

## Standard Summary Project Fiche – IPA centralised programmes

### Project Fiche: 7

#### 1. Basic information

- 1.1 CRIS Number: 2011/023-173**
- 1.2 Title: Vessel Traffic Management Information System (VTMIS) and response to marine pollution incidents**
- 1.3 ELARG Statistical code: 2.14**
- 1.4 Location: Montenegro**

#### Implementing arrangements:

- 1.5 Contracting Authority: EU Delegation in Montenegro**
- 1.6 Implementing Agency: N/A**
- 1.7 Beneficiary (including details of project manager):**

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## **Financing:**

- 1.8 Overall cost** (VAT excluded): 3,500.000 EUR
- 1.9 EU contribution:** 2.800.000 EUR
- 1.10 Final date for contracting:** Three years after signature of the FA
- 1.11 Final date for execution of contracts:** Two years after the final date of contracting
- 1.12 Final date for disbursements:** One year from the final date of the execution of the contract

## **2. Overall Objective and Project Purpose**

### **2.1 Overall Objective:**

Improvement of maritime safety and marine environmental protection

### **2.2 Project purpose:**

Enhancement of the administrative and technical efficiency of the Maritime Safety Department in the field of monitoring of vessels, with special regard to vessels carrying dangerous and polluting goods

### **2.3 Link with AP/NPAA / EP/ SAA**

The European Partnership sets priorities which consist of realistic, feasible objectives. The short and medium-term priorities follow the classification for the European standards of the EU acquis such as in the area of transport. Montenegro is to work towards harmonizing its legislation with the EU acquis in these fields and then ensure implementation.

The European Partnership with Montenegro has indirect and direct links to this project such as:

Implement international commitments under International Maritime Organization Conventions and improve maritime safety conditions of the fleet in the light of the Paris Memorandum of Understanding. This will be directed towards the strengthening of institutional and administrative capacities in the field of security and safety of navigation, protection of the sea from pollution from vessels and port control, acceding Paris Memorandum of Understanding and joining European Maritime Safety Agency.

In the National Programme for Integration (NPI), it is emphasised that MoTMA performs the administrative activities related to maritime transport, safety of internal and international

navigation and safety and security of maritime transport. It defines indicators and monitors pollution on its origin and undertakes urgent measures in cases of pollution.

Regional, organizational units of the Department for Maritime Transport perform the inspection supervision over the following:

application of regulations on relations at sea and in internal sea waters; protection of the sea from pollution; keeping records of the traffic of ships, cargo and passengers, ship equipment and documents of crew members, regulating and maintenance of navigation routes; maintaining radio connection in compliance with national and international regulations; coordination in the search and rescue operations on the sea and protection of the sea from pollution from vessels.

Maritime Security Administration will acquire new equipment and strengthen the capacity of the following services: search and rescue at sea and the international register of yachts.

Harmonization of the Technical rules for issuing statutory documents for vessels with EU regulations is envisaged for the years 2010 and 2011.

According to Article 108, of the Stabilization and Association Agreement (SAA), cooperation can be especially focused on the restructuring and modernization of Montenegrin transport modes, improving the free movement of passengers and goods, improving access to transport and market facilities, including ports. The objective, cooperation should be focused on achieving operational standards, comparable to those in the Community (??a natural person who is a national of a Member State or Montenegro), the development of the transport system in Montenegro, aligned with the Community, as well as improvement of the protection of the environment in transport.

With regard to international maritime transport, Protocol IV, the Parties undertake to apply effectively the principle of unrestricted access to the international maritime markets and trades on a commercial basis, and to respect international and European obligations in the field of safety, security and environmental standards.

The Parties affirm their commitment to a freely competitive environment as an essential feature of international maritime transport.

In addition, it is necessary to reach the level of safety standards of infrastructure and transport respecting the principles of interoperability. This should be developed in line with EU legislation. It is also necessary to maintain safety in maritime areas on the basis of the adopted safety goals and safety management systems.

#### **2.4 Link with MIPD**

One of the objectives and choices defined by the MIPD 2011 – 2013 related to transport is to upgrade sea and marine transport in order to ensure a better protection of the natural environment. Action under this measure will concentrate on improving the facilities of the Maritime Safety Department, in particular those aiming to improve security and safety and to preserve the natural environment.

#### **2.5 Link with National Development Plan (where applicable)**

N/A

## **2.6 Link with national/ Strategies (where applicable)**

.One of the government measures through the Transport Development Strategy will be the control of pollution and possibilities for interventions in cases of large incidents of pollution on land and sea.

Regarding the pollution of sea by vessels, it is planned in the related Transport Development Strategy to perform the following activities: Providing, i.e. completing the existing systems for wastewater system treatment from vessels in Montenegrin ports, implying all types of waste from vessels, including garbage, oiled waste, sewage, chemicals, ballast waters, etc. Enabling the acquisition of adequate equipment for fast sampling from the polluted place (equipment for oil and chemical pollution, air pollution, ballast waters, etc.). Establishing the system of information-notification, in the next port where the ship, which entered Montenegrin ports, would anchor, about the condition of bilge waters, oiled waste materials and garbage on the related ship. Establishing systems and procedures (the extension of existing systems) for observation and supervision, including air observation, of Montenegrin coastal and territorial waters, with the purpose to timely discover possible outflow of waste materials. To that purpose, it is necessary to initiate, i.e. to complete the sub-regional agreements, in order to most efficiently include them into systems and procedures for observation and supervision of coastal areas. Attempt to define adequate shelter harbor/haven for ships in danger, for the purposes of minimizing risk against spreading of possible pollution. Strengthen and establish the adequate system of hauling in emergency and incident situations, i.e. hauling capacities in Montenegrin coastal/territorial sea. Modernize and strengthen the existing capacities in Montenegrin ports, in terms of a more comprehensive and better security management in case of possible pollution, which might occur during commercial operations of ships in ports. This primarily means the drafting and implementation of an adequate Safety Plan for management in ports in case of accidental pollution. Provide stipulated and adequate equipment for actions in accidental pollution situations. The stated equipment could be allocated in ports or to a qualified company that would address such issues. Implement constant supervision (radar, photo) at sea and adequate purification and rehabilitation of the marine environment.

The Strategy is harmonized with the SAA and the EU Transport Policy, which envisages the following principles: structural form of organization according to the laws and European directives; promotion of competitiveness and creativity in the improvement of the quality of services; interoperability and technical harmonization with European systems; promotion of international (transit) transportation and co-ordination of the activities from the Government level. The Strategy is being implemented in line with the adopted Action Plan and in three stages – audit of financial statements, the company segmentation and privatization of the parts of the system.

### 3. Description of project

#### 3.1 Background and justification:

Safety at sea, pollution prevention and consequently, the preservation of biological diversity of the Adriatic Sea are *condition sine qua non* of sustainable development of Montenegro. The primary responsibility for execution of these tasks lies mainly with MSD.

#### VTMIS

In respect of the **European Union (EU) policy papers** the implementation of VTMIS is based on the Commission White Paper on European transport policy, in general, and on Directive 2002/59/EC establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC. Beside these two basic documents, implementation of VTMIS takes into account all other legal sources as enumerated in Article 2 of Regulation (EC) No 2099/2002 establishing a Committee on Safe Seas and the Prevention of Pollution from Ships (COSS) and amending the Regulations on maritime safety and the prevention of pollution from ships, as amended by Regulation (EC) No 415/2004.

According to the “Ordinance on organisation of state administration” (Official Gazette of Montenegro, No. 59/09) and other legal acts in Montenegro, MSD is responsible for providing maritime safety in inland sea area and territorial sea area and for performing activities connected with the prevention of pollution from navigable vessels (combating, minimizing and eliminating consequences of pollution) in accordance with the NCP.

Strategic goal of MoTMA in Transport Development Strategy is to *preserve areas of Montenegro to protect the environment against the negative impact of traffic* and regarding the pollution of sea by vessels, it is planned to perform these activities among others:

- *Implement constant supervision (radar, photo) of the sea.*
- *Provide stipulated and adequate equipment for actions in accidental pollution situations. The stated equipment could be allocated to ports or to a qualified company that would address such issues*

In order to implement a VTMIS a sound investment has to be done. MSD of Montenegro has implemented some subsystems of VTMIS and technical requirements that Montenegro had to do as a coastal state (Very High Frequency (VHF), Global Maritime Distress and Safety System (GMDSS), Automatic Identification System (AIS), Long Range Identification and Tracking (LRIT), Adriatic Mandatory Reporting System (ADRIREP) etc.) through the regular budget, despite the budgetary limitations experienced in the past years. To acquire regular budget funds for the purpose of completing implementation of the VTMIS project is very difficult in the present situation and the time span of the project would be extended

unjustifiably. With the help of IPA 2011 funding the project can be completed in the shortest possible period.

### **Equipment for the prevention of pollution from ships**

Montenegro has an obligation to protect and preserve its coastal area and marine environment. Having in mind that the vast majority of the population in Montenegrin coastal areas depends directly or indirectly on tourism and that not only safe but clean sea is a crucial factor for the tourism industry, MSD has identified the importance of creating a unique system of response to marine pollution incidents. The Montenegro National Contingency Plan for Response to Marine Pollution from Shipping and Offshore Installations is one of the measures that Montenegro has taken to meet this obligation.

One of the specific objectives of the Plan is to provide a minimum level of appropriate pre-positioned pollution response equipment in order to ensure the proper implementation of the national spill response policy and strategy.

This project will allow MSD to allocate sufficient basic equipment to local industry and regional authorities to respond to spills identified in the risk assessment as likely to occur within their individual areas of responsibility. This gives each region the independence both to deal with minor spills and to mount a credible first response to more significant incidents.

Montenegro's coastal area can be divided into two parts, first from Platamuni (Budva) to Cape Oštro (comprising Bay of Boka) under the jurisdiction of Harbour Master's Office (HMO) Kotor and second from Platamuni to River Bojana (Ulcinj) under the jurisdiction of HMO Bar. The region contains the following municipalities: Herceg Novi, Kotor, Tivat, Budva, Bar and Ulcinj

Where equipment is deployed regionally agreements between the HMOs and the MSD will be signed. These will outline the agreed standards for maintenance, management, deployment, storage and use of that equipment. All equipment allocated to local industry and regional authorities, remains the property of MSD as part of an overall national oil spill response equipment inventory. MSD maintains a complete data base of all national oil spill response equipment, including dispersant stocks. All response equipment will be maintained according to standards specified in the maintenance plans developed by MSD to ensure readiness, availability and protection against bio security risks during deployment. Response equipment will be allocated to: Port of Bar for the HMO Bar; Shipyard Bijela for the HMO Kotor.

### **3.2 Assessment of project impact, catalytic effect, sustainability and cross border impact (where applicable)**

The project of VTMS and procurement of response equipment will have a significant impact not only on the protection of marine environment in Montenegro, but on the Adriatic Sea as a whole considering the geographic position of Montenegrin territorial waters.

Montenegro, as state party to a number of international conventions and protocols, has an obligation to protect its coastal and marine environment. Having in mind that a vast majority of the population in Montenegro's coastal area depends directly and indirectly on tourism, which is the most important economic sector in the country, and that not only safe but clean sea is crucial factor in this respect, the importance of an efficient control of maritime traffic and system of response to marine pollution incidents is paramount.

The VTMIS project aims to significantly increase benefits to the public by increasing the level of maritime safety and pollution prevention of the Adriatic Sea area. In addition, the effectiveness of operations aiming to reduce the damage to the environment as well as the control and detection of ships responsible for pollution will be significantly improved.

The response equipment available nationally will give Montenegro the possibility to deal with minor and major spills, thus protecting the whole Adriatic region from spreading oil pollution. The availability of the equipment will drastically reduce response time which is the single most important aspect of an effective response to a marine oil spill.

Montenegro has an obligation to protect and preserve its coastal area and marine environment. Having in mind that vast majority of the population in Montenegro's coastal area depends directly or indirectly on tourism and that not only safe but clean sea is crucial factor, MSD has identified the importance of creating a unique system of response to marine pollution incidents. The Montenegro National Contingency Plan for Response to Marine Pollution from Shipping and Offshore Installations is one of the measures that Montenegro has taken to meet this obligation.

MSD is responsible for providing maritime safety in inland and territorial sea areas and for performing activities connected with the prevention of pollution from navigable vessels (combating, minimizing and eliminating consequences of pollution) in accordance with the Plan for Emergency Response in Case of Marine Pollution from Ships.

Implementation of this project will have an impact on a future project, in the Port of Bar, relating to the waste water treatment, replacement of asbestos cement pipes in the Port of Bar network ,improving technology of the terminal for dry bulk cargo in order to eliminate existing and potential adverse effect on the environment

### **3.3. Results and measurable indicators:**

#### **Results**

1. Monitoring of maritime traffic improved
2. Maritime safety and protection of the marine environment improved

#### **Indicators**

- 1.1 Increase percentage of sea area covered by radar sensor from 0% to 70%
- 1.2 Number of vessels carrying dangerous goods reported through ADRIREP system increased by 10 percent

1.3 Decreased number of maritime accidents (10%) one year from implementation

2.1. Decrease the risk of a possible catastrophe at sea for 25 percent

2.2 Drafted plan for accommodations of ships in distress

### **3.4. Activities:**

Activity 1: Procurement of VTMIS equipment (see Annex IV)

Activity 2: Specialised training in marine training academies related to VTS will be conducted.

Activity 3: Procurement of response equipment for emergency intervention at the sea based on Risk Assessment and Sensitivity Mapping Studies (see Annex IV)

Activity 4: Specialised training in marine training academies related to proper use of emergency response equipment.

Activity 5: Assessment Study for Place of Refuge for ships in distress with map of sites.

### **3.5. Conditionality and sequencing**

It is necessary to do some studies through available IPA funds, for both parts of projects. The studies are necessary to be completed before drafting tender documentation.

### **VTMIS**

First step is the feasibility VTMIS study. With this feasibility study, MSD will be able to apply for permits for the selected radar site. Write the Terms of Reference (TOR) for the training contract is very important. Indeed, although the full training will be completed in two years, it might be useful to send ASAP a first group of eight, including the six future supervisors. With this first training, and the study visit, these people will be in better position for understanding and following the procurement and the building of the Vessel Traffic System (VTS).

Preparation of the TOR for the VTS - This is an enormous work on which all the future installation will be based. The optional parts must be carefully chosen.

Launching of the tender process for the VTS

Procurement process of the VTS equipment

Training of people for using equipment

Start establishing VTS procedures.

Testing and commissioning of installed equipment.

### **Response Equipment**

First step of the project is the conducting and finishing of two studies: sensitivity mapping and risk assessment.



Sensitivity mapping shall include defining and mapping of the coastline type, listing and description of protected and sensitive natural resources, listing and description of resources at risk and list of potential places of refuge.

Risk assessment shall include determination of high risk areas in relation to marine pollution, estimated quantities of potential oil and hazardous and noxious substances (HNS) releases and their effect on specially sensitive areas, determining the number and frequency of port entries by ships carrying oil and HNS, their size and cargo capacities, analysis of oceanographic, hydrographical and meteorological data, records of reported marine pollution incidents caused by oil and HNS, records of maritime casualties not causing marine pollution and economic valuation of the consequences of potential marine pollution.

Following the previous two studies, the study for identifying of Places of Refuge shall be conducted. This study will be based on the previous two studies since it will use information generated by these studies.

The following step shall be the amending of the list of equipment taking into consideration the results of the studies. Drafting of the specifications for the equipment shall be the next step of the project. Parallel with the drafting of the specifications for the equipment, the drafting of the specifications for the training shall be undertaken. The tender shall be launched after the specifications for the equipment have been drafted.

### **3.6 Linked activities**

Montenegro participates in two important projects funded by EU: EuroMed and SAFEMED II project.

The EuroMed Transport Project aims to facilitate cooperation between the 12 Mediterranean Partner Countries, plus recently IPA countries, with the goal of supporting the development of the future Euro-Mediterranean Free Trade Area and promoting regional economic integration by improving the functioning and the efficiency of the Mediterranean transport system.

The SAFEMED Project is a response to the interest of the European Union (EU) to develop Euro-Mediterranean cooperation in the field of maritime safety and security and prevention of pollution from ships, by providing technical advice and support to the non-EU Mediterranean countries.

The primary objective of the SAFEMED Project is to mitigate the existing imbalance in the application of maritime legislation in the region between the EU Member States and the Mediterranean partners that are not members of the EU, through promoting a coherent, effective and uniform implementation of the relevant international conventions and rules aimed at better protection of the marine environment in the Mediterranean region by having safer shipping and preventing pollution from ships.

The SAFEMED project is being implemented by Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) since January 2006 and until the end of 2008, under the overall coordination of the European Commission and with technical backstopping from International Maritime Organization (IMO).

Maritime Safety Department has an effective and fruitful cooperation with the European Maritime Safety Agency. Activities of European Maritime Safety Agency (EMSA) include

organization of workshops with the aim to facilitate implementation of EU directives in the field of prevention of marine pollution.

Maritime affairs in Montenegro, related to prevention of marine pollution, are conducted in close relationship with the REMPEC.

REMPEC's activities are based on Prevention and Emergency Protocol of the Barcelona Convention which gives the basis for the cooperation between the countries in the region. Montenegro has ratified this Protocol, thus bounding Montenegro to draft and apply the National Contingency Plan. This Plan is also the prerequisite for sub-regional (Adriatic Sea) and regional cooperation (Mediterranean), as described in the Regional Strategy 2005.

### **3.7 Lessons learned**

In last ten years MSD has participated in various projects and has sound experience in project management.

Among others the following projects have been implemented:

- GMDSS implementation,
- VHF system implementation,
- AIS system implementation
- Search and Rescue boat procurement
- LRIT system implementation.

#### 4. Indicative Budget (amounts in €)

			SOURCES OF FUNDING									
			TOTAL EXP.RE		IPA COMMUNITY CONTRIBUTION		NATIONAL CONTRIBUTION					PRIVATE CONTRIBUTION
ACTIVITIES	IB	INV	EUR (a)=(b)+(c)+(d)	EUR (b)	%	Total EUR (c)=(x)+(y)+(z)	%	Central EUR (x)	Regional/Local EUR (y)	IFIs EUR (z)	EUR (d)	%
Activity 1												
Supply contract: Procurement of VTMIS equipment		X	1,810,000	1,810,000	100%							
Activity 2												
Service contract: VTMIS training	X		160,000			160,000	100%	160,000				
Activity 3												
Supply contract I: Procurement of response equipment for emergency intervention at the sea		X	990,000	990,000	100%							
Supply contract II: Procurement of additional response equipment		X	415,000			415,000	100%	415,000				
Activity 4												
Service contract: Training for pre- positioned equipment	X		75,000			75,000	100%					
Activity 5												
Service contract: Assessment Study for Place of Refuge	X		50,000			50,000	100%					
TOTAL IB			285,000			285,000	100%					
TOTAL INV			3,215,000	2,800,000	87.09%	415,000	12.91%					
<b>TOTAL PROJECT</b>			<b>3,500,000</b>	<b>2,800,000</b>	<b>80%</b>	<b>700,000</b>	<b>20%</b>					

## Details of contracts

Contracts	Description
Contract 1 (Activity 1, Supply contract, IPA)	Purchase of VTMISS equipment with basic training on use and maintenance
Contract 2 (Activity 2, Service contract, NC)	Specialised training in marine training academies related to VTS. Following courses shall be organised: VTS course V-103/1 for Operators (20 people), VTS course V-103/2 for Supervisors (8 people), VTS course V-103/3 for on the job training (3 people). Study visit tour is very helpful for people who are embarking in a project where they have very few visibility and experience.
Contract 3 (Activity 3, Supply contract, IPA)	Purchase of response equipment
Contract 4 (Activity 3, Supply contract, NC)	Purchase of additional response equipment based on Risk Assessment and Sensitivity Mapping Studies and purchase of antipollution vessel for Boka bay
Contract 5 (Activity 4, Service contract, NC)	Specialised training in marine training academies related to proper use of equipment.
Contract 6 (Activity 5, Service contract, NC)	Making of study for the Places of Refuge for ships in distress with map of sites

**5. Indicative Implementation Schedule (periods broken down per quarter)**

<b>Contracts</b>	<b>Start of Tendering</b>	<b>Signature of contract</b>	<b>Project Completion</b>
Contract 1 (Activity 1, Supply contract, IPA)	Q 1 2012	Q3 2012	Q3 2013
Contract 2 (Activity 2, Service contract, NC)	Q1 2012	Q2 2012	Q2 2013
Contract 3 (Activity 3, Supply contract, IPA)	Q1 2012	Q3 2012	Q1 2013
Contract 4 (Activity 3, Supply contract, NC)	Q2 2012	Q4 2012	Q1 2013
Contract 5 (Activity 4, Service contract, NC)	Q1 2012	Q2 2012	Q2 2013
Contract 6 (Activity 5, Service contract, NC)	Q3 2012	Q4 2012	Q2 2013

## **6. Cross cutting issues**

### **6.1 Equal Opportunity**

Equal treatment and opportunities for all gender will be taken into account during the entire project implementation period.

### **6.2 Environment**

Through this project MSD will have great influence on protection of environment, especially on marine environment by controlling ships carrying dangerous cargo and quick response in case of marine pollution incidents.

Maritime transport is of fundamental importance to Europe and the rest of the world. To put this in perspective, over 90% of European Union external trade goes by sea and more than 3.7 billion tons of freight a year are loaded and unloaded in EU ports. This means that shipping is the most important mode of transport in terms of volume. Furthermore, as a result of its geography, its history and the effects of globalization, maritime transport will continue to be the most important transport mode in developing EU trade for the foreseeable future.

In this context, European citizens have the right to expect their maritime passenger and goods transport to be safe, secure and clean.

Ships produce a significant amount of waste during their operation and this is disposed of in emissions to water and air and some is landed onshore for disposal. It is estimated that some 80 per cent of the total pollution from ships originates from operational discharges (such as discharges of waste oils or tank cleaning operations), and that much of this is deliberate and in violation of international rules. To prevent and control pollution from ships is the most important environmental aspect of this project.

### **6.3 Minorities**

Equal treatment and opportunities for all minorities groups will be taken into account during the entire project implementation period.

**ANNEX 1: Logical matrix in standard format**

<b>- LOGFRAME PLANNING MATRIX : Vessel Traffic Management Information System (VTMIS) and response to marine pollution incidents</b>			
Programme: IPA 2011 - Component - Montenegro National Programme		Contracting period expires: Three years after signature of the Financial Agreement Total budget: 3,500,000 euro	Disbursement period expires: One year after the final date for execution of the contract IPA budget:2,800,000 euro
<b>Overall objective</b>	<b>Objectively verifiable indicators</b>	<b>Sources of verification</b>	<b>Assumptions</b>
Improve maritime safety and marine environmental protection	Reduction in accident rates and effects  Marine Safety fully aligned with EU standards  Reduction in accidental and illegal oil spills	Log book VTMIS, DATA exchanged  Number of accidents / incidents	Commitment of the MoTMA
<b>Purpose</b>	<b>Objectively verifiable indicators</b>	<b>Sources of verification</b>	<b>Assumptions</b>
Enhancement of the administrative and technical efficiency of the Maritime Safety Department in the field of monitoring of vessels, with special regard to vessels carrying dangerous and polluting goods	Decreased response time of search and rescue operation by 10 percent  Intervention time in case of an oil spill decreased by 30% one year from implementation  Decreased number of maritime accidents & pollution incidents (25% ) after 5 years from project implementation  Radar and ancillary equipments	Annual reports of Monstat  Annual reports from Maritime Safety Department	Commitment of the MoTMA

	<p>built</p> <p>VTS properly operated</p> <p>Plan for places of refuges available</p> <p>Equipment procured and positioned</p> <p>People trained</p> <p>Exercises done</p>		
<b>Results</b>	<b>Objectively verifiable indicators</b>	<b>Sources of verification</b>	<b>Assumptions</b>
<p>Improved Monitoring of Maritime traffic</p> <p>Maritime safety &amp; protection of the Marine environment improved</p>	<p>Increase percentage of sea area covered by radar sensor (from 0% to more than 70%)</p> <p>Number of vessels carrying dangerous goods reported through ADRIREP system increased by 10%</p> <p>Decrease risk of the possible catastrophe at the sea for 25 percent</p> <p>Decreased number of maritime accidents (10%) one year after</p>	<p>Maritime Safety Department reports</p> <p>Site Acceptance Test for VTMISS equipment approved</p> <p>Log book of coastal VTS EMSA</p> <p>Annual reports of Monstat</p> <p>Accident records</p> <p>Progress project reports</p>	<p>Vessel Traffic Management implemented according to the pre-defined operational requirements</p>



	implementation Drafted plan for accommodations of ships in distress	Reports of exercises	
<b>Activities</b>	<b>Means</b>	<b>Cost</b>	<b>Assumptions</b>
Activity 1: Procurement of VTMISS equipment Activity 2: VTMISS training Activity 3: Procurement of response equipment for emergency intervention at the sea Activity 4: Training for response equipment Activity 5 Assessment study for Place of Refuge	Three Supply contracts and three service contracts	IPA: 2,800,000 Co-financing from national budget: 700,000	Good coordination with the Army and other relevant Governmental bodies Staff motivated to actively participate in the project Supply tenders launched in due time Risk assessment study finalised in due time Sensitivity mapping study finalised in due time
<b>Preconditions</b>			
The law and regulations are setting up the legal framework for VTMISS, places of refuge and ports reception facilities.			

**ANNEX II:**

**Amounts (in M€) Contracted and disbursed by quarter for the project**

**EU contribution – IPA:**

<b>Contracted</b>	<b>Q3 2012</b>	<b>Q4 2012</b>	<b>Q1 2013</b>	<b>Q2 2013</b>	<b>Q3 2013</b>	<b>TOTAL</b>
Contract 1	1.81					1.81
Contract 3	0.99					0.99
<b>Cumulated</b>	<b>2.80</b>					<b>2.80</b>
<b>Disbursed</b>						
Contract 1	1.086				0.724	1.81
Contract 3	0.594		0.396			0.99
<b>Cumulated</b>	<b>1.68</b>		<b>2.076</b>		<b>2.80</b>	<b>2.80</b>

## ANNEX III

### Description of Institutional Framework

The basic activity of the Maritime Safety Department is to ensure conditions for, and actual performance of, tasks stemming from the international obligations that the State has agreed to by signing conventions, agreements and protocols, related to the safety and security of navigation in the area of responsibility of the Contracting Government.

This activity is based on construction, erection and maintenance of marine signalling on the navigable waterways; organization of the radio service on VHF and MF frequencies, in accordance with the ITU rules and provisions of the SOLAS Convention; technical surveys of navigable and floating vessels in order to establish their seaworthiness; monitoring and implementation of international and national regulations closely related to the activities of the Department and, when the conditions become favourable (complete technical equipment provided), providing assistance to persons in distress at sea.

Organizational units through which the Department performs the activities connected with its area of responsibility:

1. Technical Inspectorate for Navigable Vessels Division
2. Division for the Prevention of Pollution from Navigable Vessels
3. Marine Telecommunications Division
4. Maritime Search and Rescue Division
5. Aids to Navigation Division
6. Register of Yachts Division
7. Administration, Finance and Technical Maintenance Division
- 7.1 Technical Maintenance Sector

**1. Technical Inspectorate for Navigable Vessels Division** performs activities connected with establishing seaworthiness of ships and other navigable vessels which include: technical survey, issuing of ship's documents, books and certificates, adopting technical rules and calculating the tonnage of ships; performing technical expertise upon accidents at sea, implementation of International and European conventions, protocols and agreements, as well as collaboration with authorized international organizations and recognized bodies of other countries in the area of established responsibility.

**2. Division for the Prevention of Pollution from Navigable Vessels** performs activities connected with the prevention of pollution from navigable vessels (combating, minimizing and eliminating consequences of pollution) in accordance with the Plan for Emergency Response in Case of Marine Pollution from Ships, and implementation of International and European conventions, protocols and agreements, as well as collaboration with authorized international organizations and recognized bodies of other countries in the area of established responsibility.

**3. Marine Telecommunications Division** performs activities connected with safety of navigation and life at sea, collection of hydrographical, oceanographic and meteorological

data and their transmission via radio, transmission of Notices to Mariners regarding conditions on navigable waterways and implementation of International and European conventions, protocols and agreements, as well as collaboration with authorized international organizations and recognized bodies of other countries in the area of established responsibility.

**4. Maritime Search and Rescue Division** performs activities connected with organization of search and rescue of people and property at sea, and implementation of International and European conventions, protocols and agreements, as well as collaboration with authorized international organizations and recognized bodies of other countries in the area of established responsibility.

**5. Aids to Navigation Division** performs activities connected with: regulation and maintenance of navigable waterways, maintenance of marine signalling objects and provision of their proper functioning, collaboration in preparation of nautical charts and publications; preparation and submission of data for Notices to Mariners regarding marine signalization, and implementation of International and European conventions, protocols and agreements, as well as collaboration with authorized international organizations and recognized bodies of other countries in the area of established responsibility.

**6. Register of Yachts Division** performs activities connected with procedures of registration in and renewal and deletion of yachts from the Register of Yachts.

**7. Administration, Finances and Technical Maintenance Division** performs activities connected with: drafting of general act of the Department; preparation and consolidation of programs, work programs and reports on the Department's activities; preparation of single acts on exercising employment rights of its employees, preparation of acts for calculation of salaries, remunerations and other income of its employees, keeping of personal files and other organizational, legal and material and financial affairs, and especially preparation and realization of financial means estimate and drafting of financial plans; keeping of account books, drafting of periodical and annual balance sheets and their submission to the State Treasury, treasury activities, bookkeeping activities; endorsement of accuracy and validity of payment with state funds, accuracy and validity of collection of state money in accordance with special authorization; public procurement, office and auxiliary activities, technical maintenance and other activities in accordance with regulations.

**7.1 Technical Maintenance Sector** performs activities connected with preventive and corrective maintenance of complete infrastructure and technical system of the Department (equipment and objects for marine signalization, electro-machinery equipment, vehicles and engine-driven devices, floating objects and buildings); drafting of periodical plans and programs for preventive and corrective maintenance; updating technical documentation of equipment, inspection of causes of technical systems failures and control of their operation; provision of services to third parties in the area of its responsibility and performance of periodical routing of nominal parameters of technical systems and drafting of respective reports; implementation of directions and regulations on protection at work and maintenance of equipment for the protection at work.

According to the "Ordinance on organization of state administration" (Official Gazette of Montenegro, No. 59/09) and other legal acts in Montenegro, MSD is responsible for providing maritime safety in inland sea area and territorial sea area and for performing

activities connected with the prevention of pollution from navigable vessels (combating, minimizing and eliminating consequences of pollution) in accordance with the Plan for Emergency Response in Case of Marine Pollution from Ships.

## **LIST OF RELEVANT LAWS AND REGULATIONS MARITIME TRANSPORT**

1. Directive 2002/59/EC of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC [Official Journal L 208 of 05.08.2002] and related legislation.
2. Regulation V:8-2 SOLAS Convention ,1974, as amended.
3. IMO Resolution A.857 (20) “Guidelines for Vessel Traffic Services”.
4. IMO Guidelines on the Recruitment, Qualifications and Training of VTS Operators, MSC/Circ.578 and MSC/Circ.1065.
5. IALA Recommendation on Standards for Training and Certification of VTS Personnel (IALA Recommendation V- 103).
6. Directive 2001/106/EC concerning the enforcement, in respect of shipping using Community ports and sailing in the waters under the jurisdiction of the Member States, of international standards for ship safety, pollution prevention and shipboard.
7. Directive 2001/105/EC on common rules and standards for ship inspection and survey organizations and for the relevant activities of maritime administrations.
8. Regulation (EC) No 417/2002 on the accelerated phasing-in of double hull or equivalent design requirements for single hull oil tankers.
9. **Regulation (EC) No 724/2004** establishing a European Maritime Safety Agency.
10. **Directive 2002/84/EC amending the Directives on maritime safety and the prevention of pollution from ships.**
11. Directive 2000/59/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 November 2000 on port reception facilities for ship-generated waste and cargo residues.
12. United Nation’s Convention on the Law of the Sea, 1982 (**UNCLOS 1982**).
13. International Convention on Oil Pollution Preparedness, Response and Cooperation, 1990 (**OPRC 90**).
14. Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances 2000 (**OPRC-HNS Protocol 2000**).
15. Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, 1995 (**Barcelona Convention 1995**).
16. Protocol Concerning Cooperation in Preventing Pollution from Ships and, in cases of Emergency, Combating Pollution for the Mediterranean Sea, 2002 (**Prevention and Emergency Protocol 2002**).

17. **Law on Yachts** (Official Gazette of the RM, 46/07).
18. **Law on Sea** (Official Gazette of the RM, 46/07).
19. **Law on Ports**.
20. **Law on Protection of Sea Pollution from Sea-going Vessels**.
21. **Draft Law on Maritime Navigation Safety**.

## **LEGAL FRAMEWORK**

**Law on Yachts** regulates identification of yachts, their registration, safety of navigation and protection from environmental pollution caused by yachts, sailing in and out and stays in territorial waters, internal sea waters, rivers and lakes of Montenegro, as well as rights, duties and responsibilities for renting of yachts.

**Law on Sea** defines country's sovereignty on the sea, which refers to coastal sea, air above the sea, sea bottom and the space beneath it. Categories determined under this Law include internal sea waters, territorial sea, economic zone, epicontinental belt and banishment right, as well as sea use right.

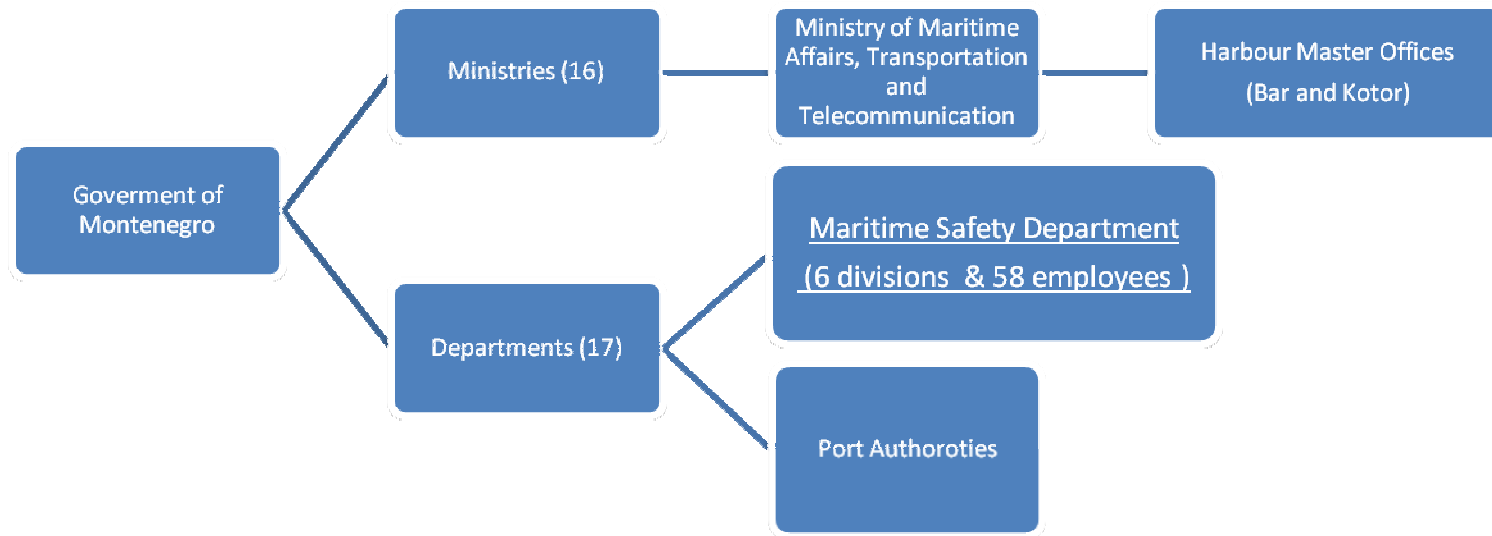
**Law on Ports** sets up a legal framework for comprehensive reform of ports and port enterprises, their restructuring and privatization. Regulation of their legal status (especially in relation to completing transformation of ownership structure, clear delineation of private and public functions and consequent definition of management and organizational models for ports) is a necessary step to enable adequate positioning of the ports on the market and strategic partnership with foreign investors, which are necessary to improve state of port infrastructure and equipment.

**Law on Protection of Sea Pollution from Sea-going Vessels** has been drafted in response to the need to implement of Barcelona and MARPOL Conventions as well as other regulations and recommendations of International Maritime Organization (IMO) and Mediterranean organizations within the UN system. The proposal of the Law defines control and supervision, preventive and corrective measures in case of sea pollution from sea-going objects.

**Draft Law on Maritime Navigation Safety** defines measures and procedures linked to security of maritime transport which refer to vessels, ports, seamen and other subjects in the maritime affairs. Among other issues, the proposal of the Law regulates Search and Rescue Service, piloting, and inspection supervision

Investment in Maritime will also be made on the basic of the national co-financing, 20% of the value of the project and will be provide by State.

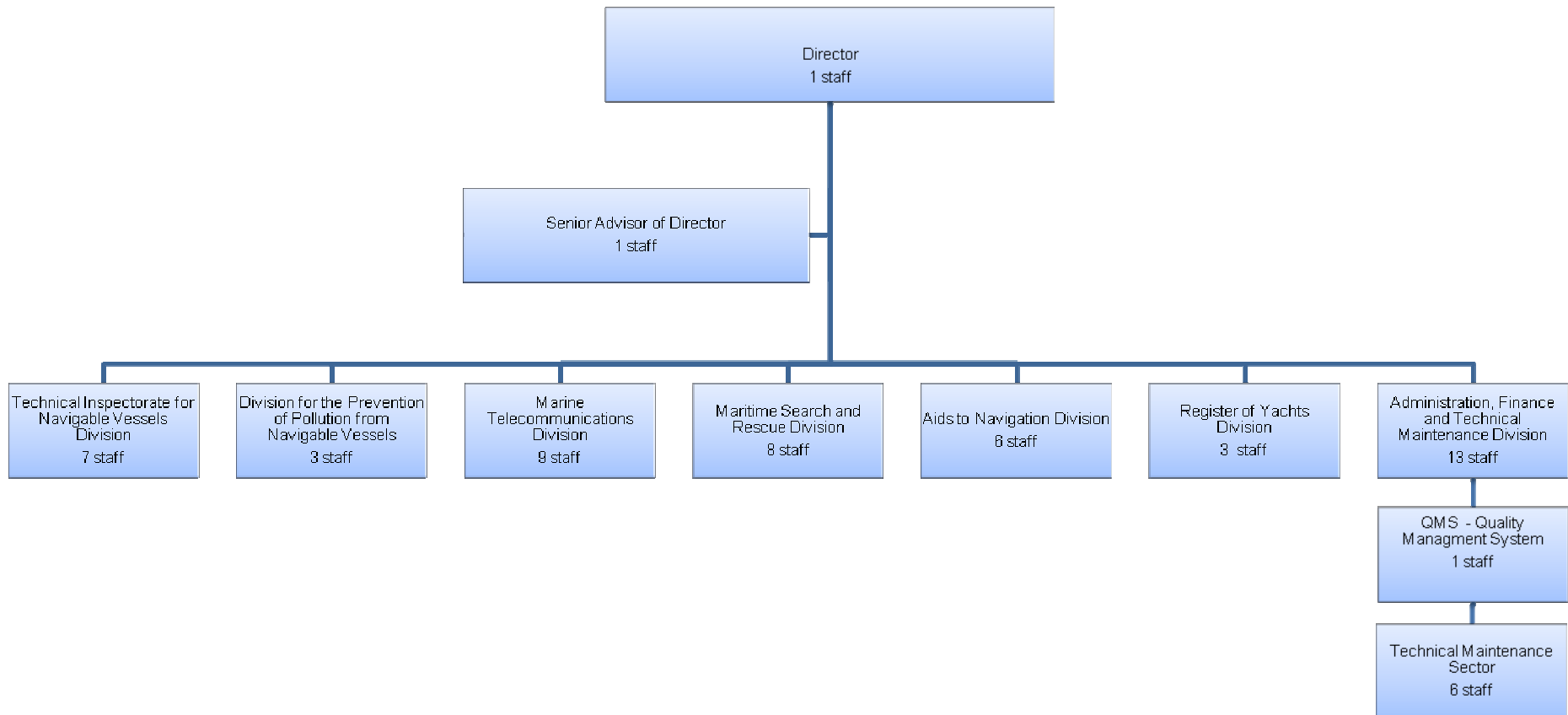
## Montenegro Maritime Administration



MSD is independant govermental body.

MoTMA of Montenegro performs control over legality of activities of Maritime Safety Department.

## Maritime Safety Department Organizational Chart





## ANNEX IV

### Details per EU funded contracts

The IPA resources will fund two supply contracts. The results of the pre-feasibility studies with estimated budget are presented below.

#### Detailed VTMISS budget (with optional part) [€]

	Component	Investment	IPA Support	National Co-Financing	Total
	<b>Activity 1</b>				
	<b>Supply contract</b>				
1.1	Radar sensors (3 long range radars)	270,000	270,000	0	270,000
1.2	Direction Finders 3pcs	120,000	120,000	0	120,000
1.3	VHF subsystem 3 pcs	30,000	30,000	0	30,000
1.4	Meteo station 3 pcs	75,000	75,000	0	75,000
1.5	AIS Base Station 3 pcs	24,000	24,000	0	24,000
1.6	Power generators 3pcs	51,000	51,000	0	51,000
1.7	Mast (big mast) and air conditioner, shelter for main stations	150,000	150,000	0	150,000
1.8	Console 3 screens + VTS software	21,000	21,000	0	21,000
1.9	CCTV 3 pcs	270,000	270,000	0	270,000
2.0	Data merging and remote control + AIS merging	150,000	150,000	0	150,000
2.1	Data recorder (tracks, VHF,	20,000	20,000	0	20,000

	AIS, Meteo, CCTV, Phone)				
2.2	Project documentation	30,000	30,000	0	30,000
2.3	Furniture	15,000	15,000	0	15,000
2.4	Connections, Installing, small scope civil works, basic training for Operators and Maintenance	180,000	180,000	0	180,000
2.5	Furniture	15,000	15,000	0	15,000
2.6	Radio Relay Equipment for functional IP network	200,000	200,000	0	200,000
	<b>Total:</b>	<b>1,810,000</b>	<b>1,810,000</b>	<b>0</b>	<b>1,810,000</b>
	<b>Optional part of tender for supply if bidders can fit in allowed budget</b>				
1.1	Ancillary radar short range 3pcs	150,000	150,000	0	150,000
1.2	Mast (big mast) and air condition shelter ancillary stations 3 pcs	120,000	120,000	0	120,000
1.3	Power generator 5 KW ancillary station 3 pcs	24,000	24,000	0	24,000
	Total - Optional part:	294,000	294,000	0	294,000

Note: VTMIS study and technical assistance for writing tender documentation and evaluation is foreseen to be financed with PPF (Project Preparation Facilities) fund through Framework contract. This should be precondition for Project.

**Detailed Prepositioned Response Equipment Budget.**

	<b>Component</b>	<b>Quantity</b>	<b>Investment</b>	<b>IPA Support (in Euro)</b>	<b>National Co- Financing</b>	<b>TOTAL</b>
	Supply contract					
1	Shallow water skimmer boat with storage tank (12m3)	2	300.000	300.000	0	300.000
2	Boom: type „baleares“ (ports, rivers and bays)	1.000 m	350.000	350.000	0	350.000
3	Sorbent	500 kg	20.000	20.000	0	20.000
4	Portable sorbents blower	3	1.000	1.000	0	1.000
5	Skimmer, generator and transfer pump (50 m3)	2	80.000	80.000	0	80.000
6	Floating towable storage tank (50 m3)	4	100.000	100.000	0	100.000
7	Oil transfer pump with hoses (100 m)	2	20.000	20.000	0	20.000
8	Oil portable storage tank (5 m3)	6	42.000	42.000	0	42.000
9	Portable equipment container	10	10.000	10.000	0	10.000
10	Portable radio equipment	5	3.000	3.000	0	3.000
11	Breathing apparatus	2	3.000	3.000	0	3.000
12	Protective clothing: boots, gloves and helmets	250	50.000	50.000	0	50.000
13	Protective clothing: disposable work suits	500	2.500	2.500	0	2.500
14	Shovels and buckets	250	3.000	3.000	0	3.000
15	Plastic bags	5.000	5.000	5.000	0	5.000
16	Overpacks (plastic)	100	500	500	0	500
	<b>TOTAL</b>			<b>990.000</b>	<b>0</b>	<b>990.000</b>

## **Expert findings**

In order to assess the type of equipment needed and to establish a budget, it has been necessary to perform a pre feasibility study.

In this respect site visits have been carried out. The result is given in the table 1.

During these visits the inventory of the existing equipment has been done, especially for those which can be used for the future VTS.

### **Inventory of existing equipment which can be used in the future VTS:**

**Control centre DOBRA VODA** is both the Coastal radio station and MRCC. The inventory is as follow:

One IT software ready to interface with a VTS, provided it is the VTS of the provider of the software. But this is not an issue as all VTS provider have their own software which include all the necessary functionalities that a VTS operator may need. The future VTS provider will have to give at least the same functionalities.

There are all MRCC devices for areas 1 and 2. This centre monitors a mandatory reporting area on a 24 hours basis. It is manned by two people on watch. These men are dedicated one to the MRCC and the other to the coastal radio station. The functional study will be able to assess the necessary manning when VTS will be ran along with the organization to be put in place.

2 AIS bases covering all the maritime traffic off Montenegro have been set up. One of them is in the centre and the other, at OBOTSNIK is linked to the centre by third party VPN network connecting Control Centre with OBOTSNIK and Administration building (256k). There is also optical fibber network connecting Control Centre with OCAS and OBOTSNIK (2Mbits).

There is a Power generator which is sufficient for accommodating the new equipment if the VTS centre is set up in this station.

There is a micro wave link with main office and with police, and then it will be easy to share the picture with the police and to have pictures at the main office.

The VHF equipment is old and should be replaced. This project is an opportunity to do it.

At the moment the premises are sufficient, even if one supervisor and one operator were working beside the two operators already on site.

In a nutshell, this place might be the VTMIS centre. The functional study will determine if additional (minor) have to be done.

**OCAS MF station** is a subsidiary of DOBRA VODA. There is a MF transmission station, electricity and a power generator. There also a optical fibber link with DOBRA VODA. This might be an ideal site if the coverage was good. As the delay for permits is short, it will be the backup site if the two first choices are failing.

**Lighthouse MENDRA** is a possible RADAR site although the coverage is not as good as wished. Beside electricity, there is no particular equipment.

**OBOTSNIK** is an ideal place for the North RADAR. The AIS is located at this place. The police is operating a RADAR S band with 12' antenna, which is not appropriate for a coastal VTS.

**CAP DJERANE** is a possible site but with no equipment that can be used for the future VTS.

**MAVRIJAN** is a possible site but with no equipment that can be used for the future VTS.

**MOZURA** is a possible site but with no equipment that can be used for the future VTS.

**CRNI-RT** There is a RADAR station used by border police. But this RADAR is a S band with 12' antenna and is not of an appropriate standard for running a coastal and a port VTS. However, the site is equipped with electricity and is in sight of MSD premises, then making a micro wave link is not an issue.

**SKADARSKO** hasn't been visited by lake of time. This site should be fitted at the minimum with VHF GMGSS and DF and ideally with RADAR.

Finally the equipments which can be used for the future VTS are the two existing AIS stations and the premises

## Possible RADAR sites

Location	Link	Electricity	Owner	Permit	Coverage	Delay	Purpose	Rank
<b>DOBRA VODA</b>	Yes	Yes	MSD	No	Partial	Short	<b>South site</b>	<b>5</b>
<b>OCAS</b>	Yes	Yes	MSD	No	Partial	Short	<b>South site</b>	<b>6</b>
<b>MENDRA</b>	No	Yes	MSD	Yes	Partial to good	Medium	<b>South site</b>	<b>3</b>
<b>MAVRIJAN</b>	No	Yes	Army	Yes	Excellent	Long	<b>South site</b>	<b>2</b>
<b>CAP DJERANE</b>	No	Yes	?	Yes	good	Long	<b>South site</b>	<b>4</b>
<b>MOZURA</b>	No	Yes (to be checked)	Government	Yes	Very good	Medium / Long	<b>South site</b>	<b>1</b>
<b>OBOSTNIK</b>	Yes	yes	Army	Yes	Excellent	Medium / Long	<b>North site</b>	<b>1</b>
<b>CRNI RT</b>	No	Yes	Government Army	Yes	Excellent	Medium	<b>Central</b>	<b>1</b>
<b>SKADARSKO</b>	No	Visited			Excellent		<b>LAKE</b>	<b>1</b>

While there are 3 possible good sites for the south part, there is only one for North and central. Therefore, having no backup, it is recommended to take immediately all necessary actions to get all the permits needed for these sites. In the same time, the same type of action should be taken for MOZURA, MAVRIJAN and MENDRA.

## **Technical issues**

Taking in account what has been mentioned above and considering the requirements of Directive 2002/59 this is a high level description of what the VTS should be:

It should be made of 3 main RADAR stations compliant with the requirement of IALA V-128. These stations will monitor the maritime traffic.

Three ancillary stations, having lower performances, would monitor BOCA BAY traffic for two of them and SKDARSKO LAKE for the last one

All these stations have to send their data to the main VTS centre where the data are merged in a single picture which can be broadcasted to the other relevant stakeholders. The pictures must integrate AIS signal without any dual echo with the RADAR ones.

**Implementation chart for the pollution response equipment**

	2011									2012												2013															
<b>Action Month</b>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Making two studies						■	■																														
Completing the list of equipment							■																														
Draft the specifications for the equipment							■	■																													
Launch the tender for the equipment												■																									
Draft the specifications for the training								■																													
Launch the tender for training												■																									
Training																	■	■	■	■																	
Procuring of the equipment																					■	■	■	■													
Places of refuge																				■	■																
Completing the NCP											■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■									



## ANNEX V - List of Acronyms

MSD	Maritime Safety Department
EMSA	European Maritime Safety Agency
HMO	Harbour Master's Office
IOPC Funds	International Oil Pollution Compensation Funds
IMO	International Maritime Organization
MoU	Memorandum of Understanding
MRCC	Maritime Rescue Coordination Centre
NCP	National Contingency Plan
OPRC 90	International Convention on Oil Pollution Preparedness, Response and Cooperation, 1990
REMPEC	Regional Marine Pollution Emergency Response Centre
SAR	Search and Rescue
UTC	Universal Time Coordinated
VHF	Very High Frequency
VTMIS	Vessel Traffic Management Information System
MoTMA	Ministry of Transport and Maritime Affairs
GMDSS	Global Maritime Distress and Safety System
AIS	Automatic Identification System
LRIT	Long Range Identification and Tracking
ADRIREP	Adriatic Mandatory Reporting System