Workshop on Combating Accidental Pollution of the Mediterranean Sea by Harmful Substances
Malta, 22 - 26 May 1989

REPORT
OF THE WORKSHOP ON COMBATING ACCIDENTAL POLLUTION OF THE MEDITERRANEAN SEA BY HARMFUL SUBSTANCES

MALTA, 22-26 May 1989
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Introduction

1. The Workshop on Combating Accidental Pollution of the Mediterranean Sea by Harmful Substances was convened in Malta from 22 to 26 May 1989, in accordance with recommendations concerning co-operation in cases of emergencies adopted by the Fifth Ordinary Meeting of the Contracting Parties to the Convention for Protection of the Mediterranean Sea against pollution and its related protocols (UNEP/IG.74/5, Section II, M).

2. In conformity with these Recommendations of the Contracting Parties, the main objective of the Workshop was:

(a) to provide the participants in the Workshop with an overall view of problems related to maritime transport of harmful substances and accidental spillages of these substances;

(b) to discuss and to approve:

i) recommendations concerning actions which should be taken at national and regional levels, for prevention and for response to accidental pollution of the Mediterranean Sea by harmful substances;

ii) proposals on the functions of the Centre;

iii) a workplan for future activities related to harmful substances.

3. All official governmental Focal Points of ROCC have been invited to nominate one participant in the Workshop taking into consideration the objective of the Workshop. International organizations concerned have also been invited to take part in the Workshop.

Participants

4. Participants nominated by 13 Mediterranean Coastal States and by the European Economic Community, as well as representatives of IMO and UNEP participated in the Workshop. Mr. W. KOOPS from North Sea Directorate, Ministry of Transport and Public Works, The Netherlands, Mr. R. KANTIN from CEDRE, France, Mr. C. DEUTSCH from OPEFORM, France and Mr. P. BOCKHOLTS and Mrs. L. BALTUS from TNO, The Netherlands, took part in the Workshop as lecturers. The list of participants is given in ANNEX I to the present Report.

Agenda Item 1: Opening of the Workshop.

5. The Workshop was opened by the Hon. Dr. U. NIFSUD BONNICI, Minister of Education and Environment of the Republic of Malta.

6. Mr. David T. EDWARDS on behalf of the Secretary-General of IMO, Mr. C.P. SRIVASTAVA welcomed the participants and expressed appreciation and gratitude for the continuing host state support for the ROCC by the Government of Malta.

7. He recalled that IMO had been responsible for the operation of the Centre, in co-operation with UNEP, since 1976 and that the Centre was very much a part of IMO's strategy for the protection of the marine environment, the fundamental components of which are:
1) To provide an effective machinery for technical, legal and scientific co-operation among governments in the field of the protection of the marine environment from pollution from ships and related activities and the mitigation of the environmental effects of such pollution and compensation.

ii) To adopt the highest practicable international standards in matters concerning maritime safety and prevention and control of marine pollution from ships and related activities.

iii) To encourage the widest possible acceptance and effective implementation of these standards at the global level.

iv) To strengthen the capacity of national and regional action to prevent, control, combat and mitigate marine pollution and to promote technical co-operation to this end.

v) To co-operate fully with other organizations within the United Nations family and relevant international, regional and non-governmental organizations to ensure a co-ordinated approach to the problem and avoid wasteful duplication of efforts.

8. He pointed out that although most public concern about marine pollution has in the past concentrated on problems associated with oil, many of the chemicals carried by sea are far more dangerous to the marine environment. The number of different chemicals and other goods of this type is growing all the time as the world becomes more industrialized and industry itself becomes more complex. It has been estimated that up to 15 per cent of all goods carried in conventional dry cargo ships are dangerous to some degree and, if liquid substances carried in chemical carriers or tankers are included, then the total is around 50 per cent.

9. It is with this situation in mind that IMO in 1985 suggested to the Fourth Meeting of the Contracting Parties to the Barcelona Convention that the activities of ROCC be widened to include harmful substances other than oil, thus bringing the functions of the Centre into line with the emergency protocol which concerns harmful substances other than oil. He felt therefore that the Workshop's most important objective was to make specific recommendations on the role and function of the Centre with respect to regional co-operation dealing with marine pollution emergencies involving hazardous materials other than oil.

10. Mr. I. DHRAT, Programme Officer, welcomed the participants on behalf of UNEP/MAP. He expressed the thanks and gratitude of his Organization to H.E. Dr. U. MIFSUD BONNICI, Minister of Education and Environment and through him to the Government of Malta for its consistent support to the Mediterranean Action Plan and its ROCC Centre. He briefed the participants on the structure of MAP and its main objectives, and made few comments on the main items under discussion and what is expected from the deliberation of the Workshop. While thanking IMO for its continued support to the Centre, he expressed the hope that more co-operation and co-ordination were needed in order to overcome any obstacles that may arise in the joint efforts to protect the Mediterranean and its natural resources.
Agenda Item 2: Election of Officers.

11. The participants unanimously elected R.A. Ahmed Medhat GHANEM (Egypt) - Chairman of the Workshop, Mr. Fernando PARDO (Spain) - Vice-Chairman and Capt. Abdelwahab LAYOUNI (Tunisia) - Rapporteur.

Agenda Item 3: Adoption of the Agenda.

12. The Workshop adopted the agenda presented in ANNEX II of the present Report. The list of documents submitted to the Workshop is given in ANNEX III.

Agenda Item 4: Overview of problems related to the maritime transport of harmful substances and to accidental spillages of these substances.

13. The Director of ROCC introduced document ROCC/WG.1/3 describing the programme of the lectures prepared by the Centre, with the assistance of a consultant, Mr. W. KOOPS, North Sea Directorate, Ministry of Transport and Public Works, The Netherlands. The Director of the Centre emphasised that the proposed programme was primarily aimed at giving to the participants an overview of the nature and the importance of the risk of accidental pollution by harmful substances in the Mediterranean region and at assisting the Workshop in examining decisions and actions which might be taken at national and regional levels for organizing response to accidental pollution.

14. The programme of lectures, which includes a list of technical papers distributed during the Workshop, is given in ANNEX IV to the present document. The lectures were delivered by Mr. W. KOOPS, North Sea Directorate (The Netherlands), Mr. R. KANTIN, CEDRE (France), Mr. C. DEUTSCH, OPEFORM (France), Mr. P. BROCKHOLTS and Mrs. L. BALTUS, TNO (The Netherlands), Mr. D. EDWARDS, IMO, Mr. C. HAGEBRO, EEC and Mr. J.C. SAINLOS and Mr. D. DOMOVIC, ROCC. The Workshop noted that, due to the other commitments, International Register of Potentially Toxic Chemicals (IRPTC) could not send a lecturer.

15. As a contribution to the Workshop and as examples, the participants from Italy (Capt. G. TOSCO), Spain (Mr. F. PARDO) and Yugoslavia (Dr. M AHEL) presented cases of accidents of m/v CAVATAT, m/v CASON and m/t BRIGITTA MONTANARI which had occurred in coastal waters of their respective countries.

16. Mr. P. BROCKHOLST and Mrs. L. BALTUS of TNO (The Netherlands) made a demonstration of SEABEL decision support system. SEABEL is a decision support system created by TNO for Dutch North Sea Directorate and for the European Economic Community which co-financed its development. SEABEL should be progressively developed by the member states of the European Economic Community.

17. The Workshop judged the information provided by various lecturers to be of great interest for persons in charge of response to accidental pollution by harmful substances and requested the Centre to publish, in French and English, in an edited form, texts of lectures, in order to provide a reference work for the Mediterranean coastal States.
Agenda Item 5 and 6: Conclusions, recommendations, proposals on functions of the Centre and proposal of workplan for future activities of the Centre.

18. The Director of ROCC introduced document ROCC/WG.1/4 containing:

(a) preliminary conclusions concerning problems related to accidental spillages of harmful substances;

(b) proposed recommendations concerning decisions and actions which may be taken at national and regional levels in response to these problems;

(c) a proposal on the functions of the Centre;

(d) a proposed workplan of the future activities related to oil and other harmful substances which should be carried out or co-ordinated by the Centre.

19. Participants in the Workshop were invited to comment, to express their remarks and to approve proposals made in document ROCC/WG.1/4.

Conclusions of the Workshop

20. Following examination and long discussion of conclusions and proposals contained in document ROCC/WG.1/4, and on the basis of discussions following lectures delivered under Agenda Item 4, the participants adopted conclusions 20.1 to 20.5 hereunder, as the conclusions of the Workshop. These conclusions identify actions considered essential and which should be taken on national and/or regional levels in the following 5 spheres:

1. Assessment of traffic related risks.
3. Address the problem of response to spillages of harmful substances.
4. Preparation for response to accidental spillages.
5. Co-operation and assistance in cases of emergency.

20.1 Assessment of traffic related risks

(i) The transport of chemicals in the Mediterranean has increased in the last years and will continue to grow. The possibility of a catastrophe, in which chemicals hazardous for human life and the marine environment can be released has increased consequently.

(ii) Density of traffic of hazardous substances is high particularly in certain zones: "longitudinal routes" - Suez - Gibraltar and Bosporus - Gibraltar which attract most of the traffic; "crossing routes" which connect the south of the Mediterranean with petrochemical complexes in southern Europe and especially those in Spain, France and Italy; along the French, Spanish and Italian coasts where large coastal traffic takes place. The risk of accidents is particularly high in the straits (Gibraltar, Bosporus, Messina), on routes along certain coastal sectors (Cabo da Gata in Spain, around the Italian peninsula or in the Greek archipelago), and in zones where routes cross each other or converge. The risk in the Mediterranean has been assessed to be approximately 10 accidents which may affect ships carrying hazardous cargoes per year.
(iii) In order to be able to evaluate the risks of accidents in maritime transport of harmful substances in the Mediterranean with the maximum accuracy and to have a satisfactory general idea of cargoes which pose the highest risks, it is necessary to have available complete data on type, frequency and volume of traffic of chemicals in the whole region, as well as precise information on annual movements of chemical products especially through Suez Canal, Dardanelles and Strait of Gibraltar.

(iv) However, although data on maritime traffic in the Mediterranean are generally heterogeneous and incomplete, it is already possible to make an initial rough estimate of principal routes and number of vessels and therefore to have an idea of zones at higher risk eg. straits, route crossings, zones of high traffic density etc. It is also possible to obtain data on the amounts of principal chemical products transported in bulk which should allow for an assessment of risks related to the transportation of these substances to be made.

(v) On the contrary, data on traffic of chemicals carried in packaged form is much more difficult to obtain. A particular effort will have to be made in order to obtain sufficient data on transport of packaged chemicals.

(vi) The creation of a regional network consisting of correspondents within port authorities or within authorities in charge of vessel traffic services management which are receiving reports on ships' movements and on their cargoes, could enable collection and analysis of data necessary for evaluation of risk and identifying more precisely products having priority with respect to emergency response.

(vii) Information collected by such a network should be complemented by information from other sources with a view to producing statistics on the volume and nature of transport of harmful substances in the Mediterranean.

20.2 Prevention of accidental pollution

(i) International regulations play a fundamental role in prevention of accidents and in limiting consequences which these accidents may have. Therefore prevention remains the first priority and constant efforts should be made in this field. However, certain Mediterranean countries face difficulties in ratifying and implementing the relevant conventions.

(ii) Identification of difficulties faced, on one side, and assistance which IMO can provide through its technical assistance programme on the other, should facilitate ratification and application of relative international conventions by those States which have not done so until now, and also reinforce the policy of prevention in the Mediterranean.
20.3 Address the problem of response to spillages of harmful substances
(knowledge of substance related risks)

(i) The major part of chemicals transported by sea present, in case of spillage, much more serious hazards for human life and the marine environment than oil. Oceanographic and ecological characteristics of the Mediterranean Sea and diversity of species which live in it make this environment more vulnerable than an oceanic zone.

(ii) In case of an accident causing or likely to cause a spillage of harmful substances, it is necessary to intervene as rapidly and efficiently as possible in order to minimize risk for human life as well as for the environment. Risks faced in cases of an oil pollution are well known due especially to characteristics of substances, but it is much more difficult to assess risks created by an accident involving hazardous substances other than oil, and the selection of response measures and methods which can be applied is much more complex due to the variety of substances and their different properties.

(iii) In response to these problems, namely to be prepared to act and to be able to act, a general approach was developed allowing to cover maximum of possible situations. This approach is based on forecasting the behaviour of substances, according to whether they evaporate, float, dissolve or sink. It led to classifying substances in categories and sub-categories depending on their physical and chemical properties (e.g. density, vapour pressure and solubility). This classification enables better evaluation of risks, encompassing the scope of the problem, development of specific response techniques and guiding the selection of response methods for each category or sub-category. Categories of substances for which response measures are available can also be identified.

(iv) Computerized mathematical behaviour simulation models for each category, taking into account spreading on the sea surface, dilution in water or in the air as well as surface movement and transport in the air or in the water column, have been developed or are being developed starting from the above mentioned classification. However, information provided by behaviour forecasting models should be completed by toxicity data in order to evaluate risks for human life and the marine environment. These models are generally incorporated in decision support systems comprising also additional data banks (e.g. data on toxicity of substances, geographical and oceanographic data, response methods, etc...). Computerized decision support systems are therefore useful tools in cases of emergency, enabling a rapid analysis of the situation and assisting operational personnel in the selection of intervention and response methods and emergency measures to be implemented. They are also very useful in preparing response activities and in training personnel.

(v) Although behaviour forecasting models and decision support systems are very useful, their use is limited. Use of behaviour forecasting models and decision support systems should be complemented by collection of data specific for each selected substance. For a selected number of substances, having the highest spillage probability, it would be especially important to have available technical intervention files of operational character.
The approach to the problems of response to spillages of harmful substances, based on the classification of chemicals in accordance with their physical and chemical properties is widely accepted. This approach was used in the preparation of IMO Manual on Chemical Pollution and has especially been adopted within the framework of the Helsinki Convention and the Bonn Agreement.

Adopting a common approach has multiple advantages; besides the fact that harmonizing policies facilitates technical and operational co-operation, it especially helps in avoiding duplications, in joining efforts, in using the better part of the experience of the others and in optimizing the possibilities offered by regional co-operation through entrusting the Regional Centre with executing duties of the common interest eg. centralizing and management of data.

This approach based on forecasting physical behaviour of chemicals and corresponding response methods, complemented by the progressive establishment of technical intervention guide of operational character for selected substances, may therefore be adopted in the Mediterranean region on both national and regional levels.

a) on national level
- national contingency plans should reflect this approach; classification of products in accordance with their physico-chemical properties and response methods adapted to their behaviour, as well as identification and making inventory of corresponding means.

- sources of information and data banks. A minimum of information and documents concerning knowledge of substances, substance related risks, intervention techniques and response methods should be available at national level.

b) on regional level
- data and necessary information should be available at or through the Centre. On the other hand, the Centre should operate models and computerized decision support systems for the benefit of the States of the region.

To this end the Centre should:

- record and select data banks which are complementary and represent various fields such as physical, chemical and toxicological properties, risks for human life and the marine environment, intervention tactics and response methods;

- commencing with existing data and systems, establish and operate a classification system for chemicals, based on their behaviour in case of accidental spillage at sea;

- acquire a decision support system and adopt it to the needs of the Region on the basis of data provided to the Centre by the coastal States, and operate the system for the benefit of the coastal States;
- establish a priority list of substances and prepare for these substances, on the basis of existing information and the work already accomplished, technical intervention files of operational character including accident scenarios.

(ix) For the purpose of collecting cartographic and oceanographic data to develop a marine pollution emergency decision support system applicable to the Mediterranean the Centre should use the data available from 
Inter
ational
Hydrographic
Organization
(IHO),
International
Commission
for
the
Scientific
Exploration
of
the
Mediterranean
Sea
(ICSEM),
etc...

20.4. Preparation for response to accidental spillages

(1) Reduction of the consequences of a maritime accident implies the existence of a national organization, authorities responsible for response ready to rapidly take appropriate measures in case of an accident and of means which can be implemented orderly and methodically by qualified personnel.

(ii) Minimizing the consequences of a spillage of harmful substances as efficiently as possible depends therefore on three factors:

- organization and operational procedures;
- available resources;
- knowledge and training.

If any of these elements is missing or incomplete, results obtained through the others may be impaired or hampered.

Organization and operational procedures

(iii) Each State in the Mediterranean region should have a national organization for response to accidental pollution by harmful substances in order to mobilize, orderly and methodically, its available means and to be able to request and efficiently utilize external assistance in cases of emergency.

This organization should be incorporated into the existing organization for response to oil pollution, which has to be adapted accordingly.

(iv) Participants in the organization should be identified, their authorities and responsibilities should be defined, the means and capacities of those who execute response tasks should be determined.
(v) On the other hand, co-operation and assistance in case of a major accident cannot be efficiently organized if structures and relevant procedures do not exist. Contingency plans should therefore include arrangements aimed at facilitating co-operation and assistance.

(vi) In order to assist the Mediterranean coastal States to develop their own organization for response to accidental pollution by harmful substances the Centre should: on the one hand, prepare guidelines for setting up such an organization and on the other, provide, on the request of the Mediterranean coastal States, either directly or through secondment of experts, assistance in the preparation of contingency plans.

Initial information

(vii) Alerting procedures, providing for rapid routing of details on the accident towards all those who should receive it, are essential. Therefore regional agreements on co-operation in cases of emergency and certain Conventions provide establishment of reports in cases of accidents.

(viii) Governments of the Mediterranean coastal States should give instructions to coastal installations responsible in their countries for management of ship reporting systems, with a view to relaying without delay, all reports concerning actual or probable pollution, to the agency designated to receive and process these reports.

(ix) On the other hand, the present standard alert format used in the Mediterranean for reporting oil pollution accidents should be modified with a view to being adapted to accidents involving harmful substances.

(x) Regional communications network should be periodically tested through organizing communication exercises, in order to assure that transmission, reception and dissemination of alerts and information concerning accidents involving harmful substances, between the regional Centre and the Contracting Parties and between the Contracting Parties themselves, is done rapidly and correctly.

(xi) In case of an accident, precise identification of the cargo, of the exact nature of transported chemicals and of the loading plan is essential at the time of risk assessment phase. The Master of the ship should normally be able to provide all useful information. Very often the information should be looked for from other sources such as ship owner, owner/s of the cargo, port authorities (of the loading port, last port of call or port of destination).

(xii) The use of a regional network comprising correspondents in port authorities or authorities responsible for a vessel traffic services management, who receive reports on ship movements and their cargoes, should provide for obtaining this type of information.

(xiii) Taking into consideration that a part of the Mediterranean traffic originates from the north European ports (N. Europe - Asia route via the Mediterranean) the above proposed network can be complemented by a list of contact points in the main north European ports. Possible contacts can be established by ROCC with NOU Secretariat (European Memorandum of Understanding on Port State Control).
Intervention and response methods and means

If the existence of an organization is essential and is a starting point for the entire action, the capability of this organization to respond to an emergency situation will depend on means at its disposal or on those which it will be able to mobilize.

Responsible authorities should know well techniques, methods and types of equipment it can deploy in all phases of intervention or response operations depending on various situations which can be envisaged.

On the basis of the present knowledge in this field, the Centre should prepare a catalogue of equipment and products for intervention and response to accidental pollution by harmful substances, as well as a practical guide on conditions and limits of application of these equipment and products.

The first task of the entire intervention organization is to realize and keep up to date, an inventory of available "means". Available "means" include implicitly personnel (specialized personnel, intervention teams, experts), equipment and installations.

With a view to facilitate co-operation and assistance between the States, Parties to the Protocol, the Centre should, starting from information provided by the States, establish and keep up to date an inventory of experts and equipment existing in the region, which is likely to be under certain conditions, put at the disposal of a requesting State in cases of emergency.

The Centre should also establish an inventory of commercial companies or specialized institutions able to provide services in the field of intervention and response in cases of accidents involving harmful substances.

Training

Setting up and maintaining an efficient national organization depends on the existence of trained personnel.

Training programmes should be developed for three different categories of personnel who will be involved in preparing response or response operations for spillages of harmful substances, at different levels:

- national decision makers/officers;
- on-scene-commanders;
- direct intervention personnel.

Specific programmes should be organized for each of these categories. For the first two categories the programme should have a content of a rather general character, while intervention teams should be given a specialized training which is of prime importance in cases of accidents involving hazardous substances.
To achieve this, the Centre should:

(a) prepare a training programme at a regional level for personnel which could be involved in a response to accidents causing pollution by hazardous substances;

(b) provide, on request of the Mediterranean coastal States, assistance in organizing national seminars for national response teams of those countries which need this type of training or practical exercises (and joined exercises between countries);

(c) offer technical support, in the form of lectures and written documents, to national refresher courses at national level on request.

(d) facilitate participation of experts from Mediterranean coastal States in training courses organized outside the Mediterranean.

A great majority of accidents involving harmful substances occur in port areas or their approaches. Therefore, possibility to organize training courses on response to accidents in port areas should be explored. Contingency plans for hazardous substances, for ports and port areas should be prepared.

Compensation

Knowledge of financial questions, liabilities and compensation for consequences of accidents causing pollution by oil and other harmful substances is generally poor or insufficient. Failure to recognize these questions may have direct or indirect implications on decisions, requests for assistance or subsequent compensation claims. The organization of a regional seminar on these questions would provide for filling this gap.

20.5 Co-operation and assistance in cases of emergency

(i) Co-operation and assistance in cases of emergency will often be necessary and essential. Co-operation and assistance should not be improvised but should be prepared and organized.

(ii) Inventory of human and material resources existing in the region and which could be, under certain conditions, put at the disposal of a State which so requests in case of emergency, should be prepared. This inventory could, if necessary, be extended to resources available in countries outside the region.

(iii) If assistance capacities are not available in the Mediterranean countries, the Centre should assist the States which so request to obtain international assistance from outside the region. In order to do so, the Centre should establish contacts with governments, institutions and organizations which may be able to provide such an assistance. Information on nature, conditions and procedures concerning international assistance should be collected by the Centre and distributed to the Mediterranean coastal States.
(iv) The Centre should prepare and keep up to date operational arrangements and guidelines for facilitating co-operation between the Mediterranean coastal States in cases of emergency.

(v) The Centre should assist the States of the Mediterranean region which so request, in preparation and development of operational bilateral or multilateral agreements between neighbouring coastal States. Within the framework of these agreements joint tests and exercises should be organized.

Proposed recommendations

21. Having adopted the conclusions of the Workshop and made comments on proposals contained in document ROCC/WG.1/4, the participants approved recommendations which will be submitted to the Sixth Ordinary Meeting of the Contracting Parties. These proposed recommendations, concerning decisions and actions which may be taken at national and/or regional level in response to problems related to maritime transport of harmful substances and to accidental spillages of these substances, are given in ANNEX V to the present Report.

22. By adopting proposed recommendations mentioned above, the participants in the Workshop emphasized the importance of national action, particularly in the field of pollution prevention and in setting up of a national organization for emergency response including development of appropriate communication network, as a prerequisite condition for development of regional co-operation.

Proposals on the functions of the Centre

23. The Director of ROCC introduced the proposals on the functions of the Centre contained in document ROCC/WG.1/4, Part III. These proposals had been prepared by the Centre in accordance with the request of the Fifth Ordinary Meeting of the Contracting Parties (UNEP/IG.74/5, Section II).

24. The Director of the Centre indicated that the proposed amendments mainly aim at extending and at adapting to combating accidental pollution of the sea by harmful substances, objectives and functions of ROCC such as originally defined in the Annex to Resolution 7 adopted by the Conference of Plenipotentiaries of the coastal States of the Mediterranean Region on the Protection of the Mediterranean Sea (Barcelona, 16 February 1976), and at updating the text of the Annex to Resolution 7, bearing in mind past experience and future needs.

25. The participants expressed the opinion that, within the objectives and functions of the Centre, the activities of ROCC should continue to be built up around the following four main axes:

(a) providing information to coastal States;
(b) assisting in the preparation of national contingency plans;
(c) training of personnel;
(d) co-operation and assistance in case of emergency.
26. Having discussed the objectives and functions of the Centre and having examined proposals presented by the Director of ROCC, the participants in the Workshop approved draft amended Annex to Resolution 7. This draft amended Annex, which is to be submitted for adoption to the Sixth Ordinary Meeting of the Contracting Parties, is given in ANNEX VI to the present document. It defines and precises the objectives and functions of the Centre anew.

Workplan of the future activities

27. The Director of ROCC introduced a draft workplan of the future activities related to oil and other harmful substances which should be carried out or co-ordinated by the Centre during the next two biennia (ROCC/WG.1/4-IV).

28. In accordance with the request of the Fifth Ordinary Meeting of the Contracting Parties the Centre had prepared a draft workplan. The Director of ROCC indicated that the draft workplan aims at all activities of the Centre including continuation of activities concerning oil and that it takes into account budgetary possibilities of the Centre. He also specified that, with the exception of training courses and use of consultants for certain activities identified in the workplan which would be financed partly or totally respectively, from "training" and "consultants" budget lines of the Centre, all other activities would be carried out by the personnel (staff) of the Centre and financed from its "personnel" and "office cost" budget lines.

29. The Workshop noted that the Workplan had been prepared within the financial constraints of the proposed Mediterranean Action Plan programme budget for 1990-91 prepared by the MAP Co-ordinating Unit.

30. The participants to the Workshop approved the Workplan prepared by the Centre, as amended which will be submitted for adoption to the Sixth Ordinary Meeting of the Contracting Parties. Draft Workplan such as amended and approved by the Workshop is given in ANNEX VII of the present Report.

31. The participants in the Workshop established a priority order of future activities of the Centre. This priority order is given as a table in ANNEX VII.

32. The participants in the Workshop emphasized the gradual implementation of the Workplan, in particular due to necessary delays in adaptation to the region of simulation models or decision support system. They also specified that advantage should be taken of the work done previously and recommended that in carrying out its activities the Centre should preferably use results already obtained in addition to using existing data.

Agenda Item 7: Other Business

33. Mr. I. Dharat, the representative of UNEP/MAP briefed the Workshop on a relevant issue which has strong connection with the Barcelona Convention and its related protocols, namely, the recently adopted Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.
31. He pointed out that many incidents occurred in the Mediterranean in the last few months and which were the main target for criticism from the public opinion and the mass media, were related to the transboundary movement of hazardous wastes, and their possible risks to the marine environment and to human lives. UNEP took the initiative, which resulted in the approval of the Basel Convention on the "Control of Transboundary Movements of Hazardous Wastes and their Disposal". It was approved at Basel, Switzerland, on 22 March 1989 and signed on the spot by 35 states and the European Economic Community.

The treaty requires only 20 ratifications to enter into force which it is expected to occur by the middle of next year.

The principal points of the 53-page Basel Convention, which has 29 articles and six annexes can be summarized in the following points:

1. A signatory state cannot send hazardous waste to another signatory state that bans imports of it.
2. A signatory state cannot ship hazardous waste to any country that has not signed the treaty.
3. Every country has the sovereign right to refuse to accept a shipment of hazardous waste.
4. Before an exporting country can start a shipment on its way, it must have the importing country's consent, in writing. The exporting country must first provide detailed information on the intended export to the importing country to allow it to assess the risks.
5. No signatory country may ship hazardous waste to another signatory state if the importing country does not have the facilities to dispose of the waste in an environmentally sound manner.
6. When an importing country proves unable to dispose of legally-imported waste in an environmentally-acceptable way, then the exporting state has a duty either to take it back or to find some other way of disposing of it in an environmentally sound manner.
7. The treaty states that "illegal traffic in hazardous wastes is criminal".
8. Bilateral agreements may be made by signatory states with each other and with a non-signatory country, but these agreements must conform to the terms of the Basel treaty and be no less environmentally sound.
9. Since the authorities of many countries, especially developing ones, frequently do not have the trained specialists and technical know-how to assess information concerning hazardous waste and to handle it efficiently, the treaty calls for international co-operation involving, among other things, the training of technicians, the exchange of information, and the transfer of technology.
10. The treaty sets up a secretariat to supervise and facilitate its implementation. (It appears that this will be in Geneva).
(11) The treaty asks that less hazardous waste be generated and what is generated be disposed of as close to its source as possible.

35. The representative of IMO, Mr. D. EDWARDS, pointed out that the Basel Convention did not regulate transport of hazardous wastes but rather required Contracting Parties to comply with existing international rules and practices promulgated for example by IMO with respect to sea transport. In this connection IMO would, pursuant to a resolution adopted by the Basel Conference, be reviewing these rules in the light of the Basel Convention.

36. During the discussion all participants felt that the question of the Control of Transboundary Movement of Hazardous Wastes and their Disposal was an important one which deserves serious attention. The Workshop was of the opinion that the Regional Oil Combating Centre (ROCC) should take due consideration, in the course of implementation of its future activities in combating marine pollution from hazardous substances other than oil, the provisions of the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal.

37. The Workshop expressed its appreciation to the Director of the Centre and his staff for the excellent preparations and organization of the Workshop and to IMO for its continuing "backstopping" and guidance of the Centre and to UNEP/MAP for its support.

Agenda Item 9: Approval of the Report


Agenda Item 9: Closure of the Workshop

39. On Friday, 26 May 1989 at 13.00 hours the Chairman declared the Workshop closed.
### ANNEX(E) I

**LIST OF PARTICIPANTS**

**LISTE DES PARTICIPANTS**

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Dactylo/Opér. Télex / Clerk/Telex Operator

Mr. Anthony ZERFA
Gardien / Caretaker
ANNEX II

AGENDA

1. Opening of the Workshop.
2. Organization of the Workshop.
3. Adoption of the agenda.
4. Overview of the problems related to maritime transportation of harmful substances and accidental spillages.
5. Proposed conclusions and recommendations of ROCC concerning accidental pollution of the Mediterranean Sea by harmful substances including proposals on the functions of the Centre and on a workplan for future activities.
6. Approval of conclusions and recommendations.
7. Other business.
8. Adoption of the Report.
ANNEX III

LIST OF DOCUMENTS

Working Documents

ROCC/WG.1/1
Provisional Agenda.

ROCC/WG.1/2
Annotated Provisional Agenda.

ROCC/WG.1/3
Introduction to the programme and lectures concerning the problems related to maritime transportation of harmful substances and accidental spillages.

ROCC/WG.1/4
Proposed conclusions and recommendations of ROCC concerning accidental pollution of the Mediterranean Sea by harmful substances including proposals on the functions of the Centre and on a workplan for future activities.

ROCC/WG.1/4/Corr.1
Corrigendum.

ROCC/WG.1/5

Information Documents

ROCC/WG.1/INF.1/Rev.1
List of documents.

ROCC/WG.1/INF.2
List of participants.

ROCC/WG.1/INF.3
Time table.

ROCC/WG.1/INF.4
Follow-up of the recommendation concerning co-operation in cases of emergency adopted by the Fifth Ordinary Meeting of the Contracting Parties to the Barcelona Convention (UNEPIG.74/5, Section II, M).

ROCC/WG.1/INF.5

Reference Documents

UNEP 1982
Convention for the Protection of the Mediterranean Sea against Pollution and its related Protocols.

UNEP/CONF.
Resolution 7 "Establishment of a Regional Oil Combating Centre for the Mediterranean".

UNEP/IG.74/5

IMO/UNEP

IMO/UNEP
List of Alerts and Accidents recorded at ROCC, ROCC, January 1989.

IMO/UNEP
ANNEX IV

PROGRAMME AND LECTURES
CONCERNING THE PROBLEMS RELATED TO MARITIME TRANSPORT
OF HARMFUL SUBSTANCES AND ACCIDENTAL SPILLAGES OF THESE SUBSTANCES

1. THE RISKS

1.1 Maritime transport of chemical substances in the Mediterranean region;
COST 301 project (traffic evaluation).
1.2 Risks related to maritime transport of chemical products;
Ship accidents in the Mediterranean (risk assessment).
1.3 Chemical accidents in harbour areas.
1.4 Case histories:
  - CASON/Spain (packages in stranded ship);
  - CAVTAIL/Italy (drums of tetrathyl/methyl lead on sea bed);
  - BRIGITTA MONTANARI/Yugoslavia (sunk VCM carrier).

2. PREVENTION

2.1 International regulations.
2.2 Port State Control.
2.3 Vessel Traffic Services (VTS) in the Mediterranean.

3. APPROACH TO RESPONSE TO SPILLS OF HAZARDOUS SUBSTANCES

3.1 General approach to problem of spills of hazardous substances.
3.2 Notification, reports and communications.
3.3 Collecting relevant information and data.
3.4 Classification methods.
3.5 Hazards and effects of chemical spills.
3.6 Behaviour of spilled chemical products:
  - Innovators
  - Floaters
  - Dissolvers
  - Sinkers
  - Packages
3.7 Information systems.
3.8 Response methods:
  - Emergency response methods;
  - Personnel protection;
  - Measuring techniques and devices;
  - Salvage;
  - Adaptation and use of oil spill response equipment;
  - Recovery of packaged hazardous substances.
3.9 Decision Support Systems:
  - Introduction to decision support systems;
  - Demonstration of a decision support system: SEABEL.
4. PREPAREDNESS FOR RESPONSE

4.1 Contingency planning.
4.2 Financial aspects and damage compensation.
4.3 Public information.
4.4 Training.

5. CO-OPERATION AND ASSISTANCE

5.1 Experience of other Regional Agreements.
5.2 Possibilities of assistance:
   - IMO
   - EEC Task Force
   - ROCC

LIST OF TECHNICAL PAPERS DISTRIBUTED DURING THE WORKSHOP

LISTE DES DOCUMENTS TECHNIQUES DISTRIBUES PENDANT LE SEMINAIRE

1. THE RISKS / LES RISQUES


1.2 Chemical Risk in Maritime Transportation in the Mediterranean Sea - R. Kantin, CEDRE, France
   Les Risques dans le Transport Maritime de Produits Chimiques dans La Région Méditerranée - R. Kantin, CEDRE, France

1.3.1 Accidents involving Chemicals in Harbour Areas - R. Kantin, CEDRE, France
   Les Accidents impliquant des Produits Chimiques en Zone Portuaire - R. Kantin, CEDRE, France

1.3.2 Ship Accidents transporting Chemicals in the Mediterranean - R. Kantin, CEDRE, France
   Les Accidents de Navires transportant des Produits Chimiques en Méditerranée - R. Kantin, CEDRE, France

1.4.1 Experiences and Findings in connection with the Casualty involving the Ship CASON - F. Pardo, Direction Générale de la Marine Marchande Espagnole
   Acquis et Enseignements suite à l'Accident du Navire CASON - F. Pardo, Direction Générale de la Marine Marchande Espagnole

1.4.2 The Case of M/V CAVITAT - Capt. G. Tosco, Ispettorato Centrale per La Difesa del Mare, Ministero della Marina Mercantile, Italy
1.4.3 The Case of M/T BRIGITTA MONTANARI - Rudjer Boskovic Institute, Yugoslavia

1.4.4 The Cleaning of Sites polluted by Toxic and Noxious Wastes: The Case of the M/Y ZANOBBIA - Capt. G. Tosco, Ispettorato Centrale per La Difesa del Mare, Ministero della Marina Mercantile, Italy

2. PREVENTION / LA PREVENTION

2.1.1 Overview of Annex II of MARPOL 73/78 - B. Okamura, Head Environment Project Section, Marine Environment Division, I.M.O., United Kingdom

2.1.2 MARPOL 73/78: The International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 relating thereto, March 1988, I.M.O., United Kingdom

2.1.3 I.M.O. Strategy for the Protection of the Marine Environment, I.M.O., United Kingdom

2.1.4 Preventing Marine Pollution, March 1988, I.M.O., United Kingdom

2.1.5 Chemicals at Sea, June 1986, I.M.O., United Kingdom

2.1.6 The Safe Transport of Dangerous, Hazardous or Harmful Cargoes by Sea, May 1988, I.M.O., United Kingdom

2.2 The Memorandum of Understanding on Port State Control, Jan. 1982 - The Hague, The Netherlands

2.3 La Sécurité de la Navigation Maritime - J. Prunieras, Centre d'Etudes et d'Informations et de Formation pour Les Ingénieurs de la Construction et de l'Industrie, France

3. APPROACH TO RESPONSE TO SPILLS OF HAZARDOUS SUBSTANCES / L'APPROCHE DU PROBLEME DE LA LUTTE CONTRE LES DEVERSEMENTS DE SUBSTANCES DANGEREUSES


3.2 Notification, Rapport et Communication - J.C. Sainlos, Directeur, ROCC, Malte
3.3 Operational Information Sources - R. Kantin & C. Rousseau, CEDRE, France
Les Sources Opérationnelles d'Information - R. Kantin & C. Rousseau, CEDRE, France

3.4.1 Classifications: Behaviour Classifications - W. Koops, North Sea Directorate - Rijkswaterstaat, Ministry of Transport and Public Works, The Netherlands

3.4.2 Use of Classifications - W. Koops, North Sea Directorate - Rijkswaterstaat, Ministry of Transport and Public Works, The Netherlands

3.5 Behaviour/Accidental Situations: Gas Clouds, Floaters - W. Koops, North Sea Directorate - Rijkswaterstaat, Ministry of Transport and Public Works, The Netherlands

3.6 Behaviour of Chemicals when released: Dissolvers, Sinkers, Packaged Goods - R. Kantin, CEDRE, France
Le Comportement des Produits Chimiques Déversés Accidentellement en Mer: Produits qui se dissolvent, Produits qui coulent, Colis - R. Kantin, CEDRE, France

3.7 The Sources of Marine Pollution by Chemicals - D. Domovic, Technical Expert, ROCC, Malta


3.9 Introduction to Decision-Making Systems - C. Hagebro, EEC Commission, Belgium & R. Kantin, CEDRE, France
Introduction aux Systèmes D'Aide à La Décision - C. Hagebro, Commission de la CEE, Belgique & R. Kantin, CEDRE, France

3.10.1 SEABEL: A Hazard Identification and Decision Support System for Emergency Response for Chemical Spills at Sea - TNO Division of Technology for Society, The Netherlands

3.10.2 SEABEL Handbook - TNO Department of Industrial Safety, The Netherlands

3.10.3 SEABEL Seachem - TNO Department of Industrial Safety, The Netherlands

3.10.4 SEABEL Seafloat - TNO Department of Industrial Safety, The Netherlands

3.10.5 Judging The North Sea Water Quality with the Aid of SEADAT - TNO Department of Industrial Safety, The Netherlands
4. PREPAREDNESS FOR RESPONSE / LA PREPARATION À LA LUTTE

4.1 Contingency Plans for Spills of Hazardous Substances - D. Domovic, Technical Expert, ROCC, Malta

4.2.1 General Information on The International Oil Pollution Compensation Fund - Feb. 1989, IDPCF, United Kingdom
Renseignements Généraux sur Le Fonds International d’Indemnisation pour Les Dommages dus à La Pollution par Les Hydrocarbures, fév. 1989, IDPCF, Royaume Uni

4.2.2 The 1969 Civil Liability Convention and The 1971 Fund Convention: Implementation of the Conventions into National Law - Feb. 1989, Director, IDPCF, United Kingdom

5. CO-OPERATION AND ASSISTANCE / LA COOPERATION ET L’ASSISTANCE

5.1 Other Regional Agreements Experiences - Bonn Agreement, W. Koops, North Sea Directorate - Rijkswaterstaat, Ministry of Transport and Public Works, The Netherlands

5.2.1 The Community Information System for The Control and Reduction of Pollution by Spillage of Hydrocarbons and Other Harmful Substances at Sea - C. Hagebro, EEC Commission, Belgium

5.2.2 Information Systems - The Bonn Agreement Information System - W. Koops, North Sea Directorate - Rijkswaterstaat, Ministry of Transport and Public Works, The Netherlands

5.2.3 ARES System: Automazione Ricerca e Soccorso (Automated Search and Rescue) - Ispettorato Centrale per la Difesa del Mare, Ministero della Marina Mercantile, Italy

5.2.4 Community Task Force for Dealing with Major Pollution at Sea - Commission of the European Communities, Belgium
La Task Force Communautaire en cas de Pollutions Marines Massives - Commission des Communautés Européennes, Belgique

5.2.5 Manuel de Lutte contre La Pollution - Comité de La Protection du Milieu Marin, O.M.I., Royaume Uni
ANNEX V

PROPOSED RECOMMENDATIONS CONCERNING DECISIONS AND ACTIONS WHICH MAY BE TAKEN, AT NATIONAL AND/OR REGIONAL LEVEL, IN RESPONSE TO PROBLEMS RELATED TO MARITIME TRANSPORT OF HARMFUL SUBSTANCES AND TO ACCIDENTAL SPILLAGES OF THESE SUBSTANCES

1. The Meeting of the Contracting Parties,
Recognizing that the main priority of the Centre is to consolidate its work in promoting co-operation between the Mediterranean coastal States in combating marine pollution emergencies,

Recommends that the Centre should give high priority to its current activities concerning organization of training courses and the improvement of the communication between the Contracting Parties.

2. Collecting data on the maritime transport of hazardous substances.

The Meeting of the Contracting Parties,
Recommends that the Governments of States, Parties to the Barcelona Convention and to its Protocols, encourage and facilitate the creation of a regional network, consisting of correspondents within port authorities and within authorities responsible for Vessel Traffic Services, who are receiving reports on ships' movements and on their cargoes. The purpose of this network will be:

- to assist in collecting data on maritime transport of harmful substances other than oil in the Mediterranean;
- to facilitate, in case of accident and when possible, rapid access to information on cargo including loading plan.

Requests the Regional Centre to take necessary steps for the establishment of this network and to report the results of actions taken at the next Meeting of the Contracting Parties.

3. Prevention of pollution of the Mediterranean Sea by harmful substances transported by ships.

The Meeting of the Contracting Parties,
Recommends that the Mediterranean coastal States, which have not until now ratified international Conventions related to marine pollution and maritime safety of which IMO is depositary, do so as soon as possible, and that the Mediterranean coastal States take necessary actions for effective application of these Conventions by adopting national laws and regulations and by establishing appropriate services for control of their application.

The Meeting of the Contracting Parties,
Noting difficulties faced by certain Mediterranean coastal States in implementing relevant Conventions,
Being aware of the importance of application of these Conventions for the prevention of marine pollution,

Recognizing the importance of the International Maritime Organization technical assistance programme in the field of marine environment protection,

Invites IMO to continue to pay particular attention within the framework of its programme of technical assistance, to the needs of the Mediterranean countries and in this context draw the attention of the relevant multilateral and national donor agencies to these needs.

4. Knowledge of harmful substances related risks and management of a computerized decision support system within the framework of regional information system.

The Meeting of the Contracting Parties,

Having examined and approved proposals concerning the functions of the Regional Centre (Annex amending Resolution 7) and in particular functions A, B, C and D, which constitute the components of the regional information system anticipated in the function E and described in Annex II to the document ROCC/WG.1/4,

Recognizing the need that those in charge of response operations obtain, as quickly as possible, in case of accident involving hazardous substances, necessary information concerning the behaviour, hazards and possible response methods and consequently the important role which information systems and in particular decision support systems play in this regard,

Being aware that sources of information at national level are on the whole insufficient,

Confirms the important role of the Regional Centre in processing and disseminating information especially through regional information system and particularly, in case of accident or for the preparation of contingency plans, by operating computerized decision support system.

Requests that all the possibilities for providing the Regional Centre with a computerized decision support system, which could be operated for the benefit of the Parties to the Protocol, be explored.

Further asks the Regional Centre:

1) to initiate activities at the national level aimed at collecting data etc., necessary for the establishment in the future of a computerized marine pollution emergency decision support system, taking into account all existing databases, systems and experience gained in this field throughout the world, and in particular, to make use of existing sources of cartographic and oceanographic data on the Mediterranean, with a view to adapting the decision support system and its simulation models to the region.

2) to establish a priority list of substances based on the highest spillage probability, and to prepare, on the basis of existing information, operational technical files for intervention, including accident scenarios, for these substances.
5. **Organization and contingency plan.**

The Meeting of the Contracting Parties:
**Recommends** that each Mediterranean coastal State adapt their national oil spill contingency plan and response organization to combating accidents involving other hazardous substances,

**Requests** that the Regional Centre, in order to assist the Mediterranean coastal States to develop their own emergency response organization:

i) prepares guidelines for adaptation of contingency plans to include response in cases of accidents causing or likely to cause marine pollution by harmful substances;

ii) provides, within the limits of its budgetary resources, assistance in the preparation of contingency plans, either by using its own expertise or by using outside experts, to those States which so request.

6. **Alerting procedure and communications network.**

The Meeting of the Contracting Parties,
**Recommends** to the Governments of the Mediterranean coastal States, pursuant to Protocol I of MARPOL 73/78 and relevant IMO recommendations, to give appropriate instructions to coastal radio stations and to appoint institutions responsible for operating the entire ship alerting system, in order to assure that reports on accidents involving hazardous substances are transmitted without delay to the emergency response organization.

The meeting of the Contracting Parties,
**Recalling** the obligation of the Mediterranean coastal States, Parties to the Protocol Concerning Co-operation in Combating Pollution of the Mediterranean Sea by Oil and Other Harmful Substances in Cases of Emergency, to inform, either directly or through the Centre, the other Parties which may be affected by accidents causing or likely to cause pollution of the sea by oil or other harmful substances,

**Requests** the Regional Centre to organize periodically alert exercises in order to test use of standard alert message and communications network.

7. **International assistance in cases of major marine pollution accidents.**

The Meeting of the Contracting Parties,
**Recalling** that in most cases, major marine pollution accidents call for co-operation and international assistance

**Noting** that in certain circumstances requested assistance might not be available from any of the States, Parties to the Protocol Concerning Co-operation in Combating Pollution of the Mediterranean Sea by Oil and Other Harmful Substances in Cases of Emergency,
Requests that the Regional Centre, using in particular the results of the IMO work on the preparation of "Guide to International Assistance in Marine Pollution Emergencies", compiles and disseminates to the Mediterranean coastal States information on the nature, conditions and procedures by which assistance can be provided by States and organizations.

8. Transboundary Movements of Hazardous Wastes.

The Meeting of the Contracting Parties,
Noting with satisfaction the approval at Basel, Switzerland, on 22 March 1989, of the Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal,

Recommends that the Mediterranean coastal States, which have not signed or ratified the Basel Convention, do so as soon as possible.

9. Change of the name of the Regional Centre.

The Meeting of the Contracting Parties,
Having considered the extent of the terms of reference of the Regional Centre to include activities related to response to marine pollution emergencies involving hazardous substances other than oil, in addition to activities related to combating oil pollution,

Agrees to change the name of the Regional Oil Combating Centre for the Mediterranean Sea to "Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea".
ANNEX VI

PROPOSED AMENDMENTS TO THE ANNEX TO RESOLUTION 7
Draft Amended Annex

Objectives and functions of a Regional Centre for combating pollution of the Mediterranean by oil and other harmful substances

I. OBJECTIVES

1. To strengthen the capacities of the coastal States in the Mediterranean and to facilitate co-operation among them in order to respond to accidents causing or likely to cause pollution of the sea by oil and other harmful substances, especially in case of emergency in which there is grave and imminent danger to the marine environment or when it can affect human lives.

2. To assist coastal States of the Mediterranean region, which so request in the development of their own national capabilities for response to accidents causing or likely to cause pollution of the sea by oil and other harmful substances, and to facilitate information exchange, technological co-operation and training.

3. A later objective, namely the possibility of initiating operations to combat pollution by oil and eventually by other harmful substances at the regional level, can be considered. This possibility should be submitted for approval by governments after evaluating the results achieved in the fulfilment of the previous two objectives and in the light of financial resources which could be made available for this purpose.

4. To provide a framework for exchange of information on operational, technical, scientific, legal and financial matters.

II. FUNCTIONS

A. To collect and disseminate information on:

i) competent national authorities responsible for receiving reports of pollution of the sea by oil and other harmful substances and for dealing with matters concerning measures of assistance between Parties;

ii) inventories of experts, equipment and installations in each coastal State for response to accidents causing or likely to cause pollution of the sea by oil and other harmful substances, and which might be, under certain conditions, put at the disposal of the State which so requests in case of emergency;

iii) general information, plans, methods and techniques for combating pollution by oil and other harmful substances in order to assist as far as necessary countries of the region in the preparation of their national contingency plans;
iv) Mediterranean coastal zones, with a particular attention to the zones which are especially sensitive to pollution by oil and other harmful substances. This information could be used by risk predicting models and for the preparation of environmental sensitivity maps.

B. To establish, keep up to date and operate a partially computerized database on chemicals and their properties, risks for human life and the marine environment, response techniques and combating methods.

C. To progressively develop and operate a marine pollution emergency decision support system with a view to providing rapidly to the Mediterranean coastal States information concerning behaviour, risks and different possibilities for action in cases of accidents involving oil and other harmful substances.

D. To prepare, disseminate and keep up to date operational guides and technical documents.

E. To develop and maintain a regional Communications/Information system appropriate to the needs of States being served by the Centre.

F. To develop technological co-operation and training programmes for combating pollution of the sea by oil and other harmful substances and to organize training courses.

G. To assist coastal States of the Mediterranean region, which so request, in the preparation and development of bilateral or multilateral operational agreements between coastal States covering sea areas of common interest.

H. To prepare and keep up to date operational arrangements and guidelines, aimed at facilitating co-operation between Mediterranean coastal States in cases of emergency.

I. To provide, upon request, to coastal States assistance in cases of emergency, either by using its own capacities or through secondment of experts.

J. To assist coastal States of the Mediterranean region, which in cases of emergency so request, in obtaining assistance of the other Parties to the Protocol Concerning Co-operation in Combating Pollution of the Mediterranean Sea by Oil and Other Harmful Substances in Cases of Emergency, or when the possibilities for assistance do not exist within the region, in obtaining international assistance from outside the region.

K. To develop and maintain close working relationships with other Mediterranean regional activity centres and with the "specialized regional organisms" which play a co-ordinating role as set forth in the Mediterranean Action Plan, particularly with the scientific institutions within the region.

L. To co-operate as appropriate in activities of the Mediterranean Action Plan related to marine pollution.
### ANNEX VII

WORKPLAN OF THE FUTURE ACTIVITIES RELATED TO OIL AND OTHER HARMFUL SUBstanCES WHICH SHOULD BE CARRIED OUT OR CO-ORDINATED BY THE CENTRE

<table>
<thead>
<tr>
<th>ACTIVITIES/ACTIONS</th>
<th>PRIORITY</th>
<th>CARRIED OUT BY</th>
<th>Year of realization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. REGIONAL INFORMATION SYSTEM (OIL AND HAZARDOUS SUBSTANCES)</strong></td>
<td></td>
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<tr>
<td>A. Arrangements and operational procedures</td>
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<tr>
<td>1. Preparation of a new standard alert message applicable to oil and other</td>
<td>1</td>
<td>ROCC</td>
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<td>harmful substances.</td>
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<tr>
<td>2. Preparation of a proposal for modification of guidelines for co-operations in</td>
<td>1</td>
<td>ROCC</td>
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<tr>
<td>combating marine oil pollution, in order to cover hazardous substances</td>
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<td>X</td>
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<tr>
<td>3. Preparation of arrangements and procedures applicable in cases of joint</td>
<td>1</td>
<td>ROCC</td>
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<tr>
<td>operations.</td>
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<tr>
<td><strong>B. Lists and inventories</strong></td>
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<tr>
<td>4. List of competent national authorities.</td>
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<td>ROCC</td>
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<tr>
<td>5. Description of national organizations.</td>
<td>1</td>
<td>ROCC</td>
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<tr>
<td>6. Inventory of experts, equipements and products which could be, under certain</td>
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<td>ROCC</td>
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<tr>
<td>conditions, put at disposal of a State which so requests</td>
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<tr>
<td>6.1 oil</td>
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<td>ROCC</td>
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<tr>
<td>6.2 hazardous substances</td>
<td>1</td>
<td>ROCC</td>
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<tr>
<td>7. Catalogue of response equipment and products</td>
<td>3</td>
<td>ROCC</td>
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<tr>
<td>7.1 oil (updating)</td>
<td>1</td>
<td>ROCC</td>
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<td>7.2 harmful substances</td>
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<tr>
<td>8. Practical guide on conditions and limitations for use of response equipment</td>
<td>1</td>
<td>ROCC</td>
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<tr>
<td>and products (hazardous substances).</td>
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<tr>
<td>9. Inventory of commercial companies and specialized organizations providing</td>
<td>2</td>
<td>ROCC</td>
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<tr>
<td>services in cases of emergency in the Mediterranean</td>
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<tr>
<td>9.1 oil (updating)</td>
<td>1</td>
<td>ROCC</td>
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<td>9.2 harmful substances</td>
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<tr>
<td><strong>C. Data bases</strong></td>
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<tr>
<td>10. Recording and selection of data banks.</td>
<td>1</td>
<td>ROCO</td>
<td>x</td>
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<tr>
<td>11. Establishment of a partially computerized data base.</td>
<td>1</td>
<td>ROCO/Consultant (1)</td>
<td>x</td>
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<tr>
<td>12. Keeping and using a partly computerized data base.</td>
<td>1</td>
<td>ROCO</td>
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<tr>
<td>13. Identification of sources of cartographic, oceanographic and meteorological data on the Mediterranean.</td>
<td>1</td>
<td>ROCO</td>
<td>x</td>
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<tr>
<td>14. List of alerts and accidents (annual updating).</td>
<td>2</td>
<td>ROCO</td>
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<tr>
<td><strong>D. Forecasting models and decision support systems</strong></td>
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<tr>
<td>15. Establishment of a network of correspondents for collecting data on maritime transport of hazardous substances</td>
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<tr>
<td>15.1 Taking necessary measures towards establishment</td>
<td>2</td>
<td>ROCO</td>
<td>x</td>
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<tr>
<td>15.2 Reporting to the Meeting of the Contracting Parties</td>
<td>2</td>
<td>ROCO</td>
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<tr>
<td><strong>D. Forecasting models and decision support systems</strong></td>
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<tr>
<td>16. Adaptation and use of a classification system for chemicals</td>
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<tr>
<td>16.1 Preliminary version</td>
<td>1</td>
<td>ROCO</td>
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<tr>
<td>16.2 Advanced version</td>
<td>1</td>
<td>ROCO</td>
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<tr>
<td>17. Adaptation to the region and subsequent use of behaviour simulation and risk assessment models.</td>
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<td>1</td>
<td>ROCO/Consultant (2)</td>
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<td><strong>E. Operational guides and technical documents</strong></td>
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<tr>
<td>18. Guide for oil (upcoming)</td>
<td>2</td>
<td>ROCO</td>
<td>x</td>
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<tr>
<td>20. Guide for hazardous substances (preparation and updating)</td>
<td>1</td>
<td>ROCO</td>
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<tr>
<td>21. Guidelines for preparation of national contingency plans (hazardous substances)</td>
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<td></td>
<td>1</td>
<td>ROCO</td>
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<tr>
<td>22. Priority list of substances based on spillage probability</td>
<td>1</td>
<td>ROCO</td>
<td>x</td>
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<tr>
<td>23. Technical intervention files of operational character (by substance)</td>
<td>1</td>
<td>ROCO</td>
<td>x</td>
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<tr>
<td>24. Guidelines for the use of dispersants in the Mediterranean (preparation)</td>
<td>1</td>
<td>ROCO</td>
<td>x</td>
</tr>
<tr>
<td><strong>II. ASSISTANCE TO THE COUNTRIES WHICH SO REQUEST, IN DEVELOPING THEIR NATIONAL CAPACITIES (NATIONAL CONTINGENCY PLANS)</strong></td>
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<tr>
<td>25. Visiting two countries per year, either by Centre's experts or by a purposely recruited Consultants.</td>
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<td>ROCO/Consultant</td>
<td>x (3)</td>
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<tr>
<td>III. TRAINING</td>
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<tr>
<td>26. Regional training courses of general type on oil.</td>
<td>3</td>
<td>ROCC in co-op with BBC (4)</td>
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<tr>
<td>27. Regional training courses of general type on harmful substances.</td>
<td>1</td>
<td>ROCC in co-op with BBC (4)</td>
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<tr>
<td>28. Specialized regional training courses on oil.</td>
<td>2</td>
<td>ROCC in co-op with BBC (4)</td>
<td></td>
</tr>
<tr>
<td>29. Specialized regional training courses on hazardous substances.</td>
<td>1</td>
<td>ROCC in co-op with BBC (4)</td>
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<tr>
<td>30. Specialized regional training course on response to accidents involving</td>
<td>1</td>
<td>ROCC/support to organization (5)</td>
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<td>hazardous substances, in port areas.</td>
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<td>31. Regional seminar on financial questions, liabilities and compensation for</td>
<td>1</td>
<td>ROCC in co-op with IORC Fund,</td>
<td></td>
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<tr>
<td>consequences of accidents causing pollution by oil or other harmful substances.</td>
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<td>TOFF and BBC</td>
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<tr>
<td>32. Regional training course on response to accidental pollution resulting from</td>
<td>3</td>
<td>ROCC/support to organization (5)</td>
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<tr>
<td>offshore oil exploitation or production operations.</td>
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<tr>
<td>33. Providing assistance to the States which so request in preparation of</td>
<td>1</td>
<td>Organized in co-op with ROCC (6)</td>
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<tr>
<td>national training seminars (assistance to two seminars per year).</td>
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<tr>
<td>34. Making available teaching documents for national training activities</td>
<td>2</td>
<td>ROCC</td>
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<tr>
<td>IV. CO-OPERATION AND ASSISTANCE IN CASES OF EMERGENCY</td>
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<tr>
<td>35. Organization of alert exercises aimed at testing the use of standard</td>
<td>1</td>
<td>ROCC in co-op with Regional</td>
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<tr>
<td>alert message and communication network (1 or 2 exercises per year).</td>
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<td>States</td>
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<tr>
<td>36. Providing assistance to the States which so request in the preparation</td>
<td>1</td>
<td>ROCC (6)</td>
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<tr>
<td>and development of operational bilateral and multilateral Agreements between</td>
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<tr>
<td>neighbouring coastal States (depending on requests but not more than one</td>
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<td>Agreement per year).</td>
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<tr>
<td>37. Assisting States which so request in organizing joint response exercises</td>
<td>1</td>
<td>ROCC in co-op with concerned</td>
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<tr>
<td>(depending on requests but not more than one joint exercise per year).</td>
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<td>States (6)</td>
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<tr>
<td>38. Collection and distribution of information on nature, conditions and procedures</td>
<td>2</td>
<td>ROCC</td>
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<tr>
<td>concerning international assistance from outside the region.</td>
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</tbody>
</table>
(1) Services of a Consultant will be required during the initial phase.

(2) Services of a Consultant will be required for adaptation of simulation models and decision support system.

(3) 7000 US$ approximately correspond to the amount which the Centre should be possibly able to dedicate to this activity from its "consultant" budget line.

(4) ROCC regional training courses (MEDIPOL / MEDEXPOL) are organized annually in co-operation with the Commission of European Communities which participate in financing half of its cost.

(5) For this type of courses, ROCC provides its support in the organization, but financing will be assured by the other party.

(6) With the exception of the assistance provided by the staff of the Centre, financing will be assured by States concerned (or other possible sources).