NATIONAL TRAINING COURSE ON ACCIDENTAL MARINE POLLUTION PREPAREDNESS AND RESPONSE FOR SUPERVISORS AND/OR ON SCENE COMMANDERS (OIL AND CHEMICAL SPILLS)

Casablanca, Morocco: 7 - 10 January 2001

REPORT

INTRODUCTION

A national training course on preparedness and response to accidental marine pollution for Supervisors On Scene Commanders, covering both oil and chemical spills, was held in Casablanca, Morocco, between 7 – 10 January 2001. The training course was organised by Peter Hayward Associates under the supervision of REMPEC and in co-operation with the Département de l'Environnement, Morocco. Technical Co-operation Division (TCD) of the International Maritime Organization (IMO) provided financial support for the training course.

The national training course was based on the IMO OPRC Level 2 model training course but with the addition of a full day’s session on the response to chemical spills. It was aimed at administrators and managers within the Moroccan administration who would be likely to act as On Scene Commanders or Supervisors in the event of marine oil or chemical spills, or experts within the administration who could be called upon to offer specialist advice or expertise. Trainees were nominated by the Département de l'Environnement from national organisations and the ports sector, all of which have responsibilities for preparedness and response under the Moroccan national contingency plan.

The duration of the training course was planned to last 5 days. However, upon arrival in Casablanca it was learned that the final day was in fact a national holiday. The Course Director and REMPEC therefore decided to re-schedule the programme to cover all the content of the course within 4 days by working longer hours, thus allowing the trainees the benefit of their national holiday.

The national training course was organized by REMPEC in accordance with the Project PR 272, financed by the Technical Co-operation Division of IMO, with a view to increasing the level of preparedness for dealing with accidental marine pollution in Arab/Mediterranean States. REMPEC was designated as implementing agency for this Project. Furthermore, it was in conformity with the work plan of REMPEC activities for the 2000-2001 period, as approved by the Eleventh Ordinary Meeting of the Contracting Parties to the Barcelona Convention, held in Malta, 27-30 October 1999.

ORGANIZATION OF THE TRAINING COURSE

The Environment Department, as the competent Moroccan national authority, was responsible for the selection and invitation of participants. The Moroccan administration's responsibilities also included making the necessary arrangements for the smooth running of the training course, including inter alia the provision of a conference room and the necessary audio-visual equipment. The arrangements were efficiently executed by Mr Mohamed Dahhou, the officer responsible for the national contingency plan within the Département de l'Environnement.
The training course was held in the Centre d’Entraînement Naval de la Marine Royale, Casablanca. This is the training centre of the Moroccan navy, and a well-equipped conference room was provided for the training course. Lunches for all participants were graciously provided by the Naval Officers’ Club.

REMPEC acted as the official point of contact with the national authorities and liaised with them on the dates and venue of the training course and the identification of the appropriate participants. REMPEC also participated in the preparation of the training course programme and provided two lecturers.

Peter Hayward, Senior Partner of Peter Hayward Associates, acted as Course Director and was in charge of the overall organisation of the training course including:

- Preparing the training course programme, in close co-operation with and subject to the final approval of REMPEC.
- Identifying suitable trainers and, after approval by REMPEC, hiring and instructing external trainers.
- Arranging the travel and accommodation costs of external (ie non-REMPEC) trainers.
- Liaison with the Moroccan national authorities.
- Arranging for simultaneous interpretation into French at the training course and making the sub-contracts with the interpreters.
- The provision of course manuals for each of the trainees.

The costs of preparing the written materials, the interpretation services, as well as the fees, travel costs and DSA of the non-REMPEC lecturers, were borne by the Technical Co-operation Division of IMO and effected through the contract between REMPEC and Peter Hayward Associates. All costs related to this contract were made available by TCD under Project PR 272, budget code TC03RAB/98/208.

The training course was conducted in both French and English with simultaneous translation being provided from English into French where necessary.

A total of twenty-nine (29) participants attended the national training course. Organisations which sent representatives included the Marine Royale, the Gendarmerie Royale, the Office for the Exploitation of Ports (ODEP) and the Environment Department. Unfortunately there were no representatives from the Department of Civil Protection. The list of participants is given in Annex 1.

**PROCEEDINGS OF THE TRAINING COURSE**

The objective of the training course was to instruct those who may become actively involved in the response to marine pollution incidents in Morocco in the practical elements of contingency planning and response techniques. The training course also covered important related topics, such as dealing with the media, liability and compensation, record keeping and reporting requirements, and international co-operation. The first day of the course was devoted exclusively to matters related to chemical spills. The overall objective of the course was to provide the participants with the knowledge and information required to prepare for and respond effectively to accidental marine pollution incidents in Morocco, whether from spills of oil or chemicals.
In order to achieve these objectives, Peter Hayward Associates prepared a training course programme which included 24 lectures, all of which were illustrated by various visual aids (videos, overheads, PowerPoint presentations). Practical elements in the course included three short exercises on chemicals and a half-day table-top exercise dealing with an imaginary oil spill scenario. A copy of the training course programme as prepared is reproduced in Annex 2 (English) and as actually executed (in 4 days) in Annex 3 (French).

The lectures were given by a team of five lecturers (listed in Annex 4). The training course manuals contained copies of all the overheads and PowerPoint slides used in the lecturers' presentations, at least three-quarters of the written material being in French. In addition, REMPEC and the lecturers provided French versions of various technical manuals and publications for participants. A list of the published documents distributed to the participants is at Annex 5.

The final day of the training course included a session on the national system for oil spill response in Morocco, made by Captain Mohamed TAOUIDI of the Marine Royale.

Mr Mohamed DAHHOU, representing the Département de l'Environnement, and Capitaine de Vaisseau Driss CHAKKOUC, Commandant of the Centre d'Entraînement Naval, closed the training course at 18.00 h on 10 January, assisted by Mr Darko DOMOVIC (REMPEC) and Mr Peter HAYWARD (Course Director). Captain Chakkouch presented participants with numbered Certificates of Attendance which had been prepared by REMPEC (certificate numbers awarded to the participants are included in Annex 1).

CONCLUSIONS

The training course was aimed at officials in the Moroccan public administration and managers in the ports and petroleum sector who could be expected to play an important role in preparing for or responding to marine pollution events in the country as On Scene Commanders or team leaders/supervisors. To a large extent the participants were of the managerial level expected, although it would have been helpful to have had some representatives from the petroleum sector and the presence of officials from the Directorate of Civil Protection.

Despite this, the participants who did attend at the invitation of the Environment Department were clearly appropriate. This is confirmed by the fact that the course evaluation questionnaire showed that 55% of the trainees considered that the information they had learned on the course would help them "very much" in their present job; 45% considered that the knowledge gained would be of some help in their present work; no participants were of the opinion that the training course was of not much relevance to their present work.

There was a high degree of active participation manifested, in particular, by the level of questions and interaction between lecturers and trainees, and by the active involvement in the exercises. The Course Director had prepared a course evaluation questionnaire, the conclusions of which are summarised in Annex 6. Of particular relevance is the conclusion that 70% of the trainees expressed themselves to be "very satisfied" with the overall results of the training course; the remaining 30% confirmed their overall "satisfaction" with the course. Furthermore, 95% of the trainees claimed to have learned "very much" new material during the training course.
## LIST OF PARTICIPANTS

<table>
<thead>
<tr>
<th>Certificate No.</th>
<th>Name of the participant</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1909</td>
<td>Colonel El Mokhtar BERNICHI</td>
<td>Gendarmerie Royale</td>
</tr>
<tr>
<td>1910</td>
<td>Cdt. Akka AHABBAR</td>
<td>Gendarmerie Royale</td>
</tr>
<tr>
<td>1911</td>
<td>Cne Hassan CHRICHI</td>
<td>Gendarmerie Royale</td>
</tr>
<tr>
<td>1912</td>
<td>Cne Rachid ABRIDI</td>
<td>Gendarmerie Royale</td>
</tr>
<tr>
<td>1913</td>
<td>Lt. Khalid OUAHBI</td>
<td>Gendarmerie Royale</td>
</tr>
<tr>
<td>1914</td>
<td>Lt. Redouane LAHBBOUB</td>
<td>Gendarmerie Royale</td>
</tr>
<tr>
<td>1915</td>
<td>Lt. Ilyas DERDABI</td>
<td>Gendarmerie Royale</td>
</tr>
<tr>
<td>1916</td>
<td>Mr. Mohamed KOUHKOUH</td>
<td>ODEP</td>
</tr>
<tr>
<td>1917</td>
<td>Mr. Abdellah HADRAMI</td>
<td>ODEP</td>
</tr>
<tr>
<td>1918</td>
<td>Mr. Rachid EL LAIA</td>
<td>ODEP</td>
</tr>
<tr>
<td>1919</td>
<td>Mr. Ahmed DARIF</td>
<td>ODEP</td>
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<tr>
<td>1920</td>
<td>Mr. Bouchaïb AKKAL</td>
<td>ODEP</td>
</tr>
<tr>
<td>1921</td>
<td>C.F. Mohamed TAOUDI</td>
<td>Marine Royale</td>
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<td>1922</td>
<td>C.F. Abdellatif RHANEMI</td>
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<td>C.C. Abdeslem ASSIF</td>
<td>Marine Royale</td>
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<tr>
<td>1924</td>
<td>L.V. M'hamed HAJOUI</td>
<td>Marine Royale</td>
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<tr>
<td>1925</td>
<td>C.C. Ahmed RIAD</td>
<td>Marine Royale</td>
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<td>1926</td>
<td>C.C. Noureddine EL HADFI</td>
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<td>1927</td>
<td>C.C. Ahmida BENMASSOUD</td>
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<td>L.V. Redouane DARGHAM</td>
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<td>1929</td>
<td>L.V. Abdelkebir BENRAMADAN</td>
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<td>1930</td>
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<td>E.V. Abdelhamid ABBASSI</td>
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<td>E.V. Redouane BELAHucken</td>
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<td>C.C. Mohammed EN-NABTY</td>
<td>Marine Royale</td>
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<td>1935</td>
<td>C.V. Salah ELKHATTABI</td>
<td>Marine Royale</td>
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<tr>
<td>1936</td>
<td>Mr. Mohamed BOUGMA</td>
<td>Département de l' Environnement</td>
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<tr>
<td>1937</td>
<td>Mr. Hafid EL OUALJA</td>
<td>Département de l' Environnement</td>
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ANNEX 2

NATIONAL TRAINING COURSE
ON ACCIDENTAL MARINE POLLUTION PREPAREDNESS AND RESPONSE
FOR SUPERVISORS AND ON SCENE COMMANDERS
(OIL AND CHEMICAL SPILLS)

Casablanca, Morocco: 7 - 11 January 2001

PROGRAMME (as prepared)

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td><strong>Day 1</strong></td>
<td><strong>Sunday 7 January</strong></td>
</tr>
<tr>
<td>08.30 - 09.00</td>
<td>Registration</td>
</tr>
<tr>
<td>09.00 - 09.15</td>
<td>Opening Ceremony: Introduction to the training course</td>
</tr>
<tr>
<td>09.15 - 09.45</td>
<td>Video: &quot;Introduction to chemicals and their transport&quot;</td>
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<tr>
<td>09.45 - 10.10</td>
<td>Assessing chemical hazards</td>
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<tr>
<td>10.10 - 10.30</td>
<td>Coffee break</td>
</tr>
<tr>
<td>10.30 - 11.00</td>
<td>Paper exercise 1</td>
</tr>
<tr>
<td>11.00 - 11.45</td>
<td>Classifying chemicals</td>
</tr>
<tr>
<td>11.45 - 12.30</td>
<td>Paper exercise 2</td>
</tr>
<tr>
<td>12.30 - 14.00</td>
<td>Lunch</td>
</tr>
<tr>
<td>14.00 - 14.45</td>
<td>Ecotoxicology and assessing impact of chemicals on the environment</td>
</tr>
<tr>
<td>14.45 - 15.30</td>
<td>Paper exercise 3</td>
</tr>
<tr>
<td>15.30 - 16.15</td>
<td>Safety at a spill site</td>
</tr>
<tr>
<td>16.15 - 16.30</td>
<td>Video: &quot;Response options for chemical spills&quot;</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
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<tbody>
<tr>
<td><strong>Day 2</strong></td>
<td><strong>Monday, 8 January</strong></td>
</tr>
<tr>
<td>09.00 - 09.45</td>
<td>Origins/sources of marine pollution</td>
</tr>
<tr>
<td>09.45 - 10.15</td>
<td>Types and properties of oils</td>
</tr>
<tr>
<td>10.15 - 10.35</td>
<td>Video: &quot;The Oil Spill&quot;</td>
</tr>
<tr>
<td>10.35 - 11.00</td>
<td>Coffee break</td>
</tr>
<tr>
<td>11.00 - 11.45</td>
<td>Fate and behaviour of oil. Impact of oil</td>
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<tr>
<td>11.45 - 12.30</td>
<td>Introduction to accidental oil pollution</td>
</tr>
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</table>
Day 2  Monday, 8 January (cont.)

12.30 - 14.00  Lunch

14.00 - 14.45  Contingency planning  Peter Hayward

14.45 - 15.30  Oil spill response strategies  Thierry Jacques

15.30 - 16.15  Sensitivity mapping for oil spill response  Peter Hayward

Day 3  Tuesday, 9 January

09.00 - 09.45  Containment of spilt oil  Thierry Jacques

09.45 - 10.30  Recovery of oil at sea  Thierry Jacques

10.30 - 10.50  Video: "Containment and Recovery"

10.50 - 11.15  Coffee break

11.15 - 12.00  Use of dispersants  Thierry Jacques

12.00 - 12.20  Video: "The Use of Dispersants"

12.20 - 14.00  Lunch

14.00 - 14.45  New strategies for oil spill response  Thierry Jacques

14.45 - 15.45  Shoreline protection and clean-up techniques  Chantal Guénette

15.45 - 16.05  Video: "Shoreline Clean-up"

16.05 - 16.35  Deactivation of response  Chantal Guénette

Day 4  Wednesday, 10 January

09.00 - 09.45  Storage, transportation and disposal of oily waste material  Peter Hayward

09.45 - 10.15  Communications and reporting  Darko Domovic

10.15 - 11.00  Compensation for oil pollution damage  Chantal Guénette

11.00 - 11.30  Coffee break

11.30 - 12.15  Pooling resources and international co-operation  Darko Domovic

12.15 - 12.45  Record keeping for compensation claims  Chantal Guénette
Day 4  
**Wednesday, 10 January (cont.)**

12.45 - 14.15  
*Lunch*

14.15 - 14.45  
**Public relations and the media**  
Peter Hayward

14.45 - 15.25  
Video: "The Sea Empress Incident: The Counter Pollution Operation"

15.25 - 16.15  
**Status of the national system for preparedness and response to marine spills of oil and other harmful substances**  
Captain Mohamed Taoudi

16.15 - 16.30  
Introduction to the table-top exercise  
Darko Domovic

Day 5  
**Thursday, 11 January**

09.00 - 12.30  
**Table-top exercise**

12.30 - 14.00  
*Lunch*

14.00 - 14.30  
Preparation of Groups' reports/presentations

14.30 - 15.30  
Exercise wash-up

15.30 - 16.00  
Close of training course  
Presentation of certificates
ANNEX 3
COURS NATIONAL DE FORMATION
DU Personnel d'ENCADREMENT ET DES COMMANDANTS SUR ZONE
À LA PREPARATION À LA LUTTE ET À LA LUTTE
CONTRE LA POLLUTION MARINE ACCIDENTELLE:
(DEVERSEMENTS D'HYDROCARBURES ET DE PRODUITS CHIMIQUES)

Casablanca, Maroc: 7 - 10 janvier 2001

PROGRAMME RÉEL

1er Jour Dimanche, le 7 janvier

08.30 - 09.00 Inscriptions

09.00 - 09.15 Cérémonie d'ouverture: Présentation du stage

09.15 - 09.45 Film: "Présentation des produits et de leur mode de transport"

09.45 - 10.10 **Evaluation des dangers suscités par les produits chimiques**

Stefan Micallef

10.10 - 10.30 Pause café

10.30 - 11.00 Exercice théorique N° 1

11.00 - 11.45 **Classification des produits chimiques**

Stefan Micallef

11.45 - 12.30 Exercice théorique N° 2

12.30 - 14.00 **Déjeuner**

14.00 - 14.45 **Ecotoxicologie et évaluation de l'impact des produits chimiques sur l'environnement**

Stefan Micallef

14.45 - 15.30 Exercice théorique N° 3

15.30 - 16.15 **La sécurité dans la zone d'un déversement**

Stefan Micallef

16.15 - 16.30 Film: "Les options d'intervention sur les déversements de produits chimiques"

16.30 - 17.00 **Groupement des ressources et coopération internationale**

Darko Domovic
2ème Jour  Lundi, le 8 janvier

09.00 - 09.45 Origines/Sources de la pollution marine  Domovic

09.45 - 10.15 Types et propriétés des hydrocarbures  Domovic

10.15 - 10.35 Film: "La marée noire"

10.35 - 11.00 Pause café

11.00 - 11.45 Devenir et comportement des hydrocarbures. Impact des hydrocarbures  Thierry Jacques

11.45 - 12.30 Introduction de la pollution accidentelle par les hydrocarbures  Darko Domovic

12.30 - 14.00 Déjeuner

14.00 - 14.45 Planification des interventions d'urgence  Hayward

14.45 - 15.30 Stratégies d'intervention sur les marées noires  Jacques

15.30 - 16.15 Cartographie des zones sensibles dans le contexte des interventions sur les marées noires  Peter Hayward

16.15 - 16.50 Film: "L'incident "The Sea Empress": l'opération contre la pollution"

3ème Jour  Mardi, le 9 janvier

09.00 - 09.45 Confinement des hydrocarbures répandus  Jacques

09.45 - 10.30 Récupération des hydrocarbures en mer  Jacques

10.30 - 10.50 Film: "Confinement et récupération"

10.50 - 11.15 Pause café

11.15 - 12.00 Utilisation des dispersants  Jacques

12.00 - 12.20 Film: "L'utilisation des dispersants"
12.20 - 14.00 Déjeuner

14.00 - 14.45 Nouvelles stratégies d'intervention sur les marées noires
    Thierry Jacques

14.45 - 15.45 Protection du rivage et techniques du nettoyage
    Chantal Guénette

15.45 - 16.05 Film: "Le nettoyage du rivage"

16.05 - 16.35 Cessation de l'intervention
    Chantal Guénette
4ème Jour Mercredi, le 10 janvier

08.15 - 09.00 Stockage, transport et élimination du matériau mazouté

P e t e r  H a y w a r d

09.00 - 09.30 Communications et comptes rendus

D a r k o  D o m o v i c

09.30 - 10.15 Indemnisation des dégâts provoqués par la pollution
d'hydrocarbures

C h a n t a l  G u é n é t t e

10.15 - 10.45 Pause café

10.45 - 11.15 Demands d'indemnisation et récupération des coûts

Chantal

G u é n é t t e

11.15 - 11.45 Relations publiques et média

P e t e r

H a y w a r d

11.45 - 12.15 Etat du dispositif national de préparation aux et
d'intervention sur les déversements en mer d'hydrocarbures

et autres substances dangereuses

C a p t a i n  M o h a m e d  T a o u d i

12.15 - 12.30 Introduction à l'exercice pratique

D a r k o  D o m o v i c

12.30 - 13.30 Déjeuner

13.30 - 16.30 Exercice pratique

16.30 - 17.00 Préparation des comptes-rendus par les groupes de travail

17.00 - 17.30 Bilan de l'exercice pratique

17.30 - 18.00 Clôture du stage: Remise des certificats
ANNEX 4

LIST OF LECTURERS

Mr Peter HAYWARD       Course Director
Senior Partner

Peter Hayward Associates
10 Court Lane Gardens
Dulwich
London SE21 7DZ
United Kingdom

Dr Thierry JACQUES
Management Unit of the North Sea Mathematical Model (MUMM)
Royal Belgian Institute of Natural Science
Guledelle 100
B-1200 Brussels
Belgium

Ms Chantal GUENETTE
Technical Adviser

International Tanker Owners Pollution Federation
Staple Hall, Stonehouse Court
87-90 Houndsditch
London EC3A 7AX
United Kingdom

Mr Darko DOMOVIC
Technical Expert

Dr Stefan MICALLEF
Chemical Expert

Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC)
Manoel Island
Gzira GZR 03
Malta
ANNEX 5

LIST OF DOCUMENTS

The following list includes only printed IMO and ITOPF documents that were distributed to the participants. In addition, the trainees’ Course Manuals contained copies of all the papers produced or slide (PowerPoint) presentations presented by the lecturers on each of the lesson sessions.

OMI Manuel sur la pollution par les hydrocarbures (Section IV).
OMI Manuel sur la pollution chimique (Section 2).
IOPC Fund Manuel sur les Demandes d'Indemnisation, juin 1998
ANNEX 6
ANALYSIS OF COURSE EVALUATION QUESTIONNAIRE

1. How did the course fulfil your expectations?
   - Better than expected: 40%
   - More or less as expected: 60%
   - Did not fulfil my expectations: 0%

2. Overall, what did you think of the quality of the lectures and course material?

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<thead>
<tr>
<th></th>
<th>Very good</th>
<th>Good</th>
<th>Adequate</th>
<th>Not good enough</th>
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<tr>
<td>Lectures</td>
<td>50%</td>
<td>45%</td>
<td>5%</td>
<td></td>
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<tr>
<td>Visual aids</td>
<td>60%</td>
<td>40%</td>
<td></td>
<td></td>
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<tr>
<td>Handouts</td>
<td>65%</td>
<td>30%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Use of video</td>
<td>55%</td>
<td>45%</td>
<td></td>
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</table>

3. Have you learned much new material during this course?
   - Very much: 95%
   - Some: 5%
   - Not much: 0%

4. Will the information you have learned help you in your present job?
   - Very much: 55%
   - Some: 45%
   - Not much: 0%

5. Did you find the exercises helpful?
   - Very helpful: 80%
   - Of some help: 20%
   - Not much help: 0%

6. Were there any other subjects you would have liked the course to cover?
   - practical implementation of anti-pollution equipment;
   - more information on different types of oil;
   - more details on legal framework especially international maritime law;
• concrete examples of compensation payments following specific incidents;
• case studies: step by step accounts of combating operations.

7. Have you found it helpful to meet people from other administrations?
   Yes: 95%
   No: 5%

8. Overall, how satisfied are you with the course?
   Very satisfied: 70%
   Satisfied: 30%
   Not very satisfied: 0%

9. Please add any additional comments below.
   The following comments were made (not in any order of priority). It should, perhaps, be stressed that apart from a general feeling that there should be more training, most of the comments made below were made by single individuals. The number of comments is an indication of the depth of interest of the participants generated by the course.
   • practical demonstrations of the use of equipment, eg skimmers, boom deployment (several trainees);
   • longer course duration (15 days) to gain more benefit (many trainees); course programme too loaded;
   • more table-top/theoretical exercises and longer time for exercises (several trainees);
   • practical exercises to consolidate theoretical knowledge;
   • more basic training on chemical products and oil types;
   • specific focus on the Mediterranean;
   • continuing training desirable;
   • "the course is perfect"; "the lecturers were of the highest quality"; "the course was knowledgeably prepared ... perfect".