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**MANAGEMENT OF PROCUREMENT PROGRAMS IN THE  
ROMANIAN NAVAL FORCES – MODERNIZATION OF THE  
PROPULSION SYSTEM FOR AN ARMORED PATROL SHIP**

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***Abstract:***

There are multiple interests today that converge to ensure national security. The National Defense Strategy aims at an integrative and balanced approach, without being limited to the defense dimension. In an area characterized by the collision of interests and in a period marked by rapid geopolitical changes, strategic credibility is an important national value both in relation to our allies and partners, and to our own citizens. In order for Romania to manage coherently and responsibly the risks and the responses to threats, it is necessary more than ever to have cohesion and consensus at national level in the vital issues for our country. Thus, in recent years, in accordance with the priorities stated in the National Strategy for the Country's Defense and in order to respond to the current security challenges, the Ministry of National Defense has started multiple programs to increase the level of equipment and armaments, modernize the existing ones and increase the capacity of staff to meet the challenges posed to national security.

*Key words: security; changes; programs; equipment; armaments*

**1. Introduction**

Romania is currently going through a period in which multiple risks, threats and vulnerabilities sometimes intersect and sometimes overlap, generating unpredictable effects not only nationally but also globally. [1] Starting from the changes in recent years in the Black Sea area, here I refer to the annexation of the Crimean Peninsula by the Russian Federation, the intensification of Russia's military presence in the Black Sea, the fighting on Ukraine's eastern border between the Ukrainian army and extremist pro-Russian forces, the repercussions of the coup attempt in Turkey until the situation in Afghanistan, the need for a coherent and strong national defense strategy became increasingly pressing.

There are multiple interests today that converge to ensure national security. The National Defense Strategy aims at an integrative and balanced approach, without being limited to the defense dimension. In an area characterized by the collision of interests and in a period marked by rapid geopolitical changes, strategic credibility is an important national value both in relation to our allies and partners, and to our own citizens.

In order for Romania to manage coherently and responsibly the risks and the responses to threats, it is necessary more than ever to have cohesion and consensus at national level in the vital issues for our country. Thus, in recent years, in accordance with the priorities stated in the National Strategy for the Country's Defense and in order to respond to the current security challenges [2], the Ministry of National Defense has started multiple



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programs to increase the level of equipment and armaments, modernize the existing ones and increase the capacity of staff to meet the challenges posed to national security.

Among Ministry of National Defense programs of interest is the raising of the combat capacity of the River Flotilla through the processes of modernization and equipment of river ships.

**2. Initiation of the program – modernization of the propulsion system for an armored patrol ship**

**2.1 Legislative framework**

The legal framework for conducting public procurement is provided in the Law no. 195/2012 and several Government Emergency Ordinances, Government Decisions, as well as the Orders of the Minister of National Defense and the Minister of Public Finance, the norms issued by the Ministry of Public Finance and the legal regulations regarding the financial-accounting control.

The assigning of public procurement contracts also takes into account the specific regulations of the Ministry of National Defense.

Thus, within the Ministry of National Defense is implemented the “Integrated Management System for Defense Procurement”, based on the functioning of three councils:

- The Requirements Supervisory Board, which operates at the level of the General Staff, having the role of validating the requirements issued by the categories of forces of the military;
- The Defense Planning Council, which functions at the level of the Minister of National Defense (MoND) and has the role of allocating the necessary funds for carrying out the acquisitions, depending on the priorities;
- The Procurement Council, which functions at the level of the Armaments Department, with the role of ensuring the decision-making regarding the development of the procurement programs.

**2.2 Potential suppliers**

Any interested economic operator may participate in the procurement procedures organized by the Armaments Department. Based on the examination of the qualification and selection criteria, the potential suppliers are qualified and, depending on the assigning procedure applied, they are selected. A potential supplier must meet the qualification and selection requirements imposed by the contracting authority, including those regarding the certification of the quality management system, and obtain the industrial safety certificate / industrial security certificate in the case of contracts classified as state secret. The certification activity of the quality management systems is based on the international standards in the field, agreed upon as Romanian standards, completed with specific requirements of the MoND, established on the basis of the risk assessment related to the product / supplier. The Armaments Department may, by contract, impose additional requirements on suppliers in accordance with the provisions of NATO Allied Quality Publications (AQAPs) already ratified or adopted as military standards.

**2.3 Criteria for assigning contracts**

The management of the Armaments Department exercises its decision-making authority in accordance with the national legislation and regulations in the field, as well as



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with the specific regulations of MoND. According to the provisions of the law, in the competition for assigning contracts, the criteria for assigning the public procurement contract can be only:

- a) either the most economically advantageous offer;
- b) either the lowest price.

In the case of applying the assigning criterion “the most economically advantageous offer”, the following are taken into account for scoring and distinguishing the submitted offers:

- price;
- characteristics regarding the qualitative, technical or functional level;
- environmental characteristics;
- operating costs;
- cost / efficiency ratio;
- after-sale services and technical assistance;
- delivery or execution time.

For ensuring the transparency on the assigning of public contracts, notices of intent, participation and assigning are published, according to the legal provisions, in the Electronic Public Procurement System (SEAP - [www.e-licitatie.ro](http://www.e-licitatie.ro)) and the Official Journal of the European Union (JOUE - [www.ted.europa.eu](http://www.ted.europa.eu)). [2,3]

#### **2.4 Identification of need / problem**

The risks and threats that may affect Romania's maritime interests mainly refer to:

- escalation of interethnic and religious conflicts near or even within the country, with serious repercussions on territorial integrity and national sovereignty;
- the establishment of a naval blockade and the restriction of freedom of navigation or activities specific to the maritime and river environment, guaranteed by international legislation;
- violation of maritime and river borders and diversionary actions to destabilize the domestic political situation;
- the deterioration of the environment, in particular the maritime and river environment, by non-compliance with ecological rules, as well as the existence of high-risk targets in the vicinity of the national border;
- the uncontrolled proliferation and dissemination of nuclear technologies and materials, means of mass destruction, weapons and other unconventional lethal means;
- the prolongation of some internal difficulties of economic, financial and social nature that critically and vitally affect the functioning of the Romanian society;
- the expansion of terrorist networks and activities on land and / or offshore, as well as transnational organized crime (economic and financial crime, illegal cross-border trafficking of human beings, drugs, radioactive and strategic materials, weapons and ammunition, etc.).

[5]

In response to the above-mentioned risks and threats, riverine armored patrol ships shall have the capabilities necessary to perform the following missions:

- Supervision of river communications, monitoring and control of river traffic in the area of responsibility;
- Limiting and eliminating the effects of natural disasters, the support of the authorities for intervention in emergency situations executing evacuation and transport on the river, protection of the population and of the material goods;



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- Defending river objectives, participating in the annihilation of terrorist actions on the river and in the Danube Delta while discouraging illegal actions on the river;
- Participation in military crisis response actions, in support of peace, humanitarian assistance, search and rescue on the river, independent or in cooperation with NATO, EU forces;
- Denial of actions of adversary surface warships in the area of responsibility, independently or in cooperation with ground and air forces;
- Fire support for Land Forces and Special Operation Forces units performing on the Black Sea coast or in a river or delta scenario. [4]

Built between the years 1986-1991 by the Mangalia Shipyard, the riverine armored patrol ships are equipped with 3 Boxer engines with a power of 1200 Hp built by the Institute of Thermal Engines Bucharest, transformed into SC MASTER SA in 1993, a company disbanded in 2010.

With the resource of the propulsion system consumed, starting with 2013, an economic agent capable of performing capital repairs for this type of engines was sought on the market.

As no response was received from the market regarding the assigning of a repair contract, it was concluded that it is necessary to carry out a procurement program for a modernization of the propulsion system on these ships.

In this sense, the beneficiary unit submitted to the echelon with attributions in this respect, the Naval Forces Staff, a necessity report in which the following were pointed out:

- the need to keep these ships in operation in the light of the missions they perform;
- the current state of the propulsion systems for all the ships of this type;
- the need to modernize the propulsion system of such ships, noting that this service would extend the actual life cycle of this type of ships by at least 10 years;
- the estimated cost of such a service.

## **2.5 Program initiation**

Following the analysis of the necessity report, at the level of the decision makers, the decision was made to set up a working group composed of specialists of the beneficiary unit, specialists of the Naval Forces Research Center, specialists of the Naval Academy "Mircea cel Bătrîn", specialists of the Armaments Department and specialists from the Naval Forces Staff. Following the analysis of the need to modernize the propulsion system of river armored patrol ship, the working group noted the following:

- The impossibility of the capital repair of the current propulsion system due to the disappearance from the market of both the construction company and the tertiary companies that supplied the necessary parts;
- A number of economic agents capable of performing the propulsion system modernization service have been identified on the market;
- A number of diesel engines with similar construction characteristics to the existing ones and their price estimate were identified on the market.

The conclusions of the working group were analyzed in the Military Council and the decision was made to carry out this program.



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### **3. Preparation of the necessary documentation for the assigning of the procurement contract**

In order to develop the necessary documentation for the assigning of the contract for the modernization of the river armored patrol ship propulsion system, the military unit wrote the necessary technical specification for this service.

Thus, the technical specification for the acquisition of the service for the modernization of the propulsion system of the river armored patrol ship was framed and it contains the following:

- General data about the ship - technical characteristics;
- Data on existing engines - physical characteristics (max. length, max. width, gauge);
- Data on the propulsion compartment - physical characteristics - length, width, height, other aggregates/systems in the compartment;
- Data on the behavior of the vessel in motion - maximum speed, maximum longitudinal inclination, maximum perpendicular inclination;
- Data on the environmental conditions in which the ships operate - temperatures, humidity, etc.

All this data is necessary for the interested companies for making the correct choice of the new types of propulsion engines, so that the technical-tactical characteristics of the ship as a whole are not modified.

At the same time in the technical specification were presented the minimum operations necessary for the execution of this service, as follows:

- Preparation of the propulsion system modernization project;
- Disconnection of the old engines' own installations from the ship's installations;
- Extraction of old engines and their transport in the beneficiary's warehouses;
- Cleaning the bilges, de-gassing and painting them with primer;
- Manufacture of new support elements necessary to attach the new propulsion engines;
- Execution of the centering between the propulsion engines and the shaft lines;
- Connecting the ship's installations to the main engine installations;
- Installation of supervision and control equipment both in the local command post and on the bridge;
- Manufacture of the elements necessary for the cooling installation of the propulsion engines;
- Manufacture of the exhaust system;
- Performing tests at the quay and on the river.

The technical specification also presented the issues related to the guarantee and provision of integrated logistics support for a period of at least 10 years from the date of commissioning of the propulsion system.

The technical specification was submitted for approval to the upper echelons for approval and after approval by SC ROMTEHNICA SA, entity of the Ministry of National Defense that negotiates and signs, on behalf of the Ministry of National Defense and other governmental entities in Romania, import contracts, technology transfer, logistical support, technical assistance and staff training, and organizes tenders and selections of offers, to be integrated in the contract assigning documentation. [6]

Thus, in August 2016, the contract for the acquisition of the service called “Modernization of the river armored patrol ship propulsion system” was published on the



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Electronic Public Procurement System (SEAP) website. The contract was constructed in accordance with Government Emergency Ordinances no. 114/2011 - on the assigning of certain public procurement contracts in the fields of defense and security, approved with amendments and completions by Law no. 195/2012, in this case RESTRICTED AUCTION.

The contract type was Ship engine installation services and the estimated value was RON 13,749,862. The contract assigning criterion was the lowest price. The delivery term of this service was 27 months from the date of signing the contract - framework agreement type for a period of 3 years. [7]

#### **4. Contract assigning**

In order to perform the restricted public auction, participants were required to submit the following documents for their qualification in the second stage of the auction:

- Supporting documents proving that the company's main field of activity is ship and engine repair;
- Supporting documents proving that they have at least 5 years' experience in the field of ship repair and repowering;
- Supporting documents showing that in the last two years they have had contracts of at least the estimated value of this contract in the field of modernization of ship propulsion systems. [3]

Thus, following the qualification, economic agents submitted the technical and financial offers necessary to carry out the modernization operations of the propulsion system for the river armored patrol ships.

Following the submission of the offers, the technical expert committees together with the contracting authority analyzed the offers so as to comply exactly with the technical specification and chose the offer that met the following two criteria: the technical offer in full accordance with the technical specification and the lowest price.

Following the selection of the winner, the contracting authority together with the winning economic operator shall agree on the terms of reference and the terms of delivery of the services.

After the signing of the specifications and the subsequent contract to the framework agreement, the first ship will enter the shipyard for modernization.

#### **5. Supervision and reception of the procurement service**

After signing the subsequent contract, the contracting authority appoints a committee for the supervision and reception of the service composed of the president-specialist from the beneficiary and the specialist members from the beneficiary and the contracting authority.

The project manager on behalf of the contracting authority has the duty to instruct the supervisory and reception committee so that the works performed by the economic agent comply fully with the specifications, not to waste public money, and to ensure that the works executed by the bidder are of the best quality.

In order to finalize the procurement process but also for transparency, the supervision and reception committee together with the economic operator draws up before each major work provided in the specifications a report in which are provided:

- The works provided in the specifications for the major work;
- Field findings regarding the major work;



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- Determines the work requirements and working method (e.g. Repair / Replacement);
- Establishes the necessary works from the specifications that are necessary to be executed;
- Clearly establishes which works do not need to be executed (if applicable);
- The additional (if any) works necessary to be executed are established.

If additional works appear in the specifications, the contracting authority may negotiate these works with the tenderer, on the basis of the technical and price offers submitted by him, as long as the total additional works do not exceed 30% of the initial value of the contract, and recording them through additional contracts.

After the completion of each major work, the supervision and reception committee together with the economic agent's representatives shall draw up a reception report, which shall record:

- Total work performed;
- Documents attesting the quality of the works, guarantee certificates, measurement sheets, etc.
- Waste resulting - if applicable.

At the end of the reception of all the works and following the quay and river tests successfully completed, the final report of the reception of the service is created, which includes all the operations and works that were performed and the final estimate is signed with the costs of the works.

All documents shall be drawn up in at least 3 (three) copies, all signed both by the supervisory and reception committee and by the tenderer, one for the contracting authority, one for the economic agent and one for the beneficiary unit.

## **6. Conclusion**

In order to ensure national security, the Ministry of National Defense must constantly carry out planning and programs to equip and revitalize the technology/capabilities held in order to reach the level of the international partners, to be able to face threats of any kind and to eliminate risks and vulnerabilities.

By ensuring the level of maintenance and the level of equipment and armament, the forces subordinated to the Ministry of National Defense can execute successfully and in time the missions that were entrusted to them, contributing to the regional peace and stability.

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