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The Legality and Accountability of Autonomous Weapon Systems **Extended-range Smart Conventional Weapon Systems** Genius Weapons Weapon Systems *Die Theorie des gerechten Krieges. Letale autonome Waffensysteme als legitimes Mittel moderner Kriegsführung?* **Army Weapon Systems Analysis Principles of Naval Weapon Systems** US Future Combat & Weapon Systems Handbook Volume 1 US Army Future Combat Systems Development *The Disruptive Impact of Lethal Autonomous Weapons Systems Diffusion* **Autonomous Weapons Systems and International Norms** Autonomous Weapon Systems and the Law of Armed Conflict *Analysis of the Controversy of a ban on Lethal Autonomous Weapons Systems (LAWS) based on the SCOT concept* **Helicopter Gunships** *Lethal Autonomous Weapons Weapons Systems and Political Stability Pakistan Army Weapon Systems Handbook Volume 1 Strategic Information and Weapon Systems* Autonomous Weapon Systems **Improving the Effectiveness and Acquisition Management of Selected Weapon Systems Portugal Army Weapon Systems Handbook - Strategic Information and Weapon Systems Korea South Army Weapon Systems Handbook Volume 1 Strategic Information and Major Weapon Systems Lethal Autonomous Weapon Systems in Future Conflicts** Perspectives on Lethal Autonomous Weapon Systems **Thailand Royal Air Force Handbook Volume 1 Strategic Information and Weapon Systems Weapon Systems Test and Evaluation of Aircraft Avionics and Weapon Systems Cost Growth in Weapon Systems Aircraft Weapon System Compatibility and Integration** *Autonomous Weapons Systems and International Law* Weapon Systems 2012 Acquiring Weapon Systems in a Period of Rising Expenditures Arms and Artificial Intelligence **Weapon Systems Parts Standardization in Weapon Systems Weapon Systems, U. S. Army, 1996 Killer Robots** Cost Growth in Weapon Systems A Method for Performing Human Engineering Analysis of Weapon Systems **Sources of Weapon Systems Innovation in the Department of Defense: Role of Research and Development 1945-2000 Guidelines for Assessing Whether Human Factors Were Considered in the Weapon Systems Acquisition Process The Cold War Defense of the United States**

Extended-range Smart Conventional Weapon Systems Oct 03 2022
Cost Growth in Weapon Systems Sep 09 2020
Guidelines for Assessing Whether Human Factors Were Considered in the Weapon Systems Acquisition Process Jul 28 2019
Weapons Systems and Political Stability Aug 21 2021
Acquiring Weapon Systems in a Period of Rising Expenditures May 06 2020 In order to provide Congress with information on many program issues concerning major weapon systems, the 24 GAO reports issued from September 1980 through April 1981 are summarized. The principal issues common among the weapon systems such as system effectiveness, program acquisition issues and the impact that the GAO recommendations could have on those programs are highlighted.
Genius Weapons Sep 02 2022 A technology expert describes the ever-increasing role of artificial intelligence in weapons development, the ethical dilemmas these weapons pose, and the potential threat to humanity. Artificial intelligence is playing an ever-increasing role in military weapon systems. Going beyond the bomb-carrying drones used in the Afghan war, the Pentagon is now in a race with China and Russia to develop "lethal autonomous weapon systems" (LAWS). In this eye-opening overview, a physicist, technology expert, and former Honeywell executive examines the advantages and the potential threats to humanity resulting from the deployment of completely autonomous weapon systems. Stressing the likelihood that these weapons will be available in the coming decades, the author raises key questions about how the world will be impacted. Though using robotic systems might lessen military casualties in a conflict, one major concern is: Should we allow machines to make life-and-death decisions in battle? Other areas of concern include the following: Who would be accountable for the actions of completely autonomous weapons--the programmer, the machine itself, or the country that deploys LAWS? When warfare becomes just a matter of technology, will war become more probable, edging humanity closer to annihilation? What if AI technology reaches a "singularity level" so that our weapons are controlled by an intelligence exceeding human intelligence? Using vivid scenarios that immerse the reader in the ethical dilemmas and existential threats posed by lethal autonomous weapon systems, the book reveals that the dystopian visions of such movies as The Terminator and I, Robot may become a frightening reality in the near future. The author concludes with concrete

recommendations, founded in historical precedent, to control this new arms race.

Aircraft Weapon System Compatibility and Integration Aug 09 2020 Weaponry is a central factor in any kind of military activity. The incorporation of weapon systems into aircraft and their integration and satisfactory operation is a topic of major importance to armed forces and manufacturers of weapons and aircraft alike. The scope of this symposium was to critically review the overall state-of-the-art in aircraft weapon system compatibility and integration and to illuminate possible paths for future development and provide beneficial ideas and experience. Sessions dealt with the following topics: Theoretical methods and modelling techniques, Experimental and flight test techniques, Integration processes and programmes, Addressing future challenges. This symposium produced many excellent papers providing broad coverage of the weapons integration issues. There were many common threads with regard to the analysis, wind tunnel testing, and flight testing. Computational fluid dynamics (CFD) is proving to be a useful technique; wind tunnel testing is very important in the weapons integration process; but, flight testing has to be the final phase of the weapons integration process. This symposium produced a level of cohesiveness between the analysts and testers; however, full agreement as to the mix of analysis and testing did not evolve. In order to reduce the cost of weapon integration, certification, clearance, and flight testing, weapon integration analytical techniques, including CFD and wind tunnel testing, and flight testing need to become more of an integrated process. The knowledge gained and information shared at this symposium should assist the participants in developing a more integrated process in order to provide NATO nations with fully integrated weapon systems at an affordable price.

Test and Evaluation of Aircraft Avionics and Weapon Systems Oct 11 2020 This new updated edition is a unique training book which serves as both a text and practical reference for all personnel involved in avionics and weapons system evaluation and testing, in the air and on the ground.

Cost Growth in Weapon Systems Oct 30 2019

Army Weapon Systems Analysis May 30 2022

Autonomous Weapons Systems and International Norms Jan 26 2022 In Autonomous Weapons Systems and International Norms Ingvild Bode and Hendrik Huelss present an innovative analysis of how testing, developing, and using weapons systems with autonomous features shapes ethical and legal norms, arguing that they have already established standards for what counts as meaningful human control.

Thailand Royal Air Force Handbook Volume 1 Strategic Information and Weapon Systems Dec 13 2020 2011 Updated Reprint. Updated Annually. Thailand Air Force Handbook

Pakistan Army Weapon Systems Handbook Volume 1 Strategic Information and Weapon Systems Jul 20 2021 2011 Updated Reprint. Updated Annually. Pakistan Army Weapon Systems Handbook

Killer Robots Dec 01 2019 Nearly 45 countries are at different stages of developing robotic weapons or lethal autonomous weapon systems (LAWS). The United States, for example, has recently test launched its robotic vessel Sea Hunter, a self-driving, 132-foot ship designed to travel thousands of miles without a single crew member on board. As reported, the vessel has the capability to detect and destroy stealth diesel-electric submarines and sea mines. However, though the militaries of the developed countries are in a race to develop LAWS to perform varied functions on the battlefield, a large section of robotic engineers, ethical analysts, and legal experts are of the firm belief that robotic weapons will never meet the standards of distinction and proportionality required by the laws of war, and therefore will be illegal. This book provides an insight into lethal autonomous weapon systems and debates whether it would be morally correct to give machines the power to decide who lives and who dies on the battlefield.

Die Theorie des gerechten Krieges. Letale autonome Waffensysteme als legitimes Mittel moderner Kriegsführung? Jun 30 2022 Bachelorarbeit aus dem Jahr 2018 im Fachbereich Soziologie - Krieg und Frieden, Militär, Note: 1,3, Universität Erfurt (Staatswissenschaftliche Fakultät Universität Erfurt), Sprache: Deutsch, Abstract: Mit der Entwicklung völlig autonomer Waffen steht eine Revolution der modernen Kriegsführung bevor. Sie besitzt das Potenzial, die Grundordnung des internationalen Staatensystems anzugreifen und unser Verständnis von Krieg vollkommen zu verändern. So stellen intelligente Waffen, die in der Lage sind, Ziele ohne menschlichen Eingriff zu wählen und abzuschießen, die Theorie des gerechten Krieges vor neue Herausforderungen. Diese Theorie beschreibt moralische und ethische Prinzipien, ob und unter welchen Bedingungen ein Krieg gerechtfertigt werden kann. Die Idee, dass ein Krieg nur dann geführt werden darf, wenn er unter gerechten Motiven und mit gerechten Mitteln gekämpft wird, wird spätestens seit der Jahrtausendwende wieder aufgegriffen. Doch können die neuen Kriege, in denen solche Technologien wie autonome Waffensysteme eingesetzt werden, gerecht sein? Das Konzept tödlicher autonomer Waffensysteme (LAWS) geht weit über ferngesteuerte Drohnen hinaus. Obwohl Drohnen hoch automatisiert sind, sind sie nicht autonom, da sie immer noch unter menschlicher Kontrolle und Aufsicht stehen. Autonome Waffensysteme könnten den Verlust der menschlichen Kontrolle, sowie einer fehlenden Verantwortung bei einem Fehlverhalten in einem Einsatz bedeuten. In der Arbeit soll geklärt werden, ob ein Einsatz von tödlich autonomen Waffen in einem Krieg oder bewaffneten Konflikt gerechtfertigt ist.

Sources of Weapon Systems Innovation in the Department of Defense: Role of Research and Development 1945-2000 Aug 28 2019 A broad historical overview of changing institutional patterns of technological innovation with the Defense Department's major weapons laboratories.

Autonomous Weapons Systems and International Law Jul 08 2020 Jüngste Fortschritte in Robotik und KI machen es möglich, Roboter auch mit ethisch und rechtlich sensiblen Aufgaben zu betrauen. Besonders umstritten ist der Einsatz so genannter autonomer Waffensysteme (AWS), die eigenständig Entscheidungen über Leben und Tod von 'Zielpersonen' treffen. Damit berühren sie zentrale Grundlagen des humanitären Völkerrechts, der internationalen Menschenrechte, des internationalen Strafrechts sowie der staatlichen Verantwortung. Vor diesem Hintergrund untersucht das Buch die Legalität und die völkerrechtlichen Folgen des Einsatzes autonomer Waffensysteme. Es zeigt Wege für künftige internationale Regelungen auf und skizziert das Konzept einer 'geteilten Verantwortung' zwischen menschlichen Entscheidungsträgern und intelligenten Systemen. Daniele Amoroso ist Professor für Völkerrecht an der Universität Cagliari und Mitglied des Internationalen Komitees für die Kontrolle von Roboterwaffen (ICRAC).

Autonomous Weapon Systems Jun 18 2021 "What does the Department of Defense hope to gain from the use of autonomous weapon systems (AWS)? This Letort Paper explores a diverse set of complex issues related to the developmental, operational, legal, and ethical aspects of AWS. It explores the recent history of the development and integration of autonomous and semi-autonomous systems into traditional military operations. It examines anticipated expansion of these roles in the near future as well as outlines international efforts to provide a context for the use of the systems by the United States. As these topics are well-documented in many sources, this Paper serves as a primer for current and future AWS operations to provide senior policymakers, decisionmakers, military leaders, and their respective staffs an overall appreciation of existing capabilities and the challenges, opportunities, and risks associated with the use of AWS across the range of military operations. Emphasis is added to missions and systems that include the use of deadly force"-- Publisher's web site.

Lethal Autonomous Weapons Sep 21 2021 The question of whether new rules or regulations are required to govern, restrict, or even prohibit the use of autonomous weapon systems has been the subject of debate for the better part of a decade. Despite the claims of advocacy groups, the way ahead remains unclear since the international community has yet to agree on a specific definition of Lethal Autonomous Weapon Systems and the great powers have largely refused to support an effective ban. In this vacuum, the public has been presented with a heavily one-sided view of Killer Robots. This volume presents a more nuanced approach to autonomous weapon systems that recognizes the need to progress beyond a discourse framed by the Terminator and HAL 9000. Re-shaping the discussion around this emerging military innovation requires a new line of thought and a willingness to challenge the orthodoxy. Lethal Autonomous Weapons focuses on exploring the moral and legal issues associated with the design, development and deployment of lethal autonomous weapons. In this volume, we bring together some of the most prominent academics and academic-practitioners in the lethal autonomous weapons space and seek to return some balance to the debate. As part of this effort, we recognize that society needs to invest in hard conversations that tackle the ethics, morality, and law of these new digital technologies and understand the human role in their creation and operation.

The Disruptive Impact of Lethal Autonomous Weapons Systems Diffusion Feb 24 2022 Challenging the focus on great powers in the international debate, this book explores how rising middle power states are engaging with emerging major military innovations and analyses how this will affect the stability and security of the Indo Pacific. Presenting a data-based analysis of how middle power actors in the Indo-Pacific are responding to the emergence of military Artificial Intelligence and Killer Robots, the book asserts that continuing to exclude non-great power actors from our thinking in this field enables the dangerous diffusion of Lethal Autonomous Weapon Systems (LAWS) to smaller states and terrorist groups, and demonstrates the disruptive effects of these military innovations on the balance of power in the Indo-Pacific. Offering a detailed analysis of the resource capacities of China, United States, Singapore and Indonesia, it shows how major military innovation acts as a circuit breaker between competitor states disrupting the conventional superiority of the dominant hegemonic state and giving a successful adopter a distinct advantage over their opponent. This book will appeal to researchers, end-users in the military and law enforcement communities, and policymakers. It will also be a valuable resource for researchers interested in strategic stability for the broader Asia-Pacific and the role of middle power states in hegemonic power transition and conflict.

Helicopter Gunships Oct 23 2021 U.S. Army aviators pioneered the first helicopter gun platforms in the early 1950s. Today, helicopter gunships are the most unique element of rotary-wing aviation, redefining the term "close air support." As the ultimate development of the military helicopter, these largely U. S.-designed-and-built aircraft reign supreme as the premier attack platforms of modern aerial warfare. Helicopter Gunships begins with the Vietnam War as the ultimate proving ground that first utilized helicopter gunships and saw the development of other rotary-wing weapons systems as well. This book also explores fascinating post-war programs like the experimental Comanche, Blackhawk, and Apache. Through in-depth research and exclusive high-quality photos, noted author and helicopter expert Wayne Mutza examines in vivid detail the numerous weapon systems mated with a surprisingly wide variety of helicopters. Attention is also given to helicopter gunships developed by other Free World countries and Communist nations.

Analysis of the Controversy of a ban on Lethal Autonomous Weapons Systems (LAWS) based on the SCOT concept Nov 23 2021 Research Paper (postgraduate) from the year 2021 in the subject Politics - International Politics - Topic: Peace and Conflict Studies, Security, grade: 7 (dutch System), Maastricht University (Faculty of Social Science), course: Science and Technology Studies (STS), language: English, abstract: The technology of LAWS is discussed controversially: At the political level of states, in international institutions, the scientific field of AI and robotics, the companies working in these fields, the public and the media landscape. This paper aims to shed light on the question: How is the globally

discussed technology of LAWS and its ban perceived by different social groups? Currently, those who are against a ban dominate globally. These are powerful countries that are also leaders in the development of LAWS and refer to the justifications of experts and commercial players. In the following (Section 2), the controversy of banning LAWS is embedded in the scientific discourse on risk and uncertainty and a selection of the concepts is applied to the technology to not only emphasize the socio-political relevance mentioned in the introduction, but also the academic relevance. Next, the methodological concept of SCOT is introduced theoretically (Section 3) and then applied to the LAWS object of study (Section 4). Finally, the conclusion (Section 5) summarizes the main findings, highlights the limitations of the work, and suggests a way forward.

Weapon Systems, U. S. Army, 1996 Jan 02 2020 Provides an overview of the major weapons systems & support equipment the Army is currently developing or has fielded. Sections include: project and sustain; protect the force; win the information war; conduct precision strikes; & dominate the maneuver battle. Over 100 color photos & drawings. Each weapon system described in detail as to mission, characteristics, foreign counterpart, program status, projected activities, & prime contractor. Appendices: contractors by system, contractors by state, points of contact & an index. Comprehensive!

Weapon Systems Aug 01 2022

Lethal Autonomous Weapon Systems in Future Conflicts Feb 12 2021 The conversation on Lethal Autonomous Weapon Systems (LAWS) centers on the ethics of allowing a computer to decide to kill (or not to kill) a human-being. Much of the current discourse on the topic of autonomous weapons comes from a concern over the ethical implications. Over the coming fifteen years, the technology industry will achieve many milestones that will significantly alter the argument about the use of LAWS. There are currently efforts to institute laws and regulations that will inhibit or remove the use of LAWS. This research will clarify what will be technically possible in the future and take a holistic look at the topic. This study will explore the current technological abilities of Artificial Intelligence (AI) and its impacts on civil society. It will further look at AI and its impact on lethal weapons. Additionally, the study will explore the acceptance of AI in civil society verse the acceptance of AI in conflict. Such exploration is important as the newer technology may change the conversation about the ethics of employing robotics. This conversational change may encourage or even compel policymakers to use LAWS in future conflicts.

Principles of Naval Weapon Systems Apr 28 2022 This textbook is intended to serve as an introduction to the underlying science and engineering of weapons used in the naval service. The philosophy used in the material selected for this text is that individual weapons come and go, but the principles of their operation largely remain the same. Some subjects are covered in greater detail than needed for an introductory course to allow this text to serve as a basic reference to take into professional life. The text was written to be inclusive of all college majors; as such a conscious effort was made when possible to apply algebra, geometry, trigonometry, and avoid calculus. Therefore, many of the equations derived are 1storder, and provide approximations that are sufficient to illustrate the relative performance parameters of variables used in weapon system design. These same theories and principles can then be applied to actual sensors and weapons using operational parameters and specifications determined from technical manuals and warfare publications. Material has been drawn from pervious texts of the same title that have explained the principles for the last 40 years. Much of the work can be traced to the work completed by the Bureau of Naval Weapons in the 1960's. It was updated and expanded in the 1980's version and incorporated in this text. In some cases, principles of systems that the U.S. Navy no longer uses are described in a belief that sometimes it is good to know where you have been to know where you are going. In addition, many countries and organizations still employ some of these lower technology systems. Therefore, it is necessary to understand their basic capabilities. With advent of new technologies and methods, this text will require periodic updating.

Autonomous Weapon Systems and the Law of Armed Conflict Dec 25 2021 A close examination of the interface between autonomous technologies and the law with legal analysis grounded in technological realities.

Perspectives on Lethal Autonomous Weapon Systems Jan 14 2021 This publication considers lethal autonomous weapon systems, approaching the issue from five different perspectives. It has been published ahead of the first meeting of the Group of Governmental Experts of the High Contracting Parties to the Convention on Certain Conventional Weapons mandated to examine issues related to emerging technologies in the area of lethal autonomous weapon systems in the context of the objectives and purposes of the Convention. The United Nations Office for Disarmament Affairs Occasional Papers are a series of ad hoc publications featuring, in edited form, papers or statements made at meetings, symposiums, seminars, workshops or lectures that deal with topical issues in the field of arms limitation, disarmament and international security.

Arms and Artificial Intelligence Apr 04 2020 The impact of information technology in the field of military decision making is superficially less visible than that of a number of other weapon developments, though its importance has grown steadily since the beginning of the 1980s. Owing to its potential role in modern weapon systems and the prospect of its inclusion as an essential ingredient in many military projects such as the Strategic Defence Initiative, it has become the focus of special interest and efforts. This book is the first attempt to present a broad overview of the prospects for information technology in general, and machine intelligence in particular, in the context of international security. The dangers and promises of weapon and arms control applications of computers and artificial intelligence to decision-making processes are analysed in a technical, strategic, and political perspective by experts from six different countries. In an introductory chapter, Allan Din presents a generic overview of artificial intelligence and its prospects. Thirteen contributors then discuss the conceptual and technical framework of artificial intelligence, analyse implications for weapon systems and strategy, and discuss possible applications to arms control

verification and modelling.

Improving the Effectiveness and Acquisition Management of Selected Weapon Systems May 18 2021

Parts Standardization in Weapon Systems Feb 01 2020

The Cold War Defense of the United States Jun 26 2019 During the Cold War, as part of its defense strategy against the Soviet Union, the U.S. was forced to establish means of massive long-range attack in response to Soviet advancements in weaponry. These defenses detected and tracked manned bomber aircraft, hostile submarines and missiles launched from the other side of the world. This book shows how these defenses evolved from fledgling stop-gap measures into a complex fabric of interconnected combinations of high-tech equipment over 40 years. Maps illustrate the extent of the geographic coverage required for these warning and response systems and charts display the time frames and vast numbers of both people and equipment that made up these forces.

The Legality and Accountability of Autonomous Weapon Systems Nov 04 2022 A comprehensive definition of autonomous weapons systems and their operation and what happens when they cause violations of international law.

Korea South Army Weapon Systems Handbook Volume 1 Strategic Information and Major Weapon Systems Mar 16 2021 2011 Updated Reprint. Updated Annually. Korea South Army Weapon Systems Handbook

Weapon Systems Mar 04 2020

A Method for Performing Human Engineering Analysis of Weapon Systems Sep 29 2019

Portugal Army Weapon Systems Handbook - Strategic Information and Weapon Systems Apr 16 2021

Weapon Systems 2012 Jun 06 2020

US Future Combat & Weapon Systems Handbook Volume 1 US Army Future Combat Systems Development Mar 28 2022 2011 Updated Reprint. Updated Annually. US Future Combat & Weapon Systems Handbook

Weapon Systems Nov 11 2020