



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

Fourteenth Meeting of the Focal Points of the Regional
Marine Pollution Emergency Response Centre
for the Mediterranean Sea (REMPEC)

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Agenda Item 9

COMMON EMERGENCY COMMUNICATION SYSTEM FOR THE MEDITERRANEAN

Note by Secretariat

SUMMARY

Executive Summary: The present document provides information on the consultation process carried out by REMPEC, with Contracting Parties to the Barcelona Convention and the related outcome and proposed way forward for the possible establishment of a Common Emergency Communication System in the Mediterranean.

Action to be taken: Paragraph 50

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Related documents: REMPEC/WG.45/8, REMPEC/WG.45/16, REMPEC/WG.45/INF.6, REMPEC/WG.47/INF.3, REMPEC/WG.47/INF.4, REMPEC/WG.47/4, REMPEC/WG.51/9, REMPEC/WG.51/INF.10

Introduction

1. The Thirteenth Meeting of the Focal Points of the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) (Malta, 11-13 June 2019), requested the Secretariat to envisage the use of the Emergency Communication and Information System for Marine Pollution (CECIS MP), within the two-year EU-funded, Western Mediterranean Region Marine Oil & HNS Pollution Cooperation (West MOPoCo) Project, in order to enhance coordination of requests and offers of international assistance.

2. In this context, the present document provides information on the consultation process carried out by REMPEC, with Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) and the related outcome and proposed way forward for the possible establishment of a Common Emergency Communication System in the Mediterranean.

3. In the Mediterranean region, the communication requirements of the International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC 1990) and the Protocol Concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea (2002 Prevention and Emergency Protocol) to the Barcelona Convention, are addressed through two disconnected channels:

- .1 the Mediterranean emergency communication procedures and systems set up in the framework of the 2002 Prevention and Emergency Protocol, now referred to as the "Regional Information System (RIS)".
- .2 the Emergency Communication and Information System for Marine Pollution (CECIS MP), and the Union Maritime Information and Exchange System (SafeSeaNet).

4. Due to the simultaneous use of these two disconnected communication channels the Contracting Parties of the Barcelona Convention have stressed, on various occasions, the difficulties encountered during incidents and exercises when communicating with other countries and REMPEC in terms of notification, exchange of information and request of assistance. They concurred with the need to establish a common and unique system applicable to all Contracting Parties to the Barcelona Convention.

Emergency communication procedure in the framework of the Barcelona Convention.

5. The RIS enables the competent authorities of Mediterranean Coastal States to communicate with the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) and with neighbouring Countries, directly or through REMPEC, to notify and exchange information on pollution incidents and to request assistance.

6. The communication within the RIS is channelled through the emergency line (i.e. emergency@rempec.org), by using the **Standard Pollution Accidents Reporting format (POLREP)** recommended by the International Maritime Organization (IMO), in order to facilitate rapid transmission of information and requests for assistance, and the **Standard Forms for Request of Assistance**.

.1 **POLREP:** The reporting System used to notify and exchange information on pollution incidents is composed of three parts, namely POLWARN to give the first information or warning of the pollution or the threat, POLINF to give a detailed supplementary report as well as situation reports and POLFAC to request assistance from other Contracting Parties, and for defining operational matters related to the assistance.

.2 The **Standard forms for the Request of Assistance** were adopted by the Contracting Parties to the Barcelona Convention by Decision IG.23/11: The Mediterranean Guide on Cooperation and Mutual Assistance in Responding to Marine Pollution Incidents to facilitate operational aspects of the mutual assistance, and are composed of:

- i. Standard Form for request of experts from the Mediterranean Assistance Unit (MAU) to provide expert advice on the site by deploying REMPEC officers or by mobilising experts from the MAU.
- ii. Standard Forms for request of equipment, products and specialized personnel:
 1. Request of equipment, products, and specialized personnel
 2. Offer of assistance
 3. Receipt / Acknowledgement of assistance
 4. Acceptance of assistance
 5. Decline / on hold of assistance
 6. Situation report (sitrep)

7. The successful outcome or measures taken in order to respond to oil spills and to spills or releases of other hazardous and noxious substances (HNS) depends to a great extent on the quality of and the promptness with which decisions concerning the response are taken. To this effect, REMPEC developed a set of Decision support tools over the years, including the **Directory of Competent Authorities, REMPEC's Country profile**, and the Mediterranean Integrated Geographical Information System on Marine Pollution Risk Assessment and Response (**MEDGIS-MAR**).

.1 **MEDGIS-MAR** (<http://medgismar.rempec.org>) is a holistic operational geographical information system to support Contracting Parties in defining their response strategy based on well-informed decision on the areas affected, on the movement of the pollution and the availability of response means. MEDGIS-MAR contains:

- i. National data (response equipment, accidents, oil and gas installations, and oil handling facilities). To support response to Oil and HNS incidents, MEDGIS-MAR allows for the display of customized vulnerability maps featuring areas from low to high vulnerability all around the Mediterranean.
- ii. The platform also contains public data including shoreline type layers, environmental layers, illicit discharges layers, as well as maritime traffic layers gathered from various sources.

- .2 The **REMPEC Country Profiles** provide knowledge at national level on preparedness for and response to marine pollution, such as Contact list of the National Competent Authorities, the status of ratification of relevant conventions and protocols, national and regional system, response strategy, available expertise, trans-boundary arrangements and training.
- .3 The **Directory of Competent Authorities**, which is made available to Contracting Parties through the REMPEC Country Profile, provides the list of REMPEC Focal Points¹ (Governmental, OPRC, Prevention, 24-hour, Mutual Assistance), designated to communicate and to receive information in relation with incidents and request and offer of assistance.

8. These databases updated by Contracting Parties directly or through REMPEC are accessible only by REMPEC Focal Points, who are provided with the necessary credential.

Emergency communication system and Information System for marine pollution in the European Union

9. **CECIS MP** was developed to enable communication and sharing of information between the Emergency Response Coordination Centre (ERCC) in Brussels (which is the 24/7 operational hub of the Union Civil Protection Mechanism (UCPM)¹) and the contact points of the Member States and the Participating States² of the UCPM. CECIS Marine can connect both maritime and civil protection authorities, allowing for a more complete overview of at-sea and shoreline operations and assistance. The system can be used during real incidents as well as exercises.

10. CECIS MP is linked to **SafeSeaNet**, which is managed by EMSA, and automatically receives and stores information on reported pollution incidents. This information reported to SafeSeaNet can be transformed into a request for assistance and directed to one or multiple Regional Agreements and/or selected/all participating States of the UCPM. A request for assistance can also be created directly in CECIS MP, without a POLREP message into SafeSeaNet.

11. Main functionalities of the CECIS Marine include:

- .1 Emergency related information transmission or alert;
- .2 Possibility to request and offer international assistance through a common platform;
- .3 Overview and coordination of international requests and offers;
- .4 Logbook for actions within the system and communication with international users;
- .5 Database of countries' and EMSA's resources for oil and HNS response operations;
- .6 Policy information per country on dispersants and HNS.

12. CECIS MP receives and provides information about an emergency, based on POLREP, is accessible via an internet web browser and is password protected.

13. CECIS Marine is open to third countries sharing a regional sea basin with the Union to enhance:

- .1 Coordination: oil or chemical spills may spread very quickly across maritime borders and it is more effective to have a single platform to exchange information among all countries in the affected region, REMPEC, ERCC and EMSA.
- .2 Streamlining: the aim is for European Union (EU) Member States to have a single format for requests and offers of assistance at regional and European level, and to simplify obligations to report maritime incidents and national resources.

14. Access to CECIS Marine can be granted free of charge upon a written expression of interest by a relevant national authority of a third country addressed to DG ECHO at the European Commission. So far, no third country has requested access to CECIS Marine. Current users of the system are the EU Member States, ERCC, EMSA and the REMPEC.

15. **The Union Maritime Information and Exchange System (SafeSeaNet)** was established under EU Law (Vessel Traffic Monitoring and Information System Directive - 2002/59/EC). It is hosted

¹ <https://www.rempec.org/en/about-us/mandate/institutions/focal-points>

² Iceland, Norway, Serbia, North Macedonia, Montenegro, and Turkey

by EMSA and was developed together with the EU Member States (parts of the system are centralized and other parts de-centralized) in the formal governance body – the High-level Steering Group on the Governance of the Digital Maritime System and Services (HLSG) and in support to EU Member States as Coastal States. The system is set-up for and used by relevant EU Authorities. Access for EU Member State relevant authorities is regulated through access rights controlled by the HLSG, in order to meet the EU General Data Protection Regulation (GDPR) as well as relevant confidentiality and security requirements.

16. EU Member States share POLREP via SafeSeaNet and CECIS MP. SafeSeaNet is the system to report incidents while CECIS MP is primarily dedicated for requesting and offering assistance. There is already a direct link between the two systems to avoid duplication of reporting, and all POLWARNs and POLINFs are automatically pushed from SafeSeaNet to CECIS MP to facilitate creation of a request for assistance.

17. Third countries may get limited access to SafeSeaNet for exchanging POLWARN and POLINF within an associated geographical area. Such access to SafeSeaNet (which is linked to CECIS MP) may be granted upon an official request to EMSA.

18. Currently only Montenegro has requested and was granted access to SafeSeaNet.

19. **CleanSeaNet** (CSN) is a satellite service provided by EMSA and delivers images to EU Member States according to a pre-agreed planning. CSN services may also be provided under special conditions, to coastal candidate countries of the EU: Albania, Montenegro, and Turkey. This service can be used in case of an emergency with additional images being ordered.

20. Secretariats of the Regional Agreements cannot be registered as users of the CleanSeaNet service, nor do they have access as Secretariats to the service. It should be noted that when coordinated aerial surveillance operations are taking place within the regional Agreements, additional CleanSeaNet services are usually requested to support these operations, but the requests are placed by/delivered to authorised individuals who are also registered as national CleanSeaNet users.

21. Moreover, in the framework of the SAFEMED IV Project beneficiary countries may for as long as the project is running have access to the CleanSeaNet service and Satellite AIS data provided that they have signed the CleanSeaNet Service Conditions of Use (CoU). This is currently the case for Jordan, Libya, Morocco, and Tunisia. For the purpose of information, in 2018: 125 CSN services delivered, 142 possible oil spills detected.

Proposed synergies and set-up of a Common Emergency Communication System for the Mediterranean

22. Further to the recommendation of the 13th Focal Points Meeting of REMPEC to envisage the use of the CECIS MP to enhance coordination of requests and offers of international assistance, a set of activities were implemented by REMPEC within the framework of the EU Funded Western Mediterranean Region Marine Oil and HNS Pollution Cooperation (West MOPoCo) Project.

23. These activities included the Regional CECIS Marine Pollution Workshop (Belgium, October 2019), the findings and recommendations of which are reproduced in the report of the Workshop under document REMPEC/WG.47/INF.3. The Survey for the establishment of a Common Emergency Communication System circulated to the REMPEC OPRC Focal Points and members of the Mediterranean Technical Working Group (MTWG), the outcome of which was presented to the Regional workshop to enhance regional cooperation in responding to marine Oil and HNS pollution in the Mediterranean (MEDEXPOL 2020) (online 27-28 October 2020), under document REMPEC/WG.47/INF.4, together with document REMPEC/WG 47/4 on the way forward for the Establishment of a Common Emergency Communication System for the Mediterranean.

24. The approach proposed in the present document to set up the Common Emergency Communication System for the Mediterranean is based on the following considerations:

- .1 Characteristics of each system: Communication through RIS is carried out through e-mail message, whereas CECIS MP is a web-based alert and notification system where messages are exchanged through a dedicated secured emergency platform accessible to all its users.

- .2 Shared functionalities: As mentioned in paragraphs 11 to 13 of the present document, CECIS MP already provides functionalities available to all Mediterranean Coastal States:
- i. Access to CECIS MP can be granted free of charge upon a written expression of interest by a relevant national authority of a third country addressed to DG ECHO at the European Commission;
 - ii. All Mediterranean coastal states are listed in CECIS MP and regional activation of the system is possible;
 - iii. REMPEC, as Regional Agreement Secretariat, has the full right to communicate on CECIS MP with the country users and EMSA;
 - iv. Third country could exchange in CECIS MP the whole POLREP from the alert phase to the request for assistance. CECIS MP sends automatic notifications of any POLREP entered in the system, except for the POLWARNs and POLINFs received from SSN. Those are notified by SSN and to the SSN users only; and
 - v. ERCC can act in CECIS MP on behalf of a third country.

25. To consider CECIS MP as the Common Emergency Communication System for the Mediterranean, the following fundamental requirements should be satisfied:

- .1 All Mediterranean coastal States including all third countries should become users of CECIS MP; and
- .2 REMPEC rights to CECIS MP should be adjusted to fulfil its mandate on possible coordination of regional assistance on behalf of third countries, who may delegate their right to REMPEC, in accordance with Article 12 of the 2002 Prevention and Emergency Protocol,

26. It should be noted that the RIS will not be replaced by CECIS MP, as it is not anticipated at this stage to fully synchronise CECIS MP with the Country Profiles and MEDGIS-MAR, which were set-up to facilitate reporting procedures within the framework of the 2002 Prevention and Emergency Protocol and for operational purpose as detailed above.

27. The **Common Emergency Communication System for the Mediterranean** could be materialised on the basis of the above-mentioned considerations, and through the following adaptations/interconnections to be made, where relevant, on CECIS MP functionalities:

- **User rights and contact updates**

28. CECIS MP users, listed in the page Contact details, are presently EMSA, ERCC, the EU MSs (country users) and the Secretariats of the Regional Agreements, including REMPEC. Those contacts are used by the system to send notifications and to exchange information among users. It is the responsibility of each user to keep the contact information updated. Each user is assigned a user role. Each country has the option to decide whether the other Member States will have the permission to view that country's contact details. If a country decides to make their contact details non-visible to other countries, only users of that particular country are able to access their contact details. In any case, a country user has a permission to edit/modify/print the data related only to its own country.

29. RIS users are REMPEC Focal Points: OPRC, 24 hour and Mutual Assistance Focal Points, designated officially by their respective national competent authorities. REMPEC maintains and updates the list of the Focal Points which is accessible by REMPEC Focal Points website who are provided with the necessary credentials.

30. To ensure that the list of focal points on CECIS MP and on RIS are the same, beyond the applicable obligation of countries to update their respective lists, it is proposed to encourage, Contracting Parties, through its annual "*Circular No.2, to update not only the Directory of Competent National Authorities in charge of Accidental Marine Pollution, Preparedness and Response and Mutual Assistance and other Relevant Information*" to update the list of REMPEC Focal Points and CECIS MP simultaneously.

31. In the long term, it is further proposed to explore the possibility to allow automatic update from one system to another.

- **Access to the application**

32. The access to CECIS MP authentication screen is protected by usernames and passwords. Each country user is assigned a unique identification code for accessing the system and is associated with a profile that determines which functionalities of the System the user can use.

33. The access to the RIS is open to REMPEC Focal Points, using credential provided by REMPEC to access and use the Decision support tools, detailed in paragraph 6 of the present document.

34. To facilitate access to CECIS MP by REMPEC Focal Points the following steps are proposed:

1. Create on REMPEC Emergency page a link to CECIS MP authentication screen; and
2. Explore the possibility to enable access to both RIS data bases and CECIS MP with the same credentials.

- **Notification**

35. For EU MSs, the reporting and notification of the incident is made via SafeSeaNet. There is already a direct link between SafeSeaNet and CECIS MP to avoid duplication of reporting. All POLWARNs and POLINFs are automatically pushed from SafeSeaNet to CECIS MP, to facilitate creation of a request for assistance. At their request, non-EU Mediterranean countries can also become users of the specific functionalities of SSN .

36. Within CECIS MP an affected country can provide, modify and disseminate emergency information (POLWARN and POLINF) and share reports, documents and photos through the functionality "Emergency synopsis". This allows the exchange of POLWARNs and POLINFs among non-EU Mediterranean countries that are not SSN users.

37. On RIS, the notification and exchange of information is made by POWARN and POLINF and communicated using the Emergency e-mail emergency@rempec.org

38. To establish a common notification procedure the following actions should be considered:

- .1 As a first step, third countries could exchange in CECIS MP the whole POLREP from the alert phase to the request for assistance. It should be noted, however, that CECIS MP would not notify third countries or REMPEC about POLWARNs and POLINFs entered by EU MS into SSN; and
- .2 At a later stage, to further explore the harmonization of the notification procedures via SSN for all Contracting Parties to the Barcelona Convention, notably by:
 - i. exploring through the HLSG, the authorization of REMPEC's access to SSN to allow compliance with Article 9 of the 2002 Prevention and Emergency Protocol,
 - ii. identifying necessary adaptation of the existing reporting procedures established within the Barcelona Convention and its 2002 Prevention and Emergency Protocol.

39. A comparison between CECIS MP and POLREP is presented in **Annex I**, which provides further input on IT specifications and shows discrepancies in terms of content, completion and exchange. The outcome of the review shows that further developments are required to address the notification of incident.

- **Assistance**

40. Within CECIS MP, an affected country can complete and disseminate the POLFAC through a dedicated platform that is linked with the resources database, facilitating users to make an offer. Specific forms can be attached as well.

41. In the RIS, OPRC Mutual Assistance Focal Points request assistance using the emergency e-mail (emergency@rempec.org) by submitting specific forms, detailed in paragraphs 6.1 and 6.2 of the present document, available in word format on REMPEC's website.

42. To facilitate the Contracting Parties of the Barcelona Convention to make a request for assistance from REMPEC and neighboring countries using the Forms detailed in paragraph 7.2, the following adaptations on CECIS MP should be explored:

1. Create a direct link or provide access to the approved Standard Form for request of experts from the Mediterranean Assistance Unit (MAU) and the Standard Forms for request of equipment, products and specialized personnel, to be completed by the Contracting Parties to the Barcelona Convention to be attached to the POLFAC for dissemination to Contracting Parties and REMPEC, as applicable; and
2. Grant the necessary user access to allow REMPEC to process request of assistance on behalf of Contracting Parties to the Barcelona Convention in accordance with Article 12.1 and 12.2 of the 2002 Prevention and Emergency Protocol.

- **Country Policies / Country Profile**

43. On CECIS MP, the Policy Information is based on the three EMSA inventories of EU Member States Policies: HNS, Dispersants and MS Oil Pollution Response Vessels. After selecting a country, the country policies regarding a particular area of pollution response are displayed. Every country is responsible for keeping its relevant data up to date. Country Users can only modify the Policy Information of their respective Country. In that case, all fields are editable and the 'submit' button appears.

44. The Country Profile, described in paragraph 7.2 of the present document includes information that are also considered in the part of CECIS MP Policy Information.

45. In order, to avoid duplications between these databases, further work would be required to explore necessary adaptations. In the meantime, it is proposed to create a link on CECIS MP enabling access to the REMPEC's Country Profile.

- **Resources-Policy Information / MEDGIS-MAR**

46. On CECIS MP resources are displayed in a three-level structure: Category / Sub-category and type of resource.

- Resource General Categories are: Vessels, Aircraft, Equipment, Dispersant, Satellite Imagery.
- Resource Subcategory provides details on each category.
- Type further specifies information on the resource.

47. Country users of CECIS MP are responsible for keeping their resources updated. The search of resources can be performed according to this structure for a specific country, multiple selected countries or Regional Agreement(s). Policy information about equipment is detailed in the policy information page.

48. The Mediterranean Integrated Geographical Information System on Marine Pollution Risk Assessment and Response (MEDGIS MAR), detailed in paragraph 7.1 of this document, contains national data on response equipment for each Mediterranean coastal State. The core structure of the database is centered on the type of equipment with details for each category. Contracting Parties are responsible for the update of the database.

49. As agreed during MEDEXPOL 2002 to progress on the establishment of a common system, and to facilitate the update and access to the response means currently managed separately through CECIS-MP for EU countries and through MEDGIS-MAR for all Contracting Parties to the Barcelona Convention, the Secretariat carried out, a comparative review between both systems and options to materialise the interconnection between both systems as laid down in **Annex II** to the present document.

Actions requested by the Meeting

50. **The Meeting is invited to:**

- .1 **take note** of the information provided in the present document;
- .2 **examine and comment** on the proposals put forward in paragraph 30, 31, 34, 38, 42, 45, and 49 of the present document;
- .3 **agree upon:**
 - i. the possible use of CECIS MP by all Contracting Parties, as a Common Emergency Communication System for request of assistance, and invite the Secretariat and DG ECHO to make the necessary adjustments to ensure compliance with the 2002 Prevention and Emergency Protocol; and
 - ii. the proposed interconnection between the equipment database of CECIS MP and MEDGIS-MAR, allowing the update of MEDGIS-MAR equipment database through CECIS MP, as laid down in ANNEX II to the present document.

ANNEX I**POLREP COMPARISON****I. REMPEC POLREP**

1. In the framework of the Barcelona Convention, the standard pollution accidents reporting format ([POLREP](#)) is composed of three parts POLWARN, POLINF and POLFAC.

.1 Part I or POLWARN gives first information or warning of the pollution or the threat:

- Date and Time
- Position
- Incident
- Outflow
- Acknowledge

.2 Part II or POLINF gives detailed supplementary report, as well as situation reports

- Date and time
- Position and/or extent of pollution on/above/in the sea
- Characteristics of pollution
- Source and cause of pollution
- Wind direction and speed
- Current direction and speed and/or tide
- Sea state and visibility
- Drift of pollution
- Forecast of likely effect of pollution and zones affected
- Identity of observer/reporter identity of ships on the scene
- Actions taken
- Photographs or samples
- Names of other States and organizations informed
- Spare for any other relevant information
- Acknowledgement

.3 Part III or POLFAC n is used for requesting assistance from other Contracting Parties, and for defining operational matters related to such assistance:

- Date and time
- Request for assistance
- Cost
- Pre-arrangements for the delivery of assistance
- Where assistance is to be rendered and the mode
- Name of other States requested
- Change of command
- Exchange of information
- Spare for any other relevant requirements or instructions.
- Acknowledge

II. CECIS MP New Emergency

2. On CECIS MP POLWARN and POLINF are merged in the emergency synopsis. On this section the user can find general information type of incident, pollution status, action etc.

3. POLWARN and POLINF are also available on SafeSeaNet messages which are automatically pushed to CECIS MP.

- Countries
- Classes
- Regional Agreement

General information

- Country
- Name of emergency
- Date and Time Incident

Position

- Region
- Detail

Place of incident

- Latitude
- Longitude

Latest Position of Vessel

- Latitude
- Longitude
- Date and Time
- Reference Point
- Distance
- Angle/Bearing
- Mask
- Outflow

Type of incident

- Grounding
- HNS Spill
- Oil Spill
- Total Loss
- Vessel on fire

Wind

- Speed
- Direction

Tide

- Speed
- Direction

Sea state

- Wave Height
- Visibility

Drift

- Course
- Speed

Latest Centre of Pollution

- Latitude
- Longitude
- Description of occurrence / Other information
- Action Taken
- Photographs
- Informed State Organization
- Observer /vessel identity
- Status
- Attachments
- Requests Acknowledgement
- Date and Time of Last Update

III. CONCLUSION

4. REMPEC Pollution Response system and CECIS MP provide similar information to countries such as type and characteristics of pollution, type of incident, general information's, position etc.

5. In the context of a Common Emergency Communication System, adopting for CECIS MP system would be more effective because it is a multifunctional application accessible via an internet web browser.

Comparison Table

REMPEC POLREP		CECIS MP -EMERGENCY	
Introduction	Address	Full Rights	Countries
	Date time Group		Classes
	Identification		Regional Agreement
	Serial number	Map	Add location on Map
POLWARN	1 Date and time	General information	Country
	2 Position		Name of emergency
	3 Incident	Position	Date and Time Incident
	4 Outflow		Region
	5 Acknowledge		Detail
POLINF	40 Date and Time	Place of incident	Latitude
	41		Longitude
	42 Position	Latest Position of Vessel	Latitude
	43 Characteristics of pollution		Longitude
	44 Source and Cause of the pollution		Date and Time
	45 Wind direction and Speed		Reference Point
	46 Current or tide		Distance
	47 Sea state and visibility		Angle/Bearing
	48 Drift of pollution		Mask
	49 Identity of observer and ship on scene		Outflow
	50 Action taken	Type of incident	Collision
	51 Photographs or samples		Grounding
	52 Names of other states informed		HNS Spill
	53-59 Spare		Oil Spill
	60 Acknowledge		Total Loss
	Wind	Vessel on fire	
		Speed	
	Tide	Direction	
		Speed	
	Sea state	Direction	
		Wave Height	
	Drift	Visibility	
		Course	
	Latest Centre of Pollution	Speed	
		Latitude	
		Longitude	
		Description of occurrence / Other information	
		Action Taken	
		Photographs	
		Informed State Organization	

POLFAC	80	Date and Time	Observer /vessel identity	
			Status	
	81	Request for assistance	Attachments	
	82	Cost	Requests Acknowledgement	
	83	Pre arrangements for the delivery	Date and Time of Last Update	
	84	Assistance to where and how		
	85	Other states requested		
	86	Change of command		
	87	Exchange of information		
	88-98	Spare		
99	Acknowledge			

ANNEX II

INTERCONNECTION OF MEDGISMAR AND CECIS MP DATA BASES ON RESPONSE EQUIPMENT

1. Introduction

1. The aim of this document is to make a comparison between MEDGIS MAR and CECIS Marine Pollution databases, in particular the equipment session.
2. It is noted that MEDGIS MAR is a Django application (written in Python) with a PostgreSQL database.
3. For the MEDGIS MAR application forms and the database structure were analyzed, instead for CECIS Marine Pollution only application forms structure was analyzed.

2. Comparison

4. The first difference is that in the MEDGIS MAR database there is a table for each type of equipment but in CECIS Marine Pollution the equipment is managed in Resource form where users select category, sub-category and type and then form will show the fields of that resource.
5. Below a table that maps the MEDGIS MAR tables with the resource category/subcategory/type in CECIS Marine Pollution.

MEDGIS MAR	CECIS Marine Pollution		
Table	Resource category	Resource subcategory	Resource type
Vessel	Vessel	- Dispersant Application Vessels - HNS Specialised Vessels - Oil Recovery Vessels	
Aircraft	Aircraft	- Aerial Reconnaissance - Dispersant Application	
Helicopter	Aircraft	- Aerial Reconnaissance - Dispersant Application	Helicopter
Storage	Equipment	- Other - Shoreline clean-up	Storage
Pump	Equipment	- Other - Shoreline clean-up	Pump
Skimmer	Equipment	Mechanical Recovery	Skimmer
Boom	Equipment	Mechanical Recovery	Boom
		In-situ burning	Fire-boom
Sorbent	Equipment	Mechanical Recovery	Other
Blower	Equipment	Mechanical Recovery	Other
Bioremediation Agent	Equipment	Dispersant application	
Spraying Carrier	Vessel	Dispersant Application Vessels	

Dispersant Spraying System	Equipment	Dispersant Application	
Dispersant	Dispersant stockpiles		

6. The table below represents the file with the comparison of the fields of the two applications. The table has the following columns:

Column	Label	Description
A	Field	Field name in MEDGIS MAR database.
B	Label	Field label in MEDGIS MAR web application.
C	Type	Field type in MEDGIS MAR database.
D	Values	Available options for select fields. This column contains a reference to the list of data in the Source sheet.
E	Destination table	The table used to populate the select data.
F	Field	Field label in CECIS Marine Pollution web application.
G	Type	Field type in CECIS Marine Pollution web application.
H	Values	Available options for select fields.

7. If a MEDGIS MAR field has not a corresponding field in CECIS Marine Pollution the F column will be empty and vice versa.

3. Conclusion

8. It seems that a full merge of the data will have a high impact because the structure of the two databases is quite different.

9. It is suggested to identify the fields that are absolutely needed to be replied in both systems and then integrate the two systems by creating the missing tables and columns in the database and modify the user interface to manage that data.

10. For MEDGIS MAR database another suggestion is to create some new tables to manage selection fields data because now the options are hard-coded into the Django application. If you don't make this change, you have to change the python code to update selection fields data instead of using import data behaviours. Below there is a table with the fields for which we suggest to apply this change.

11. The below table present the fields, where changes are suggested.

Table	Field
Vessel	Country
	Type
Aircraft	Country
Helicopter	Country

Storage	Country
	Type
Pump	Country
	Type
Skimmer	Country
	Type
Boom	Country
	Type
Sorbent	Country
	Type
Blower	Country
Bioremediation Agent	Country
Spraying Carrier	Country
	Type
Dispersant Spraying System	Country
	Type
Dispersant	Country
	Type

4. Recommendation

12. To import CECIS Marine Pollution data into the MEDGIS MAR database several changes are needed to the actual tool. First of all, the following should be decided:

- .1 which data to import in the MEDGIS MAR database by analyzing the comparison of the two applications (refer to the excel table annexed).
- .2 how to import data, considering the possible options:
 - a. Single import: CECIS Marine Pollution will provide a single datasheet with data to import. In this case the import can be done by a technician.
 - b. Periodic import: CECIS Marine Pollution will provide periodically a datasheet with data to import. In this case there will be a procedure available for MEDGIS MAR administrations to import those files.
 - c. Data synchronization: CECIS Marine Pollution would expose resources data with web services. In this case an automatic import script must be implemented in MEDGIS MAR application to daily import and update data into the database.

13. The option "data synchronization" is the recommended one in order to have data always updated. Subsequently, the following operations must be performed:

- .1 Update the structure of the database following the comparison done between the two databases.
- .2 Update the Django application (written in python) to show the new changes in the web forms otherwise the new attributes in the database are not displayed and are not editable by the users.
- .3 Create the import behaviour according to the import method chosen.

14. After these operations the MEDGIS MAR application can also have the CECIS Marine Pollution data.