MARITIME SPATIAL PLAN OF THE REPUBLIC OF BULGARIA 2021-2035

MILITARY ZONES, ROUTES AND PORTS

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LIST OF ABBREVIATIONS

AIS	Automated Information System
BBSC	Bulgarian Black Sea coast
BN	Bulgarian Navy
BSRBD	Black Sea Region Basin Directorate
CM	Council of Ministers
CZ	Contiguous zone
EAFA	Executive Agency for Fisheries and Aquaculture
EAMA	Executive Agency Maritime Administration
EEZ	Exclusive economic zone
EU	European Union
GMDSS	Global Maritime Distress and Safety System
IMO	International Maritime Organization
IO	Institute of Oceanology, Bulgarian Academy of Sciences
ISW	Internal Sea Waters
MD	Ministry of Defence
MEW	Ministry of Environment and Water
MoI	Ministry of Interior
MRCC	Maritime Rescue Coordination Centre
MRDPW	Ministry of Regional Development and Public Works
MSFD	Marine Strategy Framework Directive
MSIWPRBA	Maritime Space, Inland Waterways and Ports of the Republic of Bulgaria Act
MSP	Maritime Spatial Planning
MTITC	Ministry of Transport, Information Technology and Communications
NA	Naval Academy
NMS	National Maritime Spaces
RIEW	Regional Inspectorate of Environment and Water
SEPI	State Enterprise Port Infrastructure

SG	State Gazette
SSAS	Ship Security Alert System
TS	Territorial Sea
TSS	Traffic Separation Scheme
UN	The United Nations
VTMIS	Vessel Traffic Management and Information Systems
WFD	Water Framework Directive

MILITARY ZONES, ROUTES AND PORTS

1. Specificities of the Black Sea Region from a security perspective

This study makes reference to existing research papers written on the subject matter. Specifically, the research projects used in this study represent the Bulgarian national school of thought in the area of maritime security. Their chronological sequence is as follows:

1. "Participation of the Bulgarian Naval Forces in national marine space control", a doctoral thesis presented by Petar Dereliev. 2004

2. "Building and using the system of defending the maritime sovereignty of the Republic of Bulgaria in a changing security environment", a doctoral thesis presented by Boyan Mednikarov. 2006

3. "Defending the critical maritime infrastructure of the Republic of Bulgaria in a changing security environment", a doctoral thesis presented by Nedko Dimitrov. 2008

4. "The maritime policy of Bulgaria in the changing security environment of the Black Sea Region", a doctoral thesis presented by Siyana Lyutskanova. 2015

5. "Interaction between the Navy and the other components of the State's sea power in the interest of national security", a doctoral thesis presented by Dimitar Yordanov. 2017

In greater detail, the findings are presented in the collective monograph "Functional Zoning of the National Maritime Spaces for Development of a Coastal Zone Management Information System" by a team of authors under the general leadership of Nedko Dimitrov, published in 2018.

1.1. Structure of the national maritime spaces as the environment for exercising the maritime sovereignty of the State and other sovereign rights related to the sea

The operational environment of the institutions securing the maritime sovereignty of the State and the exercise of its other rights related to the sea is the maritime space of the Black Sea Region. Naturally, this includes the NMS of the Republic of Bulgaria, but also maritime spaces of other Black Sea nations. The need to also consider the NMS of the rest of the Black Sea nations as part of the environment concerning the maritime sovereignty of Bulgaria is determined by the fact that this is an inland sea and by the possibility for certain processes emerging in the NMS to endanger the interests and sovereignty of Bulgaria.

The NMS of the country is defined in accordance with international law and pursuant to the national legislation. These are complex in structure and subsume within themselves the bowels of the earth and the sea, and are functionally linked to the airspace and the Cosmos above them. In these spaces, the State has strong rights and important interests. Their efficient utilisation is related to the following specific, functionally distinct zones: internal sea waters (ISW); territorial sea (TS); contiguous zone (CZ); exclusive economic zone (EEZ); and continental shelf. The NMS also

comprise part of the coastal land strip, as well as parts of other bodies of water (river mouths, canals, lakes, etc.).

The complex structure of maritime spaces is determined by the fact that they are formed at the boundary between three macrospheres (physical, informational and moral) and three elements (water, earth and air), which explains the diversity of geopolitical, military-strategic, geographic, economic, legal, informational, and environmental aspects relevant to ensuring the maritime sovereignty of a nation.

From a functional perspective, the maritime spaces comprise the following distinct zones and areas that have a direct bearing upon securing the maritime sovereignty:

- those related to the country's defence: zones and areas where naval formations of the respective country, or a coalition (alliance) of which it is a member, operate in order to protect its sovereignty, such as the naval theatre of operations, the operational zone of the Navy, the zones of responsibility of the naval bases, the zone of operations, the zone of maritime communications, etc.;

- the coastal area: part of the marine environment and the land designated by distinct terms ("Black Sea coast", "coastal zone", etc.). This is where the interplay between the different aspects of sea use takes place. Designated within it are zones serving different purposes: port complexes, staging posts and repair facilities, urban areas, warehouse complexes, nature reserves, protected areas, resorts. The external boundary of the coastal area can be assumed to be the 200-m isobath;

- underwater space: of extremely great importance for protecting national security, exploring the sea shelf and the sea bed, conserving biological resources and the environmental status of the sea;

- marine (deep water, offshore) zone: located beyond the 200-m isobath, it is linked to the exploitation of the sea and its resources;

- maritime region within the jurisdiction of the Executive Agency Maritime Administration: comprises the NMS of the Republic of Bulgaria and the national search and rescue region. Within that region, the Maritime Administration Directorates at Varna and Burgas have each its own subregion with permanently fixed boundaries. In the region, the Agency supervises compliance with the shipping safety conditions and with requirements for protection of the marine environment, controls shipping traffic in the canals and ports, and performs sea search and rescue missions;

- maritime jurisdiction of the Border Police General Directorate: basically, this comprises the sea ports, ISW, TS, CZ, the Bulgarian section of the Danube River, other international border rivers, and is relevant for the security of the maritime state boundary and for compliance with the border regime in the maritime spaces;

- National Search and Rescue Region: its boundaries almost overlap with those of the Flight Information Region. Its boundaries are delineated in consideration of the TS and the EEZ of the neighbouring countries;

- sea routes: it is around those that the entire maritime policy and the concepts for protection of national interests are built. The most important targets of control are the main routes (corridors) and the intensity of maritime traffic. Sea routes are divided into:

• cabotage (internal), providing links between a country's own sea ports; they are regulated strictly by national statutes and legislation. In the ISW and the TS these are designated by the Traffic Separation Scheme;

• external sea routes: connecting Black Sea ports, including with the Zone of the Straits. Among these, of greatest interest is the maritime section of Corridor VIII (to Varna and Burgas), whose development is a national priority. While the external sea routes are not regulated since they are affected by sea currents, navigational and other factors (social, political, military, etc.), a set of relatively permanent maritime transport corridors have taken shape within the NMS. Since the years of economic crisis there has been a steady increase in the number of ships in transit passage across our NMS in a north-south direction;

- safety zones: established around artificial islands, installations and facilities, these include the water column from the sea surface to the seabed and are usually located up to 500 m from their remotest end. Their establishment and maintenance is an element of the operations for securing the maritime sovereignty of the State;

- protected areas along the coast, nature and historical reserves, architectural landmarks and archaeological sites: while in the Republic of Bulgaria those specific areas are subject to protection under various laws, the State's care for them is yet to be encompassed in a single concept. This fact is the source of a lot of controversy and jeopardises the safeguarding of the historical and natural heritage of the country.

The complex structure of the NMS also determines the complexity of the measures and actions instituted to protect the maritime sovereignty of the State. Familiarity with that structure enables a proper understanding of the spatial framework of the utilisation of the tools and resources harnessed for the protection of Bulgaria's maritime sovereignty.

1.2. International legal status of the maritime space of the Republic of Bulgaria

Pursuant to the provisions of international law, the ISW and the TS, as well as the airspace above both of these, the seabed and the bowels of the earth constitute part of the country's territory; therefore, the State has sovereignty over them, while enjoying certain sovereign rights over the rest of the maritime spaces. To clarify these rights of the State, it is necessary to analyse the international legal status of the NMS.

The first step in that process is a classification of maritime spaces in terms of the sovereign rights of the State; this should be done in the following sequence:

1) determination whether or not a given maritime space falls within the boundaries of the national territory;

2) determination of the extent of the country's jurisdiction over any maritime space comprised within its national territory;

3) determination of the status of maritime spaces over which, while not being part of the national territory, the State has some extent of jurisdiction;

4) determination of the status of maritime spaces that are not subject to the sovereignty or any form of jurisdiction of the coastal State.

A brief characterisation of the fundamental documents regulating the legal status of the national maritime spaces is presented in Appendix 1.

Sovereignty over the territorial sea and the internal sea waters, the airspace above these, as well as the sea bed and the bowels of the earth below it, is an internationally recognised right. Nevertheless, the international legal status of the TS differs from the legal status of other parts of the territory and of the ISW because of certain special provisions of international law.

The rules established by the relevant coastal state in the TS are designed to protect its internal and external security though the exercise of strictly defined rights: the right of jurisdiction over foreign commercial vessels; the right to exercise administrative, customs, tax, sanitary and other forms of control; fishing rights and the rights to perform other types of industrial and economic activities along the coast. Despite all that, pursuant to Articles 17—26 of the Convention on the Law of the Sea, the coastal state is obliged to honour the right of innocent passage of foreign vessels across its TS. Passage means traversing the TS, without calling at a roadstead or entering into the ISW or a port facility, outside of the ISW. Passage must be continuous and expeditious. Pursuant to Article 19 of the Convention, "Passage is innocent so long as it is not prejudicial to the peace, good order or security of the coastal State ...".

Innocent passage may also include stopping (anchoring) in the TS and the ISW, but only in so far as these are incidental to ordinary navigation or are rendered necessary by force majeure (breakage or distress) or for the purpose of rendering assistance to persons, ships or aircraft in danger or distress. During innocent passage, foreign vessels are obliged to observe the laws and customs of the coastal state. The passage of foreign fishing vessels is not considered innocent of they violate a ban on fishing within the TS.

In that context, with respect to foreign vessels the State imposes a set of rules concerning the manner of establishing radio communications, the legal status of off-limits or other zones, the rules of navigation, etc.

In certain circumstances and subject to the satisfaction of certain requirements, a coastal state may temporarily suspend the right of innocent passage of foreign vessels for certain zones of its TS. To that end, the MD (acting through its Navy) declares "areas prohibited for navigation", "temporary exclusion zones" or "areas of prohibited anchoring".

Within its TS, the State enjoys a number of exclusive rights:

- to conduct scientific research, whereby it is obliged to notify interested parties of any obstacles to navigation created in that context. The State may also authorise scientific research conducted by another state while reserving the right to participate in such research and the right of access to its findings;

- to pursue maritime industrial activity;

- to organise and provide cabotage;

- to provide pilotage services in its territorial waters by enforcing requirements for navigation in certain areas to ensure the safe piloting of vessels by the pilotage crews;

- to enforce the established customs and border regime in order to safeguard its own political, economic and defence interests.

The outer limits of the TS are usually measured from a mark on the shore at low tide, but in the case of a river estuary or a small gulf these are measured from the so-called baseline defining the limits of the ISW of the relevant state. The breadth of the territorial sea is a point of contention in international law. Traditionally, it used to be 3 nautical miles, but nowadays most countries have established either a 6- or a 12-mile zone of their TS.

Having analysed the sovereign rights of the State in the CZ, we note a certain discrepancy between our national law and the Convention on the Law of the Sea. Pursuant to said Convention, a coastal state has the right to exercise control in its CZ for the purpose of preventing violations of its customs, tax, immigration or health laws and rules. The relevant text in the MSIWPRBA (Article 38) provides that control is exercised in the CZ "...to prevent infringement of its customs, financial, immigration and health requirements ...". As becomes apparent, the legislator has expanded the scope of control exercised by the State in the CZ by replacing the more specific "tax laws" with the broader "financial requirements" and the more specific "immigration laws" with the broader "border requirements". This may lead to a situation where the authorities enforcing the provisions of the national legislation end up committing a violation of international law.

According to Articles 55 and 57 of the Convention on the Law of the Sea, an exclusive economic zone is "... an area beyond and adjacent to the territorial sea"; and "the exclusive economic zone shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured ...", in which the coastal states may exercise rights concerning the exploration, exploitation and management of living and non-living resources.

The EEZ has a special legal status that distinguishes it from both the territorial and the open sea, describing it as a kind of maritime space with its own specific legal status which is functional in nature, enabling the jurisdiction of the respective coastal state to exercise its sovereign rights. Pursuant to Article 56 of the Convention, in the EEZ the coastal state has:

- sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed

and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds;

- jurisdiction with regard to: the establishment and use of artificial islands, installations and structures; marine scientific research; the protection and preservation of the marine environment.

Analysis shows that the EEZ is not under the sovereignty of any state, whereas the relevant coastal state has been given strictly defined functional sovereign rights (which does not in any way imply sovereignty over the zone) for a strictly defined set of economic exploitation of that zone.

The coastal state has broad powers to regulate the exploitation of living resources in the EEZ, their protection and management. It determines, by a set of laws and regulations: the issuance of permits for exploitation of said living resources, the use of fishing vessels and equipment, the collection of fees and other charges; the allowable catch of living organisms and the fishing quotas; the seasons and areas of fishing; the size and quantity of fishing tools as well as the number, tonnage and types of fishing vessels that can be deployed; the size and age of the fish and other aquatic resources the harvesting of which is allowed; as well as any other types of activities pertinent to their exploitation in the relevant EEZ. In addition to all that, the coastal state is mandated to ensure the protection of the living resources within the zone so that their maintenance "is not endangered by over-exploitation", and to cooperate to that end with the competent international bodies (Article 61(2)).

The exclusive jurisdiction with regard to artificial islands, installations and structures (Article 56 (1)(a) and (b)) also determines the state's jurisdiction in terms of the customs, tax, safety and immigration laws and regulations it enforces (Art 60(2)) on these. The coastal state may establish around such artificial islands, installations and structures safety zones whose breadth must not exceed a distance of 500 m around them (Article 60(4) and (5)). Such artificial installations have no territorial sea of their own (Article 60(8)) and may not be established where interference may be caused to the use of recognised sea lanes essential to international navigation (Article 60(7)).

In the respective CZ and EEZ a state may declare "temporary danger zones" for air traffic or navigation. Usually such zones are declared in the interest of the safety of shipping, flights and other activities on and above the sea during major naval exercises using long-range weapons, during research work, etc. The State cannot ban foreign vessels or aircraft from entering the designated area, but assumes no responsibility in the event of damage or destruction of these.

The state exercises sovereign rights over the continental shelf for prospecting, exploration, development, exploitation, protection and management of its natural resources, including the energy, mineral and other non-living resources of the seabed and the bowels of the earth, as well as the living organisms belonging to sedentary species. The State has the exclusive right to carry out, authorise and regulate drilling works in that zone, for whatever purposes it deems necessary; to authorise the building and regulate the establishment of installations and facilities within its jurisdiction.

The State also exercises sovereign rights with respect to the radio frequency spectrum and the positions of geostationary satellites assigned to the Republic of Bulgaria by force of international agreements.

An analysis of the international legal status of the NMS of the Republic of Bulgaria shows that within these, there are designated zones over which the State has full or limited sovereignty, as well as zones where the State enjoys certain sovereign rights under international law. Protecting the national sovereignty and the enjoyment by the State of all its sovereign rights in relation to the sea necessitates intricate familiarity and strict compliance with the national statutory framework, as well as its continuous fine-tuning.

1.3. Specificities of the Black Sea Region from a security perspective

The highly charged situation in the Black Sea region as a result of the fragmented political map and the divergence of interests of the individual countries in it make the analysis of the security environment there multi-faceted and its findings difficult to predict. Taking into consideration the global challenges with their regional dimensions and analysing the objectives of the Naval Forces and the other institutions of maritime competence has reaffirmed our understanding that they are called upon to ensure the protection of Bulgaria's national sovereignty in a broader context. Not just in terms of defending our territorial integrity from foreign aggressors but also by providing a comprehensive protection of all national interests of Bulgaria in relation to the national maritime spaces.

The guidelines and priorities determining these policies are invariably linked to the changing security environment in both a global and a regional context, whose parameters have a direct impact on the dynamic of the political, economic and social processes. The planning of nationally responsible defence priorities and their implementation will, on the one hand, maximise the utilisation of all economic opportunities, while, on the other, will serve as an indispensable tool for guaranteeing a safe and secure environment in a dynamically changing Black Sea Region. The challenges are diverse and include the lacking "common identity" of the Black Sea nations, the substantial differences between them in terms of political legitimacy and economic development, the so-called "frozen conflicts" and their periodic de-frosting; Russia's attempts to assert its dominance in the region; developments in Turkey which, according to international think-tanks, have lowered by many notches the level of democracy in the country and the region; risks and threats that we call "hybrid" and which are especially manifest on sea, affecting the maritime interests of the relevant countries, and many others.

Many factors determine the security environment in the Black Sea Region. Its current state allows us to consider and assess the ongoing processes and outline several probable scenarios for their further development on the basis of declared and pursued long-term goals of the key players. The highly fragmented political map of the region and the divergence of the interests of individual states in it make the security environment difficult to forecast. Far from being completely exhaustive, this analysis seeks to identify the areas in which maritime institutions, notably the

Naval Forces, have a key role to play in protecting the national security and the interests of Bulgaria.

There are two basic premises that determine the framework of the analysis. The first is related to our membership of the Euro-Atlantic structures, with our defence being realised in the context of the allied, i.e. collective defence. Our full EU membership implies some additional commitments in the context of the Union's Common Security and Defence Policy, an area that is part of the common foreign policy of the EU, also a very substantial factor for the security environment of the continent and the region. It is absolutely imperative that the actions of the Navy, its operations and capabilities required for the performance of this range of objectives must be in line with the goals of NATO, on the one hand, without neglecting, on the other, the key elements of the EU's policy for the Black Sea Region.

The next premise for this analysis is the environment in which these objectives are to be attained in our region, the extremely dynamic, highly complex security environment of the Eastern Mediterranean and the fact that the BN is expected to act in these two regions, where security issues become, more often than not, quite dramatic, because, being part of NATO, the BN operates not just in the Black Sea but in the Mediterranean as well.

Of course, in addition to the tasks pertinent to its concrete naval presence, there is also the challenge of securing the unimpeded assurance that it stands ready to deliver all kinds of critical services at sea: to business entities, personnel, crews and aircraft engaged in the service of such platforms. The question thus arises of the further development of maritime patrol aviation, so that it would have the capacity to reach those areas, to deliver personnel there, to establish a longer presence and control the situation.

Another aspect, again in this context, is the building of the Balkan Gas Hub. Its development will bring about the establishment of essentially a new type of seaport. This will necessitate significant changes in the maritime traffic routes. All of that also raises the necessity to perform a wide range of tasks, including securing those communications, guaranteeing the security of vessels in the outer and middle maritime zone and in the immediate vicinity of the country's shores, ensuring the safety of navigation, preparedness for provision of critical services in the context of search and rescue, containing oil spills, etc. A lot of efforts are invested in that. It is necessary to promote scientific research and educational work in this highly relevant sphere, which would help build and maintain the desired capacity. An example of such capacity is the newly created Operational Centre for Management and Monitoring of the Coastal Area at the N.Y. Vaptsarov Naval Academy, which offers broad opportunities for scientific research cooperation, training and real time practical application.

Another specific aspect in the context of critical services is related to the opening and start of the operation of the new Istanbul airport. Located north-west of the city, it is much closer to the Bulgarian border and, in essence, is beginning to engage a lot of the capacity of the Bulgarian Air Traffic Control System. In actual fact, it is our ATCS that will control landings at Istanbul through the so-called "remote and virtual tower". That, and the increased air traffic over the Bulgarian

national maritime spaces due to the closing of the Ukrainian and Egyptian airspace, leads to a heightened risk of aviation disasters. The proper response of the state to such an adverse scenario in terms of the factors of reaction time and multiple human casualties may be detrimental to the country's international standing. This raises the question of how to make arrangements for improving the country's preparedness to act in such a scenario. Once again the question arises of what platforms out at sea will be engaged in search and rescue operations, particularly in remote areas. The need arises, therefore, for the BN to be equipped with high-speed naval platforms to be deployed in such an operation and, of course, for the capacity of the naval aviation to increase. It is a fact that, at present, no institution other than the BN has the capacity to render support to search and rescue operations in remote areas at sea.

1.4. Institutional framework of the national security system

A National Maritime Sovereignty System has been created to guarantee the sovereign rights of the State.

The key component of that system is the Bulgarian Navy. The Navy performs its functions in collaboration with various agencies. The description of the maritime sovereignty system cited below is borrowed in its entirety from a doctoral thesis in professional area 9.2: "Military science", speciality 05.12.01 "Organisation and governance of the armed forces", on the subject of: "Interaction between the Navy and the other components of the State's sea power in the interest of national security", by Dimitar Yordanov PhD.

1. Navy of the Republic of Bulgaria

According to the Naval Operations Doctrine (National publication of the Armed Forces of the Republic of Bulgaria NP 3.1) and the Plan for Development of the Armed Forces until 2020, the BN (whether jointly or separately, in an allied or national format) is the principal force deployed to protect the national maritime spaces and the national interests in the open sea, by means of conducting or participating in naval operations. The Navy protects the interests of the Republic of Bulgaria and, by interacting with the other branches of the armed forces, guarantees the sovereignty and territorial integrity of the country. This is done by maintaining capabilities for participation in the implementation of the missions and assignments of the armed forces.

The naval forces, whether on their own or in collaboration with other agencies, implement missions in defence of the country's marine sovereignty and for protection of the national interests in the following areas:

- Watching out for violations of the sovereign rights and jurisdiction of the State in its NMS and apprehending an offender;
- securing the maritime boundaries;
- defence of the national territory;

- Naval Cooperation and Guidance for Shipping (NCAGS).

Another objective of the Navy is to exercise integrated control of the performance of the following sub-functions:

- creating and maintaining a proper lookout in the maritime spaces of the Republic of Bulgaria;
- border and customs enforcement;
- control of the conduct of yachts, boats and other seagoing vessels used for sports, tourism and recreation;
- control of fishing;
- control of deep-water diving.

The Navy plays a substantial role in providing safety and security in a broad context: from technical safety to search and rescue, in the following specific areas:

- counterterrorism;
- countering present-day threats (asymmetrical, hybrid and virtual);
- protection of important strategic installations of the maritime critical infrastructure;
- protection of offshore industry;
- port security.

The Navy also participates in ecological and environmental protection activities by carrying out tasks pertinent to:

- protection of the marine environment;
- watching out for, and timely detection of, polluting vessels;
- implementation of oil spill impact mitigation.

Last but not least, one should consider the participation of the BN in ensuring the proper functioning of the national economy in the following areas:

- navigation safety by means of: marine traffic control, state port control, issuance of marine notices to mariners, dissemination of hydro-meteorological information, navigation support, hydrographic and cartographic activities;
- assistance to the general population in natural and man-made disasters (including port incidents);
- search and rescue.

2. Border Police Directorate General (BPDG)

The Border Police Directorate General (BPDG) is the specialised national authority performing functions (operational and investigative work; security and protection; criminal investigation; intelligence; supervisory; crime prevention; enforcement and penal; provision of administrative services) in the border areas, in the zones around the border crossing points, at international airports and seaports, in the internal sea waters, the territorial sea, the contiguous zone, the continental shelf, the Bulgarian section of the Danube River and the other border rivers and water basins.

The BPDG has a three-tier command structure (Directorate General, Regional Directorate, border police precinct). This constitutes a practical implementation of the "one border, one force" principle. Thus, one regional border sector protects and controls a part of the national border that is adjacent to one neighbouring country: Romania, Serbia, North Macedonia, Greece, Turkey, as well as the Black Sea.

The jurisdiction of the Border Police Directorate General covers the border zones stretching 30 kilometres into Bulgarian territory as measured from the land border, and 30 km inland as measured from the sea shore; within that jurisdiction the BPDG exercises its powers of border control, which include border surveillance and checks of inbound and outbound traffic.

The operation and powers of the Border Police Directorate General in terms of protecting the maritime boundary and enforcing the border regime in the maritime spaces, the coastal strip and the seaports are regulated by the Ministry of Interior Act and the Maritime Space, Inland Waterways and Ports of the Republic of Bulgaria Act (MSIWPRBA). In summary, they amount to the following: securing the Bulgarian maritime boundary; immigration and customs enforcement in the internal sea waters and the territorial sea, the water areas of the seaports and the coastal strip; immigration and customs enforcement in the public transport ports of the Republic of Bulgaria; control of the navigation, fishing, industrial and other economic activities in the maritime spaces; control of the protection of the terrestrial and aquatic environment, of protected species and areas; detecting and apprehending individuals and vessels illegally crossing the maritime border; detecting, prevention and investigation of illicit activities in the maritime spaces: illegal migration, trafficking in illegal goods, drugs and weapons; illegal fishing, etc.

Management and protection of the maritime state border and border enforcement are the responsibility of the Border Police Directorate General through its Regional Directorate in the city of Burgas and is effected by the following:

1. maritime forces, comprising a base of border police vessels patrolling at sea;

2. coastal forces, comprising: border sections, technical and visual surveillance posts, border checkpoints and an operational centre for intelligence gathering and analysis and coordinating the operations of individual units;

3. mobile crew for on-board vessel inspection: a specialised rapid response unit standing ready to be deployed in emergencies and crises.

The border police jurisdiction of the Republic of Bulgaria along the Danube River stretches from riverine kilometre (r.km.) 845.650 to r.km. 374.100.

3. Executive Agency Maritime Administration

The Executive Agency Maritime Administration is a public-financed legal entity reporting to the Minister for Transport, Information Technology and Communications. It has headquarters in Sofia and territorial units in the cities of Burgas, Varna, Ruse and Lom. The Agency is responsible for organising and coordinating efforts for ensuring the safety of navigation in the maritime spaces and internal waterways of the Republic of Bulgaria; providing for effective communication between the State and ships flying the Bulgarian flag; enforcing the navigation safety rules with respect to ships flying the Bulgarian or a foreign flag; provision of traffic control and information services to navigation in the maritime spaces, internal waterways, canals and ports of the Republic of Bulgaria and in other areas delineated in accordance with the established procedure. It also exercises on behalf of the State environmental control over shipping with a view to preventing environmental pollution by vessels.

The Agency has jurisdiction over the internal waterways, the territorial sea, the Bulgarian section of the Danube River, the land coastal strip with a width of 100 metres measured from the line of the lowest tide; the territory of seaports and the specialised port facilities with the exception of naval bases; the exclusive economic zone of the Republic of Bulgaria as defined per the UN Convention on the Law of the Sea; the Bulgarian maritime search and rescue area of responsibility in accordance with the International Convention on Maritime Search and Rescue; as well as over navigable rivers flowing into the Black Sea.

The Agency performs search and rescue operations within the Bulgarian maritime search and rescue area of responsibility and the internal waterways of the Republic of Bulgaria through its General Directorate for Emergency Rescue Operations located in Varna, and its territorial units in Burgas and Ruse. The Directorate maintains 24/7 availability of personnel and means for coordinating and conducting search and rescue operations for saving human life and providing assistance to ships and aircraft in distress in the Bulgarian maritime search and rescue area of responsibility and in the internal waterways of the Republic of Bulgaria. The Directorate comprises 4 structural units: Maritime Rescue Coordination Centre (MRCC); Black Sea Rescue Equipment; River Danube Emergency Rescue Operations; and a Department for Project Development and Management for the needs of the Executive Agency.

The Maritime Rescue Coordination Centre (MRCC) of the Republic of Bulgaria is structured as a department in the General Directorate “Emergency Rescue Activity; of the Executive Agency "Maritime Administration" and is located in the building of the Coastal Center - Varna.. The MRCC has the following key functions: to maintain crews on 24/7 duty in order to listen for and receive signals from vessels in distress out at sea, marine pollution alerts and signals from the

SASS system; to take action in the event of receiving a distress signal, a marine pollution alert or a signal from the SASS system; to organise and coordinate search and rescue operations at sea conducted jointly with other governmental agencies or volunteer organisations.

The MRCC is equipped with all communication tools necessary. Attached to it is the coastal radio station Varna Radio which ensures 24/7 monitoring of the airwaves, international communication channels and distress frequencies; emergency traffic control; dissemination (broadcasting) of maritime safety information at national or international radio channels. With the introduction of the Global Maritime Distress and Safety System (GMDSS) in 1999, the radio station became part of that system. The monitoring of digital selective calling (DSC) navigation safety channels, together with their retransmission or acknowledgement, were added to its functions.

The coastal radio station Varna Radio secures Zone A2 of the GMDSS by covering the respective maritime area with DSC signal at distress frequency 2187.5 kHz on a 24/7 basis. The coastal radio station Varna Radio secures Zone A1 of the GMDSS by covering the respective maritime area with DSC signal at channel 70 on a 24/7 basis. To that end, the radio station operators use the technical facilities of the vessel traffic monitoring and information system (VTMIS).

Another essential system for securing global navigation safety is NAVTEX. The NAVTEX-broadcasted information consists of the usual navigation and meteorological warnings, weather forecasts, retransmission of distress signals and, where necessary, of notices on ongoing searches for ships transmitting false distress signals. Varna Radio has been supporting the transmission of NAVTEX messages for Bulgaria and Romania, serving the Bulgarian and Romanian coastal areas in English since 1987.

Especially useful for the needs of maritime search and rescue has been the information from the VTMIS, a system created and launched in 2004. Besides positioning information about vessels in the maritime spaces of Bulgaria, the existing system for triangulating sources of radio transmission (Radio Direction Finder, or RDF) makes it possible to locate the positions of small vessels by tracing their radio signal.

The duty operator at the MRCC monitors continuously all communication channels used for sending signals of in distress out at sea, marine pollution alerts and signals from the Ship Security Alert System (SSAS). Such communication channels are: Inmarsat-C terminal; local UHF station with DSC controller; USW radio-communications terminal with remote transceiver control; telephone; fax; e-mail; terminal of the 112 single EU emergency number.

The work organisation and the documenting of processes in respect of S&R operations at sea on behalf of the MRCC are regulated in a SOP of the MAEA Quality Management System (CMS) (PC 10-01).

To date, the MRCC has 2 Tangra class rescue boats, 6 small PARKER 900 BALTIC и 2 large PARKER 1400 INTERCEPTOR crafts (3 and 1 respectively for each of the two centres at Varna and Burgas).

The rescue boats (stationed one each at Port of Varna and Port of Burgas) have 24/7 duty crews ready to sail on 15-minute notice according to a rota approved by the Directors of the Maritime Administration branches at Varna and Burgas.

The Directorate also maintains 24/7 availability of personnel and means in the joint aviation and marine rescue coordination centre to coordinate and conduct search and rescue operations for saving human life and providing assistance to ships and aircraft in distress in the Bulgarian maritime search and rescue area of responsibility and the internal waterways of the Republic of Bulgaria.

The Maritime Administration Executive Agency also plays a role in implementing regulations with respect to ensuring the security of vessels flying the Bulgarian flag and of the ports and port areas in the Republic of Bulgaria, as well as in enforcing compliance with the requirements for free access to the ports.

Within their jurisdictions, the MAEA territorial directorates exercise state port control over vessels flying a foreign flag in compliance with the provisions of the national legislation, the secondary EU law and the international treaties to which the Republic of Bulgaria is a party; they control the compliance with the requirements for free access to ports and the fulfilment of the measures provided for in the safety and security plans of ports and port areas and in the ports' safety rules, and exercise control of the compliance with the measures provided for in the emergency response plans of port operators.

4. State Enterprise Port Infrastructure

Pursuant to Article 115l of the Maritime Space, Inland Waterways and Ports of the Republic of Bulgaria Act (MSIWPRBA), State Enterprise Port Infrastructure (SEPI) is a legal entity within the meaning of Article 62(3) of the Commerce Act.

SEPI is headquartered in Sofia and has four territorial branches: at Burgas, Varna, Lom and Ruse, as well as three specialised directorates: Black Sea Vessel Traffic Management, River Danube Vessel Traffic Management, and Port Terminals Operation.

State Enterprise Port Infrastructure manages the infrastructure of the public transport ports in compliance with the provisions of the MSIWPRBA. The sphere of responsibility of SEPI comprises construction, reconstruction, rehabilitation and maintenance of public transport ports, maintenance of existing and construction of new approach canals, port waters, sea and river depots for the disposal of dredge spoil, breakwaters, protection facilities and other facilities servicing public transport ports; property management for public transport ports; responsibility for the adoption, execution and updating of security plans for the port areas that include public transport ports; ensuring access to ports; building and maintenance of facilities to serve the marine traffic control and information system and the Bulgarian riverine information system; securing the navigation safety in the territorial sea, the internal sea waters, the canals and the port waters.

SEPI is also responsible for provision of information on traffic control and information support services for shipping, distribution of marine information on safety and maintenance. In addition, through the Global Maritime Distress and Safety System (GMDSS) SEPI services ship-shore/shore-ship telecommunication services, traffic control services and information support of shipping and the provision of river information services to river vessel traffic, as well as dissemination of hydro-meteorological information.

In providing its services, SEPI uses the coastal radio station Varna Radio in accordance with the Global Maritime Distress and Safety System (GMDSS), ensuring continuous 24/7 monitoring of the international distress channels and frequencies (zones A1 and A2 of the GMDSS); it disseminates marine safety information with regard to the hydro-meteorological situation, radio navigational warnings and any other information pertinent to the navigational conditions and shipping safety. The coastal radio station also ensures reliable communication in the event of emergencies and man-made disasters at sea.

The Black Sea Vessel Traffic Management Directorate is responsible for the overall operation and maintenance of the facilities, equipment, systems and subsystems designed to serve vessel traffic and supply information to the seaports, including the main facilities and auxiliary installations of VTS, VTMIS, GMDSS and SSN.

The National Vessel Traffic Management and Information System (VTMIS) integrates all communication and information subsystems into a single national maritime information system. Traffic is managed by two coastal centres (CCs), both of equal capacity and importance, located respectively at Varna and Burgas, which are interchangeable. The management of the system by both centres applies to the entire country as well as to individual sectors. In accordance with the division of responsibility, CC Burgas manages and supervises vessel traffic in the maritime spaces from Cape Emine south to the river Rezovska, while CC Varna does the same from Cape Emine north to Durankulak.

The River Danube Vessel Traffic Management Directorate provides various information services in the Bulgarian section of the Danube River through its main RIS centre and a number of local VTS centres. All elements of the River Information System (BULRIS) are fully compatible with the corresponding systems of the other Danube countries in compliance with Directive 2005/44/EC.

5. Port operators

The ports of the Republic of Bulgaria are managed by port operators under the respective concession agreements. Typically, these are business companies which operate the port complexes and assume responsibility, whether on their own or through external subcontractors, for the provision of the services required for the normal functioning of commercial shipping.

Of interest for the purposes of this study are not so much the actual names of these port operators and the ports they operate as their responsibilities with respect to port security as an element of national security. The ports for public transport as well as the individual port terminals are part of

the critical infrastructure along the Bulgarian Black Sea coast, so arranging and providing for their security is essential for the normal functioning of these areas.

The body responsible for the security within a sea or river port is the terminal operator of that port; said body is responsible for the existence, implementation and updating of a port security plan. In addition to that, the body responsible for port security is obliged to provide and maintain the technical equipment necessary for maintaining security in the port or at the port terminal as specified in the security plan, as well as to designate an officer in charge of security. A port security council is also established.

The officer in charge of security is an employee of the port operator and a contact person for the representatives of the Ministry of Transport, the Ministry of Interior and the Ministry of Finance on matters of security within the port or at the port terminal.

6. Other structures

The Black Sea Region Basin Directorate (BSCBD) was established as a regional office of the Ministry of the Environment and Water (MEW) by an order of the Minister for Environment and Water issued in 2002 in pursuance of Directive 2000/60/EC and in compliance with the national legislation. The main purpose of water management is to attain and/or maintain a good environmental status in all waters (ground and surface) as an integral and vital resource by applying the basin principle of sustainable water use that ensures to an optimum extent the satisfaction of present and future needs of the country's population and economy, as well as of the aquatic ecosystems.

The Black Sea Region Basin Directorate covers the catchment areas of the rivers flowing into the Black Sea between the northern border and the southern border of Bulgaria, including the internal marine waters and the territorial sea. Within its zone of responsibility, the BSCBD monitors the environmental and chemical status of the sea water.

Keeping Sea Water Pure AD is a shareholding company whose sphere of activity amounts to responding to ecological crises related to sea water pollution. Its range of activities includes: maintaining the purity of sea water, the water areas of ports and canals; cleaning up oil and petroleum products spills in the territorial sea and in the internal sea waters in the case of emergencies and man-made disasters; technical support and measures for mitigating the risk of pollution in loading and unloading operations and ship repairs; processing of oil and solid waste generated as a result of the operation of seagoing vessels, ports and related activities.

General Directorate National Police (GDNP) is a specialised national authority performing operational, investigative and protection activities, criminal investigation, intelligence gathering, control and prevention activities within the territory of its jurisdiction, which includes the coastal and port areas (Varna and Burgas). In those, the bodies of the GDNP carry out duties pertinent to the protection of public order, the prevention and detection of criminal activity and participation in criminal investigations.

General Directorate Combating Organised Crime (GDCOC) is a specialised national structure responsible for counteracting organised criminal activities involving narcotic substances, their analogues and precursors; human trafficking, smuggling of individuals and groups of people across the state border, as well as aiding and abetting foreign nationals while illegally staying in, or crossing, Bulgarian territory; trafficking in cultural assets, firearms, explosives, chemical, biological and other hazardous substances, as well as in weapons, devices and technologies of possible dual use; terrorist activities; use of hazardous materials and substances; intimidation, hostage taking, kidnapping for purposes of material gain; and acts involving violence.

General Directorate Fire Safety and Civil Protection (GDFSCP) is a specialised national structure within the Ministry of Interior that is responsible for ensuring fire safety and providing protection in the event of fire, natural calamity or another emergency. Its functions amount to emergency prevention, fire safety enforcement, firefighting and rescue missions, emergency recovery operations, operational flood protection and search and rescue operations, chemical, biological and radiation protection, early warning and notification of the bodies of the executive branch and the general population in cases of natural or man-made disasters and air raids.

The State Agency for National Security is a specialised counterintelligence and security authority whose key mission is detection, prevention, counteraction and neutralisation of threats to national security concerning the national unity, territorial integrity and maritime sovereignty of the country. The Agency was established to guarantee non-intervention into the internal affairs of the Bulgarian state on the part of external actors, to supply intelligence to the highest governmental authorities as may be necessary for the implementation of their national security policies and decision making in accordance with the national interests. The SANS is also responsible for coordination and collaboration with foreign special services, in accordance with Bulgaria's international commitments and in the best interest of its national security, for the purpose of counteracting international terrorism and other forms of international organised crime in the maritime spaces of the Republic of Bulgaria.

The Pilotage Service plays a role with respect to ensuring the safety of vessels manoeuvring in an out of port terminals. The operation of individual business entities engaged in pilotage is regulated in conformity with Regulation No 1 of the MTITC of 9.02.2001 laying down the terms, conditions and procedure of providing pilotage services in the Republic of Bulgaria.

The Ministry of Transport, Information Technology and Communications generally implements the State's policy in the field of transport; it ensures and oversees the preparedness of the transport system in conditions of crisis, is responsible for the proper functioning of the transport and communication support of the armed and security forces in the process of transition from peacetime to wartime operation.

The Customs Agency plays a role in exercising control over the NMS by ensuring the safety and security of the population, protecting the financial interests of the EU and its Member States, protecting them against unfair and unlawful competition while at the same time facilitating

legitimate commerce, increasing the competitiveness of European businesses by using modern tools in an easily accessible electronic environment.

The Regional Inspectorates for Protection and Control of Public Health (RIPCPH) perform the following functions: control of compliance with the health requirements for goods, products and activities relevant to human health and of the factors of the living environment for public use; control of infectious diseases; promotion of health and integrated disease prevention; control of the condition of contact persons and other individuals in accordance with the epidemiological indicators; assessment, monitoring and control of pollutants in potable water; advisory, methodological and expert assistance in the area of protection of public health.

Medical establishments: in the event of a crisis, they, acting in accordance with collaborative action plans, provide medical assistance to victims of terrorism, natural and man-made disasters.

The Regional Inspectorates of Environment and Water (RIEW) are territorial branches of the Ministry of Environment and Water that implement locally the government's policy of environmental protection. They have supervisory, regulatory and information disseminating functions in the following areas: protection of the air, water and soil against pollution and damage; enforcement of an environmentally sound exploitation of the bowels of the earth and of the underground natural resources; collecting and providing information concerning the state of the environment and water resources. In performing their regulatory functions, they develop or participate in the development of bylaws or carry out activities related to the government policy in the area of environmental protection. In performing their supervisory functions, they exercise preventive, ongoing and follow-up control of the enforcement of primary and secondary legislation governing the quality of environmental components and the factors having an impact on them.

Executive Agency Fisheries and Aquaculture (EAFA) is responsible for effecting the state and operational governance of the Fisheries sector within the framework of the Common Fisheries Policy of the European Union (EU), government supervision, control of fishing activities in fishery waters, and has been designated as the Managing Authority with respect to disbursements from the European Maritime and Fisheries Fund (EMFF).

The National Veterinary Service carries out veterinary border control, control of disinfection, disinsection, deratisation and pest control; veterinary control of the entire process of production, storage, market release, trade in, and transportation of, raw materials and foods of animal origin; safety control of specific plant products, animal feed, feed additives, premixes, combination and medication feeds; control of the production, storage, trade in, and use of, veterinary products.

The Municipal Administrations of Varna and Burgas organise the training and preparation of the population for wartime mobilisations and defence; lead the civil defence effort in cases of natural and man-made disasters; are responsible for enforcing public order; are in charge of the defence planning and preparation of the respective administrative territorial unit; approve regional transport schemes; establish international contacts on behalf of the respective region with its counterparts abroad.

We should also note the existence of a number of international initiatives concerning security in the Black Sea Region. Some of the more important ones are listed in Appendix 2.

2. Areas of relevance for security

These include any and all locations where a more specific regime is enforced for security reasons.

2.1. Military proving grounds

The intended purpose of military proving grounds is determined by a number of factors: location; period of use; prevailing weather conditions; available resources; nature and purpose of activities conducted; vessel traffic at the specific time, etc. The principal options in determining the purpose of military proving grounds are as follows:

1. For conducting exercises involving conventional and rocket artillery fire at aerial, marine and submarine targets.
2. For conducting exercises involving conventional and rocket artillery fire at coastal targets.
3. For conducting exercises involving fire from flying aircraft.
4. For conducting exercises involving the launching of torpedoes.
5. For conducting exercises involving the use of anti-submarine weapons.
6. For conducting mining operations (training personnel how to deploy, seek and destroy dummy bottom or moored mines).
7. For conducting activities involving underwater explosives.
8. For conducting exercises involving tactical manoeuvring and conduct military activities involving naval vessels sailing on their own or in formation (battle group).
9. For conducting exercises with the participation of diverse anti-submarine forces including submarines.
10. For conducting exercises involving military activities against a surface, aerial or submarine adversary.
11. For conducting exercises with the participation of amphibious forces.
12. For conducting exercises involving submersion, surfacing and underwater guidance and manoeuvring.
13. For conducting military activities form submarines against both surface vessels and submarines.
14. For conducting vessel traffic control exercises.
15. For conducting communication exchange drills.

16. For conducting vessel survivability drills.

17. For conducting deep-water diving exercises.

18. For training deep-water and scuba divers in submersion and performing underwater works.

19. For training divers in conducting emergency rescue operations.

20. For conducting search and rescue exercises.

21. For conducting drills involving large-scale rescue operations in respect of passengers and crews of ships and aircraft in distress in/over Bulgaria's search and rescue area of responsibility.

The areas listed above are declared "off limits" to other seagoing craft while in use.

Table 1: Areas that can be declared temporarily off limits for shipping

Area	Coordinate point No	Boundaries	
		Latitude (N)	Longitude (E)
4	1	43° 24.35'	028° 16.5'
	2	43° 24.35'	028° 20.5'
	3	43° 22.8'	028° 20.5'
	4	43° 22.8'	028° 16.5'
5	1	43° 21.5'	028° 10.0'
	2	43° 21.5'	028° 21.5'
	3	43° 19.0'	028° 21.5'
	4	43° 15.0'	028° 07.0'
6	1	43° 21.7'	028° 28.0'
	2	43° 21.7'	028° 33.2'
	3	43° 18.5'	028° 30.6'
7		Circle with R=500 m and centre at c.p.	
	1	43° 21.0'	028° 10.5'
8	1	43° 12.4'	027° 57.5'
	2	43° 12.1'	027° 57.6'
10	1	43° 04.7'	027° 54.6'
	2	43° 06.6'	027° 59.1'
	3	43° 02.8'	027° 59.1'
12	1	42° 42.1'	027° 54.1'
	2	42° 44.0'	027° 58.5'
	3	42° 40.3'	027° 58.5'
13	1	42° 41.7'	027° 45.0'
	2	42° 41.7'	027° 51.3'
	3	42° 37.6'	027° 51.3'
	4	42° 40.0'	027° 45.0'
14	1	42° 38.0'	027° 41.5'
	2	42° 38.0'	027° 44.0'
	3	42° 32.0'	027° 44.0'
	4	42° 32.0'	027° 41.5'
15	1	42° 32.0'	027° 32.5'

Area	Coordinate point No	Boundaries	
		Latitude (N)	Longitude (E)
	2	42° 32.0'	027° 38.0'
	3	42° 29.5'	027° 38.0'
	4	42° 29.5'	027° 32.5'
16	1	42° 28.2'	027° 36.1'
	2	42° 27.5'	027° 36.5'
	3	42° 27.3'	027° 36.0'
	4	42° 28.05'	027° 35.6'
17	1	42° 27.0'	027° 45.4'
	2	42° 27.0'	028° 08.4'
	3	42° 10.0'	028° 23.0'
	4	42° 10.0'	027° 57.8'
	5	42° 25.5'	027° 44.5'
18	1	42° 24.3'	027° 43.3'
	2	42° 26.1'	027° 47.6'
	3	42° 22.4'	027° 47.6'
19	1	42° 10.3'	027° 50.5'
	2	42° 19.0'	028° 03.0'
	3	42° 14.7'	028° 12.5'
	4	42° 06.3'	027° 53.7'
20	1	42° 18.5'	027° 47.7'
	2	42° 20.4'	027° 52.0'
	3	42° 16.7'	027° 52.0'
FOXTROT	1	43˚ 07.0'	029˚ 00.0'
	2	43˚ 07.0'	029˚ 21.0'
	3	42˚ 37.0'	029˚ 21.0'
	4	42˚ 37.0'	029˚ 00.0'
HOTEL	1	43˚ 06.9'	028˚ 07.4'
		and R=1 NM	
Karantinata	1	43° 10' 29"	27° 55' 07"
	2	43° 10' 59"	27° 55' 07"
	3	43° 10' 59"	27° 55' 55"
	4	43° 10' 17"	27° 56' 55"
Pasha dere	1	43° 07' 59"	27° 56' 19"
	2	43° 07' 59"	27° 57' 25"
	3	43° 05' 59"	27° 57' 13"
	4	43° 05' 59"	27° 55' 25"
Stavrova banka	1	42° 32' 29"	27° 38' 25"
	2	42° 32' 29"	27° 40' 55"
	3	42° 31' 35"	27° 40' 55"
	4	42° 29' 59"	27° 38' 25"
Lafina	1	42° 09' 41"	27° 51' 55"
	2	42° 09' 41"	27° 54' 25"
	3	42° 07' 29"	27° 56' 43"

Area	Coordinate point No	Boundaries	
		Latitude (N)	Longitude (E)
	4	42° 07' 29"	27° 54' 43"
Rodni Balkani	1	43° 06' 00"	27° 55' 30"
	2	43° 06' 00"	27° 56' 06"
	3	43° 03' 50"	27° 54' 31"
	4	43° 03' 50"	27° 55' 20"

Source: Notices to mariners broadcast by the Naval Hydrographic Service till 2020

Table 2: Areas that can be declared temporarily hazardous for shipping

Area	Coordinate point No	Boundaries	
		Latitude (N)	Longitude (E)
11	1	42° 53.0'	028° 00.0'
	2	42° 53.0'	029° 00.0'
	3	42° 10.0'	029° 00.0'
	4	42° 10.0'	028° 00.0'
ALPHA	1	43˚ 07.0' N	028˚ 40.0' E
	2	43˚ 07.0' N	029˚ 21.0' E
	3	42˚ 37.0' N	029˚ 21.0' E
	4	42˚ 37.0' N	028˚ 40.0' E
ECHO	1	43˚ 07.0' N	028˚ 17.5' E
	2	43˚ 07.0' N	029˚ 00.0' E
	3	42˚ 37.0' N	029˚ 00.0' E
	4	42˚ 37.0' N	028˚ 17.5' E
INDIA	1	43˚ 12.4' N	027˚ 57.3' E
	2	43˚ 12.4' N	027˚ 57.7' E
	3	43˚ 12.1' N	027˚ 57.7' E
	4	43˚ 12.1' N	027˚ 57.3' E
Pasha Dere — deep-water	1	43° 10' 00"	28° 19' 00"
	2	43° 10' 00"	28° 24' 30"
	3	43° 06' 00"	28° 24' 30"
	4	43° 06' 00"	28° 19' 00"

Source: Notices to mariners broadcast by the Naval Hydrographic Service till 2020

2.2. Military ports

The principal military port is Burgas Naval Base. The Varna staging post is to be considered as related to, and described in, the section dealing with the Varna Port.

Since a great deal of the information about a military port is sensitive for security reasons, here we will present only the non-classified part of the profile of Military Port of Burgas.

1. General description: **Military Port of Burgas**

1.1. Intended Purpose

Type of facility: Staging post Burgas of the BN.

Institution in charge: Ministry of Defence.

Number and date of registration, page in the register: Not subject to registration with EA Maritime Administration.

Certificate of operability: None.

Operability restrictions: None imposed.

Operator: Commander of the Staging Post.

1.2. Location

Region, municipality, settlement: Burgas region, Burgas municipality, village of Atiya.

Geographic coordinates: Staging Post Burgas is located on Cape Atiya, in the south-eastern part of the eponymous bay (on the southern shore of the bay of Burgas, 3 nautical miles south of the lighthouse of Port Burgas). At the northern tip of the Atiya Cape a control and communications centre is located. The watchtower of the CCC can be seen from all directions. At the end of the jetty there is an illuminated beacon. The main Staging Post, that at Burgas, has a pier for mooring naval vessels, a quay wall with a roadstead post and an illuminated beacon at the end of the jetty extending from it; office buildings; classroom buildings and a barracks area; a fuel and lubricants depot (located in the stone quarry to the west); main storage area, a ship repair yard with two docks, a dry dock and ship repair workshops. The docks are connected to fresh water and steam pipelines, electric power lines and telephone connections [Lotsia 1955].

Hydro-meteorological characteristics of the area: The area is free of tidal currents that could affect navigational safety. The direction of prevailing winds in winter time is from N to NE, and in summer is quite variable. The port water area is protected against all winds, and even in the conditions of south-eastern gale force winds the waves in the bay are barely perceptible. The port is very rarely closed because of fog, and even if fog happens, it only lasts for a few hours. Even in the coldest days, the port water area is completely ice-free [Lotsia 1955].

1.3. Infrastructure

A. Transport infrastructure [roadsteads (in accordance with Article 14 of the Supplementary Provisions of the MSIWPRBA), waiting areas and approach routes (according to “Notice to Mariners”)]:

Maritime transport: Roadstead Atiya and the haven comprise as follows:

- Roadstead: the body of water enclosed between the lines connecting cape Atiya — the island of Sveta Anastasia — Cape Chukalya, the beacons at the mouth of the cove of Atiya and the shoreline.

- Haven: the body of water enclosed between the beacons at the mouth of the cove, the quays and the jetties.

Entry into the haven is assisted by an illuminated navigational buoy.

Rail transport: None.

Road transport: Direct link to the national road grid, specifically European road E87.

B. Ancillary infrastructure(according to the definition set out in Article 5(31) of the Supplementary Provisions of the Spatial Development Act: "a system of buildings, facilities and utility lines networks of transport, water supply and sewerage, electricity supply, heat supply, gas supply, electronic communications, irrigation and land-reclamation, waste treatment, and geohazard-control activities"):

- Power supply: Burgas power supply and power distribution sector of EVN Bulgaria.

- Water supply and sewerage: Vodosnabdyavane i Kanalizacija EAD Burgas [as per: www.vik-burgas.com].

- Telecommunications: Regional Communications Authority Burgas, a division of BTC: Bulgarian Telecommunications Company EAD, and the BN communication and information system [as per: htpp://mim.hit.bg/btk.htm].

2. Specifics of the facility

2.1. Physical description (drawings)

Territory of Staging Post Burgas (dimensions, configuration of, and connections between, individual stationary facilities: indoor/outdoor areas, adjacent zones/grounds, drawings): Staging Post Burgas is positioned on Cape Atiya. Cape Atiya is located 2.1 nautical miles east of Cape Chukalya. The eastern and western shores of the cape descend abruptly into the sea, while the northern shore is lower and more gently sloping. In the northern and western parts of the cape there are some free-standing solid buildings that belong to the main Staging Post. The cape is easily distinguishable by the rounded hillock in its centre: mount Budzhaka, with an altitude of 109 m, covered with a sparse forest. Old stone quarries are visible on the eastern and western shores of the cape. A reef of submerged and exposed stones extends from the northern tip of Cape Atiya at a distance of 0.2 nautical miles. In calm weather, the reef's submerged outline can be seen as a dark shadow and is easily distinguishable by the large exposed rock in its middle. The entire land plot is property of the Ministry of Defence. The territory of the Staging Post is divided into the following sectors:

1. Grounds of the CC Centre;

2. Port area (a quay wall with a roadstead post and an illuminated beacon at the tip of the jetty extending from the quay; a berthing area for naval vessels and a dock for vessels under repair);

3. Administrative area and living quarters (office buildings, barracks area with amenities, military club, classroom building, shooting range and sports facilities);

4. Logistics area (storage depots, fuel and petroleum product depot, vehicle fleet and a repair facility with workshops and a dry dock).

The individual components are connected by a network of roads with asphalt concrete surface.

Total grounds area: The total area of the facility is 103.592 ha. To date, the territory is unregulated. The port section comprises a jetty with an illuminated beacon, a quay wall with a roadstead post and a crane, a berthing area for naval ships with a crane, a ship repair yard with workshops and a dry dock. The terrain stretching southwards, between the shoreline and the perimeter fencing, parallel to the old Burgas–Sozopol road, is marshy, almost impassable, with the exception of the asphalt-concrete connecting road between the facility and the rest of the Main Staging Post of Burgas Naval Base. The area falls within the potential protected area Bakarlaka.

Adjacent areas/zones: Rosa Oil Terminal; Rosenets Park; island of Sveta Anastasia; Vromos bay; National road E87 [as per: neighbouring land plots to land plot No 009001 according to the cadastral map of the locality of Othmanli, in the lands of the village of Atiya, Burgas municipality].

2.2. The water area of Staging Post Burgas (the body of water adjacent to the Staging Post, with natural or man-made facilities protecting it from the sea waves or from silting, which is of the required surface area and depth for safe manoeuvring and mooring of the largest naval vessel it is rated for): The water area of SP Burgas is located within the bay of Atiya. The bay of Atiya is a recess into the shoreline between cape Chukalya and cape Atiya. The bay is 2.1 nautical miles wide at its mouth. The western shore of the bay is overgrown with a forest. Several resort hotels are located along it. The southern shore is low and marshy at places, while the eastern shore is high and steep. The staging post is located in the south-eastern section of the bay.

The Atiya roadstead and haven comprise, respectively:

- Roadstead: the body of water enclosed between the following lines: Cape Atiya — island of Sveta Anastasia — the beacons at the mouth of the bay of Atiya and the shoreline.

- Atiya Haven — the body of water enclosed between the beacons at the mouth of the bay, the quay walls and the piers. The haven, following the latest official changes, is 5.00 to 6.00 metres deep [Lotsia 1955].

2.3. Port state control: Subject to port state control are military vessels and their crews, in accordance with the terms, conditions and rules established for the BN. Port state control at Burgas Staging Post is the responsibility of the relevant specialised services of the BN.

2.4. Inbound and outbound border control. Inbound and outbound border inspections at Main Staging Post Burgas are carried out on request by its Post command by Burgas Border Checkpoint.

No operations on board of a vessel are allowed prior to inbound or following outbound border inspections. A vessel that has undergone an outbound border control inspection must depart its berthing position within two hours. Once the two-hour period is up, the vessel becomes subject to a follow-up border inspection. In cases where persons on board a vessel departing on an international journey are found, following a completed border control inspection, to have been in physical contact with the shore, with other natural persons or seagoing craft, with the exception of the pilots and pilot cutters, they become subject to a follow-up on-board inspection by the mobile on-board craft inspection task force.

Passport and visa control: Passport and visa control at the Staging Post is carried out upon request by the Post command. Passport and visa control is carried out by officers of the Regional Border Sector Burgas of the National Border Police Service. Neither crew nor passengers are allowed to disembark prior to completion of passport and visa control [pursuant to the provisions of Article 101(1) of the MSIWPRBA; Regulation No I-11 on Securing the Maritime Sector of the State Border of the Republic of Bulgaria, published in SG No 11/1.02.2005; Article 9(3) of the Regulation on the exercise of border passport, customs, health, veterinary and phytosanitary controls, as well as control of the transportation vehicles in the ports of the Republic of Bulgaria serving ships on international voyages, published in SG No 5/17.01.2006].

Customs control: Customs control at the Staging Post is carried out upon request by the Post command. Customs control is the responsibility of the Border Checkpoint customs sub-post with the Regional Customs Directorate of Burgas. Where bunkering operations are performed on a vessel at Burgas Staging Post, the Post command presents to the customs officer of the customs office in charge of the port area the fuel receipt and a weighing note attesting to the quantity of fuel supplied to the vessel [pursuant to the provisions of Article 101(1) of the MSIWPRBA; Article 9(3) of the Regulation on the exercise of border passport, customs, health, veterinary and phytosanitary controls, as well as control of the transportation vehicles in the ports of the Republic of Bulgaria serving ships on international voyages, published in SG No 5/17.01.2006].

Health Control: Border health control at Staging Post Burgas is the responsibility of the Regional Inspectorates for Protection and Control of Public Health (RIPCPH) and is carried out upon request by the Post command [pursuant to the provisions of Article 101(1) of the MSIWPRBA; Article 57(2) of the Health Act; and Articles 10, 11 and 12 of the Regulation on the exercise of border passport, customs, health, veterinary and phytosanitary controls, as well as control of the transportation vehicles in the ports of the Republic of Bulgaria serving ships on international voyages, published in SG No 5/17.01.2006].

Veterinary and phytosanitary control: No such control is carried out at Staging Post Burgas [pursuant to Article 101(1) of the MSIWPRBA].

Control of road vehicles: No such control is carried out at Staging Post Burgas, as subject to control are solely vehicles for international road haulage [pursuant to Article 101(1) of the MSIWPRBA].

2.5. Description of contiguous zones (sites and facilities)

Rosa Oil Terminal; Rosenets Park; island of Sveta Anastasia; Vromos bay; National road E87 [as per: neighbouring land plots to land plot No 009001 according to the cadastral map of the locality of Othmanli, in the lands of the village of Atiya, Burgas municipality].

- The Rosa Oils Terminal is located on Cape Chulakya. Cape Chukalya is located 2.5 nautical miles east of Cape Phoros. The cape is low in altitude but with steep and rocky shores. On it there is a fisherman’s hut with a red roof, visible from afar. The cape is surrounded with shallows that extent 0.3 nautical mile into the sea on each side. The grounds of the oil terminal are divided into three main parts: an oil and petroleum products storage depot; a chemical products storage depot;

and the port with its infrastructure. The development indicators are as follows: maximum building density: 47.8 %; building density factor: 0.8—0.9; minimum green spaces: 48.4 %. The grounds of the oil terminal are scheduled for zoning with a view to provide areas for activities that have not been developed, that are stated for expansion, or that are essential for bringing the facility in line with the applicable rules and norms. The oil terminal has three piers with a combined length of 300 m, equipped with the necessary mooring facilities for oil tankers.

- Rosenets Park.

- Sveta Anastasia island (latitude: 42028□.12, longitude: 27033□.23) is located 0.85 nautical mile east of Cape Chulakya. The island is 0.11 nautical mile long from north to south and ca. 0.05 nautical mile wide. The island rises to a height of ca. 10 m above sea level. Its shores are steep and inaccessible, except at the southwestern tip of the island where a small reinforced concrete jetty provides a point of disembarkation. The jetty is built of steel rails with a reinforced concrete surface and is 17 m long by 13 m wide at its front end. It rises 1.3 m above the water surface. The sea depth at the front of the jetty is 1.5 m. The island is surrounded by a reef which has a width of 0.15 nautical mile in front of the southern shore. The depth of the sea at the end of the reef is 5 m. Close to the northern and eastern shores of the island there are exposed rocks around which the water depth changes drastically. The ten-metre isobath passes at a distance of ca. 0.02 to 0.05 nautical miles from its shores. In the north-western part of the island, close to the mainland, is located the white, round, reinforced concrete tower of the Sveta Anastasia lighthouse (latitude: 42028□.12, longitude: 27033□.26), with living quarters at its base. In addition to the light house, there are two other structures on the island that were once a monastery, now converted into a hotel.

A magnetic anomaly has been detected in the area around the island. Between it and Cape Chukalyata, the anomaly fluctuates from -2.80 to +16.80, while north of the island it is as high as +50.

- Vromos Bay is a 1-mile recess into the shoreline between Cape Atiya and Cape Akin, located 2 nautical miles to the east. The western and eastern shores of the bay are rocky, about 20 metres high, and quite steep, while the southern shore is lower but still steep, with a sandbank running parallel to it. The sea depth at the mouth of the bay is ca. 20 m and at its central part — 13—14 m. The ten-metre isobath passes at a distance of ca. 0.25 to 0.35 nautical miles from the island’s shores and the five-metre isobath — at 0.05 to 0.15 nautical miles. In the western part of the bay, about 0.25 nautical miles from the shore, there are small reefs and individual underwater rocks. A sandbank with a minimum depth of 0.8 m is located about 0.85 nautical mile east of Cape Atiya and ca. 0.3 nautical mile from the shoreline.

- To the south, the Staging Post borders on the old Burgas–Sozopol road which runs very close and parallel to the E87 road. The security fencing of Staging Post Burgas runs from the location of the illuminated beacon marking the entrance to the haven for naval vessels to ca. 250 m past the junction between the driveway connecting the main road and the old road running parallel to it to the grounds of the Staging Post. From there the security fencing angles towards the shoreline,

separating the grounds of Main Staging Post Burgas from private farms. The terrain between the shoreline and the security fencing is marshy, almost impassable, and extends to a depth of ca. 500 m. It is only crossed by the asphalt-concrete driveway connecting the Staging Post with the E87 road. In its section adjacent to the Post, the E87 road is a straight, four-lane, 2 500 m long stretch of road, without overpasses, adapted as a wartime runway for aircraft.

2.6. Prospects for the development of the main facility

Staging Post Burgas is to develop on accordance with the updated modifications to the Plan for the organisational structure and modernisation of the armed forces. Staging Post Burgas has the required logistics and trained personnel for storage and servicing of mobile operational reserves for the needs of the regional crisis response and management system, especially in its part addressing an emerging threat of a terrorist attack, and for undertaking steps to increase the level of protection of the sites and facilities constituting the critical infrastructure of Bulgaria. Creating mobile teams manned by the available personnel and supplying them with underwater surveillance equipment will address a large part of the outstanding issues pertinent to the defence of these sites and facilities against terrorist attacks.

2.3. Other areas of relevance for security

MOORING AREA

Description

The mooring area is a system of ship's berths sheltered against dangerous wind directions. Each ship's berth has specific parameters: safe depth, safe distance, protection against strong winds. They are configured in strict functional compliance with the Traffic Separation Scheme and the recommended shipping routes. Berth occupancy is subject to clearance by the Executive Agency Maritime Administration obtained in accordance with the established procedure. Mooring and anchoring in deviation areas is prohibited. Vessels in the roadstead are obliged to: maintain radio contact with the roadstead post, fly the flag of their country of origin and the national flag of Bulgaria from 8 a.m. till sunset, be the first to salute a naval vessel, keep their main engine on standby depending on weather conditions, have at least half of their crew on board at any time, be in compliance with the International Regulations for Preventing Collisions at Sea (COLREG), and be ready to render assistance when needed. Vessels in the roadstead are forbidden to: moor bodily parallel to each other with the exception of bunkering tankers or one vessel assisting another; to allow persons on board without authorisation from the border checkpoint; to dispose of any waste overboard; to change position without permission from the roadstead post.

Vessels are also forbidden to use their lifeboats for ferrying passengers to and from the shore.

A) Mooring areas in the Bay of Varna

Area 1. The mooring area is enclosed between the lines connecting the following coordinate points:

No	N φ(o / “ / .)	E λ(o / “ / .)
1.	43° 12' 50	27° 57' 80
2.	43° 12' 80	28° 00' 00
3.	43° 11' 80	27° 57' 80
4.	43° 12' 00	28° 00' 00

The mooring area is designated for winter time use (1 October through 30 April).

South of Cape Galata

Area 2. The mooring area is enclosed between the lines connecting the following coordinate points:

No	N φ(o / “ / .)	E λ(o / “ / .)
1.	43° 09' 30	27° 57' 10
2.	43° 08' 98	27° 58' 14
3.	43° 06' 80	27° 56' 50
4.	43° 06' 00	27° 57' 81

The mooring area is designated for winter time use (1 May through 30 September).

In Varna Lake

Area 3. The mooring area (two births) is enclosed between the lines connecting the following coordinate points:

No	N φ(o / “ / .)	E λ(o / “ / .)
1.	43° 12' 50	27° 51' 65
2.	43° 12' 18	27° 51' 85
3.	43° 11' 83	27° 50' 93
4.	43° 12' 02	27° 50' 80

Area 6. Mooring area for a single vessel of up to 10 000 DWT and up to 9.5 m draught, enclosed within a circle with its centre at φ 43º 11.8 N; λ 27º 51.6 E and a radius of 0.14 nautical mile.

Area 7. The mooring area is enclosed between the lines connecting the following coordinate points:

No	N φ(o / “ / .)	E λ(o / “ / .)
1.	43° 11' 03	27° 48' 50
2.	43° 11' 25	27° 48' 50
3.	43° 11' 25	27° 49' 20
4.	43° 10' 97	27° 49' 20

Northeast of the mouth of the river Kamchiya

Area 4. Mooring area designated for quarantined vessels or vessels carrying hazardous cargo, enclosed between the lines connecting the following coordinate points:

No	N φ(º / ‘ / .)	E λ(º / ‘ / .)
1.	43° 05' 00	27° 56' 50
2.	43° 05' 50	27° 57' 80
3.	43° 04' 50	27° 56' 30
4.	43° 04' 50	27° 57' 70

South of Port terminal Balchik

Area 5. Mooring area having its centre at φ 43º 23.00 N and λ 28º 10.10 E and a radius of 0.5 nautical mile.

B) MOORING AREA FOR VESSELS OF PORT BURGAS FOR PUBLIC TRANSPORT

Area 1. Mooring area for vessels with a maximum length of 150 m, enclosed between the lines connecting the following coordinate points:

No	N φ(º / ‘ / .)	E λ(º / ‘ / .)
1.	42° 28' 10	27° 29' 10
2.	42° 27' 80	27° 29' 10
3.	42° 27' 50	27° 29' 70
4.	42° 27' 30	27° 29' 70
5.	42° 27' 30	27° 30' 50
6.	42° 28' 10	27° 30' 50

Southeast of Port of Burgas

Area 2. Mooring area for tankers of up to 5 000 GRT, enclosed between the lines connecting the following coordinate points:

No	N φ(º / ‘ / .)	E λ(º / ‘ / .)
1.	42° 28' 10	27° 30' 60
2.	42° 27' 50	27° 30' 60
3.	42° 27' 50	27° 31' 20
4.	42° 28' 10	27° 31' 20

North of Rosenets Oil Port Terminal

Area 3. Mooring area for vessels with a maximum length of more than 150 m, enclosed between the lines connecting the following coordinate points:

No	N φ(o / ‘ / .)	E λ(o / ‘ / .)
1.	42° 30' 00	27° 32' 00
2.	42° 29' 40	27° 32' 00
3.	42° 30' 00	27° 33' 40
4.	42° 29' 40	27° 33' 40

West of Sveta Anastasia island

Area 4. Mooring area for tankers over 5 000 GRT, enclosed between the lines connecting the following coordinate points:

No	N φ(o / ‘ / .)	E λ(o / ‘ / .)
1	42° 30' 00	27° 33' 40
2	42° 29' 40	27° 33' 40
3	42° 29' 40	27° 34' 80
4	42° 30' 00	27° 34' 80

Northwest of Sveta Anastasia island

Area 5. Mooring area designated for quarantined vessels or vessels carrying hazardous cargo, enclosed between the lines connecting the following coordinate points:

No	N φ(o / ‘ / .)	E λ(o / ‘ / .)
1	42° 28' 20	27° 32' 20
2	42° 28' 20	27° 32' 60
3	42° 27' 80	27° 32' 60
4	42° 27' 70	27° 32' 20

The mooring area for vessels visiting the port terminal of Nesebar is located at a distance of 0.7 nautical miles southeast of the lighthouse marking the entry into Nesebar harbour.

AREAS PROHIBITED FOR NAVIGATION

Description

The competent authorities may declare that certain areas within the territorial sea and the internal sea waters are prohibited for navigation. Depending on their intended purpose and function, such areas may be permanently or temporarily off limits to seagoing vessels. Control of the use of the internal sea waters, the territorial sea and the inland waterways of the Republic of Bulgaria for navigation by Bulgarian and foreign yachts, boats and other craft for sports, tourism and recreation purposes is exercised jointly by Executive Agency Maritime Administration, the Border Police

Directorate General of the Ministry of Interior and the Bulgarian Navy. Navigation is carried out outside the prohibited areas. The proving grounds for training exercises of the BN (zones and individual areas) are declared "temporarily prohibited for navigation" when they constitute part of the territorial sea and internal waterways of the Republic of Bulgaria. In cases where these areas fall outside the territorial waters of Bulgaria, they are declared "temporarily unsafe for navigation".

East of Cape Shabla

Area 011. The area is enclosed within a circle with a radius of 0.5 nautical miles and a centre point with coordinates φ 43º 30.50 N, λ 28º 43.25 E.

Area 012. The area is enclosed within a circle with a radius of 0.5 nautical miles and a centre point with coordinates φ 43º 32.30 N, λ 28º 41.50 E.

In Varna Lake

Area 013. The area is located 0.1 nautical mile to the east and west of the line connecting the buoys located at the following coordinate points:

No	N φ(º / " / .)	E λ(º / " / .)
1.	43º 12' 34	27º 57' 46
2.	43º 12' 08	27º 57' 56

In the area of Port Varna

Area 014. The area is enclosed between the lines connecting the following coordinate points:

No	N φ(º / " / .)	E λ(º / " / .)
1.	43º 11' 49	27º 55' 07
2.	43º 11' 49	27º 55' 13
3.	43º 11' 40	27º 55' 13
4.	43º 11' 40	27º 55' 07

In Varna Lake

Area 015. The area is enclosed between the lines connecting the following coordinate points:

No	N φ(º / " / .)	E λ(º / " / .)
1.	43º 11' 51	27º 50' 65
2.	43º 11' 51	27º 50' 88
3.	43º 11' 35	27º 50' 88
4.	43º 11' 35	27º 50' 65

South of Cape Galata

Area 016. The area is enclosed within the line passing through the following coordinate points

No	N φ(o / ‘ / .)	E λ(o / ‘ / .)
1.	43o 03' 90	27o 55' 20
2.	43o 06' 40	27o 55' 90

and the parallel lines drawn westwards through these two coordinate points until they intersect with the shoreline.

East of Cape Cherni Nos

Area 017. The area is enclosed within a circle with a radius of 0.5 nautical miles and a centre point with coordinates

φ 42º 53.86 N, λ 28º 03.43 E;

West of Cape Atiya

Area 018. The area is enclosed within a circle with a radius of 0.2 nautical miles and a centre point with coordinates

φ 42º 27.52 N, λ 27º 34.67 E;

AREAS PROHIBITED FOR ANCHORAGE, MOORING, BOTTOM FISHING, UNDERWATER OR DREDGING WORKS, BOTTOM TRAWLING AND USE OF EXPLOSIVES

Description

These are areas that are prohibited for anchorage, mooring, bottom fishing, underwater or dredging works, bottom trawling and use of explosives, located in the internal sea waters or the territorial sea of the Republic of Bulgaria. In them, anchorage, mooring, bottom fishing, underwater or dredging works, bottom trawling and use of explosives are prohibited or one of the following reasons:

- presence of infrastructure, facilities and equipment that can be damaged as a result of the activities listed above;
- presence of sunk naval vessels in those areas that can be damaged as a result of the activities listed above;
- presence of historical or archaeological monuments in those areas that can be damaged as a result of the activities listed above;
- the need to protect the natural environment in those areas that can be damaged as a result of the activities listed above;

– the existence of risk factors (e.g. old mine barriers or ammunition dumped in the sea) as they constitute a danger to the people performing the activities listed above or lead to an unacceptable level of risk.

Location

Table 3: Coordinates of the areas prohibited for anchorage, mooring, bottom fishing, underwater or dredging works, bottom trawling and use of explosives

No	Longitude	Latitude
AREA No 310 enclosed between the lines connecting the following coordinate points:		
1.	43˚ 07.00' N	27˚ 55.70' E
2.	43˚ 03.15' N	28˚ 11.85' E
3.	43˚ 03.10' N	28˚ 18.45' E
4.	43˚ 03.05' N	28˚ 20.55' E
5.	43˚ 02.25' N	28˚ 20.50' E
6.	43˚ 02.15' N	28˚ 21.90' E
7.	43˚ 01.35' N	28˚ 23.70' E
8.	43˚ 00.50' N	28˚ 22.95' E
9.	43˚ 01.20' N	28˚ 21.30' E
10.	43˚ 02.20' N	28˚ 11.35' E
11.	43˚ 06.00' N	27˚ 55.40' E
AREA No 311 enclosed between the shoreline, the eastern breakwater wall and the lines connecting the following coordinate points:		
1.	43˚ 12.70' N	27˚ 56.70' E
2.	43˚ 11.25' N	27˚ 56.70' E
3.	43˚ 11.25' N	27˚ 55.30' E
AREA No 312 enclosed between the shoreline and the lines connecting the following coordinate points:		
1.	43˚ 34.00' N	28˚ 35.30' E
2.	43˚ 34.00' N	28˚ 49.90' E
3.	43˚ 30.00' N	28˚ 49.90' E
4.	43˚ 23.00' N	28˚ 47.90' E
5.	43˚ 21.00' N	28˚ 29.90' E
6.	43˚ 21.65' N	28˚ 27.90' E
AREA No 313 enclosed between the shoreline and the lines connecting the following coordinate points:		
1.	43˚ 23.10' N	28˚ 25.60' E
2.	43˚ 23.00' N	28˚ 26.90' E
3.	43˚ 22.70' N	28˚ 26.90' E
4.	43˚ 22.70' N	28˚ 25.60' E
AREA No 314 enclosed within a circle with R=0.27 nautical mile and a centre point at 43˚21.00' N, 28˚10.40' E		
AREA No 315 enclosed between the lines connecting the following coordinate points:		
1.	43˚ 14.80' N	28˚ 01.70' E
2.	43˚ 10.90' N	28˚ 16.90' E

No	Longitude	Latitude
3.	43˚ 09.00' N	28˚ 15.90' E
4.	43˚ 12.95' N	27˚ 59.90' E
AREA No 316 enclosed within a circle with R=0.25 nautical mile and a centre point at: 42˚53.90' N, 28˚07.30' E		
AREA No 317 enclosed between the shoreline and the lines connecting the following coordinate points:		
1.	42˚ 27.45' N	27˚ 32.40' E
2.	42˚ 28.35' N	27˚ 32.95' E
3.	42˚ 28.15' N	27˚ 33.45' E
4.	42˚ 27.25' N	27˚ 32.85' E
AREA No 318 enclosed between the lines connecting the following coordinate points:		
1.	42˚ 28.20' N	27˚ 36.00' E
2.	42˚ 27.50' N	27˚ 36.40' E
3.	42˚ 27.35' N	27˚ 35.90' E
4.	42˚ 28.05' N	27˚ 35.50' E
AREA No 319 enclosed between an arc with R=0.45 nautical mile and bearings at 090° and 313°, bisecting the lighthouse on Sveti Ivan Island and the shoreline of the island, and with a centre point at 42˚26.30' N and 27˚41.40' E		
AREA No 322 enclosed between the lines connecting the following coordinate points:		
1.	43˚ 13.00' N	27˚ 58.65' E
2.	43˚ 13.00' N	27˚ 58.80' E
3.	43˚ 12.60' N	27˚ 58.50' E
4.	43˚ 12.60' N	27˚ 58.65' E
AREA No 324 enclosed within a circle with R=0.1 nautical mile and a centre point at 43˚08.05' N, 27˚57.20' E		
AREA No 327 enclosed between the lines connecting the following coordinate points:		
1.	43° 11.70' N	27° 54.55' E *
2.	43° 11.70' N	27° 54.65' E
3.	43° 11.60' N	27° 54.65' E *
4.	43° 11.60' N	27° 54.50' E *
5.	43° 11.70' N	27° 54.45' E *
AREA No 328 enclosed between the lines connecting the following coordinate points:		
1.	43° 11.10' N	27° 54.40' E *
2.	43° 11.10' N	27° 54.55' E *
3.	43° 10.95' N	27° 54.55' E *
4.	43° 10.95' N	27° 54.35' E *
AREA No 329 enclosed between the lines connecting the following coordinate points:		
1.	43° 11.40' N	27° 53.20' E *
2.	43° 11.30' N	27° 53.35' E *
3.	43° 11.20' N	27° 53.25' E *
4.	43° 11.35' N	27° 53.10' E *
AREA No 330 enclosed between the lines connecting the following coordinate points:		
1.	43° 11.50' N	27° 54.40' E *
2.	43° 11.45' N	27° 54.55' E *

No	Longitude	Latitude
3.	43° 11.40' N	27° 54.55' E *
4.	43° 11.40' N	27° 54.40' E *
AREA No 331 enclosed between the lines connecting the following coordinate points:		
1.	43° 18.40' N	28° 03.30' E *
2.	43° 18.00' N	28° 05.15' E
3.	43° 17.45' N	28° 04.90' E
4.	43° 17.90' N	28° 02.95' E *
AREA No 334 enclosed within a circle with R=0.4 nautical mile and a centre point at: 43˚10.10' N, 28˚00.10' E		
AREA No 335 enclosed within a circle with R= 500 and centre point at 42˚32.60' N, 27˚35.20' E, and an area enclosed between the lines connecting the following coordinate points:		
1.	42° 33.70' N	27° 34.60' E *
2.	42° 33.60' N	27° 34.65' E
3.	42° 32.75' N	27° 35.25' E
4.	42° 32.65' N	27° 35.00' E
5.	42˚ 33.55' N	27˚ 34.40' E *
AREA No 336 enclosed between the shoreline and the lines connecting the following coordinate points:		
1.	43° 32.65' N	28° 36.35' E *
2.	43° 32.65' N	28° 37.00' E
3.	43° 32.10' N	28° 37.00' E
4.	43° 32.10' N	28° 36.30' E *
AREA No 337 enclosed within a circle with R=0.5 nautical mile and a centre point at 43˚11.40' N, 28˚04.25' E		

Note: (*) means that the coordinate point is on land.

Source: General Description of the Navigation Regime for Non-Naval Craft in the Maritime Spaces of the Republic of Bulgaria. Varna. Hydrographic Service of the BN, State Navigation Inspectorate. 1997.

Possible and maximum duration of a prohibition

The reasons for declaring an area prohibited for anchorage, mooring, bottom fishing, underwater or dredging works, bottom trawling and use of explosives may necessitate that the period of prohibition is prolonged or even indefinite. A prohibition should be lifted once the reason for imposing it no longer applies, e.g. a facility has been dismantled, or there is no further need to secure it, or a mine barrier has been cleared, or an archaeological monument has been moved from the location.

Specific features, connections with other areas

The connections between areas prohibited for anchorage, mooring, bottom fishing, underwater or dredging works, bottom trawling and use of explosives, on the one hand, and Traffic Separation Schemes, recommended routes and areas and areas generally prohibited for navigation, on the other, are geographic.

It is possible and occasionally observed in practice that areas prohibited for anchorage, mooring, bottom fishing, underwater or dredging works, bottom trawling and use of explosives overlap with traffic separation schemes, recommended routes and areas and areas generally prohibited for navigation.

Such overlapping with areas generally prohibited for navigation may be de-conflicted depending on the nature of the activity because of which a prohibition has been imposed. An example of such de-conflicting is when an area is declared off limits because of a naval exercise, the participating units comply with the restriction and do not conduct forbidden activities in that area.

Overlapping with traffic separation schemes, fairways and recommended routes cannot always be avoided, but attempts should be made to avoid it because of the risk of emergency situations, such as when vessel drops its anchor, it will have to perform emergency anchoring or sink.

Existing safety and security guidelines

To date, security and safety in areas that are prohibited for anchorage, mooring, bottom fishing, underwater or dredging works, bottom trawling and use of explosives, or where traffic separation schemes, recommended routes and areas generally prohibited for navigation apply are provided for both in the existing statutes and as practical arrangements, in conformity with leading international practices, the experience accumulated and the relevant legal requirements. Arrangements have been made to monitor compliance with the prohibitions.

ZONES FOR DISPOSAL OF SURPLUS EXCAVATION MATERIAL

Description

The zones set aside for disposal of surplus excavation material are bodies of water located within the internal sea waters or territorial sea of the Republic of Bulgaria. These are used for disposal of material removed through dredging works. The threats to navigation in such areas are:

- a navigation accident involving a ship participating in the transportation and disposal of excavation material;
- beaching or grounding of a vessel as a result of entry in the shallows because of miscalculation of its position or changes in the depth of the seabed from disposal of excavation material;
- an incident involving detonation of ammunition that has been disposed of together with the excavation material as a result of contact with a ship’s anchor, dragnet, diving activities or an underwater explosion.

Location

Table 4: Coordinates of the zones for disposal of surplus excavation material[1]

No	Longitude	Latitude
AREA No 411, a point with coordinates: Latitude 43°23.50' N, Longitude 28°13.30' E		
AREA No 412 enclosed between the lines connecting the following coordinate points:		
1.	43° 08.60' N	27° 56.40' E
2.	43° 08.60' N	27° 57.50' E
3.	43° 07.00' N	27° 56.80' E
4.	43° 07.00' N	27° 55.70' E
AREA (for disposal of dredging material from Port of Varna) having a radius of 500 m and a centre point at 43°08.20' N, 28°12.727' E		
AREA (for disposal of dredging material from Port of Varna) having a radius of 500 m and a centre point at 42°32.75' N, 27°54.67' E		

Possible and maximum capacity

The maximum possible capacity of a zone for disposal of excavation material is a function of its total area, the relied of the seabed, the depth at the start of its use for disposal purposes, the maximum depth to which deposits can be piled and the impact of such disposal on the adjacent areas.

Specific features, connections with other areas

The connection with the zones where the vessel traffic is taking place is, more often than not, the result of happenstance or planning omissions in delineating the boundaries of those areas. Random occurrences are navigation accidents as a result of poor accuracy or miscalculation of the position of a vessel. Planning omissions may have failed to factor in strong currents or the impact of the relief of the seabed, which may cause shifting of excavation material outside the area of disposal.

Existing guidelines regarding the use of "zones for disposal of surplus excavation material"

To date, security and safety in zones for disposal of excavation material are provided for both in the existing statutes and as practical arrangements, in conformity with leading international practices, the experience accumulated and the relevant legal requirements. Arrangements have been made to monitor compliance with the prohibitions.

[1] MSIWPRBA, Article 62 (amended in SG No 61/2010) The disposal of loads of earth and of sediments in the maritime space of the country shall be authorised solely in places designated by the Director of the Basin Directorate in coordination with the Minister for Transport, Information Technology and Communications.

ZONES OF UNDERWATER RESEARCH AND EDUCATION AND DIVING TOURISM

Description

The zones of underwater research and education and diving tourism occupy areas in the internal sea waters and the territorial sea of the Republic of Bulgaria. These are used for diving activities for business, sports, tourism or recreation.

The only permanently fixed boundaries are those of the training areas for Navy divers, whereas the boundaries of all other areas for diving activities are set for the duration of their use, during which time vessel traffic in them is restricted in accordance with Regulation No N-7 of 12 June 2008 on the performance of diving and other underwater activities.

Pursuant to Regulation No N-7 of 12 June 2008 on the performance of diving and other underwater activities, underwater works can belong to one or more of the following categories:

- emergency rescue operations;
- ship underwater works for inspection, expert assessment, cleaning and fixing damages to the submerged part of a ship's hull or in flooded compartments of a ship's hull;
- technical underwater works;
- vessel lifting works;
- special ammunition search and retrieval and/or disposal operations;
- in support of scientific research and testing;
- for fishing and farming fish and other marine organisms.

According to the Regulation referred to above, sports, tourism and recreation using diving gear and equipment constitute diving activities other than works. In pursuance of Article 3(1)(2a) of said Regulation, no diving or other underwater activities are allowed in areas covered by the vessel traffic system.

Location

Table 5: Coordinates of continuously active proving grounds for training divers of the Bulgarian Navy

Proving ground	Coordinate point No	Boundaries					
		Latitude (N)			Longitude (E)		
		°	'	"	°	'	"
Karantinata	1	43	10	29	27	55	07
	2	43	10	59	27	55	07
	3	43	10	59	27	55	55
	4	43	10	17	27	56	55
Pasha Dere	1	43	07	59	27	56	19
	2	43	07	59	27	57	25
	3	43	05	59	27	57	13
	4	43	05	59	27	55	25

Proving ground	Coordinate point No	Boundaries					
		Latitude (N)			Longitude (E)		
		°	'	"	°	'	"
Pasha Dere — deep-water	1	43	10	00	28	19	00
	2	43	10	00	28	24	30
	3	43	06	00	28	24	30
	4	43	06	00	28	19	00
Stavrova banka	1	42	32	29	27	38	25
	2	42	32	29	27	40	55
	3	42	31	35	27	40	55
	4	42	29	59	27	38	25
Lafina	1	42	09	41	27	51	55
	2	42	09	41	27	54	25
	3	42	07	29	27	56	43
	4	42	07	29	27	54	43
Rodni balkani	1	43	06	00	27	55	30
	2	43	06	00	27	56	06
	3	43	03	50	27	54	31
	4	43	03	50	27	55	20

Note: On account of the small size of these zones, the coordinate points determining their location are cited in DMS format.

Source: Regulation No N-7 of 12 June 2008 on the performance of diving and other underwater activities, issued by the Minister for Defence, the Minister for Interior and the Minister for Transport. Published in SG No 59 of 1 July 2008, amended and supplemented in SG No 14 of 18 February 2014

Other areas where diving and underwater works or activities are performed are announced in the "Notice to Mariners" issued by the Hydrographic Service of the Bulgarian Navy in accordance with Regulation No N-7 of 12 June 2008 on the performance of diving and other underwater activities. Those areas do not have any permanent boundaries as do the proving grounds for training Navy divers.

Possible and maximum capacity

The capacity of zones of underwater research and education and diving tourism cannot be determined in advance on account of the following characteristics of activities performed in such zones:

- the zones have no permanent boundaries except the proving grounds of the Bulgarian Navy; their temporary boundaries are delineated on the basis of notification by the entity performing the relevant activity;

- many participants, especially those in sports and recreation activities, do not belong to groups with a permanent composition or do not have equal level of training or equipment;

- changes in the location and size of the zones do not allow the collection of raw data for even a tentative estimate of their capacity.

Specific features, connections with other areas

The interconnection between zones of underwater research and education and diving tourism and the system of vessel traffic, fairways and recommended routes is determined by the risk of vessels entering them by error as a result of a miscalculation of their position, thus causing incidents and mishaps involving divers and their support craft.

Existing guidelines regarding the use of "zones of underwater research and education and diving tourism"

The guidelines regarding the use of "zones of underwater research and education and diving tourism" are designed to ensure proper safety, in accordance with Regulation No N-7 of 12 June 2008 on the performance of diving and other underwater activities.[2]

3. Routes of naval vessels and marine traffic

THE TRAFFIC SEPARATION SCHEME ZONE

Since 1987, the maritime spaces of the Republic of Bulgaria have been regulated first by the Maritime Spaces Act, and since the year 2000 — by the Maritime Space, Inland Waterways and Ports of the Republic of Bulgaria Act. All of these are fully in line with the spirit and recommendations of the UN Convention on the Law of the Sea (1982) which Bulgaria has signed and ratified. Pursuant to said Act, the Bulgarian maritime spaces fall in five legal categories: internal sea waters, territorial sea, contiguous zone, continental shelf and exclusive economic zone.

The external boundaries of the latter four categories of maritime spaces are determined by the so-called baselines. Bulgaria has more significant internal sea waters only in the areas of the Bay of Burgas and the Bay of Varna, which for our purposes will serve as points of reference. In both cases, these bodies of water are delineated from the open sea by straight lines. In the Bay of Varna, said straight lines connect Cape Kaliakra with Cape Tuzla, Cape Tuzla with Cape Ekrene and Cape Sv. Constantine with Cape Ilandjik south of Galata. In the Bay of Burgas, the internal sea waters are delineated by the straight lines connecting Cape Emine with Cape Maslen Nos and Cape Maslen Nos with Cape Rohi, north of Tzarevo. The straight lines referred to above and the shoreline outside their perimeter are the reference lines from which the remaining four maritime spaces are measured outward into the open sea.

The Exclusive Economic Zone (EEZ) is another subject of international law introduced by the UN Convention on the Law of the Sea. Every state with a maritime border has the right to declare its own EEZ within the 200-mile (370 km) space along its shores. The respective state does not have sovereignty over that zone but has sovereign rights in it. According to the most important sovereign right, no country is allowed to exploit the living resources of the sea waters and the seabed in

[2] Said Regulation forbids any diving for purposes of sports, tourism or recreation in areas covered by the vessel traffic system of the Republic of Bulgaria. It also prescribes the procedure for identifying divers and the support craft that goes with them.

another state's EEZ without the special authorisation the owner state. Due to the limited size and specific shape of the Black Sea, none of the Black Sea states is in a position to establish a 200-mile EEZ for itself without infringing on another country's interests.

The southern boundary of the maritime spaces of Bulgaria is laid down in the 1999 Agreement between the Republic of Bulgaria and the Republic of Turkey on determination of the boundary in the area of the estuary of Rezovska River/Mutludere and delimitation of the maritime spaces between the two states in the Black Sea. Talks have been underway for some time on delimiting the maritime border between Bulgaria and Romania, but no final agreement has been reached so far. Upon their accession to the European Union, the two states committed themselves to determining the border between their maritime spaces by consensus. In its easternmost point, the exclusive economic zone of Bulgaria meets the waters around the Crimea about 120 nautical miles (220 km) from the Bulgarian shore (at Cape Shabla).

With the development of water management legislation and the accession of Bulgaria to the European Union in 2007, the definitions of maritime spaces became linked to other definitions of categories of waters and to expanding obligations for their integrated management. The sustainable use of water resources and the preservation of ecosystems are the foundation of the "frameworks" of common approaches, tasks, principles, definitions and fundamental measures created by force of two EU directives. These documents are the Water Framework Directive 2000/60/EC (WFD) and the Marine Strategy Framework Directive 2008/56/EC (MSFD). These have been transposed mainly in the 2000 Waters Act, expanded and supplemented numerous times over the years.

The WFD is aimed at setting the framework for the protection of inland surface waters, transitional waters, coastal waters and groundwaters.

The MSFD covers all maritime spaces, the seabed, the bowels of the earth underneath them, the baseline used to delineate the territorial sea, up to the boundaries of the zone over which the Member State has or exercises jurisdiction.

Marine traffic of commercial vessels equipped with an automated identification system (AIS) pursuant to Regulation 19 of Chapter 5 of the SOLAS'74 Convention and sailing in the maritime spaces of the Bosporus, Burgas, Varna, Constanta, Odessa and the Sea of Azov exceeds 2 500 vessels at any given time. If we add to that fishing boats under 15 metres in length not equipped with AIS, yachts and other pleasure craft, the total number of vessels will be even higher. Also, in recent decades shipping traffic has been increasing steadily, thus creating prerequisites for the occurrence of a higher number of incidents and accidents at sea.

The use of the traffic system in the maritime spaces of the Republic of Bulgaria aims to increase the security of human life at sea, ensure safety of navigation, provide for better environmental protection against pollution by ships and minimise the risk of marine navigation accidents.

The traffic system in the maritime spaces of the Republic of Bulgaria consists of:

- traffic separation schemes;

- two-way shipping routes;
- recommended shipping routes;
- areas to be avoided;
- areas prohibited for anchorage;
- coastal shipping zones;
- circular traffic areas;
- safety areas;
- deep-water shipping routes.

A fairway is a route for river and seagoing craft that is safe for navigation and clearly marked on location and/or on a map, ensures safe passage in a body of water (river, lake, sea, strait, fjord, canal etc.), is characterised by sufficient depth and is free of any obstacles to passing vessels. On rivers, the fairway usually follows the line of the greatest depth. A fairway is marked with navigation equipment: illuminated and non-illuminated buoys, beacons, etc. A fairway is a narrow lane, free of mines and safe for navigation, within which guided movement of vessels takes place. Fairways can be:

- active (main) and spare (standby);
- shallow-water (intended only for small and medium-tonnage craft) and deep-water (for all categories of vessels);
- open-sea (designed for safe marine navigation out at sea) and coastal (for navigation in the coastal zone and for entry into ports);
- rectilinear (consisting of a single section) or undulating (consisting of several sections bending in various directions);
- equipped with navigation markers to guide a vessel along the central axis of the fairway, or non-equipped.

The length of a fairway depends on the geographic conditions of the area and the nature of threats to navigation safety. Its width is determined by local conditions and the intended purpose of the fairway. The elements of fairways are shown on the navigation charts and guidelines.

Description:

A traffic separation scheme consists of 13 parts. Its purpose is to direct vessel traffic between ports along the coast and the approach to/departure from ports of all Bulgarian and foreign vessels of over 300 GRT displacement. Ships are under obligation to follow designated traffic lanes (clearways) while adhering to the rule that the separation zone (median line) remains at all times on the port side of the vessel. Clearways must, as a rule, be entered and exited at their end points. When a vessel enters or leaves a clearway at a point other than the endpoint, merging must be done

at as smooth an angle to the main direction of traffic as possible. Crossing clearways must generally be avoided, and when it is unavoidable, must be done at an angle as close to perpendicular as possible. While traveling pursuant to a traffic separation scheme, mariners are obliged to abide by Rule 10 of COLREG-72. Meeting pilot boats must take place in the internal turning points (Section V and Section IX), and, by prior arrangement, also in the marine traffic lanes (Sections III, VII and XI).

Functionally, the traffic separation scheme is closely interrelated with the recommended navigation routes to the Port Terminals of Balchik and Kavarna, the Port Terminal of Nesebar, as well as with the recommended routes for smaller passenger craft of up to 300 GRT from the roadstead of Varna to Port Balchik, from Port Terminal Balchik to Port Terminal; Kavarna, from the Varna roadstead to Port Terminal Nesebar, from Port Terminal Nesebar to the roadstead of Burgas, from the Burgas roadstead to Sozopol, from Sozopol to Primorsko, and from Primorsko to Port Tzarevo. The TSS is also closely related to the system of fairways and canals and to the mooring areas along the Bulgarian Black Sea coast.

Table 6: Coordinates of the Traffic Separation Scheme

PART I — comprises two clearways and a separation zone, all enclosed within the lines connecting the following coordinate points:			
1	43˚ 21.68′	028˚ 30.93′	
2	43˚ 26.54′	028˚ 35.76′	at 036˚ from point 1
3	43˚ 26.03′	028˚ 36.66′	
4	43˚ 21.43′	028˚ 31.37′	at 220˚ from point 3
PART II— comprises two clearways and a separation zone, all enclosed within the lines connecting the following coordinate points:			
1	43˚ 19.95′	028˚ 32.39′	
2	43˚ 20.39′	028˚ 40.58′	at 086˚ from point 1
3	43˚ 19.38′	028˚ 40.62′	
4	43˚ 19.56′	028˚ 32.42′	at 270˚ from point 3
PART III — comprises a counter clockwise circular traffic clearway circumventing an area with a radius of 0.2 nautical miles and centre point at:			
1	43˚ 19.68′	028˚ 29.11′	
The width of the clearway is 2.2 nautical miles.			
PART IV — comprises two clearways between Cape Kaliakra and Cape Galata separated by a 0.4 nautical mile separation zone whose median is defined by the following coordinate points:			
1	43˚ 18.78′	028˚ 26.06′	
2	43˚ 11.89′	028˚ 02.94′	at 248˚ from point 1
The width of the clearways is 1 nautical mile each. The direction of traffic in the north-western clearway is 248˚, and in the south-eastern — 068˚.			
PART V — comprises a counter clockwise circular traffic clearway circumventing an area with a radius of 0.2 nautical miles and centre point at:			
1	43˚ 10.98′	027˚ 59.91′	
The width of the clearway is 2.2 nautical miles.			

PART VI — comprises two clearways between Cape Galata and Cape Emine, separated by a 0.4 nautical mile-wide separation zone with a median defined by the following coordinate points:			
1	43˚ 08.58′	027˚ 59.67′	
2	42˚ 42.07′	027˚ 56.94′	at 184˚ from point 1
The clearway is 1 nautical mile wide. The direction of traffic in the western clearway is 184˚, and in the eastern — 004˚.			
PART VII — comprises a counter clockwise circular traffic clearway enclosing an area with a radius of 0.2 nautical miles and centre point at:			
1	42˚ 39.68′	027˚ 56.71′	
The width of the clearway is 2.2 nautical miles.			
PART VIII — comprises two clearways separated by a 0.4 nm-wide separation zone with a median defined by the following coordinate points:			
1	42˚ 37.96′	027˚ 54.44′	
2	42˚ 30.79′	027˚ 45.05′	at 224˚ from point 1
The clearways is 1.0 nautical mile wide. The direction of traffic in the north-western clearway is 224˚, and in the south-eastern — 044˚.			
PART IX — comprises a counter clockwise circular traffic clearway enclosing an area with a radius of 0.2 nautical miles and centre point at:			
1	42˚ 28.78′	027˚ 42.41′	
The width of the clearway is 2.6 nautical miles.			
PART X — comprises two clearways separated by a median connecting the following coordinate points:			
1	42˚ 28.75′	027˚ 38.62′	
2	42˚ 28.68′	027˚ 33.11′	at 269˚ from point 1
The width of the clearway is 0.5 nautical miles. The direction of traffic in the northern clearway is 269˚, and in the southern — 089˚.			
PART XI — comprises a counter clockwise circular traffic clearway enclosing an area with a radius of 0.6 nautical miles and centre point at:			
1	42˚ 29.18′	028˚ 04.51′	
The width of the clearway is 2.3 nautical miles.			
PART XII — comprises two clearways and a separation zone, all enclosed within the lines connecting the following coordinate points:			
1	42˚ 31.55′	028˚ 02.17′	
2	42˚ 37.49′	027˚ 58.04′	at 333˚ from point 1
3	42˚ 37.68′	027˚ 58.51′	
4	42˚ 31.93′	028˚ 03.11′	at 149˚50′ from point 3
PART XIII — comprises two clearways and a separation zone, all enclosed within the lines connecting the following coordinate points:			
1	42˚ 28.62′	028˚ 00.55′	
2	42˚ 28.63′	027˚ 46.21′	at 270˚ from point 1
3	42˚ 29.04′	027˚ 46.19′	
4	42˚ 29.42′	028˚ 00.53′	at 088˚ from point 3

Table 7: Coordinates of Recommended Shipping Routes

Recommended route to Balchik and Kavarna				
No	Latitude	Longitude	Direction	Traffic
1	43˚ 12.88'	028˚ 01.91'		
2	43˚ 15.08'	028˚ 05.31'	048˚ – 228˚	3.3
3	43˚ 22.28'	028˚ 08.91'	020˚ – 200˚	7.6
4	43˚ 22.28'	028˚ 21.21'	090˚ – 270˚	9.0
5	43˚ 19.98'	028˚ 25.91'	124˚ – 304˚	4.1
1. Vessels sailing towards Balchik from point 3 continue on course of 020˚ heading to coordinate point 43˚ 23.78' N, 028˚ 09.63' E.				
2. Vessels sailing towards Balchik from point 4 continue on course of 000.0˚ heading to coordinate point 43˚ 24.18' N, 028˚ 21.21' E.				
3. Foreign non-military vessels are allowed to sail to Port Terminal Balchik subject to strict compliance with the following conditions: - they must follow the declared route on the way there and back; - inbound vessels approaching from the south must make their approach towards point 1, then cross points 2 and 3 and moor at Balchik; - inbound vessels approaching from the east must make their approach towards point 5, then cross points 4 and 3 and moor at Balchik. On their entry into and exit from Port Terminal Balchik vessels must be accompanied by a pilot boat which can be hired from either Balchik or Varna, or met at point of approach 1 off Kavarna. Pilotage from Varna to Balchik or from point of approach 1 (off Cape Kaliakra) is considered out-of-harbour pilotage; - no more than two foreign ships of up to 700 GRT each can moor at Balchik at any time.				
Recommended route to Nesebar				
1	42˚ 31.53'	027˚ 42.16'		
2	42˚ 39.08'	027˚ 43.43'	007˚ – 187˚	7.6

Source: General Description of the Navigation Regime for Non-Naval Craft in the Maritime Spaces of the Republic of Bulgaria. Varna. Hydrographic Service of the BN, State Navigation Inspectorate. 1997.

Table 8: Recommended routes for small passenger craft of up to 300 GRT displacement

Recommended route from Varna roadstead to Balchik				
1	43˚ 11.13'	027˚ 55.31'		
2	43˚ 12.93'	028˚ 01.12'	067˚ – 247˚	4.6
3	43˚ 16.34'	028˚ 04.79'	038˚ – 218˚	4.3
4	43˚ 24.07'	028˚ 09.69'	025˚ – 205˚	8.5
Recommended route from Port of Balchik to Kavarna				
1	43˚ 24.07'	028˚ 09.69'		
2	43˚ 23.70'	028˚ 09.44'	205˚ – 025˚	0.4
3	43˚ 23.40'	028˚ 09.86'	135˚ – 315˚	0.4
4	43˚ 24.43'	028˚ 21.11'	083˚ – 263˚	8.4
Recommended route from Varna roadstead to Nesebar				
1	43˚ 11.13'	027˚ 55.31'		
2	43˚ 11.13'	027˚ 56.23'	090˚ – 270˚	0.7
3	43˚ 10.53'	027˚ 57.41'	126˚ – 306˚	1.1

Recommended route from Varna roadstead to Balchik				
4	42˚ 41.71'	027˚ 54.63'	184˚ – 004˚	28.8
5	42˚ 38.62'	027˚ 43.91'	249˚ – 069˚	8.5
6	42˚ 39.29'	027˚ 43.62'	342˚ – 162˚	0.7
Recommended route from Nesebar to Burgas roadstead				
1	42˚ 39.29'	027˚ 43.62'		
2	42˚ 32.73'	027˚ 40.13'	202˚ – 022˚	7.0
3	42˚ 28.63'	027˚ 29.27'	243˚ – 063˚	9.0
Recommended route from Burgas roadstead to Sozopol				
1	42˚ 28.80'	027˚ 29.11'		
2	42˚ 28.00'	027˚ 39.31'	096˚ – 276˚	7.6
3	42˚ 25.51'	027˚ 40.48'	160˚ – 340˚	2.6
4	42˚ 25.13'	027˚ 40.91'	140˚ – 320˚	0.5
Recommended route from Sozopol to Primorsko				
1	42˚ 25.13'	027˚ 40.91'		
2	42˚ 25.51'	027˚ 40.48'	140˚ – 320˚	0.5
3	42˚ 25.78'	027˚ 40.91'	050˚ – 230˚	0.4
4	42˚ 25.78'	027˚ 42.51'	090˚ – 270˚	1.2
5	42˚ 25.03'	027˚ 44.14'	122˚ – 302˚	1.5
6	42˚ 20.29'	027˚ 47.61'	152˚ – 332˚	5.4
7	42˚ 18.48'	027˚ 48.14'	167˚ – 347˚	1.9
8	42˚ 15.53'	027˚ 46.12'	207˚ – 027˚	3.3
Recommended route from Primorsko to Tzarevo				
1	42˚ 15.53'	027˚ 46.12'		
2	42˚ 14.86'	027˚ 47.76'	120˚ – 300˚	1.4
3	42˚ 10.69'	027˚ 52.41'	140˚ – 320˚	5.4
4	42˚ 10.08'	027˚ 51.69'	220˚ – 040˚	0.8

Source: General Description of the Navigation Regime for Non-Naval Craft in the Maritime Spaces of the Republic of Bulgaria. Varna. Hydrographic Service of the BN, State Navigation Inspectorate. 1997.

4. General conclusions regarding the interoperability of different zones, and recommendations for eliminating problem areas

The greatest **advantage** of the existing traffic organisation and the safety and security actions amounts to their long-standing existence and the ensuing interoperability.

The key advantages are:

1. A time-proven concept of the selection and functionality of the system of mooring areas. There are possibilities to develop an analytical model.

2. The zones declared as prohibited for navigation meet the specific requirements of the MD and the MoI for preparation of naval vessels and use of weapons and technical equipment.

3. The advantages of these zones of restricted navigation arise out of the study and application of good practices in leading maritime countries in terms of marine traffic management; the building of a national system that conforms to the Bulgarian conditions and requirements; and the constant streamlining and ironing out of any identified flaws and defects.

4. The geographic boundaries of the areas prohibited for anchorage, mooring, bottom fishing, underwater or dredging works, bottom trawling and use of explosives, of areas with traffic separation schemes, recommended routes and areas generally prohibited for navigation are determined within their optimal limits necessary for minimising the risk level to acceptable but without undue complications that would render onerous or disrupt other activities in the territorial sea and the inland sea waters of the Republic of Bulgaria.

5. The necessary arrangements have been made to impose prohibitions in new areas, to alter the parameters of existing prohibited areas or lift the prohibition in areas where the need to restrict the freedom of navigation no longer applies.

6. The responsibilities of institutions, agencies and organisations pertinent to the imposition of restrictions and their enforcement have been determined by the applicable laws and bylaws.

7. The zones for disposal of surplus excavation material have the following advantages:

- they are of large capacity and can be used over long periods of time;

- they do not directly endanger marine traffic within the system of navigation in the national maritime spaces.

8. The advantages of the current arrangements of designating zones of underwater research and education and diving tourism are as follows:

- risk at the Navy proving grounds is low owing to the strict internal regulations for diving and the existing structures for control and enforcement of compliance in the proving grounds and observance of the operational plans;

- these zones are located outside the traffic system in the maritime spaces of the Republic of Bulgaria;

- according to Regulation No N-7 of 12 June 2008 on the performance of diving and other underwater activities, such activities may be organised only by entities registered with Executive Agency Maritime Administration.

9. The Traffic Separation System (TSS) has been applied for a long period of time, it is reliable and accommodates the current needs in terms of level of technical equipment and operability. Inasmuch as its advantages and shortcomings are presented in a separate study, here they are only mentioned in brief.

Typically, the **shortcomings** of the zones amount to the necessity to bring them in line with the current environmental standards, as back at the time when these zones were delineated no such considerations were considered relevant. Other specific technical shortcomings are:

1. Deficiencies of the mooring areas due to the present-day challenges arising out of the development of the economic potential of the Bulgarian Black Sea coast (tourism, aquacultures). There is no analytical model that could be used for an objective evaluation of the normal and maximum capacity of the existing mooring zone as a basis for recommending well-reasoned solutions for its improvement.

2. The shortcomings of the zones subject to restrictions are the result of their spatial overlapping with other areas and of the insufficient level of counteraction against offenders. The key shortcomings are:

- the zone overlaps with other zones where prohibitions or restrictions are imposed or are intended for other purposes;

- the enforcement and prosecution of offenders, especially ones that fall below the threshold of being fitted with an automated identification system (AIS), are inadequate and not particularly effective in the prevention or sanctioning of violations.

3. The shortcomings of the zones for disposal of surplus excavation material are as follows:

- they are located too close to the vessel traffic system in the national maritime spaces and this generates a risk of incidents as a result of errors in calculating the position of the vessel or in its guidance;

- currents and counter-currents may cause the deposited excavation material to drift into the fairways, thus reducing their depth; it is also possible that such excavation material may carry in itself unexploded ammunition.

4. The shortcomings of the zones of underwater research and education and diving tourism with respect to ensuring the safety and security of marine traffic in the maritime spaces of Bulgaria are as follows:

- their proximity to the traffic zone, which leads to a heightened level of risk of an accident or incident as a result of errors in calculating the position of the vessel or loss of control over it;

- there is a possibility for malicious, deliberate unlawful acts on the part of divers in those areas, aimed to sabotage the marine traffic passing close by;

- the presence of divers carrying out underwater fishing, illegal archaeological exploration or amateur scuba diving in contravention of Regulation No N-7 of 12 June 2008 on the performance of diving and other underwater activities;

- the absence of an automated information system tracking the movement of small craft that would automatically collect information about the beginning and end of such underwater activities, or the mooring or stopping at anchor of the vessel, and assess in accordance with programmed-in indicators the behaviour of certain vessels, thus enabling additional visual inspection and control;

- the absence of an assessment of the safety of zones for underwater research and education and diving tourism in terms of the risks of incidents caused by vessels sailing in the traffic system;

– the absence of an assessment of the security of vessels sailing in the traffic system in terms of the risks of malicious, deliberate, unlawful acts on the part of divers coming from zones for underwater research and education and diving tourism.

5. The shortcomings of the Traffic Separation System are primarily associated with the fact that the system of maritime transport develops dynamically, with the ensuing increase of the intensity of vessel traffic. Significant changes are expected with the launch of the Republic of Bulgaria's offshore industry. There is no analytical model that could be used for an objective evaluation of the normal and maximum capacity of the TSS as a basis for recommending well-reasoned solutions for its improvement.

Key **recommendations and guidelines** for development of the shipping areas and the security-related areas:

1. With regard to the security and safety in the "Areas prohibited for navigation" zone, the existing zone must be revised should a justified need arise in order to ensure that it does not conflict with possible changes in the TSS.

2. Improving the security, safety and protection of the natural environment in the areas contiguous to "areas prohibited for anchorage, mooring, bottom fishing, underwater or dredging works, bottom trawling and use of explosives" requires integrated and collaborative action on the part of institutions, agencies and organizations responsible for protecting the maritime sovereignty of the Republic of Bulgaria. Here are some specific guidelines:

– Performing a risk assessment with respect to the danger of an emergency and the impact of one occurring in an area overlapping with the TSS zone, a fairway or a recommended route.[3]

– Establishment of a national integrated navigation management system.

– Introduction of an integrated, automated system for monitoring and management of the marine spaces. Such a system has programmed in it the function of automated notification of the control bodies about every instance of lowering/raising of the fishing equipment of fishing boats, or about entry into certain areas of small recreational craft, or of capturing on a still photograph or video recording the parameters of a violation with automatic notification of the duty teams.

– Delegation of the powers of control, surveillance, and apprehension of offenders to the structures of the Ministry of Defence and the Ministry of Interior, and the imposition of sanctions to structures of the Ministry of Transport, Information Technology and Communications, the Ministry of Agriculture and Foods, the Ministry of the Environment and Water and other bodies of the central and local authorities, in accordance with their expertise. Upon apprehending an offender, the relevant authority must compile the standard documents set out in an instrument of the Council of Ministers or the National Assembly, and, on their basis, impose the relevant sanction

[3] Such a risk assessment can be performed subject to availability of statistics or an estimate of the intensity of maritime traffic in the TSS, fairway or maritime route. This approach requires assigning in advance the respective terms of reference to the system for monitoring and detecting emergencies, since the system's daily monitoring functions focus on compliance with the traffic regulations and do not include analytical work.

in pursuance of a standard operating procedure. Such a procedure of control, surveillance, and apprehension of offenders will streamline the budgetary expenditure on the acquisition and operation of equipment and gear, will eliminate any opportunities for low-level corruption and will create the organisational prerequisites for protecting the national interests in the maritime spaces.

3. The key recommendations and guidelines with respect to the improved use of the "zones for disposal of surplus excavation material" are associated with the need to perform a risk assessment with respect to:

- entry of a vessel into a zone for disposal of excavation material as a result of an error in, or low accuracy of, calculating the vessel's position;
- grounding of a vessel as a result of entry into a zone for disposal of excavation material;
- collision between a vessel entering the zone with a vessel carrying or dumping excavation material.

4. In addition to a risk assessment, it is advisable to estimate the probable duration of the use of zones for disposal of surplus excavation material.

5. A better utilisation of the areas for underwater activity and underwater tourism, coupled with an increased safety and security of maritime traffic, would require the following improvements:

- Stricter control of the underwater research, educational and tourist activities.
- Establishment of an integrated automated system for monitoring and management of the marine spaces. Such a system has programmed in it the function of automated notification of the control bodies about every instance of lowering/raising divers from their craft and entry of small seagoing craft into certain zones, automated detection of probable underwater activity in accordance with indicators pre-programmed in the system, capturing on photo or video of the parameters of the offence and automatic notification of the duty teams.
- Conducting of an assessment of the safety of zones for underwater research and education and diving tourism in terms of risks of incidents caused by vessels sailing in the traffic system.
- Conducting of an assessment of the security of vessels sailing in the traffic system in terms of the risk of malicious, deliberate, unlawful acts on the part of divers coming from zones for underwater research and education and diving tourism.

A key element of the possibility for streamlining of the system is the bringing up to date of the Traffic Separation Scheme in our maritime spaces. A specific proposal for a new system is presented in Appendix 3 to this study. The actual change should take into consideration the apparent conflicts with the existing security system. Such conflicts should be resolved through consultations. The points of conflict, together with the proposed changes in the TSS, are presented in the table below:

Table 9: Areas designated for conducting naval activities that come in conflict with the Traffic Separation Scheme if/when activated

Area	Coordinate point No	Boundaries	
		Latitude (N)	Longitude (E)
1	1	43° 36.0'	028° 35.5'
	2	43° 36.0'	028° 47.0'
	3	43° 29.5'	028° 47.0'
	4	43° 29.5'	028° 35.5'
2	1	43° 18.0'	028° 34.0'
	2	43° 25.0'	029° 03.0'
	3	43° 21.0'	029° 15.0'
	4	42° 14.9'	028° 33.3'
	5	42° 24.2'	028° 06.4'
	6	42° 34.2'	028° 06.4'
3	1	Area enclosed between the parallels of Beacon Kaliakra and Beacon Emine, the 29° 00.0' E meridian and the shoreline.	
9	1	43° 07.5'	028° 01.5'
	2	43° 07.5'	028° 17.5'
	3	42° 42.0'	028° 17.5'
	4	42° 42.0'	028° 01.5'
BRAVO	1	43˚ 03.8' N	028˚ 01.5' E
	2	43˚ 00.0' N	028˚ 17.0' E
	3	42˚ 55.0' N	028˚ 17.0' E
	4	42˚ 50.3' N	028˚ 01.5' E
CHARLIE 1	1	43˚ 05.8' N	028˚ 01.5' E
	2	43˚ 05.8' N	028˚ 10.2' E
	3	42˚ 56.8' N	028˚ 10.2' E
	4	42˚ 56.8' N	028˚ 01.5' E
CHARLIE 2	1	42˚ 56.8' N	028˚ 01.5' E
	2	42˚ 56.8' N	028˚ 10.2' E
	3	42˚ 47.8' N	028˚ 10.2' E
	4	42˚ 47.8' N	028˚ 01.5' E
DELTA 2	1	43˚ 15.0' N	028˚ 20.0' E
	2	43˚ 15.0' N	028˚ 40.0' E
	3	43˚ 08.0' N	028˚ 40.0' E
	4	43˚ 08.0' N	028˚ 20.0' E

Source: Notices to Mariners issued by the Bulgarian Navy Hydrographic Service till 2020.

1. Forecasts of the future development of activities pertinent to the security of maritime spaces and marine traffic

The doctrinal documents governing the activities of the BN in the maritime spaces of the Republic of Bulgaria include, without limitation, a multitude of national and allied documents. Such doctrines lay the groundwork for modern operations and determine the principles of the most effective utilisation of troops in pursuit of the set goals. Doctrines logically provide the foundation

for joint training. By defining standardised operational methods, a common terminology and procedures, doctrines create a common basis for the training of troops. Said common basis supports commanders and their staffs in developing standards for joint preparedness and training.

To organise the training of the armed forces, an annual plan is developed and adopted. It lays down the objectives and the essential measures to be pursued in ensuring the preparedness of the armed forces ensuing from the political guidelines, the budgetary framework, the planning scenarios for the use of troops, the requirements of national and international doctrines and the international treaties to which the Republic of Bulgaria is a party.

The Doctrine of the Armed Forces of the Republic of Bulgaria is the document occupying the top position in the hierarchy of documents governing the use of troops. It provides the link between the national strategic documents and the armed forces as a tool for the implementation of the national policy.

The doctrinal hierarchy is comprised of:

- level 1: basic doctrines;
- level 2: supporting doctrines;
- level 3: applied documents: tactical, technical and procedural.

Level 1: basic doctrines. These are functionally divided in accordance with the thematic areas adopted by the national and allied command staffs: personnel, intelligence, operations, logistics, operational planning, communications, training, financial support and military-civil cooperation.

Level 2: supporting doctrines. Thematically divided in accordance with the corresponding Level 1 Doctrine, the adopted classification of operations and the activities of the troops.

Level 3: applied documents: tactical, technical and procedural.

Almost all doctrines at all three levels are of relevance with respect to the use of the BN, but primarily the Doctrine of the Armed Forces of the Republic of Bulgaria, the Operations Doctrine NP-3 and the Marine Operations Doctrine NP-3.1.

The key allied documents governing the training of the naval forces include: (AJP) — 01 (D) Allied Joint Doctrine; MXP1(D) (Navy) (Air) — Multinational Submarine and Antisubmarine Exercise Manual; MXP2 (C) (Navy) (Air) — The Multinational Maritime above Water Warfare Exercise Manual; AXP-3(C), Allied Naval Communication Exercises, etc.

In accordance with the rights and jurisdictions codified by international law, all nations have equal rights of access to the main body of ocean water and the corresponding airspace. Therefore, marine operations differ from those of the Army ground forces in that no country can claim sole possession of the sea, as it can of its land. Each state can interpret the international law of the sea with some nuances or even significant differences from the other allies, partners or the opposing forces.

The Navy conducts operations above, on or under water. In the event of a political crisis, the oceans and the littoral waters form a three-dimensional space in which the navy conducts operations and exercises to demonstrate its capabilities and willingness to use force.

Activities close to the shore cause restrictions of the freedom of movement or on the direction of approach especially when there is a need to pass through geographically or man-made (created by the adversary) narrow maritime spaces. The Navy must maintain and develop capabilities to conduct operations in the national maritime spaces and, jointly with our NATO and EU allies, in the open ocean or the coastal waters of other states.

The doctrines determine HOW, not WHAT needs to be undertaken depending on the conditions of the environment. They assist analytical thinking necessary for the planning and conducting of operations. At the same time, doctrines must be sufficiently comprehensive to support the conducting of different types of operations, and sufficiently flexible to take into consideration the enormous variety of possible situations.

The doctrines do not envision the development of the areas involved in conducting training exercises for the BN.

From a strategic perspective, our membership of the EU and NATO does not imply, for the time being, changes in the regime of utilisation of the country's maritime spaces. Nonetheless, an analysis of the current trends in this area would prompt the following possible changes in the security sector concerning the maritime spaces and maritime transport:

1. Expanding the training zones out at sea in parallel with retaining the zones located close to the shore.

2. Establishing new zones with restricted navigation as a result of the development of the offshore industry in potential areas for marine resources harvesting. Such potential areas coincide with the areas exploited on concession for prospecting for oil and gas.

3. Establishing new zones with restricted navigation and related activities on account of potential energy transmission projects. The potential coastal zones are close to the projected routes of the Burgas—Alexandroupolis and the South Stream pipelines.

4. Establishing a new traffic separation system with the ensuing revision of the zones related to navigation.

As long as, in a strategic context, the most likely and forthcoming scenario is the establishment of a new traffic separation system, it would be appropriate to present the sequence of actions that need to be undertaken to that end.

Pursuant to Resolution A572 (14), IMO has been recognised as the sole international body responsible for the development at international level of the compulsory and recommended measures concerning the maritime shipping routes. In addressing the issue of whether to adopt or amend the Traffic Separation System, the IMO will consider the following:

- whether the proposed navigational equipment enables the authorities to locate vessels with sufficient accuracy for them to navigate the relevant system in compliance with Rule No 10 of COLREG-72;
- whether the hydrographic measurements are satisfactory;
- whether the system conforms to the requirements for the planning of traffic separation systems and whether it satisfies the criteria for its design.

The new system adopted by the IMO will not come into force until the date announced by the government. Said date cannot be earlier than six months following the date of adoption of the system by the IMO. If the issuance of new maps requires more time, the date of introducing the system may be postponed by the IMO on account of the specific conditions.

The introduction of the TSS should be coordinated with the stakeholder ministries of the Republic of Bulgaria:

- the Ministry of Regional Development and Public Works, in its part concerning maritime spatial planning;
- the Ministry of the Environment and Water, in its part concerning the protection of the marine environment, biological species, etc.;
- the Ministry of Defence, in its part concerning zones for military activity;
- the Ministry of the Economy, in its part concerning the mining/harvesting/prospecting of mineral and other resources;
- the Ministry of Tourism, in its part concerning zones for maritime tourism;
- the Ministry of Agriculture, Food and Forestry, in its part concerning fisheries and aquacultures;
- the Ministry of Interior, where the system or parts of it fall within the territorial sea.

Once the proposed draft for a TSS gets the approval of all stakeholder institutions, it is submitted for approval by the IMO.

If the government decides against submitting the TSS to the International Maritime Organisation for its approval, it should notify accordingly the concerned mariners by providing on the relevant maps and navigation instruments exact and accurate guidelines with regard to the rules that apply to the use of that system.

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