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# MINIMIZING CIVILIAN HARM IN ARMED CONFLICT

High-level roundtable discussion report on  
the Civilian Harm Mitigation and Response  
Action Plan (CHMR-AP)  
May 24, 2024



# Minimizing Civilian Harm in Armed Conflict

## Conference Report

**Presented By**

The Center for Ethics and Rule of Law (CERL)

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## Executive Summary

On May 24, 2024, the Center for Ethics and Rule of Law (CERL) convened a high-level interdisciplinary roundtable at the Perry World House on the University of Pennsylvania campus. The purpose of the conference was to bring together military, academic, legal, and humanitarian experts with Department of Defense officials advising combatant commanders on civilian harm methodologies to assist in developing advanced strategies to mitigate civilian harm in armed conflict with a focus on urban environments and other conditions involving high levels of civilian exposure.

Through five structured sessions, experts considered ethical, legal, and policy challenges in implementing the Civilian Harm Mitigation and Response Action Plan (CHMR-AP) across a variety of key subject areas.

- Session one covered the strategic imperative of civilian harm mitigation in different operational contexts as a means to enhance the effectiveness of military operations and maintain decision-making freedom for commanders, while minimizing civilian casualties.
- Session two examined civilian harm mitigation in complex battlespaces, and looked specifically at the legal and ethical dimensions of human shielding in urban environments.
- Session three considered the indirect effects of targeting decisions and the practicality of end-use monitoring for arms sold to allied and partner nations under the National Security Memorandum on Safeguards and Accountability with Respect to Transferred Defense Articles and Defense Services (NSM-20).
- Session four surveyed the relationship between cyber operations and civilian harm mitigation with the aim of adapting traditional concepts from kinetic warfare to this emergent domain.
- Session five explored the potential applications of artificial intelligence (AI) technology for enhanced target identification, precision, and strike delivery in the battlespace context.

This report covers the breadth of the discussion through summaries from the five sessions described above. Because the discussion was held under the Chatham House Rule, no comment will be attributed to any individual. Every effort has been made to provide a fair and comprehensive representation of the participants' views, but the ultimate responsibility for accuracy lies with this document's author.

## **Introduction**

The Civilian Harm Mitigation and Response Action Plan (CHMR-AP) was initiated by a memorandum from the Secretary of Defense (SecDef) on January 27, 2022, and issued as an official directive on August 25, 2022. The policy focuses on how the Department of Defense (DoD) mitigates and responds to civilian harm resulting from combat operations and aims to enhance procedures for protecting civilians for both moral and strategic reasons. At its core, the CHMR-AP is about increasing battlefield awareness and enhancing operational efficiency to mitigate against civilian harm, and to ensure long-term success on the battlefield.

The CHMR-AP addresses various thematic categories including leadership, organization, personnel, doctrine, strategy, training, operational capabilities, data management, assessments, acknowledgements, and working alongside ally and partner nations. It builds on previous studies and investigations into DoD policies and practices, and it emphasizes the protection and restoration of the civilian environment as a key factor in military planning for operations. The plan is designed to be scalable, making it relevant to different types of conflict both kinetic and non-kinetic including Counterterrorism (CT), Counter-Insurgency (COIN), and Large-Scale Combat Operations (LSCO).

Key organizational growth components of the CHMR-AP include the establishment of the Civilian Protection Center of Excellence (CP CoE), which serves as a hub for DoD-wide analysis, learning, and training related to civilian harm mitigation and response, and the creation of various elements such as Civilian Environment Teams, Civilian Harm Assessment Cells, and CHMR Officers to better integrate the policy across DoD efforts. The plan includes a phased implementation approach, aligning actions with fiscal years and emphasizing immediate steps as well as long-term strategies. Coordination across the DoD occurs through senior-level oversight in the form of a Civilian Harm Mitigation and Response Steering Committee (CHMR SC).

Ultimately, the CHMR-AP aims to institutionalize improvements in the DoD's approach to civilian harm mitigation and response, foster a culture of continuous learning and self-examination, promote accountability for violations of DoD policies and applicable laws, and ensure that civilian harm remains a key priority in military operations regardless of scale or

intensity. In light of these policy aims, the roundtable discussion focused on the ethical and legal questions that CHMR institutions and teams must contend with. Participants in the roundtable included (alphabetically):

**General (Ret.) James Cartwright:** U.S. Marine Corps, CERL Executive Board Member

**Professor Jonathan Cedarbaum:** Professor of Practice for National Security, Cybersecurity, and Foreign Relations Law at the George Washington Law School

**Professor Laura Dickinson:** Oswald Symister Colclough Research Professor of Law at the George Washington Law School

**Professor Claire Finkelstein:** CERL Faculty Director, Algernon Biddle Professor of Law and Professor of Philosophy at the University of Pennsylvania

**Thom Gieser:** Colonel, USAF (Ret.) Armed Forces Special Advisor at the International Committee of the Red Cross

**Mr. Jonathan Horowitz:** Legal Advisor at the International Committee of the Red Cross

**Ms. Madison Hunke:** US Program Officer at the Center for Civilians in Conflict

**Matthew C. Isler:** Brigadier General, USAF (Ret.), Special Government Employee, CHM Advisor, OUSD-P

**Mr. David Joanson:** CERL Executive Director

**Mr. Trevor Keck:** Head of Policy and Humanitarian Affairs Coordinator at the International Committee of the Red Cross

**Professor Orde Kittrie:** Senior Fellow at the Foundation for Defense of Democracies

**Dr. Larry Lewis:** Principal Research Scientist, Special Activities and Intelligence at The Center for Naval Analyses

**Mr. Christopher Maier:** Assistant Secretary of Defense, Special Operations & Low-Intensity Conflict, Office of the Secretary of Defense

**Mr. Michael McNerney:** Director, DoD Civilian Protection Center of Excellence

**Brigadier General David E. Mendelson:** Assistant Judge Advocate General for Military Law and Operations, U.S. Army

**Lieutenant General (Ret.) Chuck Pede:** Professorial Lecturer in Law at the George Washington Law School

**Lieutenant Colonel Michael Petrusic:** Chief, Operational Law Branch, National Security Law Division, Office of The Judge Advocate General

**Professor Sharon Ravitch:** Professor of Practice, Policy, Organizations, Leadership, and Systems Division, University of Pennsylvania Graduate School of Education

**Ms. Annie Shiel:** US Advocacy Director, Center for Civilians in Conflict

**Mr. Dan Stigall:** Director, Counterterrorism Policy and Response, OSD(P)

**Professor Loren Voss:** National Security, Cybersecurity, and Foreign Relations Law Fellow and Visiting Associate Professor of Law at the George Washington Law School

**General (Ret.) Joseph Votel:** U.S. Army, CERL Executive Board Member

**Professor Abraham Wyner:** Professor of Statistics and Data Science at the Wharton School of the University of Pennsylvania

**Jules Zacher, Esq.:** Board Chair, Council for a Livable World; CERL Executive Board Member

Special thanks to Mr. Neta Dagan, Ms. Sammi Deutsch, Mr. Joshua Greenberg, Ms. Ramatoulie Isatou Jallow, and Ms. Kathryn Stellato for their help organizing and taking notes.

**Conference Sessions**  
**May 24, 2024**

**Session I:** The Strategic Imperative of Civilian Harm Mitigation in Different Operational Contexts

**Moderator:** Professor Claire Finkelstein

**Introductory Remarks:** Mr. Dan Stigall

**Session Summary:**

During Session I, experts emphasized that mitigation rather than the complete prevention of civilian harm is the realistic policy goal of the CHMR-AP. At the same time, while recognizing that civilian casualties in armed conflict are tragic and often unavoidable, experts stressed that the successful mitigation of civilian harm is often directly related to proper planning.

One expert noted that the inability to reduce harm to non-combatants during a military operation can effectively alter and weaken foreign and domestic support for a war effort. This is especially true given the intense, hyper-connected information environment which reshapes the narrative around civilian harm and can provide adversaries with material for information operations targeting the United States as well as persuasive excuses for their own egregious conduct. Accordingly, civilian harm can undermine coalition and public support, making Civilian Harm Mitigation and Response (CHMR) vital to mission success.

This expert described how, for instance, during the defeat ISIS-campaign of the mid-2010s, the U.S. military learned that protecting civilians and achieving the mission were not mutually exclusive or incompatible. In fact, they were complementary. At the same time, this expert stated that public communications surrounding harm to civilians was contested. Reporting civilian harm was already difficult due to the sheer difficulty of navigating bureaucracy and getting information out of areas of operation. However, lags in reporting left open opportunities for the enemy to shape a narrative that the U.S. military was using arbitrary force, intentionally targeting civilians, or did not care about the destruction wrought.

In response to these challenges, some experts felt that integrating CHMR and disinformation scenarios into training could illustrate the strategic repercussions of tactical errors and showcase the positive aspects of proactive harm mitigation. Transparency in military operations emerged as a key theme, seen as the best method to counter misinformation, though it must be genuine. Reputation management was seen as critical, especially since the U.S. has faced criticism over past failures to report in a timely or accurate manner. Experts re-emphasized that disseminating information to the public is

challenging due to existing requirements, issues of pride and accountability, and legal constraints related to classification. Furthermore, where accuracy of civilian harm reports is concerned, the slow pace of investigations, compared to the speed of deception was discussed as complicating the already arduous process of evidence gathering during hostilities. Identifying definitive sources of information, addressing misinformation, and filling information gaps in areas with low psychological trust can significantly impact humanitarian outcomes particularly in contexts where civilians seek critical aid.

The conversation then shifted to institutional knowledge, with a call to reimagine it as a way to avoid *ad hoc* practices and integrate lessons learned into training. In LSCO, where adjustments are difficult in real-time, preemptive education is crucial. Some experts noted that although civilian considerations have long been an element of operational and strategic planning, the new policy emphasis on harm mitigation is an evolutionary step in the U.S. military's approach to the treatment of non-combatants. This step ultimately requires dedication to building institutionalized knowledge amongst the officer corps and a shift in thinking at every echelon towards viewing civilian harm mitigation as a necessary and important procedure rather than an additional restraint on the use of force.

However, concerns were raised about the potential reduction in military effectiveness due to the restraint required to mitigate civilian harm, which limits operational freedom. Here, one expert raised the point that a challenge in implementing CHMR programs would be differences in perspectives between the United States and partner nations, and the variety of attitudes at different echelons. This expert noted that while general officers often see CHMR as an obvious and important element of military operations, tactical commanders might misunderstand it as being restrictive. The impact of a mitigation-focused culture on commanders' mindsets, especially in LSCO against near-peer adversaries, was questioned.

Lastly, the discussion ended with one expert who highlighted the necessity of protecting the psychological well-being of troops, noting that operational execution errors and stress can lead to trauma and moral injury, which ultimately diminishes combat effectiveness. To this end, the expert argued that CHMR should be integrated into training and operational design prior to any engagement. Improved planning, preparation, and execution, along with better harm assessments and bias recognition, are essential for both external strategic goals and internal force protection.

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## **Session II: Civilian Harm Mitigation in Complex Battlespaces – Densely Populated Urban Environments & Human Shields**

**Moderator:** Professor Claire Finkelstein

**Introductory Remarks:** LTG (Ret.) Chuck Pede

### **Session Summary:**

In Session II, experts began by clarifying that human shielding is not a new phenomenon and made mentions of historical instances throughout the Second World War. As one expert noted, the use of human shields raises complex issues regarding combatant obligations and the necessity to engage only lawful targets. For example, even though International Humanitarian Law (IHL) explicitly outlaws the use of human shields in the defense, if a defender uses human shields, then attackers are still obligated to take all feasible precautions to minimize harm to civilians.

Another expert highlighted the difficulty of assessing proportionality and necessity in an information environment that incentivizes creating strategically impactful information. This expert went on to explain how when ISIS forces fled Manbij in a vehicle convoy with the extensive use of human shields, it posed several challenges for tactical commanders. These challenges included self-imposed restraints on the use of force due to the desire to follow rule of law values and law of war requirements, the erosion of coalition willingness to fight due to grinding moral dilemmas, and increased anger and accusations of war crimes when civilians were harmed during the operation. A concern that this expert raised was that the strategic benefits ISIS gained from using human shields often outweighed the costs, as their use of human shields and other egregious actions typically went unpunished.

At this point, the discussion turned towards the lack of accountability for human shielding, which underscored the serious implications for both international and non-international armed conflicts. One expert identified a serious failure on the part of the office of the prosecutor at The International Criminal Court's (ICC) for not charging Hamas leaders with the crime of human shielding. In response, another expert noted that the United States Congress recently passed the 2024 SHIELDS Act, which aims to sanction individuals and organizations involved in human shielding, such as Hezbollah, Hamas, and Palestinian Islamic Jihad. The Act also mandates reporting on lessons learned, tactics, techniques, and procedures (TTPs) to overcome human shielding while mitigating harm to civilians, and measures to deter human shielding in future operations.

The session further delved into the legal status of human shields and the usefulness of distinguishing between voluntary and involuntary shielding. Several experts discussed the significance of the Interpretive Guidance on the Notion of Direct Participation in Hostilities

(DPH) from the International Committee of the Red Cross, which treats civilian human shields with a presumption of civilian status and protection. Debates arose over whether to approach human shielding from a legal or practical standpoint, acknowledging its dual status. At this point, one expert made clear that if a civilian human shield poses a legal rather than physical barrier to a military object, then that civilian ought to maintain their protections from direct targeting. One stated reason for erring on the side of protection for human shielding is that there are many reasons a civilian might choose to stay in a battlespace despite warnings.

The challenge of knowing the status of a civilian during high-stress, high-intensity operations raised questions amongst several experts about scalability, information flow, and freedom of action in LSCO. Experts noted that most civilian casualties result from collateral damage and misidentification rather than shielding, and while in a counterterrorism environment there is more time for analysis and planning, the same is not afforded during LSCO. Legal taxonomies often fail to provide practical frameworks for improved operations. Therefore, lessons learned should be retained within the force to anticipate and mitigate human shielding in all forms of future conflict.

As a final note, one expert argued that CHMR is not about restraint, but informed decision-making in operational design to make better choices to mitigate civilian casualties. There already exists a culture of informed decision-making in the U.S. military, which exists in the form of rules of engagement. Given that adversaries will seek to use our rule of law values against us, there is a need to build better decision-making processes so that commanders are not making arbitrary decisions during periods of extreme stress. This might include, as one expert pointed out, a decision to consciously choose not to deploy weapon systems causing disproportionate harm and to restrict their use as necessary. The use of force is always calibrated to political objectives, echoing historical principles of tactical restraint for strategic value.

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### **Session III: Indirect Effects of Targeting Decisions – Considering Other Impacts**

**Moderator:** Professor Claire Finkelstein

**Introductory Remarks:** Mr. Trevor Keck

#### **Session Summary:**

In Session III, experts focused on two main ideas, which were discussed separately in the allotted time: First, experts discussed the broad spectrum of harm to civilians, noting that the impact of any given operation extends beyond physical injuries to include the loss of essential services, healthcare, communication, education, energy, and agriculture. Second, experts considered how the CHMR-AP might be implemented alongside existing issuances including the National Security Memorandum/NSM-20, which seeks to support coalition and partner nations with the responsible transfer and use of arms prior to and throughout the course of hostilities.

#### *1. Remote Effects of Targeting*

Experts emphasized that successful execution of the CHMR-AP requires processes to be updated in real-time to address the constantly changing civilian environment during conflicts. Effective targeting lists should consider the wide-ranging effects on civilian services and infrastructure, which means commanders must constantly be concerned with developing strategies for harnessing resources within areas of operation to restore civilian services and maintain order. One expert pointed to a recent incident in the Russo-Ukrainian war, where Ukraine and Western allies sought to restore a recently destroyed gas line that had been transporting Russian natural gas to Europe. Although Ukraine and its allies did not want Russian natural gas to continue flowing, Ukraine had to consider the international consequences of not repairing the pipeline and potentially losing political support from European states that rely heavily on Russian natural gas.

Next, several experts spoke about concerns regarding the blending of law and policy. They specifically questioned the differences in definitions of civilian harm found in IHL and DoD policy, and raised concerns about how proportionality considerations could be put into practice. Some experts took the position that civilian harm should remain as a narrowly defined legal standard inherent in the proportionality analysis. Without the narrow definition, it would become practically infeasible to make a judgment about whether an operation is proportional because the second- and third-order effects could outweigh the immediate military advantages gained.

Other experts took the position that harm to civilians should always be recognized regardless of whether it was acknowledged in the proportionality calculus or mitigated. If

not considered, it would be impossible to learn from past harms caused. For instance, one expert pointed to the fact that a power grid may constitute a dual-use object and therefore a potentially lawful target. This expert pointed to Israel turning off power in Gaza as an example of actions that might be militarily necessary and proportionate, but that have wide-ranging consequences and harms to civilians. This action may not have caused immediate physical harm, but its disruptive influence on the lives of civilians caught in battlespace ought to be studied and understood for future operations.

Lastly, some experts discussed how the U.S. military as an organization is not designed to pay for the things that it breaks. If one of the policy goals of the CHMR-AP is to adequately and effectively respond to instances of civilian harm through *ex gratia* payments or through other forms of compensation, this would require a new fiscal paradigm that the current bureaucracy is not currently built to accomplish. As one expert noted, the current bureaucracy made it difficult to allocate funds appropriately because licensing can be difficult to secure on a timely basis even if the money is technically available. This expert pointed to the recent *Chora* judgment against the Netherlands as an example of both how complicated the attribution process can be for harms committed, but also how creative *ex gratia* payments can help in restoring trust between partner forces.

## 2. NSM-20

At this point, the discussion shifted to addressing the misuse of transferred weapons as not just as a matter of reaction and punishment, but of improving partner nations' capabilities and intentions. Discussions focused on balancing risk, capacity, and the will to achieve better outcomes for civilian harm mitigation even where the United States is not directly involved in hostilities. NSM-20 specifically calls for the adoption of adequate safeguards and accountability with respect to transferred weapons, but as some experts pointed out, the NSM-20 is a conceptual mess when put into practice.

For example, one expert criticized NSM-20 for its lack of clarity and practical utility, especially in the contemporary battlespace where reports of civilian casualties are weaponized for strategic ends. This expert noted that Secretary of State Anthony Blinken recently drew the conclusion that significant civilian casualties in Gaza indicated that Israel must have committed LOAC violations. If this is the standard by which nations are judged for their willingness and intent to mitigate civilian harm, then adversaries will do whatever they can to paint the coalition or partner nation as wanton violators of IHL and LOAC. More specifically, this expert stated that groups such as Hamas are incentivized to use human shields to draw international condemnation against Israel, and partner states such as Saudi Arabia would be disincentivized from reporting their civilian casualty numbers for fear that

they will lose U.S. support. Both cases might trigger reconsideration of aid under Section 620(i) of the Foreign Assistance Act, which is generally thought of as a legislative means to enforce compliance with humanitarian efforts in armed conflict. This expert completed their thought by mentioning that the United States should be incentivizing greater transparency and pointed to successful data clarification/incident reduction through cooperation, rather than punishment, with partners like Saudi Arabia.

Relatedly, another expert discussed how the development of country-specific plans that aligned with local values and operational end-use monitoring are connected tasks with clear utility. This expert highlighted the importance of a strategic approach that considered both the broad objectives of the partner nation and the United States, and the granular details of military operations and their impact on civilians. Addressing the political aspects of these partnerships, especially as it related to continued defense support, was deemed critical for successful collaboration and adherence to international standards.

Furthermore, another expert responded that responsible arms transfers and country specific planning was particularly important in scenarios where violence against civilians was likely, but that end-use monitoring of weapons risked losing the forest for the trees. United States policy on arms transfers allows for denial of transfers if it is likely that arms will be used in ways that break international law, which includes accounting for second- and third-order effects to the extent feasible. Nevertheless, this expert argued, it should not matter whether United States munitions were used to cause civilian harm or damage to civilian infrastructure. Making strategic level decisions based on tactical level failures risks damaging long-term relations.

Another expert opined in response that especially in the current information environment tactical level failures, whether intentional or unintentional, do have a strategic effect and therefore should be addressed swiftly and transparently. The discussion at this point generated considerable back-and-forth between experts about the impact of an example where Saudi Arabia kills Yemeni children with the use of a U.S. munition. On the one hand, some experts continued to hold that it would be in the best interest of both countries to maintain strong ties, continue to educate Saudi pilots to not attack certain targets and to respect IHL, and avoid lecturing leadership for every instance of civilian harm. On the other hand, some experts hammered at the point that end-use monitoring and punishment would pre-emptively minimize instances of civilian harm.

When one expert asked about the practical challenges of end-use monitoring, another expert mentioned programs such as Blue Lantern and Golden Sentry that conduct pre-

shipment checks and authorizations and promote accountability for proper storage and physical security of U.S.-based defense articles.

On the topic of practicalities, one expert raised the possibility that in circumstances where there was concern over the use of U.S.-based defense articles, the DoD could opt to share only certain software packages for transferred munitions or airframes to reduce the possibility that these weapon systems are used beyond the intended scope of transfer. This raised concerns amongst experts that there might be a mismatch between the systems that transferees are trained on and the weapon systems they ultimately receive.

Ultimately, this discussion concluded with a broad question about the point at which the United States is released from responsibility for transferred weapons, if ever. One expert cited the fact that Iran continues to maintain U.S. aircraft and weapon systems despite the breaking of public support after the revolution. Additionally, weapons transferred years prior might have been previously licensed, but no longer monitored such as certain small arms.

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#### **Session IV: CHMR & Cyber Operations**

**Moderator:** Mr. Dan Stigall

**Introductory Remarks:** Mr. Jonathon Horowitz

#### **Session Summary:**

In Session IV, experts highlighted the increasing reliance of civilians on digital infrastructure, especially in relation to critical systems. This dependence necessitates a thorough understanding of how to operationalize the principles of IHL within the cyber context to avoid disproportionate or unnecessary harm to systems vital to the survival of the civilian population. For example, one expert discussed the dual-use dynamic between civilian and military uses of electrical grids. This expert noted that the fallout resulting from damage to this type of infrastructure should be comprehensively understood even if it is not exactly clear how a cyberattack over time and distance might play out against such infrastructure.

At this point, several experts questioned whether existing policies adequately cover cyber operations, and highlighted the need for precautionary measures and adherence to IHL principles. One expert argued that a straightforward rule would prohibit indiscriminate cyberattacks against facilities like medical or agricultural centers, which would mirror prohibitions in kinetic warfare. Another expert mentioned in response that cyberattacks, unlike traditional munitions, have the ability to be far more tailored in their effects, which

might ultimately allow the targeting of critical infrastructure with fewer physical harms to civilians. That is, there might be less collateral damage as a result of cyber-attacks, which makes it more difficult to apply frameworks for action from kinetic contexts into the cyber realm. According to this expert, however, it is essential to know ahead of time the nature of a network such as whether it is ‘closed’ before it is attacked.

One expert emphasized that the transition from abstract principles to operational realities in cyber operations made it more difficult to define the civilian environment amidst rapid technological advancements. For instance, it was questioned if data should be considered cultural artifacts or pieces of critical infrastructure that should be protected under IHL and CHMR policy. This expert highlighted the importance of comprehensive data collection, management, and security including safeguards and protocols within the Department of Defense (DoD). This expert also noted that the mismanagement of data, such as the loss of biometric databases to the Taliban in Afghanistan, have actually led to civilian harm.

Lastly, the discussion turned towards addressing the evolving language and frameworks within the DoD concerning cyber operations and the need to bridge communication gaps between digital and kinetic operation experts. Challenges in aligning private sector and governmental priorities in civilian protection versus corporate risk assessments were also identified as critical issues requiring collaborative solutions.

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## **Session V: Civilian Harm Mitigation & Artificial Intelligence**

**Moderator:** Mr. Dan Stigall

**Introductory Remarks:** Dr. Larry Lewis

### **Session Summary:**

Session V began with an overview of the recent Center for Naval Analyses study that identified twelve major pathways to civilian harm and the critical role of artificial intelligence (AI) technology in mitigation efforts. As one expert made clear, AI will play a key role in enhancing precision in military operations by improving the warfighter’s capacity to distinguish between civilians and combatants. The discussion broadly underscored the DoD’s growing use of AI to manage risks associated with military operations, while acknowledging concerns over bias in data and decision-making autonomy in the kill chain. Experts explored AI’s role in real-time decision support including the detection of transient civilians and identification of symbols like ambulances.

One expert noted that AI-based simulations would be vital for problem-solving within large-scale fast-paced operational contexts by training decision-making under stress and potentially reducing civilian harm caused by human error. This expert made clear that AI-enabled repetitions of complex scenarios that might occur during LSCO would help commanders get data to see what actions were taken and whether they worked. The realism and complexity of AI-enabled simulation sets it apart from traditional wargaming.

The conversation also highlighted the need for human control over AI systems in military contexts. One expert drew the group's attention to ongoing research and development efforts surrounding the potential to accelerate administrative functions that usually impose constraints on execution such as verifying no-strike lists for protected buildings. Another expert noted that this concern is continuously raised in regard to DoD Directive 3000.09, which requires acceptable levels of human judgment be included in any AI system, but does not clarify what this looks like in practice. This expert asked whether having a kill switch installed in the system would constitute an acceptable level of human judgment, and questioned the effectiveness of human oversight in operations that move so rapidly.

Another expert discussed the ethical implications of autonomous AI systems in offensive situations versus support roles, and emphasized the necessity to shift cultural attitudes towards accepting AI systems as crucial partners. As this expert stated, the opportunity to separate out targets accurately and rapidly is tremendous and will only continue to improve over time. AI tools will outperform a sleep-deprived and stressed 19-year-old private at target acquisition every time. Therefore, it is necessary to build trust in these systems so that warfighters can leverage these capabilities for mitigating civilian harm.

Experts also identified key vulnerabilities in AI applications including compromised data sets and the potential for adversaries to manipulate AI responses. The rapid evolution of AI technology poses challenges, such as maintaining data integrity and adapting to unforeseen or unpredictable patterns. For instance, one expert asked what would happen if an adversary had the same technology but trained the models on completely unique datasets? Additionally, what would the differences in competitive edge look like if an adversary did not train its models to account for restraint in urban environments?

Despite AI's transformative impact when applied correctly, concerns persist over the risks associated with rapid decision-making in warfighting contexts. Several experts raised additional concerns including the fact that commanders are worried about being out of the loop on decision-making due to accountability issues. This is especially true, this expert warned, if the CHMR-AP leads to an operational environment where political blowback will be huge for any targeting mistake or instance of civilian harm. Building in more capacity

allows these commanders to do more at a faster pace, but will also make it more difficult to oversee operations and keep them in check.

The session concluded with a call for a holistic approach to AI integration by emphasizing accountability, preventative measures in operational planning, and the multi-disciplinary nature of the CHMR-AP. Collaboration with partners and allies was highlighted as crucial for setting technical and ethical standards in AI use across international military contexts, and most experts agreed that the United States should strive to lead the charge in establishing ethical standards of use for AI systems.