

**REGIONAL MARINE POLLUTION EMERGENCY
RESPONSE CENTRE FOR THE
MEDITERRANEAN SEA
(REMPEC)**



IMO-OMI



UNEP-PNUE



**EUROPEAN WORKSHOP ON SATELLITE IMAGERY AND
ILLICIT OIL SPILLS IN EUROPE AND IN THE
MEDITERRANEAN AND FIELD ACTIVITIES IN
ROGNAC, MARSEILLE**

MEDIPOL 2003

**Toulon, France
1 – 4 October 2003**

REPORT



OCTOBER 2003

EUROPEAN WORKSHOP ON SATELLITE IMAGERY AND ILLICIT OIL SPILLS IN EUROPE AND IN THE MEDITERRANEAN, TOULON, FRANCE, 1-4 OCTOBER 2003 AND FIELD ACTIVITIES IN ROGNAC/MARSEILLE

MEDIPOLE 2003

REPORT

INTRODUCTION

1. Between Thursday 2 October and Saturday 4 October 2003 the "Centre de documentation de Recherche et d'Experimentation sur les Pollutions Accidentelles des Eaux" (CEDRE) organised with the financial support of the European Commission the **European Workshop on Satellite Imagery and Illicit Oil Spills in Europe and in the Mediterranean**, in Toulon, France. The Workshop was preceded by field visits to the stockpiles of FOST and to the POLMAR French surveillance aircraft on **1 October 2003**, organised by the Regional Marine Emergency Response Centre for the Mediterranean Sea (REMPEC), in collaboration with CEDRE for REMPEC's Operational Focal Points representatives attending the Workshop.

2. In conformity with its programme of activities for the year 2003 and taking into consideration the recommendations of the Meetings of REMPEC Focal Points that regional training activities should focus on specific, advanced topics and bearing in mind the recommendations of the Contracting Parties to the Barcelona Convention related to monitoring of illicit discharges and aerial surveillance, REMPEC decided that it would be a good opportunity to merge MEDIPOLE 2003 with the captioned European Workshop.

3. The Workshop-MEDIPOLE 2003 was prepared considering the particularity to adapt it to operational staff from authorities in charge of pollution control who have been designated to play a role related to surveillance and monitoring activities (detection of illicit oil discharges at sea), gathering of evidence and prosecution of offenders. The participation of the Mediterranean coastal States in the Workshop was intended to serve as a catalyst for future actions, to be taken or envisaged by Mediterranean countries against illicit marine pollution.

4. The objectives of MEDIPOLE 2003 were to provide the participants with an opportunity to share their operational experience in the field of oil spill detection, to compare best practices when dealing with marine pollution offenders, to present new tools such as satellite remote sensing and to contribute also to the objectives of MAP (Mediterranean Action Plan) in reinforcing co-operation among coastal States and protecting natural marine resources.

ORGANIZATION

5. The organization, the preparation and the delivery of the European Workshop was the responsibility of CEDRE, while the organization of the field visits was entirely the responsibility of REMPEC. In fact, REMPEC decided to add one day to the programme prior to the commencement of the Workshop with a view to giving at the same time the opportunity to the participants to acquaint themselves with the services offered by the oil industry in relation to marine pollution accidents, and with the surveillance aircraft used for aerial reconnaissance of oil spills by the French authorities, as follows:

- a) Wednesday 1st October 2003(morning)
 - guided visit of Fast Oil Spill Team (FOST) operated in Rognac by TotalFinaElf;
- b) Wednesday 1st October 2003(afternoon)
 - guided presentation of the Polmar surveillance aircraft of the French customs, at Marseille/Marignane airport.

6. The role of REMPEC included:

- preparation of the field visits to FOST and to POLMAR French surveillance aircraft;
- invitation of participants (REMPEC's Focal Points representatives);
- making necessary travel and accommodation arrangements of trainees;
- provision of necessary local transport arrangements, for the trainees (airport/hotel/airport) and (hotel/Workshop venue/hotel);
- covering the costs of travel and daily subsistence allowance for trainees;
- payment of a fee per trainee to CEDRE in order for the latter to provide the following services;
 - all written materials for the participants;
 - venue of the Seminar (conference room);
 - audio visual equipment (overhead, slide, Power Point and video projectors);
 - interpretation from/to English and French;
 - lunches for all the trainees;
 - coffee breaks;

7. The role of CEDRE included:

- preparation of the programme of the Workshop;
- identification, selection and invitation of external lectures, facilitators and Chairs of the two round tables;
- providing a liaison with REMPEC and secretarial services during the Workshop

8. Cdr. Elias Sampatakakis, REMPEC's Programme Officer (HNS), was in charge of ensuring the smooth running of MEDIPOL 2003.

9. Like in all regional training activities organized by REMPEC, the official languages of MEDIPOL 2003 were English and French and all lectures were simultaneously interpreted into these two languages.

10. MEDIPOL 2003 was held in a Conference Room at the Hotel Mercure, place Besagne, Toulon, France.

11. All participants in the European Workshop sponsored by REMPEC were accommodated at the Hotel LaTour Blanche in Toulon.

12. The working hours of the Seminar were from 09.00 to 17.30/18:00 with a lunch between 12.30 and 14.00 and two coffee breaks (morning/afternoon).

13. The Workshop was inaugurated on Wednesday 2 October 2003. During the Opening session the participants were welcomed by the French Maritime Prefect of the Mediterranean Region Admiral Jean-Louis FILLON, the Representative from the EC, Mr. Gilles Vincent and by R. Admiral R. Patrino, Director of REMPEC. The latter emphasized the ongoing and scheduled activities of REMPEC related to prevention of operational pollution from ships, and presented the legal framework (New Prevention and Emergency Protocol) upon which improved monitoring of unlawful discharges should be sought in the Mediterranean region.

14. A cocktail reception was held on Friday 3 October 2003. R. Admiral R. Patrino, being the Chair of the Workshop on Saturday 4 October 2003 thanked the lecturers who contributed to the Workshop as well as all the participants for their active participation in MEDIPOL 2003. He also delivered Certificates of attendance (c.f. **ANNEX VI**) to the participants sponsored by REMPEC and closed the work of the Workshop.

PARTICIPANTS

15. Thirty seven participants from twenty Mediterranean coastal States attended MEDIPOL 2003, while participants from European countries, EU members, sponsored by the EC were from: Belgium, Finland, France, Italy, Germany, Ireland, The Netherlands, Portugal, Spain, United Kingdom and Norway (associated member). Observers from regional agreements (Helsinki Commission, Bonn Agreement) and the European Space Agency (ESA) also participated. The complete list of participants sponsored by REMPEC is given in **ANNEX IA**, while the complete list of participants sponsored by the EC is given in **ANNEX IB**.

16. MEDIPOL 2003 was aimed at government officers who were expected to be involved in the prevention of illicit oil discharges in their respective countries, at the national level. Their envisaged role in national preparedness systems should preferably include surveillance and monitoring activities (detection of illicit oil discharges), gathering of evidence and prosecution of offenders. It was expected that the selected participants had a good basic knowledge of problems associated with marine oil pollution.

17. Since concrete operational and legal experiences were to be presented and discussed during various sessions of the Workshop, REMPEC's national Focal Points were advised to select participants who already had a good understanding and the basic knowledge of problems associated with marine oil spill pollution control. Consequently, experts and operational staff selected to participate had to be in a position to exchange their experiences, their needs and their opinions and contribute to the formulation of detailed technical proposals to improve surveillance aspects and prosecution of offenders. Practical proposals, which might be envisaged by the Mediterranean countries, individually or jointly, expected to be presented to representatives of the different national authorities in charge of pollution response in those countries for possible future initiatives at national or regional level.

18. Twenty Mediterranean coastal States nominated their representatives. The European Community informed REMPEC that two EC representatives would attend the Workshop and since the event was financed by the EC, the expenses for their participation would be covered by the EC.

19. REMPEC fully sponsored the participation of all the Mediterranean coastal States representatives in the Workshop. Each Mediterranean Coastal State, non-EU member was invited to nominate two participants from different national authorities playing key role in surveillance and monitoring activities (detection of illicit oil discharges at sea), gathering of evidence and prosecution of offenders. France, Greece, Italy, Spain were invited to nominate only one participant, since 2 (two) fellowships were covered by the EC within the framework of the EC/CEDRE project. Egypt and Lebanon nominated a third participant each, and covered entirely the cost of their participation. Two more participants from Italy attended the Workshop, who covered their own cost of participation.

20. The majority of participants in MEDIPOL 2003 sponsored by REMPEC were civil servants (33 out of 35) from various ministries or governmental departments. Twenty-three (23) came from ministries, departments, agencies or services dealing with environmental affairs, and ten (10) from offices related to maritime affairs.

PROGRAMME

21. The programme of MEDIPOL 2003, given in **ANNEX II** was prepared bearing in mind the objectives of the Workshop, as given in paragraph 4 above, and was therefore divided in three distinct modules.

22. During the field visit to FOST at Rognac, Mr. Francois Le Port (TOTAL) gave an overview of the main activities undertaken within the Mediterranean Sea by the Fast Oil Spill Team (FOST) operating in the framework of TotalFinaElf, followed by a tour on the stockpile of anti-pollution means and equipment used by FOST. During the field visit to POLMAR French surveillance aircraft in Marseille/Marignane airport, the main operational capabilities of a 2nd generation POLMAR surveillance aircraft were explained to the participants by pilots of the respective Air Means Unit of the French Customs. During the field visits TOTAL SA kindly provided simultaneous interpretation between French and English.

23. The morning session of the first day of the Workshop was dedicated to the regional legal framework for co-operation in the Mediterranean region (Barcelona Convention-Mediterranean Action Plan), with the lecture delivered by the MAP Co-ordinator, Mr. L. Chabason, as well as in the Baltic Sea area (Helsinki Convention) and the North Sea (Bonn Agreement) with emphasis placed on operational surveillance requirements and capabilities. The afternoon session of the first day was devoted to exchanging operational experiences on the use of stand alone or combined sea surveillance practices, which are aimed at improving surveillance efficiency as well as offenders prosecution.

24. The second day was devoted to key lecturers , who introduced the tasks to be addressed by the two parallel round tables, which were set up in order to discuss further the issues raised and to propose recommendations, as follows:

- Table one: Detection Techniques (DET), chaired by Mr.L.Fusco from The European Space Agency (ESA);
- Table two: Mutual Information and Prosecution Procedure (MIP) chaired by Mr. D. Roy from CEDRE.

The trainees participated in the round tables, taking account of their scientific background, knowledge and experience.

25. The third (final) day of the Workshop was devoted to formulating the proposals and recommendations reached during the discussion of the round tables. R. Admiral R.Patrano, Director of REMPEC, chaired the session. R. Admiral Patrano summarized the main issues discussed during the Workshop, presented some recommendations concerning sustainable combined operational use of surveillance practices, while he identified some priority issues that should be further explored in a national, regional or international context. He also stressed that participation of representatives of European countries, EU members and of the Contracting Parties to the Barcelona Convention in similar initiatives, will definitely prove to be mutually beneficial in terms of exchanging background information and operational experiences in their respective countries. The proposals and recommendations agreed during the Workshop are found in **Annex V**.

LECTURERS

26. Five (5) lecturers presented the programme of the Workshop. Two chairpersons facilitated the discussion that took place: Mr. L. Chabason – Day 1, R. Admiral R.Patrano - Day 3, Day 2 Mr. J. C. Garnier, Secrétaire General de la Mer, France.supported by Mr. F. Parthoit, CEDRE. During the second day, Mr.L.Fusco from ESA chaired Table-one (DET), while Mr. D.Roy from CEDRE chaired Table two (MIP).

The lecturers included: The MAP Co-ordinator, Mr. L. Chabason, one representative from Helsinki Commission, (Mr. T. Fago); one representative from Bonn Agreement, (Mr. S. Huisman); joint presentation given by Mr.T.Tarchi (EC-JRC-ISPRA) / Mr. L. Fusco (ESA-ESRIN), /Mr. E. Cubero-Castan (CNES); Representatives from UK Maritime and Coastguard Agency and CEDRE (Mr. T. Stone/Mr. F. Parthiot respectively).

27. The complete list of lecturers is given in **ANNEX III**.

DOCUMENTS

28. Documents distributed during MEDIPOL 2003 included printouts of five presentations made by the lecturers, during the first day as well as a summary of the operational capabilities of the 2nd generation POLMAR surveillance aircraft distributed to the participants during the field visit to the POLMAR aircraft.
29. All the presentations and documents were given to the participants in English or French.
30. The list of documents distributed during MEDIPOL 2003 is given in **ANNEX IV**.

CONCLUSIONS OF THE WORKSHOP

34. MEDIPOL 2003 was aimed at improving and updating the knowledge of government officers who are expected to be involved in the prevention of illicit oil discharges in their respective countries, at the national level. The trainees were also presented with a comparative analysis of the efficiency of surveillance practices of offences at sea, in terms of improved surveillance efficiency as well as enhanced offenders prosecution. Participants also benefited from the concrete operational and legal experiences presented and discussed in the framework of existing regional agreements, mainly as related to the Baltic Sea and North Sea surveillance.
35. It is envisaged that the proposals and recommendations that were eventually agreed to would facilitate and would promote a dialogue on priority issues that should be further explored in a national, regional or international context in terms of operational surveillance used to support prevention of unlawful discharges and response operations in critical emergencies.

ANNEX 1A

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ANNEX 1B

Atelier « Imagerie satellitale et déversements illicites d'hydrocarbures en mer » -
Cedre / Commission Européenne
Workshop on "Satellite Imagery and illicit oil spills" Cedre / European Commission

Toulon, du 02 au 04 octobre 2003
2 – 4 October 2003, Toulon, France

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ANNEX II

EUROPEAN WORKSHOP « SATELLITE IMAGERY AND ILLEGAL OIL SPILLS IN EUROPE AND THE MEDITERRANEAN » 2-4 Octobre 2003, Toulon, France

Day 1 : Thursday 2-10-2003

Chair : L. Chabason, MAP
Secretary : F. Parthiot, Cedre

09.00-0930

Opening of the workshop.

- *Mediterranean Maritime Prefect*
- *European Commission*
- *Director of REMPEC*

09.30-10.15

The Barcelona Convention, the Mediterranean Action Plan (MAP) and the Mediterranean situation.

L.Chabason

10.15-11.00

The Helsinki Convention and Baltic sea surveillance
T.Fagö

11.00-11.30 Coffee break

11.30-12.30

The Bonn Agreement and the North sea surveillance
S. Huisman

12.30-14.00 Lunch

14.00-16.00

Ongoing and scheduled projects aiming at improving sea surveillance

D.Tarchi/L. Fusco
E. Cubero-Castan

16.00-16.30 Coffee break

16.30-17.00

Practical use of satellite imagery for large pollution monitoring and prosecution : technical advisers views

T.Stone/F.Parthiot

17.00-18.00

Meeting of Chairs, Facilitators and Secretaries to prepare the round tables

Day 2 : Friday 3-10-2003

Facilitators : L. Fusco, ESA
and D. Roy, Cedre

09.00-09.30

Introduction to two parallel round tables: detection techniques (DET), mutual information and prosecution procedure (MIP)

09.30-12.30

DET round table : exchange of information on tools in use or soon available, *facilitated by L. Fusco.*

MIP round table: exchange of information on prosecution improvement in the Mediterranean, *facilitated by D. Roy*

12.30-14.00 Lunch

14.00-15.30

Formulation and wrapping up of draft conclusions of the two round tables.

15.30-16.00 Coffee Break

16.00-18.00

Discussion chaired by Mr. J.R Garnier, Secrétaire général de la Mer, France
Presentation of the draft conclusions to the representatives of the Mediterranean countries, improvement of those conclusions.

18.00 : cocktail party at hotel Mercure

Day 3 : Saturday 4-10-2003

*Chair : R. Patruno REMPEC
Secretary : M. Girin, Cedre*

09.00-10.30

Revision and finalisation of the DET and MIP proposals.

10.30-11.00 Coffee Break

11.00-12.30

Global discussion of the participants on the proposals

12.30-14.00 Lunch

14.00-15.30

Chairs, Facilitators and Secretaries:

Finalisation of the final document to be delivered to the participants

14.00-17.00

Study tour for all other participants
(weather permitting)

**Contact us at
contact@le-cedre.fr**

Venue of the workshop :

**hotel Mercure, place
Besagne, Toulon
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ANNEX III

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ANNEX IV

LIST OF DOCUMENTS

1. The Helsinki Convention and Baltic Sea surveillance, T. Fago, HELSINKI COMMISSION.
2. The Bonn Agreement and the North Sea surveillance, S. Huisman, BONN AGREEMENT.
3. Ongoing and scheduled projects aiming at improving sea surveillance, D. Tarchi / L. Fuscho / E. Cubero-Castan, EC / ESA-ESRIN / CNES.
4. Practical use of satellite imagery for large polluting monitoring and prosecution – technical advisors view, T. Stone / F. Parthiot, UK – MCA / CEDRE.

ANNEX V

EUROPEAN WORKSHOP

**« SATELLITE IMAGERY AND ILLEGAL OIL SPILLS IN EUROPE AND
IN THE MEDITERRANEAN »**

Toulon, France, 2 – 4 October 2003

FINAL RECOMMENDATIONS

Round table 1 :
« DETECTION TECHNIQUES »

Round table 2 :
« MUTUAL INFORMATION AND PROSECUTION PROCEDURES »

1 - ROUND TABLE ON DETECTION TECHNIQUES

- **IDENTIFIED ISSUES**

- Lessons of the past experience
- Operational surveillance
- Information system

- **OBJECTIVES OF ROUND TABLE**

- Discuss issues and propose recommendations concerning each issue

- **MAIN LESSONS LEARNED FROM PAST EXPERIENCE (1)**

- Current situation in the Baltic and North seas: in both sea areas aerial surveillance by remote sensing aircraft has contributed to building up a long experience in the detection of illegal discharges. Several member states have co-operated over the past decade to gain experience in the use of satellite SAR imagery.
- Current situation in the Mediterranean sea: a number of dedicated project are going on but there is not yet practical application, and in addition the aircraft surveillance capacity is insufficient to allow for extended joint experiment and to derive operational experience.
- summary of the Baltic and North sea experience
 - ◆ Technical and operational capabilities vary a lot according to regions
 - ◆ Combined operation and reports to all participating/interested countries and parties
 - ◆ Development of operational experiences by an exchange of experts
- satellite SAR imagery is a tool that complements other remote sensing and visual resources (e.g. flexibility of airborne surveillance, versus long term statistical observation, importance of in-situ measurements) and models
- Improve or initiate exploitation of existing aerial/satellite surveillance data from recent and past projects and campaigns ; need to continue to carry out research activities in the field of satellite surveillance aimed at practical operational applications
- Use of information in (near) real time and in slow time (including access to historical data set) depending on operational needs
- Space data access cost implies definition of priorities. (envisage negotiation for the acquisition at the lowest possible costs when pollution and prevention activities are concerned)
- Interface with GIS systems (e.g. for digital charts and sensitivity mapping)
- Use these experiences to define operational requirements for future satellite surveillance

- **OPERATIONAL SURVEILLANCE (2)**

- Separate needs for routine operational surveillance and emergency monitoring.
- Enhance co-operation with Civil Protection across Mediterranean countries for emergency response at the intercoastal zone.

- Synergy with other operational systems (e.g.: VTS, AIS) for ship location and identification and with emerging technologies (e.g.: GALILEO for precise positioning, hyperspectral sensors)
- Review of end user requirements (e.g. petroleum products + hazardous and noxious substances, timeline, coverage, continuity of data access, quality of derived information, location, standards of reporting, met-oceano data...)
- Short and long term objectives : need for a strict and repeated surveillance of the sea area leading to a strong deterrence
- Reduction of surveillance costs to ensure long term sustainability. This is one of the most important challenges.
- As the development of satellite surveillance is very costly for small countries, specific transnational pilot projects within the MEDA and other or new co-operation programmes, even at regional and sub-regional level, should be developed to mitigate the relevant costs.

• **INFORMATION SYSTEM (3)**

- establishing local and overall statistics and deriving trends in the coming years at least for the threatened regions (experience in ongoing projects and in GMES initiative)
- Consider integration of aircraft, satellites and port state controls data (e.g. for optimisation of available flight time)
- Generation of risk mapping first, and eventually sensitivity mapping. (e.g.:*Proposal under discussion at REMPEC with participating countries*)
- the information system should be operated at regional (e.g. *REMPEC role in the Mediterranean sea*) and country level and should interface other operational relevant systems, met-oceano services...
- The information system should consider networking and compatibility of configurations for meeting regional and local operational needs

2- ROUND TABLE ON MUTUAL INFORMATION AND PROSECUTION PROCEDURES

• **IDENTIFIED ISSUES**

- Evidence
- Operational procedures re-routing and inspection
- Mutual information

• **OBJECTIVES OF ROUND TABLE**

- Discuss issues and propose recommendations concerning each issue

• **EVIDENCE (1)**

considerations (1)

- SAR (*Synthetic Aperture Radar*) satellite imagery enables the detection of surface anomalies such as oil slicks and the presence of vessels related or not to such slicks.
- Satellites provide localisation and slick size in addition to the data and the time of acquisition.
- Satellite imagery only delivers part of the evidence of an offence, as it does not identify the vessel or the type of pollutant. Consequently, satellite imagery is only a tool to be used in conjunction with visual reconnaissance or sampling.
- Observers need to be trained to produce clear reports and documents that would be easily understood by magistrates. These magistrates will also to be trained so that they can exploit evidence to the full.

Recommendations (1)

- As satellite imagery is highly technical and marine pollution issues so specific, it is recommended to appoint and train specialised investigators, prosecutors and magistrates.
- For the operational use of satellite imagery, it is recommended that each country avail itself of an aerial surveillance program that will complement and validate satellite detection so as to have all the necessary information to prosecute offenders.
- In order to provide the necessary operational capacity for airborne and shipborne surveillance of marine pollution, a plan to build the capacity of Mediterranean states should be considered.

• **OPERATIONAL PROCEDURES, RE-ROUTING AND INSPECTION (2)**

considerations (2)

- Taking action against offenders detected by satellite imagery involves also the same instruments as those used by other sensing methods.
- The Law of the Sea Convention and the relevant international and regional instruments enable states to intervene (inspect vessel, ...) at sea and in their harbours.
- Response must be proportional to the pollution threat.
- Satellite imagery can be used as a trigger for targeted aerial surveillance.
- When the polluting vessel is no longer connected with the oil slick, information from satellite imagery used in conjunction with information from airborne reconnaissance may allow in some cases to reconstruct the track of the suspected vessel and establish the link between the oil slick and that vessel.
- The option of re-routing a vessel should only be envisaged as a last resort if you have clear evidence and requisite response resources.
- The controls provided for by international agreements should be carried out (e.g. Port State Control).
- The designation of areas enjoying particular protection measures may improve the protection against pollution. However, the implementation of this kind of measures is complex.

Recommendations (2)

- It is recommended that a transnational approach to the acquisition of satellite imagery be undertaken in order to increase the amount of information for the prosecution of offenders.
- In the event of on board intervention it is recommended to implement direct link between operational control authorities and judicial authorities at national and transnational level.
- It is recommended to use all the provisions of the Law of the sea in order to have a legal basis for intervention to deal with marine pollution issues and in particular those outside territorial waters.

• MUTUAL INFORMATION (3)

considerations (3)

- Satellite data enables statistical mapping and the identification of areas at risk.
- Using the satellite imagery as a part of evidence for prosecution must essentially focus on these areas and may also provide an evaluation of the efficiency of the enforcement system.
- Each state will or has, in its code of criminal procedure, set fines and sanctions.
- Discrepancies in those deterrence tools may induce a shift of the problem to countries applying more lenient sanctions.
- Some states keep an updated record of the cases brought to court. Recent initiatives have been conducted to pool this information.
- There are two regimes of penalties:
 - ◆ administrative sanctions involving fines that are proportional to damage sustained will be immediately payable,
 - ◆ criminal procedure is often longer but involves steeper fines.
- The current trend is that not only the master but also the vessel operator(s) will be held liable.

Recommendations (3)

- It is recommended to extend liability to other parties involved in ship management rather than to limit such liability only to the master as is the case in a number of countries
- It is recommended to implement an exchange of information on legislation and sanctions in different countries.
- It is recommended to encourage the exchange and the compilation of information in database regarding prosecution as well as regarding procedures of investigations (e.g. North Sea Network, Helcom).
- The establishment of rapid notification procedures to flag states must be encouraged.



IMO



REMPEC



MAP



UNEP

**REGIONAL MARINE POLLUTION EMERGENCY RESPONSE CENTRE
FOR THE MEDITERRANEAN SEA
(REMPEC)**



CERTIFICATE

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has attended the

**EUROPEAN WORKSHOP
«SATELLITE IMAGERY AND ILLEGAL OIL SPILLS IN EUROPE
AND THE MEDITERRANEAN»**

Toulon, France, 2 – 4 October 2003

organized by

**CENTRE DE DOCUMENTATION DE RECHERCHE ET D'EXPERIMENTATIONS
SUR LES POLLUTIONS ACCIDENTELLES DES EAUX – CEDRE**

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(REMPEC)**

within the framework of the

MEDITERRANEAN ACTION PLAN



Rear Admiral Roberto PATRUNO
Director



Group photo of participants during field visit to FOST at Rognac