

Request For Information

Expeditionary Survey Boat (ESB)

of the

Royal Netherlands Navy

Request for Information Reference number DIV.15.0024.00

Dated: December 22st, 2015

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1. General

The Ministry of Defence the Netherlands is preparing a tender procedure for the requirement of an Expeditionary Survey Boat (ESB). The purpose of this Request For Information (RFI) is to gather the required supplier - and product information to adequately set up the further tender documents.

1.1 Purpose & set-up of this RFI

The purpose of this RFI is to in-the-end set up an agreement for delivery and maintenance of one (1) ESB. This shall be done through the following steps.

1. This RFI;
2. The responds to this RFI;
3. Evaluation of the responds;

In case the evaluation of the responds as mentioned in step 3, above, is positive, thus the objectives (technical and commercial) as set out by the MoD NL are considered feasible the following steps will follow.

4. Set up tender documents;
5. Selection of suppliers;
6. Set out the RFQ;
7. Receipt of the quotations;
8. Evaluation;
9. Set up the agreement.

1.2 Scope of the project

The following activities and/or products are within the scope of the project:

- procurement including trials of one ESB;
- delivery of 1 ESB that meets the requirements;
- procurement of User documentation and Training;
- procurement of spare parts;
- warranty and maintenance during the Life of Type;

1.3 Replying to this RFI

The MoD NL requests you to answer the questions in this questionnaire as detailed as possible, clearly explained and in the same order as the questions are stated. Any other information you consider to be of importance will be appreciated.

In order to enable careful evaluation of your information, with respect to other answers to this RFI, please refrain from limiting yourself to the use of cross-references to answers to other questions.

The response to the RFI must also clarify which items are standard and already available. For a requirement that exceeds the current functionality of an available item, the additional effort should be priced separately.

Options for the fulfillment of parts of the requirements or any other functionality which are not in the RFI may also be proposed.

1.4 Document structure

This document contains the following chapters:

1. General. This chapter provides an introduction to the RFI.
2. Expeditionary Survey Boat. This chapter describes the scope and the objectives of the Expeditionary Survey Boat.
3. Conceptual User Requirements. This chapter describes the user requirements for the Expeditionary Survey Boat.
4. Questionnaire. This chapter formulates questions related to the Expeditionary Survey Boat in the field of technics, ILS and commercial aspects.
5. Other. This final chapter contains information regarding the planning, contact and information and submission of this RFI.

1.5 RFI deliverables

The response to the Request for Information (RFI) should provide sufficient information to complete the feasibility study. The following items should be included in the response to the RFI:

- detailed answers to all questions;
- a description of a proposed ESB configuration based on the objectives and user requirements in this RFI;
- a possible Integrated Logistic Support (ILS) concept for the Life of Type;
- budgetary prices and time schedules for delivery, installation and maintenance.

The response to the RFI must also state which items are COTS and readily available. When requirements in this RFI surpass the current functionality of an available item, the additional effort necessary to meet the required functionality should be priced separately.

Additional options for the fulfillment of parts of the requirements, or for other requirements than described, may also be proposed.

1.6 Disclaimer

No rights whatsoever can be derived from participating in this RFI. In the case of a further (European) tender procedure all participants shall be provided the same information.

All and any costs related to participation in this RFI will not be reimbursed by the Contracting Authority.

1.7 Confidentiality

All information provided with this RFI – as far as not available on the public domain – shall be considered confidential.

By means of participation with this RFI, the participant agrees not to disclose any information; such information includes, in particular, technical and the confidential aspects of the documents.

1.8 Points of contact

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Defence Materiel Organization	P.O. Box 90822	
Procurement Branch	2509 LV THE HAGUE	
Section Sea Systems	The Netherlands (NL)	E-mail: H.Lok@mindef.nl

1.9 Abbreviations

AQAP	Allied Quality Assurance Publications
ARPA	Automatic Radar Plotting Aid
BOM	Bill Of Materials
COTS	Commercial Of The Shelf
csv	comma-separated values
DLM	Depot Level Maintenance
DMO	Defence Materiel Organization
ECS	Electronic Chart System

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ESB	Expeditionary Survey Boat
FOB	Forward Operating Base
GMDSS	Global Maritime Distress and Safety System
GNSS	Global Navigation Satellite System
HOV	Hydrographic Survey Vessel
IHO	International Hydrographic Organization
ILM	Intermediate Level Maintenance
ILS	Integrated Logistic Support
ISO	International Organization for Standardization
LCU	Landing Craft Utility
LCVP	Landing Craft Vehicle Personnel
LED	Light Emitting Diode
LOT	Life Of Type
LPD	Landing Platform Dock
MBES	Multi Beam Echo Sounder
MoD	Ministry of Defence
MTBF	Mean Time Between Failures
MRU	Motion Reference System
MTTR	Mean Time To Repair
MVP	Moving Vessel Profiler
NATO	North Atlantic Treaty Organization
NL	Netherlands
nm	Nautical Miles
MVP	Moving Vessel Profiler
OLM	Organic Level Maintenance
POR	Program Of Requirements
Q&A	Questions and Answers
REA	Rapid Environmental Assessment
RFI	Request For Information
RFQ	Request For Quotation
RNLN	Royal Netherlands Navy
RSPL	Recommended Spare Parts List

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SBES Single Beam Echo Sounder

SSS Side Scan Sonar

2. Expeditionary Survey Boat (ESB)

This chapter provides the scope and the objectives of the Expeditionary Survey Boat (ESB).

2.1 Scope

The ESB is a vessel intended for hydrographic surveys, capable to be used in a military environment. In the military role it will be used for environmental reconnaissance of unknown (hostile) waters, this is called Rapid Environmental Assessment (REA). The intended complement is four (4) persons. The ESB will be used as:

- REA survey platform during military maritime expeditionary operations;
- Self-supporting platform for Hydrographic survey operations on the Netherlands Continental Shelf and in the Caribbean parts of the Netherlands Kingdom.

2.2 Objectives of the Expeditionary Survey Boat (ESB)

- 1) Survey platform for Rapid Environmental Surveys; The primary purpose of the ESB is conducting hydrographic surveys as part of a Rapid Environmental Assessment (REA). In this role the ESB collects environmental data in support of military operations. The REA operations are intended to fill in gaps in the knowledge of the operating theatre, this knowledge supports decision making in military operations and provides an advantage upon the opponent. To make the ESB suitable for use under military conditions additional military requirements apply.
- 2) Civil Hydrographic Survey; The ESB is also intended to conduct civil Hydrographic surveys. These will be merely surveys in confined and shallow water. The assignment for Hydrographic work is mostly complementary to the work of the two RNLN Hydrographic Survey Ships (HOV). For the civil tasks IHO survey standards apply.

2.3 Mission profile of the Expeditionary Survey Boat

The ESB is intended to be manned a complement of four (4), two hydrographic officers and two operators; an able seaman and technician. The ESB is intended to be able staying at sea independently for a maximum of four days.

The transit to the operational area shall be 100 nm maximal. For effective use of survey time the ESB must be able to sail at high speed during transit.

The ESB must be a versatile platform easy to transport, therefore it must be capable to be hoisted in LPD davits or grounded on the dock floor of a LPD, or deck of another large vessel. In the operation area the ESB must be capable to be grounded on a (sandy) beach.

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Some examples of ESB operations are:

- The ESB is sent to an operation area together with a LCU or LCVP. The operation area is on a distance of 100 nm of the mother ship. In the operations area, a FOB is setup from which independent REA operations are conducted by the ESB.
- The ESB conducts Hydrographic operations on the Netherlands Caribbean and makes independent transits between the Caribbean isles.
- The ESB transits from Den Helder to the Province of Zeeland and conducts survey operations on the shoals of Zeeland.

3. Proposed user requirements

This chapter describes the proposed user requirements for the ESB and these will be the baseline for the functional and technical requirements as part of a possible RFQ.

Please be aware that these conceptual user requirements are still subject to change depending on the outcome of this RFI.

The stated user requirements are the general requirements for the intended use, the complete list of requirements will be stated in the POR.

- [1] The ESB dimensions shall be within the following maximum values including payload:
 - LOA: 15.7 m;
 - Width: 4.27 m;
 - Draft: 1.30 m;
 - Height total: 4.18 m;
 - Weight total 18 metric tons.
- [2] The ESB will have an endurance of maximal 4 days at sea.
- [3] The ESB will have accommodation for a complement of 4.
- [4] The ESB will have a standard cruise speed of maximum 6 knots for survey work and a transit speed of minimal 20 knots.
- [5] The ESB will be equipped with navigation equipment: lights, ECS, ARPA, GMDSS, Kompas.
- [6] The ESB will be equipped with hydrographic equipment: GNSS, MRU, MBES, SBES, SSS, MVP, Tide gauge.
- [7] The ESB will be partially protected by level 1 ballistic protection for personnel and propulsion system.
- [8] The ESB will be equipped with deck mounted light weapons for self-protection (GFE).

4. Questionnaire

4.1 Introduction

Please answer all questions in this section as comprehensively as possible and in the same sequence as the questions are stated. All other information you consider to be of importance must be included.

Please provide as much information as possible

4.2 General

1. Do you think it is possible to build an ESB within the required physical restraints, that will have the required performance and fits to the operational mission profile? Please elaborate.
2. If such ESB is not feasible which of the constraint are the most limiting for the required performance?
3. Do you have specific experience with the design and build of hydrographical survey boats? Please elaborate.
4. Do you have specific experience with the integration of hydrographical survey equipment into a working system? Please elaborate.
5. On a yearly basis, what will be the downtime of the ESB to perform maintenance in the recommended maintenance schedule? Pleas elaborate.
6. What spare package would you recommend for a mission with a duration of three (3) months?
7. As the NL MOD operates throughout the world and system availability is very important, how would you recommend to set up maintenance?
8. What is the LOT for the proposed system and what are the expected costs during the LOT? Please specify the costs (if any) during the LOT in detail showing the costs for regular maintenance parts, labor etc.

4.3 Technical

1. Please describe if you are capable to deliver:
 - a. the complete ESB including platform and hydrographical survey system integration or;
 - b. just the ESB or subsystems of the ESB or;
 - c. only components or;
 - d. only integration.

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2. What kind of propulsion do you recommend for this kind of vessel? Take in consideration that the vessel can sail in shallow waters with organic pollution (seaweed), the limited height of the vessel, the maneuverability at low speeds, damage sensibility at hoisting or docking etc.
3. What kind of fendering do you recommend for this kind of vessel?
4. What kind of construction material do you recommend for hull and superstructure?
5. It should be able to dock the vessel on a dock floor without use other means or docking materials. What kind of solutions do you recommend?
6. It should be possible to hoist the fully loaded vessel with a two points davit lifting appliance on for instants a LPD. What kind of measures do you recommend?
7. Can you give feasible and realistic maximum noise values in dB(A) that we can require for the different compartments in the vessel at cruise speed and at maximum speed?
8. What kind of measures do you recommend for noise reduction, especially in the manned rooms?
9. Can you give some considerations and measures to avoid that bubbles under the hull can give disturbance to the hydrographic sensors? Please elaborate.
10. The vessel should have a minimum endurance of 10 hours at 20 knots and 60 hours at 6 knots; do you think this is realistic in relation to the maximum weight of the vessel, taking into account a minimum of 15% fuel reserve? Please elaborate.
11. Please deliver a draft general arrangement of the vessel?
12. The vessel should be built under Class requirements, which Class organization do you recommend for this kind of vessel and what do you recommend for notation? Please elaborate.

4.4 Integrated Logistic Support

1. Describe a possible maintenance concept for the total Life Cycle of the ESB including:
 - which maintenance levels require resources from the manufacturer;
 - the logistic consequences for the total Life Cycle;
 - the inspection and maintenance intervals;
 - on-site support and maintenance;
 - information regarding replacement on component, module or other levels.
 2. What kind of maintenance would you advise in operational areas? Please elaborate.
 3. Is your company familiar with maintenance support in operational areas? Please elaborate.
 4. Is your company able and willing to guarantee a complete working system, delivery of spare parts and maintenance for the Life Of Type? Please elaborate.
-

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5. Do you have Mean Time Between Failures (MTBF) and Mean Time To Repair (MTTR) data and/or calculations available? Specify for critical components.
6. Training:
 - Is your company capable of instructing NL MoD personnel?
 - Is your company capable to give instruction in the Dutch or English language?
 - Are you able to give instruction in the Netherlands?
 - Which qualifications do you expect of personnel to be trained?
 - What kind of training do you propose and what will be the duration?
7. Which documentation for other similar systems for armed forces did you prepare? Please give references.
8. Please advise about the documentation usually provided with these systems:
 - user manual(s);
 - manual(s) for maintenance and repair on different levels;
 - technical data for NATO codification of spare parts and modules;
 - constructional drawings;
 - exploded views or pictures for lists of spare parts;
 - software documentation.
9. Which experience do you have with the production of integrated documentation in electronic format? Please elaborate.
10. Which ready-to-use commercial documentation do you have available for the above mentioned documentation? Please elaborate.
11. Are you able to deliver documentation in the Dutch or English language? Please elaborate.
12. The MoD NL uses the SAP® Enterprise resource planning system. Please describe the possibilities you have to import the logistic information like the part list or the bill of materials directly into SAP® or to deliver it in a SAP® format (csv format).

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13. Can you deliver the following items:

ITEM	PARTICULARITIES	EXTENSION
Documentation		
Operator manuals	Vessel and equipment	.pdf; .doc
Maintenance manuals	Vessel and equipment	.pdf; .doc
Drawings Electrical & mechanical engineering	Including parts list	.dwg
Construction drawings	Including parts list	.dwg
Wiring diagram	Including parts list	.dwg
Hydraulic schematics	Including parts list	.dwg
Pipe diagrams	Including parts list	.dwg
Certificates	Seaworthiness, Solas, Lloyds	.pdf; .doc
Maintenance documentation		
Maintenance plan	OLM, ILM & DLM. Vessel and equipment	.pdf; .doc
Maintenance manuals	OLM, ILM & DLM. Vessel and equipment	.pdf; .doc
Configuration		
Technical decomposition		.xls; .xlsx
Obsolescence management	Especially COTS equipment	.pdf; .doc
Test equipment & special tools		
List of tools & test equipment		.xls; .xlsx
Delivery tools & test equipment		
Education		
Operator	OLM, exploitation of vessel and equipment	
Maintenance personnel	DLM, ILM	
Spare parts		
RSPL (format customer)	including extreme operation (Tropical & Artic)	.xls; .xlsx
Delivery of initial spare parts package		

4.5 Health, Safety and Environment

1. The RNLN restricts the use of hazardous materials in chemical consumables and equipment. Can you ensure no hazardous materials are being used in the design or document the hazardous materials you expect to use, including motivation (such as non-availability of alternative materials for its purpose). Please elaborate.
2. Please describe the way Health, Safety and environmental risks are being managed in the construction of ships in your company. What standards do you use to ensure that these risks are prevented, discovered, analyzed, and mitigated, eliminated or reduced? (Military Standards 882 is an example to manage System Safety)
3. Please provide a preliminary list of risks and mitigating measures for the proposed vessel, including ergonomics, level of automation, redundancy etc.

4. Dutch military personnel will be using the vessel. Can you accommodate for their anthropometric values in the design and ensure that 95% of the male population of this group fit the vessel? Please elaborate.
5. Energy efficiency, both in transit and on station, is important for the RNLN. What kind of alternative propulsion configurations do you recommend to minimize environmental impact (use of fuel, emission)? What other energy-efficiency measures do you intent to use, such as LED lights, energy efficient pumps and equipment?
6. Do you have experience building so called "Green Ships"? How green are your ships and what makes them green? Please elaborate.
7. Can you give examples of green installations you have used on board of ships and intent to use now, such as non-stick anti-fouling?

4.6 Commercial

Note: This commercial part of the questionnaire should be answered separately from the technical questionnaire

4.6.1 Company information

Please provide the following information.

1. A brief description of your company (profile).
2. Organization chart.
3. The numbers regarding your yearly turnover in the past 3 financial years.
4. Do you have a quality management system which meets the ISO-9001 standard?
5. Are you familiar with the AQAP quality assurance and if so, to what extent?

4.6.2 Product

1. Have you provided similar systems to other customers and if so, can you provide a brief description of these deliveries?
2. Are you prepared to guarantee that you will perform repair and revision work and render technical assistance during the Life Of Type?
3. Taking into account that the DMO has to draw up a maintenance contract, in which manner do you intend to conduct corrective, preventative and modificative maintenance?
4. To what extend will the DMO and/or a third party be free to maintain and/or modify your proposed system?
5. Please identify cost drivers.
6. Are there any restrictions with regard to export of your products to the Netherlands?

4.6.3 Pricing

In order to get a realistic impression about the required budget for the procurement and maintenance of the ESB, the DMO has drawn up requirements as outlined in this RFI. Therefore the DMO request the supplier to put the necessary effort in supplying prices which serve this purpose. Please provide your prices as detailed as possible for the MoD NL to understand how the price is composed. The minimum level of detail should at least show the prices for the ESB, installation, maintenance (parts / labor).

1. Supply a budgetary price breakdown in accordance with the technical requirements as mentioned in this RFI and (boundary) conditions outlined above (please also specify initial, e.g. development costs).
2. Provide a budgetary price for a suggested 3 and 5 year initial package of spare parts, components, special tools and special test equipment.
3. Provide budgetary prices for the corrective, preventative and modification maintenance and submit proposals how to handle the costs in relation to maintenance.
4. Supply a budgetary price for recommended training and instruction.
5. Supply a budgetary price for documentation, if available also for electronic documentation.

4.6.4 Lead times

1. Please supply a possible planning for the realization (delivery time) to the extent the content of this RFI permits in relation to the moment that a formal agreement is signed.
2. Which measures do you take to ensure that you deliver your product with the required quality on the agreed time?

4.6.5 Contact details

Please provide your contact details as listed below.

- Company name;
- Country;
- Legal representative;
- Visiting address;
- Postal address;
- Point of contact.

5. Other

5.1 Planning

Please find below a planning for this RFI.

Description	Date
Deadline for questions	Wednesday February 3 rd , 2016
Provide additional information / answers to questions	Monday February 15 th , 2016
Deadline for submission	Wednesday March 2 nd , 2016

5.2 Contact and information

Should you have any questions regarding this RFI or in case you note imperfections, errors and/or contradictions, you are requested to express this by email as soon as possible but no later than February 3rd, 2016. This date is set to give the MoD NL the opportunity to answer the questions, to investigate the remarks and to give the potential participants to this RFI a reasonable period of time to incorporate any adjustments.

For the purpose of a clear and efficient Q&A it is required that all questions are stated in a table format with the information and layout as given below.

Document	Page	Number	Question/Remark
RFI	5	...	What is...
Annex

All questions, will be made anonymous and the answers will be provided in a memorandum of information which will be made available as soon as possible but not later than February 15th, 2016 to all potential participants to this RFI.

The contact persons on behalf of the MOD NL are:

Contracts Manager:

Mr. Henk Lok

H.Lok@mindef.nl

+31 6 53864173

Project Manager:

Mr. Klaas Kwekel

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Note: It is required that you sent any information in regard to this RFI to both the above mentioned contact persons.

5.3 Submission of the information

The deadline for submission of the requested information is **March 2nd, 2016**. Your reply to this RFI should be sent per email to the contact persons as stated above. Please state the number DIV.15.0024.00 in all your correspondence regarding this Request For Information.

Yours sincerely,

A handwritten signature in blue ink, appearing to be 'H. Lok', written over a horizontal line.

H. Lok

Contracts Manager