



# Military Voices on the Gender Perspective: A NATO Anthology

Forewords by Admiral Rob Bauer and Ms Irene Fellin

Edited by Lt Col Katherine Prudhoe, Grace Hillerby, Apollina "Polly" Kyle, Patricia Nguyen

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Published June 2024

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# Foreword

By Admiral Rob Bauer

As NATO moves forwards in an enduringly complex geo-political context, Deterrence and Defence has never been more important. Russia’s aggression towards Ukraine has provided a powerful reminder that we need to be able to expect the unexpected and be ready for all different types of scenarios.

We must maintain our conventional fighting force while building skills to combat unconventional threats and introduce new technologies with the required skillsets. Encouraging a diverse workforce is a topic I feel personally very strongly about. At the Chiefs of Defence session in Tallinn in 2022, I initiated the discussion about Diversity of our military workforce to generate the skillsets and mindsets required to counter the conventional and unconventional challenges we face.

However, we also need to look outwards to our operating environment and how men, women, boys and girls are affected differently by conflict. This is all part of our ongoing efforts to harness the benefits of diversity in its many forms. We need to use a gendered lens to better understand our intelligence picture, to develop a set of strategic dilemmas for our adversaries, and reimagine how we assess, plan and conduct military operations taking into account the societies in which we operate. Understanding the gender perspective of military operations is not just a political agenda. On the contrary, in order to assure the most effective military instrument of power, we must consider the gender perspective in all of NATO’s three core tasks: collective defence, crisis management and cooperative security.

I welcome this anthology on NATO’s 75th Anniversary as an important military contribution to the debate on the gender perspective and a means of furthering the WPS agenda at NATO. I would like to thank the military leadership from across the Alliance for contributing their views.



**Admiral Rob Bauer**  
**Chair of the NATO Military Committee**  
Admiral Bauer is the 33rd Chair of the Military Committee of the North Atlantic Treaty Organization (NATO). He has served in the Royal Netherlands Navy for over 40 years. As the Military Adviser to the NATO Secretary General and the North Atlantic Council, Admiral Bauer is NATO’s most senior military officer.

# Foreword

By Ms Irene Fellin

NATO has consistently acknowledged the crosscutting importance of implementing the Women, Peace and Security (WPS) agenda not only as an essential component of military operational effectiveness, but also as a reflection of the Alliance’s common values of individual liberty, democracy, human rights and the rule of law.

Addressing the complexities of today’s security landscape demands integrating gender perspective throughout political and military cooperation. Political leadership establishes the overarching framework and policy direction, ensuring the integration of gender considerations into strategic decision-making processes. Meanwhile, military command structures facilitate the implementation of these policies at the tactical and the operational level, integrating gender perspectives into planning, training and mission execution.

Since Russia’s full-scale invasion of Ukraine, there has been an unprecedented increase in the number of women joining the Ukrainian Armed Forces, further emphasizing the significance of gender considerations in the security and defence sectors. During my recent visit to Kyiv, I observed first-hand the invaluable contributions women can make to protect and defend their country. However, this war also highlighted the limitation of solely relying on women’s participation during open conflicts, underscoring the importance of implementing the WPS Agenda in peacetime to fully leverage women’s potential during crises.

The full involvement of military leaders in the discussion about gender perspectives and WPS is of paramount importance, as they are instrumental in shaping and raising awareness on the gendered dimensions of contemporary security challenges. It is in fact only through their full commitment and active contribution that the WPS agenda will finally fulfil its mandate and bring sustainable transformative change within our societies.



**Ms Irene Fellin**  
**NATO Secretary General’s Special Representative for Women, Peace and Security**  
Ms. Fellin is a WPS expert and peacebuilder who has worked as a Senior Gender Adviser with Women in International Security (WIIS), the International Affairs Institute (IAI) in Rome, NATO HQ in Brussels, as well as international consultant for UN agencies and other national institutions for more than 15 years. Since 2021, she has served in NATO as the Secretary General’s Special Representative for Women, Peace and Security.

# Introduction

By Lieutenant Colonel Katherine Prudhoe

Over 20 years ago, as a junior officer in the British Army, I went over the Kuwaiti border into Iraq during the initial invasion. Living in a partly destroyed warehouse in the port of Um Qasr, I spent the days engaging the local population in very early post-conflict reconstruction efforts and saw with my own eyes the different way that people responded to me as a woman in uniform compared to my male counterparts. In addition to my official role, I was asked to join patrols, as my male colleagues understood how having a woman in the team changed the dynamic of a situation. These situations included asking refugees to vacate a school so that we could reopen it for the local children; speaking to uncertain and fearful civilians who wanted to relay information; or providing security at a children’s playground so that children could play safely. I also saw the societal differences between being a man or a woman in Southern Iraq in the days after the Coalition Forces swept through their town. Initially there were only men on the streets, looking guardedly from street corners, then inquisitive children staring from behind barely-open doors, then later the emergence of women chatting and walking in the street. Societal roles in a Middle Eastern, Muslim nation may differ to those in my nation of birth, but the similarity was that families sought to protect the most vulnerable - the old, the young and the women.

The Gender Perspective of conflict is not new. The most vulnerable in society are disproportionately affected by threats, whether these are terrorism, climate change or a pandemic. Lower social status, economic agency, or physical strength mean we can be “in the same storm but in different boats”, a quotation from Mary C Brucker talking about the impact of COVID, but has a broader relevance. Unfortunately, women and girls tend to have less social and financial agency, as well as more caring responsibilities for the elderly and children, which makes them less able to respond to conflict or crisis compared to their male counterparts.

Much of the discussion about the Women, Peace and Security (WPS) agenda comes from an academic perspective, focusing on gender equality and nested in the UNSCR 1325 principles. However, in order to reach a military audience, it is important to first focus on military



**Lieutenant Colonel Katherine Prudhoe**

**Gender Advisor at NATO International Military Staff**

Lieutenant Colonel Prudhoe is the Gender Advisor for the NATO International Military Staff. When deployed in the Middle East, she became aware of the societal causes of conflict after observing first-hand the disproportionate impact on women and children.

operational effectiveness, considering the threat and then analysing it through a gendered lens. For example, what consequence does the impact of climate change or the changing nature of terrorism have on security? Only after this is established, can we determine how this security impact affects men, women, boys and girls differently. This approach shifts the focus from purely rights-based and values-driven discussions to considering “added-value” to military planning and conduct of operations. It also means that military planners should not fall into the trap of considering women as victims and men as perpetrators of violence. Both women and men can be actors, audiences, adversaries or enemies as well as victims<sup>1</sup>. A gendered analysis sheds light on gendered conflict-drivers, indicators and warnings and how men, women, boys or girls are impacted differently in a given security scenario.

Second, in order for the Gender Perspective to resonate with senior military decision-makers, the right messenger is not necessarily a female academic, or even a woman in uniform. NATO is currently composed of approximately 87% men, a percentage which only increases for senior leadership. Therefore, it is important that the consideration of the Gender Perspective is not solely the remit of the woman in the room. There is no reason why a male operator cannot conduct a gendered Human Terrain Analysis in an intelligence brief, or identify bias mitigation in AI programming. In order to reach the majority male target audience of military decision-makers, it is important that male military leadership can speak about the Gender Perspective within their areas of expertise.

Third, there is a distinction between the integration of the Gender Perspective internally and externally; between ensuring diversity within the workforce, and understanding the gendered implications of an external threat. Of course, women add value within any workforce. NATO should develop a culture where women as well as people from different nations, ethnic minorities or specialist skillsets feel able to flourish. Without a diverse workforce with different skillsets and mind-sets, NATO will not be able to respond to the increasingly complex, technologically enabled threat environment, especially as the geo-political context moves towards Collective Defence. This internal-external distinction of the Gender Perspective is key to understanding the force laydown required to respond to a specific threat scenario. It shouldn’t just be a matter of pulling the one woman from her day job to do a secondary role perceived as requiring a woman - tasks such as treating victims of sexual violence, or interviewing a traumatised civilian. From my experience as the Gender Advisor at NATO, the work is 90% external threat analysis and integration into military operations, 10% internal support to Human Resources. For this reason, this Anthology focusses primarily on the Gender Perspective of external topics identified in the 2022 NATO Strategic Concept.

The Gender Perspective is key to understanding current conflicts, especially now that conflicts are increasingly fought far away from the battlefield, in the realm of economic sanctions, hybrid warfare and disinformation. Gender as a concept is a socially constructed norm that is different for every nation and even varies between communities in the same nation, putting gender at the frontline of societal conflict. In an organisation such as NATO that is based on shared values, the Gender Perspective is a societal fault line that can be deliberately exploited to sow doubt about whether Western, values-based

<sup>1</sup> UK Joint Doctrine Publication titled “JDP 2-00: Intelligence, Counter-Intelligence and Security Support to Joint Operations” uses the terms Actors, Audiences, Adversaries and Enemies or A3E to understand the Human Terrain.



international organisations truly defend democratic values. It is a means of targeting the soft underbelly of democracy. If NATO does not consider the Gender Perspective, we risk reputational damage through adversarial disinformation, cognitive bias when analysing the intelligence picture, reduced resilience of our own societies and reduced effectiveness of the planning and conduct of operations. However, the Gender Perspective is also an opportunity. It is a means to build connective tissue between political ideals and military operational necessity. Through a better understanding of the Gender Perspective, NATO can better understand threat vectors and vulnerabilities in the societies which we seek to protect.

This is only the beginning. Looking beyond clearly defined threats, NATO will now need to address how the human security agenda complements gender in military operations, and will need to look at the interconnectedness of seemingly disconnected topics, such as the impact of climate migration on changing terrorist ideologies and gender, or the impact of AI algorithms on how we understand gendered disinformation. Looking at the future geo-political context through a gendered lens is the bedrock of future decision-making because it is the bedrock of the society of 1 Billion people that NATO seeks to protect.

Thank you to the senior military leadership across NATO who volunteered to make this anthology possible!

*Military planners should not fall into the trap of considering women as victims and men as perpetrators of violence.*



## Human Dimension



# Leadership and Gender Perspective

By Admiral Sir Keith Blount and Lieutenant Colonel Sheri Lattemore



**Admiral Sir Keith Blount**  
**DSACEUR**

Admiral Sir Keith Blount, KCB OBE, is NATO's Deputy Supreme Allied Commander Europe based at SHAPE in Mons, Belgium. He has personally witnessed the positive evolution of gender perspective in various positions over his career and is keen to contribute to future developments.



**Lieutenant Colonel Sheri Lattemore**  
**Gender Advisor at Supreme Headquarters Allied Powers Europe (SHAPE)**

Lieutenant Colonel Sheri Lattemore's career as an Aerospace Controller has provided a variety of opportunities in Canada, USA and now Europe. From instructing the skills of controlling aircraft, to protecting the North American aerospace borders from adversaries, to managing all Royal Canadian Air Force operations, Lieutenant Colonel Lattemore has worked at all military levels. Currently, Lieutenant Colonel Lattemore is the ACO Gender Advisor at SHAPE in Mons, Belgium.



As leaders in this complex and fast-paced world, integrating gender perspective can be a daunting task but an inspiring challenge. Once we acknowledge that crisis and conflict impact men, women, boys, and girls very differently, and that each of them can contribute in a variety of ways to promote peace, it reveals opportunities to engage with local populations for more sustainable solutions, uncover traditional blind spots, and forces us to challenge the status quo which will ultimately benefit all of society. However, unlike flying in formation in an F-35, or leading soldiers into combat, or conducting anti-piracy operations, NATO personnel have not received in-depth training nor have experienced the integration of gender perspective in military activities and operations from an early stage. This is where leaders have a key role to play, as they have the necessary platform to make a difference and start changing mindsets by considering this perspective.

First and foremost, leaders need to understand what gender perspective entails. Learning should be a lifelong pursuit, which includes opening our minds to different (and sometimes unfamiliar) perspectives. Read an article or book that you wouldn't typically read. Have coffee with someone who doesn't see things the same way you do. Open your ears, listen. Be curious. Dare to ask honest questions to learn (not necessarily to argue back). Once we become aware of how systems have long ignored any gender considerations and are full of stereotypes and biases, it will be difficult to un-see these as being part of our daily lives. We can apply a gender lens to understand underlying conflict dynamics, by taking the varied experiences of different population groups into account. For example, issues affecting women have often been treated as separate issues to be considered after plans have been made. In practice, this approach creates operations that assume whole societies are homogeneously male– or at least that those societies all have the same needs and same concerns and are similar to those of the male policymakers and planners in the room. This creates a significant knowledge gap, which translates into non-accurate planning and creation of opportunities to adversaries who increasingly learn how to exploit these gaps. Whether or not one thinks it desirable to deal with gender 'further down the road', gender will still be part of every action in the present. The question is whether we are thinking and planning in an informed manner about the gendered impact of every aspect of our work as an Alliance.

Leaders need to acknowledge that the Women, Peace and Security Agenda is meant to benefit societies as a whole, not only women and definitely not at the expense of men. Additionally, both men and women need to be a part of its implementation for it to succeed. It is not a women's problem to fix. Male military leaders need to lead by example and promote the shift to a military culture that is ready to include and promote the strengths of over half of the world's population. Furthermore, promoting gender diversity in military leadership can have a positive impact on organizational culture and performance. Research has shown that diverse teams are more innovative, better at problem-solving, and can outperform homogenous teams in a variety of tasks. By embracing gender diversity in leadership roles, the military can tap into a wider range of perspectives and experiences, leading to better decision-making and overall effectiveness.

Leaders need to adjust and adapt, like all great military strategists. Military leadership is a dynamic and multifaceted field that plays a crucial role in the success of any armed forces. When examining military leadership from a gender perspective, it is essential to consider the unique challenges and opportunities that arise when individuals of differ-

ent genders take on leadership roles within the military. One of the key aspects of military leadership from a gender perspective is the recognition of the unique strengths and qualities that both men and women bring to leadership roles. While traditional views of military leadership have often emphasized qualities such as strength, decisiveness, and assertiveness typically associated with masculinity, there is a growing understanding that leadership qualities are not inherently gendered. Both men and women can possess a wide range of skills

and attributes that are valuable in a military context. In recent years, many military organizations have taken steps to promote gender diversity in leadership positions. This includes initiatives to recruit and retain more women in the armed forces, as well as efforts to identify, and provide training and support for women seeking leadership roles. By creating a more inclusive and supportive environment for women in the military, organizations can benefit from a wider pool of talent and perspectives in their leadership ranks (again, over 50% of the world population). An important way of promoting gender diversity in military leadership is through role models and mentors. When women see other women in leadership positions within the military, it can inspire them to pursue their own leadership goals and aspirations. Currently there are only four female generals in all of NATO ACO and as of 2020 only 13% are women in NATO Nations' Armed Forces. With these statistics, it is difficult to envision senior leaders as women. Knowing that NATO force generation starts with the Nations at the recruitment level, it is important to remove obstacles linked exclusively to gender and for Nations to identify and leverage all strengths in building their forces. We must highlight the achievements and successes of women in leadership roles, and organizations must help to break down barriers and create more opportunities for women to succeed in the military.

Ultimately, leadership from a gender perspective is about understanding, identifying and recognizing the unique strengths and qualities that both men and women offer to leadership roles. By fostering a culture of inclusion, diversity, and support, military organizations can create stronger, more effective leadership teams that benefit from a wide range of perspectives and experiences. As more women take on roles in the military, the landscape of military leadership will continue to evolve and grow, creating a more diverse and inclusive environment for all members of the armed forces. This diversity of thought will improve our ability to see a magnified operational environment, uncover and address previously ignored risks to our troops and increase our chances of shortening military campaigns and establishing prolonged peace and stability within the Alliance and beyond.

*Leaders need to acknowledge that the Women, Peace and Security Agenda is meant to benefit societies as a whole, not only women and definitely not at the expense of men.*





# Empowering Women in the Security Sector – A Unified Call to Action

By Vice Admiral Louise Dedichen

## Introduction

In the ever-evolving security landscape, the call to empower women is beyond developing representation only for the sake of achieving gender equality; it is about fundamentally improving the quality of a secure and peaceful world and to foster resilience for our forces. Women bring unique perspectives and critical thinking skills that contribute to advancing the quality of peace and security.

Representation in the Military Committee can also be examined through a gender lens. When I joined the committee in January 2020, I became its first female representative. Subsequently, Canada appointed a female representative, who served for nine months. As of today, two women stand as representatives for our Chiefs of Defense, following the arrival of the USA's new Military Representative in February 2024. Women are important in the committee. I am convinced that a mixed group will reach better decisions than homogenous groups, and this factor is more important now than ever, given the severe security situation we face.

The under-representation of women within critical security roles is an obvious issue demanding our attention. The call to action begins with a joint effort to actively increase the number of women in these key roles. Women communicate effectively, build relationships, and navigate complex social dynamics differ-



**Vice Admiral Louise Dedichen**  
**Norwegian Military**  
**Representative to NATO**

Vice Admiral Dedichen was appointed head of Norway's military mission in Brussels in June 2019, becoming Norway's representative on the NATO Military Committee. She is the first woman to serve on the Committee. From 2008, she headed the Norwegian Defence University College. She was awarded the Chief of Defence's prize for equality in 2014 for her efforts in advocating gender equality in the Armed Forces. Dedichen is chair of the independent cross-sector initiative organisation, SHEconomy. In her capacity as Commandant of NDUC, she launched seminars in order to promote knowledge of defence and security policy and leadership among groups, and particularly women, outside of the Armed Forces.



ently and complementary to men, and their abilities can be invaluable for engaging with local populations, gathering intelligence, and supporting mission success in conflict zones. The statement is clear: when women participate in shaping security strategies, their unique perspectives bring about more comprehensive and sustainable solutions.

**Women at the Forefront: A Global Imperative**

During global security challenges, the world witnesses the profound impact of women’s participation in Armed Forces. Ukraine stands as a testament to this truth, with 66,000 courageous women serving in uniform and over 5,000 of them are on the front lines, showing resilience and bravery in the face of Russian aggression. Their indispensable role underscores a universal need for gender integration in security sectors worldwide.

Ukraine serves as beacons of inspiration, demonstrating the transformative power of women’s participation in the Armed Forces. Their examples illustrate a path toward a more inclusive and resilient security landscape, where every individual, regardless of gender, can contribute meaningfully to global peace and stability.

**Gender Neutral Duty and Rights**

In Norway, compulsory draft service is a gender-neutral effort, reflecting the nation’s commitment to equality and inclusivity. Since its implementation in 2015, both men and women have been required to serve, ensuring that all citizens contribute to national defense regardless of gender or other social identities.

Norway’s heir to the throne, Princess Ingrid Alexandra, is breaking barriers by serving in an Army Engineer Battalion, highlighting the success of Norway’s compulsory draft service, while Belgium’s Crown Princess Elisabeth completed her one-year military training at the Belgium Royal Military Academy in 2021, becoming an officer. Visible role models, like Princess Ingrid Alexandra and Crown Princess Elisabeth, inspire future generations, demonstrating that success knows no gender boundaries.

With 36% female enlistment, Norway is committed to gender mainstreaming, ensuring women’s full integration across all branches. This progressive approach is fostering a sense of unity and shared responsibility among all members of society, and results in a more diverse, effective, and representative military.

Denmark’s recent decision to implement a similar gender-neutral draft service policy further underscores the growing recognition of the importance of gender equality in military service.

*The under-representation of women within critical security roles is an obvious issue demanding our attention.*

**Integration throughout Defence**

Gender mainstreaming highlights the importance of full integration throughout all services within the Armed Forces. Ensuring that women and men can collaborate with equal opportunity, fosters a diverse and dynamic environment. The Armed Forces would be able to tap into the full spectrum of talent and diverse perspectives, expanding their Human Resources potential by implementing gender mainstreaming strategies.

Human Capital within the organization begins with recruitment, emphasising the need for a positive and inclusive image of the Armed Forces in the public eye. Perception matters, and the reputation of the Armed Forces within the nation significantly influences recruitment efforts. Therefore, recruitment efforts should note the different motivations that push not only each gender to join, but also different personalities and competences. Our Armed Forces are not implementing one recruitment campaign for men. They are tailoring it depending on the branch, the skill sets required, and emphasizing different values and motivations to serve one country. The same considerations should be taken for developing recruitment campaigns for women. They should be tailored to attract different segments of society, different men, and different women. However, recruitment is just the first step; retention is equally critical.

*When women participate in shaping security strategies, their unique perspectives bring about more comprehensive and sustainable solutions.*

**Analysing Retention Factors**

To retain both women and men within the Armed Forces, a thorough analysis with a gender perspective is essential. Understanding why individuals leave and what motivates them to stay reveals crucial insights that can be beneficial for understanding how to obtain cohesion and morale. When individuals from diverse backgrounds feel valued and respected, they are more likely to contribute actively to the mission and collaborate effectively with their colleagues. Factors such as payment, benefits, equal access and opportunities, and supportive policies for work-life balance all play key roles. Addressing these aspects not only ensures equal opportunities but also reinforces the principle of accountability that the Armed Forces hold to society.

**Leadership’s Crucial Role**

Recruitment is primarily a leadership responsibility. Leaders within the security sector should not only create environments where women are welcomed but to proactively encourage their participation for as long as women are underrepresented. Beyond conventional approaches, leaders are summoned to engage with potential female candi-

dates personally. Encouraging women to apply for positions, mentoring them throughout the recruitment process and through their careers, and providing the necessary resources for their growth within the sector are critical elements of leadership in this mission of gender equality.

**Role Models and Mentoring**

Visible role models who have shattered gender barriers are a powerful source of inspiration and motivation for women aspiring in the security sector. Their success stories serve as a testament that is not only thriving in this field, but it is also achievable and desired. Furthermore, promoting gender diversity sends a powerful message to society about the inclusive nature of our Armed Forces and their commitment to equal opportunities. Leadership bears the responsibility of supporting gender equality, actively encouraging women’s participation, and providing mentorship opportunities.

These leaders, by serving as role models and breaking down barriers, inspire future generations of female service members to pursue careers in the security sector, thereby ensuring a more diverse and representative force in the long term. This underscores the effectiveness of mentoring programs.

**A Unified Commitment to Action**

The call to action stands as a collective responsibility that rise above structural boundaries. Ensuring gender balance and encouraging women’s participation is not merely a matter of justice; it is a fundamental step towards creating a safer and more secure world. It is everyone’s responsibility, both men and women. This commitment represents a blueprint for a future where every individual, regardless of gender, contributes to building a world that is just, inclusive, and secure.

**Conclusion**

The numerous compelling reasons for genuine gender inclusion within Armed Forces go beyond compliance; they represent a strategic approach that positively impacts military operations. By embracing gender inclusion, we do not only ensure equality but also unlock the full potential of our armed services, making them more effective, responsive, and resilient. We cannot overlook the compelling evidence demonstrating that more diverse teams consistently outperform homogeneous ones, thereby putting ourselves at a disadvantage by not embracing diversity fully. Our current lack of diversity hinders our effectiveness, and the potential to reduce workforce shortages serves as an additional advantage. As military leaders, it is our responsibility to advocate for gender equality and diversity and create an environment where all individuals can thrive and contribute to the defence and security of our nations.

The imperative to empower women in the security sector is a global mission requiring collective efforts. It moves beyond rhetoric, urging leaders, organizations, and societies to

act in unison. Only by embracing diversity and harnessing the talents of all our personnel, we can fulfill our mission and secure a safer, more prosperous future for generations to come. This is not just a call for equality; it is a call for a strategic requirement, recognising that diversity is not just a symbol but a catalyst for a more secure and harmonious future.





# Human Security and the Gender Perspective

By Colonel Esapekka Vehkaoja

## Introduction

I consider Human Security as the very foundation over all human existence. Therefore, it is to be seen as an overarching issue concerning the whole-of -society, and exactly the same applies to gender perspective in military as well as in civilian life.

For nations to guarantee their existence and their defence establishments to succeed in their mission, it really comes down to two fundamental elements – the will to defend and the capability to do so. The first part, the will to defend, is all about the very basic human needs of the population, including human security with corresponding gender perspective. This is what I would call integrated security in resilient societies. With these introductory words, it is my privilege to contribute this Chapter on Human Security and Gender Perspective.

## Background

The FINCENT - Finnish Defence Forces International Centre - is the oldest United Nations peacekeeping training centre, established in 1969. Since then, one of our main tasks is to conduct courses and training events in the field of Military Crisis management. In 2015, FINCENT was nominated as the NATO Department Head for Military Contribution to Peace Support (MC2PS). In that role, our tasks are to translate NATO education and training requirements into solutions for individual and collective training. The MC2PS Discipline content seems to be increasingly present and also a growing training demand as part of NATO's Multi Domain Operations (MDO) concept.

FINCENT has divided its portfolio as the NATO Department Head into four clusters: Partnerships, Security Force Assistance, Comprehensive Approach and Human Security.



**Colonel Esapekka Vehkaoja**  
**Commandant of Finnish**  
**Defence Forces International**  
**Centre (FINCENT)**

Col Vehkaoja is the Commandant of the Finnish Defence Forces International Centre with almost 40 years of military experience. He served in operations in Pristina and Kinshasa with KFOR and EUFOR respectively and has held defence attaché posts as well as several intelligence-related positions.

Under the Human Security Cluster, we are responsible for topics such as Protection of Civilians (POC), Children and Armed Conflict (CAAC), Cultural Property Protection (CPP), Combating Trafficking of Human Beings (CTHB), Building Integrity in Operations (BIO) and Conflict Related Sexual Violence (CRSV). Understanding how men, women, boys and girls are affected differently by the Human Security topics listed above is critical to determining how we analyse and respond to Human Security issues within an operational environment.

The Approaches to Protection of Civilians (NATO UN POC) Course is a product of the Human Security Cluster. The course fulfils the NATO requirements at strategic and operational level. The aim of the course is to develop practical understanding among the civilian and military participants on the role of both UN and NATO as protection actors in operations. We focus on how to protect civilians from threats of physical violence, including unintended harm from the actions of military protectors. The course also scrutinizes the military's understanding of how military options impact civilians, and how the military can support other non-kinetic actions to minimise the negative impacts of conflict on civilians.

The course name refers to protection of civilians, but tackles all the topics under NATO's Human Security approach. We at FINCENT see protection of civilians as the umbrella for integrating all the crosscutting topics – under not only human security – but also gender perspectives, which clearly are present in all our clusters. Human security and protection of civilians needs to be viewed through a contextual, situational and a gendered lens, depending on where the activity is taking place. All the topics as well as the MC2PS Discipline clusters are very much crosscutting, connected and interlinked.

For example, CAAC looks at how boys and girls are affected by conflict and how their human rights need to be protected. Boys and girls are affected differently by issues such as sexual violence, recruitment into Armed Groups or access to humanitarian aid. This can be exacerbated by societal norms and gender roles in a conflict environment. Gender sensitive protection of children needs to be integrated when planning and executing operations.

Taking another Human Security topic, CTHB, women and girls still account for a greater share of detected victims of trafficking, representing 60% of victims in 2020<sup>i</sup>. However, there has been an increase in the proportion of male victims over the years, from 16% in 2004 to 40% in 2020<sup>ii</sup>. Understanding the gendered aspects to why people are trafficked can explain some of the changes in these trends. In 2020, there were significantly fewer victims of trafficking for sexual exploitation of which a higher proportion are women and girls, while there has been an increase in victims for criminal activity where men are more likely to be represented<sup>iii</sup>. The UNODC Global Report on Trafficking on Persons also found that women and girls are three times more likely to experience physical violence during trafficking, compared to men and boys<sup>iv</sup>. The gendered aspects of CAAC and CTHB need to be understood in order to develop effective military responses for Human Security issues within the operational environment and effectively protect civilians in these relevant contexts.

The FINCENT understanding of Protection of Civilians leans on more than a decade of research beginning in 2008, where the starting point has been the so-called implementation gap, or the challenges both UN and NATO operations have been faced with: what is

stated in policy and what effects are enacted at the operational and tactical level. The research has been reflected in UN and NATO policy and guidance documents, such as the NATO Protection of Civilians policy from 2016, and more recently in both the NATO and UN military handbooks on Protection of Civilians. However, as the task of protection of civilians – and subsequently the notion of human security, are

relatively new tasks for military organizations, there is limited doctrinal guidance on how to turn such policies into effective operational practice. The course therefore addresses these challenges by offering a structured approach to a nexus of several topics, where learners explore the utility of military force to protect civilians. Understanding how the Women, Peace and Security agenda complements and reinforces the Human Security agenda is critical for the success of both, particularly as NATO looks at the implications of both agendas in the three core tasks with an increasing focus on collective defence<sup>v</sup>.

The way that FINCENT seeks to approach the Protection of Civilians training is unique. The gender perspective is relevant in all scenarios, case studies and discussions, because Human Security is about people and societies and therefore conflict scenarios are deeply gendered. Participation is one important aspect: drawing on experience from civilian, military, NATO, UN and humanitarian actors, NGOs and Civil Society. This brings rich and varied knowledge to the course. The content of the course is breaching new ground on how to understand the utility of military force through deepening insights on the variations in threats to civilians in conflict – and how these variations impact on the use of force to reduce civilian harm. The course offers a structured, research-based approach to both analysing threats to civilians as well as how to tailor responses that considers both short term and reverberating effects to conflict affected populations. Fourth, the course presents a venue for individual reflection and meta-perspective on own learning, as a potential tool for mastering the learning goals, which include pedagogical challenges that resemble the definitions of a threshold concept.

FINCENT has worked closely together with NATO and UN Protection of Civilians experts, International Committee of Red Cross (ICRC), PAX for Peace, Centre for Civilians in Conflict (CIVIC), CIMIC Centre of Excellence (CCOE), Peacekeeping and Stability Operations Institute (PKSOI) and The Norwegian Defence University College (NDUC).

Since the pilot course in 2018, our understanding of Protection of Civilians and Human Security continues to evolve, as has educational techniques such as extended reality and flipped classroom or learner centered approach. Much attention and effort has been paid to finding ways to convey this knowledge, not only to military planners, but equally also to other actors involved in human security and protection of civilians.

For FINCENT, the approaches to Protection of Civilians Course is the main input and contribution to the concrete operationalisation of Human Security within NATO. Understanding

*Human security and protection of civilians needs to be viewed through a contextual, situational and a gendered lens.*

the gender perspective of both Protection of Civilians and Human Security is key to understanding issues in a specific conflict, determining the legal mandate required to protect civilians and to help military forces to respond to Human Security issues effectively.

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i United Nations Office on Drugs and Crime, “Global Report on Trafficking in Persons 2022,” UNODC Research (United Nations Publication, January 2023), [https://www.unodc.org/documents/data-and-analysis/glotip/2022/GLOTiP\\_2022\\_web.pdf](https://www.unodc.org/documents/data-and-analysis/glotip/2022/GLOTiP_2022_web.pdf), p XI

ii Ibid.

iii Ibid, 18.

iv Ibid, 18.

v NATO’s three Core Tasks are Deterrence and Defence, Crisis Prevention and Management, and Cooperative Security.



## Threats and Understanding





# Navigating Climate Change and Security through a Gendered Lens

By Major General François-Marie Gougeon

## Introduction

NATO's 2022 Strategic Concept identifies climate change as "a defining challenge of our time (...) a crisis and threat multiplier"<sup>i</sup> and notes that it "can exacerbate conflict, fragility and geopolitical competition"<sup>ii</sup>.

NATO and its partners also recognise the disproportionate impact conflict and post-conflict situations have on women and girls, as outlined in the UN Security Council Resolution 1325 on Women, Peace and Security (WPS), while at the same time recognising that women's participation in conflict prevention, resolution and post-conflict situations is critical for the restoration of lasting peace.

The understanding of this nexus between security, climate change and gender should therefore be integral to NATO and Allies' approach to threats and risks, particularly with regard to crisis prevention and management, the Alliance's second core task. In terms of situational awareness, it would complement other types of analysis and allow for better representation of local realities and their potential for deterioration, or improvement. This would fall in line with the Alliance's current effort to have a better grasp of its southern neighbourhood and its intent to support human security through increased cooperation with other organisations. It will also allow for better prevention of crises, through improved capacity-building



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Major General Gougeon has over 30 years' experience with a speciality in armoured reconnaissance. His senior staff assignments include the French Chief of Defence's, as deputy chief, 3 years at the Military Strategy Division of the Joint Staff, dealing with joint capstone documents, and the Directorate General for International Relations and Strategic Affairs (DGRIS) of the Ministry of Defence, where he was deputy director for Defence Strategy from 2016 to 2019 and took an active role in the drafting of the 2017 National Strategic Security Review. He currently serves as the Director of Policy and Capabilities Division in the International Military Staff at NATO.

assistance and better planning for crisis management, as the calibration of civil-military cooperation is central to civil-centric operations.

This is all the more obvious as we draw on some 20 years of Western experience in asymmetric, out-of-area operations. Those have taught us, sometimes the hard way, the importance of correctly reading the human landscape in which our forces operate, or could be called to operate. Counterterrorism efforts, which at the beginning primarily focused on defeating networks of operators, gradually gave way to a more holistic approach, aimed at better understanding the different components of a society. In this regard, women are crucial players in the creation and maintenance of stability in fragile and post-conflict societies, as widely recognized by the Women, Peace and Security Agenda. Indeed, women can act as a catalyst in the prevention and resolution of conflicts as well as in the re-building of societies through the restoration of the rule of law, governance and democracy. While the positive impact of women participation in formal peacebuilding processes is widely addressed in literature, the role that they take in informal processes of stabilisation of fragile societies must not be neglected, as they often represent the strongest bonding element that hold families, communities and societies together both in the short and long term. Additionally, women's groups across crisis and conflict-affected countries and regions are often the front-line service providers and first humanitarian responders.

This experience has also left us with two decades' worth of lessons learned that should not go unused today. This chapter will therefore first recall some uniquely gendered risks caused by climate change, followed by some implications for militaries.

## Emanating Risks and Threats

The impacts of climate change not only contribute to irregular migration, organised crime, terrorism and human trafficking, but also perpetuate and magnify inequalities between men and women, especially in regions where women rely on climate-sensitive work like agriculture and manual labour to make a living<sup>iii</sup>. For example, climate hazards such as drought lead to increased time and distances for women and girls to secure water, food and firewood, exposing them to higher risks of violence and leaving families vulnerable while they are away. Climate also affects women's employment. Globally, women are heavily involved in pastoralist and agricultural activities, making up about two-thirds of the world's poor livestock keepers<sup>iv</sup>. Such livelihoods are most at risk by climate change. Consequently, by 2050, climate change may push up to 158 million more women and girls into poverty and see 236 million more face food insecurity.

While women's livelihoods are disproportionately affected by climate change, they have little ability to advocate for themselves through formal structures. According to UNDP, even though a third of women's employment worldwide is in the agricultural sector, women represent only 12.6 percent of landowners.<sup>v</sup> This lack of control over resources means that women receive only 10 percent of total aid for agriculture, forestry and fishing. Better access to resources could create more resilient households and communities, reduce vulnerability and the gender pay gap. In addition, involving women in decision-making can help drive the adoption of climate change policies and strengthen mitigation and

adaptation efforts by ensuring they benefit the needs of women.

Climate change is a key driver of migration, as food scarcity, lack of governance and inequality (all of which disproportionately affect women) push people to leave their homes. However, women, children and the elderly are less mobile, are strongly tied to rural areas and their household economy and in some regions may lack a good level of education and access to jobs. This means they may remain stuck in at-risk areas, left to face increasing climate threats on their own. When they do move, women may be endangered by human trafficking and/or sexual exploitation<sup>vi</sup>. In the meantime, as men move into congested and poorly managed urban areas, they face their own unique vulnerabilities. Lacking support structures, contacts and access to good jobs, they can become targets for recruitment by radical groups.

*The impacts of climate change not only contribute to irregular migration, organised crime, terrorism and human trafficking, but also perpetuate and magnify inequalities between men and women.*

## Consequences and Way Ahead for Militaries

A first, an obvious consequence is that climate change will increase the demand for NATO military resources, mainly for Humanitarian Assistance Disaster Relief (HADR) activities, as well as for the provision of general aid, disaster diplomacy and international cooperation. As climate change increases the frequency and magnitude of natural disasters, militaries will need to ensure HADR remains a priority. NATO, with the rapid response capabilities of the Euro-Atlantic Disaster Response Coordination Centre (EADRCC), plays a crucial role in HADR for its member and partner states, from the floods in Slovenia to the earthquake in Türkiye. In this arena, the inclusion of women is not just a matter of equity but a strategic imperative. NATO must continue to encourage the deployment of specialised teams that include women, equipped to respond to climate-induced disasters. Having such teams present is particularly important in societies with high level of gender segregation, where women will be able to reach audiences men cannot. Furthermore, their presence serves as a symbol of NATO's commitment to advancing its WPS agenda and the value of gender equality.

When adopting new approaches to climate resilience that account for the differential burden that women and men face, NATO can learn from missions and operations conducted in the last 30 years. For example, the Provincial Reconstruction Team (PRT), a Civil-Military Cooperation project first established in Iraq in the nineties and later in

Afghanistan, could be a useful model for future adaptation projects in this regard<sup>1</sup>. PRTs were focused on supporting change in a wide variety of areas, such as education, customs, infrastructure, agriculture, police, the judiciary and public health<sup>vii</sup> by providing directly supported assistance projects that addressed local needs and built up societal resilience and capacity<sup>viii</sup>. Although not originally intended to address climate change and gender related issues, the experience of PRTs could provide useful insights on how to address the needs of particularly vulnerable sections of societies, for example women and children, through working directly with local stakeholders. Even though their effectiveness varied on a case by case basis, it is now recognised that the most successful ones were those best attuned to recognising local conceptions of locals’ own needs, and best able to adjust their response to those actual needs.

NATO Mission Iraq (NMI) provides another example of incorporating climate considerations into military missions. In NMI, the Human Security Advisor is responsible also for climate change and provides advice on the climate change adaptation policy. While the primary responsibility for addressing the impact of climate change on vulnerable populations lies with civilian authorities, militaries may be the first to see some of those effects on the ground. A tailored and dedicated approach can ensure climate issues, in relation with gender perspective, are brought to the attention of relevant authorities, coordinated between different ministries, to ensure a whole-of-government response.

In addition to the above advantages, focused strategic communication directed at women on the reduction of the impact of climate change could be a vital aspect in conducting public diplomacy for mission accomplishment. For future NATO or Allies’ involvement in areas of crisis, adequate strategic communication is a must. Successful programmes improving the lives of women and children, as well as reducing the impacts of climate change, can be powerful tools of strategic messaging that improve the popular reception of NATO operations and enable civilians to see how NATO efforts work to secure their societies and to improve living conditions. At the same time, coherent strategic communication in this regard can help in countering disinformation campaigns carried out by malevolent actors.

Conclusions

In conclusion, militaries can integrate lessons from past approaches into future considerations for developing more holistic responses to climate threats. While the primary responsibility for climate change mitigations lies with civilian authorities, as military leaders, we also share this responsibility to champion policies and initiatives that actively promote the integration of the gender perspective into every facet of our climate security strategies. It is on us to continue to support the developing frameworks for integrating gender and climate considerations into strategic planning, operational readiness and crisis response. By leveraging the unique perspectives and capabilities that women bring to the table in addressing climate security, we can better fortify collective resilience against the

1 PRTs were not intended to function as peacekeeping entities, they were relatively small, inter-disciplinary groups formed to assist local authorities, the national government, nongovernmental organizations, and United Nations agencies, in their efforts to rebuild Afghanistan, reform its security sector and disarm, demobilize and reintegrate its armed members.

multi-faceted threat of climate change and position NATO as a proactive force in securing the future. Women possess intimate knowledge of local contexts, adaptive strategies and community-building skills, which are invaluable assets in crafting effective responses to the complex challenges posed by a changing climate.

Some member states have begun to champion their own national policies for their defence sectors in order to adapt to the dangerously warming world in this contemporary security landscape. As we embark on this transformative journey, let us not forget the profound impact our actions today will have on generations to come.

i NATO, “NATO 2022 Strategic Concept,” 2022, 15, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2022/6/pdf/290622-strategic-concept.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2022/6/pdf/290622-strategic-concept.pdf).  
ii Ibid.  
iii “What Does Gender Equality Have to Do With Climate Change?,” UNDP Climate Promise, n.d., <https://climatepromise.undp.org/news-and-stories/what-does-gender-equality-have-do-climate-change>.  
iv “Women and Climate Change in the Sahel | En | OECD,” n.d., <https://www.oecd.org/countries/chad/women-and-climate-change-in-the-sahel-e31c77ad-en.htm>.  
v “What Does Gender Equality Have to Do With Climate Change?,” UNDP Climate Promise, n.d., <https://climatepromise.undp.org/news-and-stories/what-does-gender-equality-have-do-climate-change>.  
vi “Allied Command Transformation Strategic Foresight Analysis 2023” (Allied Command Transformation, 2024), [https://www.act.nato.int/wp-content/uploads/2024/01/SFA2023\\_Final.pdf](https://www.act.nato.int/wp-content/uploads/2024/01/SFA2023_Final.pdf).  
vii John Pike, “Provincial Reconstruction Teams,” n.d., <https://www.globalsecurity.org/military/ops/oef-prt.htm>.  
viii “Provincial Reconstruction Teams,” n.d., <https://2001-2009.state.gov/r/pa/prs/ps/2006/60085.htm>.





# Counter Terrorism and the Gender Perspective

By Major General Ulf Haeussler

## Introduction

Having now served 39 years in the Army, I can state that elaborating the gender perspective is really nothing new. When I joined the Military Police (MP) in 1985, women were only present in the medical service. MPs also have to deal with civilians, so we often wished to have a female MP to better approach the mothers, sisters and daughters of soldiers or engage with female demonstrators in front of the barracks. After the decision that women could also join the MP, I witnessed some negative opinions from the so-called “hard boys” about whether a woman could be part of a Close Protection Team or whether they could keep up in a SWAT Team. This attitude changed rapidly, firstly due to the fact that female MP proved to be on the same fitness and professional level as their male team colleagues and secondly because of the added value and benefits of including women particularly in missions abroad. As Provost Marshal in Afghanistan, I was responsible for the training of the Afghan Police and only because we had female trainers integrated in the teams, we were able to conduct equal training for Afghan Policewomen. As an aside, Afghan policemen also accepted our female MP colleagues. When patrolling through the country, our mixed MP teams approach facilitated engagement with local women and children.

Some years later, I was again in Afghanistan as Chief of Staff for the Train Advice and Assist (TAA) Mission for one of the Afghan Corps. The gender perspective was not an isolated field of TAA. It was a holistic approach as it is for all areas, from organising a staff HQ, to tactical Operations Planning and the conduct of Training, Exercises and Operations.



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Major General Haeussler gained experience from company level as military police officer to MOD level as general staff officer in the German Army including deployments in NATO missions during his time in the Army. In addition, he has held various international assignments with NATO such as Executive Officer to the Chief of Staff, Supreme Headquarters Allied Powers Europe and his current role as Director of the Operations and Planning Division of the NATO International Military Staff.



As Chief of Staff of a State Secretary in the MOD, I witnessed the development of specific Mentoring Programs for future female high-level leadership. To sum it up: the gender perspective and Women, Peace and Security are not “stand alone” topics. It is more about a mind-set that needs to be reflected in all our military activities, and this is why I offered to sponsor a topic that lies within my remit at NATO: the gender perspective in countering terrorism.

### Why is the Gender Perspective Relevant to Counter Terrorism?

It is well understood by NATO Allies that terrorism poses a significant threat to global stability. The NATO 2022 Strategic Concept outlines terrorism as the “most direct asymmetric threat to the security of [its] citizens and to international peace and prosperity”, as this threat extends beyond borders, nationalities, singular ideologies, religion and gender.

Terrorism is an evolving threat that has become increasingly complex. Terrorist attacks have expanded beyond the use of conventional tactics and utilise asymmetric and hybrid tactics. Many terrorist cells utilise these tactics for both recruitment and attacks, increasing their ability to exploit vulnerabilities within our societies. Additionally, terrorism can extend beyond regions with successful cells often having support from other hostile actors, including state actors, in terms of finance and training. These factors have enabled terrorist cells and their insurgents to engage in more sophisticated and deadly attacks and operations.

It is imperative that counter terrorism strategies are continually adapted to the changing security landscape. Doing so requires a clear understanding of what terrorism looks like. This includes improving awareness of the threat and building an understanding of how and why people are radicalised. The gender perspective can help better understand who is susceptible to radicalisation and how terrorist organisations take advantage of different demographics to organise attacks or spread radical ideology. These different aspects of terrorism have a gender perspective that must be analysed and there is a growing recognition that men, women, boys and girls are victimised differently by terrorism and are at different risks to radicalisation. These genders can all play significant roles in a terrorist organisation from supporters to perpetrators of violence.

NATO has continued to develop its counter terrorism efforts to address the changing landscape in which terrorism proliferates. As terrorism factors and trends are examined, some counter terrorism efforts have encapsulated the gender perspective, accounting for different gendered impacts during conflict. The analysis often still only recognises men as perpetrators of terrorism and women as passive victims. However, this follows a misconception that does not acknowledge the full roles and impact terrorism has across genders.

At the same time, we must recognise the need for an inclusive response to terrorism, this includes utilising the transformative impact that women can have in countering terrorism. Their multifaceted roles, from intelligence gathering and community engagement to diplomatic initiatives, are instrumental in addressing the root causes and manifestations of terrorism.

### Radicalisation and Messaging

Gender is critical to understanding the push and pull factors that can make individuals more susceptible to radicalisation. It is also an aspect that may be accounted for when terrorist organisations target messaging for recruitment. Men may be targeted using concepts of traditional masculinity, for example, those which exploit their dissatisfaction in a given society and push them towards radicalised pathways, whereas children may be coerced or encouraged into violent pathways by family members or community leaders. Children may also be more susceptible to internet-based recruitment. The incentives for engaging in terrorism are different for men, women, boys and girls and thus terrorist groups adapt their recruitment and messaging campaigns accordingly. Understanding the gendered factors and tactics used by terrorist organisations for recruitment is crucial to identifying those at risk of radicalisation and preventing terrorism.

### Roles in a Terrorist Organisation

As terrorist organisations radicalise and recruit men, women, boys and girls, it is important that their respective roles in a terrorist organisation are recognised and understood. Counter terrorism strategies tend to focus on men, as more violent terrorists are often male. This ignores the fact that women and children are also recruited, used or coerced into terrorist activity, even beyond support roles. There is a need to recognise that women and children can also be active participants across all areas of terrorism, including the perpetration of violence, in order to develop appropriate counter terrorism strategies to address the different roles individuals are involved and establish appropriate rehabilitation programmes to meet the needs of these different groups.

Terrorist organisations may utilise women and children in roles where they are less likely to be perceived as a threat. For example, women and children can better bypass scrutiny during checks and searches, allowing them to act as messengers, recruiters and perpetrate violence in more crowded areas. At the same time, when women and children are largely ignored in counter terrorism efforts, there is a lack of appropriate support and programmes for their deradicalisation, which also prevents their reintegration into society. In addition, the Paris Principles highlight that children associated with armed forces or armed groups who are accused of crimes under international law ‘should be considered primarily as victims of offences against international law, not only as perpetrators’<sup>ii</sup>. This requires that parties follow appropriate handover and detention protocols for a child-rights based approach. However, this is often not the case for boys, who may have their rights infringed upon and are at higher risks of detention where they may face physical violence, torture, prosecution in military courts and the death penalty<sup>iii</sup>. Ignoring the gender perspective or incorrectly considering women and children as victims only can institute a gap in both counter terrorism policy and facilitating international humanitarian law.

### Countering Terrorism

Finally, as agents of change, women have a significant role in counter terrorism activities within their local communities as well as in analysis, fieldwork and policymaking. An

essential factor in effective counterterrorism is building resilience within communities. Actively engaged women in community outreach and empowerment programmes can disrupt recruitment strategies of extremist groups. In the field, women and men may also have differentiated access to a community and play different roles to establish positive community ties and trust, therefore supporting civil-military cooperation.

**Conclusion**

There is a need for a better and more nuanced understanding of the terrorism landscape that can be developed through the inclusion of a gender perspective. Failing to understand the different ways in which men, women, boys and girls are utilised by terrorist groups will undermine efforts to counter violent extremism and only benefit terrorist groups.

As NATO has also highlighted the need to incorporate the Women, Peace and Security (WPS) Agenda across all its core tasks and promotes the involvement of women in peace negotiations and conflict resolution processes, as part of its values. By including diverse voices in diplomatic endeavours, NATO can develop more comprehensive and sustainable solutions. The WPS agenda is not be confined to rhetoric but needs to be embedded throughout NATO planning and operations, especially with careful considerations to counter terrorism efforts.



# Gender Perspective Opportunities for the Space Domain

By Air Marshal Johnny Stringer

## Introduction

In 2019, Space became NATO's 5th operational domain. Space is increasingly important to the Alliance's and Allies' security and prosperity. While data, products and services (DPS) gathered and delivered in, through and to space are critical for NATO's activities, operations and missions, space is becoming more crowded and competitive across the defence, political and economic sectors. On-orbit and ground assets are becoming increasingly vulnerable to interference from adversaries and even unintentional interference from other space users. These vulnerabilities lead to kinetic and non-kinetic impacts on civilians. Furthermore, space is inherently intertwined with international, commercial and civilian services and assets that utilise the same geographic and operational territory. This situation requires unprecedented cooperation and collaboration to establish symbiotic, responsible space norms rather than traditional separation or commercial deference to defence requirements.

NATO's Overarching Space Policy expressly does not intend to develop organic space capabilities, but rather to rely on national capabilities employed on NATO's behalf. NATO identifies four key roles: integration of space into core NATO tasks; facilitating consultations on behalf of space deterrence and defence; allocation of space support to operations and activities, and; evolving space compatibility and interoperability across the Alliance space ecosystem. NATO's space domain encompasses Space Domain Awareness, Space Weather, Shared Early Warning, Position, Navigation and Timing (PNT) and Satellite Communications (SATCOM). The Alliance is engaged in multi-domain operations and enhancing common understanding of the space environment, including with threats and risks, which must include the gender perspective and consideration of human security.



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Air Marshal Johnny Stringer is a fast jet pilot and senior commander. Since August 2022, he has been Deputy Commander of NATO's Allied Air Command at Ramstein Airbase, and has remained a true champion for the development of the Space Domain within NATO. In previous national roles, he was involved in addressing Women, Peace and Security issues in defence plans and policy.

Civilian populations increasingly rely on space data, products and services directly from defence entities or through commensurate civil and commercial providers. For example, the United States Space Force (USSF) operates the major PNT Global Positioning System (GPS) and Starlink operates the world's largest constellation of satellites for global SATCOM access. As with other technologies, this access provides opportunity for civilians, but increasing dependence creates further vulnerability for poor or marginalised groups that may not have the resources or influence for secure or redundant services. NATO's Women, Peace and Transforming Security report states that as of 2018, fewer than 200 million women around the world owned a mobile phone and

22.6% of women throughout Africa have internet access versus 33.8% of men. In terms of representation in development, only 6% of software developers (key participants in advancing and operating in the Space Domain) are women<sup>ii</sup>. As a forum that promotes developing technology and responsible use norms with global impact, the Space Domain presents a significant opportunity to centre the Women, Peace and Security (WPS) principles of participation, prevention, protection and relief and recover, as well as a challenge to protect these same tenets in conflict. NATO's Overarching Space Strategy specifically focuses on NATO's role to influence responsible use of space.

## Considerations

### Congested & Contested Orbits

Space orbits offer unique satellite payload benefits based on altitude. It follows that satellite vehicles with similar missions tend to occupy similar orbits. As the cost of space access decreases, more nations are establishing themselves as space-faring and more commercial entities are establishing on-orbit presence. Space is busier with each launch, with prime territory, such as geosynchronous orbit, being particularly impacted. In 2022, of the 6,718 active satellites orbiting Earth, 444 were publicly identified as having only a military purpose, while the number of active dual-use (satellites serving both commercial and military or government missions) was 745. These numbers do not consider countries such as China with such heavily subsidised commercial industries that all commercial technology can be assumed to serve dual-use missions. States with smaller space programs can use data and

*Gender analysis drives collection and employment of sex and age disaggregated data to determine the user demographics, level of dependence and potential impacts to loss of space services as well as to how, when and which space assets will be protected.*

capabilities derived from civilian satellites for military and national security purposes or may purchase commercial satellite services. Due to the integrated placement and employment of on-orbit technology and services, nations are apt to protect their assets in space. Gender analysis drives collection and employment of sex and age disaggregated data to determine the user demographics, level of dependence and potential impacts to loss of space services as well as to how, when and which space assets will be protected.

### Responsible Space Norms

The Outer Space Treaty and four subsequent supporting agreements serve as the primary basis for legal order in the domain; other international treaties that govern activities in outer space apply to military actors but are non-binding and/or very difficult to enforce<sup>iii</sup>. Currently, there are no laws or rules specific to the operation of military satellites. Space operations, to include launch and satellite vehicle operations, Space Domain Awareness, weather and missile warning are tacitly benign under the assumption that space remains un-weaponized. However, states and commercial entities are anxious to protect these expensive assets and services from interference or damage. In 2018, the United Nations charged a Group of Government Experts (GGE) to advise on a binding international framework to counteract a space arms race. Dr. Johnson-Freese and Ms. Dharmapuri note that of the 22 experts in the GGE's first engagement, only two women participated, one each from Japan and France<sup>iv</sup>. If the global intent is to prevent conflict in space, WPS research presents women's participation as a key factor in negotiating any sustainable and binding global framework. Conflict in space has the potential to inflict unprecedented impact throughout the national instruments of power, but WPS offers NATO proven tools for women's participation and gender perspective to centre responsible, sustainable and cooperative space norms that would directly counter malign efforts to gain geopolitical influence in the space domain evolution.

Congestion and lack of precedent or enforcement mechanisms further increases the possibility that conflict could escalate in the space domain or perhaps against traditional defence or civil targets. The dual-use nature of satellite systems, including the heavy civilian use of some critical military systems such as GPS and other Global Navigation Satellite Systems (GNSS), also raises concerns about the protection of critical civilian services in the event of conflict. Furthermore, in the event of intentional or accidental debris creation in space, attribution and subsequent responsibility for any disruption or damage remains challenging. Evaluation of the impact of debris-related events must consider the full spectrum of users, to include a gender analysis of those affected. In particular, recognising the role of women and girls' access to education and independent participation in the economy leads to greater political and economic stability, and that said access might greatly enhance or even be fully reliant upon space services<sup>v</sup>. The civilian employment of space services including commercial and civil entities must be analysed through a gender lens to inform the responsible norms that NATO and Allies are establishing in space, as well as the precedent set in response to interference with space assets or services.

### Kinetic Attacks

Kinetic physical attacks in outer space portend catastrophic, destructive effects on the satellites and orbital environment with nearly infinite active threat horizons. Resultant space debris can damage satellites operated by entities not directly involved in conflicts.



In 2007, China demonstrated ASAT capability and created as many as 300,000 pieces of debris<sup>vi</sup>. In 2021, NATO Allies condemned Russia's reckless and irresponsible ASAT test due to the significant increased risk that orbital debris poses to on-orbit human life and space-based assets<sup>vii</sup>. The largest problem of space debris is uncertainty of risk and time horizon. Once a satellite is launched, current technology offers minimal capacity to physically repair or update the asset. While risk of human casualties on-orbit due to the debris is currently small, human space flight faces an increasingly hazardous environment and many close calls for potential catastrophes have been avoided due to luck rather than engineering efforts. Based on a 2020 report, the cumulative risk from debris or a rocket body re-entry is significantly higher in the states of the global South. The latitudes of Jakarta, Dhaka, Mexico City, Bogotá and Lagos are at least three times as likely as those of Washington, DC, New York, Beijing and Moscow to have a rocket body re-enter over them<sup>viii</sup>. The disproportionate risk from rocket bodies is further exacerbated by poverty, with buildings in the global South typically providing a lower degree of protection. According to NASA, approximately 80% of the world's population lives 'unprotected or in lightly sheltered structures providing limited protection against falling debris'<sup>ix</sup>. Gender perspective indicates that inequalities are already particularly extreme in developing countries and would further inform ASAT testing or weapons employment and response on civilians, both inside and outside NATO AORs. Gender analysis must also be considered in any evaluation of indirect impact of kinetic attack or debris events that interfere with space services for civilians.

#### **Non-Kinetic Attacks**

Non-kinetic attacks on assets in the space domain, including ground systems or personnel, pose widespread threats to civilian populations through various hybrid warfare tactics that are challenging to detect, attribute and prevent. These attacks take advantage of space systems' electronic and digital vulnerabilities, which can have severe impacts on the scale and effects of NATO missions, activities and operations. For example, in 2018 Russia was accused of jamming GPS signals before and during NATO's Trident Juncture, the Alliance's largest exercise since the Cold War<sup>x</sup>. Outside of an exercise, such interference could have led to the misdirection of troops, military ships and aircraft. On 24 February 2022, cyber operators executed a hybrid warfare attack and gained remote access to a segment of the KA-SAT network, impacting tens of thousands of active modems within Ukraine and across Europe, just hours before Russia invaded Ukraine<sup>xi</sup>. Unlike kinetic attacks, these attacks are harder to detect and attribute to an actor. Another non-kinetic attack on low-orbit satellites, known as "spoofing", involves enemy substitution of false situational awareness information into military command and control systems<sup>xii</sup>. Spoofing can stymie the ability to detect which assets are friend or foe and consequently impacts upon targeting, multi-domain coordination, situational awareness and personnel rescue capabilities. Moreover, spoofing can interfere with civil emergency systems to generate a false emergency alert and drive chaos in the population. For instance, if a spoofed attack on Critical National Infrastructure (CNI) occurred, this could possibly trigger an activation of the Regional Plans while overloading a nearby national logistics systems, such as an airport, making it impossible to evacuate. The mass movement of civilians, especially of women and children, can make them a target to a follow-on kinetic attack. Russian hacker groups attacked Georgia in 2008, which contributed to a hybrid warfare campaign against the websites and servers of governmental agencies, state bodies, courts, NGOs and other entities causing civil and public communication in Georgia to be severely disrupted. The attack significantly

restricted the government's ability to react and to communicate with other foreign governments for support. Furthermore, some Allied Nations have a heavy reliance on Supervisory Control and Data Acquisitions (SCADA) systems that can rely on satellite data communications. These systems can be used for civilian infrastructure, such as hospitals, and are vulnerable to cyberattacks. A gender analysis on the civilian infrastructure employment of satellite systems, and on the demographic supported by these institutions will provide NATO better situational awareness by analysing the risks and implications for men, women, boys and girls. Non-kinetic attacks on space systems can have far-reaching impacts on civilians and require gender perspective to appropriately evaluate potential or existing damage, preparation of a response and resilient civilian infrastructure.

*Non-kinetic attacks on space systems can have far-reaching impacts on civilians and require gender perspective to appropriately evaluate potential or existing damage, preparation of a response and resilient civilian infrastructure.*

#### **Recommendations**

In order to achieve the intent of NATO's Overarching Space Policy, NATO must integrate gender perspective and women's participation throughout the political and defence architecture of policy, plans, execution, communication and recovery. The rise of civil, commercial and military space corresponds with civilian and international dependence on space services and the commensurate threat to civilian populations through loss of access. All national instruments of power depend on space in various services from ISR for climate change or adversary observation to SATCOM for secure communication or access during disasters, as well as weather, science and exploration. The civilian population further relies on space for daily activities from financial transactions, mobile service or remote agriculture engagement enabled by PNT, to internet access via SATCOM. These effects and services or the loss thereof all entail varying impacts on women, men, girls and boys based on their respective status and access to resources across cultures and states. For example, loss of access to remote education resources provided through satellite internet may disproportionately impact girls and women who are not prioritised for school resources. Representative authorities must proactively employ use of gender perspective in order to build resilient structures in support of NATO strategy and operations.

NATO's Space Strategy clearly identifies intent to participate in establishing responsible space use norms. Engagement with these norms should include gender perspective in order to consider civilian space use, access and resilience across the spectrum of conflict. NATO must demonstrate gender values through representative participation of women

and invest diplomatically and financially in commercial and international space collaboration. As congestion and competition increases, the actors with critical mass will hold significant advantage in the space ecosystem. This advantage may quickly become permanent regardless of legal precedent due to the uniquely permanent and inaccessible physical space environment. Not only will Allies' and Partners' space programs benefit from orderly, safe launch, operation and disposal of space assets, but space security will be considered critical infrastructure protected by commensurate defence, policy and investment. As leaders and participants throughout military and civilian space infrastructure and employment, women must participate in establishing space ecosystem norms. Civilian dependence on space, including vulnerable populations, as well as human security concerns will benefit from intentional integration of NATO space architecture with responsible space stakeholders.

Women, men, girls and boys engage differently with space assets and services based on cultural roles, community networks, and access to resources. NATO must employ gender analysis to evaluate access, use of space services by demographic and prepare accordingly. Of course, such analysis is only possible with adequate sex and age disaggregated data. As dependence of space increases across institutions, the range of possibilities at the disposal of threat actors increases accordingly. Assets and services that operate to, through and in space increase the Alliance's ability to successfully conduct missions, activities and operations. However, threats to these systems should be investigated beyond a protection of the civilian framework and must include a deeper gender analysis of the impacts for men, women, boys and girls. Finally, NATO can influence women's participation in defence and resilience leadership with intentional gender policy, greater women's participation and representation of NATO gender values in all operations, activities and events.

i NATO, "NATO's Overarching Space Policy," NATO, January 17, 2022, [https://www.nato.int/cps/en/natohq/official\\_texts\\_190862.htm](https://www.nato.int/cps/en/natohq/official_texts_190862.htm).

ii Office of the NATO Secretary General's Special Representative for Women, Peace and Security, "Women, Peace and Transforming Security: Visions of the Future of Women, Peace and Security for NATO," October 31, 2020, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2020/10/pdf/201110-wps-essay-transforming-security-e.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2020/10/pdf/201110-wps-essay-transforming-security-e.pdf).

iii Space Security Index, "SSI Issue Guide: Military Uses ff Space," November 2020, [https://spacesecurityindex.org/wp-content/uploads/2020/11/IssueGuide\\_Military-Uses.pdf](https://spacesecurityindex.org/wp-content/uploads/2020/11/IssueGuide_Military-Uses.pdf); Rajeswari Pillai Rajagopalan, "The Outer Space Treaty: Overcoming Space Security Governance Challenges," Council on Foreign Relations: International Institutions and Global Governance Program, February 23, 2021, <https://www.cfr.org/report/outer-space-treaty>.

iv Joan Johnson-Freese and Sahana Dharmapuri, "Op-ed | Expanding Space Security Options Through Gender Perspectives," SpaceNews, January 23, 2023, <https://spacenews.com/op-ed-expanding-space-security-options-through-gender-perspectives/>.

v Elise Stephenson and Cassandra Steer, "Old Inequalities, New Space? Women, Peace and Space Security," The Strategist, December 13, 2022, <https://www.aspistrategist.org.au/old-inequalities-new-space-women-peace-and-space-security/>.

vi Marc Kaufman and Dafna Linzer, "China Criticized for Anti-Satellite Missile Test: Destruction of an Aging Satellite Illustrates Vulnerability of U.S. Space Assets," Washington Post, January 18, 2007, <https://www.washingtonpost.com/archive/politics/2007/01/19/china-criticized-for-anti-satellite-missile-test-span-classbankheaddestruction-of-an-aging-satellite-illustrates-vulnerability-of-us-space-assetsspan/ae3462c4-c2d9-422b-bc17-dc040458fe64/>.

vii NATO, "Statement by the North Atlantic Council on the Recent Anti-satellite Missile Test Conducted by the Russian Federation," NATO, November 19, 2021, [https://www.nato.int/cps/en/natohq/news\\_188780.htm](https://www.nato.int/cps/en/natohq/news_188780.htm).

viii Michael Byers et al., "Unnecessary Risks Created by Uncontrolled Rocket Reentries," Nature Astronomy 6 (July 11, 2022): 1093–97, <https://arxiv.org/ftp/arxiv/papers/2210/2210.02188.pdf#:~:text=When%20an%20abandoned%20rocket%20body,reentries%20have%20illustrated%20this%20concern>.

ix NASA, "Process for Limiting Orbital Debris," NASA Technical Standard, NASA TECHNICAL STANDARD, 2019, <https://standards.nasa.gov/sites/default/files/standards/NASA/C/0/nasa-std-871914c.pdf>.

x Ryan Browne, "Russia jammed GPS during major NATO military exercise with US troops," CNN, November 14, 2018, <https://edition.cnn.com/2018/11/14/politics/russia-nato-jamming>.

xi "KA-SAT Network cyber attack overview," Viasat, March 30, 2022, <https://news.viasat.com/blog/corporate/ka-sat-network-cyber-attack-overview>.

xii Eva Grey, "Satellites and Spoofing – How Hackers Falsify Situational Awareness," Army Technology, November 17, 2013, <https://www.army-technology.com/features/feature-satellites-spoofing-hackers-falsify-situational-awareness/>.



# Gender in an Age of Disinformation

By Major General Luc Vanbockryck

## Introduction

Hybrid tactics are used to disrupt and undermine societal structures, particularly in democratic countries, with far-reaching consequences for local, regional and national security. Disinformation is a key hybrid tactic, defined as “the deliberate creation and dissemination of false and/or manipulated information with the intent to deceive and/or mislead. Disinformation seeks to deepen divisions within and between Allied nations and to undermine people’s confidence in elected governments<sup>i</sup>.” Narratives target civilian vulnerabilities and exploit societal fault lines, undermining individual security and democratic values. Gendered disinformation refers to “information activities... which attack or undermine people on the basis of their gender [and] weaponise gendered narratives to promote political, social or economic objectives<sup>ii</sup>.” Integrating the Gender Perspective into the field of disinformation can help to broaden our understanding of security needs, ultimately improving operational effectiveness and overall security.

NATO’s approach to countering disinformation is based on a twin-track model of ‘Understanding’ and ‘Engaging’<sup>iii</sup>. The ‘Understanding’ element includes Information Environment Assessments conducted on a regular basis to monitor and analyse information relevant to NATO’s mission. The ‘Engage’ component promotes public engagement and transparent strategic communications in order to “pre-bunk” potential disinformation and anticipate hostile narratives. It is critical that NATO, its Allies, Partners, and international organisations deepen their understanding



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of the information environment. This is required to respond credibly and strengthen societal resilience. Given that gendered discourse is prevalent in the information environment, NATO can improve its ability to counter these narratives by systematically integrating the Gender Perspective into its twin-track model.

Effects of Gendered Disinformation

Gendered disinformation generates a number of micro and macro-level threats. At the individual level, narratives marginalise female voices in political and public spaces when their participation threatens entrenched illiberal elites and male-dominated political networks<sup>iv</sup>. For example, smear campaigns have targeted Belarusian opposition leader Svetlana Tikhanovskaya and Ukrainian Member of Parliament Svitlana Yalishschuk<sup>v</sup>. Misogynistic stereotypes about women being weak, unintelligent and untrustworthy are weaponised to discourage their participation and access to politics and the public sphere. This serves to advance the interests of adversarial elites by silencing opposition voices and facilitating deeper consolidation of power.

These attacks can lead to physical harm, highlighting the critical connection between the virtual and physical domains. The deliberate targeting of those in positions of leadership has implications for women serving in the Armed Forces, as safety concerns may discourage them from joining or seeking promotion. Furthermore, since women’s participation and the complementary skills of both male and female personnel are critical for operational effectiveness, this has a negative impact on NATO’s policies, programmes and military operations.

At the group level, gendered disinformation exploits societal fault lines to cultivate false mind-sets, polarise public debates and instil fear. Extremist organisations across Europe rally people around a discourse that characterises gender equality as “anti-family” and “anti-life”<sup>vi</sup>. Narratives targeting norms and values undermine social cohesion, which is defined as the “sense of shared purpose, trust and willingness to cooperate” between members of a given group and members of different groups<sup>vii</sup>. These narratives exacerbate conservative and anti-democratic sentiment and undermine trust between proponents and opponents of these views. Since a nation’s ability to respond to crises requires the ability to act collectively, this can have a significant impact on societal and military resilience. During wartime, cohesive social bonds between military personnel and among civilians are especially important for maintaining morale as well as the relative continuity of state functions and community assistance.

*Gendered disinformation exploits societal fault lines to cultivate false mind-sets, polarise public debates and instil fear.*

At the state and inter-state level, adversaries use gendered disinformation to undermine democratic values and authority. Russian and pro-Russian social media platforms and information sources portray “Western values” as threatening their own “traditional” gender norms and regimes. In Ukraine, Russian gendered disinformation appeals to conservative values and opinions about family life and sexuality in an attempt to persuade Ukrainians of Western danger and “sexual deviance”. When state actors exploit gender to undermine democratic values, it risks causing divergent national approaches and thus friction among Allied nations. This waning trust in Alliance unity undermines the core task of collective defence and poses a significant threat to security and stability.

Countering Gendered Disinformation

NATO’s twin-track model for countering disinformation could be strengthened by integrating the Gender Perspective. To improve understanding of gendered disinformation and threats, the Alliance should leverage local expertise. Gendered disinformation can be challenging to detect due to its subtle nature and use of coded language. Recruiting local experts who understand cultural norms and the nuances of specific languages will help NATO identify disinformation. The constantly evolving and pervasive nature of disinformation necessitates early detection, as well as ongoing monitoring and analysis, to better understand the threats. Integrating the Gender Perspective into the monitoring and analysis of disinformation trends will enable response teams to quickly identify and debunk a wider range of disinformation, ensuring a timely and accurate counter-narrative. Similarly, early warning systems that allow for the rapid identification of gendered disinformation campaigns can help to mitigate risks. Finally, countering disinformation requires a coordinated approach and collaboration among Allied nations, as well as with civil society and private technology companies. This will help develop more rigorous tools and methods for understanding, detecting and combating gender-based disinformation.

To increase public engagement with gendered disinformation and strengthen societal resilience, Allies should improve digital literacy. Education and training programmes that incorporate critical thinking and specifically address gendered aspects of disinformation can assist society and the Armed Forces in identifying threats. Furthermore, the credibility of gendered disinformation campaigns often hinges on anonymity. Transparent strategic communications that engage with the public should reveal the sources of these campaigns in order to undermine their credibility, expose hypocrisies and hold them accountable. In addition to taking reactive measures, strategic communications can pre-bunk gendered disinformation narratives by reaffirming the importance of gender equality to the Alliance. Strategic communications can counter certain narratives and educate the public ahead of time by emphasising the importance of shared values among Allied countries.

Conclusions

Gendered disinformation poses significant threats at multiple levels, from individual security to national and international stability. At the individual level, it marginalises female voices in political and public spheres, hampering democratic processes and jeopardising the safety and well-being of female leaders. Moreover, by fostering fear and polarisation

at the group level, gendered disinformation erodes social cohesion, exacerbates societal divisions, and undermines trust in democratic institutions. The effects of gendered disinformation extend beyond domestic politics, with adversaries exploiting gender narratives to undermine democratic values and sow discord among Allied nations. By framing “Western values” as antithetical to traditional gender norms, hostile actors seek to erode trust and unity within the Alliance, thereby weakening collective defence efforts and endangering regional stability.

The integration of the Gender Perspective into NATO’s approach to countering disinformation is crucial for addressing the multifaceted threats posed by gendered disinformation. By leveraging local expertise, enhancing digital literacy and promoting transparent strategic communications, NATO can strengthen its understanding of gendered narratives, pre-emptively debunk disinformation, and bolster societal resilience. Collaborative efforts among Allied nations, civil society and technology companies are essential for developing effective tools and methods to combat gender-based disinformation. By prioritising the Gender Perspective within its twin-track model, NATO can mitigate the destabilising effects of gendered disinformation and safeguard democratic values and security.

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i NATO, “NATO’s Approach to Countering Disinformation,” n.d., <https://www.nato.int/cps/en/natohq/177273.htm>.

ii Alex Krasodonski-Jones et al., “Engendering Hate: The Contours of State-aligned Gendered Disinformation Online,” National Democratic Institute, October 2020, <https://demos.co.uk/wp-content/uploads/2023/02/Engendering-Hate-Oct.pdf>, 7.

iii NATO, “NATO’s Approach to Countering Disinformation,” n.d., <https://www.nato.int/cps/en/natohq/177273.htm>.

iv “Gender-Based Disinformation: Advancing Our Understanding and Response - EU DisinfoLab,” EU DisinfoLab, n.d., <https://www.disinfo.eu/publications/gender-based-disinformation-advancing-our-understanding-and-response/>.

v Kristina Wilfore and Lucina Di Meco, “Gendered Disinformation Is a National Security Problem,” Brookings, March 8, 2021, <https://www.brookings.edu/articles/gendered-disinformation-is-a-national-security-problem/>.

vi HM Government, “How to Guide on Gender and Strategic Communication in Conflict and Stabilisation Contexts - January 2020,” GOV.UK, February 25, 2020, <https://www.gov.uk/government/publications/how-to-guide-on-gender-and-strategic-communication-in-conflict-and-stabilisation-contexts-january-2020#Quick%20Read-Gender%20and%20countering%20disinformation>.

vii “Social Cohesion and Resilience,” World Bank, n.d., <https://www.worldbank.org/en/topic/social-cohesion-and-resilience>.



# Gender and Intelligence Analysis

By Major General Paul Lynch

*“We know that when we bring different perspectives to the debate, we simply make better decisions.”<sup>1</sup>*

## Introduction

For the past seventy-five years, NATO has ensured the freedom and security of Allies. The success of the Alliance is the result of the service and sacrifice of the women and men of our armed services. The current geostrategic environment is contested by both state and non-state actors, which present many challenges for the Alliance and the rules based international order.

To ensure the Alliance can develop effective policies to protect the safety and security of the Euro-Atlantic area, intelligence is critical as it forms the basis of decision-making and planning. Accordingly, the intelligence profession aims to help leaders make better-informed decisions by providing insight (i.e., context, trends and, perspectives) and foresight (e.g., potential consequences of a particular course of action). Fundamentally, intelligence analysis must grapple with uncertainty, often due to deception, incomplete information, or the inherent unpredictability of what is yet to come.

I presently work within the Joint Intelligence and Security Division in NATO headquarters. Within our Intelligence Production Unit, brilliantly led by a German woman, we strive to ensure we have a diverse set of perspectives, including a gender perspective, to ensure policy- and decision-makers have more holistic assessments. A key way of developing this is by seeking to employ a diverse workforce and empower leaders to ensure assessments are free from gender and cultural biases. This helps avoid a situation where analysts only



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view something based on their own experiences and background to work out what is happening and what might happen. To avoid incomplete or incorrect assessments, intelligence analysts must always be aware of their individual cognitive biases, which can manifest itself in many ways, including gender.

Considering gender within intelligence is especially necessary to answer certain questions and fill gaps in information. For many who deployed on contingency operations in the post-9/11 era, a good deal of our intelligence effort focused on understanding and addressing questions about the so-called ‘human terrain’. This in many ways was considered more important than geography or physical terrain. Many rural or austere places had unstudied gender dynamics that we sought to better understand to help us help the local population. At the same time, insurgent groups used the same information to drive wedges between the Alliance and local populations and to carry out attacks. Understanding patterns of life related to societal gender differences is critical for effective and safe targeting.

At times, a more detailed understanding of local gender dynamics was critical to understanding social and economic dynamics that were driving instability. Without this, we would not have been able to help the local populations. Understanding these cultural sensitivities, and through the effective use of female interpreters and analysts, for example, unlocked an otherwise ignored segment of the population, which proved to be an invaluable source of information. Often, an effective way to collect valuable information on local situations was to speak with women in the area. To accomplish this, female NATO personnel engaged with them to collect valuable intelligence for analysis. They were force multipliers and to be most effective, we had to rely on their unique skills and experiences.

***“Diversity should... be pursued not just on legal or ethical grounds – which are important in themselves – but because it will result in a better response to the range of threats that we face to our ... security”.<sup>ii</sup>***

Intelligence and security are typically perceived as male domains and it is important to include and empower women to counter any perception of unhealthy bias. A workforce comprised of physical and cognitive diversity can mitigate our natural biases, provide unique and alternative perspectives, and further reduce uncertainty. It should also ensure that we bring a wider range of talent, skills, and approaches to our important work. Ensuring broader point of view in analytical teams allows us to approach intelligence questions differently and deliver more in-depth and valuable assessments.

***Intelligence communities can gain a better understanding of risks and opportunities by working out how conflict affects people differently.***

This means that potential cultural and behavioural issues that can prevent progress must be addressed. Within my Division, we focus on reinforcing the NATO Code of Conduct, which is based on five core values of integrity, loyalty, accountability, impartiality, and professionalism. These are the values that define us and provide a common mission and purpose. Abraham Lincoln once wrote: “Character is like a tree and reputation its shadow”. This is a quote that I have taken to heart in every job that I have done since being a troop commander. Our collective character matters more to me than our reputation. A great reputation follows great character.

I am passionate about the NATO Code of Conduct as I believe that in five small words, it provides the roots from which a powerful common culture that unites individuals from different nations may grow, both military and civilian. It promotes and enhances a workplace that values diversity, equality, fair treatment, trust, and respect for others. This helps us to become stronger than the sum of our parts. Most of us spend more time at work than we do with our families. So, wherever we work must be an inclusive and respectful place that allows us to be at our best while making our meaningful contribution to the Alliance.

In sum, when navigating the complex landscape of security, incorporating the gender perspective emerges as an indispensable tool for intelligence analysis. Intelligence communities can gain a better understanding of risks and opportunities by working out how conflict affects people differently. Embracing diversity in analytical approaches and team composition enables intelligence operators to tackle complex intelligence problems more effectively. Addressing gender perspectives and gender as a variable in analysis are essential to accurately assess complicated problems and strengthen our defences against domestic and international threats.

i “Remarks by NATO Secretary General Jens Stoltenberg at the Women Political Leaders Summit,” NATO, June 23, 2021, [https://www.nato.int/cps/en/natohq/opinions\\_185443.htm](https://www.nato.int/cps/en/natohq/opinions_185443.htm).

ii Intelligence and Security Committee of Parliament, “Women in the UK Intelligence Community,” report, House of Commons, March 5, 2015, [https://isc.independent.gov.uk/wp-content/uploads/2021/01/20150305\\_ISC\\_Report\\_Women\\_in\\_the\\_UKIC.pdf](https://isc.independent.gov.uk/wp-content/uploads/2021/01/20150305_ISC_Report_Women_in_the_UKIC.pdf), p 2.

Respond



# Fighting the Paradox of Adaptability: The Integration of More Women in SOF

An Opportunity to Enhance the Most Advanced Military Capabilities.

By Col (Retd) Stéphane Bellamy

## A Changing Strategic Context

Given the changing operational environment and nature of threats, it is increasingly important to consider human-centric conflict<sup>i</sup> and enemy diversity. This requires more women gaining access to specific parts of enemy or adversary populations that men cannot. The outcome and intention is not to achieve a “perfect” ratio (i.e., 50-50) for gender equality, as it makes no sense in practice from an operational perspective. However, the goal is to ultimately contribute to women’s empowerment and better gender equality. This changing environment will also inform the definition as well as specific skills and profiles required from a SOF Operator in the near future (2030-2035)<sup>ii</sup> based on SOF’s three core missions as defined in NATO doctrine publications: Direct Actions (DA), Strategic Reconnaissance (SR) and Military Assistance (MA).

History often forgets that women have played a significant role in Special Forces Operations. They were a vital part of the first SOF precisely because they were women and could thus perform specific roles within the SOF. Secondly, based on an overview of both NATO and non-NATO countries, integrating more women into the Special Forces is critical in order to meet the new operational challenges. Changes in social norms, mindset, equipment and structures make this integration much more possible, desirable and even necessary than in the past. Despite numerous challenges, a real integration policy can be designed, adapted and implemented in countries that will need to increase the gender diversity of their Special Forces to meet the new challenges of contemporary conflicts.



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## Fear, Change and Opportunities

The question of women in the armed forces is a vast and complex one and has been studied for several decades<sup>iii</sup>. However, practices have evolved considerably since the end of the Second World War. At a time when many professions hitherto reserved for men have opened their doors to women, and when most military functions and roles over the world are open to women, the employment of women as soldiers and particularly as “Special” soldiers remains a sensitive issue. Naysayers see the integration of women into the Special Forces as further disrupting the last bastion of absolute masculinity. However, the contribution of women to SOF mission effectiveness with Female Engagement Teams (FET) and Cultural Support Teams (CST) has already proven its worth in Afghanistan and Iraq. Indeed, FETs were not a new concept within the U.S. Armed Forces. In early 2000, the Marine Corps established an all-female unit known as the Lioness in Iraq to search for Iraqi women, as men were not permitted to interact with Iraqi women due to religious or cultural norms. In Afghanistan, Admiral Kilcullen established the baseline for women’s participation in Counter-Insurgency Operations (COIN) in 2006: ‘Co-opting neutral or friendly women, through targeted social and economic programs, builds networks of enlightened self-interest that eventually undermine the insurgents. You need your own female counterinsurgents, including interagency people, to do this effectively. Win the women, and you own the family unit. Own the family, and you take a big step forward in mobilising the population’<sup>iv</sup>. FETs were better received by Afghan men who felt safer engaging with American women than American men because the former were understood as helpers and the latter as fighters and thus more dangerous. American Women were seen as a third gender, ‘a group who does not fall under the same assumptions or restrictions of either Afghan women or American men.’<sup>v</sup>

Is it the fear of change, the inexorable fading of a social model based on male dominance and traditional masculinities, or are there genuine operational barriers that prevent, or at least seriously impede, the integration or more women into the Special Forces?

Since 2000, NATO has made significant progress in addressing the question of gender and promoting gender mainstreaming through its commitment to and implementation of the United Nations Security Council Resolution (UNSCR) 1325<sup>vi</sup>. Today, as a result of NATO’s influence over its members, there are dedicated structures that address gender diversity and challenges in nearly all countries, particularly military units, from “reporting” processes<sup>vii</sup> to the highest levels of the Ministry of the Armed Forces. Nevertheless, challenges remain. Inappropriate behaviours have not disappeared, and disparities and inequalities persist. Unfortunately, as a recent military report demonstrated<sup>viii</sup> the level of sexual harassment and violence against women remains very high. The subject of gender equality, peripheral to other defence issues, is no less important and deserves attention. Moreover, it is a national responsibility to develop such policies to comply with the United Nations Resolutions agreed by most Nations.

On the other hand, a lack of attention results in a lack of policy and guidance at the appropriate level, frequently leaving subordinate levels alone in the face of their concerns or even their problems and ways of dealing with them. Finally, polite ignorance prevents us from “optimising” the resources at our disposal, as well as responding and adapting to the challenges that arise in the context of evolving threats and conflicts.

As a paradox, the Special Forces, who have built their reputation on their ability to respond to challenges, adapt to threats and be flexible in their organisation, have made little progress in this area, despite some successful attempts. This deficit is particularly noticeable in the “Great Western nations” that have world-class Special Forces. The change comes from elsewhere: Norway, Belgium, Spain, Denmark, and others. These countries have understood the need to integrate more diversity, including women, into the profiles and workforce they need to carry out their missions in more complex conflict forms. Norway with the “Jeggetropen” (a unique only-women SOF unit) are the spearhead regarding women’s integration into SOF. Belgium also developed a Deep Development Capability, a mixed unit dedicated to the battlefield information shaping. Spain has an interesting equality policy within its society, which will eventually percolate into the military community, including Spanish SOF. Denmark is also considering integrating more women into its SOF.

## Way Ahead

Interestingly, the global fight against terrorism has highlighted, sometimes tragically, women’s roles and their valuable and complementary contributions to the struggle. The Female Engagement Team’s (FET) “proven concept”<sup>ix</sup> is no longer challenged. Women have demonstrated their added value in Afghanistan, Iraq, Syria and many other still-secret places by providing unique skills or gaining access to hidden parts of the operational environment (e.g., Afghan or Iraqi female structures). However, they are regarded as ‘enablers’ rather than ‘real’ Special Forces operators. They provided what could be considered female-only attributes. As a paradox, many male Special Forces operators acknowledge that integrating women into Special Forces structures has a real benefit in terms of mission performance (the achievement of tasks) team behaviour. Again, however, there is no policy dedicated to integrating greater diversity into NATO, except on the civilian side<sup>x</sup>. However, NATO Armed Forces, including Special Forces, not only have a place for women, but also require them because they are women.

*Is it the fear of change, the inexorable fading of a social model based on male dominance and traditional masculinities, or are there genuine operational barriers that prevent, or at least seriously impede, the integration or more women into the Special Forces?*

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i "USSOCOM Concept - Operating in the Human Domain (OHD)," APAN Community, n.d., <https://community.apan.org/wg/tradoc-g2/mad-scientist/b/weblog/posts/ussocom-concept-operating-in-the-human-domain-ohd>.

ii Several SOCOM have issued their vision for 2030-2035 as USSOCOM or the French SOCOM.

iii See Office of the Secretary General Human Security Unit, "Introductory Resource Guide Women, Peace and Human Security," 2019, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/pdf\\_2019\\_07/20190710\\_1907-wps-resource-guide.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2019_07/20190710_1907-wps-resource-guide.pdf) in which hundreds of different documents and studies about women in the military are presented.

iv Kilcullen in Rose Lopez Keravuori, "The Instrumentalization of Femininity in U.S. Military Conflict Resolution in Afghanistan" (MA Thesis, St Cross College, 2014), [https://www.academia.edu/9389249/The\\_Instrumentalization\\_of\\_Femininity\\_in\\_U\\_S\\_Military\\_Conflict\\_Resolution\\_in\\_Afghanistan](https://www.academia.edu/9389249/The_Instrumentalization_of_Femininity_in_U_S_Military_Conflict_Resolution_in_Afghanistan).

v Ibid.; Brigitte Rohwerder, "Lessons from Female Engagement Teams," GSDRC Helpdesk Research Report, January 14, 2015, <https://assets.publishing.service.gov.uk/media/57a08967ed915d622c0001db/hdq1186.pdf>; Jessica Glicker Turnley, Retaining a Precarious Value as Special Operations Go Mainstream, 2019, <https://apps.dtic.mil/sti/pdfs/ADA495335.pdf>.

vi NATO is committed to the implementation of UNSCR 1325 on Women, Peace and Security and Related Resolutions 1820(2008), 1888(2008), 1889(2009), 1960(2010), 2106(2013), 2122(2013), 2242 (2015), 2272 (2016), 2467 (2017), 2493 (2018).

vii In France, the Themis cell was created in 2014 in order to fight any form of sexual violence and discrimination within the French Ministry of Armed Forces. Any Defence civilian or military employee belonging to the Defence Ministry, including units and entities, may seize it in total confidentiality.

viii Dave Philipps, "'This Is Unacceptable.' Military Reports a Surge of Sexual Assaults in the Ranks," The New York Times, May 2, 2019, <https://www.nytimes.com/2019/05/02/us/military-sexual-assault.html>.

ix Based on the U.S.' population-focused strategy in Afghanistan, specialized teams tasked with engaging local communities were set-up. One of them is the FET, developed from a Marines Corps initiative in 2009 to achieve Afghan females' access. More specifically, this part of the population was an untouchable segment due to cultural issues.

x While contributing directly to the mission, enablers are in a supporting role (e.g. Intelligence analysis of the target). Operators are defined as those who are in contact on the ground.

xi "Improving Diversity in NATO," 2013-2014 NEDP Project (European School of Management, 2013).





# Resilience in NATO – What is it and what has Gender got to do with it?

By Brigadier General Mark Comer

## Introduction

Resilience is one of those terms that means different things to different people. For NATO, it was a key consideration at the formation of the Alliance, undoubtedly drawing on experience from the Second World War. Article 3 of the North Atlantic Treaty requires Allies to ‘maintain and develop their individual and collective capacity to resist armed attack’. Having receded somewhat at the end of the Cold War, this requirement is in much sharper focus since February 2022. The challenges faced by Ukraine and its people since the illegal Russian invasion have been profound and validate NATO’s efforts in this important function.

Resilience is currently defined by NATO as the ‘individual and collective capacity to prepare for, resist, respond to, and quickly recover from shocks and disruptions, and to ensure the continuity of the Alliance’s activities.’ This approach extends not only to the armed forces within NATO, but most fundamentally, to the civil societies that make up the Alliance. Their preparedness is a vital part of the Alliance’s resilience.



**Brigadier General Mark Comer**

Brigadier Comer is a British Army officer with over 30 years’ experience currently serving in the NATO International Military Staff as the Deputy Director of Logistics and Resources Division, whose responsibilities include Resilience.

## Resilience Through Civil Preparedness

NATO has three core functions of civil preparedness shown in the ‘inner wheel’ of the Figure1 below: continuity of government, essential services to the population, and civil support to the military. At the 2016 Warsaw Summit, Allied leaders further committed to enhancing resilience by adopting seven baseline requirements for civil preparedness shown on the ‘outer wheel’: assured continuity of government and critical government services; resilient energy supplies; ability to deal effectively with uncontrolled movement



of people; resilient food and water resources; ability to deal with mass casualties; resilient civil communications systems; and resilient civil transportation systems<sup>1</sup>. The theory says that by focusing on these baseline requirements, Allies would enhance their ability to meet the core functions of civil preparedness and therefore be more prepared for the sort of unthinkable scenarios our governments, populations, and armed forces would face in an Article 5 collective defence situation.

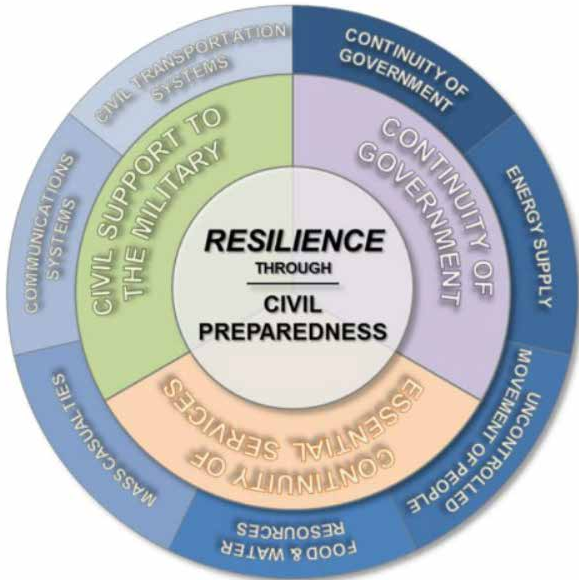


Figure 1: Resilience through Civil Preparedness

Of course, every model has its limitations. One aspect not addressed within this one, is the resilience of a society itself. All the functions previously described are, at their heart, human endeavours. When considered through this paradigm, the importance and disproportionate impact of gender come to the fore.

The role of women in our societies feels like it has changed significantly in my lifetime, for the better. Having the privilege of working at NATO Headquarters in Brussels, you see many (although still not enough) remarkable and inspiring female Heads of State, Foreign and Defence Ministers, as well as senior officers representing their nations at the NATO Military Committee. However, whilst much progress has rightly been made, it would be hard to argue against the view that most NATO nations are still largely built on paternalistic models. In this context, women continue to play several essential roles in our communities. Indeed, their contributions often help hold very fabric of our societies together. In many cultures, it is usually they who make the biggest sacrifices in their careers to raise children and to look after elderly parents. Our communities are normally brought together with their energy, effort, and networks. These aspects are only magnified in times of crisis or conflict<sup>ii</sup>. In many nations these contributions are arguably often not as well recognised or valued as they should be. There is therefore a potential risk of overlooking the importance of the critical contribution gender plays in the very foundations of our society and thus, our collective resilience. We neglect this at our peril.

A More Resilient Military Instrument of Power

The challenges of the geostrategic security situation give urgency to the ongoing transformation of NATO's Armed Forces. Civil preparedness must be combined with military capability and capacity, in order to provide credible deterrence and defence. Work is ongoing at NATO's Allied Command Transformation (ACT) on Layered Resilience, under the umbrella of the NATO Warfighting Capstone Concept (NWCC). Layered Resilience aims to ensure that NATO's Armed Forces are able to anticipate, adapt, and prepare for shocks, as well as withstand, respond, and recover from them. Since 2022, research is being conducted in seven areas aiming to better define the requirements of resilient Armed Forces, one of which is focused on the resilience of NATO's military workforce.

The need is pressing. Many NATO members are struggling to recruit and retain the talent they need for wholly volunteer or 'professional' forces<sup>iii</sup>. Some use forms of conscription to address this. There are a number of complex reasons for these shortfalls that can vary from nation to nation. Yet, the effect is the same: under-strength armed forces less capable of meeting the demands of their nation and NATO. It is broadly recognised that there is more work to be done recruiting and retaining female talent in particular. The average employment of females within the armed forces across the Alliance was 13% in 2020, up from 10.3% in 2014<sup>iv</sup>. Slow but important progress. Some of the challenges addressing this can be different than from their male counterparts. As an example, as separations of families is often a frequent condition of military life, females often take more responsibilities in raising children, which can have a disproportionate impact on their retention rates.

There are also cultural and behavioural issues to be addressed, in which enormous efforts are being made. Even simple matters, such as the language used in the armed forces, is often male-centric for historical reasons. Whilst the esprit de corps of military organisations normally benefits from tradition, some practices are exclusive, can influence culture and reinforce bias in the workplace, although seemingly inconsequential to males (e.g., 'manpower'). Symbolism matters. More worryingly, there have been numerous instances of sexual violence and harassment within the armed forces, an awful paradox in organisations built on values such as self-sacrifice, discipline and teamwork. As well as the direct impact on the individuals involved, these can significantly undermine trust within units and therefore reduce their operational effectiveness, not to mention the broader negative impact on recruiting and retention. Addressing culture is undoubtedly one key part in tackling this critical issue.

There are also practical concerns, such as some clothing and equipment that do not take account of physical differences between the genders that should be easier to solve as experience suggests. Recognising differences is sometimes important too. One area that has significantly changed for the better in the last decade or so, is that the overwhelming majority of NATO Allies now allow females to be employed in all roles, including combat<sup>v</sup>. Whilst historically this has often been a contentious and culturally challenging issue, the facts speak most clearly for themselves. Many female soldiers from the Israeli Defence Forces (IDF) fought with great courage in response to the attacks on October 7, including the female commander of an infantry battalion<sup>vi</sup>. Yet there have also been criticisms that gender bias played a role in the failure of the IDF's intelligence apparatus to predict the attack<sup>vii viii</sup>. The valour and commitment shown by female soldiers in the Armed Forces of

Ukraine has also demonstrated that females are capable of filling combat roles, although even in Ukraine, some contest there are broader issues on female representation to be addressed<sup>ix</sup>.

Why This Change Matters

Developing a more forward thinking approach that takes into account these cultural, behavioural, and practical issues should enable us to improve female representation in the armed forces based on their strengths and merits and tackle the perception that females should be tolerated simply to meet gender balance rules imposed from the outside. Improving female representation is not just about increasing overall workforce numbers either. Most importantly, it directly improves the overall operational effectiveness of the armed forces. It is widely recognised that the most diverse teams are often the most successful, and vice versa<sup>x</sup>.

*As NATO addresses the challenges of collective defence, the gender contribution to the resilience of our societies is important to recognise.*

Looking to the future, NATO’s Strategic Foresight Analysis 2023 considers that ‘Societal capabilities emerge as indispensable elements of modern competition and warfare. These human network trends will profoundly affect international relations, security, and governance, creating both opportunities and risks in an increasingly complex and interconnected world’<sup>xi</sup>. It is clear that in order to understand and engage with these societal capabilities as effectively as possible, NATO’s armed forces need to be as representative as possible, including for gender. The idea of ‘war amongstst the people’ is well-established<sup>xii</sup> and not only relevant for counter insurgency campaigns.

Women bring different perspectives that are critical when considering complex and important areas such as human security, where their engagement is essential to developing relationships with local communities, addressing specific needs, leading by example, and protecting civilians. For example, females may be able to facilitate more appropriate engagement with victims where conflict-related sexual violence is used as a deliberate mechanism to help achieve political or military objectives.

Conclusion

As NATO addresses the challenges of collective defence, the gender contribution to the resilience of our societies is important to recognise. It plays a foundational role in strengthening the individual and collective capacity of nations within the Alliance to deter any

adversary and, if necessary, to resist armed attack. The remarkable resilience shown by the Ukrainian people in response to Russia’s brutal and illegal invasion, should act as an example for us all in this regard. The importance of gender representation within the armed forces is, for me, a highly personal one. As a Northern Irishman, I was brought up during the ‘the Troubles’, where my mother, an extraordinary woman, served as a ‘Greenfinch’ (the call-sign for female soldiers) in the British Army throughout becoming a Sergeant Major in 7th Battalion, The Royal Irish Regiment. She was my role model and inspiration then, and whilst no longer with us, remains so to this day. This article is dedicated to her and the other Greenfinches she served alongside, for their courage and sacrifice.

i Wolf-Diether Roepke and Hasit Thankey, “Resilience: The First Line of Defence,” NATO Review, February 27, 2019, <https://www.nato.int/docu/review/articles/2019/02/27/resilience-the-first-line-of-defence/index.html>.

ii Carla Koppell, “The role of women in conflict and post-conflict situations,” in Dialogues at the Economic and Social Council (UN ECOSOC, 2013), 55–58.

iii Laura Kayali and Joshua Posaner, “Europe’s Soldiers Keep Quitting, Just When NATO Needs Them,” POLITICO, March 19, 2024, <https://www.politico.eu/article/nato-russia-ukraine-war-defense-france-germany-soldiers-army/>.

iv NATO, “Summary of National Reports of NATO Member and Partner Nations to the NATO Committee on Gender Perspective 2020,” report, 2023, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2023/6/pdf/2020-summary-national-reports.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2023/6/pdf/2020-summary-national-reports.pdf).

v Ibid.

vi Isabel Kershner, “Israeli Women Fight on Front Line in Gaza, a First,” The New York Times, January 19, 2024, <https://www.nytimes.com/2024/01/19/world/middleeast/israel-gaza-women-soldiers.html>.

vii Jamie Dettmer, “Our Warnings on Hamas Were Ignored, Israel’s Women Border Troops Say,” POLITICO, November 21, 2023, <https://www.politico.eu/article/israel-border-troops-women-hamas-warnings-war-october-7-benjamin-netanyahu/>.

viii Dan Steinbock, “Hamas Attack: It Wasn’t an ‘Intelligence Failure,’” Modern Diplomacy, December 24, 2023, <https://moderndiplomacy.eu/2023/12/25/hamas-attack-it-wasnt-an-intelligence-failure/>.

ix Lera Burlakova, “Ukrainian Women Seek an Equal Right to Fight,” CEPA, March 28, 2024, <https://cepa.org/article/ukrainian-women-seek-an-equal-right-to-fight/>.

x Agur Jögi, “Diverse Teams Achieve Greater Success: How Business Can Champion Diversity as Good Sense,” Forbes, May 11, 2022, <https://www.forbes.com/sites/forbestechcouncil/2022/05/10/diverse-teams-achieve-greater-success-how-business-can-champion-diversity-as-good-sense/>.

xi NATO Allied Command Transformation [ACT], “Strategic Foresight Analysis 2023,” 2024, [https://www.act.nato.int/wp-content/uploads/2024/01/SFA2023\\_Final.pdf](https://www.act.nato.int/wp-content/uploads/2024/01/SFA2023_Final.pdf), p 7.

xii Most notably refer to General Sir Rupert Smith, The Utility of Force (Allen Lane, 2005).





# Unified Front: Gender Perspectives In NATO's Cooperative Security

By Major General Dacian-Tiberiu Șerban and Colonel Christos Gkamas



**Major General Dacian-Tiberiu Șerban**  
**Director of the Cooperative Security Division at NATO International Military Staff**

Major General Șerban was appointed as Director of the Cooperative Security Division in September 2023. Major General Șerban graduated at the Infantry Military Institute Nicolae Bălcescu in 1992 and fulfilled several key leadership assignments including Commander for the 1st Special Operations Battalion, for HUMINT Battalion and for the 6th Special Operations Brigade and was Commander of the Romanian Special Operations Command in his last assignment. He has completed three combat deployments in support of Operation ENDURING FREEDOM and ISAF. His military education includes the Army Brigade Course, Staff and Command Master Course, Military Intelligence Operational Leadership Course, Military Intelligence Strategic Leadership Course and Security and Good Governance.



**Colonel Christos Gkamas**  
**Staff Officer in the Cooperative Security Division at NATO International Military Staff**

Col Gkamas was appointed to the Cooperative Security Division in the IMS in September 2022 and assumed the duty of Gender Focal Point in June 2023. His experience in working in an international environment includes 4 years of service in NATO Rapid Deployable Corps Greece (NRDC-GR) and a deployment in ISAF as well as participation in several NATO trainings and exercises.



## Introduction

Cooperative Security has consistently been identified as a key strategic objective for NATO. It was first noted in the 2010 Strategic Concept and was re-emphasised in the 2022 Strategic Concept for the importance of partnerships, stressing that political dialogue and practical cooperation with partners, based on mutual respect and benefit, contribute to stability beyond NATO's borders, enhance Allies' security at home and support NATO's core tasks.

At the 2023 Vilnius Summit, Allies underlined that NATO's partnerships are, and will continue to be, essential to the way NATO works as they play an important role in supporting our three core tasks and the 360-degree security approach, adding that steps have been taken to make NATO's partnerships more strategic, more coherent and more effective. By integrating a gender perspective into NATO's cooperative security initiatives, the Alliance highlights the potential to enhance effectiveness, inclusivity and resilience in addressing contemporary security challenges.

## Current Cooperative Security Considerations

NATO pursues dialogue and practical cooperation with a range of partner nations and organizations on a vast array of political and military items. The structure of NATO partnerships has become more flexible over the years, reflecting a changing security environment and the evolution of Allied and partners' needs. NATO maintains a broad network of partnership relations with Euro-Atlantic countries and beyond. For over two decades, NATO has developed partnerships with 36 countries. Through partnerships, NATO helps countries strengthen their capacity to tackle their own security, defence reforms and participate in international missions.

The Alliance cooperates, at different levels, with the European Union (EU) and its bodies, such as the European External Action Service or the European Commission, the United Nations (UN) and UN agencies, the Organization for Security and Cooperation in Europe (OSCE) and with the African Union (AU). NATO has also developed a strong dialogue and interactions with several non-governmental organizations (NGOs), and the International Committee of the Red Cross (ICRC), which are of critical importance to drive the global Women, Peace and Security (WPS) Agenda.

Cooperative Security lies at the heart of NATO's mission, emphasising collective defence, dialogue and partnership to address evolving security threats. This work extends beyond traditional military alliances to promote stability, build trust and foster collaboration in addressing shared security concerns. This work would be further enhanced when looking at it through a gender-sensitive lens.

## The Gender Dimension in Security and Defence

As underlined in the 2018 NATO/EAPC Women, Peace and Security Policy and Action Plan, NATO and its partners recognise the adoption of the WPS agenda and support the advancement of gender equality through the guiding principles of Integration, Inclusiveness and Integrity.

While the primary responsibility for the implementation of the WPS agenda rests with Nations, NATO, as a political-military alliance, contributes to the implementation by systematically integrating the gender perspective into planning and execution of operations, training, exercises and policies, as well as dialogue and partnerships.

The area of cooperative security, with its wide network of relations between NATO and partner nations, as well as other organisations around the globe, provides a particular impetus for the WPS agenda. NATO and its partners continue to develop joint policy objectives and implement the principles of the WPS agenda. Measures to enhance cooperative security under the auspices of WPS include capacity building efforts, dialogue and joint political messaging, exchanges of information, best practices and expertise, exercises and training activities.

Always taking into account the different approaches, possible political sensibilities and respecting the cultural backgrounds of each partner, NATO ensures that its officers are aware of the multiple benefits that gender mainstreaming can offer. Partners are informed on how the integration of the gender perspective can be an important 'enabler', a tool that if sufficiently addressed and considered both in the planning process and in the implementation phase will support the accomplishment of their political, military-strategic and operational objectives. This influences all aspects of military functions: starting from more informed planning and decision-making, based in part on the ability to gather more and new information, and leading to enhanced operational effectiveness.

To that end, Partners are presented with a wide range of ways gender mainstreaming can be pursued, allowing for visible and measurable results. This approach has produced significant outcomes and has paved the way for meaningful discussions and cooperation, on a field that may not feel as a priority to many of our partners. In this context, the Cooperative Security Division is constantly working to integrate the gender perspective into relevant partnership mechanisms, tools, and instruments, including the Individually Tailored Partnership Programme (ITPP) and the Planning and Review Process (PARP). The result is that the majority of partnership agreements include the gender perspective, especially in relation to military dialogue and consultation. Both political and military sides of the Alliance are working on the new ITPPs for several partners, in which WPS Agenda and the gender perspective are being mainstreamed.

*By integrating a gender perspective into NATO's cooperative security initiatives, the Alliance highlights the potential to enhance effectiveness, inclusivity and resilience in addressing contemporary security challenges.*

## **Advancing the Gender Perspective in NATO's Cooperative Security Initiatives**

In the last 2 years, 38 Partners from 12 different Partner countries have participated in 7 courses and 2 seminars related to WPS and the gender perspective. Relevant courses are constantly being offered, answering to the increasing requests for gender related topics and trainings from our Partners.

Cooperative Security also ensures that the gender perspective is integrated into staff-to-staff talks with other International Organisations, as appropriate, making sure that gender has a place in the agenda of all relevant meetings and discussions. These include the bi-annual IMS-European Union Military Staff Director Generals conferences, the annual NATO-African Union Military-to-Military Staff Talks and the annual NATO-ICRC Staff Talks.

Collecting sex-age-disaggregated-data is also key for conducting proper gender analysis. The Annual Summary of the National Reports of NATO Member and Partner Nations to the NATO Committee on Gender Perspectives (NCGP) creates a database that can outline sustained leadership commitment, capacity building and accountability. It provides a unique opportunity for both Member and Partner Nations to highlight their national initiatives to this agenda.

## **Conclusion**

The Cooperative Security Division is actively doing its part in integrating the gender perspective in partnerships and is doing so by demonstrating to partners that gender mainstreaming is a strategic approach that enhances the effectiveness of military planning and operations and can positively impact all military functions as well as their perception by the public.

By recognising the importance of gender equality and women's empowerment, NATO reaffirms its commitments to advancing collective security in the 21<sup>st</sup> century. It is incumbent on us to champion gender-inclusive strategies that strengthen partnerships, foster dialogue and promote cooperation among nations. Our ongoing work will continue to advance our shared goal of building a safe, more peaceful world for future generations.





# Navigating War: Integrating CIMIC and Gender Perspective in NATO's Combat Operation

By Brigadier General Rejanne Eimers-van Nes and Major Linda Rullens



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**DCOS Communication and Engagement for the 1 German-Netherlands Corps**

Brigadier General Eimers-van Nes started her military career in the Royal Netherlands Army as an army medical logistics officer at the Military Academy in 1991. She accomplished 3 missions in Bosnia and Afghanistan and holds a master degree in sociology. She fulfilled several leadership positions on different levels in the operational, training & education and HR environment. Currently, she is responsible for the informational and civil environment at 1 German-Netherlands Corps (1GNC) in Muenster. 1GNC is a binational headquarters within the NATO force structure. Currently, 1GNC is transforming into a warfighting headquarters in a high-intensity conflict. The comprehensive approach as part of Multi-domain operations is a substantial part of the transformation.



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**Staff Officer at Civil-Military Cooperation Centre of Excellence**

Major Rullens is a Staff Officer and Gender Focal Point at the CIMIC Center of Excellence (CCOE). During her missions, she focused on building peaceful and resilient states with a particular emphasis on stabilising areas of instability that hinder progress for the international community.



Current Geopolitical Context of CIMIC

In NATO, Civil-military cooperation (CIMIC)<sup>1 i</sup> has focused on stabilisation since the end of the Cold War. The activities have included peacekeeping operations in the Balkans, Provincial Reconstruction Teams (PRTs)<sup>2</sup> and counter-insurgency missions in Afghanistan and Iraq, all focusing on protecting civilians and winning the hearts and minds of the population. Over the years, NATO has refined its approach, enhancing cooperation, coordination, and integration between military and civilian spheres. CIMIC enables the military to sustain essential working relationships with civil actors in the field.

As war approaches our doorstep, NATO is refocusing on its core task of deterrence and defence. For that, NATO is changing the model of warfare. The urgency for the Alliance to conduct Multi-Domain Operations (MDO) is based on the rapidly changing security environment reflected in NATO’s Strategic Concept 2022. MDO integrates military activities across all operating domains and environments, ensuring that actions are synchronized with non-military activities and enabling the Alliance to create desired outcomes at the right time and place. This transformative approach aims to deliver tailored options, strategically influencing adversaries’ behaviours while safeguarding the freedom and security of NATO’s population. Future conflicts will increasingly take place in complex, urban environments. In modern warfare, the population is often the centre of gravity; just look at the armed conflicts in Ukraine or Gaza.

Why the Gender Perspective is Important

One of the main lessons learned from the missions in the 1990s and early 2000s is that a deeper understanding of the civil environment in which these interventions take place is necessary for success. Military operations do not take place on an ‘equal playing field’. Women play a decisive role in society; therefore, explicit attention is necessary to understand and support their role and position. The weaponization of women in the Gaza and Ukraine conflict are examples. It has also been proven that women long for peace earlier. The peace movement ‘Women of Liberia Mass Action for Peace’ in Liberia, which started in 2003, is an apt example. The movement forced the president to participate in peace talks and influenced the election of the first female president of Liberia.

A lack of gender perspective can generate biased ideas but could also increase the risk of reproducing stereotypes. This can result from the military’s unconscious perceptions or prejudices about gender. There is a need to tap into society’s differences and get various viewpoints. Moreover, during conflicts, traditional social disorders, including gender roles, are often disrupted and understanding the root causes of conflicts involves paying attention to gender norms.

1 CIMIC is defined as: “A military joint function that integrates the understanding of the civil factors of the operating environment, and that enables, facilitates and conducts civil-military interaction to support the accomplishment of missions and military strategic objectives in peacetime, crisis and conflict.”

2 PRTs are small civil-military teams (50-300 personnel) who operated throughout Afghanistan at the provincial and operational levels to expand the legitimacy of the central government to the regions, enhance security, and facilitate reconstruction processes. Under the circumstances, PRTs also carried out activities in the areas of limited relief operations (so-called hearts and minds and quick impact projects).

The threat to security is aggravated by other negative economic, environmental, political, or social factors. Addressing these threats requires a comprehensive approach using all instruments of power. A military strategy must be based on a full analysis of the environment. Gender-specific impacts of conflict can influence military capacity development, including resource allocation between military and civilian defence tasks and objectives. The military contribution to a comprehensive approach is enhanced through the execution of the joint function of civil-military cooperation. Seeing the bigger picture of the civil environment will support the mission.

CIMIC and Combat Operation

There are multiple reasons why CIMIC and the gender perspective resonate positively. Creating a unified strength by CIMIC is good for collaboration between military and non-military actors. This collaboration helps to understand and address complex challenges together. To do gender right - to have a gender perspective – means incorporating it across different aspects of military planning and operations, including in situational awareness and situational understanding to influence behaviour, assert human rights, and support the freedom of movement of troops involved in the fight. It is about offering a better overview and insight. These points will be touched upon in this chapter.

Warfighting may be associated with disruption of society and potentially increases in civilian victims. Governments will most likely still or partly function and CIMIC will focus on cooperating and supporting functioning parts of governments to protect civilians, create initiatives to make them participate, and, as said, create freedom of movement.

Given NATO’s reorientation toward territorial defence and its current work on adapting its military capabilities—including CIMIC—to potential Article 5 operations, a case study about Ukraine is very much applicable to NATO’s own preparedness. This chapter uses the conflict in Ukraine as an example for CIMIC of how gender dynamics play out and how the gender perspective is used in a current conflict in European territory.

Operational Synergy

Aligning warfighting strategies with CIMIC efforts and a gender perspective enhances operational synergy. In the theatre of military operations, where strategic manoeuvres and tactical decisions shape the course of conflicts, CIMIC emerges as a vital force multiplier. During warfighting, there will be times and places that are all about combat and fires. However, warfighting is also about freedom of action, manoeuvring, and the synchronization of effects, preserving NATO’s reputation and protecting the coalition’s cohesion. With all this in mind, CIMIC needs to consider the impact of military objectives on the civil environment and anticipate the effects of the civil environment on the mission.

During warfighting in Article 5 operations, the Host Nation’s role, readiness, and resilience will be key. CIMIC focuses on freedom of action in warfighting via comprehensive planning and well-informed targeting and messaging. The synchronisation of freedom of action is done via the coordination of movement (or non-movement) of internally displaced

persons (IDPs) and refugees, the influx of humanitarian assistance, and appropriate action when human security-related events occur. Freedom of action in the rear area involves de-conflicting the use of roads, areas, facilities, and resources with non-military actors. Later, when the fighting has moved on and capacity exists, CIMIC can focus more on contributing to a safe and secure environment (C-SASE) and facilitating access to basic needs (FABN).

CIMIC operates at the intersection of military and civilian realms and plays a pivotal role in understanding and addressing the multifaced challenges of contemporary conflicts. Poor coordination and a missing the gender perspective can cost freedom of action and endanger success for all involved. Russia gravely miscalculated the determination of the Ukrainian people to fight and even less from a Ukrainian army strengthened by the participation of women<sup>ii</sup>.

## Comprehensive Understanding

Incorporating a gender perspective recognizes the diverse and dynamic nature of contemporary conflicts and adds another layer of significance to CIMIC's comprehensive understanding of the civilian environment. During conflict or disaster, gender inequalities are exacerbated. This can manifest in using women as a weapon, human trafficking, sexual and gender-based violence, a lack of access to basic resources, and exclusion from formal conflict prevention, reconstruction, and peacebuilding efforts.

Vulnerabilities, population dynamics, resilience, and capacities to provide services and basic needs during a conflict are critical to planning and anticipating factors that could mitigate any adverse effect caused by the fighting. As CIMIC integrates the civil factors of the operating environment, it will bring a deeper understanding of the societies in which NATO operates and the modus operandi used by the adversaries. Taking precautions to minimize injury to civilians relies on the military understanding of the harm that might result from an attack. Practices such as assessing patterns of civilian life -which vary across age, gender, and culture- can help inform these assessments and military decision-making. It helps commanders understand how different groups act and interact in the area and how they will be differentially affected by an attack. Therefore, the gender perspective will improve NATO's ability to recognize and respond to threats and challenges<sup>iii</sup>.

## Asserting Human Rights for All People

The safety and well-being of civilians and respect for international humanitarian law and human rights law should always be top priorities in warfighting. It is an ethical and strategic imperative in all types of conflict<sup>iv</sup>. The concept of human security shifted perspective, emphasizing the need to prioritize people's security over the security of states and national territories. By putting a gendered 'human' lens on combat operations, security in military operations is redefined more comprehensively.

CIMIC supports the mission by enabling the freedom of action while also taking steps to protect the lives and property of the local population and respect international rights

obligations. Recognizing gender-specific challenges, CIMIC can tailor the response to address the distinct needs of the population in the conflict zone. For that, CIMIC needs to understand the gravity of the situation and try to mitigate and report the impact of NATO's actions and those of the adversaries on the population. For example, if the enemy is using sexual violence as a tactic of war, the deployment of forces tasks and orders to subordinate units must include measures to prevent and respond to that situation. Military, as frontline witnesses to the violence and atrocities that occur, play a critical role in establishing accountability for war crimes.

## Influence Behaviour

Various factors, such as gender and other elements (e.g. class, race or religion) in the operational area, can affect behaviour. The increasing complexity of the operating environment requires an in-depth understanding of how new and more advanced patterns of warfare affect the population differently. Integrating a gender perspective into military operations can improve public perception and legitimacy and encourage, besides the necessary use of force, host nations and their citizens to prevent more harm and to activate the restoration of society.

Women can also be accelerators of peace processes. When it comes to initiatives to restore peace and security, women tend to fraternise more, which has repeatedly led to successful initiatives and fraternisation in the past. Additionally, including women in NATO forces can positively impact the perception of the military both domestically and internationally, helping to foster trust and support for the military.

Trust is essential for effective collaboration, as civilians are more likely to cooperate when they see their needs being understood and addressed. Proactive gendered information operations will be crucial in countering negative stories about human security incidents and retaining popular support for the force. CIMIC's integration of the gender perspective promotes inclusivity and enhances the credibility of military efforts.

## Conclusion

Reflecting on the intersection of CIMIC and the gender perspective within the NATO context, it becomes clear that recognizing the diverse needs of a population affected by war is not just a moral imperative but a strategic necessity. The military landscape is not homogenous, and the impacts of conflicts resonate differently among diverse groups. This recognition has given rise to integrating the gender perspective within military strategy. In the context of NATO's operations, understanding and responding to the challenges men and women face in the theatre of war is paramount.

CIMIC navigates the delicate balance between combat operations and community well-being, recognizing that military success is linked to the stability and support of the local population. In the heat of fighting, CIMIC focuses mostly on 'keeping the population out of harm's way' to keep freedom of action for NATO and not overly endanger civilian life and property.

Current conflicts characterize the weaponization of all possible aspects, including water, food, and energy. Using women as a weapon is not new, but a close eye on the role of women and the ability to assist them in protection, prevention, and participation is essential.

The conflict in Ukraine demonstrates the need for CIMIC capabilities to be employed and the need for gendered civil factor integration to generate a robust understanding of the civil environment as a major factor for planning and conducting operations. Still, the military needs to bear in mind that there is no “one-size-fits-all” civil-military coordination model.

Looking ahead, NATO must continue to evolve its structures, processes, and training to ensure a CIMIC gender-sensitive, culturally aware, and multi-domain approach. This means a gender-sensitive and civil approach is needed in every planning activity. Fights do usually not take place in the desert or on an empty planet. Gender sensitivity and diversity must be increased in NATO units to stimulate thinking and planning. Knowledge about culture, habits, and civil structures in nations where NATO could operate will be general knowledge to increase understanding and improve the creation of successful interventions and options to win the fight and to create a safe and secure environment where democratic values and human rights will succeed.

*The conflict in Ukraine demonstrates the need for CIMIC capabilities to be employed and the need for gendered civil factor integration to generate a robust understanding of the civil environment as a major factor for planning and conducting operations.*

## Case Study: Ukraine

Ukraine’s response to the Russian invasion of February 2022 is one of the very few recent examples of a large-scale, high-intensity combat operation on European territory against a power with resources that indiscriminately attacks civilians and targets critical infrastructure. Ukraine’s experience developing a system of national resilience and defense during the ongoing war is undoubtedly a valuable source of inspiration and learning. All offer crucial lessons for Ukraine as it continues to defend itself and for NATO and individual Allies as they prepare for potential kinetic and hybrid hostilities on the Alliance’s eastern flank.

### General Gender Perspective

“The onset of war creates gender”<sup>v</sup>. Following the Russian invasion of Ukraine in February 2022, both women and men were not only affected differently but also participated differently in the Ukrainian conflict in their response and resistance.

Generally, men have tended to volunteer more in the security and defence sector, while women volunteer more to assist vulnerable populations and humanitarian work<sup>vi</sup>. Data on displacement and civilian casualties also indicates a gendered picture. Among the 5.9 million Ukrainian refugees abroad, almost 90% were women and children, as men were kept in the country for potential mobilisation; internally, around 60% of those displaced were women<sup>vii</sup>. While men and boys are sent to the battlefield in disproportionate numbers, many women and girls are left with the burdens of managing the home, earning an income, and caring for the children, the elderly, and the wounded. This means they are often the first to be affected by a breakdown of critical infrastructure<sup>viii ix</sup>. It unravels the gender effects of the topic ‘call to arms’ in which men are addressed as soldiers while women are often relegated to invisibility or a helping role<sup>x</sup>.

Parties to the conflict also used the gender perspective to their advantage, mainly through strategic communication. Ukraine uses traditional gender roles as motivators for mobilization.<sup>xi</sup> In Ukraine, men’s lives are deeply impacted by the conscription requirement, and e.g. internally displaced men who cannot leave the country but are not subject to mobilisation often face hostility<sup>xii</sup>. Ukraine emphasised women’s participation in the conflict response and the commission of conflict-related sexual violence<sup>xiii</sup> by the opposing side in their external communication.<sup>xiv</sup> The Russian Federation utilizes gender by framing “gender ideology” as a threat to traditional values and ways of living. Moreover, Russian disinformation campaigns use the gender perspective to create tensions with occupied territories and outside Ukraine and Russia.

### CIMIC’s Gender Perspective

In Ukraine, CIMIC has played a big supporting role at the front line. CIMIC officers liaise between the military and civilian authorities, aid evacuations, restore essential infrastructure under precarious circumstances, and ensure a more coordinated and effective response to protect civilians during armed conflict.<sup>xv</sup> Their continuing role in assessing the civil environment and protecting civilians shows a comprehensive approach to civil-military relations is valuable in combat operations<sup>xvi</sup>.

The local population in Ukraine cooperated greatly with the military to carry out the



mission successfully and acquire intelligence. One significant contribution to safeguarding people and countering enemy missiles and drones is the public air target alert system based on the ePPO application. It allows everyone to report an air target they observe, increasing the timeliness and accuracy of the air defence system’s response<sup>xvii</sup>.

Besides, gender analysis can determine the ideal local people for the sensor and assisting role in the fight. The RGA in Ukraine revealed that women perform vital roles in the immediate humanitarian response in local communities<sup>xviii</sup>. Based on women’s and men’s knowledge of their own local realities, this process makes it possible for CIMIC to identify the problems, needs and expectations of those whose lives will be directly affected by combat operations.

Evacuation

Since day one of Russia’s full-scale invasion of Ukraine, the state has called for the evacuation of residents of areas with combat action and the adjacent territories. Despite the announced evacuation from the combat zones, it was still slow, as some people, mostly the elderly and persons with disabilities, refused to leave, and some even returned. Mitigating the gendered effects of Ukraine’s refugee crisis was not fully taken into account. Especially single mothers and children choose to return because they miss the support network of family and friends in Ukraine, a shared language, and fewer risks related to human trafficking<sup>xix</sup>.

The gendered displacement crisis also placed major caretaking burdens on the shoulders of women while exposing them to higher risks of gender-based violence.<sup>xx</sup> In Ukraine, women face significantly increased safety and protection risks<sup>xxi</sup>. Reports of conflict-related sexual violence emerged in Ukraine, and interviewed women highlighted the particular risk of Gender Based Violence in occupied and war-affected area<sup>xxii</sup>.

CIMIC units’ role in evacuations and delivery of humanitarian assistance showed the need to include gender-related aspects of assistance delivery<sup>xxiii</sup> and understand whether and how gender could influence evacuation outcomes. Knowing the gender perspective of an action can bring operational synergy and, if possible, a customized approach. In Ukraine, it resulted in centralised efforts or recommendations from CIMIC structures on developing rules and procedures for evacuation, humanitarian assistance, curfews, or warnings<sup>xxiv</sup>.

i NATO Term, 2022-08-04

ii Emily Winterbotham, “The Impact of Gendered Narratives in the Conflict in Ukraine,” journal-article, The Impact of Gendered Narratives in the Conflict in Ukraine, 2023, <https://www.globalcenter.org/wp-content/uploads/GCCS-RUSI-2023-PB-Impact-Gendered-Narratives-Conflict-Ukraine.pdf>.

iii “Gendered Crises, Gendered Responses,” Australian Civil-Military Centre, 2013, <https://www.acmc.gov.au/resources/publications/gendered-crises-gendered-responses>.

iv Karolina MacLachlan, “NATO Review - Protection of Civilians: A Constant in the Changing Security Environment,” NATO Review, June 17, 2022, <https://www.nato.int/docu/review/articles/2022/06/17/protection-of-civilians-a-constant-in-the-changing-security-environment/index.html>.

v Maaïke Meijer, “Opdat Ik Heenga Als Een Man,” Nederlandse Letterkunde 24, no. 2 (September 1, 2019): 211–30, <https://doi.org/10.5117/nedlet2019.2.004.meij>.

vi “Rapid Gender Analysis of Ukraine,” UN Women – Headquarters, March 31, 2022, <https://www.unwomen.org/en/digital-library/publications/2022/05/rapid-gender-analysis-of-ukraine>.

vii UN Women – Europe and Central Asia. “Ukraine Crisis Is Gendered, so Is Our Response,” February 20, 2023. <https://eca.unwomen.org/en/stories/in-focus/2023/02/in-focus-war-in-ukraine-is-a-crisis-for-women-and-girls>.

viii For more information, please visit [www.womenwarpeace.org/](http://www.womenwarpeace.org/).

ix Peace Research Institute Oslo (PRIO), “Armed Conflict Deaths Disaggregated by Gender – Peace Research Institute Oslo (PRIO),” n.d., <https://www.prio.org/publications/7207>.

x Maaïke Meijer, “Opdat Ik Heenga Als Een Man,” Nederlandse Letterkunde 24, no. 2 (September 1, 2019): 211–30, <https://doi.org/10.5117/nedlet2019.2.004.meij>.

xi Emily Winterbotham, “The Impact of Gendered Narratives in the Conflict in Ukraine,” journal-article, The Impact of Gendered Narratives in the Conflict in Ukraine, 2023, <https://www.globalcenter.org/wp-content/uploads/GCCS-RUSI-2023-PB-Impact-Gendered-Narratives-Conflict-Ukraine.pdf>.

xii “Mitigating the Gendered Effects of Ukraine’s Refugee Crisis | Crisis Group,” March 16, 2022, <https://www.crisisgroup.org/europe-central-asia/eastern-europe/ukraine/mitigating-gendered-effects-ukraines-refugee-crisis>.

xiii “From Trauma to Tactics: Strategic Calculations of Sexual Violence in Ukraine,” Leiden Security and Global Affairs Blog, November 15, 2023, <https://www.leidensecurityandglobalaffairs.nl/articles/from-trauma-to-tactics-strategic-calculations-of-sexual-violence-in-ukraine>.

xiv BBC News, “Ukraine War: Pregnant Woman and Baby Die After Hospital Shelled,” March 14, 2022, <https://www.bbc.co.uk/news/world-europe-60734706>.

xv Center for Civilians in Conflict, “The Role of Civil-Military Cooperation in Protection of Civilians: The Ukraine Experience,” October 12, 2023, <https://civiliansinconflict.org/publications/research/the-role-of-civil-military-cooperation-in-protection-of-civilians-the-ukraine-experience/>.

xvi Ibid.

xvii “The ePPO Application Has Started Working in Ukraine: How to Notify the Armed Forces of Ukraine About a Missile or a Drone,” n.d., <https://visitukraine.today/blog/1083/the-eppo-application-has-started-working-in-ukraine-how-to-notify-the-armed-forces-of-ukraine-about-a-missile-or-a-drone>.

xviii “Rapid Gender Analysis of Ukraine,” UN Women – Headquarters, March 31, 2022, <https://www.unwomen.org/en/digital-library/publications/2022/05/rapid-gender-analysis-of-ukraine>.

xix Oleh Kachmar, “Why Are Refugees Returning to Ukraine? - New Lines Institute,” New Lines Institute, September 15, 2023, <https://newlinesinstitute.org/displacement-and-migration/why-are-refugees-returning-to-ukraine/>.

xx “Rapid Gender Analysis of Ukraine,” UN Women – Headquarters, March 31, 2022, <https://www.unwomen.org/en/digital-library/publications/2022/05/rapid-gender-analysis-of-ukraine>.

xxi Ibid.

xxii By Yogita Limaye, “Ukraine Conflict: ‘Russian Soldiers Raped Me and Killed My Husband,’” April 11, 2022, <https://www.bbc.com/news/world-europe-61071243>; Daniel Berehulak and Carlotta Gall, “Bucha’s Month of Terror,” The New York Times, January 26, 2023, <https://www.nytimes.com/interactive/2022/04/11/world/europe/bucha-terror.html>.

xxiii OSCE Parliamentary Assembly, “2023 Gender Report: Understanding and Addressing the Gendered Consequences of the War in Ukraine,” 2023, <https://www.oscepa.org/en/documents/annual-sessions/2023-vancouver/reports-and-speeches-8/4727-report-by-the-special-representative-on-gender-issues-eng/file>.

xxiv Center for Civilians in Conflict, “The Role of Civil-Military Cooperation in Protection of Civilians: The Ukraine Experience,” October 12, 2023, <https://civiliansinconflict.org/publications/research/the-role-of-civil-military-cooperation-in-protection-of-civilians-the-ukraine-experience/>.



# Understanding The Gender Perspective in Chemical, Biological, Radiological and Nuclear Defence

By Colonel David Martinek and Ms Pavla Skácelová



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## Introduction

The world we live in is evolving and changing faster than it ever had and the modern warfare needs to be able to adapt and overcome any threat that we might face. Tensions and conflicts of the current geopolitical situation often exacerbate vulnerabilities and disproportionately impact non-protected communities, women, and other minorities. The potential use of Chemical, Biological, Radiological, and Nuclear (CBRN) materials or Weapons of Mass Destruction by state and non-state actors remains a central and evolving threat to Allied security.

Historically, CBRN fields have been male-dominated, affecting policy, training, and equipment design, often overlooking gender-specific needs. Nowadays, the leading Allied document in the CBRN field, the NATO CBRN Defence Policy, has already reflected the need for recognition and targeting of gender disparities to ensure that the gender perspective is appropriately mainstreamed into CBRN defence. This will require recognising and addressing gender-based differences in capability and capacity building requirements, which is applicable for both the military and civilian spheres. However, although we have progressed, challenges remain. By integrating the gender perspective into CBRN defence, we can assist in identifying specific areas to address potential gaps in capabilities.

## CBRN Defence Components and Gender Considerations

CBRN defence consists of five enabling components – Detection, Identification and Monitoring, CBRN Knowledge Management, Physical Protection, Hazard Management and Medical Countermeasures and Casualty Care. These components and their tasks are impacted by gender aspects in various ways. There are physical (tangible) aspects such as physical appearance, human body processes, and physiology that have direct impact on capabilities. But we also need to take into consideration the religious, cultural, or ethical disparities that may influence mainly tactics, techniques, and procedures. Yet, the impact on capabilities could be diminished by accepting special stipulations or religious exemptions.

Physical attributes play a vital role in Physical Protection. Physical differences (skull and body dimension, height and weight, etc.) have impact on design and use of Personal Protection Equipment or Collective Protection. A Protective mask needs to create a seal of the mask to the face to provide adequate protection. Until now, the mask size has been defined and developed on data from male face measurements. Therefore, for many women even the smallest mask size does not fit properly and create the necessary seal. Religious or cultural practices generate additional challenges. For instance, long beards may prevent the correct function of the face mask to achieve a seal.

A similar situation occurs with protective suits. Current sizes do not correspond to the proportions of a female body, which may not affect the function, but user comfort is certainly reduced, potentially affecting the tolerance for wearability. Human body proportions vary from small to very tall, very slim to wide and are not always linked specifically to sex. Another important aspect to consider are the human body processes and physiology. Wearing the protective equipment is physically very demanding, and especially in warm environment it creates additional burden to the human body. As such, the physical

aspects have more direct impact on Physical Protection than cultural or religious considerations.

A key element of Hazard Management is decontamination. The challenges of gender perspective affect decontamination teams and those being decontaminated. Decontamination site operators are predominantly working in protective equipment, which creates conditions and issues mentioned already in the previous paragraph. Moreover, much like with the Physical Protection Equipment, heavy decontamination equipment has previously been designed with the typical male body in mind, which might pose a challenge if the diversity in decontamination site staff is considered. Decontamination equipment needs to be designed to allow for both men and women to maximise operational endurance. This will improve the flow through rate of the decontamination line and maximise the number of personnel able to operate in that environment. As decontamination site staff predominately consist of men, some religious or cultural groups may feel uncomfortable to take their clothes off and go through decontamination procedure operated by men or vice versa. Also, military procedures and equipment are not originally designed to provide support to other segments of the population such as children, which may become relevant in a collective defence scenario, protecting the whole population from a CBRN attack. Decontamination operators should be aware of these potential considerations and need to be ready to adapt procedures when addressing concerns of caregivers and providing accommodation where possible. If cultural or religious concerns cannot be accommodated, then personnel require training to reassure the affected demographic understand the process and the need to be decontaminated.

The last area for consideration is Medical Countermeasures and Casualty Care. This area covers preventive medications such as prophylaxis to include pre-treatments, vaccinations and treatment post-exposure. The area of medication and doses is covered by medical services. Both male and female physiology needs to be taken into consideration in the development and testing of new Medical Countermeasures for CBRN. Another aspect is dealing with injured and contaminated victims, which could cause some challenges when the physiological differences between men and women are considered. Gender related barriers have a direct impact on the provision of medical support, as do religious practices or cultural values.

## Conclusion

CBRN defence addresses gender perspective on various levels. There are physical (tangible) aspects such as physical appearance, human body processes and physiology and spiritual aspects such as religious, cultural, or ethical disparities that may have impact on CBRN defence capabilities. Some of the challenges are manageable through CBRN defence capability and capacity development, but some require considerations for planning, training, and adjusting or changing of tactics, techniques and procedures. Some of the issues that arise when dealing with these considerations will be sensitive, especially when the solution does not enhance capability but rather generates additional challenges in the provision of CBRN defence.



Future



# Gender Perspective plus Emerging and Disruptive Technologies: 1 + 1 = 3

By Brigadier General Thorsten Lyhne Jørgensen and Ms Megan Huber



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Even as technologies evolve, the human capability remains at the forefront of the Alliance’s fighting power and fundamental to its successful operations. Thus, considering gender perspective in this capability will result in better recruitment and retention of a diversified fighting force. Likewise, adapting technologies such as artificial intelligence and augmented equipment for all warfighters will enhance NATO’s ability to deter and defend now and in the future.

Introduction

*The Alliance must maintain a technological edge*

The Alliance is encountering strategic competition in an evolving security environment, with an increase of hybrid and cyber asymmetric threats and a technological convergence across a multi-domain battlespace<sup>i</sup>. Allies and partners recognize the importance of preserving an individual and collective technological edge<sup>ii</sup> now and into the future, by adopting Emerging and Disruptive Technologies (EDTs).

Currently, the EDT topics<sup>1</sup> for the Alliance are artificial intelligence (AI), autonomy, quantum, hypersonic systems, novel materials and manufacturing, energy and propulsion, biotechnology and human enhancement/augmentation (BHE/A), space (technologies) and the next-generation communication networks. As the Alliance seeks technological solutions to military needs in order to maintain a competitive advantage across all operational domains, it is critical to better understand the relationship between technology and humans, and the potential effects and impacts of EDTs in the continuum of peace, crisis and conflict.

*What is the relationship between gender perspective and technology?*

Technology has implications across a range of cross-cutting areas, such as in defence and deterrence, counter-terrorism, resilience, climate change, and Women, Peace and Security (WPS). NATO’s WPS agenda stresses the disproportionate impact that conflict and crisis have on women and girls, while also recognizing women’s agency and influence in identifying solutions based on their unique experiences<sup>iii</sup>.

1 EDTs are a fluid concept due to the rapid and transformative nature of technology that is emergent and disruptive.

NATO operationalizes the WPS agenda through integrating gender perspective in military operations and activities. This capacity can enhance capabilities, act as a force multiplier and create synergized effects by greater awareness and understanding of the benefits, opportunities, challenges and risks to men, women, boys and girls, as shown in the following points.

All Warfighters Must be Considered to Fully Exploit a Military Technological Advantage

Technology is recognized in the NATO Warfighting Capstone Concept as a critical enabler to delivering improvements in warfighting capabilities. The research and development of EDTs need to account for the diverse characteristics of men and women to ensure all can appropriately apply these technologies, while also optimizing their different innate abilities and mitigating potential risks to the warfighter.

Future technologies, such as in the biotechnologies and autonomous systems, must account for gender and sex-based concerns and requirements<sup>2</sup> of women and men when possible. For example, unmodified equipment can create operational risks, as seen with body armour that does not consider the size and body frame differences between (and within) males and females, thus leading to mobility impairment for soldiers in combat situations<sup>iv</sup>. Likewise, female soldiers reported increased feelings of discomfort from ill-fitting equipment in endurance marching, which impacted their accuracy in observations and cognitive performance. This further impacts the development of future equipment, procurement processes, and the effectiveness and retention rates of ill-equipped soldiers.

Advances in BHE/A aim to improve physical form or cognitive, physiological, sensory or social functions beyond standard biological potential<sup>v</sup>. Its synergies with other EDTs can enhance the warfighter’s performance to reach their maximum potential and reduce hazardous impacts to their bodies. Wearable technologies that are AI-powered enabling complete range of human movement in connection to cognitive processes, the advanced sensors and machine learning can bring innovative capabilities to all soldiers if developed equitably. Furthermore, considering gender and sex-based requirements in performance enhancement can create more effective tools with personalized capacities, new and improved training and a more informed and integrated warfighter, with the overall effect of improving fighting power.

The exclusion of women in these expert fields has led to a systemic gender data gap, therein enabling biased data-driven decision-making with potential second and third order consequences. Furthermore, the data-driven processes to gather, analyse and report on data should be disaggregated by sex, age and other human factors. Developing these data layers can provide a more comprehensive understanding of the men and women who represent the armed forces, while also exploring the individual strengths and different physiological, cognitive, and social advantages exhibited by them.

2 Gender-based requirements relate to socio-cultural differences between men, women, boys and girls. These are impacted by the gender roles, gender norms, cultural practices, power dynamics and other areas of influence shaped by one’s society. Sex-based requirements relate to the biological considerations for males or females.



To this point, missing sex-disaggregated data and analysis in manufacturing and technology development has led to disparity in safety. For example, females are 73% more likely to be injured during car crashes. This disproportionate impact could be mitigated by considering sex aspects in all phases of vehicle development, such as in equitable testing procedures (mandatory testing of female dummies), feature-design considerations (customizing seatbelts to equally protect pregnant females) and voice recognition technology (with the capacity to equally recognize male and female voices). By including women in disaggregated data and by conducting gender analyses, NATO can avoid such gender-based oversights in their emerging technologies.

Likewise, incorporating the needs, concerns and differences of men and women as part of gender mainstreaming in the requirements for capabilities can ensure the forces are better trained, prepared and ready to respond to future threats. The impact of gender-sensitive research and development through the use of disaggregated data can be shown in the modelling, simulation and testing of virtual and augmented reality applications. For example, female pilots identified sex-and gender-specific preferences and difficulties related to the content, training and assessment conditions of augmented reality (AR)-based applications used in advanced pilot training<sup>vi</sup>. Thus, future AR-based training should be designed and experimented with a gender-sensitive approach to enhance the training experience with implications to pilot readiness.

Simply put, to ensure all soldiers can use future military technologies, we need to equip the technology to the person. This approach avoids gender disparities in technology design and application, and enables both male and female warfighters to increase their technology-enhanced fighting capacity.

## Gender Perspective Can Enhance Technology Capabilities

Gender perspective should be considered in the defence planning and capability development process, in particular in all phases of a technology's lifecycle from the workforce composition of developer teams to the data included in the research and design phase.

Human-machine teaming and autonomous systems can augment human cognition, performance and benefit the military decision-making process<sup>vii</sup>. From a gender perspective, the user of a technology can impact differently how it can be deployed, such as with how the cognition of men and women may influence AI-enabled decision-making due to biological differences and socialization processes<sup>viii</sup>. Gender and sex-based differences are noted in many areas, such as in the relationship of high oestrogen levels and female eye movements<sup>ix</sup>, the use of humans as energy sources for capabilities, and the different strategies men and women use to recall spatial information in real and virtual environments<sup>x</sup>.

Future trends identified three ways gender will impact the technology field: unequal access; adaptation to different mental, physiological, social and physical gender requirements; and unequal global parity in the science, technology, engineering and mathematics (STEM) and information and communications technology (ICT) workforce<sup>xi</sup>. Disparities in technology access and training opportunities reflect gender roles, gender norms, power dynamics, and socio-cultural barriers within the different societies and their institutions. For example, if only 65 female youth have digital skills compared to 100 male youth (from a

study of 32 countries)<sup>xii</sup>, this gender digital divide will continue to have direct implications in future talent acquisition, recruitment and retention for militaries shifting to digitally transform their military instrument of power on the strategic, operational and capability levels.

AI and machine learning (AI/ML) can reinforce historical stereotypes, gender inequalities and discrimination. Recognizing biases in big data sets, computing and ML modules is crucial as these systems can transform military systems and influence behaviours through data-enabled decision-making processes. If data excludes or misrepresents almost half of the population (women and girls comprise 49.7% of the global population<sup>xiii</sup>), then the results could reinforce societal inequalities through biased outputs. A simple example is seen in machine translation services, which defaulted to 'he said' when translating from gendered languages to English.

Human developers and operators may subconsciously add biases based on their assumptions, perceptions and beliefs. One result is that vulnerable groups may be missed in the data sample due to having a limited digital footprint, leading to biased machine learning algorithms<sup>xiv</sup>. Classification and facial recognition software, where there has been noted gender and racial biases (e.g. analysis showed systems did not recognize darker female faces up to 34% of the time<sup>xv</sup>) could have direct consequences for women and girls if such systems were deployed for targeting purposes or used to distinguish between combatants and civilians. Therefore, EDT developers should ensure their workforce is adequately diverse and trained to conduct critical analysis to counter inherent biases.

To guide future capability development in military technologies, disaggregated data and human factor analysis should be part of military learning activities such as wargaming and in experimentations for NATO and multi-national exercises.

## The Use of EDTs Can Impact the Civilian Population During Conflict and Crises

Gender perspective is a critical lens for understanding and addressing the implications and distinct risks that women, men, girls and boys face from EDTs.

Military planners and decision-makers should appreciate the unique characteristics of the human environment as part of any military activity as outlined in the NATO Protection of Civilian framework<sup>xvi</sup>. Conflict and crises have a disproportionate impact on women and girls<sup>xvii</sup>; therefore, before deploying technologies, we must ensure a readiness standard that mitigates civilian harm (in the physical, cognitive and virtual dimensions). This can apply to advanced weapons such as autonomous weapons systems, swarm drones, anomaly detection systems, cognitive radars, target identification systems and others that could impact the population segments differently. If developed as gender blind or with biased data, these design flaws could lead to detrimental consequences. Activities that integrate intelligence processes, such as in civilian harm threat assessments, need to include human factors in their analysis and courses of action.

In the cognitive dimension, identifying and understanding sex-based and gender-based differences includes how men, women, boys and girls acquire, process, understand, store and use information, affecting their cognitive processes differently. In this information and

digital age, there are different actors who have greater access to capabilities (from civilian and military instrument of power) in the virtual dimension that can influence achieving military objectives or end state. For example, AI and autonomous technologies have the potential to identify, prevent and respond to gendered disinformation and technology-facilitated gender-based violence. In humanitarian crises, AI-enhanced anticipatory approaches and predictive analysis<sup>xviii</sup> can also be implemented in emergency responses and used to monitor the impacts of reconstruction activities in different segments of the population. The interplay between technology capabilities and human factors need to be included in the understanding of all effect dimensions (cognitive, virtual and physical) in the engagement space in order to better understand the consequences of military and non-military actions.

The advancement and proliferation of technologies present a transformative opportunity and an emergent threat for the military, as maintaining an agile defensive capacity is required to defend and deter against technologies used by adversaries, competitors or non-state actors in order to destabilize, discredit or disrupt the Alliance’s activities. For example, terrorist organizations (TOs) have heavily invested in disruptive technologies<sup>xix</sup>, using gender disinformation and online gendered recruitment campaigns to support their strategic objectives. With greater AI use, TOs could increase their cyber capabilities through machine learning of large datasets to target vulnerable groups<sup>xx</sup>. Russia’s war of aggression against Ukraine demonstrates how advanced technologies are being used in a conflict, as depicted in the Case Study, setting the art of possibility for the future operating environment and its impacts on men, women, boys and girls.

**Innovation in Technology Needs to be Guided by Ethical, Legal and Moral Values**

Gender equality, as a reflection of the Alliance’s values<sup>xxi</sup>, can advance the technology field through the responsible use and design of equitable technologies that are guided by a human-rights approach and strategy of gender mainstreaming. For example, by examining gender disparities, amongst other cultural aspects, in the access and use of technologies, military planners and technology developers can better mitigate potential consequences in perpetuating stereotypes and discriminating against vulnerable populations. Furthermore, these systems should be compatible with applicable legal frameworks and meet readiness standards before deployment to reduce potential collateral damage and the impact on human life.

To ensure the responsible use of technologies, NATO is developing different implementation strategies and has established the Principles of Responsible Use: emphasizing lawfulness, responsibility and accountability, explainability and traceability, reliability, governability and bias mitigation.<sup>xxii</sup> Addressing biases in machine learning requires strategies such as transparency, independent evaluations and clear industry standards. Conducting reviews such as gender-based audits of military AI applications and autonomous systems could uncover biases in data collection, training, and evaluation processes. Learning from such lessons can lead to a more gender-sensitive development process<sup>xxiii</sup> in order to support optimal warfighter performance and ensure responsible deployment of future military technologies.

**Conclusion and Recommendations**

NATO is leveraging innovative and disruptive technologies as part of its deterrence and defence posture. If technology capabilities are developed in a gender-sensitive approach, all future warfighters will more likely be able to use advanced technology systems and capabilities that enhance their effectiveness, protection, and connectivity on the battlefield. Simultaneously, planners and decision-makers need to consider direct and indirect implications of technological advancements, such as potentially worsening the digital gender divide or creating a greater gender disparity in their application.

There are some limitations to instituting an approach of personalized technology capabilities, such as scalability, speed of relevance, cost of production/effectiveness and interoperability. Taking this into consideration, it is important to ensure warfighters can equitably use technology capabilities, further creating synergy at the individual and organizational levels with the aim of achieving the targeted operational effect.

The consideration of ethical, legal and moral values, and gender equality, as a reflection of the Alliance’s values, should remain consistent as NATO and its Allies are exploring ideation, disruption and innovation within military activities. When adopting EDT policies, frameworks and capability investments, the gender perspective should be incorporated in NATO mechanisms, such as the Data and Artificial Intelligence Review Board, the Defence Innovation Accelerator for the North Atlantic, and the Innovation Fund.

From the political guidance, determining and apportioning of requirements to the delivering and reviewing of capabilities, gender aspects need to be considered in each step of the NATO Defence Planning Process. Whether capabilities are developed individually, multinationally or collectively, gender perspective should be systematically considered in all capability lines of effort (Doctrine, Organization, Training, Materiel, Leadership Development, Personnel, Facilities, and Interoperability). In accordance with the Common Funded Capability Delivery Governance Model, NATO’s Bi-Strategic Commands as Managing Authorities should integrate gender aspects into the development of operational (step 1) and capability (step 2) requirements in order to enhance the effectiveness and interoperability of capabilities. While nations, as well as NATO as an organization, are digitally transforming their instruments of power, we must consider the relationship between technology and humans for warfighters and for civilians through a gender perspective.

**Case Study**

The conflict in Ukraine is one of the most technologically advanced patterns of warfare to date<sup>xxiv</sup>. The Russians are using deep-fakes to disrupt social resilience and weaken the willpower to fight, transmitting gender disinformation, using civilian technology and applications such as dating sites as geo-locational tactics, and using manipulation and propaganda tactics to shape the gendered narrative and attack female politicians in order to influence public opinion and weaken democratic institutions.

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- i STANAG 2437, AJP-01, Ed F, V1, Allied Joint Doctrine, dated 19 December 2022.
- ii NATO, “Brussels Summit Communiqué Issued by NATO Heads of State and Government,” June 2021, [https://www.nato.int/cps/en/natohq/news\\_185000.htm?selectedLocale=en](https://www.nato.int/cps/en/natohq/news_185000.htm?selectedLocale=en).
- iii NATO, “NATO/EAPC Women, Peace and Security Policy and Action Plan 2018,” 2018, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/pdf\\_2018\\_09/20180920\\_180920-WPS-Action-Plan-2018.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2018_09/20180920_180920-WPS-Action-Plan-2018.pdf).
- iv Mona Mamiche, “Adapting Military Equipment to Account for Gender Differences,” NAOC, October 10, 2019, <https://natoassociation.ca/adapting-military-equipment-to-account-for-gender-differences/>.
- v Defence Research and Development Canada et al., “Biotechnology, Human Enhancement and Human Augmentation: A Way Ahead for Research and Policy,” report, STO Technical Report, March 2022, [https://cradpdf.drdc-rddc.gc.ca/PDFS/unc386/p814643\\_A1b.pdf](https://cradpdf.drdc-rddc.gc.ca/PDFS/unc386/p814643_A1b.pdf).
- vi Birgit Moesl et al., “Towards a More Socially Sustainable Advanced Pilot Training by Integrating Wearable Augmented Reality Devices,” Sustainability 14, no. 4 (February 15, 2022): 2220, <https://doi.org/10.3390/su14042220>.
- vii Karel Van Den Bosch, Adelbert Bronkhorst, and TNO, “Human-AI Cooperation to Benefit Military Decision Making,” STO-MP-IST-160, n.d., [https://www.karelvandenbosch.nl/documents/2018\\_Bosch\\_et\\_al\\_NATO-IST160\\_Human-AI\\_Cooperation\\_in\\_Military\\_Decision\\_Making.pdf](https://www.karelvandenbosch.nl/documents/2018_Bosch_et_al_NATO-IST160_Human-AI_Cooperation_in_Military_Decision_Making.pdf).
- viii Joshua Weller et al., “Accounting for Individual Differences in Decision-Making Competence: Personality and Gender Differences,” Frontiers in Psychology 9 (November 23, 2018), <https://doi.org/10.3389/fpsyg.2018.02258>.
- ix TiAnni Harris, Johanna Hagg, and Belinda Pletzer, “Eye-Movements During Navigation in a Virtual Environment: Sex Differences and Relationship to Sex Hormones,” Frontiers in Neuroscience 16 (April 29, 2022), <https://doi.org/10.3389/fnins.2022.755393>.
- x Raffaella Nori et al., “Perspective Changing in WalCT and VR-WalCT: A Gender Difference Study [WalCT – VR-WalCT: Gender Differences],” Computers in Human Behavior 53 (December 1, 2015): 316–23, <https://doi.org/10.1016/j.chb.2015.07.015>.
- xi Dale F. Reding et al., “Science & Technology Trends 2023-2043 Across the Physical, Biological, and Information Domains,” NATO Science & Technology Organization (NATO Science & Technology Organization, 2023), [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2023/3/pdf/stt23-vol1.pdf?trk=public\\_post\\_comment-text](https://www.nato.int/nato_static_fl2014/assets/pdf/2023/3/pdf/stt23-vol1.pdf?trk=public_post_comment-text).
- xii United Nations Children’s Fund, “Bridging the Gender Digital Divide: Challenges and an Urgent Call for Action for Equitable Digital Skills Development,” UNICEF, May 31, 2023, <https://data.unicef.org/resources/ictgenderdivide/>.
- xiii United Nations, “World Population Day | United Nations,” n.d., <https://www.un.org/en/observances/world-population-day>.
- xiv Jasmine Wright and Andrej Verity, “Artificial Intelligence Principles: For Vulnerable Populations in Humanitarian Contexts” (Digital Humanitarian Network, January 2020), <https://reliefweb.int/attachments/c11a4c29-6503-3abe56-1c93bfeadc9f/Artificial%20Intelligence%20Principles%20for%20Vulnerable%20Populations%20in%20Humanitarian%20Contexts%20-%20Jan%202020.pdf>.
- xv Shimona Mohan, “Filling the Blanks: Putting Gender Into Military A.I.,” Policy Commons, August 21, 2023, <https://policycommons.net/artifacts/4775510/filling-the-blanks/5611741/>.
- xvi NATO, “NATO Military Concept of the Protection of Civilians,” June 2018.
- xvii UNSCR 1325 (2000).
- xviii “New And Emerging Technologies Are Improving Humanitarian Action,” Global Humanitarian Overview, n.d., <https://2021.gho.unocha.org/global-trends/new-and-emerging-technologies-are-improving-humanitarian-action/>.
- xix US National Counterterrorism Centre, US Department of Homeland Security, and Department of Justice - Federal Bureau of Investigation, “Emerging Technologies May Heighten Terrorist Threats,” Joint Counterterrorism Assessment Team, October 14, 2022, [https://www.dni.gov/files/NCTC/documents/jcat/firstresponderstoolbox/134s\\_-\\_First\\_Responders\\_Toolbox\\_-\\_Emerging\\_Technologies\\_May\\_Heighten\\_Terrorist\\_Threats.pdf](https://www.dni.gov/files/NCTC/documents/jcat/firstresponderstoolbox/134s_-_First_Responders_Toolbox_-_Emerging_Technologies_May_Heighten_Terrorist_Threats.pdf).
- xx Lana Obradovic and Jody Neathery-Castro, “Integrating Gender Perspective in Cognitive Warfare,” OPEN Publications 8, no. 7 (20AD): 1–36, [https://issuu.com/spp\\_plp/docs/open\\_publication\\_integrating\\_gender\\_perspective\\_in?fr=xKAE9\\_zU1NQ](https://issuu.com/spp_plp/docs/open_publication_integrating_gender_perspective_in?fr=xKAE9_zU1NQ).
- xxi NATO, “NATO 2022 Strategic Concept,” 2022, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2022/6/pdf/290622-strategic-concept.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2022/6/pdf/290622-strategic-concept.pdf).
- xxii NATO, “Summary of the NATO Artificial Intelligence Strategy,” October 22, 2021, [https://www.nato.int/cps/en/natohq/official\\_texts\\_187617.htm](https://www.nato.int/cps/en/natohq/official_texts_187617.htm).
- xxiii UNIDIR, [Does Military AI Have Gender?](#) (2021).
- xxiv Frontier, [One year on: 10 technologies used in the war in Ukraine](#), (February 2023).





# The Digital Gender Divide: Gender Perspective in NATO's Digital Transformation

By Rear Admiral Nick Wheeler and Ms Emilia D’Ettorres



**Rear Admiral Nick Wheeler**  
**Director of NATO Digital Staff in the International Military Staff**

Rear Admiral Wheeler joined the Royal Navy in 1991 where he has gained a wide range of operational experience at sea and ashore. Upon his promotion in July 2022, he became the Director of the NATO HQ Consultation, Command and Control Staff, later renamed to NATO Digital Staff in August 2023. A British Navy Submariner by trade, he is also a passionate believer in the centrality of inclusion and diversity to building successful organisations.



**Ms Emilia D’Ettorres**  
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Ms D’Ettorres is a Staff Officer for the Policy and Programme Section in the Cooperation Policy and Programme Branch of the Cooperative Security Division in the International Military Staff at NATO Headquarters where she joined as part of the NATO Young Professional Programme. Previously, she worked as Staff Officer for the Digital Strategy and Policy Branch in the NATO Digital Staff, where she was responsible for policy development and worked as part of the team that developed the NATO Digital Transformation Implementation Strategy.

Introduction

We are living in an era of extraordinary technological and digital development, which generates both challenges and opportunities for organisations and those who work in them. The NATO alliance is not immune to the effects of this rapidly and radically evolving digital landscape, and NATO must transform in order to uphold its collective technological superiority over potential adversaries while also being prepared to deter and, if necessary, defeat those adversaries. The Alliance’s Vision for Digital Transformation<sup>1</sup> aims to achieve the timely adoption and integration of state-of-the-art, interoperable technological and organisational solutions, in order to enable multi-domain operations and facilitate political consultation and data-driven decision-making.

The application of new digital technologies is radically transforming the military and affecting those who work there. As the digital environment evolves, the NATO Alliance must proactively assess how to transform its digital infrastructure to ensure preparedness for both out-of-area operations and Collective Defence. NATO acknowledged this in its 2022 Strategic Concept and through adopting the NATO Digital Transformation Implementation Strategy at the Vilnius Summit in 2023, which details how the Alliance will digitally transform.

NATO’s Digital Transformation is a comprehensive change initiative that will affect everything the organisation does. It fundamentally embraces people, processes and technology, with the goal of establishing a new digital and data-driven organisational culture. This presents both a risk and an opportunity for diversity, including aspects related to the gender perspective. When used properly, technology can be a powerful enabler of inclusivity. However, there is a risk that existing gender stereotypes will be reinforced or amplified. Challenges to female participation in the digital workforce and access to digital technologies must be addressed as part of the transformation process. These challenges are more pronounced in sectors that rely heavily on Artificial Intelligence and other emerging technologies<sup>1</sup>.

This chapter will outline the gender perspective’s relevance to the ongoing Digital Transformation, as well as current challenges, which range from the presence of a digital gender divide to the possibility that the digital transformation will exacerbate the existing gender gap. Finally, the chapter will discuss how to address some of the challenges and integrate the gender perspective into this critical work strand.

The Digital Gender Divide

Digitisation is fundamentally changing what, how and where people perform their work, thereby influencing the type of skills and skill-mix required for success in their careers. The military workforce increasingly uses Information and Communication Technologies (ICT) in their work. Even those who do not directly use digital technologies (or believe they do not) see the nature of their work and their relationship to that work changed by technology. We must maintain our conventional fighting force while building skills to combat unconventional, technology enabled threats. NATO’s military workforce is a product of

1 NATO Allies have approved NATO’s first Digital Transformation vision in Oct 2022.

National Armed Forces. With only 12.7% women, military leaders need to think creatively about generating diversity, be that age, gender, ethnicity or other areas such as neuro-diversity.<sup>ii</sup> Some initiatives include attracting a wider range of people to military careers through marketing campaigns, lateral entry programmes and reducing our internal bias toward recruiting “people like us”. As a large multinational organisation, NATO also has the convening power and ability to engage academic and educational institutions in its member Nations. The Alliance can actively encourage women’s participation in STEM subjects and in the development of military digital technologies.<sup>iii</sup>

It is important to ensure that the gender perspective is considered as the Alliance’s Digital Transformation strategy work strands develop. While some research suggests that different genders respond to technology in different ways, other research suggests that women are just as likely as men to be early adopters of new technology<sup>iv</sup> and possess similar levels of natural aptitude for digital skills, such as programming and data analytics. Developing digital skills in the military workforce begins with recruiting and retaining diverse skillsets and mindsets. Military leaders must understand that diversity is an asset, not a vulnerability, and promote diversity within their own teams. They should consider where they place their female workforce, the opportunities that are open to them and the means by which they can be encouraged to pursue careers in STEM. One approach is to ensure that retention policies for women are followed so that women feel comfortable remaining in the workforce. Similarly, it is important to ensure that the military workplace culture is a one in which everyone feels accepted.

Case Study

Although the number of women joining the Army has increased significantly in recent years, the common image of a soldier remains one of a man. This is demonstrated by the fact that men appear in 99 of the first 100 results when searching for “British Soldier” in a search engine. This proves how search engines, built on algorithms, are lacking diversity and authentic gender representation. In one of their latest recruitment campaigns named “A soldier is a soldier”, the British Army, through the Army’s Recruiting Partnering Project with Capita, teamed up with creative agency Karmarama and entertainment and social media publisher LADbible for an ambitious campaign to change perceptions<sup>v</sup>.

The campaigns’ goal is to include content that demonstrates to millions of young women that they do belong in the Army by helping redefine what a soldier looks like. The project was supported by servicewomen, who were encouraged to post photos of themselves with the hashtags #BritishSoldier and #ASoldierisASoldier in order to force the search engine algorithms to change what they display.

How Digitalisation Affects Men and Women Differently

Artificial Intelligence (AI) is rapidly reshaping the work landscape. The rise of AI and machine learning is transforming industries and the nature of work. The automation of many routine and rules-based tasks associated with the use of workplace technologies such as AI implies the creation of new jobs. However, this also suggests that many people risk job displacement. This shift has a greater effect on women<sup>vi</sup>, who are disproportionately represented in low-skilled occupations and more likely to perform routine tasks, putting their jobs at higher risk of automation.

AI poses the risk of perpetuating gender stereotypes at different stages of its application, including algorithm development, the training of datasets and AI-generated decision-making.<sup>vii</sup> AI applications rely on algorithms, which are a set of instructions for problem solving.<sup>viii</sup> This process involves transforming input data into output data. To this end, the type of data inputted into those systems can have a direct influence on subsequent algorithmic decision-making. Therefore, if the data originally contains certain biases, the algorithms can replicate these, which can reinforce biases in decision-making when used for prolonged periods. If there are not enough women contributing to the building of databases and development of AI algorithms, there will be gaps in AI knowledge, which can reinforce or perpetuate bias.

Technological Opportunities for NATO to Address the Gender Perspective

There are opportunities for NATO to positively influence gender equality by utilising new digital technologies. In addition, there are certain aspects of NATO as an organisation and a workforce that could present further positive opportunities.

AI, and particularly its application as a Large Language Model, can review large volumes of data and identify gender bias in document drafting. In turn, it can be used to assist NATO staff drafting policy and strategy to avoid gender bias in their written output. This can also be very effective in removing gender-based language from recruiting adverts and processes, ensuring that the organisation attracts the best candidates regardless of their gender.

As we design the future technology interfaces and processes that will enable Alliance Multi-Domain Operations, actively including female military personnel and female technology experts in the design teams will result in interfaces that are more user-friendly, inclusive and effective for the whole workforce. This will maximise the utility of staff and improve workforce recruitment and retention. Digital transformation may be better suited to support multi-domain operations if it considers the gender perspective.

Conclusion

NATO’s Digital Transformation is not discretionary and is vital to the organisation’s future success. However, the impetus to expedite this work must not overlook the importance

and advantages of generating a gender inclusive workspace and military workforce. In fact, the opposite should occur, with Digital Transformation acting as an opportunity to change the way that the organisation perceives gender.

As new technologies permeate every aspect of our lives, including how we work and fight, digital technologies present some very real risks and challenges. However, by adopting good policies and workplace solutions, as well as fostering a culture that incorporates the gender perspective, it is possible to create a more inclusive workplace and limit the gender biased effects of certain new technologies. This will be promoted through initiatives that encourage more women to serve in STEM-related military positions as well as in the overall implementation of the Digital Transformation.

It is critical that NATO fosters an environment in which diverse ideas and backgrounds are welcome. The gender perspective is an important part of Digital Transformation, as it reduces bias in technological applications while also future-proofing the organisation. This improves NATO’s agility and ability to respond to emerging and future threats.

i European institute for Gender Equality, “Artificial Intelligence, Platform Work and Gender Equality,” December 9, 2021, [https://eige.europa.eu/publications-resources/publications/artificial-intelligence-platform-work-and-gender-equality?language\\_content\\_entity=en#](https://eige.europa.eu/publications-resources/publications/artificial-intelligence-platform-work-and-gender-equality?language_content_entity=en#).

ii NATO IMS GENAD Office, “Summary of National Reports 2020,” report, 2023, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2023/6/pdf/2020-summary-national-reports.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2023/6/pdf/2020-summary-national-reports.pdf).

iii NATO, “Science for Peace and Security Programme,” n.d., [https://www.nato.int/cps/en/natohq/topics\\_85373.htm](https://www.nato.int/cps/en/natohq/topics_85373.htm).

iv Pryor Learning, “Technology Differences: Women Vs. Men,” January 11, 2024, <https://www.pryor.com/blog/technology-differences-women-vs-men/>.

v UK Army Ministry of Defence, “A Soldier Is a Soldier,” n.d., <https://www.army.mod.uk/news-and-events/news/2021/07/a-soldier-is-a-soldier/>.

vi Rajeshwari U R and Rajeshwari U R, “Narrow the Digital Gender Gap,” Deccan Herald, October 25, 2023, <https://www.deccanherald.com/opinion/narrow-the-digital-gender-gap-2741907>.

vii Ardra Manasi, Subadra Panchanadeswaran, and Emily Sours, “Addressing Gender Bias to Achieve Ethical AI,” IPI Global Observatory, March 17, 2023, <https://theglobalobservatory.org/2023/03/gender-bias-ethical-artificial-intelligence/>.

viii National University of Singapore, “Algorithmic Problem Solving,” in Introduction to Algorithms and Pseudocode, n.d., 32–36, [https://www.comp.nus.edu.sg/~cs1101x/4\\_misc/jumpstart/chap3.pdf](https://www.comp.nus.edu.sg/~cs1101x/4_misc/jumpstart/chap3.pdf).





# The Gender Perspective and NATO's Future Operating Environment

By Vice Admiral Guy Robinson and Lieutenant Colonel Lauranne Bureau



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Vice Admiral Robinson joined the Royal Navy in 1986, with a seagoing career spent primarily in frigates and destroyers and most recently, was the Deputy Commander at the Naval Striking and Support Forces NATO (STRIKFORNATO). He started his current post in July 2021 and has supported the integration of the gender perspective in ACT work strands, such as instituting a dedicated objective in the Warfare Development Plans, alongside cross-functional assessment measures. He also increased leadership accountability measures, while serving as Chair of the ACT Senior Leader Seminar on the Gender Perspective (2022 and 2023).



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**Commander Transformation**  
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LtCol Bureau joined the French Army in 2004, and served in the Ordnance Corps with deployments in Chad, Kosovo, and Lebanon. Willing to develop new skills, she was trained in 2018 on Civil-Military Cooperation (CIMIC), Information Operations (InfoOps) and Psychological Operations (PsyOps). She has a military academic background in computer science and started her functions as ACT GENAD in July 2021.



Introduction

What is the NATO Future Operating Environment 2024 study (FOE24)?

The FOE24 Study<sup>1</sup> enables NATO to develop, enhance and promote a long-term understanding of the military implications of the future security environment, to anticipate and adapt to emerging threats and to optimize resource allocation. Likely dominated by artificial intelligence, cyber capabilities and space exploitation, the FOE will contain an evolving web of state and non-state actors within hybrid and asymmetric warfare.

Why is the Gender Perspective Relevant to the FOE24?

For the next 20 years, humans will continue to be at the centre of conflicts as decision makers, planners, influencers, actors and victims. Therefore, understanding gender roles, dynamics and inequalities is key to recognizing the root causes and consequences of warfare, which affect socio-economic structures, societal expectations and power dynamics.

An example of a gender-based root cause and its consequences is described in Hannah Wright’s 2014 article<sup>2</sup>: “gender roles – and patriarchal notions of masculinity in particular – can fuel conflict and insecurity”. She explains how militarized notions of masculinity, based on domination and violence, can 1) motivate men to participate in violence, 2) allow political and military actors to promote violent masculinities to recruit combatants and build support for war, 3) promote violence for attaining other symbols of manhood and 4) encourage men who feel unable to meet societal expectations of masculinity to join armed groups.

To prepare for the FOE, NATO should include the gender perspective when assessing prospective security environment(s) and when identifying the evolving characteristics of crises and conflicts in terms of battlespace, actors and warfare. This integration will enhance NATO’s military instrument of power (MIoP), supporting adherence to NATO’s common values, including respect for human rights and the rule of law, accountability for actions, transparency in operations and effectiveness in fulfilling our missions while maintaining ethical standards. Likewise, it will strengthen our resilience and help to recruit and retain talent, to foster morale and cohesion and to innovate and adapt.

1 To be completed in Summer 2024.

*NATO’s capacity to ‘out-think’ adversaries will rely on increasing our situational awareness of the fast-evolving global security environment, as well as on a better understanding of human factors, including gender influences.*

The success of NATO in the FOE will depend highly on its unity, legitimacy, resilience and cognitive superiority<sup>2</sup>. NATO’s capacity to ‘out-think’ adversaries will rely on increasing our situational awareness of the fast-evolving global security environment, as well as on a better understanding of human factors, including gender influences.

The Gender Perspective and the Future Security Environment

HQ SACT published the Strategic Foresight Analysis 2023<sup>ii</sup> (SFA23), which presents research findings and predictions regarding the evolving security environment until 2043. It focuses on future security trends and establishes seven drivers of change relevant to NATO and NATO nations.

SFA23 predicts that women, men, girls and boys will face increased risks stemming from the targeting of civilians, including the weaponization of sexual violence. Gender inequalities and (conflict-related) gender-based violence will not only continue to prolong instabilities, crises and conflicts, but will also worsen due to other drivers such as climate breakdown and resource scarcity. Women and girls’ futures are particularly threatened in areas where ideologies promote women as a secondary class, to be controlled and deprived of fundamental rights such as access to education, and to be denied equal participation in society with men and boys.

Therefore, NATO should enhance its collection and analysis of sex- and age-disaggregated data in order to conduct assessments, gather baseline data (including gender-sensitive early warning indicators<sup>3</sup>) and monitor trends. The Alliance should also increase its capacity to conduct gender analysis in the planning and performing of military operations, as a means to effectively contribute to decision-making, conflict prevention, management and resolution.

The Gender Perspective and the Future Battlespace

In the emerging battlespace of 2043, technology will enable warfighting across all domains and dimensions. It will focus on virtual and cognitive dimensions, utilising non-kinetic means such as narrative disinformation and cognitive manipulation, giving asymmetrical warfare adversaries distinct advantages in exploiting vulnerabilities in western democracies and exerting influence beyond conventional military capabilities.

One of the most significant drivers of change is the rise of artificial intelligence, autonomous systems and cyber capabilities. Cyberspace is already used by both state and non-state actors to disrupt communication networks, compromise critical systems and manipulate audience perception. Artificial intelligence and autonomous systems will

2 NATO working definition of Cognitive Superiority is “the state of possessing and applying faster, deeper, broader and/or more effective military thinking and understanding than adversaries, pursued through better situational awareness, data management and exploitation, appropriate human or machine cognitive processes, and the shaping and contesting of adversarial cognitive actions.” Refer to NATO Allied Command Transformation [ACT], “NWCC - NATO Warfighting Capstone Concept” (ACT, 2021), <https://www.act.nato.int/our-work/nato-warfighting-capstone-concept/>.

3 Examples can be found in Pablo Castillo Diaz and Sunita Caminha, “Gender-Responsive Early Warning: Overview and How-to Guide,” UN Women (UN Women, October 2012), <https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2012/10/WPSsourcebook-04E-GenderResponsiveEarlyWarning-en.pdf>

enhance decision-making and operational agility. Integrated multi-domain operations, cyber resilience, information warfare capabilities and international collaboration are key pillars of developing a military strategy capable of addressing these diverse threats. Thus, NATO needs to fully integrate the gender perspective in each of these pillars to ensure the development of adequate and effective future military capabilities.

As military effects become increasingly cross-domain and boundless, particularly in the cognitive<sup>4</sup> and virtual<sup>5</sup> dimensions, understanding their impact and second or third order effects on women, men, girls and boys is essential. Therefore, collecting sex- and age-dis-aggregated data in both the physical and virtual dimensions, as well as conducting gender analysis, will contribute to more accurate intelligence in identifying threats, risks, vulnerabilities and opportunities<sup>6</sup> vis-a-vis the full range of actors and stakeholders, including friendly forces, adversarial forces and populations.

In this virtual battlespace, women, men, girls and boys are and will be targeted differently by harmful messaging. For example, during its war of aggression in Ukraine, Russia has been using “manipulation and propaganda techniques to attack female politicians and candidates [...] to fracture and demobilise feminist movements in the aim of weakening civil society, shaping public opinion and maintaining inequality and division within democratic societies”<sup>iii</sup>.

The Gender Perspective and the Future Warfare

A holistic understanding of the FOE is only possible through the gender perspective, as conflict reflects societies that are influenced by the political, military, economic, social, cultural and technological dynamics of its actors. This requires adopting both a comprehensive approach and a behaviour-centric approach to guide our military thinking. Our military doctrine defines audiences to encompass a wide range of actors, stakeholders and public audiences<sup>7</sup>. Being able to better understand these diverse and dynamic audiences is crucial for NATO, as their actions, beliefs and allegiances affect the success of military operations. Audiences are active participants who can shape the narrative, influence decision-making and even become strategic actors in conflict zones.

Understanding gender roles, dynamics and inequalities remains key to understanding the audience in instabilities, crises and conflicts. This gender knowledge allows NATO to better influence, shape, counter, deter and defeat, while protecting and reducing harm to entire populations. The systematic and comprehensive integration of the gender perspective will

4 Some nations refer to this dimension as the psychological dimension consisting of cognitive (logical thought), affective (emotion) and behaviour.

5 Virtual space in which audiences virtually interact.

6 For example, terrorist groups like Daesh use gender biases (the fact that women as more seen as victims, than as perpetrators of violence) and also the lack of female soldiers to control the female population (due to gender norms). They then use women to be more effective in transporting weapons/explosives and be human bombers. An opportunity would be to engage with certain groups/audiences which may have different ways of positively affecting/influencing the situation if we work with and support them.

7 AJP-01 defines actors as an individual, group or entity whose actions are affecting the attainment of the end state. Stakeholders as an individual, group or entity who can affect or is affected by the attainment of the end state. Public as an individual, group or entity who are aware of activities that may affect the attainment of the end state. Refer to STANAG 2437, AJP-01, Ed F, V1, Allied Joint Doctrine, dated 19 December 2022.

increase NATO’s effectiveness by developing situational awareness as well as understanding of audiences and the diverse effects of military operations on women, men, girls and boys. With this knowledge, NATO can develop responses tailored to gendered conditions and concerns.

Additionally, integrating gender perspective and embedding gender analysis in each Ally’s civilian and military national structures will strengthen NATO’s resilience and enhance its effectiveness in delivering the Alliance’s mission, both individually and collectively.

The Gender Perspective and the Future Actors

Although warfare remains a human endeavour, traditional notions of conventional battlefields with defined fronts are giving way to more multifaceted environments. However, despite increasing complexity and technological advancement, situational awareness informed by the gender perspective will remain a critical enabler to effectively inform decision making and military planning. In addition, various factors such as resource scarcity, geopolitical shifts and humanitarian crises may arise due to climate change. The urban environment will remain a challenge to defend, putting congested civilian populations at greater risk of collateral damage.

To enhance its ability to conduct effective warfare, NATO must also invest in its human capital, to recruit, train and maintain a capable workforce. Women represent half of the population, and thus, half of the pool of potential recruits and talents. To ensure that it is as representative of its member nations’ populations as possible, NATO must continue to adapt recruitment and retention strategies in order to attract and retain a gender-diverse workforce with varied talents. NATO has adopted policies to prevent and respond to discrimination, bullying and sexual harassment in the workplace.<sup>iv</sup> This improvement already contributes to a more balanced gender representation in NATO’s workforce, as well as increased diversity of experience and thought, bolstering the organization’s agility to address upcoming challenges and effectiveness in supporting future military personnel.

Likewise, NATO should use gender sensitive designs when developing high-tech equipment. Enhanced soldier systems, incorporating wearable technologies, exoskeletons and augmented reality, provide soldiers with improved capabilities, protection and connectivity on the battlefield. These must be designed to be operated by and recognize both women and men on the battlefield. If exoskeletons and powered armour suits are designed for men only, then variations in women’s body size, mass, muscle strength and centre of gravity won’t be taken into consideration. Thus, female soldiers will not benefit from optimized fit, function and protection.



Conclusion

The integration of gender perspective is and will continue to be an integral part of NATO’s efforts to ensure peace, stability and security, contributing to its unity, legitimacy, resilience and cognitive superiority.

In the future, NATO forces will continue to be more accountable for their actions, operating within its legal framework, upholding the highest standards of behaviour, and committed to ensuring that conflicts and disasters have minimal impact on entire populations.

NATO must also develop the correct workforce, with the right diversity of talent, to conduct future warfare, and thus must be able to draw from the entire pool, half of which is composed of women. This implies that NATO must ensure that both women and men have equal access to the security sector and armed forces, and therefore have the opportunity to defend their values, freedom, peace and security.

Finally, NATO must develop the right processes and capabilities to conduct future warfare by integrating gender perspective. The Alliance, during its multi-domain operations supported by new technology, should collect sex- and age-disaggregated data as a strategic asset. With this data we can effectively conduct gender analyses of staff functions, thus increasing situational awareness and understanding of the operating human environment. These actions will inform decision-making and planning, enhancing the effectiveness of future NATO military operations and activities, and thus contributing to future mission success.

i Hannah Wright, "Masculinities, conflict and peacebuilding," Saferworld (Saferworld, October 2014), <https://www.saferworld-global.org/resources/publications/862-%20masculinities-conflict-and-peacebuilding-perspectives-on-men-through-a-gender-lens>.

ii "Allied Command Transformation Strategic Foresight Analysis 2023" (Allied Command Transformation, 2024), [https://www.act.nato.int/wp-content/uploads/2024/01/SFA2023\\_Final.pdf](https://www.act.nato.int/wp-content/uploads/2024/01/SFA2023_Final.pdf).

iii Lana Obradovic and Jody Neathery-Castro, "Integrating Gender Perspective in Cognitive Warfare," OPEN Publications 8, no. 7 (2023): 8–26, [https://issuu.com/spp\\_plp/docs/open\\_publication\\_integrating\\_gender\\_perspective\\_in?fr=xKAE9\\_zU1NQ](https://issuu.com/spp_plp/docs/open_publication_integrating_gender_perspective_in?fr=xKAE9_zU1NQ).

iv NATO, "Diversity, Inclusion and Accessibility at NATO," April 19, 2024, [https://www.nato.int/cps/en/natohq/topics\\_64099.htm?selectedLocale=en](https://www.nato.int/cps/en/natohq/topics_64099.htm?selectedLocale=en).

**Additional Research/References:**

- NATO Allied Command Transformation, "General Lavigne's Strategic Blueprint: Transforming NATO's Military Instrument of Power - NATO'S ACT," NATO's ACT, January 24, 2024, <https://www.act.nato.int/article/sact-strategic-blueprint-transforming-natos-miop/>;
- STANAG 2437, AJP-01, Ed F, V1, Allied Joint Doctrine, dated 19 December 2022;
- NATO SHAPE and NATO ACT, "Bi-Strategic Command Directive 040-001: Integrating Gender Perspective into the NATO Command Structure" (NATO, October 20, 2021), [https://www.act.nato.int/wp-content/uploads/2023/05/Bi-SCD\\_040-001.pdf](https://www.act.nato.int/wp-content/uploads/2023/05/Bi-SCD_040-001.pdf);
- Kimberly Amerson and Spencer B. Meredith III, "The Future Operating Environment 2050: Chaos, Complexity and Competition," Small Wars Journal, July 31, 2016, <https://smallwarsjournal.com/jrnl/art/the-future-operating-environment-2050-chaos-complexity-and-competition>;
- Andrew Atkinson, Marco Grandi, and Gergana Vaklinova, "Resilience, Human Security, and the Protection of Civilians: A Critical Approach for Future Urban Conflict" (Stimson, June 13, 2022), <https://www.stimson.org/2022/resilience-human-security-and-the-protection-of-civilians-a-critical-approach-for-future-urban-conflict/>;
- IMS GENAD, "Summary of National Reports of NATO Member and Partner Nations to the NATO Committee on Gender Perspective 2020," report (NATO, 2023), [https://www.nato.int/nato\\_static\\_files2014/assets/pdf/2023/6/pdf/2020-summary-national-reports.pdf](https://www.nato.int/nato_static_files2014/assets/pdf/2023/6/pdf/2020-summary-national-reports.pdf);
- Nir Rotem and Elizabeth Heger Boyle, "Women and War: Using Gender to Predict Conflicts," The Gender Policy Report, September 8, 2020, <https://genderpolicyreport.umn.edu/women-and-war-using-gender-to-predict-conflicts/>.



# Operational Effectiveness and Military Success: The Rationale for Integrating Gender Perspective in Military Operations

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Introduction and Background

The 2022 Strategic Concept reiterated and fortified NATO’s commitment to the UN Security Council Resolutions on Women, Peace and Security (WPS), and thereby the integration of the gender perspective across all core tasks.<sup>1</sup> Contemporary armed conflicts showcase the value and need for this commitment, as the impacts, harms and consequences of war are not gender neutral. In fact, diverse women, men, girls and boys are affected by, and affect, conflict in different ways. For example, certain weapons inflict sex-specific harms, gender-based targeting disproportionately affects men, gendered data gaps make women and girls more ‘invisible’<sup>iii</sup> and conflict-related sexual violence disproportionately affects women and girls, although also affecting men and boys.<sup>iii</sup>

UN Security Council Resolutions<sup>1</sup> and numerous provisions of international law place obligations on armed forces to ensure that women, men, girls and boys are afforded certain rights and protections, even in situations of armed conflict.<sup>2</sup> Gender equality is also key to preventing conflict<sup>iv</sup> and securing international peace and security.<sup>v</sup> Integrating the gender perspective in military operations contributes to addressing the needs of all parts of the population and the implementation of international law, and often the mission mandate. Because, in addition to legal rationales, integrating the gender perspective provides significant strategic and operational advantages, and enhances the chances of successfully completing mission objectives and attaining the desired end state.<sup>vi</sup>

In a NATO context, the gender perspective is to be integrated systematically across core tasks and in all phases of planning and execution of operations, training, exercises and policies as well as dialogue and partnerships.<sup>vii</sup> This is recognised on the political and military side of the Alliance, particularly in the 2022 Strategic Concept, policies,<sup>viii</sup> doctrine<sup>ix</sup>, guidelines<sup>x</sup> and directives.<sup>xi</sup> These frameworks recognise how the gender perspective is relevant in all branches and functions, and highlights the importance of establishing a structure of a Gender Advisors (GENAD) and Gender Focal Points (GFP) network<sup>xii</sup>, and their role to advise or support the Commander and other staff on the gender perspective.<sup>xiii</sup>

*Impacts, harms and consequences of war are not gender neutral.*

1 UNSCR 1325 (2000), UNSCR 1820 (2008), UNSCR 1888 (2009), UNSCR 1889 (2009), UNSCR 2106 (2013), UNSCR 2122 (2013), UNSCR 2422 (2018), UNSCR 2467 (2019), UNSCR 2493 (2019).  
2 See Geneva Conventions Common Article 3; Third Geneva Convention, Article 16; Fourth Geneva Convention Article 13; and Customary IHL Rule 88 on the equal protection of women and men. See First Geneva Convention, Article 12, fourth paragraph; Second Geneva Convention, Article 12, fourth paragraph; Third Geneva Convention, Article 14, second paragraph; Fourth Geneva Convention, Article 27, second paragraph on further specific protection and rights of women. For human rights law, see European Convention on Human Rights Article 14, 15; International Covenant on Political and Civil Rights Article 4; ICJ, Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion (2004) ICJ Reports 135, para 106.

The Gender Perspective in Military Operations

Integrating the gender perspective in military operations, missions and activities contributes to operational effectiveness. A military organisation is effective when it succeeds in achieving the objectives that the political leadership asks of it,<sup>xiv</sup> through the attainment of military objectives or creation of effects. As NATO utilises a comprehensive approach by combining its military, political and civilian capabilities to attain the desired end state<sup>xv</sup>, military activities are often employed in support of political objectives. Such objectives often include stabilisation, upholding the rules-based international order and securing lasting peace based on values of democracy, human rights, individual liberty and rule of law.<sup>xvi</sup> These objectives cannot be achieved without the gender perspective.

The recognition that the gender perspective contributes to operational effectiveness and mission success is recognised not only by NATO, but also by other security organisations and nations.<sup>3</sup> As the gender perspective contributes to a more comprehensive understanding of the operating environment, it enables us to make better informed decisions, thereby contributing to military effectiveness in the conduct of operations, missions and activities.<sup>xvii</sup>

Understanding an Operating Environment from the Gender Perspective

Integrating the gender perspective and conducting gender analysis enables us to understand if and how women, men, girls and boys affect or are affected differently by a situation or conflict. Doing so secures the ability to address or respond to gendered differences in a more nuanced and effective way. Additionally, it provides an increased understanding of factors, actors and dynamics within an engagement space, and as such the entire operating environment.<sup>xviii</sup>

Russia’s war in Ukraine has entailed a range of gendered consequences and impacts. Looking at the conflict with the gender perspective calls for a more comprehensive understanding of the war.<sup>4</sup> One such observation relates to the utilisation of gendered narratives in Russian strategic communication. Since 2014, Russian strategic communication and disinformation has been prevalent in media and social media.<sup>xix</sup> For example, the term “gender ideology” is recurrently referred to, and portrayed as a threat to traditional values and family structures.<sup>xx</sup> Since 2010, the term has frequently appeared in Russian media and political spheres in resistance to gender equality in Europe. Gender equality is often depicted as “a covert political strategy, a sort of conspiracy aimed at seizing power and

3 See for example UN Gender Responsive Peacekeeping Operations Policy (2018); EEAS Operational Guidance on Gender Mainstreaming to the Military Common Security and Defence Policy (2022); OSCE Gender in Military Operations: Guidance for military personnel working at tactical level in Peace Support Operations; US Strategy and National Action Plan on Women Peace and Security (October 2023); and Sweden’s National Action Plan regarding the period 2024-2028 for the implementation of the UN Security Council Resolutions on Women Peace and Security (November 2023).  
4 This is further described in various analyses, see for example: NCGM, “Thematic Analysis: The Use of Gender Perspective in the Conflict in Ukraine,” NCGM Thematic Analysis, June 2023, <https://www.forsvarsmakten.se/siteassets/english/swedint/engelska/swedint/nordic-centre-for-gender-in-military-operations/thematic-analysis-ukraine-ncgm-june23.pdf>; CARE International et al., “RAPID GENDER ANALYSIS,” UKRAINE, September 2023, [https://www.care-international.org/sites/default/files/2023-11/RGA\\_Ukraine\\_2023\\_ENG.pdf](https://www.care-international.org/sites/default/files/2023-11/RGA_Ukraine_2023_ENG.pdf).



imposing deviant and minority values to average people”.<sup>xxi</sup> Europe is called “Gayropa” and democracy described as “homocracy” to emphasise the threat of “gender ideology” and signify European values with moral decay and western imperialism.<sup>xxii</sup> Russian communication frames gender equality as a threat to culture and traditional values, aiming to portray the democratic world order in its entirety as a threat to Russian interests.<sup>xxiii</sup> Since 2010, anti-gender rhetoric has increased, and is used strategically to gain advantages, polarise and cause tensions. “The defence of Russian “values” and “traditions” has been a recurring rhetoric to justify the invasions in 2014 and 2022.”<sup>xxiv</sup>

This demonstrates how Russian strategic communication is part of Russia’s attitude and behaviour that challenges the rules-based international order and gender equality specifically. The gender perspective must be part of conflict analysis in order to identify its gendered aspects and consequences. Without it, we are missing important pieces of the puzzle, and the risk of unintended and harmful effects increases.

### **The Gender Perspective and the Attainment of Objectives**

In turn, increased situational awareness informs the development of response options, courses of action and recommendations for decision-making by enabling such activities to be based on a more nuanced and comprehensive understanding of an operating environment. As such, successful integration of the gender perspective contributes to achieving the objectives of a mission, operation or activity.<sup>xxv</sup> Therefore, effective integration of the gender perspective requires institutionalisation across all levels, phases, domains, functions and branches.<sup>xxvi</sup> While the inclusion of more women in the armed forces is one aspect that can potentially benefit the implementation of the gender perspective, it does not cater to the scope and need of mainstreaming the gender perspective across an organisation.

Implementing the gender perspective is inherently connected to the credibility and legitimacy of military organisations.<sup>xxvii</sup> NATO recognises that failing to react and respond in a gender-responsive way may risk lacking crucial information, jeopardising the safety of populations and our own troops, and consequently putting the success of the mission at risk.<sup>xxviii</sup> Sexual Exploitation and Abuse (SEA) is another component of this, as it both counters obligations under international law and policy, and undermines the effectiveness and credibility of a military organisation.<sup>xxix</sup> Failing to consider and address gendered impacts of conflict as part of upholding legal, moral and policy responsibilities has negative effects on attaining the military objectives and the mission success at large, but also affects the credibility of military organisations.

### **Conclusion**

The Gender perspective is both a lens to understand the context and consequences of conflict, as well as a method for military organisations to employ in the planning and conduct of operations, missions and activities to mitigate existing inequalities. This is based on the realisation that women, men, girls and boys affect and are affected differently by instability, insecurity and armed conflict. Integrating the gender perspective in

military operations, missions and activities does not only serve political, legal and moral rationales, but also caters to the needs and objectives of the military. However, in order to ensure the gender perspective can support the objectives it sets out to achieve, the gender perspective must be mainstreamed across all levels, headquarters, divisions, functions and branches. This requires not only commitment through policy and doctrine, but also resources and establishment of a GENAD and GFP network. This in turn necessitates an institutional approach to how the gender perspective should be systematically integrated with the aim of contributing to mission success.

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- i NATO, “NATO 2022 Strategic Concept,” 2022, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2022/6/pdf/290622-strategic-concept.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2022/6/pdf/290622-strategic-concept.pdf), 3; NATO, “NATO/EAPC Women, Peace and Security Policy and Action Plan 2018,” 2018, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/pdf\\_2018\\_09/20180920\\_180920-WPS-Action-Plan-2018.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2018_09/20180920_180920-WPS-Action-Plan-2018.pdf), 10.
- ii “Gendered Impacts of Armed Conflicts and Implications for The,” International Committee of the Red Cross, March 1, 2023, <https://www.icrc.org/en/publication/4634-gendered-impact-armed-conflict-and-ihl>, 11-14.
- iii UNSCR 2467 (2019).
- iv UNSCR 2122 (2013) p 1-2.
- v UNSCR 2242 (2015) p 2.
- vi STANAG 2437, AJP-01, Ed F, V1, Allied Joint Doctrine – Annex A, Annex B, dated 19 December 2022; NATO, “BI-Strategic Command Directive 040-001: Integrating UNSCR 1325 And Gender Perspective into the NATO Command Structure”, 2021, [https://www.nato.int/issues/women\\_nato/2017/Bi-SCD\\_40-1\\_2Rev.pdf](https://www.nato.int/issues/women_nato/2017/Bi-SCD_40-1_2Rev.pdf), para 1-3, 4-1, Chapter 5.
- vii NATO, “NATO/EAPC Women, Peace and Security Policy and Action Plan 2018,” 2018, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/pdf\\_2018\\_09/20180920\\_180920-WPS-Action-Plan-2018.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2018_09/20180920_180920-WPS-Action-Plan-2018.pdf), 10.
- viii *ibid*; NATO, “NATO Policy on Preventing and Responding to Conflict-Related Sexual Violence,” 2021, [https://www.nato.int/cps/en/natohq/official\\_texts\\_184570.htm](https://www.nato.int/cps/en/natohq/official_texts_184570.htm); NATO, “NATO Policy on Preventing and Responding to Sexual Exploitation and Abuse,” NATO, 2018, [https://www.nato.int/cps/en/natohq/official\\_texts\\_173038.htm](https://www.nato.int/cps/en/natohq/official_texts_173038.htm).
- ix STANAG 2437, AJP-01, Ed F, V1, Allied Joint Doctrine, dated 19 December 2022.
- x NATO Military Committee, “Military Guidelines on the Prevention of, and Response to, Conflict-Related Sexual Violence,” 2022, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2023/10/pdf/mcm-0082-2022-en.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2023/10/pdf/mcm-0082-2022-en.pdf).
- xi NATO, “BI-Strategic Command Directive 040-001: Integrating UNSCR 1325 And Gender Perspective into the NATO Command Structure”, 2021, [https://www.nato.int/issues/women\\_nato/2017/Bi-SCD\\_40-1\\_2Rev.pdf](https://www.nato.int/issues/women_nato/2017/Bi-SCD_40-1_2Rev.pdf).
- xii *Ibid*, 7.
- xiii NATO, “NATO Policy on Preventing and Responding to Conflict-Related Sexual Violence,” 2021, [https://www.nato.int/cps/en/natohq/official\\_texts\\_184570.htm](https://www.nato.int/cps/en/natohq/official_texts_184570.htm), 12; NATO, “Record 40660: Gender Advisor,” NATO Terminology Database, February 16, 2022.
- xiv Members of a U.S. Marine Corps Female Engagement team on security patrol in Sangin Valley, Afghanistan. Cpl. David Hernandez and Robert Egnell, “Gender Perspectives and Military Effectiveness,” PRISM, n.d., <https://inclsvescurity.wpenginepowered.com/wp-content/uploads/2016/03/Gender-Perspectives-and-Military-Effectiveness.pdf>, 75.
- xv NATO, “Record 40693: Comprehensive Approach,” NATO Terminology Database, July 18, 2022.
- xvi Members of a U.S. Marine Corps Female Engagement team on security patrol in Sangin Valley, Afghanistan. Hernandez and Egnell, “Gender Perspectives and Military Effectiveness.” 76; Allied Joint Publication-01 ‘Allied Joint Doctrine’ para 2.2.
- xvii NATO, “BI-Strategic Command Directive 040-001: Integrating UNSCR 1325 And Gender Perspective into the NATO Command Structure”, 2021, [https://www.nato.int/issues/women\\_nato/2017/Bi-SCD\\_40-1\\_2Rev.pdf](https://www.nato.int/issues/women_nato/2017/Bi-SCD_40-1_2Rev.pdf), 16; Linn Fridvall et al., “NCGM’s Military Gender Analysis Tool (MGAT),” NCGM’s Military Gender Analysis Tool (MGAT), September 2022, <https://www.forsvarsmakten.se/siteassets/english/swedint/engelska/swedint/nordic-centre-for-gender-in-military-operations/ngcm-mgat-tool.pdf>, 5-6.
- xviii NATO, “BI-Strategic Command Directive 040-001: Integrating UNSCR 1325 And Gender Perspective into the NATO Command Structure”, 2021, [https://www.nato.int/issues/women\\_nato/2017/Bi-SCD\\_40-1\\_2Rev.pdf](https://www.nato.int/issues/women_nato/2017/Bi-SCD_40-1_2Rev.pdf), 16.
- xix Louise Olsson et al., “Toward an Enhanced Analysis of the Human Terrain in Sweden: Men’s And Women’s Willingness to Defend, Mobilization, Resilience, And Safety in The Context of National Defense” (Uppsala University, June 23, 2021), <https://uu.diva-portal.org/smash/get/diva2:1640501/FULLTEXT01.pdf>; NCGM, “Thematic Analysis: The Use of Gender Perspective in the Conflict in Ukraine,” NCGM Thematic Analysis, June 2023, [https://www.forsvarsmakten.se/siteassets/english/swedint/engelska/swedint/nordic-centre-for-gender-in-military-operations/thematic-analysis\\_ukraine\\_ncgm\\_june23.pdf](https://www.forsvarsmakten.se/siteassets/english/swedint/engelska/swedint/nordic-centre-for-gender-in-military-operations/thematic-analysis_ukraine_ncgm_june23.pdf), 14.
- xx Kevin Moss, “Russia as the Saviour of Europe’s civilization: Gender and the Geopolitics of Traditional Values: Mobilizing Against Equality,” in *Anti-Gender Campaigns in Europe: Mobilizing Against Equality*, ed. Roman Kuhar and David Paternotte (London: Rowman and Littlefield Publishers, 2018), 195–215.
- xxi Roman Kuhar and David Paternotte, “‘Gender Ideology’ in movement: Introduction,” in *Anti-Gender Campaigns in Europe: Mobilising against Equality* (London: Rowman and Littlefield Publishers, n.d.), 1–23.
- xxii Leandra Bias, “The (Im)Possibility of Feminist Critique in Authoritarianism: Revisiting Western Knowledge-Transfer in Russia and Serbia” (PhD thesis, University of Oxford, 2020), <https://ora.ox.ac.uk/objects/uuid:dcfb58e1-c60e-4da5-be2f-66c4e8601668/files/dk3569450t>, 42-43.
- xxiii Cori Fleser, “Beyond Munitions: A Gender Analysis for Ukrainian Security Assistance,” Atlantic Council (Atlantic Council, August 15, 2022), <https://www.atlanticcouncil.org/in-depth-research-reports/issue-brief/beyond-munitions-a-gender-analysis-for-ukrainian-security-assistance/>.
- xxiv NCGM, “Thematic Analysis: The Use of Gender Perspective in the Conflict in Ukraine,” NCGM Thematic Analysis, June 2023, [https://www.forsvarsmakten.se/siteassets/english/swedint/engelska/swedint/nordic-centre-for-gender-in-military-operations/thematic-analysis\\_ukraine\\_ncgm\\_june23.pdf](https://www.forsvarsmakten.se/siteassets/english/swedint/engelska/swedint/nordic-centre-for-gender-in-military-operations/thematic-analysis_ukraine_ncgm_june23.pdf), 15; Fleser (2022).

- xxv NATO, “BI-Strategic Command Directive 040-001: Integrating UNSCR 1325 And Gender Perspective into the NATO Command Structure”, 2021, [https://www.nato.int/issues/women\\_nato/2017/Bi-SCD\\_40-1\\_2Rev.pdf](https://www.nato.int/issues/women_nato/2017/Bi-SCD_40-1_2Rev.pdf), 16; Linn Fridvall et al., “NCGM’s Military Gender Analysis Tool (MGAT),” NCGM’s Military Gender Analysis Tool (MGAT), September 2022, <https://www.forsvarsmakten.se/siteassets/english/swedint/engelska/swedint/nordic-centre-for-gender-in-military-operations/ngcm-mgat-tool.pdf>, 5-6.
- xxvi Members of a U.S. Marine Corps Female Engagement team on security patrol in Sangin Valley, Afghanistan. Hernandez and Egnell, “Gender Perspectives and Military Effectiveness.” 79.
- xxvii Robert U Nagel, Kate Fin, and Julia Maenza, “Gendered Impacts on Operational Effectiveness of UN Peace Operations - GIWPS,” Georgetown Institute for Women, Peace and Security, May 2021, <https://giwps.georgetown.edu/wp-content/uploads/2021/05/Gendered-Impacts-on-Operational-Effectiveness-of-UN-Peace-Operations.pdf>, 24, 26.
- xxviii STANAG 2437, AJP-01, Ed F, V1, Allied Joint Doctrine, dated 19 December 2022.
- xxix NATO, “NATO Policy on Preventing and Responding to Sexual Exploitation and Abuse,” 2019, [https://www.nato.int/cps/en/natohq/official\\_texts\\_173038.htm](https://www.nato.int/cps/en/natohq/official_texts_173038.htm), 1.

# Bibliography

“Allied Command Transformation Strategic Foresight Analysis 2023.” Allied Command Transformation, 2024. [https://www.act.nato.int/wp-content/uploads/2024/01/SFA2023\\_Final.pdf](https://www.act.nato.int/wp-content/uploads/2024/01/SFA2023_Final.pdf).

“Improving Diversity in NATO.” 2013-2014 NEDP Project. European School of Management, 2013.

“Mitigating the Gendered Effects of Ukraine’s Refugee Crisis | Crisis Group,” March 16, 2022. <https://www.crisisgroup.org/europe-central-asia/eastern-europe/ukraine/mitigating-gendered-effects-ukraines-refugee-crisis>.

“Provincial Reconstruction Teams,” n.d. <https://2001-2009.state.gov/r/pa/prs/ps/2006/60085.htm>.

“The ePPO Application Has Started Working in Ukraine: How to Notify the Armed Forces of Ukraine About a Missile or a Drone,” n.d. <https://visitukraine.today/blog/1083/the-eppo-application-has-started-working-in-ukraine-how-to-notify-the-armed-forces-of-ukraine-about-a-missile-or-a-drone>.

“Women and Climate Change in the Sahel | En | OECD,” n.d. <https://www.oecd.org/countries/chad/women-and-climate-change-in-the-sahel-e31c77ad-en.htm>.

Amerson, Kimberly, and Spencer B. Meredith III. “The Future Operating Environment 2050: Chaos, Complexity and Competition.” Small Wars Journal, July 31, 2016. <https://smallwarsjournal.com/jrnl/art/the-future-operating-environment-2050-chaos-complexity-and-competition>.

APAN Community. “USSOCOM Concept - Operating in the Human Domain (OHD),” n.d. <https://community.apan.org/wg/tradoc-g2/mad-scientist/b/weblog/posts/ussocom-concept-operating-in-the-human-domain-ohd>.

Atkinson, Andrew, Marco Grandi, and Gergana Vaklinova. “Resilience, Human Security, and the Protection of Civilians: A Critical Approach for Future Urban Conflict.” Stimson, June 13, 2022. <https://www.stimson.org/2022/resilience-human-security-and-the-protection-of-civilians-a-critical-approach-for-future-urban-conflict/>.

Australian Civil-Military Centre. “Gendered Crises, Gendered Responses,” 2013. <https://www.acmc.gov.au/resources/publications/gendered-crises-gendered-responses>.

BBC News. “Ukraine War: Pregnant Woman and Baby Die After Hospital Shelled,” March 14, 2022. <https://www.bbc.co.uk/news/world-europe-60734706>.

Berehulak, Daniel, and Carlotta Gall. “Bucha’s Month of Terror.” The New York Times, January 26, 2023. <https://www.nytimes.com/interactive/2022/04/11/world/europe/bucha-terror.html>.

Bias, Leandra. “The (Im)Possibility of Feminist Critique in Authoritarianism: Revisiting Western Knowledge-Transfer in Russia and Serbia.” PhD thesis, University of Oxford, 2020. <https://ora.ox.ac.uk/objects/uuid:dcfb58e1-c60e-4da5-be2f-66c4e8601668/files/dk3569450t>.

Browne, Ryan. “Russia jammed GPS during major NATO military exercise with US troops.” CNN, November 14, 2018. <https://edition.cnn.com/2018/11/14/politics/russia-nato-jamming>.

Burlakova, Lera. “Ukrainian Women Seek an Equal Right to Fight.” CEPA, March 28, 2024. <https://cepa.org/article/ukrainian-women-seek-an-equal-right-to-fight/>.

Byers, Michael, Ewan Wright, Aaron Boley, and Cameron Byers. “Unnecessary Risks Created by Uncontrolled Rocket Reentries.” Nature Astronomy 6 (July 11, 2022): 1093–97. <https://arxiv.org/ftp/arxiv/papers/2210/2210.02188.pdf#:~:text=When%20an%20abandoned%20rocket%20body,reentries%20have%20illustrated%20this%20concern>.

CARE International, Melanie Coutu, Imogen Davies, Laura Tashijan, Serap Merve Dogan, E. Idil Börekci, Alex Fisher, et al. “RAPID GENDER ANALYSIS.” UKRAINE, September 2023. [https://www.care-international.org/sites/default/files/2023-11/RGA\\_Ukraine\\_2023\\_ENG.pdf](https://www.care-international.org/sites/default/files/2023-11/RGA_Ukraine_2023_ENG.pdf).

Castillo Diaz, Pablo, and Sunita Caminha. “Gender-Responsive Early Warning: Overview and How-to Guide.” UN Women. UN Women, October 2012. <https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2012/10/WPSsourcebook-04E-GenderResponsiveEarlyWarning-en.pdf>.

Center for Civilians in Conflict. “The Role of Civil-Military Cooperation in Protection of Civilians: The Ukraine Experience,” October 12, 2023. <https://civiliansinconflict.org/publications/research/the-role-of-civil-military-cooperation-in-protection-of-civilians-the-ukraine-experience/>.

Defence Research and Development Canada, Gitanjali Adlakha-Hutcheon, Matthew T. Richins, Deborah E. Taylor, Defence Science and Technology Laboratory, DSTL, Air Force Research Laboratory, and NATO Science and Technology Organization (STO). “Biotechnology, Human Enhancement and Human Augmentation: A Way Ahead for Research and Policy.” Report. STO Technical Report, March 2022. [https://cradpdf.drddc-rddc.gc.ca/PDFS/unc386/p814643\\_A1b.pdf](https://cradpdf.drddc-rddc.gc.ca/PDFS/unc386/p814643_A1b.pdf).

Dettmer, Jamie. “Our Warnings on Hamas Were Ignored, Israel’s Women Border Troops Say.” POLITICO, November 21, 2023. <https://www.politico.eu/article/israel-border-troops-women-hamas-warnings-war-october-7-benjamin-netanyahu/>.

EU DisinfoLab. “Gender-Based Disinformation: Advancing Our Understanding and Response - EU DisinfoLab,” n.d. <https://www.disinfo.eu/publications/gender-based-disinformation-advancing-our-understanding-and-response/>.



European institute for Gender Equality. "Artificial Intelligence, Platform Work and Gender Equality," December 9, 2021. [https://eige.europa.eu/publications-resources/publications/artificial-intelligence-platform-work-and-gender-equality?language\\_content\\_entity=en#](https://eige.europa.eu/publications-resources/publications/artificial-intelligence-platform-work-and-gender-equality?language_content_entity=en#).

Fleser, Cori. "Beyond Munitions: A Gender Analysis for Ukrainian Security Assistance." Atlantic Council. Atlantic Council, August 15, 2022. <https://www.atlanticcouncil.org/in-depth-research-reports/issue-brief/beyond-munitions-a-gender-analysis-for-ukrainian-security-assistance/>.

Fridvall, Linn, Sophie Hedenstierna, Swedish Armed Forces, FMLOG Graphic Production, Stockholm, and Peter Östman. "NCGM's Military Gender Analysis Tool (MGAT)." NCGM's Military Gender Analysis Tool (MGAT), September 2022. <https://www.forsvarsmakten.se/siteassets/english/swedint/engelska/swedint/nordic-centre-for-gender-in-military-operations/ncgm-mgat-tool.pdf>.

Global Humanitarian Overview. "New And Emerging Technologies Are Improving Humanitarian Action," n.d. <https://2021.gho.unocha.org/global-trends/new-and-emerging-technologies-are-improving-humanitarian-action/>.

Grey, Eva. "Satellites and Spoofing – How Hackers Falsify Situational Awareness." Army Technology, November 17, 2013. <https://www.army-technology.com/features/feature-satellites-spoofing-hackers-falsify-situational-awareness/>.

Harris, TiAnni, Johanna Hagg, and Belinda Pletzer. "Eye-Movements During Navigation in a Virtual Environment: Sex Differences and Relationship to Sex Hormones." Frontiers in Neuroscience 16 (April 29, 2022). <https://doi.org/10.3389/fnins.2022.755393>.

HM Government. "How to Guide on Gender and Strategic Communication in Conflict and Stabilisation Contexts - January 2020." GOV.UK, February 25, 2020. <https://www.gov.uk/government/publications/how-to-guide-on-gender-and-strategic-communication-in-conflict-and-stabilisation-contexts-january-2020#Quick%20Read-Gender%20and%20countering%20disinformation>.

Intelligence and Security Committee of Parliament. "Women in the UK Intelligence Community." Report. House of Commons, March 5, 2015. [https://isc.independent.gov.uk/wp-content/uploads/2021/01/20150305\\_ISC\\_Report\\_Women\\_in\\_the\\_UKIC.pdf](https://isc.independent.gov.uk/wp-content/uploads/2021/01/20150305_ISC_Report_Women_in_the_UKIC.pdf).

International Committee of the Red Cross. "Gendered Impacts of Armed Conflicts and Implications for The," March 1, 2023. <https://www.icrc.org/en/publication/4634-gendered-impact-armed-conflict-and-ihl>.

Jögi, Agur. "Diverse Teams Achieve Greater Success: How Business Can Champion Diversity as Good Sense." Forbes, May 11, 2022. <https://www.forbes.com/sites/forbestechcouncil/2022/05/10/diverse-teams-achieve-greater-success-how-business-can-champion-diversity-as-good-sense/>.

Johnson-Freese, Joan, and Sahana Dharmapuri. "Op-ed | Expanding Space Security Options Through Gender Perspectives." SpaceNews, January 23, 2023. <https://spacenews.com/op-ed-expanding-space-security-options-through-gender-perspectives/>.

Kachmar, Oleh. "Why Are Refugees Returning to Ukraine? - New Lines Institute." New Lines Institute, September 15, 2023. <https://newlinesinstitute.org/displacement-and-migration/why-are-refugees-returning-to-ukraine/>.

Kaufman, Marc, and Dafna Linzer. "China Criticized for Anti-Satellite Missile Test: Destruction of an Aging Satellite Illustrates Vulnerability of U.S. Space Assets." Washington Post, January 18, 2007. <https://www.washingtonpost.com/archive/politics/2007/01/19/china-criticized-for-anti-satellite-missile-test-span-classbankheaddestruction-of-an-aging-satellite-illustrates-vulnerability-of-us-space-assetsspan/ae3462c4-c2d9-422b-bc17-dc040458fe64/>.

Kayali, Laura, and Joshua Posaner. "Europe's Soldiers Keep Quitting, Just When NATO Needs Them." POLITICO, March 19, 2024. <https://www.politico.eu/article/nato-russia-ukraine-war-defense-france-germany-soldiers-army/>.

Kershner, Isabel. "Israeli Women Fight on Front Line in Gaza, a First." The New York Times, January 19, 2024. <https://www.nytimes.com/2024/01/19/world/middleeast/israel-gaza-women-soldiers.html>.

Koppell, Carla. "The role of women in conflict and post-conflict situations." In Dialogues at the Economic and Social Council, 55–58. UN ECOSOC, 2013.

Krasodonski-Jones, Alex, Asli Atay, Ellen Judson, Josh Smith, and Rose Lasko-Skinner. "Engendering Hate: The Contours of State-aligned Gendered Disinformation Online." National Democratic Institute, October 2020. <https://demos.co.uk/wp-content/uploads/2023/02/Engendering-Hate-Oct.pdf>.

Kuhar, Roman, and David Paternotte. "'Gender Ideology' in movement: Introduction." In Anti-Gender Campaigns in Europe: Mobilising against Equality, 1–23. London: Rowman and Littlefield Publishers, n.d.

Leiden Security and Global Affairs Blog. "From Trauma to Tactics: Strategic Calculations of Sexual Violence in Ukraine," November 15, 2023. <https://www.leidensecurityandglobalaffairs.nl/articles/from-trauma-to-tactics-strategic-calculations-of-sexual-violence-in-ukraine>.

Limaye, By Yogita. "Ukraine Conflict: 'Russian Soldiers Raped Me and Killed My Husband,'" April 11, 2022. <https://www.bbc.com/news/world-europe-61071243>.

Lopez Keravuori, Rose. "The Instrumentalization of Femininity in U.S. Military Conflict Resolution in Afghanistan." MA Thesis, St Cross College, 2014. [https://www.academia.edu/9389249/The\\_Instrumentalization\\_of\\_Femininity\\_in\\_U\\_S\\_Military\\_Conflict\\_Resolution\\_in\\_Afghanistan](https://www.academia.edu/9389249/The_Instrumentalization_of_Femininity_in_U_S_Military_Conflict_Resolution_in_Afghanistan).

MacLachlan, Karolina. "NATO Review - Protection of Civilians: A Constant in the Changing Security Environment." NATO Review, June 17, 2022. <https://www.nato.int/docu/review/articles/2022/06/17/protection-of-civilians-a-constant-in-the-changing-security-environment/index.html>.

Mamiche, Mona. "Adapting Military Equipment to Account for Gender Differences." NAOC, October 10, 2019. <https://natoassociation.ca/adapting-military-equipment-to-account-for-gender-differences/>.

Manasi, Ardra, Subadra Panchanadeswaran, and Emily Sours. "Addressing Gender Bias to Achieve Ethical AI." IPI Global Observatory, March 17, 2023. <https://theglobalobservatory.org/2023/03/gender-bias-ethical-artificial-intelligence/>.

Meijer, Maaïke. "Opdat Ik Heenga Als Een Man." Nederlandse Letterkunde 24, no. 2 (September 1, 2019): 211–30. <https://doi.org/10.5117/nedlet2019.2.004.meij>.

Members of a U.S. Marine Corps Female Engagement team on security patrol in Sangin Valley, Afghanistan. Cpl. David Hernandez /U.S. Marine Corps, and Robert Egnell. "Gender Perspectives and Military Effectiveness." PRISM, n.d. <https://inclsvesecurity.wpenginepowered.com/wp-content/uploads/2016/03/Gender-Perspectives-and-Military-Effectiveness.pdf>.

Moesl, Birgit, Harald Schaffernak, Wolfgang Vorraber, Michael Holy, Thomas Herrele, Reinhard Braunstingl, and Ioana Victoria Koglbauer. "Towards a More Socially Sustainable Advanced Pilot Training by Integrating Wearable Augmented Reality Devices." Sustainability 14, no. 4 (February 15, 2022): 2220. <https://doi.org/10.3390/su14042220>.

Mohan, Shimona. "Filling the Blanks: Putting Gender Into Military A.I." Policy Commons, August 21, 2023. <https://policycommons.net/artifacts/4775510/filling-the-blanks/5611741/>.

Moss, Kevin. "Russia as the Saviour of Europe's civilization: Gender and the Geopolitics of Traditional Values: Mobilizing Against Equality." In *Anti-Gender Campaigns in Europe: Mobilizing Against Equality*, edited by Roman Kuhar and David Paternotte, 195–215. London: Rowman and Littlefield Publishers, 2018.

Nagel, Robert U, Kate Fin, and Julia Maenza. "Gendered Impacts on Operational Effectiveness of UN Peace Operations - GIWPS." Georgetown Institute for Women, Peace and Security, May 2021. <https://giwps.georgetown.edu/wp-content/uploads/2021/05/Gendered-Impacts-on-Operational-Effectiveness-of-UN-Peace-Operations.pdf>.

NASA. "Process for Limiting Orbital Debris." NASA Technical Standard. NASA TECHNICAL STANDARD, 2019. <https://standards.nasa.gov/sites/default/files/standards/NASA/C/0/nasa-std-871914c.pdf>.

National University of Singapore. "Algorithmic Problem Solving." In *Introduction to Algorithms and Pseudocode*, 32–36, n.d. [https://www.comp.nus.edu.sg/~cs1101x/4\\_misc/jumpstart/chap3.pdf](https://www.comp.nus.edu.sg/~cs1101x/4_misc/jumpstart/chap3.pdf).

NATO Allied Command Transformation. "NWCC - NATO Warfighting Capstone Concept." ACT, 2021. <https://www.act.nato.int/our-work/nato-warfighting-capstone-concept/>.

NATO Allied Command Transformation. "General Lavigne's Strategic Blueprint: Transforming NATO's Military Instrument of Power - NATO'S ACT." NATO's ACT, January 24, 2024. <https://www.act.nato.int/article/sact-strategic-blueprint-transforming-natos-miop/>.

NATO IMS GENAD Office. "Summary of National Reports 2020." Report, 2023. [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2023/6/pdf/2020-summary-national-reports.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2023/6/pdf/2020-summary-national-reports.pdf).

NATO Military Committee. "Military Guidelines on the Prevention of, and Response to, Conflict-Related Sexual Violence," 2022. [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2023/10/pdf/mcm-0082-2022-en.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2023/10/pdf/mcm-0082-2022-en.pdf).

NATO SHAPE and NATO ACT. "Bi-Strategic Command Directive 040-001: Integrating Gender Perspective into the NATO Command Structure." NATO, October 20, 2021. [https://www.act.nato.int/wp-content/uploads/2023/05/Bi-SCD\\_040-001.pdf](https://www.act.nato.int/wp-content/uploads/2023/05/Bi-SCD_040-001.pdf).

NATO. "Brussels Summit Communiqué Issued by NATO Heads of State and Government (2021)," June 2021. [https://www.nato.int/cps/en/natohq/news\\_185000.htm?selectedLocale=en](https://www.nato.int/cps/en/natohq/news_185000.htm?selectedLocale=en).

NATO. "Diversity, Inclusion and Accessibility at NATO," April 19, 2024. [https://www.nato.int/cps/en/natohq/topics\\_64099.htm?selectedLocale=en](https://www.nato.int/cps/en/natohq/topics_64099.htm?selectedLocale=en).

NATO. "NATO 2022 Strategic Concept," 2022. [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2022/6/pdf/290622-strategic-concept.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2022/6/pdf/290622-strategic-concept.pdf).

NATO. "NATO Military Concept of the Protection of Civilians," June 2018.

NATO. "NATO Policy on Preventing and Responding to Conflict-Related Sexual Violence," 2021. [https://www.nato.int/cps/en/natohq/official\\_texts\\_184570.htm](https://www.nato.int/cps/en/natohq/official_texts_184570.htm).

NATO. "NATO Policy on Preventing and Responding to Sexual Exploitation and Abuse," 2019. [https://www.nato.int/cps/en/natohq/official\\_texts\\_173038.htm](https://www.nato.int/cps/en/natohq/official_texts_173038.htm).

NATO. "NATO/EAPC Women, Peace and Security Policy and Action Plan 2018," 2018. [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/pdf\\_2018\\_09/20180920\\_180920-WPS-Action-Plan-2018.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2018_09/20180920_180920-WPS-Action-Plan-2018.pdf).

NATO. "NATO's Approach to Countering Disinformation," n.d. <https://www.nato.int/cps/en/natohq/177273.htm>.

NATO. "NATO's Overarching Space Policy." NATO, January 17, 2022. [https://www.nato.int/cps/en/natohq/official\\_texts\\_190862.htm](https://www.nato.int/cps/en/natohq/official_texts_190862.htm).

NATO. "Record 40660: Gender Advisor." NATO Terminology Database, February 16, 2022.

NATO. "Record 40693: Comprehensive Approach." NATO Terminology Database, July 18, 2022.

NATO. "Remarks by NATO Secretary General Jens Stoltenberg at the Women Political Leaders Summit," June 23, 2021. [https://www.nato.int/cps/en/natohq/opinions\\_185443.htm](https://www.nato.int/cps/en/natohq/opinions_185443.htm).

NATO. "Science for Peace and Security Programme," n.d. [https://www.nato.int/cps/en/natohq/topics\\_85373.htm](https://www.nato.int/cps/en/natohq/topics_85373.htm).

NATO. “STANAG 2437, AJP-01, Ed F, V1: Allied Joint Doctrine.” NATO Standardization Document Database, December 19, 2022. <https://ia800501.us.archive.org/13/items/AJP-01-F1/AJP-01%20EDF%20V1%20E.pdf>.

NATO. “Statement by the North Atlantic Council on the Recent Anti-satellite Missile Test Conducted by the Russian Federation.” NATO, November 19, 2021. [https://www.nato.int/cps/en/natohq/news\\_188780.htm](https://www.nato.int/cps/en/natohq/news_188780.htm).

NATO. “Strategic Foresight Analysis 2023,” 2024. [https://www.act.nato.int/wp-content/uploads/2024/01/SFA2023\\_Final.pdf](https://www.act.nato.int/wp-content/uploads/2024/01/SFA2023_Final.pdf).

NATO. “Summary of the NATO Artificial Intelligence Strategy,” October 22, 2021. [https://www.nato.int/cps/en/natohq/official\\_texts\\_187617.htm](https://www.nato.int/cps/en/natohq/official_texts_187617.htm).

NATO. “The NATO Policy on Preventing and Responding to Sexual Exploitation and Abuse,” 2018. [https://www.nato.int/cps/en/natohq/official\\_texts\\_173038.htm](https://www.nato.int/cps/en/natohq/official_texts_173038.htm).

NCGM. “Thematic Analysis: The Use of Gender Perspective in the Conflict in Ukraine.” NCGM Thematic Analysis, June 2023. [https://www.forsvarsmakten.se/siteassets/english/swedint/engelska/swedint/nordic-centre-for-gender-in-military-operations/thematic-analysis\\_ukraine\\_ncgm\\_june23.pdf](https://www.forsvarsmakten.se/siteassets/english/swedint/engelska/swedint/nordic-centre-for-gender-in-military-operations/thematic-analysis_ukraine_ncgm_june23.pdf).

Nori, Raffaella, Laura Piccardi, Agnese Pelosi, Daniele De Luca, Francesca Frasca, and Fiorella Giusberti. “Perspective Changing in WalCT and VR-WalCT: A Gender Difference Study [WalCT – VR-WalCT: Gender Differences].” *Computers in Human Behavior* 53 (December 1, 2015): 316–23. <https://doi.org/10.1016/j.chb.2015.07.015>.

Obradovic, Lana, and Jody Neathery-Castro. “Integrating Gender Perspective in Cognitive Warfare.” *OPEN Publications* 8, no. 7 (20AD): 1–36. [https://issuu.com/spp\\_plp/docs/open\\_publication\\_integrating\\_gender\\_perspective\\_in?fr=xKAE9\\_zU1NQ](https://issuu.com/spp_plp/docs/open_publication_integrating_gender_perspective_in?fr=xKAE9_zU1NQ).

Office of the NATO Secretary General’s Special Representative for Women, Peace and Security. “Women, Peace and Transforming Security: Visions of the Future of Women, Peace and Security for NATO,” October 31, 2020. [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/pdf/2020/10/pdf/201110-wps-essay-transforming-security-e.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/pdf/2020/10/pdf/201110-wps-essay-transforming-security-e.pdf).

Office of the Secretary General Human Security Unit. “Introductory Resource Guide Women, Peace and Human Security,” 2019. [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/pdf\\_2019\\_07/20190710\\_1907-wps-resource-guide.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2019_07/20190710_1907-wps-resource-guide.pdf).

Olsson, Louise, Erika Toivonen, Camilla Lönngren, and Gustav Friis. “Toward an Enhanced Analysis of the Human Terrain in Sweden: Men’s And Women’s Willingness to Defend, Mobilization, Resilience, And Safety in The Context of National Defense.” Uppsala University, June 23, 2021. <https://uu.diva-portal.org/smash/get/diva2:1640501/FULLTEXT01.pdf>.

OSCE Parliamentary Assembly. “2023 Gender Report: Understanding and Addressing the Gendered Consequences of the War in Ukraine,” 2023. <https://www.oscepa.org/en/documents/annual-sessions/2023-vancouver/reports-and-speeches-8/4727-report-by-the-special-representative-on-gender-issues-eng/file>.

Peace Research Institute Oslo (PRIO). “Armed Conflict Deaths Disaggregated by Gender – Peace Research Institute Oslo (PRIO),” n.d. <https://www.prio.org/publications/7207>.

Philipps, Dave. “‘This Is Unacceptable.’ Military Reports a Surge of Sexual Assaults in the Ranks.” *The New York Times*, May 2, 2019. <https://www.nytimes.com/2019/05/02/us/military-sexual-assault.html>.

Pike, John. “Provincial Reconstruction Teams,” n.d. <https://www.globalsecurity.org/military/ops/oef-prt.htm>.

Pryor Learning. “Technology Differences: Women Vs. Men,” January 11, 2024. <https://www.pryor.com/blog/technology-differences-women-vs-men/>.

Rajagopalan, Rajeswari Pillai. “The Outer Space Treaty: Overcoming Space Security Governance Challenges.” Council on Foreign Relations: International Institutions and Global Governance Program, February 23, 2021. <https://www.cfr.org/report/outer-space-treaty>.

Rajeshwari U R, and Rajeshwari U R. “Narrow the Digital Gender Gap.” *Deccan Herald*, October 25, 2023. <https://www.deccanherald.com/opinion/narrow-the-digital-gender-gap-2741907>.

Reding, Dale F., Angelo De Lucia, Álvaro Martín Blanco, Laura A. Regan PhD, and NATO Science & Technology Organization. “Science & Technology Trends 2023-2043 Across the Physical, Biological, and Information Domains.” NATO Science & Technology Organization. NATO Science & Technology Organization, 2023. [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2023/3/pdf/stt23-vol1.pdf?trk=public\\_post\\_comment-text](https://www.nato.int/nato_static_fl2014/assets/pdf/2023/3/pdf/stt23-vol1.pdf?trk=public_post_comment-text).

Roepke, Wolf-Diether, and Hasit Thankey. “Resilience: The First Line of Defence.” *NATO Review*, February 27, 2019. <https://www.nato.int/docu/review/articles/2019/02/27/resilience-the-first-line-of-defence/index.html>.

Rohwerder, Brigitte. “Lessons from Female Engagement Teams.” GSDRC Helpdesk Research Report, January 14, 2015. <https://assets.publishing.service.gov.uk/media/57a08967ed915d622c0001db/hdq1186.pdf>.

Rotem, Nir, and Elizabeth Heger Boyle. “Women and War: Using Gender to Predict Conflicts.” *The Gender Policy Report*, September 8, 2020. <https://genderpolicyreport.umn.edu/women-and-war-using-gender-to-predict-conflicts/>.

Smith, General Sir Rupert. *The Utility of Force*. Allen Lane, 2005.

Space Security Index. “SSI Issue Guide: Military Uses of Space,” November 2020. [https://spacesecurityindex.org/wp-content/uploads/2020/11/IssueGuide\\_Military-Uses.pdf](https://spacesecurityindex.org/wp-content/uploads/2020/11/IssueGuide_Military-Uses.pdf).

Steinbock, Dan. “ Hamas Attack: It Wasn’t an ‘Intelligence Failure.’” *Modern Diplomacy*, December 24, 2023. <https://modern diplomacy.eu/2023/12/25/hamas-attack-it-wasnt-an-intelligence-failure/>.



Stephenson, Elise, and Cassandra Steer. “Old Inequalities, New Space? Women, Peace and Space Security.” The Strategist, December 13, 2022. <https://www.aspistrategist.org.au/old-inequalities-new-space-women-peace-and-space-security/>.

Supreme Allied Commander, Europe, Supreme Allied Commander, Transformation, Hugues Delort-Laval, and Graham Stacey KBE CB CCMI. “BI-STRATEGIC COMMAND DIRECTIVE 040-001 (PUBLIC VERSION),” October 17, 2017. <https://www.act.nato.int/wp-content/uploads/2023/06/nu0761.pdf>.

Turnley, Jessica Glick. Retaining a Precarious Value as Special Operations Go Mainstream, 2019. <https://apps.dtic.mil/sti/pdfs/ADA495335.pdf>.

UK Army Ministry of Defence. “A Soldier Is a Soldier,” n.d. <https://www.army.mod.uk/news-and-events/news/2021/07/a-soldier-is-a-soldier/>.

UN Women – Europe and Central Asia. “Ukraine Crisis Is Gendered, so Is Our Response,” February 20, 2023. <https://eca.unwomen.org/en/stories/in-focus/2023/02/in-focus-war-in-ukraine-is-a-crisis-for-women-and-girls>.

UN Women – Headquarters. “Rapid Gender Analysis of Ukraine,” March 31, 2022. <https://www.unwomen.org/en/digital-library/publications/2022/05/rapid-gender-analysis-of-ukraine>.

UNDP Climate Promise. “What Does Gender Equality Have to Do With Climate Change?,” n.d. <https://climatepromise.undp.org/news-and-stories/what-does-gender-equality-have-do-climate-change>.

UNICEF. “The Paris Principles: Principles And Guidelines On Children Associated With Armed Forces Or Armed Groups,” January 2007. <https://www.unicef.org/mali/media/1561/file/ParisPrinciples.pdf>.

United Nations Children’s Fund. “Bridging the Gender Digital Divide: Challenges and an Urgent Call for Action for Equitable Digital Skills Development.” UNICEF, May 31, 2023. <https://data.unicef.org/resources/ictgenderdivide/>.

United Nations Office on Drugs and Crime. “Global Report on Trafficking in Persons 2022.” UNODC Research. United Nations Publication, January 2023. [https://www.unodc.org/documents/data-and-analysis/glotip/2022/GLOTiP\\_2022\\_web.pdf](https://www.unodc.org/documents/data-and-analysis/glotip/2022/GLOTiP_2022_web.pdf).

United Nations. “Promotion and Protection of the Rights of Children: Promotion and Protection of the Rights of Children Children and Armed Conflict Report of the Secretary-General.” Report. General Assembly Security Council, June 5, 2023. <https://documents.un.org/doc/undoc/gen/n23/144/96/pdf/n2314496.pdf?token=bi9vWVGWjrzfYHhMXw&fe=true>.

United Nations. “World Population Day | United Nations,” n.d. <https://www.un.org/en/observances/world-population-day>.

US National Counterterrorism Centre, US Department of Homeland Security, and Department of Justice - Federal Bureau of Investigation. “Emerging Technologies May Heighten Terrorist Threats.” Joint Counterterrorism Assessment Team, October 14, 2022. <https://www.dni.gov/files/NCTC/documents/jcat/firstresponderstoolbox/134s-First-Responders-Toolbox-Emerging-Technologies-May-Heighten-Terrorist-Threats.pdf>.

Van Den Bosch, Karel, Adelbert Bronkhorst, and TNO. “Human-AI Cooperation to Benefit Military Decision Making.” STO-MP-IST-160, n.d. [https://www.karelvandenbosch.nl/documents/2018\\_Bosch\\_et\\_al\\_NATO-IST160\\_Human-AI\\_Cooperation\\_in\\_Military\\_Decision\\_Making.pdf](https://www.karelvandenbosch.nl/documents/2018_Bosch_et_al_NATO-IST160_Human-AI_Cooperation_in_Military_Decision_Making.pdf).

Viasat. “KA-SAT Network cyber attack overview,” March 30, 2022. <https://news.viasat.com/blog/corporate/ka-sat-network-cyber-attack-overview>.

Weller, Joshua, Andrea Ceschi, Lauren Hirsch, Riccardo Sartori, and Arianna Costantini. “Accounting for Individual Differences in Decision-Making Competence: Personality and Gender Differences.” Frontiers in Psychology 9 (November 23, 2018). <https://doi.org/10.3389/fpsyg.2018.02258>.

Wilfore, Kristina, and Lucina Di Meco. “Gendered Disinformation Is a National Security Problem.” Brookings, March 8, 2021. <https://www.brookings.edu/articles/gendered-disinformation-is-a-national-security-problem/>.

Winterbotham, Emily. “The Impact of Gendered Narratives in the Conflict in Ukraine.” Journal-article. The Impact of Gendered Narratives in the Conflict in Ukraine, 2023. <https://www.globalcenter.org/wp-content/uploads/GCCS-RUSI-2023-PB-Impact-Gendered-Narratives-Conflict-Ukraine.pdf>.

World Bank. “Social Cohesion and Resilience,” n.d. <https://www.worldbank.org/en/topic/social-cohesion-and-resilience>.

Wright, Hannah. “Masculinities, conflict and peacebuilding.” Saferworld. Saferworld, October 2014. <https://www.saferworld-global.org/resources/publications/862-%20masculinities-conflict-and-peacebuilding-perspectives-on-men-through-a-gender-lens>.

Wright, Jasmine, and Andrej Verity. “Artificial Intelligence Principles: For Vulnerable Populations in Humanitarian Contexts.” Digital Humanitarian Network, January 2020. <https://reliefweb.int/attachments/c11a4c29-6503-3aba-be56-1c93bfeadc9f/Artificial%20Intelligence%20Principles%20for%20Vulnerable%20Populations%20in%20Humanitarian%20Contexts%20-%20Jan%202020.pdf>.

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