

**Trailblazers in Security & War:  
Women of Yesterday and Today**

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## ***INTRODUCTION***

At the forefront of government interests and war termination is the United States will to bring all forces necessary to result in a wartime victory. Starting around World War II (WWII), the United States (U.S.) integrated women into the military as the number of able body men became short in supply. During World War II, women supplemented forces on the homeland by the thousands. Then, over time, women were slowly afforded rights to an open array of military career paths. In 2013, women were allowed the opportunity to compete for any position a male counterpart was holding, including combat positions. Females such as Angas Driscoll, Genevevi Grotjan, Rear Admiral Grace Hopper, and General Ann Dunwoody paved the way for women to be afforded these opportunities by becoming indispensable to their military organizations and demonstrating that gender does not define the value that you bring to an organization. These women all significantly contributed to national security and wartime efforts throughout the history of United States. Today, General Ann Dunwoody became the first female military four-star general in U.S. history. However, the U.S. as a nation continues to struggle to integrate women into the military because this involves changing the culture of the organization from the top down with complete buy-in amongst every member within the organization. Each of these women were challenged to work through setbacks inarguably created in a male centric organization. In an era of asymmetric warfare, where the boundaries of the frontlines of war were no longer defined and adversaries attack each other unexpectedly in areas of great weakness through unconventional tactics,<sup>1</sup> America needs a robust, well-trained military force indiscriminate of gender to deter enemy threats from challenging American superiority.

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<sup>1</sup> Ann Dunwoody, *A Higher Standard: Leadership Strategies from America's First Female Four-Star General* (Da Capo Press, 2015); "Asymmetric Warfare | Definition of Asymmetric Warfare by Merriam-Webster," accessed April 17, 2020, [https://www.merriam-webster.com/dictionary/asymmetric warfare](https://www.merriam-webster.com/dictionary/asymmetric%20warfare).

Throughout every successful career, Anges Driscoll, Genevevi Grotjan, Rear Admiral Grace Hopper, and General Ann Dunwoody overcame adversity to better prepare this nation for accepting women in the security and military sectors.

## ***WOMEN OF YESTERDAY***

Women of yesterday refers to a few of the original female trailblazers in the security and military sector around the time of World War II (WWII). Women such as “the code girls” and “Amazing Grace” were critical in breaking barriers to female inclusion, opening opportunities for women in these career paths. During WWII, Anges Driscoll and Genevevi Grotjan were one of many thousand women breaking enemy codes on the homeland to provide critical intelligence to the allied powers, aiding in the WWII war effort from afar. Anges Driscoll, an expert hacker, trained nearly all code breakers of the time period, and her trainees broke the Japanese transcripts, known as JN-25, and prepared the American Pacific fleet for an attack at Midway.<sup>2</sup> With the codes broken leading up to the Battle of Midway, U.S. forces were strategically prepared for combat, which resulted in a decisive U.S. victory over the Japanese fleet. Decoding JN-25 allowed the U.S. to track the Japanese fleets and their capabilities right up to the attack on Midway with a robust knowledge of enemy tactics.<sup>3</sup> Genevevi Grotjan, known for being a mathematician and novice code breaker at the time, broke the Japanese machine code Purple with a team of expert codebreakers. She identified repetitive coding in a series of messages and resulted in the “most important source of strategically valuable, long-term intelligence” during WWII.<sup>4</sup> Breaking Purple allowed the Allies to identify collaborationist enemy governments

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<sup>2</sup> Liza Mundy, *Code Girls: The Untold Story of the American Women Codebreakers of World War II* (New York: Hachette Book Grp, Inc., 2017).

<sup>3</sup> Mundy.

<sup>4</sup> Mundy.

along with much of the same information that JN-25 did. Both women received praise throughout their careers for their efforts and had a significant impact on the outcome of WWII.

Around the same time, Grace Hopper, better known as Amazing Grace, was another remarkable woman whose skills were mission critical to both the military and private sectors. She was a visionary who served forty-two years in the military on both reservist and active duty orders and eventually promoted to the rank of rear admiral. Rear Admiral Hopper was the tip of the spear on all manner of advancing data processing language for computers such as COBOL (Common Business-Orientated Language). She was known for standardizing the U.S. Navy and eventually the entire Department of Defense data processing using COBOL, aligning communications across all four military defense services.<sup>5</sup> With only several hundred computers in 1955 to over 40,000 in 1968, Rear Admiral Hopper trained military personnel to understand COBOL and standardized the use of the systems throughout the military, which is not a small feat in an organization opposed to change.<sup>6</sup>

These women contributed immensely to the success of our military and were key national security assets throughout their careers. As critical as their stories were to national success, each faced challenges imposed by gender bias and fought for their rights routinely. Anges Driscoll and Genevevi Grotjan were accustomed to receiving less praise than their male counterparts, and they were overlooked for promotion opportunities regularly.<sup>7</sup> When Grace Hopper tried to enlist for the first time, her application was denied because of her age and weight.<sup>8</sup> No matter the obstacles, these women continued to overcome setbacks and meet the needs of the war effort,

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<sup>5</sup> Kathleen Broome Williams, "Grace Hopper: Admiral of the Cyber Sea," *Technology and Culture* (The Johns Hopkins University Press and the Society for the History of Technology, n.d.).

<sup>6</sup> Williams.

<sup>7</sup> Mundy, *Code Girls: The Untold Story of the American Women Codebreakers of World War II*.

<sup>8</sup> "Biography of Grace Murray Hopper | Office of the President," accessed March 22, 2020, <https://president.yale.edu/biography-grace-murray-hopper>.

challenging the male dominant mindset in America during their time. During WWII, it was well known that women serving in the government as codebreakers would be fired if they were found pregnant, which was a culture in the military up until the time General Ann Dunwoody entered the service around 1975. Around the time of the Vietnam War, women made up less than a third of the enlisted ratings and female officers were filling clerical, health services, and administrative positions.<sup>9</sup> Today, women are still a minority in the senior levels of private sector and military leadership, but females continue to follow the led of these trailblazers to change this fact.

## ***WOMEN OF TODAY***

On November 14, 2008, General Ann Dunwoody became the first female four-star general in the U.S. Army and more significantly in the entire U.S. military. On her path to commanding United States Army Materiel Command, she was also the first female to command the 82<sup>nd</sup> Airborne Division and Fort Bragg's first female general officer and the first woman to command the Combined Arms Support Command.<sup>10</sup> With a wide array of firsts, she makes a very clear statement to the nation that women can succeed at the most senior levels of a military organization. In an organization where the "Three Kings" is the name given to the powerful trinity of three men who report directly to the Chief of Staff of the Army, General Dunwoody successfully created a movement to change the title of the "Three Kings". She forced the inclusion of other critical decision making stakeholders into the fold for mission critical and organization briefs to the Chief of Staff of the Army.<sup>11</sup> As a logistics officer, she understood the

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<sup>9</sup> Williams, "Grace Hopper: Admiral of the Cyber Sea."

<sup>10</sup> Dunwoody, *A Higher Standard: Leadership Strategies from America's First Female Four-Star General*.

<sup>11</sup> Dunwoody.

nexus between operations and logistics, and she made organizational improvements to bridge gaps between both areas.

Still, throughout her career which went from 1975 to 2012, General Dunwoody had mounds of setbacks caused by a male dominant culture within her organization. During a 2014 retired four-star conference, General Dunwoody noted that one attendee openly remarked that opening combat roles to women lowered organizational standards service-wide.<sup>12</sup> Being put on the spot to reciprocate as the only female four-star, she collectedly debunked the accusation by noting that lowering standards would be a leadership failure and that military leadership should be placing candidates based on resume and not gender. Taking a stand in a group to provide an expert opposing opinion where you yourself are the minority is why we need leaders of diverse backgrounds within all levels of an organization to maintain the most holistic view for the organization. Reflecting back on her first assignment to the 82<sup>nd</sup> Airborne Division at Fort Bragg early in her career, she was not given the position she was assigned to because the leadership was not able to understand what position would be appropriate for a female. She was given an administrative position on-base that was quite clearly an undesirable billet, proven to end military careers, and was forced to prove herself before being afforded the honor of holding a position within the 82<sup>nd</sup> Airborne Division, where she fell into similar personal challenges between her and her supervisors. This fight for her career was one she continued throughout her time in the military. As the book title notes, she held herself to a “higher standard” than her peers and this eventually resulted in a seat as a four-star general.

General Dunwoody’s experience in the military makes a firm statement that there are still hurdles to gender bias in the organization that need to be confronted before the military can fully

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<sup>12</sup> Dunwoody.

integrate women. There is a new enemy within our midst that is difficult to predict and who uses asymmetric warfare to strike fear in our nation and test our resolve. We need people willing to stand for freedom of the many and combat terrorism and protect national security indiscriminate of gender bias.

## ***ASYMMETRIC WARFARE & ASSETS***

Women, such as Anger Driscoll, Genevevi Grotjan, Rear Admiral Grace Hopper, and General Ann Dunwoody, have set a precedent that females can contribute as much to a military organization as a male counterpart. With high level impacts dating back to WWII, these women have made it possible to expand the opportunities for women in the military, and this is critical in an era of asymmetric warfare.

Asymmetric warfare, defined above, uses largely unpredictable tactics against an enemy which are difficult to protect a nation against. One way to protect against devastating unconventional attacks, such as September 11<sup>th</sup>, is to maintain a strong and robust military force to deter aggressors. Throughout the world, there are over a dozen nations that allow women to maintain combat positions throughout the military, and in January of 2013 America followed in suit.<sup>13</sup> The best form of offence is a good defense. China, Russia, and the United States are the nations with the most powerful armies in the world, and based on Census Bureau statistics for 2020, the United States has 76% less citizens than either of those countries.<sup>14</sup> Limited by the

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<sup>13</sup> “Pentagon Says Women Can Now Serve In Front-Line Ground Combat Positions : The Two-Way : NPR,” accessed April 17, 2020, <https://www.npr.org/sections/thetwo-way/2015/12/03/458319524/pentagon-will-allow-women-in-frontline-ground-combat-positions>; “Women in Combat: U.S. Joins More than a Dozen Nations - CNN,” accessed April 17, 2020, <https://www.cnn.com/2015/08/20/us/women-in-combat-globally/index.html>.

<sup>14</sup> Greg Norman, “The 5 Most Powerful Armies in the World,” *Fox News*, February 21, 2020; “Women in the Army: The Percentage of Females in the World’s Biggest Armies,” accessed April 17, 2020, <https://www.army-technology.com/uncategorised/women-in-the-army/>; “Current Population,” accessed April 17, 2020, <https://www.census.gov/popclock/print.php?component=counter>.

population of the U.S, the inclusion of women bridges the gap in number of troops within the military. The United States has significantly improved the effectiveness of the nation's military might with the full integration of women into the workforce. Asymmetric warfare is extremely difficult to predict, and maintaining the most air, land, and sea assets with proper compliment of crew and funding is a strong deterrent for enemy forces. In 2018, the army noted that women accounted for an average of 17% of the United States military forces or about 74,000 women.<sup>15</sup> Assuming approximately 17% of each of the five military services is female, women account for a large percentage of the military. Based on the experiences of Anges Driscoll, Genevevi Grotjan, Rear Admiral Grace Hopper, and General Ann Dunwoody, we know that women can significantly contribute to all levels of the organization if the will to persevere is stronger than the challenges they face throughout their career. With a passion for their trade and the will to persevere through a culture of bias, each women applied their skills to their nations' armed forces and indirectly started a movement for female inclusion to build what we today see as the U.S. military.

## ***CONCLUSION***

The U.S. has a long line of heroines who have proved their worth to the military throughout their careers. Anges Driscoll and Genevevi Grotjan are just two of the many thousand women in WWII to break critical enemy codes to aid in winning the war. Rear Admiral Hopper modernized the Department of Defense computer-based operations during her commission. General Ann Dunwoody reframed the perspective of a male dominated Army culture, and even

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<sup>15</sup> "Demographics of the U.S. Military | Council on Foreign Relations," accessed April 17, 2020, <https://www.cfr.org/article/demographics-us-military>; "Women in the Army: The Percentage of Females in the World's Biggest Armies"; Voluson Expert Series, "Transducer Guide," n.d., 4–7; Norman, "The 5 Most Powerful Armies in the World."

through retirement, she continues to shape the organizations perspective on women in the workforce. The military needs women to continue to bring their talent and diverse perspective to the organization to ensure the U.S. military continues to be a superpower and deter aggressive actions from aggressors. Asymmetric warfare is challenging to combat, but having one of the strongest militaries will continue to deter aggressors from future attacks. The nation needs women to remain resilient and continue to bring their talents to strengthen the military and security sectors.

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