



IMO-OMI



UNEP-PNUE

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

CENTRE REGIONAL MEDITERRANEEN POUR L'INTERVENTION  
D'URGENCE CONTRE LA POLLUTION MARINE ACCIDENTELLE (REMPEC)

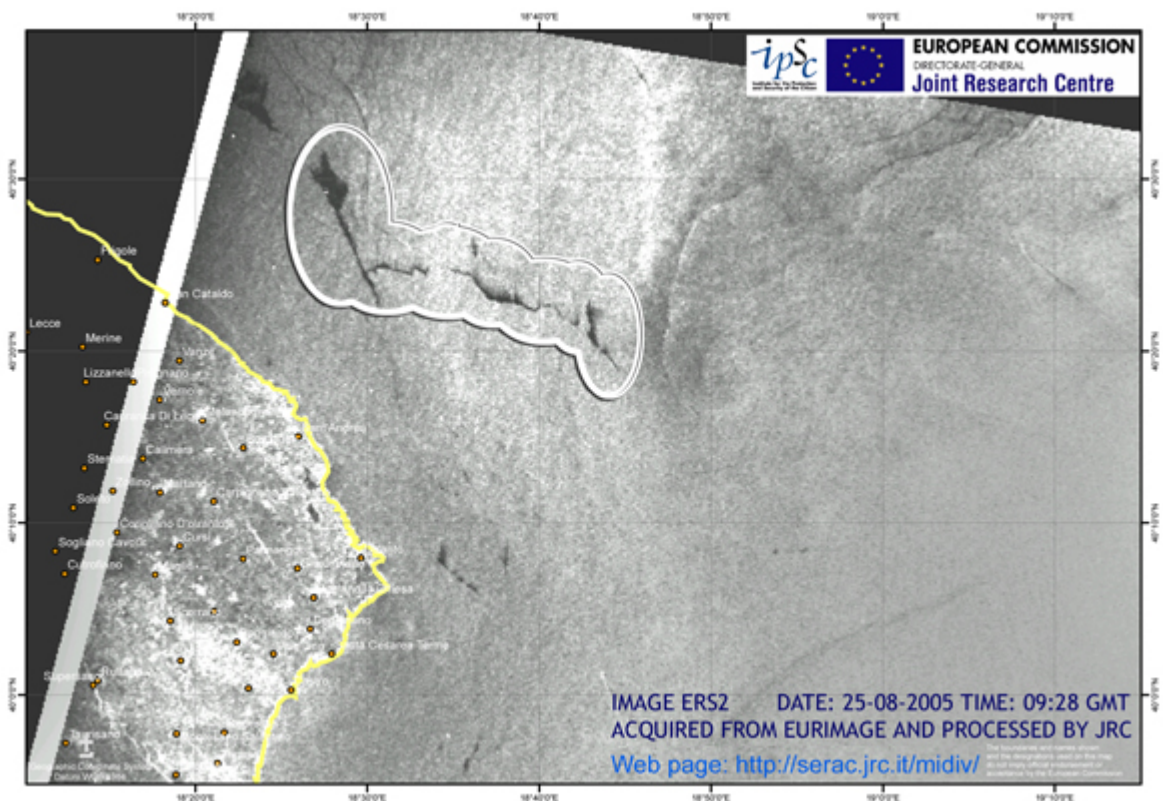
MEDITERRANEAN ACTION PLAN  
PLAN D'ACTION POUR LA MEDITERRANEE



# REGIONAL SEMINAR ON THE USE OF REMOTE SENSING IN OIL POLLUTION CONTROL - MEDEXPOL 2005

Cyprus, 17 - 20 October 2005

## REPORT



NOVEMBER 2005

**REGIONAL SEMINAR  
ON THE USE OF REMOTE SENSING IN OIL POLLUTION CONTROL  
-  
MEDEXPOL 2005**

**Nicosia, Cyprus, 17 - 20 October 2005**

**REPORT**

**INTRODUCTION**

The Regional Seminar on the use of remote sensing in oil pollution control, MEDEXPOL 2005, was organized by the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) in Nicosia, Cyprus, between Monday, 17 October and Thursday, 20 October 2005.

The outline of the Seminar and its programme were prepared with the kind assistance and in close co-operation with the Institute for the Protection and Security of the Citizen (IPSC), Directorate General Joint Research Centre (DG JRC) of the European Commission, Ispra, Italy.

Department of Fisheries and Marine Research (DFMR), Ministry of Agriculture, Natural Resources and Environment, Republic of Cyprus provided logistic support for the organization of the Seminar.

The Seminar was organized in line with REMPEC's programme of training activities for the biennium 2004-2005, as proposed by the 6<sup>th</sup> Meeting of REMPEC Focal Points (Malta, 12-15 February 2003) and subsequently endorsed by the 13<sup>th</sup> Meeting of the Contracting Parties to the Barcelona Convention (Catania, Italy, 11-14 November 2003)

The topic of the 2005 Regional Seminar was selected taking into consideration the wish expressed by several Meetings of REMPEC's Focal Points, that regional training activities should address specific, rather than general, issues and focus on advanced topics. Remote sensing was chosen as the topic of MEDEXPOL 2005 also bearing in mind the interest in the advanced methods for detection and monitoring of oil spills shown by the participants in the Regional Workshop on prevention and control of operational pollution in the Mediterranean region, organized by REMPEC in Ancona, Italy in November 2004. Finally, when deciding on the topic for MEDEXPOL 2005, REMPEC also considered the importance of the selected subject for both main fields of REMPEC activities, namely preparedness and response to accidental marine pollution and prevention of pollution from ships.  
present

**OBJECTIVES OF THE SEMINAR**

The main objectives of MEDEXPOL 2005 were:

- to provide participants with up-to-date information on various technical and operational aspects of remote sensing, including both aerial surveillance and satellite monitoring (Earth Observation);
- to inform the participants on the current and prospective uses of remote sensing in the fields of prevention of, preparedness for and response to ship-generated marine oil pollution;
- to share with the participants the experience gained outside the Mediterranean region in the use of airborne and satellite remote sensing in prevention of illicit oil discharges from ships and in management of response operations in case of recent major oil spills;
- to facilitate an open dialog between participants and speakers aimed at identifying the potentials for a wider use in the Mediterranean region of remote sensing techniques for control of illicit discharges from ships and in spill response management;

With a view to achieving these objectives REMPEC prepared the programme comprising a total of 26 presentations, which were delivered by five (5) external speakers and two (2) speakers from the Centre.

## **ORGANIZATION**

The organization of MEDEXPOL 2005 comprised two distinguished phases, namely the preparation of the programme and selection of key speakers, and the logistic part of the organization.

REMPEC carried out the first phase of the preparation in close collaboration with the experts from the Institute for the Protection and Security of the Citizen (IPSC) of the European Commission's Directorate General Joint Research Centre (DG JRC), who had the most extensive experience in the field of remote sensing, and who generously offered their assistance to the Centre. Following a series of consultations with a number of experts in the field, five external speakers have been identified and the programme of the Seminar was finalized in agreement with them.

In addition to the preparation of the programme and the selection of speakers in the Seminar, REMPEC was also responsible for the preparation of several presentations, the invitation of the participants, making travel arrangements for both speakers and the participants, as well as for general co-ordination of the event, including its financial aspects.

The logistic support for organization of the Seminar in Cyprus was provided free of charge by the Department of Fisheries and Marine Research (DFMR), the Centre's Governmental Focal Point in Cyprus. In accordance with the agreement reached prior to the Seminar between REMPEC and DFMR, the latter was in charge of:

- liaison with REMPEC regarding the organization of the Seminar;
- Identifying a suitable hotel and making hotel reservations for all participants in the Seminar
- ensuring the provision of the adequate conference room equipped with necessary audio-visual equipment, screen, etc, as well as refreshments at coffee breaks
- identifying English/French interpreters, and making necessary arrangements for the simultaneous interpretation and for the provision of the interpretation equipment (including a booth for the interpreters, headphones, microphones, complete wiring for sound and technical assistance with the equipment)
- organizing the transfer all participants from Larnaca airport to the hotel upon arrival, and from the hotel to the airport on departure;
- preparing, producing, printing and binding Seminar proceedings
- facilitating the issue of entry visa for the participants who require one.
- preparing and submitting to REMPEC, at the end of the Seminar, a Financial Report
- providing other support, aimed at the smooth running of the Seminar

Like all regional meetings and training activities organized by REMPEC, MEDEXPOL 2005 was a bilingual Seminar. Since presentations were made in both English and French languages, simultaneous interpretation from English into French and vice versa was provided throughout the Seminar. For this purpose, two interpreters were hired locally through DFMR.

MEDEXPOL 2005 was held in the conference room of the hotel "Holiday Inn – Nicosia City Centre" in Nicosia. All participants and speakers were accommodated in the same hotel.

The working hours of the Seminar were between 09.00 and 16.45 hours, with two coffee breaks, one in the mid-morning and the other in the mid-afternoon.

MEDEXPOL 2005 was inaugurated on 17 October 2005 at 09.00. Mr. Darko Domovic, Senior Programme Officer, addressed the participants on behalf of R. Adm. Roberto Patrino, Director, REMPEC. Mr. Georgios L. Georgiu, Director, Department of Fisheries and Marine Research (DFMR), the Centre's Governmental Focal Point in Cyprus, welcomed the participants on behalf of the host country.

The Seminar was closed at 13.00 on 20 October 2005. On behalf of REMPEC, Mr. D. Domovic expressed the Centre's gratitude to the speakers for their excellent presentations, to the participants for their active participation in the Seminar, and to the Cypriot authorities for their support. Speaking on behalf of the participants, Dr. Abdelhafid Laouira, the representative of Algeria, thanked REMPEC and the speakers for their efforts in organizing and successfully conducting MEDEXPOL 2005.

## **PARTICIPATION**

MEDEXPOL 2005 was intended for the senior Government officials whose responsibilities included prevention of, preparedness for and response to pollution from ships, and who might need, in the course of their present and future work, updated knowledge of remote sensing techniques currently being used in control of ship-generated marine pollution.

REMPEC invited each Mediterranean coastal State participating in the Mediterranean Action Plan, as well as the EC, i.e. all Contracting Parties to the Barcelona Convention, to nominate two participants in MEDEXPOL 2005. Taking into consideration that the topic selected for the Regional Seminar addresses the control of the two main aspects of marine pollution from ships, namely operational and accidental pollution, REMPEC Focal Points were invited to include in their respective delegations personnel responsible at the national level for both of these two aspects of marine pollution control. With a view to avoiding duplication of nominations, the Centre requested its OPRC and Prevention Focal Points respectively to jointly nominate the participants.

Since some of the Contracting Parties informed REMPEC in advance that they would not be able to attend the Seminar, or nominated only one participant, additional places were offered to the countries in the region having a special interest in remote sensing.

In addition to the Mediterranean coastal States, a group of French speaking West and Central African (WACAF) countries, Contracting Parties to the Abidjan Convention, had also been offered several fellowships, thanks to the voluntary contribution of the Government of Monaco to the Centre's budget for the biennium 2004-2005. REMPEC requested the Secretariat of the Abidjan Convention, based at UNEP Headquarters in Nairobi, to select the relevant countries and to invite their representatives on behalf of the Centre.

Within the framework of the ongoing co-operation between REMPEC and the European Maritime Safety Agency (EMSA), the Centre agreed with the request of EMSA and offered several places in MEDEXPOL 2005 to the representatives of the new European Union member States from the Baltic region.

Finally, REMPEC also agreed with the request from the Regional Centre for Assistance and Disaster Relief (RCADR), based in Divulje, Croatia, to send as observers to MEDEXPOL 2005 two of its staff members.

The costs of participation of the representatives of the Baltic countries and of RCADR were born by EMSA and RCADR respectively, while the participants from the Mediterranean and WACAF coastal States were fully sponsored by REMPEC.

Unfortunately, only four days prior to the start of the Seminar, REMPEC was informed by its Focal Point in Cyprus that due to the change of procedures the visa for the participants from several Mediterranean coastal States, as well as from the three WACAF countries could not be issued at the airport upon arrival, as originally advised. In case of several Mediterranean countries and one WACAF country it was possible to find alternative solutions, however this last minute notice regrettably prevented the participation in MEDEXPOL 2005 of the representatives of two Mediterranean coastal States, as well as of the participants nominated by Gabon and Senegal.

A total of 45 participants eventually attended MEDEXPOL 2005: 39 participants came from 17 Contracting Parties to the Barcelona Convention, one from Cameroon (Abidjan Convention Contracting Party), 3 from Baltic coastal States and 2 were the representatives of RCADR. Also present were 5 external speakers and 3 REMPEC staff.

The profile of participants in the Seminar was varied, included personnel from national maritime administrations, ports, national authorities responsible for environment, Navy, Coast Guards, oil spill response services, universities. All of them had previous experience in prevention of pollution from ships, or in preparedness for and response to accidental marine pollution.

The complete list of participants is given in **ANNEX 1**. The list also includes the numbers appearing on the Certificates of attendance, which were presented to the participants during the closing ceremony. A specimen of the Certificate is reproduced in **ANNEX 2**.

## **THE PROGRAMME**

The programme of MEDEXPOL 2005 included 26 presentations, divided in four groups, with each day of the Seminar dedicated to a specific topic. These encompassed the most important issues related to remote sensing from aircraft and satellite platforms, with a particular emphasis, wherever possible, on the situation in the Mediterranean. The four groups of presentations were:

- Introduction to monitoring operational and accidental marine oil pollution
- Legislation, monitoring tools and aerial surveillance
- Satellite monitoring
- Oil pollution monitoring in the Mediterranean

The average duration of a lecture was 45 minutes and all were illustrated by MS PowerPoint presentations.

The first group of presentations aimed at defining the situation in the Mediterranean region regarding maritime traffic and risks posed by it, legal and institutional framework in place in the region, sources and behaviour of spilled oil and the possibilities for detection of oil pollution through remote sensing.

The second day was dedicated to discussing the legal background for monitoring marine oil pollution and to surveillance of oil spills from aircraft.

The third module dealt with the use of satellites in remote sensing of oil slicks, but also included a presentation on basics of securing evidence on discharges from ships.

Finally, the last day of the Seminar comprised presentations on ongoing projects in the Mediterranean in the field of remote sensing and on new initiatives aimed at reducing pollution from ships in the region, which included the use of remote sensing as a tool for achieving this goal. Ample time on the fourth day was allocated for discussion and for drawing conclusions from the Seminar.

The first draft programme was prepared jointly by REMPEC and DG JRC – IPSC, and was subsequently discussed with a number of experts in the field, mainly from the Bonn Agreement Contracting Parties, who all have an extensive experience in remote sensing. The final version of the programme, reproduced in **ANNEX 3**, was the result of the consultations with all these experts, including those who attended MEDEXPOL 2005 as speakers.

## **LECTURERS**

REMPEC invited 5 external speakers to present the lectures included in the programme of the Seminar, in addition to providing two speakers from among its staff. The speakers were selected from the institutions which have a proven record and vast experience in various aspects of remote sensing, including both aerial surveillance and satellite monitoring. These included two key speakers from DG JRC – IPSC, and one each from EMSA, the International Tanker Owners Pollution Federation Ltd. (ITOPF) and the United Kingdom Maritime and Coastguard Agency.

A complete list of lecturers is given in **ANNEX 4**.

## **DOCUMENTS**

Each participant in the Seminar received a folder including black and white printouts of PowerPoint presentations delivered during MEDEXPOL 2005. In addition, following the request of the majority of those present, REMPEC compiled after the Seminar all presentations and produced a CD including colour *PDF* versions of all presentations. The CD is being distributed to the participants, REMPEC national Focal Points and other REMPEC partners. The *PDF* format was chosen due to the need to protect the copyright of certain images included in the presentations.

The list of all presentations included in the CD is given in **ANNEX 5**.

## **DISCUSSION AND COMMENTS**

Once the last presentation was delivered the floor was opened for discussion and comments. The session was chaired by Cdr. Guido Ferraro (DG JRC – IPSC). The ensuing discussion involved a number of participants and all speakers, and demonstrated the great relevance of the topic selected for MEDEXPOL 2005 for the representatives of the Mediterranean coastal States that attended the Seminar, as well as for the observers from outside the region.

Participants in the discussion had shown particular interest in case studies presented during the Seminar, and many questions were related to the possibility of using or adapting the methodologies developed outside the Mediterranean region, such as the Bonn Agreement Oil Appearance Code, in the Mediterranean countries.

Several participants requested specific additional information about the areas chosen for the implementation of pilot projects concerning surveillance and monitoring, envisaged within the comprehensive CleanMed Project. In this regard a representative of Egypt suggested that the pilot area identified as the Eastern part of the Mediterranean be extended to Suez Canal including Port Said, Egypt.

The participant from Greece, while welcoming the idea of focusing during MEDEXPOL 2005 on identification and assessment of oil slick, also emphasised the need of working on the identification of ships causing in particular operational oil pollution.

A representative from Algeria pointed out that in order to achieve an efficient surveillance, maritime traffic patterns and trends needed to be identified as accurately as possible. This would only be achieved through a close cooperation, not only among the countries in the region, but also among the various national services within the same country. In addition, he emphasized that, when using terrestrial and satellite transmitters, particular attention should be paid not to overload the personnel on board. Finally, the same participant emphasized the need, when developing information systems, to involve seafarers and the representatives of the maritime industry in general.

There was a general consensus with the initiatives of the European Commission aimed at ensuring long term monitoring of the sea area of the European Union, including the Mediterranean Sea. The support was expressed for the envisaged creation of the European Database on oil spills and for the development of the European Atlas, as well as for making available in near-real time of data on oil spills detected through satellite monitoring.

REMPEC was encouraged to seek to continue co-operation with the DG JRC of the European Commission in the field of remote sensing, and also with relevant partners in other regional seas, such as the North-Eastern Atlantic and Baltic regions.

## **CONCLUSIONS**

Great interest in the subject of remote sensing in the field of oil spill control, shown by the participants in MEDEXPOL 2005 and their active participation in the proceedings of the Seminar, had proven that the choice of the topic for the 2005 regional training activity was a good one.

Several participants requested REMPEC to endeavour to organize, in the future, training activities dedicated to the same or similar subject, recognizing in particular its relevance for both better and more effective prevention of pollution from ships, and for more efficient management of oil spill response in case of major marine pollution incidents.

**ANNEX 1**

**LIST OF PARTICIPANTS**

***MEDITERRANEAN ACTION PLAN***

**ALGERIA/ALGERIE**

**Abdelhafid LAOUIRA (Dr.)**

Conseiller au Ministère de l'Aménagement du Territoire  
et de l'Environnement  
Av. Des Quatre Canons  
Alger

**Certificate No. 2393**

Tel: +213 (21) 432 857  
Mob: +213 (61) 501 886  
Fax: +213 (21) 432 857  
E-mail: alaouira@yahoo.fr

**Djillali GUELLIL (Mr.)**

Chef de Bureau de la Sécurité de la Navigation Maritime  
au Ministère de Transports  
1 Chemin Ibnel Mouiz (Ex Poirson)  
El Biar  
Alger  
Tel: +213 (21) 929 881  
Fax: +213 (21) 926 096  
E-mail: djillaliguellil@yahoo.fr

**Certificate No. 2394**

**CROATIA / CROATIE**

**Dubravka LULIC KRIVIC (Ms.)**

Senior Environment Protection Officer  
Ministry of Sea, Tourism, Transport and Development  
Prisavlje 14  
10 000 Zagreb

**Certificate No. 2395**

Tel: +385 (1) 616 90 26  
Fax: +385 (1) 619 59 56  
E-mail: Dubravka.Krivic@pomorstvo.hr

**Darko GLAZAR (Capt.)**

Harbour Master  
Harbour Master Office Rijeka  
Senjsko Pristaniste 3  
51000 Rijeka

**Certificate No. 2396**

Tel: +385 (51) 214 113  
Fax: +385 (51) 211 660  
E-Mail: [darko.glazar@pomorstvo.hr](mailto:darko.glazar@pomorstvo.hr)

**CYPRUS/ CHYPRE**

**Michael AGAPIOU (Mr.)**

Marine Surveyor  
E-mail: magapiou@dms.mcw.gov.cy

**Certificate No. 2397**

**Ioannis EFSTRATIOU (Mr.)**

Marine Surveyor A'  
E-mail: jefstratiou@dms.mcw.gov.cy

**Certificate No. 2398**

**Themis EVRIVIADES (Mr.)**

Marine Surveyor A'  
E-mail: tevriviades@dms.mcw.gov.cy

**Certificate No. 2399**

Department of Merchant Shipping  
Ministry of Communication and Works  
Kyllinis Street  
Mesa Geitonia  
4007 Lemesos

Tel: +357 (25) 848 100

Fax: +357 (25) 848 200

**Savvas MICHAELIDES (Mr.)**

Fisheries and Marine Research Officer  
E-mail: smichaelides@dfmr.moa.gov.cy

**Certificate No. 2400**

**Nicos PAROUTIS (Mr.)**

Fisheries and Marine Research Inspector  
E-mail: nparoutis@dfmr.moa.gov.cy

**Certificate No. 2401**

Ministry of Agriculture, Natural Resources and Environment  
Department of Fisheries and Marine Research  
Aeolou 13  
Nicosia 1416

Tel: +357 (22) 807 806

Fax: +357 (22) 77 59 55

**EGYPT/ EGYPTE**

**Mahmoud ISMAIL MOHAMED (Capt.)**

General Director  
Special Assignments and Environment  
E-mail: mahmoud\_S51@yahoo.com

**Certificate No. 2402**

**Osama Abd El-Monem EL-BADAWI (Capt.)**

Advisor  
Marine Environmental Protection Consultant and Shipping

**Certificate No. 2403**

Ministry of State for Environmental Affairs  
Egyptian Environmental Affairs Agency (EEAA)  
30 Misr Helwan El-Zyrae Road  
Maadi, Cairo

Tel: +20 (2) 525 64 91

Fax: +20 (2) 525 64 94



**EGYPT/ EGYPTE (cont.)**

**Tarek SHAHIN (Mr.)**

General Manager  
Maritime Transport Sector  
4 Potlomy Street  
Alexandria

Tel: +20 (2) 486 96 54  
Fax: +20 (2) 484 20 96  
E-Mail: [tarekshahin59@yahoo.com](mailto:tarekshahin59@yahoo.com)

**Certificate No. 2404**

**FRANCE/FRANCE**

**Jean-Christophe BURVINGT (Mr.)**

Officer in Charge of International Relations  
for SAR and Counter Pollution  
Prefecture Maritime de la Manche et de la mer du Nord, France  
PREMAR MANCHE, Division AEM  
B.P. 1 Cherbourg Armee 50115

Tel: +33 (2) 33 92 59 29  
Fax: +33 (2) 33 92 59 26  
E-mail: [sec.aem@premar-manche.gouv.fr](mailto:sec.aem@premar-manche.gouv.fr)

**Certificate No. 2405**

**GREECE/ GRECE**

**Ioannis TSOUNAKIS (Ens.)**

Hellenic Republic  
Ministry of Mercantile Marine  
Hellenic Coast Guard - Air Patrol Division  
Athens

Tel: +30 (210) 240 22 22  
Fax: +30 (210) 240 31 99

**Certificate No. 2406**

**ISRAEL/ISRAEL**

**Yechiel KALUSKY (Mr.)**

Marine Pollution Inspector  
Marine and Coastal Environment Division  
Ministry of Environment  
15a Pal-Yam Street  
P.O. Box 811, Haifa 31007

Tel: +972 (4) 863 35 00  
Fax: +972 (4) 863 35 20  
E-mail: [yechielk@sviva.gov.il](mailto:yechielk@sviva.gov.il)

**Certificate No. 2407**

**ISRAEL/ISRAEL (cont.)**

**Alexander GERSON (Capt.)**  
Principal Shipping Inspector  
Israeli Administration Shipping and Ports  
Ministry of Transport  
15a Pal-Yam Street  
Haifa 31007

**Certificate No. 2408**

Tel: +972 (4) 863 20 80  
Fax: +972 (4) 863 21 18  
E-mail: alexg@mot.gov.il

**ITALY/ITALIE**

**Tommaso MAGNIFICO (Dr.)**  
Officer  
Ministero dell'Ambiente e della Tutela del Territorio  
Direzione della Protezione della Natura  
Via Capitan Bavastro No. 174  
00143 Roma

**Certificate No. 2409**

Tel: +39 (6) 572 25 308  
Fax: +39 (6) 572 28 390  
E-Mail: magnifico.tommaso@minambiente.it

**Marco MANCINI (Cdr.)**  
Italian Coast Guard Headquarters  
Chief of Information Systems  
Viale Dell'Arte 16  
00144 Roma

**Certificate No. 2410**

Tel: +39 (6) 5908 48 64  
+39 (6) 5923 569  
Fax: +39 (6) 5922 737  
+39 (6) 5908 4319  
E-Mail: marco.mancini@infrastrutturetrasporti.it

**Enrico CASTIONI (Cdr.)**  
Italian Coast Guard Headquarters  
International Relations Office  
Viale dell'Arte, 16  
00144 Rome

**Certificate No. 2411**

Tel: +39 (6) 5908 43 42  
Fax: +39 (6) 5908 4930  
E-Mail: enrico.castioni@trasportinavigazione.it

## **LEBANON/LIBAN**

### **Mohamed NAHLE (Eng.)**

National Co-ordination for Prevention of Pollution from Ships  
Ministry of Public Works and Transport  
Directorate General of Land and Maritime Transport  
Georges Picot Street  
Starco Bld-3<sup>rd</sup> Floor  
Beirut

Tel/Fax: +961 (1) 372 767  
Mobile: +961 (3) 78 33 50  
E-mail: [ministry@transportation.gov.lb](mailto:ministry@transportation.gov.lb)

**Certificate No. 2412**

### **Samih Wehbe (Dr.)**

Expert – Petroleum Industry  
Ministry of Environment  
Hai Gabri  
Alay

Fax: +961 (1) 97 65 30  
Mobile: +961 (3) 43 43 46  
E-Mail: [s.wehbe@moe.gov.lb](mailto:s.wehbe@moe.gov.lb)

**Certificate No. 2413**

### **Michel AL-HASHEM (Col.)**

Navy Officer – Lebanese Navy  
Kartaboun  
Byblos

Tel: +961 (3) 30 38 32  
Fax: +961 (1) 98 34 25  
E-Mail: [michhash@hotmail.com](mailto:michhash@hotmail.com)

**Certificate No. 2414**

## **MALTA/MALTE**

### **Joseph SEYCHELL (Mr.)**

Assistant to the Adviser  
Oil Pollution Response Module  
Ministry for Tourism and Culture  
Wied il-Kbir  
Qormi QMR 05

Tel: +356 21 257 027  
Fax: +356 21 250 673  
E-mail: [joseph.a.seychell@gov.mt](mailto:joseph.a.seychell@gov.mt)

**Certificate No. 2415**

### **David BUGEJA (Capt.)**

Deputy Harbour Master  
Malta Maritime Authority  
Marina Pinto  
Valletta VLT 01

Tel: +356 21 222 203  
Mob: +356 99434312  
Fax: +356 21 244 419  
E-mail: [david.bugeja@mma.gov.mt](mailto:david.bugeja@mma.gov.mt)

**Certificate No. 2416**

**MALTA/MALTE (cont.)**

**Claudio SPITERI (Maj.)**

Armed Forces of Malta  
HQ 2 Regiment – Luqa Barracks  
Luqa

**Certificate No. 2417**

Tel: +356 (-) 21 82 42 20 / 1 Ext. 108

Fax: +356 (-) 21 69 28 76

E-Mail: [claudio.spiteri@gov.mt](mailto:claudio.spiteri@gov.mt)

**MONACO**

**Elodie MARTIN (Ms.)**

RAMOGE  
9 rue Princess Marie de Lorraine  
MC 98000 Monaco

**Certificate No. 2442**

Tel: +377 (93) 15 42 29

Fax: +377 (97) 77 73 22

E-mail: [ramoge@ramoge.org](mailto:ramoge@ramoge.org)

**MOROCCO/MARC**

**Abdelali FARES (Mr.)**

Administrateur au Service Stratégies d'Intervention  
Ministere de l'Amenagement du Territoire, de l'Eau et de l'Environnement  
Département de l'Environnement  
36 Avenue El Abtal  
Agdal Rabat

**Certificate No. 2418**

Tel: +212 (37) 68 10 02

Fax: +212 (37) 77 88 25

E-mail: [faresabdelali@yahoo.fr](mailto:faresabdelali@yahoo.fr)

**Abdallah SAIF EDDINE (Mr.)**

Chef de Service du Contrôle Technique des Navires  
Ministère de l'Equipement et du Transport  
Boulevard Félix Houphouet Boigny  
20000 Casablanca

**Certificate No. 2419**

Tel: +212 (22) 27 80 92, (22) 22 19 31

Fax: +212 (22) 27 33 40

**SERBIA & MONTENEGRO/SERBIE & MONTENEGRO**

**Veljko RAKOCEVIC (Capt.)**

Senior Advisor for the Implemetation of the International Acts  
Maritime Safety Department  
Maršala Tita br.7  
Bar-Montenegro 85000

**Certificate No. 2420**

Tel: +381 (85) 303 352

Fax: +381 (85) 313 274

E-mail: [msd.intreg@cg.yu](mailto:msd.intreg@cg.yu)

**SERBIA & MONTENEGRO/SERBIE & MONTENEGRO (cont.)**

**Darinka JOKSIMOVIC (Ms.)**

Advisor / Translator  
Maritime Safety Department  
Marsala Tita 7  
Bar

Tel: +381 (85) 303 765  
Fax:  
E-Mail: [msa.corespond@cg.yu](mailto:msa.corespond@cg.yu)

**Certificate No. 2421**

**Anka RAJKOVIC (Ms.)**

Advisor for Monitoring and Implementation of  
International Acts  
Maritime Safety Department  
Marsala Tita 7

Tel: +381 (85) 303 353  
Fax: +381 (85) 313 274  
E-Mail: [anarajkovic@yahoo.com](mailto:anarajkovic@yahoo.com)

**Certificate No. 2422**

**SLOVENIA/SLOVENIE**

**Zvezdan BOZIC (Mr.)**

Senior Advisor  
Administration for Civil Protection and Disaster Relief  
Ferrarska 5/b  
6000 Koper

Tel: +386 (5) 668 42 01  
Fax: +386 (5) 668 43 22  
E-mail: [zvezdan.bozic@urszr.si](mailto:zvezdan.bozic@urszr.si)

**Certificate No. 2423**

**Marko PERKOVIC (Mr.)**

Head of Maritime Department  
University of Maritime Studies and Transportation  
Pot pomorscakov 4  
6320 Portoroz

Tel: +386 (5) 674 80 90  
Mob: +386 41 344 569  
Fax: +386 (5) 674 80 91  
E-mail: [marko.perkovic@fpp.edu](mailto:marko.perkovic@fpp.edu)

**Certificate No. 2424**

**SPAIN/ ESPAGNE**

**Sergio RODRIGUEZ CARBONELL (Mr.)**

Head of Maritime Environment Protection  
Salvage Society (SASEMAR)  
Fruela 3  
Madrid

Tel: +34 (91) 755 9100  
Fax: +34 (91) 755 9109  
E-mail: [lcc@sasemar.es](mailto:lcc@sasemar.es)

**Certificate No. 2425**

## **SYRIA/SYRIE**

**Shaka ALSOLEMAN (Eng.)**  
REMPEC Focal Point /

**Certificate No. 2426**

Mob: +963 93 58 33 14  
E-mail: shaka@mail.sy

**Farouk ALETER (Eng.)**  
E-Mail: chesadep@mail.sy

**Certificate No. 2441**

Chemicals Safety Directorate  
Ministry of Local Administration and Environment  
General Commission for Environmental Affairs  
Al Mazra'a, (Aleman Mosque)  
P.O. Box 3773  
Damascus

Tel: +963 (11) 444 37 29  
Fax: +963 (11) 444 37 29

## **TUNISIA/TUNISIE**

**Taoufik GARGOURI (Mr.)**  
Directeur  
Agence Nationale de la Protection de l'Environnement (ANPE)  
12, Rue du Cameroun  
Le Belvédère  
1002 Tunis

**Certificate No. 2427**

Tel: +216 (71) 84 02 21, (71) 84 25 64, 84 71 22  
Fax : +216 (71) 84 80 69  
E-mail: taoufir\_gargouri@yahoo.fr

**Larbi BOUGUERRA (Mr.)**  
Sous-Directeur Controle et Intervention  
Agence Nationale de Protection de l'Environnement (ANPE)  
12, Rue du Cameroun  
Le Belvédère  
1002 Tunis

**Certificate No. 2428**

Tel: +216 (71) 28 20 60, (71) 84 71 22  
Fax : +216 (71) 84 80 69  
E-mail: pol@anpe.nat.tn

**Mohamed ZMERLI**  
Ingénieur Principal  
Direction Générale de l'Environnement et de la Qualité de la Vie  
Immeuble ICF  
Centre Urbain Nord  
El Menzah  
1080 Tunis

**Certificate No. 2429**

Tel: +216 (71) 703 394  
Fax: +216 (71) 706 395/ 704 340  
E-mail: [zmerli2004@yahoo.fr](mailto:zmerli2004@yahoo.fr)

**WEST AND CENTRAL AFRICA REGION (WACAF) - ABIDJAN CONVENTION**

**CAMEROON**

**Delphine SANJOH (Ms.)**  
Officer in Charge of Studies  
Ministry of Environment (Cameroon)  
Yaounde

**Certificate No. 2430**

Tel: +237 603 65 95  
Fax:  
E-Mail: [sanjohdelphine@yahoo.fr](mailto:sanjohdelphine@yahoo.fr)

***OBSERVERS***

**LATVIA**

**Guntis DRUNKA (Mr.)**  
**Deputy General Director**  
State Environmental Service  
Marine and Inland Waters Administration  
Voleru St. 2  
Riga, LV 1007

**Certificate No. 2431**

Tel: (+371) 7469664  
Mobile: (+371) 9233492  
Fax: (+371) 7465888  
E-mail: [guntis.drunka@jiup.gov.lv](mailto:guntis.drunka@jiup.gov.lv)

**LITHUANIA**

**Ange KNIEZAITE (Ms.)**  
Chief Deck Officer  
Ministry of Environment  
Jaksto 4/9  
Vilnius

**Certificate No. 2432**

Tel: +370 (5) 266 35 17  
Fax: +370 (5) 266 36 63  
E-Mail:

**POLAND**

**Wojciech Filip WASOWSKI (Mr.)**  
Specialist – International Co-operation Section  
Maritime Office Gdynia  
10 Chrzanowskiego Str.  
81-338 Gdynia

**Certificate No. 2433**

Tel: +48 (58) 660 61 54  
Fax: +48 (58) 620 18 41  
E-Mail: [wwasowski@umgd.gov.pl](mailto:wwasowski@umgd.gov.pl)

**REGIONAL CENTRE FOR ASSISTANCE AND DISASTER RELIEF (RCADR)**

**Martin BILIC (Mr.)**

Senior Adviser

E-Mail: [martin.bilic@rcadr.org](mailto:martin.bilic@rcadr.org)

**Certificate No. 2434**

**Stiven VLADISLAVIC (Mr.)**

Head of Department

**Certificate No. 2435**

RCADR

Vojarna "Knez Trpimir 4"

21221 Divulje

CROATIA

Tel: +385 (21) 309 617

Fax: +385 (21) 309 644

E-Mail: [stiven.vladislavic@rcadr.org](mailto:stiven.vladislavic@rcadr.org)





IMO



REMPEC



MAP



UNEP

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

# **CERTIFICATE**

**No.**

This is to certify that

---

has attended

**REGIONAL SEMINAR  
ON THE USE OF REMOTE SENSING IN OIL POLLUTION CONTROL**

**Nicosia, Cyprus  
17 – 20 October 2005**

*organised by the*

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

*within the framework of the*

**MEDITERRANEAN ACTION PLAN**

*with the support of the*

**MINISTRY OF AGRICULTURE, NATURAL RESOURCES AND ENVIRONMENT  
DEPARTMENT OF FISHERIES AND MARINE RESEARCH  
REPUBLIC OF CYPRUS**



A handwritten signature in black ink, appearing to read "Roberto Patrino".

---

Rear Admiral Roberto PATRUNO  
Director, REMPEC

**ANNEX 3**

**PROGRAMME**

<b>DAY 1</b>	<b>MONDAY, 17 October</b>	
<b>INTRODUCTION TO MONITORING OPERATIONAL AND ACCIDENTAL MARINE OIL POLLUTION</b>		
08.00 – 09.00	<b>Registration of participants</b>	
09.00 – 09.30	<b>Opening and Introduction to the Seminar</b>	REMPEC
09.30 – 10.30	<b>Maritime traffic in the Mediterranean and the importance of control of oil pollution from ships</b>	R. Patruno (REMPEC)
10.30 – 11.00	<i>Coffee break</i>	
11.00 – 11.45	<b>Prevention &amp; Emergency Protocol / REMPEC</b>	L. Khodjet El Khil (REMPEC)
11.45 – 12.30	<b>Origins and sources of marine oil pollution</b>	D. Domovic (REMPEC)
12.30 – 13.15	<b>Fate and effects of oil</b>	R. Johnson (ITOPF)
13.15 – 14.30	<i>Lunch</i>	
14.30 – 15.15	<b>Detection of oil spills – an introduction: How can we detect oil spills</b>	O. Trieschmann (EMSA)
15.15 – 15.30	<i>Coffee break</i>	
15.30 – 16.15	<b>Detection of oil spills – an introduction: Airborne remote sensing / Surveillance systems / Sensors</b>	O. Trieschmann (EMSA)
16.15 – 16.45	<i>Discussion</i>	

---

<b>DAY 2                      TUESDAY, 18 October</b>		
<b>LEGISLATION, MONITORING TOOLS and AERIAL SURVEILLANCE</b>		
09.00 – 09.45	<b>Legislation on monitoring marine pollution</b>	G. Ferraro (DG JRC)
09.45 – 10.15	<b>Legislation on monitoring marine pollution</b>	G. Ferraro (DG JRC)
10.15 – 10.45	<i>Coffee break</i>	
10.45 – 11.45	<b>Use of remote sensing in accidental oil spill response</b>	R. Johnson (ITOPF)
11.45 – 12.15	<b>The Prestige case</b>	G. Ferraro (DG JRC) D. Tarchi (DG JRC)
12.15 – 13.00	<b>Introduction to aerial surveillance Visual observation of oil spills</b>	David Mason (Atlantic Reconnaissance - UK)
13.00 – 14.30	<i>Lunch</i>	
14.30 – 15.15	<b>Bonn Agreement Oil Appearance Code</b>	David Mason (Atlantic Reconnaissance - UK)
15.15 – 15.30	<i>Coffee break</i>	
15.30 – 16.15	<b>Operational aspects of aerial surveillance</b>	David Mason (Atlantic Reconnaissance - UK)
16.15 – 16.45	<i>Discussion</i>	

---

<b>DAY 3</b>		<b>WEDNESDAY, 19 October</b>	
<b>SATELLITE MONITORING</b>			
09.00 – 09.45	<b>Introduction to satellite monitoring</b>		D. Tarchi (DG JRC)
09.45 – 10.15	<b>Methodologies for man-made oil spill detection</b>		D. Tarchi (DG JRC)
10.15 – 10.45	<i>Coffee break</i>		
10.45 – 11.30	<b>Signature of oil spills from ship discharges</b>		D. Tarchi (DG JRC)
11.30 – 12.15	<b>Effects of natural sea phenomena in SAR images</b>		O. Trieschmann (EMSA)
12.15 – 13.00	<b>Operational aspects of satellite monitoring (the German experience)</b>		O. Trieschmann (EMSA)
13.00 – 14.30	<i>Lunch</i>		
14.30 – 15.15	<b>Long term monitoring of sea-based pollution: Towards an atlas of European oil pollution</b>		D. Tarchi (DG JRC)
15.15 – 15.30	<i>Coffee break</i>		
15.30 – 16.15	<b>Introduction to securing evidence on discharges from ships through remote sensing</b>		G. Ferraro (DG JRC)
	<b>Practical experiences</b>		David Mason (Atlantic Reconnaissance – UK)
16.15 – 16.45	<i>Discussion</i>		

<b>DAY 4</b>	<b>THURSDAY, 20 October</b>	
<b><i>MONITORING IN THE MEDITERRANEAN</i></b>		
09.00 – 09.45	<b>First results of the AESOP project</b>	D. Tarchi (DG JRC) G. Ferraro (DG JRC)
09.45 – 10.15	<b>REMPEC initiatives for reducing illicit discharges in the Mediterranean region</b>	L. Khodjet El Khil (REMPEC)
10.15 – 10.45	<i>Coffee break</i>	
10.45 – 11.45	<i>Discussion</i>	
11.45 – 12.45	<b>Conclusions</b>	REMPEC
12.45 – 13.00	<b>Closure of the Seminar</b>	REMPEC
13.00 – 14.30	<i>Lunch</i>	

---

**ANNEX 4**

**LIST OF SPEAKERS**

**Guido FERRARO (Cdr.)**

European Commission  
DG Joint Research Centre  
Institute for the Protection and Security of the Citizen  
(TP 723)  
Via E. Fermi 1  
21020 Ispra  
ITALY

Tel: +39 0332 789488  
Fax: +39 0332 785469  
Email: guido.ferraro@jrc.it

**Dario TARCHI (Dr.)**

European Commission  
DG Joint Research Centre  
Institute for the Protection and Security of the Citizen  
(TP 723)  
Via E. Fermi 1  
21020 Ispra  
ITALY

Tel: +39 0332.785 143  
Fax: +39.0332.785.469  
E-mail: dario.tarchi@jrc.it

**Richard JOHNSON (Mr.)**

Senior Technical Advisor  
The International Tanker Owners Pollution Federation Limited (ITOPF)  
1, Oliver's Yard  
55, City Road  
London EC1Y 1 HQ  
UNITED KINGDOM

Tel: +44 75 666 999  
Fax: +44 75 666 950  
E-mail: richardjohnson@itopf.com

**David MASON (Mr.)**

MCA Operations Manager  
Dakota House  
Coventry Airport  
Coventry CV8 3AZ  
UNITED KINGDOM

Tel: +44 1420 87509  
Mobile: +44 7733 100 467  
E-mail: pmason@atlanticonrecon.co.uk

**Olaf TRIESCHMANN (Dr.)**

Senior Project Officer on Monitoring and Surveillance  
European Maritime Safety Agency (EMSA)  
Unit F.4  
Rue de Geneve 12  
Brussels  
BELGIUM

Tel: +32 270 20 328  
Fax: +32 270 20 210  
E-Mail: [olaf.trieschmann@emsa.eu.int](mailto:olaf.trieschmann@emsa.eu.int)

**Darko DOMOVIC (Mr.)**

Senior Programme Officer, OPRC  
Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC)  
Manoel Island  
Gzira GZR 03  
MALTA

Tel: +356 21 33 72 96 / 7 / 8  
Fax: +356 21 33 99 51  
E-mail: [ddomovic@rempec.org](mailto:ddomovic@rempec.org)

**Lilia KHODJET EL KHIL (Dr.)**

Programme Officer, Marine Environment Protection  
Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC)  
Manoel Island  
Gzira GZR 03  
MALTA

Tel: +356 21 33 72 96 / 7 / 8  
Fax: +356 21 33 99 51  
E-mail: [lilia.khodjet@rempec.org](mailto:lilia.khodjet@rempec.org)

**SECRETARIAT**

**Doreen STELLINI (Ms.)**

Documentalist  
Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC)  
Manoel Island  
Gzira GZR 03  
MALTA

Tel: +356 21 33 72 96 / 7 / 8  
Fax: +356 21 33 99 51  
E-mail: [dstellini@rempec.org](mailto:dstellini@rempec.org)

## ANNEX 5

### THE CONTENTS OF THE CD INCLUDING POWERPOINT PRESENTATIONS

<i>Number and short title</i>	<i>Author</i>	<i>Full title</i>
01 Mar. Traffic	<b>R. Adm. R. Patruno:</b>	Maritime traffic in the Mediterranean – The importance of control of marine pollution from ships
02 P&E Protocol	<b>Dr. L. Khodjet El Khil:</b>	Le Protocole prévention et situation critique et le REMPEC
03 Origins-Sources	<b>Mr. D. Domovic:</b>	Origins and sources of marine oil pollution
04 Fate-Effects	<b>Mr. R. Johnson:</b>	Fate and effects of oil
05 EMSA	<b>Dr. O. Trieschmann:</b>	EMSA - Monitoring and surveillance
06 Detection (1)	<b>Dr. O. Trieschmann:</b>	Detection of oil spills (1)
07 Detection (2)	<b>Dr. O. Trieschmann:</b>	Detection of oil spills (2)
08 Legislation (1)	<b>Cdr. G. Ferraro:</b>	Pollution and Legislation (1)
09 Legislation (2)	<b>Cdr. G. Ferraro:</b>	Pollution and Legislation (2)
10 Legislation (3)	<b>Cdr. G. Ferraro:</b>	Pollution and Legislation (3)
11 Acc. spill resp.	<b>Mr. R. Johnson:</b>	Remote sensing in accidental spill response
12 The Prestige	<b>Cdr. G. Ferraro; Dr. D. Tarchi:</b>	The Use of satellite radar imagery in the Prestige accident
13 Visual Observ.	<b>Mr. D. Mason:</b>	Visual observation of oil spills
14 BAOAC	<b>Mr. D. Mason:</b>	Bonn Agreement Oil Appearance Code
15 Op. Aspects	<b>Mr. D. Mason:</b>	Operational Aspects of Aerial Surveillance
16 Sat. Intro.	<b>Dr. D. Tarchi:</b>	Satellite Monitoring of sea-based oil pollution – An introduction
17 Sat. Method.	<b>Dr. D. Tarchi:</b>	Methodologies for man-made oil spill detection
18 Sat. Signature	<b>Dr. D. Tarchi:</b>	Signature of oil spills from ship discharges
19 SAR Effects	<b>Dr. O. Trieschmann:</b>	Effects of natural sea phenomena in SAR images



- 20 Sat. Op. Aspect **Dr. O.Trieschmann:** Operational aspects of satellite monitoring
- 21 EGEMP **Dr. O.Trieschmann:** EGEMP
- 22 Long term mon. **Dr. D. Tarchi:** Long term monitoring of sea-based oil pollution
- 23 Evidence **Cdr. G. Ferraro:** Introduction to securing evidence on discharges from ships
- 24 Pract. Exp. **Mr. D. Mason:** Securing evidence on discharges from ships through remote sensing – U.K. / Bonn experience
- 25 AESOP **Dr. D. Tarchi; Cdr. G. Ferraro; Cdr. M. Mancini; Mr. M. Perkovic:** AESOP Project - Preliminary results
- 26 Initiatives **Dr. L. Khodjet El Khil:** Les initiatives du REMPEC pour réduire la pollution opérationnelle



Opening of the Seminar



Participants 1



Participants 2



Participants 3



Speakers during discussion



Participants and speakers at the end of the Seminar