



*The 17<sup>th</sup> International Scientific Conference*  
**“DEFENSE RESOURCES MANAGEMENT  
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**SWOT ANALYSIS – MANAGERIAL TOOL FOR  
ORGANIZATION’S STRATEGIC DEVELOPMENT. CASE  
STUDY DANUBE RIVERINE FLOTTILA BETWEEN  
PRESENT AND FUTURE “THE RIVERINE FLOTILLA  
COULD BECOME A CREDIBLE AND CAPABLE FORCE  
WITHIN NATO STRUCTURES”**

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**Abstract:**

The aim of this paper, using as a research tool the SWOT analysis to answer generically to the questions: "Why do we need a strong riverine flotilla on the Danube?", "why other countries bordering the Danube do not need river forces" or "Is a river force still needed in the next millennium?" Questions which appear quite often in the public space, imposed by economic rather than military reasons.

*Key words: SWOT, analysis, capabilities, forces, development*

**1. Riverine Flotilla – framework**

**Romania's interests on the Danube - risks and threats**

The Danube, Europe's second-largest river, has always been an economic and cultural catalyst, an axis of prosperity, in time and space, for the states that have formed and developed throughout history along its shores, one of them being Romania.

With a length of 2,857 km, of which 2588 km are navigable (between Ulm and Sulina) and an average multi-annual flow of 6,855 m<sup>3</sup> / s, the Danube ranks 21<sup>st</sup> among the world's rivers.

Today, the Danube is the main river in Europe, but not because of the length or intensity of traffic, but because of its course, that crosses the continent from west to east, through regions with a great diversity of natural and economic conditions. Through its course, the Danube draws a "diagonal" of Europe, and through the connections it provides between the countries of the continent, it can be considered an "artery" of river trade.

Forming for a long time the northern border of the Roman Empire, being used as a line of defense, but also for transport, the Danube River today crosses the territory of 10 countries, of which 7 EU member states and 6 NATO members, being the most international river from the world.

Although not the largest river in Europe, the Danube has many advantages. No other river on the old continent, except the Volga, has a larger river basin. The Danube region comprises 10 countries with over 100 million inhabitants, one-fifth of the EU's population.



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The Danube Basin has an area of 805,500 km<sup>2</sup> and consists of 120 affluents, of which 34 are navigable. The hydrographic area of the Danube basin represents 8.35% of the surface of the European continent, and before the river flows into the Black Sea, it crosses the territories of ten states: Germany, Austria, Slovakia, Hungary, Croatia, Serbia, Bulgaria, Moldova, Ukraine, Romania and 4 capitals (Vienna, Bratislava, Budapest, and Belgrade).

A river basin as large as the Danube's requires its separation into three distinct sectors: a higher sector, with a pronounced alpine character; a middle sector, remarkable for the largest plain in Central Europe and a lower sector, where the river gathers water on both banks of the Carpatho-Balkan mountain range.

The lower course represents the Romanian waterway and includes the course of the river from the entrance to the country to Ceatal Ismail (995 km), the Danube arms from Balta Ialomitei and Balta Mare a Brăilei (approximately 300 km, depending on water level), the Danube arms and the navigable canals in the delta (maximum 700 km depending on the water level) and the Danube - Black Sea Canal with the Poarta Albă - Midia branch (91 km).

The waters of the Danube are used to obtain electricity, they are used for irrigation systems, for the supply of drinking and industrial water to port cities, they ensure rich fishing and remarkable tourist potential. But the most important use is the transport of goods.

The construction of the Rhine-Main-Danube canal put into service in 1992, allowed the union of the two major European internal communication routes, the Rhine and the Danube. Thus, the Pan-European Corridor VII, the only water transport corridor out of the 10 existing in Europe, connects the North Sea with the Black Sea and has as main connection the Danube. Under these conditions, it was possible to connect the two major European ports (Rotterdam, on the North Sea, and Constanta, on the Black Sea), ensuring a safe and cheap communication route that crosses all of Europe on a length of 3540 km. Due to the multitude of ports located on the Rhine river, on the Rhine-Main-Danube canal, as well as on the Danube (along the Danube river there are 47 river ports, four river-sea ports, and five ports on the Danube-Black Sea canal), a special flow of freight traffic can be ensured for any area of Europe,

Romania, as a country on whose territory most of the Danube flows (approximately 38% of the vast basin) and having both the mouths and the canal that connects the river to the port of Constanța, has been and is interested in using this main route communication, as a way of carrying out the transport of goods both for domestic traffic and for international export or transit traffic. This fact determines an obvious advantage, but also a major responsibility that must be honored through a correct geopolitical and geostrategic evaluation of this element.

The Danube is a vital stake for the states of Central and Eastern Europe, whose history has been and will be closely linked to the political destiny of this river, and, at the same time, the main area of contact between the great powers.

The importance of the Danube for Europe and especially of its mouths in the Black Sea has been intensely debated over time in various deeds, agreements, or treaties. At the Paris Conference of 1856, the Danube issue came to the attention of non-riverside countries, such as France and Britain, which, in order to mediate the conflict between the powers of the time - Russia and Germany, called themselves guarantors of Europe's interests on the Danube. During this conference, the foundations were laid and the European Danube Commission (C.E.D.) became operational.

After World War II, during the 1948 U.S.-dominated Belgrade Conference, it succeeded in imposing decisions leading to the annulment of the 1921 convention, the



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exclusion of Western countries from the Danube Commission, and the abolition of "free zones".

The end of the Cold War, the collapse of the Soviet Union, the new geopolitical expansion of Russia as well as the politico-military developments in the Black Sea area, put the importance of the Danube back on the agenda. In fact, the problem of the Danube and its strategic importance and its mouths cannot be separated from that of the Bosphorus and Dardanelles straits.

The changes in the security environment after Romania's integration in NATO and EU, corroborated with geopolitical and geostrategic evolutions, as well as the identification of asymmetric risks in the river area of interest, determined the redefinition of our country's interests regarding the Danube river.

Depending on their importance, Romania's river interests are classified into:

- a) fundamental interests;
- b) main interests;
- c) secondary interests.

Romania's fundamental interests in the river are the following:

- maintaining and promoting the spirit of the nation with access to the sea and the Danube;
- maintaining the unrestricted access to the river and the sea, of the exit on the Danube to the Black Sea through the Sulina arm, mainly, but also through the Chilia and Sfântu Gheorghe arms;
- defending the national water territory and the economic interests in the river area;
- ensuring stability and security in the river area of interest;
- ensuring the freedom of navigation on river communication routes;
- defending the infrastructure in the riparian space, rejecting the aggression in the direction of the river;
- protecting the environment and maintaining the ecological balance of the ecosystems on the river and in the Danube Delta;
- participation in the military actions of allies and partners.

Romania's main interests in the river are:

- promoting the improvement and updating of the Danube international regime;
- modernization and development of the river freight and passenger fleet to meet and meet the needs of the national economy;
- ensuring the conditions of permanent navigation on the Danube by executing the hydro-technical works for arranging the difficult sectors on the Danube;
- development of operation and storage capacities in the Danube ports for taking over the freight traffic by creating multimodal hubs;
- ensuring the application and enforcement of legislation on river traffic, customs traffic, fishing, and environmental protection in the river area and the Danube Delta;
- discouraging acts of obstruction of navigation, maintaining safety on Romanian river transport routes;
- maintaining a well-trained and equipped river naval force capable of ensuring the optimal protection of river interests, while participating in external missions within NATO and EU forces.

Secondary interests in the river are:

- modernization of the river port infrastructure and arrangement or construction of new navigable canals (Danube - Bucharest canal, Siret - Bărağan canal);



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- more active promotion of locations with tourist and industrial potential in the river area and the Danube Delta;
- exploitation of the resources of the Danube and the Danube Delta, in compliance with the environmental measures to which Romania has committed itself within the European Commission;
- further scientific research in the fields related to the river and lake environment, namely, the conservation and multiplication of specific aqua-fauna species;
- modernization of navigation control structures;
- improving the containerization procedures of river transport and in particular the port infrastructure necessary for such a process.

The main risks and threats to national security are both conventional and unconventional.

A conventional aggression against Romania has a low probability, instead, the unconventional threats against our country are multiple. Maintaining frozen conflicts in the Black Sea Region and the Western Balkans, as well as the possibility of such conflicts in the vicinity of Romania have the potential to generate negative effects at the regional level.

The risk factors for Romania, in the river area, are similar to those in Europe and are part of transnational phenomena, considered aspects of the new security risks. These include corruption, organized crime, illegal migration flows, pandemics, environmental disasters, cyber-attacks, and acts of terrorism.

It is becoming increasingly clear that state security is currently threatened mainly by non-state actors and that the response to such threats is rarely effective when summarized unilaterally or nationally.

The risks to national security, characteristic of the river area, can be grouped into risk factors as follows:

a) External risk factors:

- the existence of gaps between the levels of security assurance and the degree of stability of the states in the vicinity of Romania;
- the registration of armed conflicts or interethnic tensions at the regional level, namely the import of insecurity from states facing conflict or tense situations in areas near EU borders;
- the spread of transnational and international terrorism, including in biological and computer forms;
- illegal migration and trafficking in human beings, illegal trafficking in arms, ammunition, explosives and radioactive materials, illicit trafficking in drugs, narcotics and precursors, illicit trafficking in money laundering activities, trafficking in goods at risk to the health and safety of consumers;
- delaying the withdrawal of the border on the Lower Danube (the last Romanian-Bulgarian document establishing the border on the Danube, signed on 27 November 1919 in Neuilly-sur-Seine and establishing the waterway as a borderline, thus contradicting the provisions of the Convention on the delimitation of the river border). on the Danube, signed in Sofia on 14.01.1908);
- the pressure and the games of interest on the Republic of Moldova from the Russian Federation;
- the absence of instruments of international law, recognized by all riparian states (Danube), mainly due to the non-accession of some of them to European or international bodies;
- exacerbating national revenge in the Western Balkans and the Wider Black Sea Region.



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- the appearance of manifestations in the river traffic - blockages of the navigable channel with means of navigation, the rejection of the port control, of the control of navigation or the one of the border;
- starting the construction of the Bistroe Canal by the Ukrainian authorities, under economic motivation for breaking the Romanian monopoly on high-capacity naval traffic on the Maritime Danube and the desire of Ukraine, as a neighbor of the EU, to supply it by the river with raw materials;
- b) Internal risk factors:
  - degradation of environmental factors, in particular through the functioning of outdated, polluting industry;
  - the occurrence of major natural disasters due to global climate change, like floods, which also affect all the Danube area;
  - earthquakes that can affect hydropower dams and locks on the river;
  - poaching, exploitation of aquatic resources by using inadequate means, excessive fishing, uncontrolled or with unauthorized means);
  - failure to achieve economic development local /national objectives;
  - demographic decline (emigration of the active force from the rural area and especially the Danube Delta to the urban agglomerations and "brain leakage" to the west European countries);
  - accentuating the technological gap within the Romanian service system on the Lower Danube, mainly between Constanţa and the other ports, thus favoring the transit and disfavoring the internal transport;
  - accidents at economic targets located near the river or navigation accidents that may cause massive oil/chemical spills.

**The importance of the Danube for the EU and NATO**

We look at the importance of the Danube from a geopolitical and geostrategic point of view in decision-making. Two aspects make Romania particularly attractive for the great powers: the proximity to Russia and the mouth of the Danube. An English diplomat, referring to the geopolitical peculiarities, said that Romania's future is the future of the Danube.

Over time, the Danube has been an identity barrier that has allowed riparian states to preserve their local heritage. Now the Danube offers good premises for cooperation, and the sustainability of its borders has generally given stability and territorial comfort to riverine states.

The commissioning of the Danube - Black Sea canals on the territory of Romania and Main-Rhine on the territory of Germany determined the reorientation of the interests of the great powers at the mouth of the Danube according to the new geographical data. With the establishment of the Rotterdam - Constanţa river axis, new geopolitical values are propelled to the forefront and give Romania a new image for Europe.

The importance of this route has advantages for all countries that use it, especially from a geostrategic point of view, where a series of vulnerabilities that are not assessed and managed correctly can have particularly serious consequences. These vulnerabilities include:

- terrorist threats, which are becoming more frequent nowadays, can affect through their actions both the traffic on the Danube and the safety of the population established on the banks of the river. At any time, especially on its lower course, the Danube may be the subject of terrorist acts, with the aim of stopping navigation on this important European artery or producing floods with catastrophic effects. Not all countries bordering the Danube have naval



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forces specialized in the fight against possible terrorist acts, most of them limited to the police or border police boats with limited capabilities;

- the dependence of the viability of the route and on the part afferent to the Danube on the actions of the riparian countries, in particular. Positioning one or more states in a state of conflict can have quite serious consequences.

While from a political point of view, Romania is at the intersection of the great European and even Asian interests from a geostrategic point of view, it is at the crossroads of the great geographical areas of the world.

The theater of strategic operations in our country is directly influenced by the Danube River and Romania's exit to the Black Sea, a fact that acquires a vital weight in maintaining the regional balance.

It can be seen that Romania and the area in which it is located gradually move from the status of "periphery" to that of "center", depending on the expansion of the North Atlantic Alliance and the European Union. Romania, as a country of contact between the Euro-Atlantic and the Asian space, benefits from the intersection of some axes of geopolitical and geostrategic importance:

- the NW-SE axis, represented by the Rhine-Main-Danube canal, an important axis of Europe;

- the N-S axis, which can ensure access of the Scandinavian space and the Baltic Sea area to the Black Sea, through the road or river formula;

- the E-W axis, which allows the Caucasus countries maritime and air access to the Black Sea, and Constanta becomes a gateway to Central and Western Europe, or, by transshipment to other ports on the world's seas and oceans (a segment of the famous "road of silk");

- the SE-NW axis, which is of interest for Turkey, but also for the other countries in the area (Syria, Iran, Iraq), through the access facilities through the "Romanian gate" to the European space, on the road, rail, sea, river formula or combined type RO transport - RO;

- the axis of the Far East - Eastern Europe, which transforms the "Romanian gate" into the fourth gate of Japan's entry into Europe (after Rotterdam, Hamburg, and Trieste).

- the NE-SW axis, which mainly ensures the access of Russia and Ukraine to the port of Constanta, the most important in the Black Sea;

- the Caspian Sea-Black Sea-Mediterranean Sea axis, which is already beginning to reveal its multiplier potential for dialogue and cooperation on multiple levels, thanks to gas and oil pipelines that will cross the Caucasus and Turkey, with terminals in Turkish ports in the Black Sea and the Mediterranean Sea.

All these axes, even if some are less marked at this moment, intersect the Maritime Danube and the Romanian coast, respectively the Black Sea and the Danube Mouths.

Under these international conditions, maintaining the status of the owner of the Danube Mouths is fundamental for Romania in its development and preservation of national security. Romania is at the confluence of geographical areas with latent or open tensions, at the border of the former USSR, NATO, and EU.

The mouths of the Danube are a particularly important strategic factor in terms of control of the Black Sea, after the Bosphorus and the Dardanelles.

The Danube is a source of geopolitical power. Areas and watercourses are sources of power in relations between states, and geographical characteristics and conditions act on the imperatives and constraints of a country.

River or maritime access and control have often given impetus to important conflicts in history.



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Consequently, the Danube gives a strategic value to the riparian states, but if it is doubled by functional mechanisms, it will increase this advantage - trade and internal stability, as a geo-economic value, can turn the region into an international geopolitical boom.

The return of Western powers, and especially the United States in the extended Black Sea-Danube area, will require new arrangements, which may lead to clashes of interest with Russia or other possible developments in interests in the area may be considered, will maintain the Danube as a center of polarity and navigation on the Danube.

Whatever the course of events, Romania has to face a difficult period for asserting its rights in the conditions of interference of old and new interests in the Danube basin. The Danube acquires a fundamental role in the current configuration of Europe, and Romania - a state at the mouth of the great river, will have to clearly state its geopolitical position conferred by the new realities.

“The budgetary constraints generate the temptation to focus solely on the present, but investments in long term sources of economic security and development (education, research, technology, infrastructure, societal resilience) should not be overlooked. Technology, innovation and creativity should be acknowledged not only as crucial factors for economic development, but also as essential components of national security”. [1] In this context, the modernization of the riverine flotilla should not be considered only from the point of view of the current benefits and limitations, but also as an investment in the future.

## 2. Riverine Flotilla perspectives

### Performing a SWOT analysis

In this chapter, I'll try to do a short analysis of the Riverine Flotilla, why we need, to maintain, sustain, and future development of strategies for this niche military structure using SWOT tools (Strength, Weakness, Opportunities, and Threats).

SWOT analysis is maximizing Strengths and Opportunities while minimizing Weaknesses and Threats. The data is taken from specialized books, articles and interviews, and observations of experts. The results of the SWOT analysis are described as follows:

Strengths	Weaknesses
S1. Romania's geographical position on the Danube river, the control of the mouths of the Danube river.	W1. The specific tasks of river safety policies that interfere with / overlap with those of other stakeholders.
S2. The number of river warships and specialized fighting structures, the largest of the riparian nations, a discouraging factor.	W2. The deficit of endowment with new, modern weapons compatible with that of NATO / EU countries
S3. Character and history as a river / maritime nation.	W3. Awareness of the importance of the river military field as a factor of stability is minimized.
S4. The defense budget continues to grow and is adapted to NATO / EU requirements.	W4. The defense budget is allocated mainly to the salary of the staff employed and to ensuring the
S5. Possibility to include specific structures in the riparian population, large workforce and with good knowledge of the specifics of the	



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<p>area</p> <p>S6. NATO and EU PRO policy A very good presence on the eastern flank of NATO / EU</p> <p>S7. The initiation and development of the modernization program of the main battleships, the modernization of propulsion and energy systems, the endowment with high-performance systems for target acquisition with night vision and thermal detection, the modernization of APRN 122mm systems, lead to the extension of life by at least 20 years.</p> <p>S8. The River Forces are a “niche” element within the North Atlantic structures and on the eastern front of the alliance, Romania being the only NATO / EU country that has such river capabilities and is the largest river naval force in Europe.</p> <p>S9. The river military ships, due to their specific characteristics, are the only ones that can secure the transport on the river, on its arms and on the Danube - Black Sea canal;</p> <p>S10. Artillery carriers are the most effective surface combat ships on the river, they are able to perform the full range of missions on the Danube, with adequate autonomy and nautical qualities that allow them to perform actions even in difficult hydro-meteorological conditions.</p> <p>S11. Joint exercises have shown that the naval forces are interoperable with the other participating forces, NATO or PfP members and are able to jointly carry out a wide range of missions.</p>	<p>minimum necessary for operation and maintenance.</p> <p>W5. Computer systems are outdated and vulnerable to cyber enemy attacks.</p> <p>W6. Infrastructure, port facilities, especially those in Tulcea, inadequate to the needs of a NATO / EU naval base.</p> <p>W7. The welfare of Navy personnel is limited.</p>
<b>Opportunities</b>	<b>Threats</b>
<p>O1. Romania has the opportunity to become an important player and a factor of stability on the eastern flank of NATO / EU</p> <p>O2. Counterbalance of Russia's influence / threat to turn the Black Sea into a Russian lake and its desire to control the Danube Mouths.</p> <p>O3. High economic growth encourages increased water freight traffic.</p> <p>O4. A good, well-sized national state budget encourages the increase of the capacity of the Navy / River Forces.</p> <p>O5. A large and abundant labor market for the</p>	<p>T1. Russia's well-known interest in the mouth of the Danube.</p> <p>T2. Challenges and threats to the security and operational environment,</p> <p>T3. Drug trafficking, smuggling of goods, weapons and military technology.</p> <p>T4. The threat of terrorism both inside and outside countries is a developing phenomenon.</p> <p>T5. Armed attacks and violations of</p>





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<p>navy. -</p> <p>O6. Establishment and operationalization of an allied entity / expeditionary unit of tactical level, of Amphibious Task Force type (battalion level)</p> <p>O7. Execution of interdiction and control activities of suspicious ships to support the competent institutions.</p> <p>O8. Providing full support for the transport of introduction / extraction in / from the areas of action of our own marine combat structures</p> <p>O9. Carrying out common intervention / operation procedures, joints</p> <p>O10. Providing support and protection to other fighting structures</p> <p>O11. Ensuring a dedicated structure for divers, specialized for working in the river environment.</p> <p>O12. Achieving the interoperability of own structures with partner fighting structures using specific NATO procedures.</p>	<p>territorial borders in other countries.</p> <p>T6. Threat of a cyber attack; espionage; sabotage.</p> <p>T7. Hunting and plundering of marine resources and illegal fishing.</p> <p>T8. Threats from loss of natural resources</p> <p>T9. Development of naval and amphibious combat capabilities, both technologically and operationally of riparian or neighboring states, with economic and military interests both in the river area and in the Black Sea area, potentially hostile states.</p> <p>T10. Media manipulation, by spreading "fake news" especially in Russia.</p> <p>T11. Anti-democratic propaganda, promoted directly or indirectly on various social networks.</p> <p>T12. Creating outbreaks, based on ethnic, religious or democratic discontent, on the border or inside "Moscow specialty" countries.</p> <p>T13 The propagation, by some "influencers" on online or video communication channels of some territorial claims</p>
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Table 1 Result Of Internal And External Factor Identified.

Detailed table

<p><b>Strengths</b></p> <p>S1. Romania's geographical position on the Danube river, the control of the mouths of the Danube river.</p> <p>Currently, the main task of the Riverine Flotilla is to cover a district with a length of over 440 km (the length of the river border with Ukraine and the coastal sector under the responsibility of the Marines), but also strategic economic objectives, arranged along the river. Given the visibly pro - Russian attitude of Serbia, a country that does not share NATO values and does not intend to join the alliance, the river forces will have to constantly monitor the actions of Serbian river forces along the common border of more than 290 km.</p> <p>S2. The number of river warships and specialized fighting structures, the largest of the riparian nations, a discouraging factor.</p> <p>Romania currently has the strongest river unit of its kind in Europe and is the main naval power on the Danube. Monitors and armored gunboats are the largest and most heavily armed ships of this kind, and the Romanian Marines are the only specialized structure in the</p>
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countries on the eastern flank of NATO, capable of carrying out missions both on the river and in the coastal and lagoon area. .

S3. Character and history as a river / maritime nation.

S4. The defense budget continues to grow and is adapted to NATO / EU requirements.

S5. Possibility to include specific structures in the riparian population, large workforce and with good knowledge of the specifics of the area

S6. PRO-NATO and EU policy a very good presence on the eastern flank of NATO / EU

As a NATO and EU member, Romania has taken on the not-so-easy task of securing and defending the eastern flank of the alliance, which is by far the hottest, given Russia's recent ostentatious and aggressive actions and the numerous frozen conflicts in the Wider Zone.

Black Sea. Maintaining naval forces on the Danube River for action and deterrence in case of armed conflict is imperative;

S7. The initiation and development of the modernization program of the main battleships, the modernization of propulsion and energy systems, the endowment with high-performance systems for target acquisition with night vision and thermal detection, the modernization of APRN 122mm systems, lead to the extension of life by at least 20 years.

S8. The River Forces are a “niche” element within the North Atlantic structures and on the eastern front of the alliance, Romania being the only NATO / EU country that has such river capabilities and is the largest river naval force in Europe.

S9. The river military ships, due to their specific characteristics, are the only ones that can secure the transport on the river, on its arms and on the Danube - Black Sea canal;

S10. Artillery carriers are the most effective surface combat ships on the river and can perform the full range of missions on the Danube, with adequate autonomy and nautical qualities that allow them to perform actions even in difficult hydro-meteorological conditions.

S11. Joint exercises have shown that the naval forces are interoperable with the other participating forces, NATO or PfP members and are able to jointly carry out a wide range of missions:

- Enforcement of embargo measures in a river sector, search and rescue of life on the water, humanitarian assistance and non-combatant evacuation.

- carrying out surveillance and river mining operations;

- dredging of waterways and access passes;

- boarding mines on board, final preparation and launch;

- execution of river destruction activities by detonating drifting mines with artillery or destruction crew on board;

- ensuring the protection of the stationary and marching force;

- defense against attacks by speeding and suicide ships;

- counteracting conventional / unconventional surface / air threats with appropriate means (small-caliber weapons with high firing rate) for self-defense purposes;

- detecting, identifying and tracking land, air and naval targets during the day / night and in good / bad weather in a timely manner, based on primary information and engaging the targets with appropriate means for self-defense;

- execution of the defense from the water of the military / economic objectives from the shore; it is absolutely necessary the presence of a strong and credible force to defend the economic and military objectives on the river and its proximity; as a mission, the defense of hydropower objectives (ex Iron Gates I or II), against terrorist attacks from land and river;

- carrying out the surveillance and investigation of a district assigned to the area of



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responsibility,

- early warning of the presence of ground, air and naval targets;
- search and rescue on the river and providing first aid / medical assistance in case of emergency;
- river traffic monitoring;
- interrogation of a suspicious ship (HAILING);
- carrying out surveillance and protection actions against CBRN agents;
- safe execution of the towing maneuver, for ships incapable of movement;
- direct protection of transport vessels during the march and at the loading / unloading points;
- boarding, transport and disembarkation of own landing forces;
- protection of a river crossing sector;
- transmission of data and information about the objectives pursued to the other vessels in the group;
- participation in humanitarian actions on the river (evacuation of non-combatants and transport);
- the execution of and accompanying the safety of isolated ships or convoys and transport ships with important cargoes;
- fire support of neighboring ground forces.

#### **Weaknesses**

W1. The specific tasks of river safety policies that interfere with / overlap with those of other stakeholders.

W2. The deficit of endowment with new, modern weapons compatible with that of NATO / EU countries

- The current endowment with armament and fighting equipment of river ships is outdated, the current endowment - deficient, is insufficient to cover all the requirements for the defense of the area of responsibility and especially in an extremely complex area such as the Danube Delta and the Razelm lagoon complex - Sinoe with its "coastal", "multiethnic" "restricted mobility" and "austere infrastructure" dimensions

W3. Awareness of the importance of the river military field as a factor of stability is minimized.

W4. The defense budget is allocated mainly to the salary of the staff employed and to ensuring the minimum necessary for operation and maintenance.

W5. Computer systems and IT equipment's are outdated and vulnerable to cyber enemy attacks.

W6. Infrastructure, port facilities, especially those in Tulcea military harbor, inadequate to the needs of a NATO / EU naval base.

W7. The welfare of Navy personnel is limited.

#### **Opportunities**

O1. Romania has the opportunity to become an important player and a factor of stability on the eastern flank of NATO / EU

O2. Counterbalance of Russia's influence / threat to turn the Black Sea into a Russian lake and its desire to control the Danube Mouths.



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- O3. High economic growth encourages increased water freight traffic.
- O4. A good, well-sized national state budget encourages the increase of the capacity of the Navy / River Forces.
- O5. A large and abundant labor market for the navy.
- resizing the forces in the Tulcea garrison and staffing them with staff who knows very well the characteristics of the area and the population;
- O6. Establishment and operationalization of an allied entity / expeditionary unit of tactical level, of Amphibious Task Force type (battalion level)
- the creation of a company-level amphibious landing detachment is the next level of ambition of the Romanian Naval Forces. It will act, as a national contribution, within an allied entity / expeditionary unit of tactical level, type Amphibious Task Force (battalion level) that performs crisis response operations Non-Article 5, under NATO command
- O7. Execution of interdiction and control activities of suspicious ships to support the competent institutions.
- O8. Providing full support for the transport of introduction / extraction in / from the areas of action of our own marine combat structures
- The actions of the marine subunits on the river, in the Danube Delta and in the lagoon area require the support of river vessels for transport, introduction and removal in / from the area of action, fire support, logistical support, etc. Deploying the entire regiment from a single location, only by road (with poor infrastructure) requires time, organization and the danger of blocking forces to the destination;
- O9. Carrying out common intervention / operation procedures, joints
- Artillery-carrying river vessels are the guarantor of the defense or forcing of the river by infantry forces; the joint preparation and training of ship squadrons with the Marine Subunits, or with the Land Forces, will lead to the improvement of methods and procedures for action;
- O10. Providing support and protection to other fighting structures
- Under the protection of the ships of the River Fleet, the ships of the Passage Battalion will ensure the transport of troops, armament, combat equipment and related materials in a timely manner and in any district where their intervention is required.
- O11. Ensuring a dedicated structure for divers, specialized for working in the river environment.
- The group of river divers will act for the benefit of the river forces for the execution of specific missions, regarding the protection of ships and port installations as well as for the investigation and supervision of some river districts;
- O12. Achieving the interoperability of own structures with partner fighting structures.
- Promoting partnership ideas and strengthening trust and stability between the countries bordering the Danube by involving the participating forces in the organization and conduct of humanitarian and peacekeeping missions in river districts, using specific NATO procedures.

**Threats**

- T1. Russia's well-known interest in the mouth of the Danube.
- T2. Challenges and threats to the security and operational environment,
- terrorism,
  - illegal migration, human trafficking



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- ensuring the safety of navigation,
  - dangerous weather phenomena in districts and river sectors.
- T3. Drug trafficking, smuggling of goods, weapons and military technology.
- T4. The threat of terrorism both inside and outside countries is a developing phenomenon.
- T5. Armed attacks and violations of territorial borders in other countries.
- T6. Threat of a cyberattack; espionage; sabotage.
- T7. Hunting and plundering of marine resources and illegal fishing.
- T8. Threats from loss of natural resources (see continental shelf with significant oil and gas resources).
- T9. Most countries that have water surfaces and maintain naval forces, have larger or smaller ships, with which they can operate regardless of whether or not they are part of a political-military alliance. States with potentially hostile interests to Romania, from the Black Sea area, the development of naval and amphibious combat capabilities, both technologically, operationally and doctrinally, addressing a non-linear (hybrid) and integrated philosophy of war , based on:
- hostile economic and social actions;
  - exploitation of interethnic dissensions / tensions of societies of any nature (political, religious);
  - engaging and supporting the insurgency for the territorial control of another state (paramilitary formations, terrorist groups) coordinated by forces for special FOS operations;
  - cyberattacks on the IT infrastructure of government institutions;
  - information operations, psychological operations and hostile propaganda;
  - strategic surprise and misleading;
  - use of high technological weapons / military equipment systems.
- T10. Media manipulation, by spreading "fake news" especially in Russia.
- T11. Anti-democratic propaganda, promoted directly or indirectly on various social networks.
- T12. Creating outbreaks, based on ethnic, religious or democratic discontent, on the border or inside "Moscow specialty" countries.
- T13 The propagation, by some “influencers” on online or video communication channels of some territorial claims (see the so-called Romanian-Ukrainian war for Northern Bukovina on the 2019 You Tube channel) is an extremely dangerous subject, with unforeseen results. . .

**Next step - STRATEGY FORMULATION / Possible future strategy**

After I had identified these strengths, weaknesses, opportunities, and threats, I tried to develop an appropriate response by answering the questions in the table below:

		INTERNAL	
		STRENGTHS	WEAKNESSES
EXTERNAL	OPPORTUNITIES	How do I use my strengths to take advantage of these opportunities?	How do I overcome the weaknesses that will make these threats a reality?
	THREATS	How do I use my strengths to reduce the likelihood and impact of these threats?	How do I overcome the weaknesses that prevent me from taking advantage of these opportunities?

Table 2 model result of strategy.



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The formulated strategy consists of 4 categories, namely: Strategy I (Strength-Opportunity), Strategy II (Weakness-Opportunity), Strategy III (Strength-Threat), and Strategy IV (Weakness-Threat):

		INTERNAL	
		STRENGTHS	WEAKNESSES
EXTERNAL	OPPORTUNITIES	<p>(S-O) 1 Ensure a safe climate on all inland waterways to support trade, transport, exploitation of resources, protection of the ecosystem, jobs open to the community.</p> <p>(S-O) 2 - Specific structural downsizing and attracting skilled labour from the local labour market (prevention of brain drain) in the defense system.</p> <p>(S-O) 3 Clear definition and development of these niche capabilities within NATO / EU and creation of a strong interoperable, rapidly deployable expedition trained to participate in missions in any theatre of operations where this specific exists, under the command of NATO / EU.</p> <p>(S-O) 4 Increasing the visibility and importance of river forces in defense structures as a factor of stability on the NATO / EU east flank.</p>	<p>(W-O) 1. Organizing an integrated task force with other structures interested in river-maritime environment and riverine safety.</p> <p>(W-O) 2. Organizing a group involved in generating the legislative framework with clear rules of engagement in combating illegal migration, trafficking in goods, and people for river military structures.</p> <p>(W-O) 3 Motivation and increase the quality of life of military personnel in river military structures (financial motivation, etc.).</p>



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<b>THREATS</b>	<p>(S-T) 1. Increasing the percentage of the budget allocated for the river sector for the development of the capacity of the intervention forces of the Riverine Flotilla as well as of other structures.</p> <p>(S-T) 2. Initiating negotiations with riparian, neighboring countries, concluding agreements over cross-border trade security and river / maritime activity surveillance. (S-T)</p> <p>3. Building strong river bases with adequate infrastructure and equipped with NATO / EU compatible information systems throughout the river basin or river-maritime-lagoon basin to deal with cyber threats, espionage, sabotage, and others.</p> <p>(S-T) 4. Continuing the pro-NATO/ EU policy and increasing the number and complexity of joint exercises with allied forces.</p>	<p>(W-T) 1. Development of strategic partnership programs with NATO / EU for technology transfer, modernization, and endowment of river military structures (programs such as ODA (Official Development Assistance))</p> <p>(W-T) 2. Fair development of river-river infrastructure and connectivity in the coastal, lagoon, and border areas.</p> <p>(W-T) 3. Carrying out a continuous modernization program of ships with the latest military technologies interoperable with those NATO / EU structures.</p>
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Table 3 Result of total Strategy (Strategy Collected.).

How do I use the results of The SWOT analysis in my strategic plan?

Based on SWOT analysis, the possible strategy that has been identified is composed by 14 (fourteen) sub-strategies that determine the development of the Riverine Flotilla capabilities.

If is necessary obtain a real and useful result in the next stage, the sub-strategies must be modeled through a more complex method like the ISM (Interpretative Structural Modeling) for example.

After that, the SWOT analysis should be followed to an action plan which includes concrete steps to harness our strengths to target the opportunities identified in this analysis and diminish threats and weaknesses.

Actions identified as a priority should be incorporated into an action plan which sets a deadline and identifies a person responsible for their implementation, all of which can be transposed into a Priorities action plan according to the model outlined below:



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Priorities Action Plan				Planned	In progress	Complete	Due date												
				Date Action Done (Months)															
Top Strategic Priorities   Actions	Strategic Objectives	Targeted Objectives	Responsible	1	2	3	4	5	6	7	8	9	10	11	12				
<b>Priority # 1:</b> (put its title here)																			
1.1	Action 1	Grow top line	Name . rank																
1.2	Action 2																		
...	...																		
<b>Priority # 2:</b> (put its title here)																			
2.1	...																		
2.2	...																		
...	...																		
<b>Priority # 3:</b> (put its title here)																			
3.1	...																		
3.2	...																		
...	...																		

Table 4 Model priorities action plan

### 3. Conclusions

Following the study we can reconcile the following aspects:

- Romania's membership in NATO is the direct result of the secular fears of Russian expansionism;
- Russia's interest in the mouth of the Danube is well known;
- Due to the strong support it currently enjoys from Western allies, Romania today faces the Russian threat from a relatively secure position;
- The level of commitment of NATO Allies clearly indicates that Romania will not stand alone in the face of possible Russian aggression;
- As we presented during the paper, at present, the Riverine Flotilla is the strongest river unit of this kind in Europe and makes Romania the main naval power on the Danube. Armored monitors and armored gunboat (vedette) are the largest and most heavily armed ships of this kind, and the Romanian Marines are the only specialized structure in the countries on the eastern flank of NATO, capable of carrying out missions both on the river and in the coastal and lagoon area.
- As a NATO and EU member, Romania has taken on the not-so-easy task of securing and defending the eastern flank of the alliance, which is by far the hottest, given Russia's recent ostentatious and aggressive actions and the numerous frozen conflicts in the Wider Zone. Black Sea.
- Currently, the main task of the Riverine Flotilla is to cover a district with a length of over 730 km.
- Given the current situation and the existence of risks and threats in the river-maritime space, the river forces must become "flexible, modular - operable and capable of rapid reaction", which can be achieved by reorganizing and supplementing with other forces, belonging to the naval forces or from other categories of forces, but also with the endowment or modernization of the current military equipment.

In this paper, I set out only to make an analysis of the need to continue the process of modernization and restructuring and to emphasize the importance of Romanian river forces in national and allied security and defense.

The military dimension of defending Romania's interests on the Danube is a complex system that includes doctrinal and military policy aspects, adequate structures, and appropriate forces.

As mentioned by Commander Dr. Eng. Scipanov Lucian – university lecturer in the National Defense University, in his paper River Forces the core of riparian capabilities,





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Military Publishing House 2020 - "The development of structures of national riparian forces represents the answer through which the FNR will be able to contribute to the consolidation of the status of security generators of Romania in the extended area of the Black Sea"

"The full nature of a possible future military action necessarily requires the existence of a modern and flexible naval force, capable of imposing respect. Answer to the question "Why do we need a strong riverine flotilla on the Danube? Or is a river force still needed in the next millennium? as much as Romania needs a military body, it must be complete, with all its components ”.

Threats specific to the river - maritime space, will foreshadow in the future, an integrated structure, land, naval, and air for river forces, consisting of specialized groups, of rational dimensions, able to carry out actions in a varied environment and equipped with weapons and equipment state-of-the-art combat, allowing them the high operational capacity, increased mobility, and great flexibility and adaptability.

The Riverine Flotilla, in my opinion following this SWOT analysis, is a necessary military structure in the current context that must be maintained with national support, but also NATO and EU, to be together with other forces the guarantor of security on the eastern flank of Europe and the North Atlantic Alliance.

Of course, SWOT analysis is just an analysis tool that can provide a framework for developing a strategy. SWOT analysis also has limitations and can lead organizations to see circumstances as very simple and, for this reason, to overlook certain strategic key issues that may arise, it's subjective, as there is a high degree of uncertainty The SWOT analysis emphasizes the importance of these four aspects but does not establish how to identify them correctly, in this way, is necessary to use another technique such as "Porter's Five Forces Analysis", PEST Analysis (political, economic, social, and technological) to create a correct organizational dimension

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