International regulations related to naval mines and protection of navigation

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Abstract. The free movement of people and goods is one of the fundamental values of the European Union. Nowadays, the security environment out of Territorial waters is changing its characteristics. The statute of any military action in the Exclusive Economic Zone (EEZ) becomes more sensitive than ever. The use of naval mines is demanding adequate responsibility so that to correspond to trends in maritime security. It is vital, the perception for laying off mines at sea to be placed impartially between international legislation and military morale inspired by inherent civilization values, adequate to requirements of Geneva Conventions and United Nations Convention on the Law of the Sea (UNCLOS-82) in respect with human rights. The Convention relative to the laying of automatic submarine contact mines (Hague VIII) is an example that there are some needs for regulation of the use of naval mines at sea. Moreover, the significance of the Hague VIII Convention released in 1907 is more or less melting. UNCLOS-82 doesn’t treat the use of naval mines in details, so there is certain vacuum in regulation of those security aspects. The existence of sound and transparent principles is extremely important for building firm trust and mutual understanding between coastal states.

1. Introduction
Safety and security are a required as a prior condition for the development of the maritime transportation system, offshore industry and prosperity for coastal states. The safety and security environment out of territorial waters (TTW) of Coastal states is changing its characteristics. The statute of any military action in Contiguous zone and in Exclusive Economic Zone (EEZ) becomes more sensitive than ever. Nowadays, the use of naval mines is demanding adequate reflection so that to correspond with trends in regional security. It is vital for the perception for laying mines at sea to be placed impartially between international legislation and military morale inspired by inherent civilization values. The determination of Rules of engagement (ROE) for the coastal State naval forces is another milestone that shapes out the use of mines at sea. The synthesis of proper ROE supports achieving mission goals in accordance with the requirements of the United Nations Convention of Law at sea (UNCLOS-82) and Law of armed conflict (LOAC) in respect with human rights.

The Black Sea is a crossing point of interests and spheres of influence. In order to maintain a stable environment of safety and security, it is necessary to balance the EU, NATO and UN security environment management norms, as well as the national interest. However, taking into account all the factors affecting freedom of navigation and the preservation of economic interests, it is a complex process and a serious challenge for researchers and security experts. In this study, some limitations have been placed in order to sharpen the focus and to achieve specific depth and details of the research work. Limitations are needed in spatial aspect. The projection of the sea mines usage on the security
safety and environment in the Western Black Sea is reviewed. A wide range of risks and threats influence the security and safety environment, but among them only impacts of the mine threat has been explored. Significant factors are considered, such as inherent rights and values for free movement at sea, understanding of naval mines nature as well, as existing international legal norms.

Research work results are obtained by using methodology based on system analysis. Using methodology given by system approach, it is possible to assess maritime security elements related with legal aspects of naval mine threat. Undoubtedly, it affects the maritime transportation system as part of global seaborne activities. The thesis is formed using the author’s accumulated experience as mine warfare specialist influenced by a specialized legal training courses.

2. Diverse dimensions on freedom of navigation
Where is the Rubicon River when we speak about freedom of navigation, innocent passage of a vessel or need of temporal denial of passage through given maritime area? Actually, The Rubicon is a river that marked the ancient boundary. Julius Caesar led his army across it into Apennine Peninsula in 49 BC, breaking the law forbidding a general to lead an army out of his province, and so committing himself to war against the Senate and Pompey. Since then, ‘crossing the Rubicon’ means to break the Law. And after that, there is no way back.

Nowadays, international merchant vessel traffic constitutes more than 90 per cent of global transportation of goods worldwide. Transportation through the sea is the most cost-effective way of dealing with merchandise. It provides a reliable and secure commerce and helping to increase the well-being of nations. Maritime security is related to global food security and an economic security. As an essential part of the Maritime Transportation system Merchant shipping also ‘produces’ security and is a life-line for the energy sector and industry. Safety and security of sea lanes are compulsory factor for balanced economic upgrowth and continuous predictable development [1].

The sea has been a source of livelihood since time immemorial. Actually, the freedom of navigation has solely meaning concerning wellbeing of the society. The free movement of people and goods is one of the fundamental values of the European Union. The free movement of goods is the ‘sui generis’ value of the European Union. The free movement by sea has its economic significance. It is a sound basis to build markets from which European citizens and businesses are gaining benefits and which is at the core of European policies. Safety and security cover a wide spectrum of maritime economic activities, especially in the littoral zone. Essential activities are transport of cargo, cruise and passenger transport, offshore energy industry, pipeline transport of gas, tourism, fishing and aquaculture.

According to the EUROSTAT data base, delivered results of maritime economic indicators for the EU members in Black sea are convincing. For instance, there is an indicative ascending trend showing loaded and unloaded goods in harbours of Republic of Bulgaria presented by year:
2012 - Total 26,012 million tons; 2013 - Total 28,841 million tons; 2014 - Total 27,235 million tons;
2015 - Total 27,166 million tons; 2016 - Total 28,685 million tons [2].

Further, the Maritime Transportation System is a part of global logistics system. It is international in nature and it becomes a subject to a complex array of policies and regulations that transcend national frameworks. Therefore, multiple states have intersections of interests because of connected markets. It settles a distinctive pillar for co-operation between governmental and non-governmental, regional and local organizations, industry stakeholders and other interested parties. In other words, contemporary life depends on the Maritime Transportation System and its services.

Accordingly, the maritime transport industry meets requirements of different legislations and jurisdictions. Seeing from the point of view given by the system analysis, the components of the Maritime Transportation System could be decomposed into subsystems and elements. It is system’s structural aspect. Desired system’s behavior and characteristics are obtained by forming a particular appropriate links between discrete elements. There are a wide spectrum of authorities and organizations involved in the legislation and policy-making activities. Furthermore, stakeholders of different nationalities are players in the routine business of the shipping industry. Participators are
owners or are associated in specific way with the design, operation, management and manning of merchant vessels. Other elements are involved in seafarer education and training, as well as in the classification and insurance aspects of shipping. It could be stated that the subjects listed above are indirectly influenced by the factors of maritime safety and security. Physical objects at sea are the elements directly influenced by security risks and threats. These elements are consisted of ultimate contractors such as merchant vessels, auxiliary vessels, pilotage, vessel traffic services, towage and salvage [3].

Maritime security threats to shipping affect the predictability and efficiency of sea trade flows. The destructive outcome of security-related incidents has the potential to affect wide spectrum of maritime transportation elements. Naval mines pose inevitable risk to vessels because the world trade is becoming wider, extending to new sea lanes and new critical infrastructure in littoral zone. It makes shipping traffic more intensive in certain regions. Further, congested areas arise, shaping new peculiar shock points being a safety and security challenges.

Decomposing the Maritime Transportation System into elements makes possible to recognize the institutions involved in safety and security aspect. Governmental authorities and legitimate international organizations including naval and coastguard forces are responsible for maritime law enforcement. They are involved with the protection and security of sea lanes used for international trade as well as harbors and other crucial maritime infrastructure. Their responsibilities are related with the implementation and enforcement of security requirements under the ISPS Code. In this way, the ISPS Code as an amendment to the Safety of Life at Sea (SOLAS) Convention (1974/1988) covers the majority of issues concerning maritime security but in fact, it does not treat mine-laying and interdiction of navigation by naval mines.

The ISPS Code is required to be implemented on board all ships in all ports engaged in international maritime transport. In parallel with all benefits there are some imperfections because of existing gaps in the scope. Unfortunately, protection measures provided by ISPS have to respond to the threats posed to the seaborne traffic but does not cover mine risk. The arranged in advance objectives of the Code are to establish an international framework involving interaction and coordination between all competent institutions, such as contracting governments, governmental agencies, local administrations and port authorities to detect security threats and take proactive measures against security incidents affecting ships or port facilities. The structural and content analysis points out that mine threat is not considered at all. In other words, it describes scenarios with ‘unauthorized weapons, incendiary devices or explosives’ to ships but it does not cover a case study when a ship is struck by a naval mine en route to its next destination [4].

3. The nature of mine threat in littoral zone

3.1. Emerging of mines as a naval weapon

A naval mine is an explosive device typically used to create spatial structures into water called minefields. Naval mines can be used offensively in order to hamper enemy shipping or block vessels into a harbor. To use mines defensively means to protect own or friendly vessels and create ‘safe’ zones beyond designated areas. The emergence of this kind of capability of the Navy not only enables more effective and easier offensive warfare but also allows for defensive and reactive warfare. The concept of sea mine came into being in medieval ages but naval mines have been used in armed conflicts at sea since the 19th century. Mine utilization is well documented for the first time in the American Revolution. The construction originated by David Bushnell was very common decades after that. Such devices were placed under the hulls of British ships in New York harbor. Moreover, during the American Civil War, the Confederate navy protected its infrastructure and shores using submerged contact explosive devices. The imperial Russian Navy was also a pathfinder in the field of mine warfare. Mines were used for a very first time as a tactical weapon during the Crimean war of 1853-1856 and during the Russo-Turkish War of 1877-1878.
The mine warfare tactics was further developed in the beginning of XX century. The modern shape of mine warfare is distinctive because of their vast use in the Russo-Japanese War in 1904-1905. However, that is not set as focus of this study. Tactical capabilities to be adapted easily from one to other naval tasks make mine preferred naval weapon in modern conflicts. For sure, cost-effectiveness is another reason for practically all navies to obtain mine-laying capabilities. Another factor in security aspect is the effectiveness of mine countermeasures. For instance, it would take much longer time to clear a minefield as to lay it. The total spending for manufacturing and laying a mine are normally up to 10% of the cost of mine countermeasures aiming at the removal.

Moreover, concerning legal regulation for the use of mines in terms of naval tactics, minefields could be classified as offensive, defensive and protective. Offensive mine laying can affect harbors and shipping channels, river mouths, canals and interior water lanes, choke points, and straits or coastal waters. It might even be possible to be determined that offensive minefields are reaction minefields designed to interdict surface traffic in TTW. In comparison with other naval weapons mines are easy to design and easy to camouflage once manufactured. The use is characterized by a significant psychological effect and a long period of impact being hard to neutralize.

3.2. Some illustrative examples of existence of a mine threat

Particular elements of World War II naval minefields still pose a threat because there are not sufficient detailed information concerning geographical coordinates and types of used mines. Discovered mines along the Bulgarian Black Sea coast in recent years enable research work and systematization, analysis and evaluation of data related to the mine threat in the region. Different types of naval mines were widely used in the Black Sea during the World Wars. Lost mines in the Black Sea create a number of hazards not only for shipping but for economic activities in general - offshore industry, tourism, etc. Influenced by currents, waves, seismic activities or other natural factors, they could change their position and could emerge suddenly on unexpected locations drifting along sea lanes or get washed up on shore. Nowadays, the mine threat causes fractal influence to safety of navigation. It has real dimensions and should not be underestimated.

Over the last decades, mines have undoubtedly been proven as relevant and effective naval weapon. In the summer of 1984, magnetic sea mines damaged at least 19 ships in the Red Sea. The US put the blame on Libya for the minelaying. In response, the US, the Great Britain, France, and three other nations launched Operation Intense Look, a minesweeping operation in the Red Sea and Gulf of Suez involving more than 46 ships. It acknowledges that mining of particular ‘hot points’ could jeopardize the shipping through this critical waterway harming the economy beyond national boundaries.

Another case study is mining Nicaragua’s Sandino port in 1984 in support of the Contra guerrilla group. A Soviet tanker was among the ships damaged by these mines. In 1986, in the case of Nicaragua versus United States, the International Court of Justice ruled that this mining was a violation of international law. The Law aspects of Mine warfare are found during ‘Guerrilla war’ in Central America.

A lot of bottom and moored mines were prepared to be thrown out in the Persian Gulf. For example, during the Iranian-Iraqi War from 1980 to 1988, the belligerents mined several areas of the Persian Gulf and nearby waters. In 1988, Iran placed approximately 150 mines in the Strait of Hormuz. On April 14, 1988 USS Samuel B. Roberts (FFG-58) struck an Iranian M-08/39 mine in the central Persian Gulf shipping lane, wounding 10 sailors. The ship had to be repaired in dry dock for six months. The cost of repair works amounted to over 89.5 million USD while the approximate cost of mine was up to 1500 USD.

During the Second Gulf War, Iraq places 1157 mines along the Shat-el-Arab River in 1990 and 1991, making its waters extremely dangerous to navigate. The presence of mine fields terminated a planned landing operation. Other security incidents are related with the USS Tripoli (LPH-10) and USS Princeton (CG-59). The ships were severely damaged by Iraqi minefields consisting of mines
respectively contact type LUGM-145 and influence bottom type MANTA - MN103. A rough calculation of damage is 21.6 million USD corresponding to total cost of mines 11.500 USD.

During the Operation Iraqi Freedom in 2003, coalition forces pursued prolonged surveillance of suspicious activities by small craft to prevent Iraq from deploying sea mines. Thus, coalition forces detained three vessels refitted as minelayers. It was revealed after boarding that barge was designed to hide type LUGM-145 contact mines and MANTA influence mines. The mines could be placed through specially designed hatchways at the aft side of barge. A dozen LUGM-145 contact mines were found on the deck of another tug, under the masking structures made of empty drums. Thus, it was prevented from laying 137 contact and influence mines, which would seriously have jeopardized coalition ships in the area [5].

There are contemporary examples of use of improvised mines close to the studied area. A Ukrainian cutter was seriously damaged after the detonation of an ‘improvised mine’ near the stern. The security incident happened in Sea of Azov on the 8 of June 2015. As a result, a border patrol boat was lost after an explosion off the port city of Mariupol, Ukraine. Unfortunately there were casualties, with one dead, one injured and one declared missing. The security incident could be classified as violation of International Law, because it is unnoticed use in practice of uncontrolled armed floating sea mine. Ukrainian authorities blame the separatists for this security incident. But it is just like writing on water, because the perpetrator is still unknown.

So, it is necessary to regulate and coordinate activities at inter-institutional level, including a series of demands for far-reaching integrated approaches to reactive and proactive mine countermeasures at international level. EU and NATO membership create convenient operating conditions in the region to find such cooperation in the framework of international bilateral and multilateral projects and initiatives. This is not the case since yesterday. Illustrative examples of real actions towards improving the environment for overcoming the mining threat are conducted mine countermeasure (MCM) exercises ‘Andromeda’ and ‘Poseidon’ with the participation of MCM forces from the Republic of Bulgaria and the Republic of Romania. Moreover, the NATO Standing MCM Group in Mediterranean Sea participates regularly in opened exercises in Western Black Sea such as ‘Poseidon’, the naval exercise ‘Breeze’, etc. It is an undeniable fact that mines are used by belligerents as a means of compensating for their shortage of surface ships and submarines seeking the balance of capabilities with its opponents. Implementing system approach, the security in the Black Sea could be assumed to be a subsystem of wider Global maritime security system. Particular connections and relations could be found between system elements. Moreover, processes, interacting elements, the structure of subsystem and monitored relations are fractal to global ones. Further, the use of mines worldwide would have particular security reflection upon safety and security environment specifics in the Black Sea.

4. International regulations
Are there any International regulations concerning the laying of Naval Mine? That sounds as a tricky question. Actually, that area of Law in the second decade of XXI century still sounds as ‘Terra Incognita’. Freedom of navigation is a right provided by UN conventions, European Union directives and bilateral and multilateral regional agreements.

4.1. Freedom of navigation guaranteed by United Nation Convention of Law at sea
The UNCLOS-82 is applicable to all activities at sea, including safety of navigation all over the world. It could be defined as the main contemporary source of law at sea. It shows how to determine sea in spatial aspect. Thereafter, the jurisdiction of coastal states over particular areas of sea could be determined. The coastal State has the right to adopt laws and regulations, in proportions with provisions of article 21 and other principles of international law, studied in the presented research work.

According to the UNCLOS-82, ships of all nations have the right of innocent passage through the territorial sea in terms of article 19. States seeking to lay off naval mines in peacetime are limited in
how and what they may do by both treaty and customary international law obligations. The UNCLOS-82 is the most relevant treaty for determining the circumstances under which a state may lawfully lay mines in peacetime. It must not obstruct the appropriate passage of foreign ships. This rule is derived from both treaty and customary international law.

The coastal state have rights anytime to establish Mine Danger Areas in internal waters and TTW pursuing rights in terms of article 8 but obligation arises in terms of article 21 in order to provide the safety of navigation and the regulation of maritime traffic. According to article 24, the Coastal State shall give reasonable notice to any danger to navigation within its territorial sea, not excluding inevitable mine threat. In addition, it is entirely in the spirit of Article 25 concerning rights of protection of the coastal State.

If a belligerent decides to lay mines or arm previously laid mines in international waters, it must have ‘due regard’ for the legitimate interests of neutral states; for example, this may entail the provision of safe alternative routes. Belligerents may, if deemed necessary, lay mines in the EEZ and continental shelf areas of neutral states. It is important to be matter of significant concern that in the Black Sea there are no international waters according to the interpretations of UNCLOS-82 in articles 55 and 56. Moreover, the delimitation of EEZ according to the implementation of international and customary regional law is paramount as it is mentioned in article 57 and article 59. Article 74 covers at full extent the relations between Coastal States with adjacent or with opposite coastlines and it is applicable to the Western part of the Black Sea. Article 139 is applicable when a mine causes damage to a third party vessel. Then the Coastal State bears responsibility for ensuring compliance and liability for the damage.

4.2. The dawn of attempts to regulate the use of naval mines

The use of naval mines in armed conflict at first time is governed by the Hague Convention promulgating maritime international humanitarian law rules. The Hague VIII Convention aims to protect innocent passage both during and after conflict by limiting the indiscriminate effects of naval mines. To date, it remains the only treaty governing naval mines. There are essentially two reasons why the modern international humanitarian law and Law of Armed Conflict began its development in the middle of the nineteenth century, one idealistic and the other profoundly pragmatic. The first was about the altruistic concern for basic humanity in relation to the treatment of the victims of war. It resulted in the creation of the Red Cross movement and the series of Geneva conventions, the first of which was agreed in 1864. It also produced the first international agreement in modern times prohibiting the use of a weapon for reasons of humanity, the 1868 St Petersburg Declaration. The second reason was driven by national interests of the most powerful states, further known as the Great Powers. The essential purpose was to secure freedom of navigation on the high seas for commercial shipping, specifically to ensure the continuation of the extremely profitable maritime trade in time of war.

The 1907 conference came to be heavily focused on maritime concerns. Of the total of fourteen conventions produced at the conference, nine were devoted to aspects of war at sea [6]. The Number eighth was that dealing with automatic submarine contact mines, the type of mine that had caused substantial damage to both sides during the Russo-Japanese War. So, by 1907, sea mines had become a focus of serious concern and attention. Commercial trading interests tended to want them banned altogether, while naval interests wanted them regulated, but also saw the value of them as sea-denial weapons and as a means of disrupting enemy trade. It was inspired by the desire to keep sea routes open for some navigation, while going on to stress that it was about regulating rather than banning the use of automatic submarine contact mines. The 1907 Convention clearly needed to cover the possibility of moored mines floating to the surface, however, hence the operative articles omitting the word ‘submarine’. Defining the type of mine covered by the 1907 Convention, makes it not applicable to sea mines in general. In the ‘the spherical, horned’ contact mine is triggered by the contact of a ‘passing ship against one of the Hertz horns…’ This is an important point to acknowledge, because, if
the Convention agreed in 1907 had covered all devices described as sea mines, and all forms of sea mines subsequently developed.

Article 3 requires the laying of mines to be notified to ship owners and other States at some point after the mines are laid. It is suggested that procedures ensure rendering safe ‘as soon as military exigencies permit’ after mines cease being under surveillance. In fact, it might be assessed as innovation pointing toward new age of reducing collateral damages and bending war at sea toward humanity.

Article 4 requires neutral navies when constructing protective minefields in proactive manner to inform ship owners and all security stakeholders prior to mine laying operations. It is an example of implementation of comprehensive approach aiming reciprocity. Another indicative example that Convention was ahead of his time is the provision of article 5. It set requirements States to clear the mines present in their own waters. Further, the Article 6 deals with the arrangements to be taken by newly contracting States whose existing mines could not comply with the provisions of the Convention. Probably, this article contributes to controversy. Article 7 has had a remarkable negative effect. Since 1907 when the Convention was agreed in The Hague, there has been no armed conflict during which it has actually applied.

The rules contained in the 1907 Convention having customary status in relation to contact mines alone, they have also, when combined with other elements of customary law, led to the devising of the rules contained in the San Remo Manual [7]. They apply to all forms of sea mines, defined as ‘explosive devices laid off in the water, on the seabed with the intention of damaging or sinking ships or deterring ships from entering an area’.

It could be deduced that it shapes an international regulation which is advantageous both to protect neutral commerce and to uphold the principle of immunity of enemy merchantmen from attack without warning. Impartially said, the ‘future’ Great Powers made it obvious that they were unable to reach complete agreement on the matter. After much deliberation, they arrived at a compromise. Only Article 1 and article 5 contain clear and unequivocal regulations. Article 2 forbids the laying of contact mines off the coast and the ports of the enemy, with the sole object of intercepting commercial shipping but it is of limited value. It is important to belligerents that mines are laid for a purpose other than merely intercepting commercial navigation or not [8].

Despite its shortcomings as a treaty, the 1907 Convention has, over a period of more than a century, had an influence on the development of customary law on sea mining. It is possible to identify a series of rules that can be applied to sea mines of all levels of sophistication. In some extent, the convention has contemporary dimensions and could serve as fundament of contemporary international legislation provisions. What are the most important outcomes? It is very important a kind of notification to be promulgated via navigational warnings, messages using Diplomatic channels or accessible information systems. Next, it is important to decision makers to keep into account if mine is moored or floating. The minefield should be designed so that mines to become harmless in time, having limited duration in order to reduce the harm to ‘innocent’ traffic. Another remarkable requirement is channeling of neutrals. Reading the Convention there is inspiration that mines capable of discrimination should be programmed against legitimate targets. It is unnecessary for them to become inactive if they break free from their moorings. Maritime law traditions prohibit the indiscriminate use of mines and therefore mine-laying operations that are not or cannot be directed against a military objective are unlawful.

4.3. Some Geneva 1949 Conventions provisions applicable to the use of naval mines

Another source of international law is derived by Geneva Conventions. Some of fundamental legal principles for LOAC come from the Geneva Conventions of 1949. The Geneva Conventions consist of four separate but correlated international treaties aiming to protect human beings involved in armed conflict from unnecessary suffering. They also provide legal protection civilians and private property. Geneva Conventions distinguish individuals as lawful combatants, non-combatants, and unlawful combatants.
For a first time, a lawful combatant is determined as an individual authorized by governmental authority to engage in hostilities. A lawful combatant is usually a member of a regular armed force but may be part of a paramilitary force. In spite of that, it is necessary the commander to be responsible for his subordinates, to oblige these individuals to wear uniforms and fixed distinctive emblems recognizable at a distance, to carry arms uncovered, and to conduct combat operations according to specified norms. Accordingly, the crew of mine-laying vessel would be recognized as lawful combatants. In spite of that, it contradicts the paradigm of camouflage, suddenness, etc. Non-combatants are individuals not authorized by governmental authority to engage in hostilities. Civilians accompanying the Armed Forces and certain military personnel who are not authorized to engage in combatant activities, such as medical personnel should be assumed as non-combatants. Normally, non-combatants are not targeted as object of direct attack. Nevertheless, there is a high probability for non-combatants to suffer injury or death incident during direct attack. Unlawful combatants are individuals who directly participate in hostilities without authorization or under international regulations. For example, armed rebels or mercenaries deploying improvised mines violate law and become lawful military targets. Undetermined status is applicable when there is uncertainty as to whether an individual is a lawful combatant, non-combatant, or an unlawful combatant. Then the Geneva Prisoner of War Convention provides a protection until status is determined. The capturing nation should convene a competent tribunal to determine the detained person’s status [9].

4.4. The NATO perspective and the nature of LOAC
According to the NATO concept countermine responsibility is divided into allied and national in accordance with the nature of control upon specific area. Within any NATO operational area, the command and control of mine warfare assets may be divided between both NATO and competent coastal state authorities. In general, as a customary rule coastal state authority are responsible for mine warfare operations carried out in their own coastal waters. An example could be given mentioning sea trade lanes in TTW, cabotage routes and critical maritime infrastructure. Sensitive areas are harbours, anchorages and anchor approaches, coastal shipping routes, and channels. In addition to this, NATO authorities are responsible for countering the mine threat in open ocean or sea areas. Vital to neutralizing the level of threat is the responsibility for the overall co-ordination of mine warfare effort in mine danger areas. They may delegate operational control to a coastal state authorities or local area subordinate command. The paradigm of building security in coalition format gives another viewpoint. Normally, the commander’s mine-laying plan and embodied ROE are pursuant to National and International legislations.

ROE compromise agreement is founded on controversial claims. On the one hand, it expresses an obligation to follow humanitarian and commercial interests. On the other hand, ROE must support military priorities in order to achieve desired military goal. The San Remo Manual is an important document related to the law aspects of mine warfare. The San Remo Manual was the result of a process of consultation and discussion between 1987 and 1994 at two round tables and six meetings of a group of naval experts and lawyers. It is an issue relevant to comprehensively examined law by the Institute of International Humanitarian Law (IIHL) based in San Remo, Italy. The result of the process, published in 1995, was authoritative without being either an attempt to develop conventional law or account for the then current state of customary law. Indeed, it was innovative in several respects in attempting to place the law of naval operations during armed conflict into a late-twentieth century context. As a source of the law it is, therefore, somewhat ambiguous.

ROE are issued by competent commanders after legal review and approval. ROE are relevant to the circumstances and limitations under which forces will engage the opponent. Normally, ROE are promulgated by operations plans and operations orders. ROE provide appropriate use of force according to national policy, mission objectives, and international legal regulations. ROE implement existing LOAC principles. ROE set forth parameters of rights for self-defense. During given military operation, LOAC and specifically designed ROE provide detailed guidance on the use of force. Rules
give commanders direction on the use of force in self-defense against a hostile act or hostile intent [10].

LOAC is applicable to international armed conflicts and in the conduct of military operations and correlated military activities. It is an implementation of gathered military experience and international law regulations. LOAC has a specified nature aiming to prevent unnecessary suffering and destruction. LOAC regulates the conduct of hostilities and protects human life. There are three basic LOAC principles - military necessity, distinction, and proportionality.

Military necessity requires engaging in only those acts necessary to accomplish a legitimate military objective. Using naval mines in armed conflict, minefields should be limited strictly against the involved naval ships. It generally means the mine may target those floating physical objects, so if destroyed, would lead directly toward partially or completely achieving of mission objectives. It is vital not to use naval mines or weapons systems that violate international law. At times, some restrictions are required on use in order to increase compliance with the LOAC.

Distinction is the capability of a mine to distinguish between lawful combatant targets and noncombatant targets such as merchant vessels, fishing boats, cruise vessels, offshore supply vessels, etc. The mean concept of distinction is to engage magnetic, acoustic or hydro-dynamic field of valid military targets. Distinction is possible when it is possible to separate military targets from civilian ones as precisely as it is possible. For that reason, it would be a bad idea to transport civilians on board of naval ship during armed conflict at sea.

Proportionality prohibits the use specific weapons or degree of force that would exceed needed effects to reach desired military objectives. Proportionality is an indicator that is an expression of gained military advantage in relation with the harm caused during operation [11]. Once the security threat terminates, armed mines must be removed or rendered harmless while floating mines must be removed or rendered harmless one hour after they are deployed in any circumstance. In peacetime, a state is prohibited from laying mines of any type in the territorial seas or internal waters of another state. To do so would violate the territorial sovereignty of the latter and constitute a use of force unless the mine-laying is done with the consent of that state.

Most states agree that, as a general rule, international law prohibits the laying of armed mines in international waters, international straits and sea lanes during peacetime. The prohibition on laying armed mines in international straits derives from the principle that all ships enjoy the right of unimpeded transit passage through international straits. …It gives ‘appropriate publicity to any danger to navigation … within … the strait of which they have knowledge’. Moreover, unlike innocent passage, transit passage cannot be suspended. These obligations also apply to archipelagic sea lanes. Armed mines may be laid in international waters prior to the existence of an armed conflict on the basis of individual or collective self-defence. The law is unsettled as to whether controlled mines may be laid in international waters in peacetime since a state’s obligation is to have ‘due regard’ to the rights of other states. Not all states share this view as some do not maintain that, in peacetime, armed nor controlled mines may be laid in international waters.

5. Conclusion
In conclusion, it is perceivable that the Hague VIII Convention is an example that there are some needs for regulating the use of naval mines at sea. Actually, the Convention has not expired but it falls behind its time. It is true to be stated that it is not among the most popular legislative sources of international law. UNCLOS-82 fails to treat the use of naval mines in details, so there is a vacuum, in this sense. Accordingly, the effects of the Hague VIII Convention should be matter of concern not only for Legal advisors and Lawyers but for all of those people that are involved in maritime security and maritime business. The protection of civilians and innocent passage is one of the main goals of the maritime security system.

Nevertheless, the Hague VIII Convention gives unsatisfactory aged definitions. It has got ‘gaps’ concerning modern influence mines. So, these blank fields become larger and larger. Contemporary legal aspects of naval mines use are defined successfully by NATO. The San Remo Manual is a good
example to produce comprehensive manual for commanders at sea. There is necessity of newly-designed applicable international legal regulations applicable to the use of Naval Mines. Probably it is appropriate for the issue to be under UN jurisdiction. Raised issues should be adequate to contemporary trends in maritime security such as asymmetry, hybrid threats and challenges in delimitation of the sea.

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