INTRODUCTION

As a consequence of the rapid progress in artificial intelligence over the past decade, it has become possible to develop and operate robots with varying degrees of autonomy in various areas of human activities. The robotic automation process had not spared military affairs either, when combat robots started to be applied for performance of critical tasks on the battlefield (intelligence, defense, and attack), for example, the Israeli Iron Dome tactical missile defense system, South Korean border patrol turrets, etc. (ÁGREDA, 2020; SOROCHKIN, 2018, p. 25-33).

Even though fully autonomous combat vehicles based on built-in artificial intelligence are only a significant trend in creating advanced weapon systems in the future, now there is massive rearmament of the leading countries’ armies with semi-autonomous ground, aerial and maritime weapon systems worldwide. The armed conflict in the territory of Nagorno-Karabakh in 2020 can be considered as a vivid example illustrating that it is the new generation of weapons that determine both combat tactics and, in many respects, its outcome. During this conflict, Turkish Bayraktar TB2 attack drones equipped with guided aerial bombs were employed in mass by Azerbaijani aviation (VALLEJOS, ROBERT, EUGENE, 2017, p. 1-20; AKSENOV, 2020). Assessing the role of unmanned vehicles in this conflict, military experts note that the complete domination of unmanned vehicles in the sky draws a line under the use of armored vehicles, which are completely defenseless, even with built-in dynamic protection (VERESKOVA, 2020).

Thus, the use of robotic armed vehicles in war is already a fait accompli, and states with sufficient economic and innovative potential have nothing but create conditions for the accelerated development and introduction of appropriate technologies for the purposes of preventing the army’s technological inferiority on national security grounds.

The appropriateness of the above said can be illustrated by excerpts from some documents of a strategic, political, and legal nature. For example, the Military Doctrine approved by the President of the Russian Federation on December 25, 2014, No. Pr-2976 (MILITARY, 2014) states that active use of unmanned aerial and autonomous marine vehicles is one of the characteristic features of current military conflicts and, as a consequence, defines equipping the Armed Forces of the Russian Federation with them as one of the main tasks (Clause 46). A similar approach is reflected in the 2017 US National Security Strategy (NATIONAL, 2017) which notes that to maintain a competitive advantage, the United States will prioritize emerging technologies critical to economic growth and security in the field of autonomy and robotics, including autonomous weapons, as a significant force multiplier. To obtain a “critical advantage over the challenges of tomorrow,” in 2016 the UK relevant ministry announced the establishment of an innovation fund of £800 million aimed at fostering the swift development of next-generation military equipment, including surveillance drones and laser guns (TIKHOMIROV, 2019, p. 174).

Considering the fact that the artificial intelligence development rates and evolution of robotics exceed the forecasts of experts (ALLEN, CHAN, 2017, p. 13, 70), the very paradigm of warfare may radically amend in the foreseeable future. For this reason, the increasing number of specialists quite rightly assess the ongoing and future changes in the concept of war as a “third revolution” after the discovery and use of gunpowder and the creation of nuclear weapons.

In this format, the goal of the study is to outline the approaches of the international community,
the BRICS countries, and other countries that have achieved noticeable results in the development and application of artificial intelligence in the military sphere to answer the questions whether the existing international humanitarian law can be applicable in a military conflict with the use of lethal autonomous weapon systems. If applicable, what is the extent of this applicability? In terms of approaches to achieving this goal, we proceed from a view on the subject matter of the research with regard to goal-setting and the advantages provided by the use of such weapon systems (to the extent that the term “advantages” is applied to the research subject matter) from the perspective of humanism and accepted morality and ethics.

The novelty of the given research in this format is determined by an integrated approach to achieving the goal, both from the position of the range of national and international legal sources chosen by the authors to study, and the very goal set up for identifying approaches to the regulation of these relations and their milestones of formation and development up to the present moment. The theoretical and practical significance of the outcomes is determined by the fact that international readers will be provided with up-to-date scientific information on the state of legislation concerning the studied sphere in a selected circle of countries compared to the Russian one. In practical terms, this information will contribute to recognizing the gap (or lack thereof) in the achievements of Russian and foreign researchers and practitioners in terms of their implications at the legislative level.

LITERATURE REVIEW

The goal of the study is to outline the approaches of the international community, the BRICS countries, and other countries that have achieved notable results in the development and application of artificial intelligence in the military sphere as an answer to the questions: whether the current international humanitarian law can be applicable in a military conflict with the use of lethal autonomous weapon systems and to what extent it is possible. In this format, the present research was carried out on the basis of expert data contained in the publications of domestic and foreign researchers of the selected range of issues, considering the advantages given by the use of such weapon systems (to the extent that the term “advantages” is applicable to the subject matter of the research) from the standpoint of humanism and accepted principles of morality and ethics. Thus, Ángel Gómezde Ágreda (2020), Vallejos Elvira Perez, Robert H. Wortham, Eugene Miakinkov (2017), Ksenia M. Belikova (2019), Michael N. Schmitt (2013), Quang Ha, Leong Yen, and Carlos Balaguer (2019) consider autonomous weapon systems equipped with and without artificial intelligence, and their applicability to any artificial intelligence systems from the standpoint of moralities and ethics. Thus, Aleksander S. Sorochkin (2018), Vivek Sehrawat (2017), Nils Melzer (2017), Vadim B. Kozyulin (2019), Viktor N. Startsun and Ilya V. Balkanov (2018), Ingvild Bode and Hendrik Huelss (2019) view such systems from the perspective of how they fit into the system of norms of the current international law. Greg Allen and Taniel Chan (2017), Stephanie Petrella, Chris Miller, Benjamin Cooper (2021), Andreas Kaplan and Michael Haenlein (2020), Jinyuan Su (2015), Vadim B. Kozyulin and co-authors (2016) discuss artificial intelligence in such systems from the perspective of threats to national security. Igor N. Glebov IN. (2018), and Noel Sharkey (2007) regard such systems as a means of warfare, including for individual countries: Trisha Ray (2019), Shashank Reddy R. (2016), etc.

The indicated publications emphasize different facets of the issue about the development and use of autonomous weapon systems and approaches to their legal regulation and perception by states, individuals, and their communities; they lack integrity. The authors of this study have attempted at least in part to fill this gap. The publications cited in this study were selected using keywords in search engines and Google Scholar, Research Gate, Science Direct, Publons networks according to the following criteria:

- the study was published in the last decade;
- the study was published in the English language;
- there is access to the full text of the publication.
METHODOLOGY
Based on analytical reflections on information drawn from referenced sources, the authors analyze the provisions of national and international approaches, legislative instruments, and documents of foreign countries (BRICS countries and others) that create patterns for legal regulation and development of lethal autonomous weapon systems equipped with artificial intelligence. The methodology is based on materialist dialectics and consists of collecting data by analyzing the legal acts and documents and descriptive approach to the legal regulations in the field under study, likewise reflective practice. Thus, the method of systematic analysis and reflection on the ideas provided in the articles mentioned above, book chapters, etc., along with such operations as induction and deduction, is used in the course of consideration of the provisions of national and international legislation in the field under study; methods of formal and dialectical logic help to understand the relationship between humanistic ideas and considerations from the field of morality and ethics compared to practical benefits. The materialistic view of the processes and phenomena of the external world as a whole make the study proceed from the fact that international law contains principles that enshrine the obligations of states to ensure the use of autonomous weapon systems within the limits of their compliance with the norms of international humanitarian law (hereinafter – IHL).

RESULTS
The results obtained during the study and the undertaken analysis show and make clear the following. An analysis of the conventional and customary rules governing the relations between the parties to the armed conflict and other subjects of international law affected thereby regarding the use of warfare means and methods, protection of the wounded, prisoners of war, and civilians, enables to establish that in the current IHL system there is no special treaty on the use of lethal autonomous weapon systems, equipped with artificial intelligence. At the same time, some conventional norms and principles of the IHL are applicable to the regulation of the issue under study.

Thus, firstly, Article 36 “New types of weapons” of the Additional Protocol (1977) to the Geneva Conventions of 1949 (PROTOCOL, 1977) declares that the contracting Parties, when studying, developing, acquiring or adopting new types of weapons, means or methods of warfare, are obliged to determine whether their use, in some or all circumstances, falls under the prohibitions established by international law. In addition, part 2 of Article 35 of those conventions prohibits using weapons capable of causing unnecessary damage and/or suffering to participants in armed conflicts (combatants and non-combatants). Therefore, the IHL implicitly lays down an instrument limiting the use of any new type of weapon, including lethal autonomous weapon systems (LAWS) equipped with artificial intelligence, which violates established humanitarian standards (VIVEK, 17, p.38-56; MELZER, 2017, p.54).

Secondly, a solution to the problem of combining the latest weapons and humanitarian standards in the absence of special regulation can be ensured by invoking the Martens Clause, which prohibits the use of weapons if it contradicts the principles of humanity and the requirements of public conscience. The relevance and effectiveness of the Martens Clause contained in the preamble to the Convention on the Laws and Customs of War on Land of 1899 was stated in the advisory opinion of the International Court of Justice, where the court called it “an effective means of addressing rapid evolution of military technology” (ADVISORY, 1998). Consequently, it is legally binding to comply with the principle formed by the specified clause when developing and using LAWS.

Although the considered principles of international law construct a legal mechanism capable of adequately regulating issues related to the development, acquisition, and use of lethal autonomous weapon systems equipped with artificial intelligence by states, there are legal gaps, both at the international and national levels constraining its regulatory potential. Thus, Article 36 of the 1977 Additional Protocol I to the Geneva Conventions of 1949, providing for the obligations of countries to analyze and evaluate new weapons, does not define legal liability for violation of such obligations and does not establish a mechanism for monitoring compliance with the enshrined prohibition. This state of affairs leaves states with excessive legal space for “maneuvering” in their own interests, which, in accordance with the spirit and
principles of modern international law, will consist in the independent interpretation of the norms of international treaties, implemented into national legislation.

In addition, to implement international obligations arising from the above-mentioned article, in terms of carrying out humanitarian legal expertise for new means and methods of warfare taken on service, it is necessary for each state to approve its own procedure for conducting such an examination at the national level. Moreover, today there is no normative legal act in Russia that would regulate the procedure for accepting any type of weapon in service regarding their compliance with international humanitarian standards (PETRELLA, MILLER, COOPER, 2021, p.75-100; GLEBOV, 2018, p.104-116).

The lack of positive legal regulation on the specified issues at the national level, leveling, in fact, the effect of Article 36 of the Additional Protocol I to the Geneva Conventions indicates that the international community needs to move towards reaching agreements governing the development and implementation of the LAWS. At the same time, in the context of permanent technological evolution, as Professor Sharkey rightly noted, this should be done “before it is too late” (SHARKEY, 2007) because gaps in legal regulation on such matters threaten the possibility of ensuring international peace and security.

In experts’ opinion, international arrangements can be materialized in the international instruments of varying degrees of legal force, namely: a political declaration, a politically binding agreement, guidelines for the control of LAWS, a code of good practice, or a complete ban on the development, testing, production, acquisition, and transfer of LAWS (KOZYULIN, 2019). At the same time, in our opinion, the world community should come to making a strong universal international treaty, gradually, from the forms (for example, a political declaration), which are a soft alternative to legally binding rules. The validity of this thesis can be exemplified with the initiative to develop and adopt a UN political declaration aimed at proclaiming the importance of maintaining human control over lethal autonomous weapon systems equipped with artificial intelligence as an alternative to adopting a treaty banning them. Germany and France announced this initiative in 2018. It is worth noting that the idea was supported by Russia, which also expressed a desire to “get involved in the work” on drawing up the text of the declaration (PETRELLA, MILLER, COOPER, 2021, p.75-100; FILIPENOK, 2018). However, because of disagreements on many fundamental issues, the states are not yet ready for such a step, while another attempt to achieve international agreements will be made in December 2021 at the venue of the 6th Review Conference on “Inhumane” Weapons Convention (BELIKOVA, 2020, p. 223-234).

DISCUSSION

Undoubtedly, the development of artificial intelligence, capable of autonomous unmanned control over weapons, cannot but cause concern among the public. Discussions on this topic come down to the fact that, according to the apologists of such trends, firstly, the fears of experts are extremely premature with the current state of development of artificial intelligence and neural networks (Yan Likun). Secondly, the purpose of artificial intelligence is to make human life easier (Mark Zuckerberg), as the use of autonomous weapons will allow the conflicting parties to avoid human losses and direct clashes (KAPLAN, HAENLEIN, 2020, p. 37-50; POSTNIKOV 2016).

Apocalyptic views on the development of artificial intelligence and the associated dangers that our civilization will face correspond to such positive perceptions. According to well-known supporters of such views (Elon Musk, Stephen Hawking) (RORY, 2014), the increasing autonomy of robots carries the threat of a gradual weakening (possibly a loss) of human control over machines, when, under conditions of limited human capabilities conditioned by too slow evolution, artificial intelligence begins improving itself with an increasing speed with which humans will be unable to compete. The fairness and validity of contemporary scientists’ reasoning about the dangers of autonomous robots can be illustrated by the example of the well-known incident associated with the artificial intelligence system, developed by Facebook when robots stopped using English and translated communication into their own, non-existent language, which people did not understand (NOVET, 2017).

In this regard, it is obvious that states need to respond in a timely manner to fundamental changes in the logic of conducting combat operations related to the use of autonomous
technologies that take a person out of the weapon control loop by developing a special regulation of the use of combat robots with the purpose of exercising control over development, implementation, and distribution thereof. At the same time, the issue of the use of this type of weapon is associated with a number of political, legal, economic, ethical, moral, and other consequences. Therefore, it is not surprising that attempts to develop legal instruments, including in the form of a universal international treaty intended to ensure the observance of the principles of humanity in war, have not been crowned with success so far. For this reason, we fully share the viewpoint according to which modern international humanitarian law is forced to exist in conditions of “black holes” when the norms of international law have not yet been “translated” into the “language of conflicts” of the 21st century. (SU, 2015, p. 1-5; STARTSUN, BALKANO, 2018, p. 71-80).

Within the framework of the modern international legal discussion, devoted primarily to the ethical and legal aspects of the use of combat robots, in which a wide audience is involved, including international organizations, non-governmental organizations (e.g., Stop Killer Robots), scholars, famous businessmen and artificial intelligence programmers, several issues are crystallizing on which the international community cannot reach consensus.

Thus, firstly, the most crucial and harsh debate is about the content of the definition used. The term “lethal autonomous weapon systems” (LAWS) received the most widespread use, which, with rare exceptions, is used by United Nations (UN) experts. This term also appears in documents of the Ministry of Foreign Affairs of the Russian Federation, (VIVEK, 2017, p. 38-56; SKURATOVA, 2019, p. 22-30). In turn, the experts of the International Committee of the Red Cross (ICRC) proceed from the fact that any weapon can be lethal; therefore, they do not mention its lethal properties, denoting any types of weapon systems, autonomously operating in the air, on land or at sea and independently without human participation making critical decisions in terms of target detection and destruction by the term “autonomous weapon systems” (AWS) (VIEWS, 2016). In the scientific doctrine, foreign and domestic specialists also denote such technologies in different ways; for example, C. Heyns covered the whole variety of such devices with the term “lethal autonomous robotics” (LARs) (HEYNS, 2013). We prefer the term “lethal autonomous weapon systems equipped with artificial intelligence”.

Analysis of legal doctrine allows us to establish that, when formulating a universal definition based on technical characteristics and engineering calculations, the countries emphasize mainly the property of weapon autonomy, which can have a wide range from attack drones controlled by remote operators to completely independent smart “agency” (independent “agency”) (BODE, HUELSS, p. 327-330).

In this regard, taking into account the fact that, on the one hand, lethal autonomous weapon systems equipped with artificial intelligence are weapons of the future and in the coming years, these technologies will evolve, and, on the other hand, realizing the risks of their uncontrolled development in the conditions of “legal vacuum”, it seems necessary to develop such a definition of lethal autonomous weapon systems equipped with artificial intelligence, which will have the necessary flexibility and breadth of coverage, while avoiding “both overly broad and overly narrow interpretation” (ÁGREDA, 2020; KOZYULIN et al, 2016, p. 79-96). Experts also note that an overly broad interpretation of the concept of such systems is fraught with the risk of attributing armed systems thereto (for example, unmanned aerial vehicles), which are already made operational in the armies of some countries; hence these states oppose this approach (KOZYULIN et al, 2016, p. 79-96).

However, for the purposes of this research, autonomous combat robots should be distinguished from remotely operated armed vehicles with robotic elements, for example, in the form of bombs that are triggered automatically after installation. On this issue, A. Leveringhaus rightly notes that the use of attack drones is impossible without human involvement since a person makes critical decisions remotely and bears responsibility for their consequences, while a person (an operator) can be withdrawn completely from the control corps of an autonomous combat robot (ÁGREDA, 2020; LEVERINGHAUS, 2016, p. 74).

Because of the variety inherent in lethal autonomous weapon systems equipped with artificial intelligence, attempts are being made to classify them. Thus, M.N. Schmidt proposes distinguishing the following types of LAWS depending on the degree of autonomy in decision-
making: a) partially or semi-autonomous armament and b) fully autonomous armament (SU, 2015, p.1-5; BELIKOVA, 2019, p.173-182; SCHMITT, 2013). This classification is in line with the approach of the American legislator, as reflected in the Directive No. 3000.09 of US Department of Defense dated November 21, 2012 (incorporating change 1, May 8, 2017), (DIRECTIVE, 2012), which also provides for the procedure for obtaining preliminary approval from the ministry for any development of weapons classified as LAWS. Thus, an authorized body represented by the US Department of Defense must confirm that operators of autonomous and semi-autonomous weapon systems, which are programmed to use force exclusively within the framework of current international law, will be able also, if necessary, influence the process of making critical decisions by the developed armed systems.

The Samsung SGR-A1 robotic machine gun tower (Fig. 1) can be considered as an example of a technology that, in our opinion, meets the above criteria. This weapon was jointly developed by Samsung Techwin together with the University of Korea to transfer functions of border guard soldiers monitoring the demilitarized zone on the Korean Peninsula to the robot. SGR-A1 is equipped with cameras, thermal and motion sensors, which help the robotic turret determine the target corresponding to the image embedded in the program. The robot eliminates this target after receiving confirmation from the operator.

Fig. 1. Samsung SGR-A1 robotic machine gun tower

Source: Prigg (2014)

Similar developments are definitely underway in some other countries; according to the assurances of manufacturers thereof, before an attack, such robotic systems always send a request to the operator to confirm the target destruction (for example, Katlanit Remote Controlled Weapon Station (RCWS), a robotic turret developed in Israel; Common Remotely Operated Weapon Station (CROWS) used by the US military, etc.) (KOZYULIN, 2019). At the same time, there are no legal instruments that can restrict or prohibit such countries from continuing such development and transforming remotely controlled armed systems into autonomous attack robots in exceptional cases.

At the national level, several countries attempt to regulate the investigated field of activities, while others are moving towards a complete ban on the development, production, acquisition, and transfer of LAWS. For example, on September 12, 2018, the EU Parliament adopted its first resolution (EUROPEAN, 2019) on the merits of the issue under consideration, in which it called on all member states to stop the development, use, and production of lethal autonomous weapon systems equipped with artificial intelligence, and to start international negotiations for the preparation of a legally binding document. However, the above resolution, noting the potential danger of autonomous armed systems, was not binding on the EU member states. This situation is caused by the fact that there is no unity among the partners on this issue; for example, Belgium adopted a resolution calling to ban such systems in the same year. On the contrary, Germany, France, and some other European countries gain traction in the manufacture of weapons, including those equipped with artificial intelligence.

The attempts to limit or even ban the development of LAWS equipped with artificial intelligence were undoubtedly undertaken at the international level. For the first time, the issue...
of potential threats and prospects of legal regulation of such systems was formulated publicly by the UN Special Rapporteur on Humanitarian Law, Professor Christof Heyns, on the UN Human Rights Council platform. As part of his appeal, he called on the world community to introduce a national moratorium on the production, collection, transfer, acquisition, integration, and use of autonomous combat robots until a special international legal mechanism governing this area is developed (POVOLOTSKY, 2015). In addition, the speaker pointed out the unjustified and unacceptable risks that states are taking when equipping armed structures with LAWS in the absence of reliable data on their ability to act humanely and in compliance with the principles of international humanitarian law (HEYNS, 2013). Suppose these risks are ignored, as Professor Noel Sharkey rightly noted, in the foreseeable future. In that case, countries with high innovative potential will be able to move to a new stage of war industrialization, when they conduct military operations at high speed and with minimal risks to their own forces, which will lead to heavy human losses, including among the enemy’s civilian population, significantly inferior in technological equipment of the armed forces (SHARKEY, 2012, p.788). Such cases of humanitarian catastrophe can be avoided only if there is preventive regulation of the new domain of military technology.

After the report of Professor Heyns, which served as a starting point for the development of the discussion about lethal autonomous weapon systems, equipped with artificial intelligence, regular meetings of experts on LAWS began to take place at the venues of various UN structures, including as part of the work of experts of the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects (Geneva, October 10, 1980), hereinafter - the Inhuman Weapons Convention, IWC (CONVENTION, 1985). Within the framework of such meetings, the most controversial issues were discussed related to the need to limit the concept of lethal autonomous weapon systems, the possibility of their programming in compliance with the IHL standards, the establishment of legal responsibility for the consequences caused by the use thereof. The experts also indicated the advisability of preventive restrictions on the development and use of such systems.

At the 5th IWC Review Conference (December 12-16, 2016), it was decided to establish the Group of Governmental Experts on LAWS (GROUP, 2017). This fact can be considered the progress in this direction. Russia is extremely reserved in this idea, as well as in discussions on the LAWS problem. For this reason, at the first meeting of the Group of Governmental Experts on such systems, Russian representatives stated that the introduction of restrictive and prohibitive regimes on weapons, for which there are no really working prototypes in practice (the created and tested prototypes of such systems do not yet go beyond the framework of the human-on-the-loop model from considerations of “humanitarian concern”) seems extremely redundant and premature, which may also hinder the development of peaceful technologies in the field of robotics and artificial intelligence (GABOV, KHAVANOVA, 2019, p.361-378; HA, YEN, BALAGUER, 2019, p.102934-102953).

A different position was formed by the Chinese colleagues, which was also voiced within the above conference framework. According to this position, to prevent the creation of a “legal vacuum”, China generally supports the idea of elaborating a legally binding protocol on the issues related to the use of LAWS, similar to the Protocol IV on Blinding Laser Weapons, which determines the limits of use (ban on causing permanent blindness to the human visual organs) of such weapons, rather than a priori ban on their use. Thus, China supports the idea and prospects of war “robotization” with restrictions while noting that armed conflicts can reduce the cost of war in this format, especially in terms of human lives (GOVERNMENT, 2016; BELIKOVA, BADAeva, AKHMADOVA, 2019, p.215-226).

China’s position as a country that is among the undisputed leaders in the development of artificial intelligence technologies seems quite predictable since no country will give up technological advantages in a war over those who cannot use or afford such technology. The validity of the thesis can be illustrated by the fact that countries calling on the world community to prohibit the development and use of such systems include technically “backward” states: Algeria, Egypt, Ecuador, Ghana, Mexico, etc. Most of the other states express only concern on the merits of the issue under consideration while appealing to the possibility of limiting the use of such weapons (TIKHOMIROV, YU, NANBA, 2019, p. 173).
Brazil (CHERNENKO, 2018) and South Africa (TRISHA, 2019) are also ranked among the countries that support the idea of a complete ban on LAWS, justifying their position with different arguments. While after repeated attempts by initiative groups to call on the world community to elaborate a UN convention on the prohibition, such systems have not been crowned with success [48], since most of the five permanent member states of the UN Security Council (e.g., the United States, Russia, China) are not ready to miss out on huge military advantages due to national security concerns, they have changed the concept of the regulatory model from complete abandonment to the provision of human control over the critical functions of LAWS. For example, Brazil takes the most active part in preparing the agenda of the 6th Review Conference on the Inhuman Weapons Convention to be held in December 2021. Within this conference framework, the participating countries are invited to reach a consensus on the most controversial aspects for the development of legal measures to regulate the issue under study (CAMPAIGN, 2021; HEAVEN, 2017, p.32; BELIKOVA, 2019, p.91-97).

In turn, India is actively developing projects to introduce artificial intelligence systems in the national Air Force, Navy, and Land Forces, recognizing the need to strengthen control by international institutions with the aim of preventing an excessive technological gap between states and also pointing out the prospects for a significant reduction in human losses as a result of the widespread introduction of new generation weapons (SHASHANK, 2021). For example, in 2013, India’s Defense Research and Development Organization (DRDO) announced that the state was funding research to develop combat attack robots with a high level of intelligence, capable of not only differentiating civilians and soldiers but also of identifying “friends” and “foes”. According to the DRDO specialists’ optimistic forecasts, the project should be completed in 2023. First of all, the developed combat robots are to be used to patrol the border area with Pakistan (INDIA, 2018).

At a regular session in 2018, a group of government experts on LAWS succeeded in agreeing on ten guidelines for the use of such systems, which should serve as a reference point for the international community. Let us dwell on some of them in more detail. Thus, the first principle consolidates the indisputable thesis about the extension of international humanitarian law to all types of lethal autonomous weapon systems. According to the second principle, human responsibility for making decisions on the use of such systems remains since such responsibility cannot be assigned to machines. Moreover, discussions on the control over autonomous weapons systems should not discourage the use of “smart autonomous technologies” for peaceful purposes (IRTLACH, 2018). One way or another, the thought expressed in the first principle leads to questions about whether the current international humanitarian law can be applied in a military conflict with the use of LAWS and what is the extent of this applicability. Our answer is given in the conclusions of this article.

CONCLUSION

The conducted research allows us to conclude that international law contains principles that enshrine the obligations of states to ensure the use of autonomous weapon systems within the limits of their compliance with the IHL standards, i.e., the development and use of these weapons does not take place in a complete legal vacuum since the development and emergence of LAWS, which can seriously change combat tactics, trigger considerable concern and anxiety on the part of the international community, especially among experts in the IHL field.

At the same time, taking into account the increasing role of artificial intelligence weaponry and technologies in the context of modern combat operations, the identified gaps in legal regulation in this domain need (require) the elaboration of a special international treaty. However, from our viewpoint, it is impossible to agree with those who say that the new international treaty should take the form of a proactive ban on the development, production, and use of completely autonomous weapons to ensure observance of the current IHL standards and eliminate any uncertainty in compliance with all the components of the Martens Clause. Since this standpoint is insufficiently grounded, as a number of countries already have some developments in this area, and it would be wrong to abandon these achievements completely; it should be proper to control them, for example, like some new genetic technologies developed in medicine (BELIKOVA, 2020(a), p.422-430; BELIKOVA, 2020(b), p.
431-439). Precisely this aspect of finding a consensus among those who discuss the issue of adopting an appropriate international document (in academic and professional circles, in the states that are technically not as developed as the states with an advantage in the field of robotic technologies) is in the spotlight and requires a solution. For this reason, there is a tendency in the international community to develop an international treaty concerning the consolidation of a body of norms for autonomous robotic military systems designed to ensure compliance with the principles of humanity regarding the discussed type of weapons.

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Development of Russian and International Legal Regulation of the Use of Lethal Autonomous Weapon Systems Equipped with Artificial Intelligence

Resumo
Este artigo tem como objetivo delinear as abordagens da comunidade internacional, dos países do BRICS e de outros países que alcançaram resultados notáveis no desenvolvimento e uso da inteligência artificial na esfera militar para responder às perguntas sobre a aplicabilidade do direito humano internacional existente em um conflito militar usando Sistemas De Armas Autônomos Letais, e a extensão dessa aplicabilidade. A partir de reflexões analíticas sobre informações extraídas de fontes referenciadas, os autores analisam as disposições de abordagens nacionais e internacionais, instrumentos legislativos e documentos que criam padrões para o desenvolvimento de sistemas de armas autônomos letais e o potencial para o uso de sistemas autônomos letais, e o alcance de tal aplicabilidade. Os resultados dos autores são apresentados em um conjunto de abordagens de sistemas jurídicos nacionais e disposições de doutrina encontradas na legislação vigente no campo da pesquisa, inclusive do ponto de vista de uma contribuição para o aprimoramento do conceito de sistemas de armas autônomos letais.

Keywords: Inteligência artificial. Direito militar internacional. Abordagens do direito nacional. Países do Brics. Principais potências mundiais.

Abstract
This article aims at outlining the approaches of the international community, the BRICS countries, and other countries that have achieved notable results in the development and use of artificial intelligence in the military sphere to answer the questions about the applicability of the existing international humanitarian law in a military conflict using Lethal Autonomous Weapon Systems, and the extent of this applicability. Based on analytical reflections on information drawn from referenced sources, the authors analyze the provisions of national and international approaches, legislative instruments, and documents that create patterns for developing lethal autonomous weapon systems and the potential for the use thereof from the standpoint of legal attitudes. The authors’ results are presented in a set of approaches of national legal systems and doctrine provisions found in the current law in the field of research, including from the standpoint of a contribution to the further improvement of the concept of lethal autonomous weapon systems.

Keywords: Military artificial intelligence. International military law. Approaches of national law. Brics countries. Leading world powers.

Resumen
Este artículo tiene como objetivo esbozar los enfoques de la comunidad internacional, los países BRICS y otros países que han logrado resultados notables en el desarrollo y uso de la inteligencia artificial en la esfera militar para responder a las preguntas sobre la aplicabilidad del derecho internacional humanitario existente en un conflicto militar utilizando sistemas de armas autónomas letales, y el alcance de esta aplicabilidad. Sobre la base de reflexiones analíticas sobre información extraída de fuentes referenciadas, los autores analizan las disposiciones de los enfoques nacionales e internacionales, los instrumentos legislativos y los documentos que crean patrones para el desarrollo de sistemas de armas autónomas letales y el potencial para el uso de los mismos desde el punto de vista de las actitudes legales. Los resultados de los autores se presentan en un conjunto de enfoques de las disposiciones jurídicas nacionales y las disposiciones doctrinales que se encuentran en la legislación vigente en el campo de la investigación, incluso desde el punto de vista de una contribución a la mejora del concepto de sistemas de armas autónomas letales.

Keywords: Inteligencia artificial militar. Derecho militar internacional. Enfoques de la legislación nacional. Países Brics. Principales potencias mundiales.