



Looking for a Few Good Operators

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Opportunities for Space Force to Fulfil the Women, Peace and Security Agenda

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In 2018, NATO called for the development of an overarching policy for Space, which was approved in June of 2019. Later that year the Alliance formally recognized Space as an operational domain alongside Air, Land, Sea, and Cyberspace.¹ As NATO works to craft its joint approach to the Space domain, two Allies have created military services to address it – the United States Space Force (USSF) and the French Air and Space Force (FASF). The dedicated focus on Space offers many opportunities for NATO to remain a global leader in military technology while also continuing to advance the security and stability of the North Atlantic, and, by extension, the world. Most of the focus of Space doctrine has been on the physical aspects of Space power.² NATO's own Space policy is currently similarly physical, focusing on how Space 'underpins NATO's ability to navigate and track forces, to have robust communications, to detect missile launches and to ensure effective command and control.'³ However, in addition to the physical benefits to military operations that Space offers, the Space domain, including the standup of member countries' dedicated

Space-focused military services, also offer an opportunity for NATO's commitment to the Women, Peace and Security (WPS) agenda. The unique nature of the Space domain – touching and enabling operations in every other domain – provides an opportunity to meaningfully enact gendered perspectives across all operations.⁴ There is an opportunity to build Space forces that accelerate the implementation of WPS to create a more secure and peaceful world. This paper discusses ways in which Space doctrine can encompass WPS tenets and how recruitment and retention policies can help NATO countries ensure meaningful leadership and operational opportunities for women.

Space as an Enabler for WPS

The Space domain touches nearly every facet of warfare. NATO presence (and arguably dominance) in Space is essential to maintain technological superiority and strategic dominance over our adversaries. Satellite technology enables Global Positioning Systems (GPS); Intelligence, Surveillance, and Reconnaissance (ISR) technology; early warning systems; and guidance for precision munitions. Indeed, a critical failure in Space would be felt in terrestrial warfighting abilities. However, the same Space-faring technologies that enable war are also essential for addressing key aspects of the WPS agenda.

A cornerstone of WPS is the fact that women and girls experience conflict and its aftermath differently than men and boys. Indeed, in many instances women suffer the most in the face of war-born resource scarcity and are often 'left behind' during conflict settlement processes.⁵ While there have been attempts at codifying the importance of women's participation in the security sector, little meaningful progress has been made. For example, despite the adoption of UN Security Council Resolution 1325 in October 2000, women have participated in less than 11 % of ceasefire negotia-

tions in the last two decades.⁶ Women's exclusion from these processes result in diminished access to critical aspects of sociopolitical life that often exacerbate the cycle of conflict.⁷ In addition to war and violence, climate change and the current COVID-19 pandemic are disproportionately adversely impacting women and girls, and women are similarly excluded from the processes aimed at finding meaningful solutions to these crises.⁸

The Space domain has an opportunity to address the inequalities resultant from terrestrial conflict. During- or post-conflict inequalities are often hidden, especially those that may harm women. From infrastructure damage to destruction of crops to lack of health facilities, emerging post-conflict governments often try to hide these deficiencies from the rest of the world (especially donors from Western countries).⁹ However, satellite imagery can show the impact of violence in real-time – making it harder for regimes to hide atrocities.¹⁰ Directing the use of Space technologies to highlight the plight of the most vulnerable will elevate awareness of the impact of conflict on women and girls and help direct both ground forces and government officials to places of greatest need.

In addition to recognizing (and stopping) atrocities, Space-based technology has the ability to promote gender equality in societies most likely to experience conflict. Concrete technologies such as satellite phones and mobile banking offer women independence and economic growth. Access to satellite-enabled mobile phones allows for both personal and economic independence for women, a key step towards conflict-reducing social equality.¹¹ Additionally, as advancements have been made in remote education technologies, Space-enabled technologies can advance women's educational attainment.¹²

Women are also often an 'early warning' signal of violence and the source of valuable human intelligence to ground forces. However, obtaining this information is often difficult for both cultural and geographic reasons.

During the conflicts in Iraq and Afghanistan, NATO nations overcame this through using women attached to combat units to directly engage with local women.¹³ Yet Space allows for a more holistic participation of women in violence prevention. Evidence shows that Space-enabled satellite phone technology creates an effective early warning system for women.¹⁴

Filling a Personnel Gap

Newly created space forces also have the ability to impact the WPS agenda through a more meaningful and deliberate recruitment and retention of women into operational and leadership positions. Creating a doctrine that recognizes the ways in which Space technologies contribute to WPS will require recruitment and retention of diverse Space professionals.¹⁵

Women are quickly closing the gap in obtaining Science, Technology, Engineering and Maths (STEM) degrees, giving them the skills necessary to be operators in the Space domain.¹⁶ Indeed, a benefit of the focused encouragement and investment in women in STEM programs worldwide is access to a robust and gender diverse workforce that has the necessary skills for the technological demands of the Space domain. Women remain largely underrepresented in NATO militaries, accounting for approximately 11 % of militaries NATO wide, falling far short of stated goals for women's recruitment.¹⁷ Indeed, achieving success in WPS is not only predicated on advancing women's achievements abroad but also ensuring meaningful opportunities for women at home.

The creation of new Space-dedicated branches comes at a particularly unique time to achieve this. At a moment when women have the necessary skills needed to serve, both the propensity and qualifications to serve by men is on the decline. In the United States, for example, men's eligibility for service due to both education and physical fitness will decline to

approximately 5 % of the population by 2040; preliminary reviews of NATO countries portend similar situations.¹⁸

Numerically, the stage is set to attract the diverse force that is needed to advance NATO's WPS agenda. However, to do so, these services will need to adopt new recruiting and retention programs. Traditional military services have struggled not only to recruit, but also to retain women. For nearly every NATO country, women leave the services at faster rates than men.¹⁹ Meaningful recruitment and retention of women requires changes to personnel programs in order to address some of the key reasons women leave the services. Balancing work-family relationships and obligations are cited as one of the primary reasons that women leave the military services.²⁰

Space services offer a unique opportunity to address this key issue. While Space is essential for terrestrial operations across the globe, basing for space operations can be static. The USSF is currently exploring meaningful ways to do this. In a 2020 briefing to the Defense Advisory Committee on Women in the Services, the USSF noted that flexible work schedules, dedicated engagement on diversity and seamless on-ramp/off-ramping for work in the military, academia, and industry were going to be a key part of initial personnel policies in order to maintain retention of women in the service.²¹ The flexibility offered by longer dwell and geographically static basing offers an opportunity to rethink personnel policy in a way that increases the attractiveness of the service to women.

While the Space domain offers an opportunity for NATO to enable military power, it also offers a key opportunity to meaningfully advance the WPS agenda. The individuals recruited into the first cadre of Space professionals will be instrumental in creating doctrine and policies and recognize the unique role that Space can play to ensure that NATO is a leader in advancing a more peaceful world while also promoting the unique talents that women bring.

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Endnotes

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