



**STATEMENT OF WORK
SAR SHIP EGYPT**

226.016

SAR EGYPT - VERSION N°02

**NOT FDOR OFFICIAL USE
COURTESY TRANSLATION, THE FRENCH VERSION IS THE REFERENCE FOR THE CONTRACT**

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Preamble

The requirements described the technical services and statement of work associated with the technical part of the tender, referred as the “tender” or “bid” in this document, for the supply of Search And Rescue (SAR) vessels for the Egypt SAR project.

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| | | | |

NON CONTRACTUAL

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Table of Acronyms

- SOW : Statement of Work
- DIROPS : Director of Operations
- IACS : International Association of Classification Society
- ISO : International Organization for Standardization
- SAR : Search And Rescue
- EU : European Union

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1. General presentation of the project

1.1 Background & context

The SAR Egypt project aims, within the framework of an action of the European Union (EU), to strengthen Egypt's capacity to manage migratory flows and provide assistance to shipwrecked people at sea through two actions:

- Capacity building through the supply of SAR-type vessels,
- The training of the crews of these ships.

1.2 Applicable documentation

The applicable technical specification of the vessel for this tender consultation is the specification referenced: 225.933

2. Project description

The objective of this project is to strengthen operations falling under the actions of the Egyptian State at sea and more specifically its component focused on search and rescue "Search And Rescue " in Egyptian maritime areas in the Mediterranean Sea.

This SOW details the means and requirements to be implemented within the framework of this consultation.

DCI's acquisition strategy is to contract with a shipyard (builder or supplier) capable of building and delivering SAR vessels capable of navigating and operating in "all weather" mode.

The sentences noted [EX_CCT-XXX] are contractual requirements. Compliance with these contractual requirements is imperative. Compliance with these requirements must be certified in the compliance matrix and justified in the offer. No derogation from these requirements is accepted.

In the event that a shipyard or a supplier could offer more than one ship corresponding to this specification, it is authorized to apply with more than one ship by proposing one bid per type of ship up to a limit of two (2) per shipyard.

3. Missions

The vessels, subject of this consultation, will mainly carry out SAR missions in the maritime navigation area in the Eastern Mediterranean and on the high seas (international waters).

The vessel must be able to carry out the following missions under acceptable safety and operational performance conditions:

1. Actions of the Egyptian State at sea,
2. Surveillance of maritime activities and navigation,
3. Search for boats and castaways,
4. Man Overboard Recovery,
5. Towing of small tonnage or equivalent weight boat,
6. Assistance and administration of first aid to shipwrecked persons, protection of persons,
7. Helicoptering day and night,
8. Fight to extinguish a small fire on a sinking boat,
9. Transfer to the sea of personnel and equipment (coupled and depending on weather conditions),
10. Launching and recovery of divers on board.

4. Design

In order to ensure faster integration into the operational planning and delivery scheme in Egypt, no SAR vessel under development is accepted. This means that the vessel proposed must already be in operation or being under delivery in an operational unit which carries out the full range of missions detailed in paragraph 3

The list of operational units of this SAR vessel proposed in the offer must be provided.

Each vessel must be delivered with its regulatory on-board installations and equipment (SOLAS, etc.), unless otherwise specified. Quantities should be considered as a minimum. Any offer, which proposes a higher number of installations and equipment or significantly higher performance as standard, is acceptable.

Any obsolescence declared on the installations and equipment during the construction period and the warranty period on the Egyptian site must be dealt with and must be installed by the shipyard at its financial expense.

5. Consultation Supplies

The offer must be sized for the supply of 3 (three) identical vessels.

The offer must be published in French version.

A schedule in Gantt format and specifying the different periods and milestones of the offer (main construction progress stages, preliminary tests, transit, final tests, warranty periods, etc.) shall be provided.

5.1 Regulations

Construction, navigation and operation notations and marks must be specified.

Any deviations from the applicable class rules must be presented in the offer.

5.2 General technical characteristics

The offer must include a general plan (including the list of technical and living rooms) of the ship.

At a minimum, the following characteristics must be detailed:

1. Length,
2. Width,
3. Water and air drafts,
4. Traveling empty and fully laden,
5. Type of hull,
6. Hull materials, superstructures, deck, gratings, storage boxes and piping,
7. Compartmentalisation, sealing,
8. Navigation conditions,
9. Min and max outside air temperature of use,
10. Min and max seawater temperature in use (with and without performance reduction),
11. Sea conditions,
12. Maximum number of passengers on board,
13. Maximum number of castaways in cover,
14. Maximum number of injured on stretcher under cover,
15. Maximum number of castaways (without any particular reception conditions),

The speeds and range of action with ship's equipment moving in full load must be specified according to the conditions of use:

1. Economic,
2. Maximum.

The vessel's autonomy performance (duration of use and distance) must be provided according to its operating speeds (economical, cruising, idle and maximum authorized), the navigation conditions (sea state and outside temperature) and its displacement.

The list and functions of the crew personnel must be specified.

The main characteristics of the propulsion engine must be specified :

1. Equipment manufacturer,
2. Type of drive,
3. Power in Kw (and the equivalent in hp),
4. Maximum engine speed in rpm,
5. Recommended number of annual operating hours,
6. Recommended duration and successive operating interval at maximum power,
7. Type and quality of fuel allowed,
8. Type and quality of oil,
9. Type and quality of cooling circuit additive,
10. Load rate.

The technical parameters allowing the vessel to have good maneuverability and optimized steering capacity during rescue operations must be detailed for:

1. The clutch of the shaft line engines allowing navigation at low speeds,
2. The latency time and reaction time of the propulsion line,
3. The low-speed roll stabilization and reduction device.

5.3 Other Features

5.3.1 Materials and sizing

The design speeds and load cases must be indicated.

The choice of materials concerning the materials must be justified. Material certificates must be provided.

The realization process must be described in the offer. In particular, it is required to identify the standards to which the manufacturing processes comply.

The coatings (paints, protections, etc.) applied and their technical performance must be detailed.

The latter must comply with the ISO 12944 standard, an anti-corrosion system certified ACQPA of minimum level C4VH will be used. Paints from the ACQPA certified Marine range are also accepted. In the case of a non-metallic vessel, a minimum thickness of 100 microns is required. Regarding antifouling , this will be sought in the Marine range of the ACQPA certification. The rules of the art must be applied (quality monitoring, internal and external control with an ACQPA/FROSIO level 3 inspector for external control, preparation of sheet metal, degree of preparation and care, pollution, drying time, etc.).

5.3.2 Security

In the field of security, the following elements must be precisely described:

1. Sound and heat insulation,
2. Installations and equipment remaining in operation during the rollover and self-righting,
3. Conditions for resuming normal driving after rollover,
4. Installation for detecting and fighting fire and flooding.

5.3.3 electricity

The main characteristics of the electrical generation (generators) must be specified:

1. Power,
2. Nominal intensity,
3. Tension,
4. Frequency,
5. Maximum permitted power regime,
6. Storage means (batteries).

The electrical balance must be specified in its different power supply modes.

Electrical networks must be described:

1. Consumer supply network,
2. Operation at quay, at sea,
3. Type and number of batteries,
4. Battery bank monitoring system,
5. Scope and operation of the backed up network,
6. Maximum duration of use of the backed up network,
7. Power supply to the ship at anchor,
8. Power supply to the ship at berth.

5.3.4 Auxiliary

It must be explained how the performance of air conditioning, ventilation and air extraction is achieved in summer and winter.

5.4 Additional elements

The durations and content of the crew level and workshop level training provided by the shipyard in English must be described in the offer.

The dimensioning of the amount of spare parts for preventive maintenance as well as their packaging and storage conditions must be explained. For emergency maintenance or “batch of emergency spare parts (RGP)”, only the storage conditions must be explained.

The format and labeling conditions for spare parts, specific tools and stranding must be described.

Specific tools and grounding lots must be detailed.

6. Construction follow-up

For each vessel, the shipyard must inform DCI with one (1) month's notice of the main construction monitoring milestones. The list of these milestones must be stated. A minimum of one milestone per quarter must be proposed.

Following the different notices, DCI or its representative can go to the shipyard to see the progress of the construction of the ships.

For each milestone, the shipyard sends DCI a construction progress report (in English) for each ship in the form of a report and describing the main stages of construction, assembly, fitting out, integration, trials, etc. The list of milestones will be updated during the kick-off meeting.

The shipyard must participate in contractual meetings (launch, progress monitoring, before delivery of ships to the Egyptian site, acceptance, end of contract).

7. Tests, acceptance and delivery conditions

The shipyard must optimize the construction of the vessels in order to deliver to Egypt all three ships, equipment and associated lots (tools, etc.) within a maximum period of fourteen (14) months after the **contract award**.

It is also requested the delivery (including documentation, flag, registration number, customs document, test reports, certificates of conformity, etc.) in Egypt of a **first vessel** at the earliest before the end of the year 2023 and at the latest in February 2024 and of the **second vessel** in April 2024.

The shipyard must estimate the number of running hours per vessel before departure for deliveries.

A General Test Plan (GTP) describing the requirements validation procedure, the list of tests for each vessel at berth and at sea as well as the test procedures must be provided, specifying their assignment:

1. In France: preliminary acceptance,
2. In Egypt: receipt or final recipe in English.

The number of days at berth and at sea for each reception must be specified.

All "support" test documents must be published in English and submitted to DCI two months before the defined test periods and according to the final schedule. Two copies in paper format and one copy in PDF computer format must be provided.

All "completed" test documents must be published in English and submitted to DCI no later than one (1) month after the tests. A copy in PDF computer format must be provided.

All trials, preliminary and final must be carried out on each vessel. No "standard" test is accepted except that of requirement 0.

Supposed to be an “all-weather” ship, the ship must have proved through trials its ability to withstand exceptionally difficult weather conditions. In particular, proof of self-righting capacity is required. Test evidence must be provided as part of this consultation or on the basis of ships already delivered and tested under similar conditions. The proof must then be supported by a consolidated test report (reading values, videos, photos in the context of real tests, simulation and model tests, etc.).

A reduced list of tests that may be impacted by climatic conditions in the hot season of propulsion, air conditioning and equipment said to be "sensitive" to climatic conditions must be provided.

The preliminary acceptance of each vessel must be made:

1. At the site of the construction shipyard,
2. Over a single blocked calendar period and according to the final schedule,
3. In the presence of the DCI team or its representative,
4. If confirmed by DCI, in the presence of the end user.

The place of delivery and unloading of ships is the port of Alexandria. Transit by sea in navigation from the shipyard to the port of destination is not accepted.

For the commissioning and the necessary tests and at the reception of the vessels on the Egyptian site, all the fluids and the necessary preventive maintenance parts must be provided by the shipyard.

The shipyard must provide two months before the delivery on site of the vessels:

1. The list of personnel (name and function) involved in the delivery and final acceptance,
2. A copy of the passports of this personnel in order to obtain the necessary authorizations for access to the military naval base.

The shipyard must conduct the vessel during all the tests planned for the final acceptance and until the validation of this acceptance by DCI.

The transfer of ownership of each vessel from the shipyard to DCI or its representative is then validated and certified in a report.

The final acceptance or acceptance of each vessel must be done:

1. At the military port and in the sea area planned and authorized by the end user,
2. Over a single blocked calendar period and according to the final schedule,
3. In the presence of the DCI team or its representative,
4. In the presence of the end user.

After acceptance of the vessels on the Egyptian site, the shipyard must carry out level 1 maintenance on the main engines (replacement of oil, filters, etc.) and generator sets of each vessel for the benefit of the end customer (the Egyptian Coast Guard).

The warranty for each vessel must begin when the vessels passed the final acceptance and for a period of 12 months.

8. Quality management and assurance plan

The contract holder shall provide a Quality Management and Assurance Plan (QMAAP) and associated documentation. He submits it 1 month after notification of the contract to DCI. The latter analyzes the compliance of the document with the specified requirements and issues a favorable or unfavorable opinion which in the latter case requires an update of the document. The contract holder also submits for opinion the successive evolutions of the QMAAP.

The contract holder describes in his QMAAP the organization, methods and means implemented to meet all the stated requirements.

The contract holder describes in the QMAAP the provisions implemented to qualify and/or empower the personnel on the specific processes (for example the special processes). Skills at risk are described.

The contract holder declines to its subcontractors and/or possible co-contractors the requirements of this document.

9. Industrial organization requirements

The contract holder sets up and describes in his QMAAP, an organization and the associated means which guarantee to DCI the control, coordination, coherence of the tasks and works under his responsibility and the achievement of the objectives set in terms of performance and deadlines.

The contract holder appoints and identifies a single project manager with all the delegations and responsibilities necessary for his activities to be able to represent the contract holder at any time.

The contract holder appoints a project quality correspondent for the project and describes his responsibilities in the QMAAP. The latter is the guarantor vis-à-vis DCI of the quality of the services and deliveries provided under the contract, and in particular:

- Management of contract documentation,
- Exchanges of data,
- Creation and updating of technical documentation,
- Configuration management.

The contract holder shall attach to his QMAAP a functional organization chart specifying the human resources necessary for the proper conduct of the project, the distribution of tasks and the responsibilities of each of them.

The contract holder establishes a table of contact details for the members of the industrial project team. This table is kept up to date in the progress report .

9.1 Subcontracting

The contract holder specifies in its QMAAP the main industrial actors responsible for work packages involved in the performance of the contract.

The contract holder describes in the QMAAP its organization in terms of subcontracting.

The contract holder attaches to his QMAAP a hierarchical organization chart specifying the organization, relationship and operating methods between the industrial stakeholders.

The contract holder must provide the list of supplies, subcontracted services and subcontractors, identifying those at risk. The holder specifies the criteria used to qualify a supply, a subcontracted service or a subcontractor as being at risk. This list and the criteria selected are attached to the QMAAP and transmitted via the progress report, after each change.

9.2 Contract progress

The agenda and notice of meetings (of whatever nature) are distributed by the initiator of the meeting. The meetings provided for in the contract are industrial initiatives.

Each meeting (whatever its nature) is the subject of a **minutes** written by the contract holder. It is distributed, for comments, to participants within five working days of the meeting. The distribution of the final version is made five working days after validation of the report by DCI.

9.2.1 Kick-off meetings

A kick-off meeting is organized at DCI's premises, no later than two weeks after notification of the contract. The purpose of this is to verify the correct understanding of the issues, requirements and objectives and the implementation by the contract holder of the appropriate means and management tools (organization, logic of progress, risk management, planning, etc.).

During this meeting, the contract holder presents the final elements of his organization appearing in the QMAAP.

9.2.2 Progress meetings

The contract holder provides a **progress report**, at least 5 working days before each progress meeting. This report includes at least the following elements:

- Overall planning, review and analysis of the physical progress of the works (in particular the deviations),
- State of supplies,
- Status of documentary production (ERQ, technical documentation, etc.),
- Analysis and corrective actions of any delays,
- Tracking table for actions identified during previous meetings,
- Financial point of the contract,
- Updated risk portfolio and assessment of risks and associated actions.

The contract holder organizes progress meetings, on a monthly basis.

9.2.3 Opportunity meetings

Specific meetings (related to contractual, technical, regulatory, management, quality, etc.) can be organized outside the cycle of progress meetings. DCI sets the terms together with the contract holder.

9.2.4 Contract closing meeting

DCI organizes a closing meeting, the main purpose of which is to present the main elements of the contract.

For this meeting, the contract holder writes and submits to DCI for validation a summary of activities which includes:

- The list of difficulties encountered during the contract,
- The list of updated documents,
- Evidence of the full achievement of the services.

10. Quality control

10.1 Process control

The contract holder implements a quality assurance system in accordance with ISO 9001 standard or equivalent, showing at least the control of documentation, records, non-compliant product, corrective and preventive actions.

The contract holder describes in the QMAAP, the quality assurance provisions, detailing the adjustment and application of the quality management system to the specifics of the contract. This part of the QMAAP as well as its successive updates are subject to DCI's validation.

At its request, any internal procedure called by the QMAAP must be able to be presented to DCI.

The contract holder must pronounce the validation of the quality plans of its critical and first-tier suppliers and inform DCI during the progress meetings.

The contract holder describes in particular the processes having a direct impact on the quality of the products, as well as the records relating to the quality proving the application of these processes. Particular attention is paid to the product realization process within the meaning of ISO 9001, with at least a description of the following points:

- Planning the realization of the product,
- Design and development,
- Control of subcontracted products,
- The production and preparation of the service,
- Mastering the special processes essential for the product,
- Control of the non-conforming product.

The contract holder draws up and appends to the QMAAP a control plan, which lists all the controls planned, including those planned by the classification organizations. Subcontractors' inspection plans

may be consulted by DCI. They are then referenced in the contract holder's control plan. Each update of this plan is sent to DCI.

10.2 Visibility

DCI shall be informed by the contract holder, without delay, of any anomaly detected.

The contract holder grants DCI (or its authorized representatives) access to the premises (its own or those of its subcontractors) where the activities are carried out, in accordance with the rules defined by the contract, in order to ensure the application of management requirements and obtain quality assurance of supplies, conduct or participate in audits, reviews and obtain information on progress.

The contract holder informs with a notice of 10 working days of the execution of the activities which DCI (or its authorized representatives) has asked to attend.

11. Validation of documents

The contract holder sends the documents submitted for validation to DCI.

DCI issues its comments within one week of receiving the document.

DCI's observations must be taken into account by the contract holder in order to provide answers. These observations may lead to a new version of the document to be produced by the contract holder and submitted to DCI.

The changes compared to the previous version are identifiable in the body of the document.

Acceptance of supplies is based on:

- The quality of the content of the technical documents which must reflect, in all the fields concerned, concrete progress,
- Compliance with the technical references and standards in force,
- Compliance with documentary and computer formats,
- Compliance with calendar deadlines.

11.1 Declaration of conformity

The contract holder must systematically accompany a presentation to the verification operations, with a declaration of conformity drawn up in compliance with the requirements of standard NF L 00-015.

12. List of requested deliverables

| Supply identifier | Description of the supply | Description of the supply and satisfaction criteria | Indicative delivery time and recurrence (months) | Comments |
|-------------------|--|---|--|--|
| 1.01 | Updated schedule | SOW, Spec | T0 | |
| 1.02 | QMAAP | SOW | T0 + 1 month | |
| 1.03 | Kick-off meeting minutes | SOW | T0 + 1 month | |
| 1.04 | General Test Plan GTP | SOW | T0 + 2 months | |
| 1.05 | monthly meeting minutes | SOW | every month | |
| 1.06 | Minutes for passing technical payment milestones | SOW, Spec | According to milestone | |
| 1.07 | Invitation to acceptance tests | SOW, Spec | As necessary | |
| 1.08 | Delivery of the 1 st SAR boat | SOW, Spec | T0 + 6 months | Including documentation, flag, registration number, customs documents, test certificates, certificates of conformity, etc. |
| 1.09 | Delivery of the 2 nd SAR boat | SOW, Spec | T0 + 10 months | Including documentation, flag, registration number, customs documents, test certificates, certificates of conformity, etc. |
| 1.09 | Delivery of the 3 rd SAR boat | SOW, Spec | T0 + 14 months | Including documentation, flag, registration number, customs documents, test certificates, certificates of conformity, etc. |
| 1.10 | Delivery of maintenance and spare parts 1 st boat | SOW, Spec | T0 + 6 months | |
| 1.11 | Delivery of maintenance and spare parts 2 nd boat | SOW, Spec | T0 + 10 months | |
| 1.11 | Delivery of maintenance and spare parts 3 rd boat | SOW, Spec | T0 + 14 months | |
| 1.12 | List of personnel working at the place of delivery | SOW | 2 months before each delivery | |

| Supply identifier | Description of the supply | Description of the supply and satisfaction criteria | Indicative delivery time and recurrence (months) | Comments |
|-------------------|---|---|--|------------------------------|
| 1.13 | 1 st boat crew training certificates | SOW, Spec | T0 + 6 months | Including training documents |
| 1.13 | 2 nd boat crew training certificates | SOW, Spec | T0 + 10 months | Including training documents |
| 1.13 | 3 rd boat crew training certificates | SOW, Spec | T0 + 14 months | Including training documents |

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