

## Project Fiche for Phare 2006

### 1. Basic Information

1.1 CRIS Number : 2006/018-164.02.03

1.2 Title: **Further Improvement of the Operational Capacity of Executive Agency “Maritime Administration<sup>1</sup>” for Detecting and Minimizing the Dangerous Cargo Spills on the River Danube.**

1.3 Sector: **Transport**

1.4 Location: The Danube River within the kilometre 374,100 (the Bulgarian – Romanian border) to kilometre 845,650 (the Bulgarian –Serbian border).

1.5 Duration:

**7 months**

### 2. Objectives

2.1 Overall Objective(s):

To enforce further the implementation of BMA duties related to pollution prevention and control over the Bulgarian inland waterways (river Danube) in order to comply with the requirements of the proposed Directive on the approximation of the laws of the Member States with regard to the transport of dangerous goods by vessels on inland waterways and the proposed Directive relating to the inland transport of dangerous goods. According to these ongoing proposals the Annexed regulations to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN), should be applicable to all Member States.

2.2 Project purpose:

To provide the BMA with appropriate waterborne equipment (specialized vessels) in order to allow the administration to fulfill its obligations under the *acquis communautaire* and other international instruments such as the Convention on Co-operation for the Protection and Sustainable Use of the River Danube related to environmental protection of the river.

2.3 Accession Partnership (AP) and NPAA priority (and implementing measures envisaged by the Action Plan for AP priorities related to strengthening administrative and judicial capacity)

The 2003 Accession Partnership sets the following priorities in the area of maritime transport:

***“Complete alignment with EU maritime legislation in safety and non-safety areas; improve maritime safety, in particular improve the performance of maritime safety administrative institutions, firstly as a Flag State, and then as a Port State, and***

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<sup>1</sup> Throughout this document the Executive Agency “Maritime Administration” will be referred as Bulgarian Maritime Administration or the abbreviation (BMA) for convenience.

*guarantee their independence; strengthen the Bulgarian Maritime Administration; further align with EU maritime acquis in areas of safety."*

## 2.4 Contribution to National Development Plan (and/or Structural Funds Development Plan/SDP)

N/A

## 2.5 Cross Border Impact

This project will contribute to the smooth implementation of the agreements undertaken during the first EC commissioned Peer Review on Inland Waterway Transport, conducted jointly in Bulgaria and Romania.

Following the meeting between the representatives of the Bulgarian Ministry of Transport and the Romanian Ministry of Transport, Construction and Tourism in Rousse, Bulgaria, two working groups were set up for the preparation of the necessary documents that will regulate the cooperation between both countries in the field of accidents, river pollution and monitoring the transport of dangerous goods. There is an ongoing communication and development of joint emergency plan. A working group was established to prepare a joint emergency plan. The WG has already met three times in Gurgevo, Ruse and Turnu Severin exchanging information on the National emergency plan. Seven points were elaborated to ensure fast response on spills and contact points from both countries are announced.

This project will further increase the level of cooperation between the two countries; will enhance the environmental surveillance over the Danube River.

The acquisition of the boats for the execution of BMA's functions in the in relation to Danube River will assist the fulfillment of Bulgaria's duties and responsibilities, jointly with the other Danube countries, for the protection of the river environment.

The Danube River Protection Convention forms the overall legal instrument for co-operation on trans-boundary water management in the Danube River Basin. The Convention, signed on June 29<sup>th</sup> 1994 in Sofia (Bulgaria) by eleven of the Danube Riparian States – Austria, Bulgaria, Croatia, the Czech Republic, Germany, Hungary, Moldova, Romania, Slovakia, Slovenia and Ukraine – and the European Community, and duly in force since 1998, aims to ensure that surface waters and groundwater within the Danube River Basin are managed and used in a sustainable and equitable manner.

This involves:

- the conservation, improvement and rational use of surface waters and groundwater
- preventive measures to control hazards originating from accidents involving floods, ice or hazardous substances
- measures to reduce the pollution loads entering the Black Sea from sources in the Danube River Basin

## 3. Description

### 3.1 Background and justification:

The Inland Waterways of the Republic of Bulgaria cover the Danube River within the kilometre 374,100 (the Bulgarian – Romanian border) to kilometre 845,650 (the Bulgarian –

Serbian border). According to the Statutory Regulation the BMA performs the following functions related to the safety of navigation and the environment prevention from pollution:

- Ensures the safety of navigation in the maritime spaces and inland waterways of the Republic of Bulgaria;
- Ensures the compliance of Bulgarian and foreign flag vessels with the international requirements for the safety of navigation and pollution prevention;
- Coordinates search and rescue operations of people, vessels and aircraft.
- Executes control on the protection of the marine and river environment from ship-generated pollution.

The BMA exercises its duties related to the Inland Waterways Transport by regional directorates in Rousse and Lom. BMA has direct contact with the other relevant Bulgarian stakeholders that should participate in operations for protection of the river environment from ship-generated pollution as well as, with the relevant administration bodies on the Romanian side. If information for an accident on the Danube River occurs, the BMA through its local directorates responds to the situation. In case of pollution the field coordination falls on the local Harbor-Masters.

BMA performs regular environmental control inspections along the Bulgarian section of the Danube River. In order to perform its waterborne duties, the BMA structures (directorates in Rousse and Lom) should have adequate equipment – patrol boats.

The 2005 Peer Review on Inland Waterway Transport gave a general overview of the inland navigation sector in Bulgaria. It assessed the progress towards the implementation of EU legislation, and in particular addressed the safety of inland navigation. The Review Team has made the following recommendations:

“Regarding the safety of navigation, it emerges that the harbourmasters are the key persons responsible for specific stretches of the Danube. Their task is crucial for the functioning of the safety management, and they are clearly the authority responsible for the safety of navigation under all aspects. While the experts recommend that this clear allocation of responsibility be maintained, they underline that within this system, it should be ensured that there are no gaps in the coverage of the river and that they have the necessary infrastructure. This is why they recommend that the number of patrol boats should be increased, and that the equipment of these patrol boats should be improved.”

“...the experts recommend that Bulgaria should speedily implement rules regarding the transport of dangerous goods, based on the ADN / ADN R standards.”

In order to facilitate Bulgaria in the achievement of a legal and operational compliance, the European Commission has approved a Twinning project BG-01-TR01 “Maritime Safety: Legal Harmonization and Institution Building”, successfully completed in October 2004. One of the tasks under the Twinning project was to develop a prioritized list of equipment required to attain significant improvements in the areas of Pollution Prevention and Control. The developed Feasibility study covered the basic needs for floating equipment, necessary for the BMA to fulfill its waterborne duties on the sea and the inland waterways. As a follow-up another project (BG 2005/017-353.04.01 “Strengthening the waterborne tasks of the Bulgarian Maritime Administration. – Phase I”) and a proposal for a PHARE Project (“Strengthening of the waterborne tasks of the Bulgarian Maritime Administration – Phase II”) were developed. On the completion of these projects the basic needs of BMA concerning its waterborne equipment should be fulfilled. However, the latest trends in the EU legislation (“Proposal for a Directive of the European Parliament and of the Council – Relating to the Inland Transport of Dangerous Goods”, “Proposal for a Directive on the Approximation of the Laws of the Member States with regard to the Transport of Dangerous Goods by Vessels

on Inland Waterways”), concerning the carriage of Dangerous Goods on the inland waterways brought about some changes in the BMA vision for performing its activities.

In order to increase its operational capacity for pollution prevention and response on the inland waterways BMA requires some additional specialized vessels for environmental inspections, oil sampling collection operations and oil pollution response. The Technical specifications for the vessels designed for the inland waterways, developed on the basis of the above mentioned Assessment for the renewal of the fleet of the BMA (Twinning project BG-01-TR01 “Maritime Safety: Legal Harmonization and Institution Building”), have been revised and modified. Using that foundation and the best European practices, BMA expert staff developed Technical specifications for the needed equipment.

This concept of the procurement of specialized vessels has the following advantages:

- the new vessels will advance BMA’s functional efficiency concerning pollution response and prevention;
- the environmental monitoring over the Bulgarian part of the Danube river will be improved.

The present project foresees the procurement of specialized vessels which should cover completely the needs of the BMA in the areas of pollution response over the Bulgarian Inland Waterways and will significantly improve the capacity of the Bulgarian Maritime Administration to discharge its obligation for protection of the river environment.

There is functioning “Emergency Plan for Detecting and Cleaning the Oil Spills on the Danube River” which regulates the coordination between BMA and the relevant national competent authorities in case of emergency spills of dangerous goods on the Danube River and the minimization of the damages to the environment and their economical consequences. The waterborne equipment will be included in the implementation scheme of the. The effectiveness of the plan will be increased substantially, with the additional waterborne equipment provided through the present project.

A joint emergency plan, between Bulgaria and Romania, is in the process of development. It will take into account the local characteristics of both countries and will allow good coordination and joint response actions in the cases of emergency incident and dangerous spills over the Danube River.

### 3.2 Sectoral rationale: N/A

#### 3.2.1 Identification of projects

#### 3.2.2 Sequencing

### 3.3 Results

The acquisition of specialized vessels will further strengthen the operational capacity of BMA. The results of the project will be:

1. Supplied four specialized vessels, incl. spare parts, which will enable the BMA to perform effective environmental inspections, oil sampling collection operations and oil pollution response; before acceptance the vessels and all the rest will be approved by the BMA;
2. Trained designated BMA staff to use the boats and the equipment on board.

### 3.4 Activities (including Means)

The following will be delivered under one supply contract:

1. Supply of four specialized vessels, incl. spare parts, which will enable the BMA to perform effective environmental inspections, oil sampling collection operations and oil pollution response;
2. Provision of training to designated BMA staff of using the boats and the equipment on board.

### 3.5 Linked Activities:

- Twinning Project BG-01-TR01 on Maritime Safety Institution Building between the Bulgarian Maritime Administration and Directorate-General for Freight Transport of the Netherlands Ministry of Transport, Public Works and Water Management.

During the two year project a lot of EU Directives and Regulations have been transposed into the national legislation. Additionally the relevant procedures for the implementation of the harmonized legislation have been developed and a large-scale training programme for the BMA inspectors has been executed. Nevertheless the practical implementation of the legislation requires proper equipment besides the trained staff. Thus the procurement of vessels will sustain the results achieved within the Twinning.

- Project BG 2005/017-353.04.01 “Strengthening the waterborne tasks of the Bulgarian Maritime Administration. – Phase I” (ongoing)
- PHARE Project “Strengthening of the waterborne tasks of the Bulgarian Maritime Administration – Phase II” (proposal submitted)

The purpose of the projects is to provide the Bulgarian Maritime Administration with a specialized floating equipment in order to allow the administration to properly implement the *acquis communautaire* in the areas of safety of navigation (routine inspections and patrols), environmental pollution monitoring and prevention on the river Danube.

### 3.6 Lessons learned:

The BMA has already been a beneficiary to PHARE projects, which have been successful and have lead to the development of other projects. Thus, the achievement of a legal and operational compliance by Bulgaria have been reached by the approval of the European Commission of a twinning project BG-01-TR01 “Maritime Safety: Legal Harmonization and Institution Building”, successfully completed in October 2004. One of the tasks under the Twinning project was to develop a prioritized list of equipment required to attain significant improvements in the areas of Pollution Prevention and Control. The developed Feasibility study covered the basic needs for floating equipment, necessary for the BMA to fulfill its waterborne duties on the sea and the inland waterways. As a follow-up another project (BG 2005/017-353.04.01 “Strengthening the waterborne tasks of the Bulgarian Maritime Administration. – Phase I”) and a proposal for a PHARE Project (“Strengthening of the waterborne tasks of the Bulgarian Maritime Administration – Phase II”) were developed.

The latest trends in the EU legislation concerning the carriage of Dangerous Goods on the inland waterways brought about some changes in the BMA vision for performing its activities. In order to increase its operational capacity for pollution prevention and response on the inland waterways BMA requires some additional specialized vessels for environmental inspections, oil sampling collection operations and oil pollution response. The Technical specifications for the vessels designed for the inland waterways, developed on the

basis of the above mentioned Assessment for the renewal of the fleet of the BMA (Twinning project BG-01-TR01 “Maritime Safety: Legal Harmonization and Institution Building”), have been revised and modified. Using that foundation and the best European practices, BMA expert staff developed Technical specifications for the needed equipment.

#### 4. Institutional Framework

Below is a brief description of the institutions involved in the project and their tasks:

The Bulgarian Maritime Administration (BMA) is the final beneficiary of the project. The BMA is a public authority for Flag State, Port State and Coastal State Control. The Bulgarian Maritime Administration will become the owner of the assets after the completion of the project. The equipment will be placed in the regional offices of the BMA in Rousse and Lom, and used throughout the Danube River. The designated staff from the regional offices, which will be trained within the project, will be responsible for the proper use and maintenance of the vessels.

The Ministry of Transport (MoT) will act as coordinating body of the project in its capacity of Secretariat of the PHARE Sectoral Monitoring Sub-Committee on Transport.

The BMA will be responsible for the preparation of the technical documentation and will be involved in the tender evaluation committee. The Executive Director of the BMA will appoint SPO and project team (PIU) that will be responsible for the day-to-day coordination and technical implementation of the project activities. The Contact person within the BMA is:

Capt. Ventzislav Ivanov  
Executive Director  
Bulgarian Maritime Administration  
E- mail: bma@marad.bg  
Tel. +359 2 930 09 10  
Fax: +359 2 930 09 20

#### 5. Detailed Budget

	Phare/Pre-Accession Instrument support	Co-financing			Total Cost MEUR
€M		National Public Funds (*)	Other Sources (**)	Total Co-financing of Project	
Year 2006 - Investment support jointly co funded	0.708	0.236		0.236	0.944
Investment support – sub-total	0.708	0.236		0.236	0.944
% of total public funds	max 75 %	min 25 %			

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(\*) contributions from National, Regional, Local, Municipal authorities, FIs loans to public entities, funds from public enterprises

<b>Total project 2006</b>	<b>0.708</b>	<b>0.236</b>		<b>0.236</b>	<b>0.944</b>
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(\*\*) private funds, FIs loans to private entities

## 6. Implementation Arrangements

### 6.1 Implementing Agency

The Implementing Agency will be the CFCU within the Ministry of Finance. It will be the Contracting Authority, which retains the overall responsibility for the implementation of the project (approval of terms of reference, tender documents, evaluation criteria, evaluation of offers, signature of contracts, authorization and payments of invoices). The CFCU shall ensure that all activities under the contract are undertaken in strict accordance with the PRAG procedures and will be authorized by the PAO.

The Ministry of Finance (MoF), Central Financing and Contracting Unit (CFCU) will act as Implementing Agency. The CFCU will be responsible for tendering and contracting.

Ministry of Finance,  
102 Rakovski Street, Sofia 1000  
CFCU Director  
Tel: +359 2 98592772  
Fax: + 359 2 987 88 08  
E-mail: cfcu@minfin.bg

### 6.2 Twinning

N/A

### 6.3 Non-standard aspects

Our only “non-standard aspects” will be during the preparation phase of the project. Then we will use of the “suspension clause” in order start the call for tender before the signing up of the Financial Memorandum.

### 6.4 Contracts

The present project is expected to be executed through one contract at the amount of 945,000 euro.

## 7. Implementation Schedule

### 7.1 Start of tendering/call for proposals – January 2007

### 7.2 Contracting – July 2007

## **8. Equal Opportunity**

Equal opportunity for women and men to participate in the project will be assured by the BMA. The relevant standards of the EU as well as the Bulgarian laws and regulations concerning the equal opportunities for women and men will be strictly followed.

## **9. Environment**

The vessels to be acquired do not have negative impact on the environment. On the contrary, their acquisition will improve navigation safety and will prevent or at least minimize the occurrence of accidents or incidents. The procurement will support the BMA in performing pollution prevention tasks and this will actually contribute to the improvement of the environmental conditions on the Danube River in the section between the kilometre 374,100 (the Bulgarian-Romanian border) and the kilometre 845,650 (the Bulgarian-Serbian border). The monitoring and response to oil pollution in this part of the river Danube will also have a positive ecological impact on the Black Sea, as it concerns a section close to the delta of the river

## **10. Rates of return**

The project is related to the implementation, execution and enforcement of the requirements of the *acquis* on the pollution prevention, inspection, patrolling and response. The equipment to be procured will be used for the provision of public services, without direct revenue generation. The main benefit that will arise is improvement in pollution prevention and response standards through the use of the equipment in accordance with the relevant *acquis*.

## **11. Investment criteria (applicable to all investments)**

### **11.1 Catalytic effect**

This project is complementary to many EU supported initiatives and projects in the waterborne transport sector in Bulgaria. The acquisition of the specialized boats will allow the proper implementation and enforcement of the national waterborne transport legislation.

### **11.2 Co-financing**

The project will be co-financed by the Bulgarian National Budget with 25% of the contract value of the investment component.

### **11.3 Additionality**

N/A

### **11.4 Project readiness and size**

Technical specifications for the purchase have been developed within the Needs Assessment. The BMA is in a position to produce the technical documentation for the tender two months following the approval of the project.

### **11.5 Sustainability**

The project sustainability will be ensured by the continuous upgrading of the administrative capacity of the BMA. Please refer to section 9 and 11.1.

#### 11.6 Compliance with state aids provisions

The project is in accordance with Article 92(3)(a) of the Treaty of Rome. All actions financed by PHARE will be carried out in line with the rules and procedures of PHARE, ISPA and SAPARD Practical Guide and comply with the state aid agreements.

The final beneficiary (Bulgarian Maritime Administration) is a public body providing public services. The equipment to be procured is aiming at their reinforcement.

### 12. Conditionality and sequencing

The final beneficiary – BMA will guarantee the proper use and maintenance of the vessels, and will make all efforts to retain the trained personnel. The Ministry of Transport will ensure that adequate operational budget is allocated to the BMA for the maintenance and use of the vessels. During the preparation phase of the project the BMA will be the use of the “suspension clause” in order start the call for tender before the signing up of the Financial Memorandum. The BMA has the capacity to fulfill its obligations during the process of preparation of the documents in time.

### **ANNEXES TO PROJECT FICHE**

1. Logframe
2. Detailed implementation chart
3. Contracting and execution of contracts schedule, by quarter, for full duration of project
4. For all projects: reference list of feasibility/pre-feasibility studies, indepth ex ante evaluations or other forms of preparatory work. For all investment projects, the executive summaries of economic and financial appraisals, environmental impact assessments, etc, should be attached
5. Reference list of relevant laws and regulations

## LOGFRAME

<b>Logframe planning matrix for Project Fiche</b>	<b>Programme name and number</b> Phare 2008	
<b>Title:</b> FURTHER IMPROVEMENT OF THE OPERATIONAL CAPACITY OF EXECUTIVE AGENCY "MARITIME ADMINISTRATION" FOR DETECTING AND MINIMIZING THE DANGEROUS CARGO SPILLS ON THE RIVER DANUBE.	<b>Contracting period expires:</b> 30.11.2008	<b>End of execution of contracts period expires:</b> 30.11.2009
<b>Total budget:</b> € 944 000		<b>Phare budget :</b> € 708 000

<b>Overall Objective</b>	<b>Objectively Verifiable Indicators</b>	<b>Sources of Verification</b>
To enforce further the implementation of BMA duties related to pollution prevention and control over the Bulgarian inland waterways (river Danube) in order to comply with the requirements of the proposed Directive on the approximation of the laws of the Member States with regard to the transport of dangerous goods by vessels on inland waterways and the proposed Directive relating to the inland transport of dangerous goods. According to these ongoing proposals the Annexed regulations to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN), should be applicable to all Member States.	<ul style="list-style-type: none"> <li>Increased inspection frequency and better coverage of the Bulgarian part of the Danube River.</li> </ul>	<ul style="list-style-type: none"> <li>Regular reports of the Executive Agency for Exploration and maintenance of the Danube river;</li> <li>Regular report of the Bulgarian Maritime Administration;</li> <li>Danube Commission reports;</li> <li>Eurostat data.</li> </ul>

<b>Project Purpose</b>	<b>Objectively Verifiable Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions</b>
To provide the BMA with appropriate waterborne equipment (specialized vessels) in order to allow the administration to fulfill its obligations under the <i>acquis communautaire</i> and other international instruments such as the Convention on Co-operation for the Protection and Sustainable Use of the River Danube related to environmental protection of the river.	<ul style="list-style-type: none"> <li>Increased number of regular inspections, performed by the regional BMA directorates in Rouse and Lom – (50 % increase in the annual number of environmental inspections);</li> <li>Shorter pollution response time (35 % - by 2010).</li> </ul>	<ul style="list-style-type: none"> <li>Statistical data for the activity of the BMA, published in the Official Bulletin of the BMA;</li> <li>BMA accident reports.</li> </ul>	<ul style="list-style-type: none"> <li>Bulgaria as a full EU member will respect the EU aquis and fulfill all the EU requirements towards carriage of dangerous goods by inland waterways and environment protection;</li> <li>Adequate provision from the State budget;</li> <li>Effective co-operation with other institutions;</li> <li>Continuous improvement of the qualification of BMA staff.</li> </ul>
<b>Results</b>	<b>Objectively Verifiable Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions</b>
<p>The acquisition of specialized vessels will further strengthen the operational capacity of BMA. The results of the project will be:</p> <ol style="list-style-type: none"> <li>Supplied four specialized vessels, incl. spare parts, which will enable the BMA to perform effective environmental inspections, oil sampling collection operations and oil pollution response; before acceptance the vessels and all the rest will be approved by the BMA;</li> <li>Trained designated BMA staff to use the boats and the equipment on board.</li> </ol>	<ul style="list-style-type: none"> <li>Four boats for the total of the requested financing procured according to the technical specifications, delivered and operational by June 2007.</li> </ul>	<ul style="list-style-type: none"> <li>Protocol of acceptance and approval by the BMA;</li> <li>Provisional acceptance certificate;</li> <li>BMA statistics and reports.</li> </ul>	<ul style="list-style-type: none"> <li>Proper use and maintenance of the procured equipment.</li> <li>Tendering and contracting processes for equipment will be completed on time.</li> </ul>
<b>Activities</b>	<b>Means</b>		<b>Assumptions</b>
<p>Under one supply contract the following will be delivered:</p> <ol style="list-style-type: none"> <li>Supply four boats for the total of the requested financing specialized vessels, incl. spare parts, which will enable the BMA to perform effective environmental inspections, oil sampling collection operations and oil pollution response;</li> <li>Provision of training to designated BMA staff of using the boats and the equipment on board.</li> </ol>	1 contract for the supply of equipment		<ul style="list-style-type: none"> <li>Effective co-ordination between the parties involved in the implementation of the planned activities;</li> <li>Sufficient interest by bidders.</li> <li>All processes concerning equipment supply procurement can be completed within project period.</li> </ul>

**ANNEX II**  
**Detailed Implementation Chart**

Project: FURTHER IMPROVEMENT OF THE OPERATIONAL CAPACITY OF EXECUTIVE AGENCY “MARITIME ADMINISTRATION” FOR DETECTING AND MINIMIZING THE DANGEROUS CARGO SPILLS ON THE RIVER DANUBE																								
Components	2007												2008											
	<u>J</u>	<u>F</u>	<u>M</u>	<u>A</u>	<u>M</u>	<u>J</u>	<u>J</u>	<u>A</u>	<u>S</u>	<u>O</u>	<u>N</u>	<u>D</u>	<u>J</u>	<u>F</u>	<u>M</u>	<u>A</u>	<u>M</u>	<u>J</u>	<u>J</u>	<u>A</u>	<u>S</u>	<u>O</u>	<u>N</u>	<u>D</u>
Supply	D/T	T	T	T	T	T	C/I	I	I	I	I													
D/T = Design/Tender preparation    C = Contracting    I = Implementation/works    R = Review/evaluation    T = Tender procedure																								

### ANNEX III

#### Contracting and execution of contracts schedule by quarter (EUR)

<b>Project:</b> FURTHER IMPROVEMENT OF THE OPERATIONAL CAPACITY OF EXECUTIVE AGENCY “MARITIME ADMINISTRATION” FOR DETECTING AND MINIMIZING THE DANGEROUS CARGO SPILLS ON THE RIVER DANUBE						
Components	Cumulative contracting schedule by quarter in MEUR (planned)					
	2007				Total Allocation	
	Q1	Q2	Q3	Q4		
Supply (Phare)			0.708	0.708	0.708	
<b>Total Phare contracting</b>			<b>0.708</b>	<b>0.708</b>	<b>0.708</b>	
Supply – national cofinancing			0.236	0.236	0.236	
Total National Co-financing			<b>0.236</b>	<b>0.236</b>	<b>0.236</b>	
<b>TOTAL CONTRACTING</b>			<b>0.944</b>	<b>0.944</b>	<b>0.944</b>	
Components	Cumulative execution of contracts schedule by quarter in MEUR (planned)					
	2007		I	2008		Total Allocation
	Q3	Q4	Q1	Q2		
Supply (Phare)	0.425	0.637	0.708	0.708	0.708	
<b>Total Phare execution of contracts:</b>	<b>0.425</b>	<b>0.637</b>	<b>0.708</b>	<b>0.708</b>	<b>0.708</b>	
Supply - national co-financing	0.141	0.212	0.236	0.236	0.236	
<b>Total National Co-financing</b>	<b>0.141</b>	<b>0.212</b>	<b>0.236</b>	<b>0.236</b>	<b>0.236</b>	
<b>TOTAL EXECUTION OF CONTRACTS</b>	<b>0.566</b>	<b>0.849</b>	<b>0.944</b>	<b>0.944</b>	<b>0.944</b>	

## **ANNEX IV**

### **REFERENCE LIST OF FEASIBILITY STUDIES AND EXECUTIVE SUMMARY OF THE NEEDS ASSESSMENT FOR THE PROJECT “STRENGTHENING OF THE WATERBORNE TASKS OF THE BULGARIAN MARITIME ADMINISTRATION”**

#### **REFERENCE LIST OF FEASIBILITY STUDIES:**

- Report developed within the twinning project BG.IB/2001-TR01: “Assessment for the renewal of the fleet of the Maritime Administration”, including developed Technical Specifications for procurement

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#### **EXECUTIVE SUMMARY OF THE NEEDS ASSESSMENT FOR THE PROJECT “STRENGTHENING OF THE WATERBORNE TASKS OF THE BULGARIAN MARITIME ADMINISTRATION”**

A detailed needs assessment for the renewal of the fleet of the Bulgarian Maritime Administration has been performed within the Twinning Project BG-01-TR-01 “Maritime Safety Institution Building”. The Executive summary of the final report of the feasibility study is given below. The full Report, including the Technical Specifications for procurement is attached

#### **EXECUTIVE SUMMARY**

The additional activity, within the Twinning project on Maritime Safety Institution Building, concerns the assessment of the needs for renewal of the fleet of the Maritime Administration as well as to investigate the possibilities to acquire funding for procurement and sustainable use of the new fleet.

The fleet renewal assessment covers both the seaside fleet as well as the river fleet. Hence it addresses the overall need for waterborne equipment needed for the Maritime Administration to carry out its obligations stated in its Statutory Regulation.

With respect to the waterborne tasks of the Administration, many responsibilities do already exist, since they stem from Bulgaria’s adherence to international conventions in this field. However, the implementation of the EU-Acquis will increase the number and certainly the intensity of some of the tasks to be performed, in order to align their performance with common practice in other EU-Member States. The characteristics of the new tasks will request more involvement of the Administration in chains of inspections executed by other authorities or organisations.

In particular in the field of the Administration’s responsibilities concerning the response to calamities in Bulgarian waters with an impact on:

- human life (search-and rescue) and/or the
- marine environment (protection of sensitive marine areas from environmental pollution such as illegal discharges or oil spills),

the equipment needs to be renewed so as to provide a better level of readiness and quality of the response in case of such calamities.

The outcome of the fleet renewal assessment can be summarized as follows:

1 ***Ensuring safety of navigation on the Bulgarian part of the Danube river and environmental inspections on the river.***

With respect to the waterborne tasks of the Maritime Administration on the Danube, the present eight small cutters are not suitable to provide a routine patrol regime on the Danube. Neither are they able to provide for an adequate response in case of emergencies.

Procurement is advised of two multi-purpose patrol boats for structural patrol, rescue and environmental response duties. Flexibility in the operating of these two boats is ensured because of their accommodation and their operating regime, which should be based on an adjusted working-time schedule of week-on/week-off).

Because the Danube regions of Lom and Rousse stretch over 200km and 270km respectively, incidents requiring the assistance of the Maritime Administration can happen while the regular patrol boat is not within immediate reach of the scene. To this end, the procurement of two small boats for various rescue or environmental immediate response purposes is advised.

With the procurement of these two patrol boats and two response boats, it will be possible to conduct regular inspection duties and emergency response actions, in accordance the Administration's obligations on the Danube, and at a level corresponding to that of other EU-Member States having a similar inland navigation modality and associated responsibilities.

Paragraph 4 and 4.4 deal in detail with this task of the Administration and the suggestions for fleet renewal.

2 ***Environmental pollution monitoring at sea***

With respect to the patrols on the sea-side for environmental pollution, the Administration has procured a RIB-based patrol boat, also able to take oil samples from spills, under the hardware budget related to the twinning project. The report of activity-12 (March 2003) signaled that such boat should be available in both sea regions. The conditions, under which this recommendation has been made at that time, have not changed. This means that the procurement of a similar boat to be used in the Burgas region has since then become high priority.

In view of the desired combining of waterborne tasks into a multi-functional fleet on the medium term, it might be possible to integrate this task into the tasks of a multi-purpose patrol/surveillance/SAR-vessel. This means that as long as the vessel operates under the management of the Maritime Administration proper priorities can be set for the actual use of this vessel, however, SAR-response should always have the highest priority whereas still the vessel shall be able to respond to a pollution incident within the limits mentioned in the national contingency plan.

Even within the same organization it cannot be guaranteed that both priorities can be met because of the coastal stretch of the Burgas region.

Therefore, the procurement for an inspection RIB for environmental pollution monitoring in the region, with similar characteristics to the one procured in Varna last year, is advised to be procured for Burgas region.

3 ***Environmental pollution prevention at sea***

In addition to the monitoring function, the Maritime Administration shall respond to the best of their abilities to contain a spill and so to prevent it from spreading, and so to adhere to paragraph 3.3 of part VIII of the National Contingency Plan (NCP) on the combat of oil spills in the Black Sea. For larger spills resources from other organizations will be called in line with the responsibilities drawn up in this plan.

This plan is focuses on the measures to be taken in order to preserve the marine environment, in particular areas mentioned in the NCP as “*national priority, e.g.:*”

- *resorts and amenity areas;*
- *areas for fishing and for shellfish;*
- *ports;*
- *natural reserves and protected areas;*
- *other ecological sensitive areas.”*

To meet this requirement, this task can be combined with other structural tasks in the Varna and Burgas region. A multi-functional and multi-purpose vessel <sup>2</sup> in each region would be able to perform all combined tasks (environmental and coastal inspections, OPRC and SAR response) whereas the proper organizational structure should ensure that proper priorities are kept.

4

#### ***Observation regarding the multi-purpose vessels***

In view of the multi-purpose aspect of the tasks on the Danube and the sea regions, the procurement is advised of two RIB-based vessels for regular patrols and response assistance on the Danube. For similar purposes as well as for SAR and OPRC-response, the procurement of two RIB-based vessels is advised for the sea-regions.

The regular patrols on the Danube can be organized and performed more efficiently when using a vessel with accommodation.

For the sea-regions SAR-operations can take a long time and intensive coastal inspection can also take more than one day. For that reason board accommodation is also advised for the two vessels to serve these regions.

In fact, the characteristics of the boats are that much similar that it is advised to procure four RIB-based vessels of similar type and layout.

This would optimize the maintenance requirements for the engines and other critical mechanical parts. It would also benefit the management of spare-parts and stock for the essential parts and consumables.

It would even be possible in case of major maintenance to temporarily put a vessel from another region into service so to ensure that critical response times can be continued to be met, such depending on the actual period that the original vessel would be out-of-service.

9

#### ***Remark on the fragmented institutional setting***

a) In view of the establishment of the National Company Ports, governing as “land-lord” the Bulgarian ports (both sea ports and river ports) discussions are still going on about the possible transfer of certain port related and port basin related tasks from the Maritime Administration to this national company. However, such can only be the case as of December 2004 but no decision has been reached as yet.

b) Also on the Danube River the distribution of tasks between the Maritime Administration and the Agency for Maintenance of the Danube (in Rousse) is one that could in a later stage be helpful to streamlining the processes by which the Bulgarian State fulfils its responsibility for enforcement and control on the Danube.

c) A third issue is the worldwide practice of co-operation in the -outer- SAR-area between government institutions (involved in Search-and-Rescue) and private sector enterprises involved in sea-going service operations such as safeguarding of and supplying to offshore installations and/or salvage.

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<sup>2</sup> see hereafter in recommendation 6 and 8.

The issue of fragmentation within the Bulgarian public institutions has been subject of discussion earlier within this twinning project, and again with officials within this assessment. For the moment, such fragmentation is accepted as a fact, however, for the time being. The era of optimisation, for instance by integration or combining of functions, has yet to come.

Concluding, this assessment only notices this possibility for institutional and/or organisation optimisation and de-fragmentation but will not presume any conclusions and therefore will base its recommendations on the present institutional setting and situation.

This report contains some recommendations on which, as soon as possible, policy decisions should be made by the Maritime Administration, and if needed in coherence with the concerned Ministries, such in order not to hinder the progress of the procurement of the equipment.

\* \* \*

The vessels that is advised to be procured under the multi-annual Phare program, is presented in the table below.

Vessel description	Stations	Quantity
RIB-based, high durable fast workboat craft for environmental inspection (under the coast), oil sampling collection	Rousse Lom	4

**Technical specifications for 10 – 15 m  
RIB-based, high durable OPRC Boat.**

**PARTICULARS**

Construction	Glass reinforced plastic hull, deck and wheelhouse for river operation.
Classification	The hull, deck and superstructure should be designed and built under survey to plans approved by Classification Register of Shipping in accordance with the Special Service Craft Rules. A Register Hull Construction Certificate should be issued on completion.
Length overall	10-15 m
Beam overall	2.60-3.20 m
Draught at full load condition	0.5-1 m
Machinery	2 x commercial available turbo-charged and intercooled marine diesel engines each coupled via marine gearboxes to a water jet propulsion system 200 – 300 hp each.
Propulsion	2 x commercial available water jet propulsion.
Displacement at full load condition	2- 4 tonnes
Fuel capacity	300 - 500 litres
Crew	4-8 crew + passenger

Max. speed - full load condition	30-40 knots at Max. Continuous Rating
Cruising speed - full load condition	20-30 knots
Range	100 - 200 nm approximately.
Equipment	All equipment installed on board should be in compliance with the requirements laid down in the Council Directive 96/98/EC of 20 December 1996, on marine equipment, as amended.

## **1. GENERAL**

### **1.1 YARD CAPABILITY**

It is essential for the Yard to have large experience in building high quality, working Glass Reinforced Plastic (GRP) craft and Rigid Inflatable Boat (RIB).

### **1.2 QUALITY MANAGEMENT SYSTEM**

The Quality Management System ISO 9001 has been approved.

### **1.3 MATERIALS**

1.3.1 General	All materials used in the construction of the hull, machinery, hull fittings, deck auxiliaries, equipment and the various systems should be selected from the best commercial grades and standards. Wherever possible, materials and components should comply with the established international and national standards.
1.3.2 Stainless Steel	Components should be made from stainless steel and should have a material specification unless otherwise stated. All boat builder-installed fastenings should be made from stainless steel A4 standard.
1.3.3 Glass Reinforced	Glass Reinforced Plastic materials used in the construction of the Plastic vessel should comply with the established international and national standards.

### **1.4 CLASSIFICATION**

The vessel hull, deck and Wheelhouse should be designed and moulded in accordance with the Classification Register Special Service Craft Rules for vessels of this type.

### **1.5 WORKING PRACTICES**

1.5.1 General	All notices, tally plates, labels, name plates and instruction plates should be written in English /optional – Bulgarian/.
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All instruments should be in metric calibration and the temperature measurement should be in Celsius degrees.

#### 1.5.2 Galvanizing

All iron and steelwork should be hot dip galvanized, the galvanizing should be carefully and smoothly executed and not cooled in water. Exceptions may be made to the galvanized ends, where iron and steel fittings require machining to standard limits.

#### 1.5.3 Sealants & Stopping

Sealants and stopping should be made up of an approved composition.

#### 1.5.4 Corrosion Prevention

Particular care should be taken in the design of this craft to avoid conditions leading to galvanic corrosion of dissimilar metals. Protection from galvanic corrosion should be obtained by insulating electrically incompatible materials.

#### 1.5.5 Tank Testing

All tanks should be pressure tested.

## **2. CONSTRUCTION**

### **2.1 HULL CONSTRUCTION**

#### 2.1.1 Gel Coat

The hull should be moulded out of isophthalic polyester pigmented gel coat.

#### 2.1.2 Hull Laminate

The hull should be one piece moulding of GRP (Glass Reinforced Plastic), manufactured from a laminated structure of chopped strand mat and woven roving or stitched reinforcements, impregnated throughout with polyester resin. The hull laminate should be a single skin construction with a fire retardant pigmented gel coat above the waterline.

### **2.2 DECK CONSTRUCTION**

#### 2.2.1 Gel Coat

The deck should be moulded out of isophthalic polyester pigmented gel coat.

#### 2.2.2 Deck laminate

The deck should be a composite moulding, manufactured from a complex of chopped strand mat and woven roving, or stitched reinforcements, impregnated throughout with polyester resin. Flat areas of the deck should be in a sandwich construction.

#### 2.2.3 Deck Structure

The deck beams should be constructed from a polyethylene or PVC foam core, overlaminated with GRP. The beams should be positioned and aligned with the hull frames.

#### 2.2.4 Reinforcements

Marine grade plywood pads should be moulded into the deck structure in a manner that deck fittings, superstructure attachment and engine removal hatches provide extra stiffness.

2.2.5 Openings Moulded apertures should be made in the deck structure in the way of hatches, fillers etc.

## **2.3 SUPERSTRUCTURE CONSTRUCTION**

2.3.1 Gel Coat The superstructure should be moulded out of isophthalic polyester pigmented gel coat.

2.3.2 Structure The superstructure have to be one piece single skin moulding, manufactured from a complex of chopped strand and woven roving, or stitched reinforcements, impregnated throughout with polyester resin.

2.3.3 Stiffening The strength of the superstructure should be augmented by the use of transverse frames and longitudinal stiffeners.

2.3.4 Superstructure to Deck Joint The deck joint should be effected by a flange around the perimeter of the superstructure, bonded with a high grade epoxy adhesive system to the deck. The joint should be properly sealed and fastened to the deck.

## **2.4 INTEGRAL TANKS**

Two centreline integral GRP fuel tanks should be fitted amidships with aluminium alloy access covers. Each tank should have a capacity of 150 – 250 litres, and should be air tested to 0.2 bar minimum.

## **3. MASHINARY**

### **3.1 GENERAL**

The machinery and propulsion package should consist of an installation of two commercially available turbo-charged and intercooled marine diesel engines, each coupled via marine gearboxes to a water jet propulsion system.

### **3.2 MAIN PROPULSION**

3.2.1 Main engines	2
3.2.2 Gearbox	1 per engine Type: close coupled reverse/reduction marine gearbox.
3.2.3 Alternators	2 Type: 12v DC/80amp maximum output; fitted on each engine
3.2.4 Engine Mountings	4 per engine/ gearbox unit Type: resilient
3.2.5 Sump Pumps	Manual sump pumps should be provided for removal of lubricating oil from the engines and gearboxes.

### **3.3 MACHINERY CONTROLS AND MONITORING**

- 3.3.1 General Levers with push-pull cable operation controlling engine speed, and forward/back flushing selection for each gearbox should be arranged for remote operation in the wheelhouse. Instruments and gauges required for the normal operation of the main engines should be mounted in the console in the wheelhouse.
- 3.3.2 Throttle Control 1  
Type: twin lever control
- 3.3.3 Gearbox Control 2  
Type: single lever control
- 3.3.4 Engine Starting Direct electric starting through 12v DC starter motors.
- 3.3.5 Starting & Stopping of Main Engines Each main engine should be started and stopped electrically as well as by deadmans switches from the helm console.
- 3.3.6 Instrumentation At least the following gauges are included for each engine, and should be mounted on the instrument panel:  
1. Engine tachometers  
2. Engine temperature (cooling water) gauges  
3. Engine oil pressure gauges  
4. Gearbox oil pressure gauges  
  
All instruments should be illuminated
- 3.3.7 Engine Alarms Audible signal/visual light  
The following alarms should be incorporated in the engine panel:  
CW high temperature, LO low pressure, FO drain separator (water level), Sea Water flow, CW level.

### **3.4 WATERJETS**

- 3.4.1 General Engine power has to be transmitted via the close-coupled gearbox and cardan shaft to the drive flange of the water jet
- 3.4.2 Water jet Units 2  
Type: marine water jet propulsion systems complete with steering and reverse control components.
- 3.4.3 Reverse Bucket Control 1  
Type: twin lever control with cable actuation to hydraulic control valve for operation of reverse buckets.

### **3.5 FUEL SYSTEM**

3.5.1	General	The system should be arranged for each engine to draw and return fuel from its respective tank.
3.5.2	Fuel Filler	2 Type: Enots, or similar type; recessed into side of wheelhouse with provision for securing using padlocks.
3.5.3	Tank Vents	2 per tank Type: Swan neck fitted with anti-flash gauze, with inline check valve.
3.5.4	Filters / Water Separators	2 Type: simplex; one for each main engine
3.5.5	Fuel Supply Shut Off Valves	2 Type: Ball Valve; for emergency fuel shut off to each engine, activated from the wheelhouse sole hatch.
3.5.6	Fuel Tank Contents Gauges	2 Type: Fuel tank contents senders should be fitted to each fuel tank, with remote gauges at the helmsman's console.

### **3.6 MACHINERY COOLING SYSTEM**

3.6.1	General	Each main engine should have its own secondary cooling circuit. Seawater is passing through the heat exchanger via engine mounted pumps before being injected into the exhaust system. All pipe work should be of flexible rubber.
3.6.2	Sea Inlet	2 Type: stainless steel scoops; each one with rodding fitting and ball valve.

### **3.7 EXHAUST SYSTEM**

Each engine should exhaust independently through the transom. The exhaust system should be specially designed to allow the sea water used for engine cooling to be injected into the exhaust gas stream, and the resultant mixture of cooled gases and sea water to be conveyed to the sea through stainless steel transom fittings with non-return flaps.

### **3.8 STEERING GEAR**

3.8.1	General	Steering on the boat should be provided by a manual hydraulic system.
3.8.2	Steering Wheel	1
3.8.3	Hydraulic System	Proportional type control should be provided to the water jets.

3.8.4	Helm Indicator	1 – fitted at helm console.
3.8.5	Emergency Steering	A manual steering system with by-pass valve should be provided, to be used in case of complete hydraulic failure.
3.8.6	Autopilot pump	1

## **4. SYSTEMS**

### **4.1 GENERAL**

4.1.1	Piping	Piping should be of non-corrosive material and fitted with ball valves where appropriate.
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### **4.2 FRESH WATER SYSTEM**

4.2.1	Fresh Water Tank	40 - 50 litre rigid plastic tank secured in the tank space.
4.2.2	Tank Filler	Aluminium alloy deck filler recessed into front of Wheelhouse to fill tank via reinforced plastic filler hose.
4.2.3	Fresh Water Tap	1
4.2.4	Windscreen Wash tank	1 Type: 10-15 litres
4.2.5	Windscreen Wash pump	2 Type: controlled from instrument console.

### **4.3 BILGE SYSTEM**

4.3.1	General	The well deck on this craft should be self draining via two skin fittings in the hull above waterline, each one with check valve.
4.3.2	Hand Bilge Pump	1 for each compartment.
4.3.3	Electric Bilge Pump	1 Type: Machinery space type; manually switched on/off.
4.3.4	Bilge Alarm	1 for each compartment Type: 12v DC Float Switch; fitted in each compartment to indicate high water level in the bilge. Visual and audible alarm fitted on helm console.

### **4.4 VENTILATION SYSTEM**

4.4.1	General	All ventilation openings should be designed to prevent the ingress of rain and spray. Machinery space air inlets and outlets should be provided with cable operated fire flaps.
4.4.2	Machinery Space	

Air Supply	Combustion and ventilation air should be drawn from intake louvers in the aft port face of the wheelhouse.
4.4.3 Machinery Space Air Extraction	2 Type: stainless steel mushroom vent with 12v DC axial fan.
4.4.4 Wheelhouse	2 Wheelhouses Type: Plastic dorade ventilation box.
4.4.5 W.C ventilation	Toilet compartment should be vented from exhaust fan fitted in the W.C. side.
4.4.6 Battery Box	Each battery box should be naturally ventilated and ducted to atmosphere.

## **4.5 CATHODIC PROTECTION AND EARTHING**

4.5.1 Bonding System	All underwater metallic skin fittings should be electrically connected into a continuous bonding system and connected to the anodes.
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## **5. ELECTRICAL SYSTEM**

### **5.1 GENERAL**

5.1.1 General	The electrical system should be a single pole protected, two wires, and insulated return system throughout. Two banks of batteries should be charged by main engine driven alternators, or from shore supply via a rectifier/battery charging unit installed in the vessel.
5.1.2 Cable	The supply to all equipment should be in cable and/or flexible cord, insulated in fire retardant sheathing. All wiring should be carried in trunk and/or conduit. Trunk and conduit should be secured in an approved manner, using junction boxes and accessories for all internal circuits in watertight compartments. Where wiring penetrates bulkheads or deck, standard glands should be used.
5.1.3 Engine Wiring	All wiring on main engines should be in proprietary cable. All wiring on engines should be adequately protected from mechanical damage and to be substantially clipped. The wiring should be run to avoid contact or proximity to high temperature surfaces of the engine.
5.1.4 Radio Interference Screening	The main engine driven alternators should be fitted with screened radio interference filter units. Electric motors, control and generating equipment should be suppressed and screened where appropriate. Cable may be used for bonding and earth, where copper strip is impracticable.

### **5.2 DC SYSTEM**

5.2.1	General	A 12 volt fully insulated two wire system should be fitted and protected in the positive pole. All equipment control switches should be readily accessible.
5.2.2	Distribution	Each bank of batteries should be isolated by a double-pole isolating switch. A single pole switch should be provided for cross connection for engine starting in emergency and coupling of the batteries. These isolating switches should be provided to supply the main distribution board and thence to the electronics distribution board switchboard and individual circuits.
5.2.3	Batteries (Main)	4 Type: 12v 100-105 Ah Maintenance free They should be fitted in two banks of two batteries sited in a ventilated battery box in the Tank Space. Batteries should be arranged in two banks and connected in parallel to provide 12v DC 200-300Ah.
5.2.4	Batteries (Emergency)	1 Type: 12v 40 Ah Maintenance Free; located under the console in a ventilated battery box.
5.2.5	Circuit Breakers	Dependant upon ancillaries specified Type: thermal single pole switch/breakers, positioned on various distribution boards.
5.2.6	Isolation Switches	2 Type: double pole battery isolation switches; operated remotely from the wheelhouse console.
5.2.7	Battery Parallel Switch	1 Type: Key operated, designed to parallel both sets of batteries for emergency starting.

### 5.3 LIGHTING

5.3.1	Navigation Lights	The following navigation lights should be fitted as required by SOLAS . 1. Masthead 2. Stern 3. Port 4. Starboard  Control switches for these lights to be fitted in the wheelhouse control console.
5.3.2	Flood Light	1 Type: 12v DC Marine exterior; positioned on wheelhouse roof to illuminate aft decks.
5.3.3	Search Light	1

Type: Marine heavy-duty remote controlled searchlight.

## **5.4 SOCKETS**

5.4.1 12v DC 2  
Type: 2-pin socket.

5.4.2 12v DC 1  
Type: 'Cigarette Lighter' accessory socket.

## **5.5 NAVIGATION AIDS**

5.5.1 Radar 1

5.5.2 Echo Sounder 1

5.5.3 Steering  
Compass 1  
magnetic compass.

5.5.4 Siren 1

5.5.5 GPS 1  
Antenna  
Interfaced with Chart plotter

5.5.6 VHF/DF 1

5.5.7 Autopilot 1  
Type: course computer incorporating a fluxgate compass.

## **5.6 COMMUNICATION EQUIPMENT**

5.6.1 Marine  
VHF Radio 1  
Type: Marine VHF Radio with integral DSC

5.6.2 VHF/DSC Radio 1

5.6.3 Portable VHF 1  
Type: waterproof radio; stowed on charger adjacent to wheelhouse door.

## **6. INTERIOR**

### **6.1 GENERAL**

The layout of the vessel should comply with the general arrangement drawings. All accommodation areas should be without sharp corners for prevention of the crew and the passengers from injuries in extreme sea conditions. Suitable and adequate hand rails and hand holds should be provided for safe passage throughout the vessel whilst at sea.

### **6.2 INSULATION**

- |                       |  |
|-----------------------|--|
| 6.2.1 Machinery Space | The forward bulkhead and forward deck head should be acoustically insulated to reduce noise and vibration. The Machinery Space access hatches should also be insulated.    |
| 6.2.2 Tank Space      | The forward bulkhead should be covered with acoustic insulation.   |
| 6.2.3 Air Vents       | The internal surfaces of the Machinery Space ventilation intake and exhaust ducts should be acoustically insulated using 'damp mat' or similar noise attenuating material. |

### **6.3 FOREPEAK**

- |                          |  |
|--------------------------|--|
| 6.3.1 General            | There should be a watertight compartment extending from the bow to the forepeak collision bulkhead.    |
| 6.3.2 Access to Forepeak | 1  |
| 6.3.3 Cable Locker       | The lower part of the forepeak should be arranged to form a cable locker by fitment of a GRP grillage. |

### **6.4 WHEELHOUSE**

- |                    |   |
|--------------------|---|
| 6.4.1 General      | The wheelhouse should have the seating for the 2 crew and 6 passenger, machinery instruments and controls and electronic navigation equipment. Windows and windscreen provide all-round vision. |
| 6.4.2 Helm Console | There should be a console to incorporate all necessary engine and water jet controls, instruments and certain navigation equipment within the reach of the helmsman.                            |
| 6.4.3 Crew Seats   | 2 + 6<br>Type: High backed horse seats.   |

### **6.5 TANK SPACE**

- |               |   |
|---------------|---|
| 6.5.1 General | The Tank Space should be formed by the aft bulkhead of the Forward Cabin, the Machinery Space forward bulkhead, and the full width of the vessel. This compartment should contain the fuel tanks and engine start batteries. It should be accessible through a hinged hatch in the Wheelhouse sole. |
| 6.5.2 Stowage | A stowage bin with a securable lid should be provided for tools and machinery spares.   |

### **6.6 MACHINERY SPACE**

- |               |  |
|---------------|--|
| 6.6.1 General | The Machinery Space should be formed by the aft bulkhead of the Tank Space and the transom. The Machinery Space accommodates the propulsion engines, water jets, generator and other items of machinery and equipment. |
| 6.6.2 Hatches | 2  |

Type: GRP or aluminium alloy watertight hatch; hinged from the side, each one supported by two gas struts. Each hatch should be secured using stainless steel locking clips.

## **7. EXTERIOR**

### **7.1 EXTERNAL DOORS, HATCHES AND WINDOWS**

The cabin should be fitted with two forward screens, two windows on port side, two on the starboard. One window should be provided also on the door. Two overhead view-ports should be fitted in the wheelhouse roof. All windows and view-ports should be fixed in aluminium alloy frames.

### **7.2 DECK EQUIPMENT**

#### **7.2.1 Drive Protection/ Rescue Platform**

1  
Type: aluminium alloy tubular fabrication; fitted to the transom and designed to protect the water jets from light impact damage when manoeuvring and to allow for a casualty to be recovered onto the aft deck.

#### **7.2.2 Lifting Points**

1  
Type: Fabricated stainless steel lift points.  
One should be fitted forward and two aft to allow the lifting of the vessel with crane.

#### **7.2.3 Man-overboard Recovery Davit**

1  
Type: Fabricated stainless steel davit

### **7.3 LIFE SAVING**

#### **7.3.1 Lifejackets**

10  
Type: adult, SOLAS approved.

#### **7.3.2 Life raft**

1  
Type: 6-10 man flat-pack life raft, SOLAS B pack; stowed on the port sternrail, secured with a hydrostatic release.

#### **7.3.3 Lifebuoy**

2  
Type: 30" diameter buoy, SOLAS approved circular; located in holders fitted on the starboard stern-rail. One of them should be fitted with self activating light and the other with 18m lifeline.

#### **7.3.4 Lifelines**

2  
Type: Black polyester webbing; secured to 'U' bolts and run along wheelhouse side port and starboard.

#### **7.3.5 Safety Lines**

4

Type: orange polyester webbing with stainless steel carbine hooks. Unequal length legs for movement along collar and securing to foredeck pad eye.

7.3.6 Man-overboard  
Recovery Pole

1

Type: Stowed on Wheelhouse side.

## 7.4 FENDERING

7.4.1 Inflatable Collar

The collar should be constructed from a neoprene/hypalon reinforced nylon composite material, of approximate diameter 500-600 mm. The tube should be divided into minimum 5 separate compartments. Each of them should be individually inflated/deflated by recessed type valves; each compartment should also be fitted with pressure relief valves. Each compartment should be pressure tested prior to the fitting of the collar to the hull doublers at bow and stern sections. The bow section of the collar should be reinforced with further layers of neoprene material. The collar should be fitted with non-slip patches on the top surface in way of the Wheelhouse.

7.4.2 Bow Fairlead

1

Type: Heavy Duty cast aluminium fairlead; fixed to collar at the bow.

## 7.5 GUARDRAILS

7.5.1 Foredeck

1

7.5.2 Grab Rail

1

Type: stainless steel, 32mm tube; fitted to port and starboard on cabin roof

7.5.3 Hand Rail

1

Type: stainless steel, 32mm tube; fitted to port and starboard on aft face of wheelhouse

7.5.4 Stern rail

1

Type: stainless steel, 32mm tube; port and starboard fitted on the aft deck. Three PVC coated wire pennants with pelican hooks should be fitted to close centreline walkway.

## 7.6 MAST

7.6.1 Mast

1

Type: aluminium alloy fabrication. Mast should be fitted with brackets for the navigation lights, aerial(s) and gaff for flag halyard, blue flashing light and aerials.

7.6.2 Radar Reflector

1

Type: mounted on mast.

## 8. PAINTINGS

## **8.1 EXTERNAL FINISHES**

- |       |             |   |
|-------|-------------|---|
| 8.1.1 | Antifouling | Hull – two coats proprietary antifouling paint. |
| 8.1.2 | Deck        | Non slip deck paint, Awl-grip or similar.       |

## **8.2 INTERNAL FINISHES**

- |       |                      |                                      |
|-------|----------------------|--------------------------------------|
| 8.2.1 | Forepeak             | As moulded                           |
| 8.2.2 | Tank Space           | As moulded                           |
| 8.2.3 | Machinery space      | Intumescent gel coat to all surfaces |
| 8.2.4 | Wheelhouse deck-head | Carpet covered plywood panels        |
| 8.2.5 | Wheelhouse sole      | Non-slip vinyl floor tiles.          |

## **8.3 COLOURS**

Hull	all colours should be advised
Deck	
Superstructure	
Collar	
Internal mouldings	
Seats	
Antifouling Paint	

## **8.4 SIGN WRITING**

- |       |           |   |
|-------|-----------|---|
| 8.4.1 | General   | BMA logo. It should be applied to the wheelhouse.   |
| 8.4.2 | Lifebuoys | Lifebuoys to be marked with vessel's name or number |
| 8.4.3 | Hull      | The vessel's name should be marked on the transom.  |

## **8.5 DRAFT MARKS & LOADLINE**

- |       |                |  |
|-------|----------------|--|
| 8.5.1 | Freeboard Mark | A yellow 25mm high freeboard mark should be port and starboard fitted to hull-side at amidships. |
|-------|----------------|--|

## **9. MISCELLANEOUS**

### **9.1 PORTABLE FIRE FIGHTING EQUIPMENT**

- |       |                             |  |
|-------|-----------------------------|--|
| 9.1.1 | General                     | The following hand extinguishers should be distributed around the vessel |
| 9.1.2 | Portable Hand Extinguishers | 1<br>Type: CO <sub>2</sub> – 2kg..                                       |
|       |                             | 2<br>Type: Dry Powder – 2kg.   |

### 9.1.3 Fire Buckets

2

Plastic fire buckets complete with lanyards

Stowage of the equipment should be in accordance with the 'Safety Plan'.

## 9.2 TOOLS

### 9.2.1 Boat Set

One set of tools for routine on-board maintenance should be supplied with each vessel.

## 9.3 ON-BOARD SPARES

Refer to supplier.

## 9.4 SPARES PACKAGE

Spare parts according the proper maintenance for the hull, instruments, engine and steering should be provided for a period of 5 years. Maintenance should be offered separately from this procurement and is not part of the evaluation of this tender.

## 10. TRIALS

### 10.1 TRIALS PROGRAMME

#### 10.1.1 General

The vessel should be tested through comprehensive trial programme carried out by the building company. The trials should be validated in local waters except stability trial. Wind strength, water and air temperature readings should be recorded.

#### 10.1.2 Boat Performance

In the specified trials as the vessel runs over an approved distance, its speed should be measured in the following conditions:

Machinery @ maximum rating 3 double runs

Machinery @ continuous rating 2 double runs

A continuous extended run of 30min. at maximum rpm and after it a 2 hours at continuous rpm should be put into practice.

During the trials a record of the Engine performance conditions should be kept by the Engine Manufacturer's representative, as well as the Company for confirmation that the machinery and its systems are operating within the maker's tolerances.

#### 10.1.3 Manoeuvring

The turning circles to port and starboard should be timed and estimated, the distance in boat lengths for the craft at continuous engine rating.

#### 10.1.4 Boat Systems

The systems demonstrated and confirmed against a comprehensive check list include the following:  
Navigation, Electronics and communications equipment;  
Electrical;

Bilge pump;  
all compartments, mechanical, electrical and hand pump

10.1.5 Compass Adjusting

Compass should be swung and a deviation card provided.

10.1.6 Noise Levels

Noise level measurements should be taken throughout the craft and recorded.

## 10.2 DRAWINGS AND DATA SUPPLIED

10.2.1 Drawings

3 copies of the following "as-fitted" drawings should be supplied in A3 size paper prints.

1. Specification
2. General Arrangement
3. Steering Arrangement
4. Systems Arrangement and Diagrams
5. Electrical Wiring Diagram
6. Safety Plan

10.2.2 Manuals

2 copies of all equipment and machinery handbooks and manuals should be supplied on the completion of each vessel.

10.2.3 Safety (Training)  
Manual

1 copy of the Safety (Training) Manual should be supplied on the completion of each vessel. The manual should include information on the maintenance for all LSA equipment.

10.2.4 Trials Data

2 copies of all trials data should be supplied on the completion of each vessel.

Training for at least one of crew should be provided by the builder.

## **ANNEX V**

### **REFERENCE LIST OF RELEVANT LAWS AND REGULATIONS**

#### **INTERNATIONAL CONVENTIONS**

1. Convention on the Collection, Depositing and Reception of Waste produced by Rhine and Inland Shipping (September 9 1996)
2. Convention on Cooperation for the Protection and Sustainable use of the Danube River (Danube River Protection Convention)
3. Proposal for a Directive of the European Parliament and of the Council – Relating to the Inland Transport of Dangerous Goods
4. Proposal for a Directive on the Approximation of the Laws of the Member States with regard to the Transport of Dangerous Goods by Vessels on Inland Waterways

#### **NATIONAL INSTRUMENTS**

1. Law on the Maritime Spaces, Inland Waterways and Ports of The Republic of Bulgaria
2. Danube River Oil Pollution Response Emergency Plan
3. Ordinance No. 15 of the Minister of Transport and Communications on the Rules and Conditions for Collecting Ship Generated Waste and Cargo Residues
4. Ordinance No. 53 of the Minister of Transport and Communications on the Security of Ships and Port Facilities
5. Ordinance No. 2 of January 2003 Regarding the Measurement of Vessels, Navigating the Inland Waterways
6. Rules for the Supervision of the Navigation on the Danube River 21.04.1978.