was informed that the number of FSCIs being performed in 2002 rose to circa 70 per month, from around 52 inspections per month performed in 2001.

### **Port State Control**

**2.54** Whilst FSCIs are performed on Maltese ships, Port State Control Inspections carried out by the MSD aim to ensure that foreign ships leaving Maltese waters on international voyages are maintained in accordance with the required international standards. Similar to FSCIs, Port State Control Inspections contribute towards the maintenance of ship safety and pollution prevention from ships worldwide. The effectiveness of Port State Control is enhanced through various regional co-operation initiatives between port States. Appendix III provides a geographical overview of the port State control regimes. The principles and concepts relating to PSC have been adopted by the European Union, which has issued EU Directive 95/21/EC. EU member States have a legal obligation to carry out PSCIs.

### The Memorandum of Understanding on Port State Control in the Mediterranean Region

**2.55** The Malta Maritime Authority is a member of the Memorandum of Understanding on Port State Control in the Mediterranean Region (MMoU). The MMoU was signed by eight Mediterranean maritime Administrations on 11 July 1997. The effective date of the MMoU, applicable for Malta, was 25 February 1998.

**2.56** Each port State is obliged to achieve, within a period of three years from the coming into effect of the MMoU, that is, by 25 February 2001 in Malta's case, an annual total of inspections corresponding to 15 per cent of the estimated

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<sup>17</sup> In addition, at the time of the NAO audit, two of the 17 local inspectors were undergoing training overseas, one for 18 months, the other for four years.



number of individual foreign merchant ships entering the signatories' ports. Each port State is also obliged to consult, co-operate and exchange information with other Authorities in order to further the aims of the Memorandum.

Port State Control Inspections performed by the Merchant Shipping Directorate

**2.57** The NAO evaluated the effectiveness of PSCIs performed by the MSD, in terms of the following criteria:

- the targeting of foreign merchant ships for PSCI;
- the number of inspections performed on ships entering Maltese ports.

**2.58** The NAO exercise entailed reviewing databases maintained by the MSD relating to PSCIs performed during 2000 and 2001.

Targeting merchant ships for Port State Control Inspections

**2.59** In part, the effectiveness of PSCIs depends on the capability to identify merchant ships that pose the highest risks to maritime safety and marine pollution. The MMoU provides guidelines regarding ship selection for PSCI. In addition, the MMoU envisages facilitating such selection by encouraging signatories to consult a central database for data on ships' particulars and for reports on previous inspections carried out in the region. During the period under review, this database was not yet operational.

**2.60** The MSD did not have direct access to other regional databases, such as the Paris MoU, in view that the Malta Maritime Authority was not a signatory of other Memoranda of Understanding. Thus, information on foreign ships visiting Maltese ports was not readily available to the MSD. This lack of information prevented the MSD from adopting a risk-focused approach.

**Table 5 – Targeting of merchant ships for Port State Control Inspection, in terms of the Paris Memorandum of Understanding listing<sup>18</sup>**

Paris MoU listing	Number of ships available for PSCI <sup>19</sup>		Ships available for PSCI (percentage)		Number of PSCIs performed		PSCIs performed (percentage)	
	2000	2001	2000	2001	2000	2001	2000	2001
<b>Black List</b>	280	264	35.6%	31.6%	44	59	62.9%	51.7%
<b>Grey List</b>	195	216	24.8%	25.9%	15	28	21.4%	24.6%
<b>White List</b>	304	339	38.7%	40.6%	11	23	15.7%	20.2%
<b>Not listed</b>	7	16	0.9%	1.9%	0	4	0.0%	3.5%
<b>Totals</b>	<b>786</b>	<b>835</b>	<b>100%</b>	<b>100%</b>	<b>70</b>	<b>114</b>	<b>100%</b>	<b>100%</b>

<sup>18</sup> The listing was sourced from the Paris MoU report for 2000. In 2001, the risk ranking of 11 ships would have changed following registration with another flag State; the last risk ranking was included in Table 5. Three PSCIs

in 2000 and four PSCIs in 2001 were excluded from Table 5 for practical reasons.

<sup>19</sup> The number of individual ships which entered Maltese ports during the year under review.



**Table 6 – Individual foreign ships entering Maltese ports and the number of Port State Control Inspections performed by the Merchant Shipping Directorate in 2000 and 2001**

	2000	2001
<b>Ships available for PSCI</b>	786	835
<b>Number of PSCIs performed</b>	70	114
<b>Percentage of merchant ships inspected</b>	8.9%	13.7%

**2.61** The MSD generally relied on the experience of their inspectors (also known as port State control officers) to target the most risk-prone ships in Maltese ports. In the absence of an accessible database of risk factors pertaining to particular ships, the MSD’s inspectors were deciding whether or not to carry out a PSCI on the basis of a merchant ship’s apparent condition and available information.

**2.62** Data available indicates that the MSD was generally targeting ships that posed a greater threat to shipping safety and the marine environment. The NAO reached this conclusion in view that PSCIs were biased towards ships registered with higher risk flag States (according to the Paris MoU listing). Table 5 refers.

**Number of Port State Control Inspections performed**

**2.63** Paragraph 1.3 in Section 1 of the MMoU establishes that each port State authority shall perform PSCIs on 15 per cent of the estimated

number of individual foreign ships which entered its ports during a year. Table 6 shows the number of individual merchant ships that entered Maltese ports during 2000 and 2001 and the number of PSCIs performed.

**2.64** Table 6 indicates that, in 2001, the PSCI target was not achieved by almost 9 per cent. The significant increase in the number of PSCIs in 2001 over the previous year was due to the fact that more inspectors were deployed by the MSD to perform ship inspections.

**2.65** Only a minority of deficiencies identified by the MSD were specifically related to pollution prevention, however, the relative percentage increased in 2001.

**2.66** EU member States are obliged to perform PSCIs on 25 per cent of visiting foreign ships, in terms of the Paris MoU. Upon Malta’s accession to the EU, the MSD will be obliged to achieve the 25 per cent target. It was reported that during 2002 the MSD was already achieving an inspection coverage of 21 per cent of visiting ships.

# Part 3

## Dealing with Pollution from Ships

### The National Marine Pollution Contingency Plan

#### Background

**3.1** Incidents involving hazardous and noxious substances can harm human life and the environment. Hazardous and noxious substances include any substance, such as oil, the escape or discharge of which could be dangerous to human health and other living resources, and could damage the marine environment and its amenities, and interfere with the legitimate use of the seas, adjacent coastal areas and related interests. Such incidents can have a very negative impact on the local economy.

**3.2** Whilst minor oil spills are fairly common around our coast, the threat of a major spill is very real. Immediate response is vital in an emergency. Clearly, an effective response requires a comprehensive and well-rehearsed contingency plan, which can count on the full commitment of all parties that may be involved in its immediate execution in a real-life situation. The National Marine Pollution Contingency Plan (hereafter referred to as the NMPCP or the Plan) lays down Malta's response strategy.

**3.3** The NMPCP emerged from a project financed under the Malta – EU Third Financial Protocol, which also provided for the procurement of equipment, including a support vessel, and the training of personnel. The Plan itself was drawn up by the contracted consultants, the *Centre de Documentation de Recherche et d'Experimentations sur les Pollutions Accidentelles des Eaux* (CEDRE), who delivered it in draft form in June 1999.

**3.4** Upon delivery of the NMPCP, and in accordance with its provisions, the Environment

Protection Department (EPD) within the former Ministry for the Environment, was given the responsibility to develop and maintain the Plan. In turn, these tasks were delegated to the Head of the Oil Pollution Response Module (OPRM). At the time, the OPRM was a unit within the EPD.

#### Organisation of the Plan

**3.5** The NMPCP defines the roles of the different government entities in case of an emergency or incident that threatens the marine or coastal environment. It acknowledges that a number of local agencies, both public and private, have pollution contingency plans, and are equipped for counter pollution intervention. The Plan aims to enhance existing capabilities in the event of a pollution incident, by ensuring a co-ordinated and cost-effective response. Appendices VI and VII illustrate the emergency response organisation, and the alert and activation scheme, envisaged by the NMPCP.

**3.6** The vast majority of spillage incidents involve oil. The NMPCP envisages three tiers of magnitude of oil spillage:

- Tier 1 – low level: less than 10 tons;<sup>1</sup>
- Tier 2 – medium level: 10 to 1000 tons;
- Tier 3 – high level: over 1000 tons.<sup>2</sup>

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<sup>1</sup> In addition, the Ports Directorate within the MMA has a Ports Contingency Plan for dealing with spills of up to 10,000 litres.

<sup>2</sup> The size of an oil spill in terms of weight is only one factor in a potential disaster scenario; there are several other important variable factors that determine its consequences and the appropriate response. Weather conditions, in particular, may preclude a response, at least temporarily, irrespective of the best laid plans and the availability of suitable equipment and materials.





**3.7 Tier 1:** Low-level spillages are a common occurrence. Cleaning up is normally carried out by the polluter, under the supervision of the OPRM. Where the polluter is not identified, the OPRM carries out the clean-up operation itself. (The OPRM's responsibility to deal with pollution incidents is not limited to pollution from ships.)

**3.8 Tier 2:** A significant spillage incident in this category triggers the co-ordinated response documented in the NMPCP. In this scenario, the Director of the EPD, or an authorised representative, would assume the role of Overall Commander, and would head the Emergency Response Command Committee (ERCC). This committee comprises representatives of the main players (government entities) involved in the Plan's response strategy, and personnel from other entities involved, depending on the particular circumstances of an incident. The main players referred to here would be the EPD, Armed Forces of Malta (AFM), Malta Maritime Authority (MMA), and the Civil Protection Department (CPD). At the operational level, the OPRM is responsible to deal with Tier 2 level spillage, and the Head of the OPRM would normally be delegated by the Overall Commander to assume the role of an On-Scene Commander.<sup>3</sup>

**3.9 Tier 3:** The same initial response process as for Tier 2 would apply. However, spillage in this category would be considered a national disaster. It would therefore need to be dealt with at the national level with optimal promptness and efficiency, and with international assistance, in order to minimise environmental damage and serious economic repercussions. In this situation, the CPD would assume responsibility to deal with the incident, and would designate a Supreme Commander.

**3.10** Whilst key personnel in the main players mentioned above were well aware of their roles and responsibilities, this may not be the case in other government entities.

<sup>3</sup> On-Scene Commanders are the persons designated by the Overall Commander for all the pollution response activities, and for ship salvage, having operational co-ordination, control and responsibility within the framework of the NMPCP. In the case of salvage operations, a Salvage Master would assume the role of On-Scene Commander.

**3.11** With the possible exception of some of the key personnel in the main players, there were no formal procedures to:

- appoint personnel and alternates, in terms of the roles and responsibilities indicated in the NMPCP;
- obtain periodic confirmation that such personnel are aware of their responsibilities and how their action would dovetail within the overall execution of the Plan.

**3.12** Such procedures would contribute towards avoiding confusion in an emergency.

### Approval of the Plan

**3.13** In the course of the audit, the NAO interviewed key personnel involved in the NMPCP. They maintained that the Plan had not been officially approved, that is, adopted as government policy.

**3.14** The NAO draws attention to comments by the Minister for the Environment in a speech given on 22 September 1999.<sup>4</sup> When referring to the Plan, the minister reportedly gave no indication that prior ratification was required. In fact, the NMPCP'S day-to-day operational procedures have been followed.

**3.15** The Master Plan held by the CPD in the Ministry for Justice and Home Affairs refers to a national plan for combating marine pollution (not specifically the NMPCP) as the applicable contingency plan in the case of marine pollution.

**3.16** CEDRE itself envisaged a process of ratification through legislation,<sup>5</sup> which may have contributed towards some confusion over this issue. The NAO was informed that the EPD had obtained legal advice that official approval of the Plan would not require legislation; cabinet approval, or confirmation of approval, would bind all ministers and, hence, all government units in each minister's remit.

<sup>4</sup> Source: Official website of the Maltese Government.

<sup>5</sup> Source: Technical Assistance Contract to Malta - Training Programme & Marine Pollution Contingency Plan: Practical Stage and Simulation Exercise - Final Report dated November 1999.

**3.17** The perceived absence of official approval of the Plan has been mooted as one explanation (another being insufficient funds) for an apparent lack of commitment to deploy human resources for training exercises. Press Release No. 0944 on 17 June 1999 stated that the Ministry for the Environment would be issuing the draft Plan to all those concerned “in order to ensure utmost co-operation between the different entities that would be involved in the anti-pollution response operations and to ensure that each and everyone is prompted into action if ever we are faced with a disaster”. In the NAO’s view, this statement implies official sanction of the draft Plan and unequivocally calls for the full commitment of all entities.

### Maintenance and development of the Plan

**3.18** There were no entries on the Amendment Record page in the copy of the NMPCP provided to the NAO. It was confirmed that no maintenance and development<sup>6</sup> of the Plan have been carried out since its delivery in 1999. According to the EPD Director, this was due to resources constraints.

**3.19** The Plan still requires further development (as recommended by CEDRE – vide paragraphs 3.22 and 3.23) and was never finalised.

**3.20** The NAO considers that at this stage it is irrelevant whether maintenance and development of the Plan should precede or follow confirmation that the NMPCP carries the official stamp of government approval. Clearly, both issues need to be addressed as a matter of priority.

### Training

**3.21** In 1999, the Head of the OPRM was also tasked to organise NMPCP-related training exercises, at least on an annual basis.

**3.22** Personnel training was carried out in 1999, under CEDRE’s guidance, as part of its contract.

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<sup>6</sup> Maintenance covers updating of the Plan to reflect any changes over time. Development of the Plan relates to establishing further operational procedures.

After conducting a series of training sessions and a simulation exercise between 22 September and 1 October 1999, CEDRE issued a comprehensive report addressed to the EPD and the EU Delegation of the European Commission to Malta.<sup>7</sup> The report included a number of recommendations for remedial action and further development of the Plan, based on the results of this experience.

**3.23** No action has been taken to implement CEDRE’s recommendations. The Head of the OPRM, to whom maintenance and development had also been delegated, told the NAO that he had never seen CEDRE’s report. The NAO was informed in August 2002 that the Head of the OPRM has since been provided with a copy.

**3.24** Although not entirely on a national basis, a fairly extensive half-day simulation exercise was organised by the Head of the OPRM in October 2000. The latter reported that the outcome was positive, except for a failure in communication between two entities.

**3.25** The effectiveness of training exercises may be diminished when they are organised and monitored by the same person, who also reports on the results. The NAO considers that their effectiveness would be enhanced with independent monitoring and documentation of results.

**3.26** The NAO was informed that the 2001 training exercise was very limited in scope, and only involved the AFM, CPD, MMA and beach cleaners. A report on the exercise was not produced for audit, and may not have been documented.

**3.27** A training session was held in May 2002, consisting of a small spill containment and removal simulation exercise.

**3.28** In view that the comprehensiveness of training exercises has been reducing each year

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<sup>7</sup> Technical Assistance Contract to Malta - Training Programme & Marine Pollution Contingency Plan: Practical Stage and Simulation Exercise - Final Report dated November 1999.



since 1999, training may have become inadequate, both in terms of the preparedness of personnel as well as the identification of potential defects in the Plan. The Head of the OPRM confirmed that a Tier 3 (high level) disaster scenario has never been tested.

**3.29** The Plan was not supported by funds budgeted specifically for its ongoing development, and for personnel training on a national basis at least once yearly.

### Communication issues

**3.30** In context of the NMPCP, communications must be efficient and effective both at the activation stage and during operations.

**3.31** In an emergency, the relevant personnel in all the entities involved should be readily accessible at all times. In view of their wide responsibilities in all kinds of emergencies, the CPD, the AFM and the Police operate communication systems on a 24-hour basis. In addition, these three entities have a hot-line communication system between themselves in order to ensure a fast response. Besides this network, in the course of its interviews the NAO concluded that communication lines existed, on a personal basis, between key personnel in all the main players involved in the execution of the NMPCP. Communications with personnel in other entities involved in the Plan may not be efficient at short notice, especially after normal working hours.

**3.32** A list of all key personnel who would normally be involved, and other personnel that may be involved, in the execution of the Plan, their alternates, and contact details on a 24-hour basis, has not been formally drawn up, maintained up-to-date, and circulated accordingly.

**3.33** Upon execution of the Plan, the entire process of communication plays a fundamental role in the operation's success. Problems with communications equipment and information dissemination had been identified during the 1999 simulation training exercise. As stated earlier, a communication failure also materialised during the exercise carried out in 2000.

**3.34** More recent training exercises (vide paragraph 3.26 and 3.27) were far too limited in scope to test this vital factor.

### Recent developments

**3.35** On 1 March 2002, the OPRM was transferred from the Environment Protection Department within the Ministry for the Environment to the Works Division in the Ministry for Resources and Infrastructure. On the same day, the Environment Protection Department, who owned the NMPCP prior to that date, became part of the Malta Environment and Planning Authority (MEPA), now within the Ministry for Rural Affairs and the Environment.

**3.36** As a result of these transfers, ownership of the NMPCP became unclear. In principle, a regulatory body, such as MEPA, would not own the NMPCP, as it is an operational plan. By the end of December 2002, no decision had been taken regarding the Plan's ownership.

**3.37** If ownership of the NMPCP were to remain in the ministry responsible for the Environment, it would seem inappropriate that the functions of its maintenance and development, and the relative training organisation, are carried out in the Ministry for Resources and Infrastructure. Arguably, delegation of NMPCP-related responsibilities by the EPD (as owner) to the Head of the OPRM is no longer tenable. However, these delegated duties are also embodied in the Head of the OPRM's contract of service. The Head of the OPRM had not been informed whether his originally delegated responsibilities in relation to the NMPCP had changed.

**3.38** These issues are considered to diminish accountability and the commitment required to ensure that the aims of the Plan are maintained.

**3.39** In August 2002, the EPD informed the NAO that, following developments in administrative structures, a review of the NMPCP is required, in particular regarding the ownership and roles of the various agencies.



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In addition, the EPD stated that there is scope for more collaboration between the MMA and the EPD/MEPA on pollution prevention and control.

**3.40** The EPD stated that the following issues need to be addressed:

- Regulating the disposal of any waste that results from oil spill clean-ups.
- Regulating the methodologies used for oil spill clean-ups, in particular, the use of any chemicals/dispersants.
- The quantification of environmental damage resulting from oil spills.

- The imposition of fines related to environmental damage.
- Ensuring that fuel/oil depots and similar installations apply appropriate preventive and contingency measures against oil spills.
- The issue of any legislation on the matter.

**3.41** At the time of publishing this report, the NAO had not been informed of any further developments.



## Part 4 Conclusions

**4.1** The purpose of this audit was to confirm whether there are adequate policies, procedures and controls to prevent, and deal with, pollution arising from maritime activities. The risks of marine pollution are not limited to local waters; they are transboundary in nature since merchant ships, including Maltese ships, sail all over the world. There are close linkages between issues relating to ship safety and pollution prevention: defects in seaworthiness and safety measures inevitably increase the risks of marine pollution from ships. International conventions in conjunction with local legislation provide a framework for safer shipping and pollution prevention.

**4.2** This report highlighted a number of weaknesses regarding the implementation of government policy to prevent pollution from ships. Some operational policies and procedures were not documented, and insufficient management information was available. It was stated that the full completion of various inspection programmes required additional human resources. These issues have a bearing on the Paris MoU's negative, albeit improving, risk ranking of ships registered under the Malta flag.

**4.3** Increased global environmental awareness is causing the shipping industry to consider and implement tighter controls which in turn obliges flag States to undertake increasingly effective measures to prevent pollution from ships.

**4.4** Besides evidence of ongoing improvement, including greater selectivity and tighter controls at the time of registration of older ships, action was being taken to upgrade the Malta Maritime Authority's control regime in all areas. An extensive project was underway within the 2002 national pre-accession programme for Malta titled 'Maritime Safety through Implementation of the Maritime Transport Acquis'. In order to ensure

that the MMA develops the required technical and administrative capacity to implement EU standards in the fields of maritime safety, the project aims to improve the quality and safety of shipping through a process of training, the introduction of information systems, including an integrated management information system, and a uniform safety level, and the improvement of port reception facilities.

**4.5** Malta's response to incidents of pollution from ships in the surrounding sea and in its ports is documented in the National Marine Pollution Contingency Plan (NMPCP).

**4.6** Following a reorganisation of ministries in 2002, current ownership of the NMPCP, and ultimate responsibility for delegated functions, are no longer clearly defined.

**4.7** Funds were not specifically budgeted for the NMPCP's ongoing development, and for comprehensive training. These issues may have contributed to the fact that no maintenance and development have been carried out since its delivery in 1999. The NAO was informed that the NMPCP was still in draft form, and that key personnel involved maintained that it has never been officially approved, that is, adopted as government policy.

**4.8** The issues described above need to be resolved as a matter of priority in order to maintain clear lines of accountability and ongoing commitment to the NMPCP. A comprehensive, up-to-date, and well-rehearsed contingency plan is imperative to ensure an effective response to pollution incidents, which could be dangerous to human health and the marine environment, and could seriously damage the local economy, in particular the tourism industry.



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**4.9** Measures to prevent and deal with pollution from ships were generally in place. However, a range of deficiencies was identified, principally at the management level, which diminished their efficiency. The NAO is proposing a number of recommendations, listed in Part 5 of this report, that are intended to address these deficiencies.

**4.10** Whilst the most effective measures cannot guarantee that accidents and intentional spillages causing pollution will not happen, improvement is called for in various aspects of current practices, in order to optimise Malta's contribution to marine pollution prevention, and its response in dealing with incidents of pollution from ships, whenever they occur.



## Part 5 Recommendations

The National Audit Office proposes that the relevant government units concerned consider implementing the following recommendations:

### Prevention of pollution from ships

#### Flag State Control

The recommendations in this section are directed at the Merchant Shipping Directorate (MSD) within the Malta Maritime Authority (MMA).

- i. The MSD should fully operate in a manner that implies its assumption of complete responsibility for the statutory certification process. In this connection, the MSD should monitor, on an ongoing basis, the tasks delegated to the various Classification Societies, namely the timely and effective performance of ship surveys and the issue of the relative certificates/endorsements.
- ii. Routine FSCI targeting criteria are to be formally established and enforced.
- iii. The introduction of a more comprehensive risk-weighted system is to be considered when establishing targeting criteria for FSCIs, in order to prioritise the selection of ships for inspection more efficiently and effectively, on the basis of age, category, history of detentions, etc.
- iv. Policies and procedures covering the engagement of foreign inspectors, the allocation of ship inspections to individual officials, and the process of reviewing FSCIs performed, are to be documented.
- v. Stronger internal controls are to be implemented in the process of engaging foreign flag State control inspectors, and for the quality assurance of FSCIs performed.
- vi. As far as possible, management information on separate databases should be linked or integrated.

#### Port State Control

The recommendations in this section are also directed at the Merchant Shipping Directorate within the Malta Maritime Authority.

- vii. The number of Port State Control Inspections performed is to be increased, and targeting criteria improved, in order to meet the requirements of the Memorandum of Understanding on Port State Control in the Mediterranean Region (MMoU).
- viii. A systematic risk-focused selection process, requiring an appropriate management information system, is to be implemented, and information on worldwide shipping is to be procured from international organisations, in order to facilitate fulfilment of the MMA's obligations under the MMoU.

#### General

The following recommendation is directed at the Malta Maritime Authority:

- ix. Efforts are to be sustained to upgrade the Malta Maritime Authority's control regime as projected within the 2002 national pre-



accession programme for Malta, aiming to improve the quality and safety of shipping through a process of training, the introduction of information systems, including an integrated management information system, and a uniform safety level, and the improvement of port reception facilities.

### **Dealing with pollution from ships**

The recommendations in this section are directed at the Ministry for Rural Affairs and the Environment, and other government units as applicable.

- x. Clarification is required with regards to the official approval of the National Marine Pollution Contingency Plan (NMPCP), in order to ensure full commitment by all government entities.
- xi. A formal procedure to appoint personnel in the roles defined in the NMPCP is to be introduced, together with formalisation of the communications network for activating the plan.
- xii. Maintenance and development of the NMPCP are to commence without further delay.
- xiii. Training exercises are to be carried out on a national basis, and with more focus on the identification of potential defects in the NMPCP.
- xiv. Training exercises are to be assessed independently, in order to enhance their objectivity and effectiveness. The assistance of the Regional Marine Pollution Emergency Centre for the Mediterranean Sea (REMPEC) may be sought.
- xv. The NMPCP is to be supported by funds budgeted specifically for its ongoing development, and for personnel training on a national basis at least once yearly.
- xvi. Following a reorganisation of ministries in 2002, current ownership of the NMPCP and ultimate responsibility for the delegated duties to maintain and develop it, and to carry out training exercises, are to be clearly defined.





# Appendix I

## Audit Scope and Methodology

### Audit scope

The audit objectives highlighted in paragraph 1.42 were attained through an examination of issues relating to the following items:

- National policies for preventing and dealing with pollution from ships at sea and in ports.
- The organisational structures of the relative government entities.
- Statutory (survey) certification of Maltese ships.
- Flag State and port State control inspections.
- The National Marine Pollution Contingency Plan.
- Flag State Control Inspections performed in 2000 and 2001.
- Port State Control Inspections performed in 2000 and 2001.
- Ships registered under the Malta flag (as at end 2001).
- Shipping movements in Maltese ports in 2000 and 2001 from the Port Management Information System.

### Methodology

The audit objectives were attained through structured interviews and meetings with the various key personnel employed with the government entities involved. Interviewees included the Chairman, as well as the Executive Directors of the Malta Maritime Authority (MMA). Other key personnel interviewed included the Director General of the Works Division, the Director of the Environment Protection Department and the Head of the Oil Pollution Response Module. A meeting with the Regional Marine Pollution Emergency Centre for the Mediterranean Sea was also held.

The NAO made use of databases maintained and made available by the MMA. The following databases were submitted to the NAO:

The above databases were analysed in terms of their various fields. The targeting of ship inspections was evaluated in terms of the ship type, age, flag, as well as other criteria utilised for this purpose by the MMA.

The databases were also analysed in conjunction with the Port Management Information System. This enabled ship inspections undertaken locally by the MMA to be assessed vis-à-vis local shipping movements.

Confirmation that all ships held valid statutory certificates was sought through a random sample of files relating to Maltese merchant ships. The random sample consisted of 362 files out of the 1564 merchant ships registered as at end 2001. The same random sample was also used in the NAO's assessment of the effectiveness of Flag State Control Inspections.

Results emerging from this sample are at the 95 per cent confidence level and five per cent confidence intervals for the whole group. The confidence intervals of sub-groups within the entire sample widen as their sizes get smaller.

In addition to the above databases, the NAO compiled a database of inspections carried out



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by the Ports Directorate within the MMA during 2000. This exercise was performed since records relating to inspections performed by this Directorate were maintained manually. This exercise could not be repeated for 2001 as the Ports Directorate did not furnish the NAO with all the relevant records.

Other information related to shipping safety and the prevention of pollution from ships was

collated through a number of websites, including the International Maritime Organisation (<http://www.imo.org/>), the Paris Memorandum of Understanding on Port State Control (<http://www.parismou.org/>), the Memorandum of Understanding on Port State Control in the Mediterranean Region (<http://www.medmou.org/>), Equasis (<http://www.equasis.org/>), and various Classification Society websites.



## Appendix II

# International Conventions

Prevention of pollution from ships at sea and in ports has transboundary implications. Various international conventions provide a framework to encourage safer shipping and to protect the marine environment. The conventions which Malta ratified include:

### [The International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto \(MARPOL 73/78\)](#)

The MARPOL Convention is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes. It is a combination of two treaties adopted in 1973 and 1978 respectively and updated by amendments over the years.

The International Convention for the Prevention of Pollution from Ships (MARPOL) was adopted on 2 November 1973 at the International Maritime Organisation and covered pollution by oil, chemicals, harmful substances in packaged form, sewage and garbage. The Protocol of 1978 relating to the 1973 International Convention for the Prevention of Pollution from Ships (1978 MARPOL Protocol) was adopted at a Conference on Tanker Safety and Pollution Prevention in February 1978. Malta ratified the MARPOL Convention on 21 June 1991. Local legislation, namely the Merchant Shipping Act 1973, empowers the minister responsible for merchant shipping to make regulations to give effect to any provision in the convention.

The convention includes regulations aimed at preventing and minimising pollution from ships, both accidental pollution and that from routine operations.

### [The Convention for the Protection of the Mediterranean Sea against Pollution \(Barcelona Convention 1976\)](#)

The Barcelona Convention 1976 was ratified by Malta on 30 December 1977.

The main idea was to set up an instrument which would allow, on a permanent basis, monitoring of the state of the Mediterranean Sea, and to identify the major environmental issues and their causes. In addition, the Barcelona convention was meant to harmonise national legislation and raise it to its standards and objectives.

The first Protocol dealt with the *Prevention of pollution of the Mediterranean Sea by Dumping from Ships and Aircraft*.

*Co-operation in Combating Pollution of the Mediterranean Sea by Oil and other harmful Substances in cases of Emergency* was emphasised with the second protocol. In order to enforce it, a Regional Centre, now called the Regional Marine Pollution Emergency Centre for the Mediterranean Sea was created in 1976 and based in Malta.

### [The International Convention for the Safety of Life at Sea \(SOLAS\), 1974](#)

The SOLAS Convention, in its successive forms, is generally regarded as the most important of all international treaties concerning the safety of merchant ships.

The main objective of the SOLAS Convention is to specify minimum standards for the construction, equipment and operation of ships, compatible with their safety. Flag States are responsible for



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ensuring that ships sailing under their flag comply with its requirements, and a number of certificates are prescribed in the convention as proof that this has been done. Control provisions also allow Contracting Governments to inspect ships of other Contracting States if there are clear grounds for believing that a ship and its equipment do not substantially comply with the requirements of the convention. This procedure is known as port State control. The current SOLAS Convention includes Articles setting out general obligations, amendment procedures and so on, followed by an Annex divided into 12 Chapters. The protocol of 1978 relating to this convention stipulates measures affecting tanker design and operation. The protocol also introduced unscheduled inspections and/or mandatory annual surveys and the strengthening of port State control requirements.

The SOLAS Convention came into force in Malta on 8 November 1986.

### The International Labour Organisation Convention (No 147) concerning Minimum Standards in Merchant Ships

On 10 January, 2002, Malta ratified the ILO Merchant Shipping (Minimum Standards) Convention, 1976 (No. 147) and its protocol of 1996. Both instruments entered into force for Malta on 10 January 2003. The Merchant Shipping (Minimum Standards) Convention, 1976, or, as it is commonly referred to, ILO Convention No 147, is the most important

maritime convention to be adopted by the International Labour Organisation (ILO).

ILO 147 aims at ensuring the observance on merchant ships of a wide range of standards (including those laid down in other ILO Conventions) relating to safety, social security, shipboard conditions of employment and living arrangements. Its objective is to improve the efficiency and safety of navigation, enhance measures to protect the marine environment and advance seafarers' interests in the fields of health and safety, working conditions and trade union rights.

### The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978

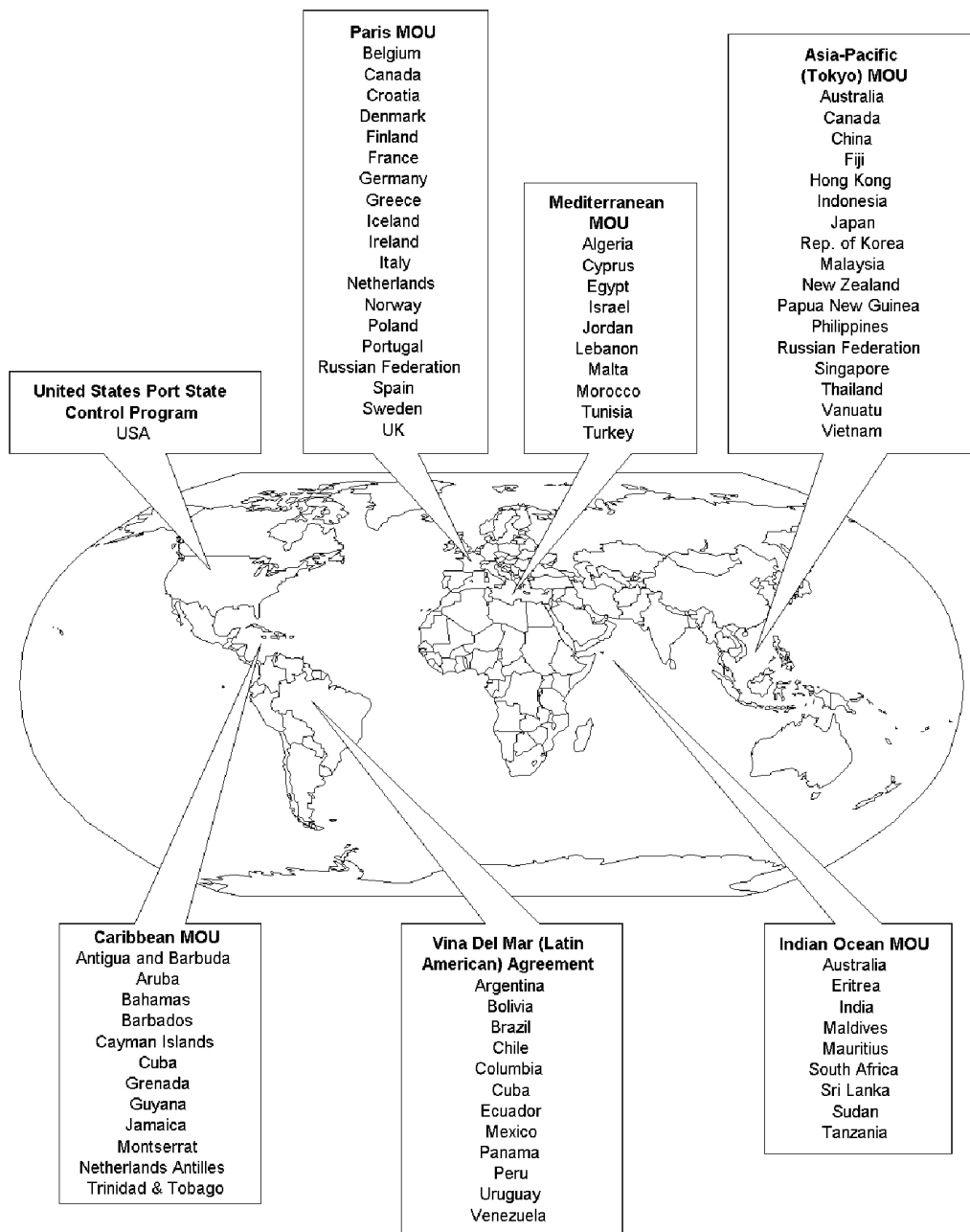
The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978 (STCW 78), which came into force on 29 April 1984, establishes basic requirements on training, certification and watchkeeping for seafarers on an international level. The key to maintaining a safe shipping environment and keeping oceans clean lies in all seafarers across the world observing high standards of competence and professionalism in the duties they perform on board. The convention prescribes minimum standards relating to training, certification and watchkeeping for seafarers which countries are obliged to meet or exceed.

Malta acceded to this convention on 1 August 1991.



# Appendix III

## Geographical Overview of Port State Control<sup>1</sup>



<sup>1</sup>Source: Intercargo: Port State Control – A guide for ships involved in the dry bulk trade, pg 9.

# Appendix IV

## Paris Memorandum of Understanding on Port State Control<sup>1</sup>

### History

The Paris Memorandum of Understanding on Port State Control (Paris MoU), an administrative agreement between the maritime authorities of seventeen European countries and Canada, was adopted in January 1982. It entered into operation on 1 July 1982. Since that date, the Paris MoU has been amended several times to accommodate new safety and marine environment requirements stemming from the International Maritime Organisation (IMO) as well as other important developments such as the various EU Directives which address marine safety.

### Basic principles

- The prime responsibility for compliance with the requirements laid down in the international maritime conventions lies with the shipowner/operator; responsibility for ensuring such compliance remains with the flag State.
- The member-countries have agreed to inspect 25% of the estimated number of individual foreign merchant ships which enter their ports.
- IMO and ILO conventions provide the basis for inspections under the Paris MoU.
- In general, ships will not be inspected within six months of a previous inspection in a Paris MoU port, unless there are clear

grounds for inspection, and the vessel is not of a type which calls for an expanded inspection.

- All possible efforts are made to avoid unduly detaining or delaying a ship.
- Inspections are generally unannounced.

### Targeting

Every day, a number of ships will be selected for a Port State Control Inspection throughout the region. To facilitate such selection, the central computer database, known as 'SIRENAC' is consulted by port State control officers (PSCOs) for data on ships' particulars and for the reports of previous inspections carried out within the Paris MoU region. If a ship has been inspected within the Paris MoU region during the previous six months and, on that occasion, was found to comply, the ship will in principle be exempted from further inspection, unless there are clear grounds to warrant further investigation.

### Detentions

When deficiencies are found during the inspection, the nature of the deficiencies and the corresponding action taken are recorded on the inspection report. Some examples of actions taken are: 'master instructed to rectify deficiency before departure', 'ship detained', 'flag State informed', etc.

In principle, all deficiencies must be rectified before departure of the ship. It is up to the professional judgement of the PSCO to decide that he has to board the ship on a second occasion

<sup>1</sup> Source: Paris MoU website <http://www.parismou.org/>



to check personally if all deficiencies have indeed been rectified.

The following are the main criteria for the detention of a ship:

- a ship which is unsafe to proceed to sea will be detained upon the first inspection, irrespective of the time the ship is scheduled to stay in port;
- the deficiencies on a ship are so serious that they will have to be rectified before the ship sails.

Where deficiencies are clearly hazardous to safety, health or the environment, the maritime authorities will ensure that the hazard is rectified before the ship is allowed to proceed to sea and for this purpose they will either detain the vessel or issue a formal prohibition of the ship to continue an operation. The flag State will be notified as soon as possible.

If deficiencies cannot be remedied in the port of inspection, the maritime authority may allow the ship to proceed to another port, subject to any appropriate conditions determined by the maritime authority of the port of departure, with a view to

ensuring that the ship can so proceed without unreasonable danger to safety, health or the environment. In this case, a follow-up inspection will normally be carried out in this respective port.

In the event of the detention of a ship, the PSCO will note information on the owner or operator of the vessel at the time of the detention. The master will be asked to sign to confirm this information.

When a ship has been detained, all costs accrued by the port State to inspect the ship will be charged to the owner or the operator of the ship or to his representative in the port State.

The detention shall not be lifted until full payment has been made or a sufficient guarantee has been given for the reimbursement of the costs.

The owner or the operator of a ship has a right of appeal against a detention decision taken by the port State authority. An appeal will not however result in the detention being immediately lifted.

On the conclusion of an inspection, the master of the ship will be provided with a document which will indicate the results of the inspection and details of any action required to be taken.

# Appendix V

## Statutory (Survey) Certificates

Merchant Ships are required to carry the following statutory certificates indicating seaworthiness and compliance with shipping standards established by international conventions.

- **Safety Equipment**, valid for 2 years. New certificates issued since February 2000 are valid for 5 years, subject to annual surveys, including an intermediate survey. Applies for vessels of not less than 500 gross tonnage.
- **Safety Radio**, valid for 1 year. New certificates issued since February 2000 are valid for 5 years, subject to annual surveys, including an intermediate survey. Applies for vessels of not less than 300 gross tonnage.
- **Safety Construction**, valid for 5 years, subject to annual surveys, including an intermediate survey. Applies for vessels of not less than 500 gross tonnage.

In the case of Passenger ships, the above certificates are combined in one Passenger Ship Safety Certificate (PSSC), valid for 1 year, and the applicable criterion is a carrying capacity of more than 12 passengers.

- **International Safety Management (ISM):**
  - In the case of the company which owns and operates the ship, the [Document of Compliance](#) (DOC). The DOC is valid for 5 years, subject to annual audits.

- In the case of the ship, the [Safety Management Certificate](#) (SMC), which verifies that the company and its shipboard management operate in accordance with the approved safety management system. The SMC is valid for 5 years, subject to an intermediate audit.

Until recently, ISM was applicable only in the case of tankers, passenger ships and bulk carriers. By 1 July 2002, it became mandatory for all vessels. ISM does not apply for vessels of under 500 gross tonnage.

All the above certificates emerge from the International Convention for the Safety of Life at Sea (SOLAS).

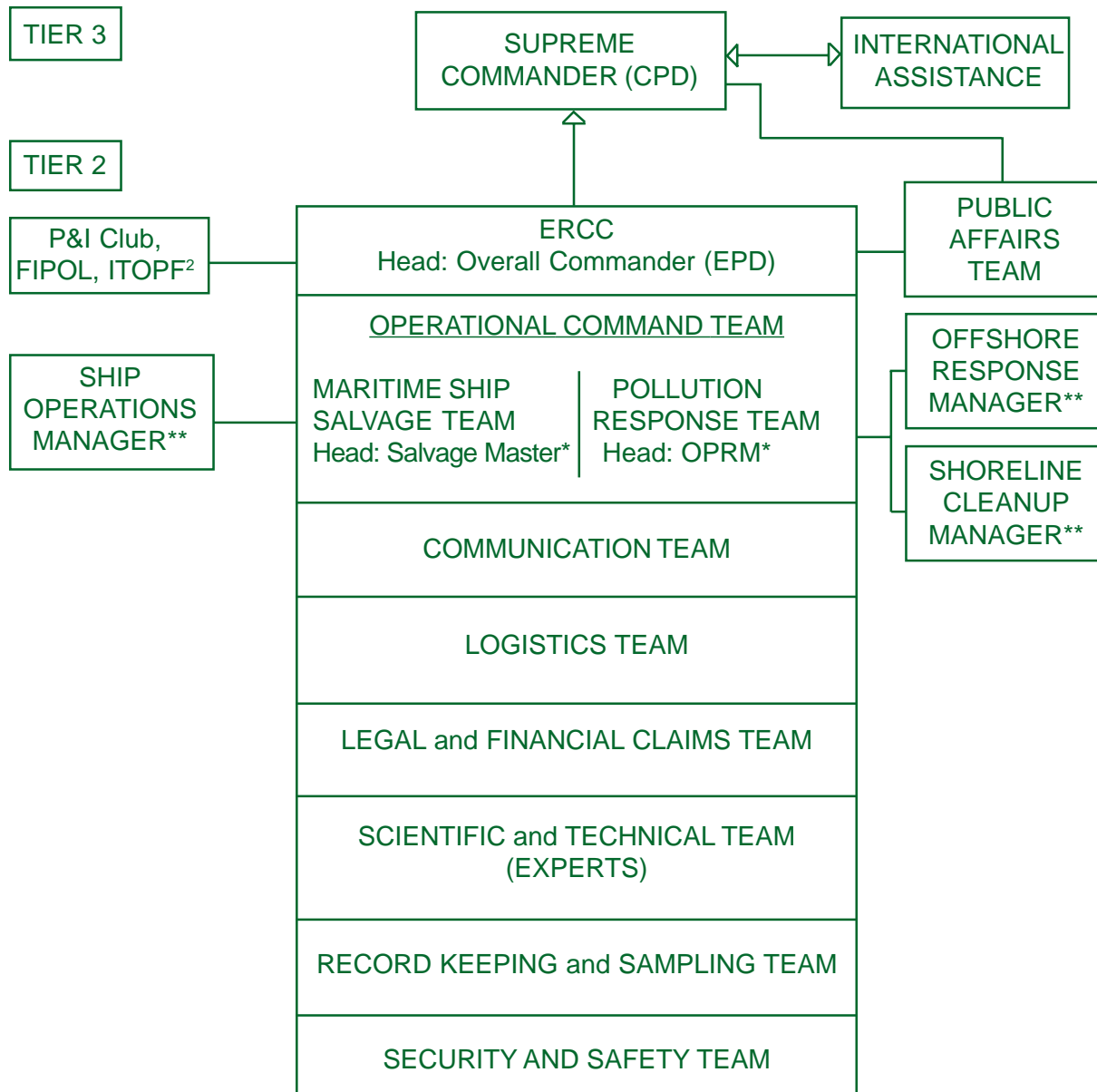
- **Load Line**, emerging from the 1966 convention, valid for 5 years, subject to annual surveys, including an intermediate survey. Applies for vessels of not less than 150 gross tonnage.
- **International Oil Pollution Prevention (IOPP)**, emerging from MARPOL 73/78, valid for 5 years, subject to annual surveys, including an intermediate survey. Applies for vessels not less than 400 gross tonnage, except for tankers where the limit is 150 gross tonnage.





# Appendix VI

## Scheme of the Emergency Response Organisation<sup>1</sup>



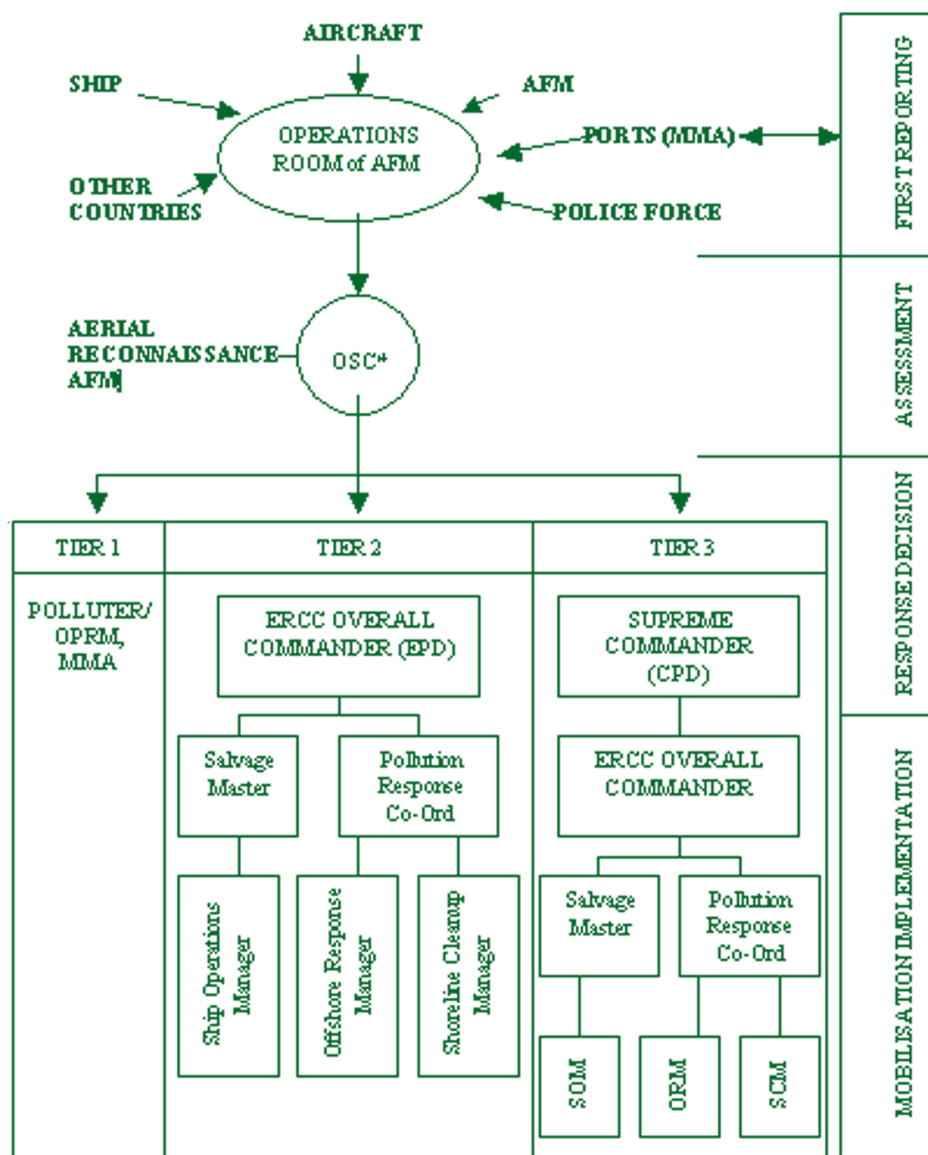
\* OSC: On-Scene Commander

\*\* OM: Operations Manager (Field activities)

<sup>1</sup> Source: The NMPCP.

<sup>2</sup> P&I Club: Protection and Indemnity Mutual Insurance Club; FIPOL: Oil industry pollution compensation fund; ITOPF: The International Tanker Owners Pollution Federation responding to oil spills from tankers.

# Appendix VII Alert and Activation Scheme<sup>1</sup>



\* Normally, the Head of the OPRM.

<sup>1</sup> Source: The NMPCP.