



Current Situation and Challenges in the law of armed conflict at sea: Conference report

ARTICLE INFO

Keywords

The law of armed conflict at sea
International humanitarianism
Law of sea warfare
National security

ABSTRACT

With the continuous improvement of science and technology, the law of armed conflict at sea, with the core of the Geneva Convention and its protocols, is also facing new challenges on the 70th anniversary of its adoption. In September 2019, the Dalian Maritime University and the Grandview Institution, China, co-organised the, 'Current Situation and Challenges in the Law of Armed Conflict at Sea Conference'. The conference brought together front-line staff from academia and government agencies and units, to discuss new issues in this area. This conference report organises and provides the details of the key issues discussed during the conference, which it is hoped will strengthen and lead to better understand the connotations of this meeting.

1. Introduction

The 'Current Situation and Challenges of the Law of Armed Conflict at Sea Conference' was held on September 24, 2019. It was co-organised by the Dalian Maritime University and the Grandview Institution, the venue of this conference being the Lakeside Bookstore of Dalian Maritime University, China. A total of nearly 50 participants from government agencies and units and universities gathered to discuss the current situation, future development trends and other issues regarding the law of armed conflict at sea.

So far, the domestic jurisprudence circle in China has not yet formed a unified title for the legal system which regulates the armed conflict at sea. As a branch of international law, the law of armed conflict at sea refers to "In the form of treaties and customs, when regulating the legal use of force by naval forces and in the armed conflicts at sea, it is the totality of general principles, rules and systems on rights and obligations between the conflicting parties, between the conflicting and the non-conflicting parties. It applies not only to the international armed conflicts at sea, but also to some non-international armed conflicts at Sea [1]." 2019 marks the 70th anniversary of the signing of the Geneva Convention. As the core treaty regulating the acts of armed conflicts, the Geneva Convention and its protocols also face great challenges brought by new scientific and technological progress. This conference has three topics, namely, the concept, origin and applicable situation of the armed conflict law at the sea, the specific rules and systems of the armed conflict law at the sea, as well as new technologies and law of sea warfare. The convening of this conference provided a new reference for safeguarding China's legitimate maritime rights and interests and building a community of shared future for the oceans. Through this meeting, new progress regarding the armed conflict law at sea was considered and new fields and new developments of various disciplines were closely combined. This conference hoped to contribute to Chinese wisdom as regards the needs of the new era and push research on the armed conflict law at sea to a new domain.

2. The concept, origin and applicable situation of the armed conflict law at sea

Professor Li Zhiwen, the Associate Dean of the School of Law, Dalian Maritime University, delivered a speech, entitled, *Research on the Coordination and Application of the Second Geneva Convention and the International Convention on Maritime Search and Rescue*, in which she introduced the following four parts: Firstly, the scope of application and comparison of differences between the Second Geneva Convention and the Convention on Maritime Search and Rescue; Secondly, new problems faced by the Second Geneva Convention, concerning modern armed conflict at sea; Thirdly, supplementary application of the Convention on Maritime Search and Rescue to the Second Geneva Convention, as regards modern armed conflicts at sea; Finally, some reflections on the coordination and application of the Second Geneva Convention and the Convention on Maritime Search and Rescue. With the rapid development of modern informational science technology, long-range strike capacity, more precise guidance systems, non-contact, over the horizon and other operational styles are constantly emerging, which can result in large numbers of wounded, for whom suitable medical treatment is problematical [2]. The use of modern electronic information technology has led sea warfare to a three-dimensional space or even non-contact operations, as opposed to a single level operation. The use of nuclear weapons has also increased the risk involved in sea warfare, which requires further consideration. In addition, armed conflicts at sea, in the modern era, may require medical personnel to be prepared to face more dangerous and widespread threats, than those of previous generations [3]. In order to achieve the purpose of humanitarian rescue, it is necessary for other search and rescue forces to combine in forming a more participatory search and rescuing structure. Joint military, civilian assistance and unmanned aerial vehicle (UAV) maritime rescue with its inherent advantages in coping with varying conditions [4], become new options. In this case, the limitations of the Second Geneva Convention are also highlighted, as it would be difficult to form effective guidance for maritime search and rescue operations,

given the current complicated maritime search and rescue situation [5].

The Applicability of the Second Geneva Convention in Modern Naval Warfare, written by Li Qiang, an associate professor with the School of Law at the China University of Political Science and Law. He noted that, as a convention regulating naval hostilities, the importance of the Second Geneva Convention cannot be ignored. The Convention, however, was formulated on the basis of the existing experience and conditions in 1949. In some aspects, with the passage of time, it has become deficient and has a narrow scope in its usage [6]. His speech considered the applicability of specific rules, such as the detention of hostile forces captured by ships in a naval battle, how to realise the public jurisdiction under Article 3 of the Second Geneva Convention and the stipulation that hospital ships should not use encrypted communications, raises issues, not least how to allow for aspects of modern communication. The above provisions have become outdated in practice, such as Article 34 of the Second Geneva Convention stipulating: "In particular, hospital ships shall not have or use passwords for radio or other means of communication." Nevertheless, in effect, in order to avoid exposing domestic fleets, the password communication of hospital ships is not operated in practice. In addition, Article 43 of the Convention also stipulates the 'appearance' of hospital ships,¹ to distinguish them from naval craft. With the development of modern science and technology, however, long-distance attacks are now possible. As a result, previously accepted 'identification marks', can no longer ensure the correct identification of hospital ships for the purpose of their protection, nor confirm the position of rescue boat crews, in coastal areas. Throughout the Second Geneva Convention's existence as regards modern naval warfare, it has had to cope with several issues, such as imprecise wording, outdated provisions, legislative gaps in the Convention, conflicts with other legal conventions and so on, as is so often the case with legislation.

Analyse the Relationship between the Law of Sea Warfare and the Law of the Sea through Interim Measures in the Kerch Strait Incident, written by Leng Xinyu, an associate professor from the School of Law at the China University of Political Science and Law. His speech starts with outlining the Strait Kerch incident, in order to identify the following issues: whether Russian behaviour can be evaluated, according to the law of sea warfare; whether there are armed conflicts, whether the United Nations Tribunal for the Law of the Sea ignores the law of sea warfare and laws of occupation and the source of Russia's power to control the territorial sea of the Crimea Peninsula. Since November 25, 2018, when three Ukrainian warships were seized after they entered Russian territorial waters, the tension between Russia and the Ukraine escalated. After this incident, Ukraine declared itself to be at full combat readiness. Despite the fact that the territorial waters of Russia were allegedly entered, invaded, the use of attack or arrest is permitted under international law, only when enemy ships take part in hostilities, not when they are alleged to have violated rules in the territorial waters [7]. The, 'Kerch Strait incident', is deemed to be a violation of the Ukraine's right of freedom of navigation in the Kerch Strait by Russia, in peacetime, as well as ignoring the sovereign immunity of Ukrainian warships [8]. It is noted that, China has a long coastline and a correspondingly complex surrounding maritime security situation. To clarify the legal and factual issues involved in the Kerch Strait incident, would provide valuable lessons for China, in protecting its legitimate rights and interests, as well as carrying out military law enforcement actions.

Some Thoughts on the Origin of Modern Law of Sea Warfare—Starting from Article 9 of the San Remo Manual, written by Lu Jing, post doctor and lecturer of Law School of Sun Yat-sen University. Her speech started by

considering Article 9 of the San Remo Manual² and then discussed the relationship between, 'jus ad bellum' and 'jus in bello' and points out that, the two are not entirely completely separate issues. As a result, how to remove the practical obstacles to the equal application of international humanitarian law caused, by the resolution whereby the Security Council authorised the use of force to be considered seriously. In order to prevent the Security Council from mistakenly exercising its power to judge and launch a, 'just war', it is suggested that, China should exercise its veto more often. It is also suggested that, the international community should pay more attention to the adverse effects of the resolution where the Security Council authorised the use of force concerning the positive implementation of international humanitarian law, so as to amend and improve the provisions of Article 9 of the San Remo Manual.

3. Specific rules and systems of the armed conflict law at sea

Marine Military Utilisation and the Latest Development of the Law of Sea Warfare, written by Yen-Chiang Chang, professor from the School of Law, Dalian Maritime University, expounds the legal restrictions on marine military disputes, discusses the main international legal provisions on marine military utilisation and touches upon the developing principles of marine military utilisation. In his view, the peaceful use of the sea does not mean the prohibition of all activities of naval craft and aircraft at sea. The relevant provisions of the 1982 United Nations Convention on the Law of the Sea (UNCLOS), cannot be generally understood as indicating that only aggressive actions are prohibited at sea. The military use of the sea can be deemed to demonstrate the strength of a country at sea and familiarity with the relevant provisions of UNCLOS would be essential in protecting a country's maritime rights and interests [9].

The Application of the Law of Armed Conflict in Sea-Air Joint Operations, written by Wang Xiangshan, a researcher at the Academy of Military Sciences, points out that, the application of the law of armed conflict is still extensive, even in the field of new artificial intelligence. He further introduces the general principles, preventive measures and specific protected objects of the law of armed conflict. In practice, in the process of a military target strike in sea-air joint operations, the interests of other countries can be affected. Generally speaking, political interests are deemed to be superior to military interests. In order to meet the new challenges in practice, this might be achieved by the enhancement of the international law-making and the application of law in military operations, such as consulting military lawyers before taking military action.

Thoughts of the Armed Conflict Law at Sea in Coping with the Changes in the Situation of Maritime War, written by Zheng Hong, a researcher of the Naval Research Institute, who opines that, the core objective of the law of sea warfare is to eliminate and reduce the barbarism of war and to protect the basic living environment of mankind. Dr. Hong points out that, the emergence of artificial intelligence and network platforms, has had a huge impact on the traditional theory of the law of naval warfare. In the context of the present day, potential information-based conflict embodies the characteristics of non-contact, significant destruction and uncertainty. Such potential non-contact conflict does not conform to the traditional definition of armed attack [10], which greatly challenges the application of the right of self-defence of the attacked country, as well as the refinement of the existing legal standards [11]. In addition, potential impact AI technology is likely to affect the law of naval warfare. When confronted by network attacks, AI informatisation leads to the blurring of the traditional front and rear boundaries of a conflict. As a result, there is a need to coordinate military needs with the humanitarian

¹ Article 43 of the Second Geneva Convention: "The ships designated in Articles 22, 24, 25 and 27 shall be distinctively marked as follows: (a) All exterior surfaces shall be white. (b) One or more dark red crosses, as large as possible, shall be painted and displayed on each side of the hull and on the horizontal surfaces, so placed as to afford the greatest possible visibility from the sea and from the air."

² Article 9 of the San Remo Manual: "Subject to paragraph 7, where the Security Council has taken a decision to use force, or to authorize the use of force by a particular State or States, the rules set out in this document and any other rules of international humanitarian law applicable to armed conflicts at sea shall apply to all parties to any such conflict which may ensue."

protection of all concerned. With the advent of the unmanned aerial vehicle (UAV) joining the naval conflict, it is necessary to consider how to treat the operational application of network electromagnetic space cautiously and to decide how to reduce the harm to civilians.

UNCLOS and Sea Battlefield, was written by Yang Ying, an associate researcher from the Centre of International Military Action Law at the Grandview Institution. She introduces the special rules of naval warfare, the traditional naval battlefield, the San Remo Manual and the potential present-day naval battlefield, UNCLOS and the naval battlefield, as well as thoughts on contemporary naval conflict. Dr. Yang mentions that, the potential current naval warfare is more extensive than that of the traditional land battle, which has a far greater negative impact on the non-belligerent countries than those in the area of a land battle. It is suggested that, the Geneva Convention and its first protocol fails to consider the relationship between belligerent countries and non-belligerent countries [12]. The situation is worsening, based on the development of modern science and technology and the advancement of weapons and equipment. As the sea battlefield of direct confrontation, in the traditional sense, has, to an extent, been gradually replaced by information warfare, such as network warfare and non-contact war, it is crucial to consider how to protect the current rights and interests of coastal States.

4. New technology and the law of sea warfare

There are five challenges mentioned in, *Challenges and Responses of Artificial Intelligence to the Rules of Sea Warfare*, written by Professor Yang Hua, Dean of the School of Artificial Intelligence Law, Shanghai Institute of Political Science and Law. Professor Yang suggested that, the following issues are noteworthy, these being the impact of the application of AI technology on the nature of war in international law, the controversy on international humanitarianism and public conscience, as between the provisions of combat methods in the San Remo Manual and intelligent military technology, the issue of personnel regulations in the San Remo Manual and the identification of the legal subject of artificial intelligence, in an act of war, the issue of attack in the San Remo Manual and the challenges brought by intellectualisation to the principle of proportionality and the principle of differential treatment in the armed conflict law at sea, as well as the expansion of the right of self-defence at sea, brought by artificial intelligence technology [13]. The continuous development of artificial intelligence will have a far-reaching impact on the composition of military force and strategic equipment and even on the international political patterns [14]. All acts of war should be subject to the constraints of international law. It is perceived that, to some extent, artificial intelligence is likely to threaten human security. It is, thus, necessary to update the existing rules of naval warfare, to place restrictions on the use of machines that can make attacks without human censorship or seriously violate the regular pattern and ethical conscience of human society [15].

Yu Zhirong, Secretary-General of the China-Pacific Society, director and researcher of the Marine Security Research Centre, delivered a speech, entitled, *Conception and Operation of Japan's Cyber Warfare*. Through the introduction of the origin and content of the second strategic adjustment of defence, the paper analysed the security strategy of Japan's cyber warfare units and the political considerations connoted in cyberspace. Cyber-attacks have the characteristics of concealment and network security is closely related to politics, economics, culture, social development and other issues. The strategic significance of network security is becoming more and more prominent. Japan has move forward in the network battlefield, with great strides, with the concept of attack being apparently greater than that of defence [16]. In terms of national security issues, network security has become particularly important. In recent years, network attacks, including those between governments have increased, thus forming a new network war pattern [17]. By vigorously developing the network and its security construction and building powerful cyber warfare units, Japan can improve its

national security. It is perceived that, information warfare in the future will be network warfare. It is suggested to actively promote the construction of network security, if China wishes to have its own appropriate national security.

Chen Haibo, a lecturer from School of Law, Ningbo University presented, *Law of Sea Warfare Challenges from the Unmanned Ships/Unmanned Underwater Vehicles*. She suggests that, the relevant provisions of the San Remo Manual are still applicable with the emergence of unmanned ships/unmanned underwater vehicles in the naval battlefield. With the development of modern science and technology, however, the possibility of conversion from unmanned ships to unmanned underwater vehicles is greatly increasing. Furthermore, with the increase in the carrying function, it is possible for unmanned ships to be converted into weapons. The monitoring function, deployment, collaboration and cooperation function, as well as the intelligence identification of hostile targets function and other functions of unmanned ships, is becoming of great significance [18]. There is no doubt that, unmanned underwater vehicles will change the traditional modes and rules of naval warfare, making it possible to open new forms of naval warfare [19]. At present, countries are speeding up the development and research of unmanned underwater vehicles related technology, which, in turn, makes underwater communication capability, auxiliary combat capability and monitoring and counter-espionage capability all the more relevant.

In the article, *Challenges of Artificial Intelligence Technology to the Law of Sea Warfare*, by Zou Kun, a cadet at the Second Military Medical University, three issues are discussed: Firstly, the development and trend of AI weapons of naval warfare; Secondly, the impact of AI on the combat mode of naval warfare; Thirdly, the practical challenges that the law of sea warfare system may face. The application of AI in the military field is one of the more important tactical and strategic developments in the history of modern warfare [20], which, in turn, can greatly stimulate the automation, intellectualisation of unmanned operational weaponry. In the process of autonomous unmanned operation, artificial intelligence weapons have the advantages of longer al time, breaking down of environmental constraints, strong learning ability and a hidden command network. The accuracy, intuitiveness and timeliness of the current provision, can also be greatly improved. There are, however, still many practical problems to be explored in the wider application of AI to the weapons of naval warfare. Dealing with communication and coordination, including where there is unequal information and responding to in a balanced manner, also presents considerable challenges [21]. Nevertheless, there are some problems in the acquisition and transmission of information that cannot be ignored, such as the security and stability of identification and transmission, the low level of big data technology, as well as poor battlefield perception capability [22].

5. Conclusion

The year 2019 is the 70th anniversary of the adoption of the Geneva Convention. As the core international treaty regulating armed conflicts, the Convention and its protocols are also facing great challenges, resulting from new scientific and technological progress and social development. This conference was, therefore, timely and will increase understanding of the latest progress of relevant issues and will also encourage scholars to carry out relevant academic research and organise relevant meetings to discuss the matters. The sharing and exchange of academic views can play a more active role in pushing the research of relevant issues forward and promoting the concept of a maritime community, with a shared future. The net result of the conference is not only offering Chinese thinking for the improvement of adequate provision as regards the international law of armed conflicts at sea but should also help to strengthen the implementation of the rule of law as a whole.

Acknowledgments

The conference was successfully convened as a result of the

significant efforts and strong support from the School of Law, Dalian Maritime University, China, as well as the Grandview Institution, China. The field work is being supported regarding the following projects: Special Funds for Basic Scientific Research Business Fees of Central Colleges and Universities, Dalian Maritime University, China (Grant No. 3132019310); The National Social Science Fundamental Project, China, 'Research on the Protection of China's Marine Rights and Interests from the Perspective of the Maritime Community of Shared Future' (Grant No. 19VHQ009).

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