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Bomb-Dropping Bombshells: An Analysis of the Motivations and Accomplishments of the All-Female 46th Taman Guards Bomber Aviation Regiment

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During the Second World War, the Soviet Union employed thousands of women in combat roles, including three aviation regiments: the 586th Fighter Aviation Regiment, the 587th Day Bomber Aviation Regiment, and the 588th Night Bomber Aviation Regiment. Established with the permission of Joseph Stalin by Marina Raskova, these three regiments produced at least thirty Heroes of the Soviet Union\(^1\) and two fighting aces, flying over 30,000 combat sorties.\(^2\) Of the three regiments, the 588th Night Bomber Aviation Regiment is the most well-known and most successful. The accomplishments of the 588th can be explained through examining the motivations of these women before, during, and after the war. When the Germans invaded Russia in 1941, these women believed it was their patriotic duty to serve their country in its time of need. Coming from civilian air clubs to join in the fighting, this regiment remained all female and operated continuously on the front lines for three years, \(^3\) persistently working to find ways to outpace the male regiments they worked alongside. After the war,

\(^1\) Hero of the Soviet Union, or HSU, is the highest military decoration. Quote on the title page is from Serafima Amosova-Taranenko interview in *A Dance with Death*, 47.
\(^2\) Sorties are an attack made by troops coming out from a position of defense.
\(^3\) For perspective, most US regiments usually come off the front lines after 25 missions.
these women returned home to raise families; they believed that they were done serving their country in combat, and did not feel the need to continue military careers.4

It is necessary first to address the difficulty that comes with researching this regiment. There is limited access to Soviet military records, and many records have been lost because of poor conditions and theft. It is hard to count the number of women that served in the military because the government did not distinguish men from women in their records. There are not many primary or secondary sources published in English on this topic, and some of the primary sources published in English have been met with scrutiny and critical disregard from historians.

4 Any serious venture into the Soviet women pilots of World War II should begin with Reina Pennington and John Erickson’s Wings, Women, and War: Soviet Airwomen in World War II Combat (Lawrence: University Press of Kansas, 2001). It is one of the most thoroughly researched and well regarded sources on this topic, covering the social context, recruitment, combat ventures, and post-war experiences in great detail. Additional secondary sources include Euridice Charon Cardona, and Roger D. Markwick, Soviet Women on the Frontline in the Second World War (Palgrave Macmillan, 2012), which is a concise and well-researched account of not only women pilots, but women in all branches of the Soviet military. Amy Goodpaster Strebe, and Trish Beckman, Flying for Her Country the American and Soviet Women Military Pilots of World War II (Westport, Conn.: Praeger Security International, 2007) compares the background, training, and discrimination of the Soviet airwomen to the Women Air Force Service Pilots in the United States. Anne Noggle’s A Dance with Death: Soviet Airwomen in World War II. (College Station: Texas A & M University Press, 1994) includes interviews of sixty-nine women’s veterans, giving informal context to their lives during the war that, despite some research faults, is an excellent primary source. For more primary sources, consult Kazimiera Janina Cottam’s Women in War and Resistance: Selected Biographies of Soviet Women Soldiers (Nepean, Canada: New Military Pub., 1998) which contains biographies of the Soviet Women who received the Hero of the Soviet Union distinction during WWII. Another work by Kazimiera Janina Cottam, Jacqueline Kruzer, Lance Janda, John Davis, and Alison Rowley, Women in Air War: The Eastern Front of World War II, (1997) contains translated primary accounts from all three regiments. For background into the social aspects of women entering the military read Margaret R. Higonnet’s Behind the Lines: Gender and the Two World Wars. (New Haven: Yale University Press, 1987) which links the major events of war to the social constructs of gender, providing context to the situations that fostered the ability for women to act in combat. Anna Krylova, Soviet Women in Combat: A History of Violence on the Eastern Front (Cambridge: Cambridge University Press, 2010) also traces the social patterns that lead to women in combat in the Soviet Union.
and even the veterans they were written about. Western scholars tend to attribute the formation of these regiments as just propaganda, even though the evidence does not support this claim. Many of the regions in which the regiment was stationed are known by other names and tend to overlap, making it very difficult to track their movement. Also, owing to the Iron Curtain, many personal interviews with the veterans have only been able to be conducted in the last twenty years, upwards of fifty years after the end of the war. Thus, what follows is an interpretation of the available data in light of the aforementioned shortcomings.

No other country in the world had engaged in widespread enlistment of women in combat roles until the formation of these regiments. Two of the major factors that led to this historical anomaly are the socialist reform and the rise in civilian aviation in Russia before the war. The Bolshevik revolution in Russia allowed for women to gain political equality. Following in the Marxist tradition that women are seen as equals, Vladimir Lenin stated that “To effect [woman’s] complete emancipation and make her the equal of man, it is necessary to be socialized and for women to participate in common productive labor. Then women will occupy the same position as men.” During this time, more Soviet women worked than in any other industrialized nation, even making the same wages as their male counterparts. Abortion was legalized, four-month maternity leave was given to mothers, and the Soviet Union declared they had reached political equality. So, when the Russian government began to encourage its citizens to pursue civilian aviation in organizations like Osoavaikhim, or the Society for Cooperation in Defense and Aviation-Chemical Development, women worked to become pilots. The Russian government saw equality and industrialization as symbols of power.

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5 Hedrick Smith, 116.
(demonstrations of the benefits of socialism) and aviation as its future; because of Russia’s size, there were large areas not accessible via railroads and cars; pilots of both sexes allowed all of Russia to be unrestricted. By 1939, Soviet women held more aviation records than women in any other country in the world. On paper and by law, women were able to do anything men could do. Law however cannot change people’s opinions. The instructors at Osoavaikhim, who educated young Russians on civilian aviation along with parachuting, chemical warfare, defense, and marksmanship, were reluctant to allow women to join and learn these skills. Many women were turned down until the directors there and at other aviation clubs were forced to admit them by a quota system imposed by the government, and even then, the instructors made sure the women knew that they would never be successful as pilots. The idea that a woman could be a steelworker was accepted, but they did not understand that the government’s insistence that women learn these paramilitary skills would make for a smooth transition from civilian life to military life when World War II began. Once the men who fought alongside them realized they had the skill and endurance to fight, their comrades accepted them as well.

Though Soviet promotion of air clubs led women to become pilots, it was the actions of Adolf Hitler and Marina Raskova that made them military pilots. On June 22, 1941, Nazi Germany violated the German-Soviet Nonaggression Pact of 1939 by invading the Soviet Union. Entitled Operation Barbarossa, this invasion took the Soviet Union by surprise, despite many indications that the Germans were planning an attack. More than 3 million German soldiers killed or wounded 150,000 Soviets in the first week of attacks, and over 2,700 planes (three-

6 Strebe, 22.
fourths of Soviet aircraft) were destroyed in the first two days by 1,250 Luftwaffe bombers, and fighters. Thus, the Great Patriotic War had begun. Hitler intended to have the Soviet Union defeated in a few months, saying, “We only have to kick in the door and the whole rotten structure will come crashing down.” However, Hitler did not anticipate the speed in which the Soviets could mobilize; nor did he realize that the invasion caused both men and women to take up arms against him. Despite a shortage of aircraft and plenty of able-bodied men who could fight, on October 8th 1941, Josef Stalin gave GKO order number 0099 authorizing three female aviation regiments as part of the 122nd Composite Air Group to be formed by December 1st 1941. These regiments would be under the leadership of Major Marina Raskova. Raskova was a female pilot who became Hero of the Soviet Union after her famous world record flight ended in her rescue following ten days in the Siberian taiga. She became a national sensation and friend of Stalin and many other important Party leaders. When the Germans invaded, Raskova, Stalin, and the Komsomol received thousands of letters from women pilots asking for help to join the armed forces because their attempts to join at local military posts had

7 Hardesty, 6.
8 Cardona, Soviet Women on the Frontline, 84; Strebe, 18; Krylova 121, 140. Raskova was appointed to Lieutenant after her assignment to these regiments.
9 This famous flight being the Flight of the Rodina where Marina Raskova, Polina Osipenko and Valentina Grizodubova set a world record for women’s straight-line distance flying. In an ANT-37 named Rodina (Motherland) they originally planned to fly non-stop from Moscow to the Far East. However, poor visibility and low fuel lead them to crash just before reaching their destination. Raskova, the navigator, bailed out of the plane without her emergency kit and spent ten days searching with no food and water for the Rodina where Osipenko and Grizodubova crashed. A massive air search was organized to find them. Media coverage of this event following their rescue was huge, and the three of them became the first female Heroes of the Soviet Union. Stalin and Raskova were so close that there is an article in the China Weekly Review claiming that Stalin was going to make her his wife.
10 Youth Communist League
failed. The Central Committee of the Komsomol justified the recruitment of women for combat based on the overwhelming number of female volunteers, not because they saw these women as sources of propaganda. Similarly, these women enlisted with the well-being of their country in mind, not out of an individualist desire to prove themselves. With the support of the government, the Komsomol, and Raskova, the 586th Fighter Aviation Regiment, the 587th Day Bomber regiment, and the 588th Night Bomber Aviation Regiment was formed, allowing, “thousands of Soviet girls... bursting to go to the front, arms in hand, to defend the motherland.” Thus, despite no real ‘need’ for them, female pilots joined the military.

Though many women begged to be a part of these regiments, each applicant was meticulously screened to ensure that they had the skills, lacked fear, and could endure the arduous training. News of the formation of these regiments traveled by word of mouth through Komsomol members. After being selected by various aviation groups and the Central Committee of the Komsomol, Raskova interviewed every applicant to ensure they did not have family ties that could compromise their effectiveness. Most volunteers wanted to be fighter pilots, but a shortage of capable navigators forced Raskova to assign pilot positions only to

11 Pursley, 52.
12 Yedlin, 117.
14 There is some debate among historians as to whether Raskova was the mastermind behind this campaign to recruit women. Pennington and Strebe argue that Raskova went before the VVS herself. However, according to Chief of Staff Malitsa Kazarinova, these regiments were formed under an order from the Supreme High Command. In contrast, Cardona argues that the Komsomol petitioned the Red Army for their formation. Krylova repairs this discrepancy best by claiming that Raskova’s lobbied for these regiments to a government already open to the idea of women flying combat missions.
15 Cardona, Soviet Women on the Frontline, 87.
16 Cardona, Soviet Women on the Frontline, 88; Krylova, 132-3.
those with the most hours, and fighter pilot positions to only the best flyers. Any volunteers with technical training in mathematics and the physical sciences from universities and factories around Moscow were assigned to be navigators, mechanics, technicians, and radio operators. After being selected, the new soldiers and Raskova traveled to Engels Air Force Base to begin training. For many of the women who naïvely volunteered, this journey was their first glimpse into the hardships they would face on the frontlines. The recruits, wearing oversized men’s uniforms (even underwear), rode for nine days in freight cars from Moscow to Engels Air Force Base 500 miles away. The temperatures were a frigid -4°F outside, so the recruits slept under their mattresses to keep warm. Food on the journey was scarce, so they dined on red herring and tea supplemented with cabbage stolen from a station. With no baths, their permed hair fell into shambles, so they were forced to cut it into boyish styles when they arrived at the base. At Engels, the women stayed in a gym that had been converted into a dormitory. They did very little sleeping there-an average of five hours a night-because of the ten to fourteen hours of courses and two hours of drills they had every day; navigators had an additional hour of training in Morse code. Raskova, who rarely slept herself, also conducted night drills to ensure the soldiers could be up and dressed in five minutes or less. Any recruit who tried to cut corners for night drills by sleeping in their overcoats was forced to run in the cold around the field. The recruits practiced night flying, because many of them had never had to fly and land in

17 It was not just a shortage of female navigators—there were not many capable navigators in all of Russia, male or female; Strebe, 23; Krylova 134.
18 Pennington, Wings Women and War, 39.
19 According to Cardona, the women did not receive female uniforms until December 1942.
20 Cottam, 3.
21 Their haircuts when they arrived at Engels could also be seen as Raskova desiring them to be more masculine.
22 Strebe, 24.
the dark before. Owing to their diligence, three years of training was condensed into six months, with a minimum of five hundred hours logged by each pilot in the bitter cold of the open cockpit aircraft. Because these women were carefully selected as the best in their fields, and because their training was much less accelerated than male regiments, they were more prepared for combat than the men sent to the front lines.\textsuperscript{23} After training, the 122\textsuperscript{nd} Composite Air Group was disbanded as the soldiers were assigned to one of the three regiments. The end of their training marked the last time all the women would be together.

Remaining all female throughout the war (even the mechanics and armorers) the most successful of all three of the regiments was the 588\textsuperscript{th} Night Bomber regiment. Their success is surprising considering all the obstacles that stood in their way. While the women of the 588\textsuperscript{th} were well trained, the best pilots were placed in the day bomber and fighter regiments, not night bomber regiment.\textsuperscript{24} When they were assigned to 218th Night Bomber Aviation Division of the 4\textsuperscript{th} Air Army, the Commander D.D. Popov remarked, “I've received 112 little princesses. Just what am I supposed to do with them?”\textsuperscript{25} Popov did not let them begin combat missions until they received further training.\textsuperscript{26} Like many night bombing regiments, the pilots flew Po-2s,\textsuperscript{27} open cockpit biplanes that were seen as a training aircraft, not a combat ones. The Po-2 was notorious for its loud engine, making it dangerous even for night missions as it could be heard

\textsuperscript{23} Pennington, \textit{Wings Women and War}, 43-46; Cottam, \textit{Women in Air War}, 115; Krylova, 140.  
\textsuperscript{24} Pennington, “Not Just Night Witches,” 3.  
\textsuperscript{25} Pennington, \textit{Wings Women and War}, 77.  
\textsuperscript{26} An incident that occurred just before their arrival at the front also contributed to this decision. Ten minutes before landing in the Donbas region, fighter jets appeared in the air, but they did not engage in the formation that escort fighters were supposed to. Fearing enemy attack by the erratically flying fighters, the Po-2s scattered. Then it was recognized that these were Soviet aircraft, not enemies. When they landed, the male soldiers taunted them for not having the prowess “to tell a star from a swastika.” Pennington, 76.  
\textsuperscript{27} Originally named the U-2, it was renamed the Po-2 in 1943 after its designer, Polikarpov.
even if it was not seen.\textsuperscript{28} Even as Soviet production and Lend-Lease aircraft allowed for other air regiments to upgrade to modern aircraft, most night bombing regiments continued to fly the outdated Po-2s. This paper and stick contraption was flown at 60 mph and a height of 1200 to 1300 meters; if they flew any higher they would be at extreme risk of fighters and not be able to see the target in the dark, and if they flew any lower then they stood the risk of being blown up by their own bombs. To keep the planes light so they could carry more bombs, the Po-2 was equipped with four small bomb racks and very few navigation tools, but no machine guns or other weapons, no radio, no armor (even around the fuel tanks) and no parachutes.\textsuperscript{29} Most veterans attest to the fact that these planes “burned like a candle.”\textsuperscript{30} Even their first mission had a rocky start; on their first combat mission in June 1942 on the Taman peninsula, one pilot and navigator went missing. Many years later it was discovered that they were shot and killed by German ground fire and buried by nearby villagers. Recalling this event, Irina Sebrova said, “Only then did we realize we were at the Front. No jokes, no kidding, this was a very serious job now we understood what a difficult job we had to do.”\textsuperscript{31}

Despite these hurdles, the 588\textsuperscript{th} became one of the most effective Po-2 night bombing regiments in the entire VVS.\textsuperscript{32} They were so effective the Germans began to call them

\textsuperscript{28} Cottam, \textit{Women in War and Resistance}, 125.
\textsuperscript{29} Despite many pilots attesting to being shot down, they did not get parachutes until 1944. There was a shortage of parachutes at the beginning of the war, and even if the 46\textsuperscript{th} had them they probably would not have used them. They added unnecessary weight, and it was considered better to be dead than captured by Germans, who would most likely rape and torture these women. Also, any soldier captured or missing stood the risk of being stigmatized as a traitor who deserted their country.
\textsuperscript{30} Pennington, \textit{Wings Women and War}, 87; Alexiyevich, 153-4.
\textsuperscript{31} Irina Sebrova interview in \textit{A Dance with Death}, 74.
\textsuperscript{32} VVS is an abbreviation of Air Defense Force, not to be confused with the PVO, which is the Air Force.
Nachthexen, or “Night Witches,” because it seemed impossible to shoot a pilot down; any German who shot one down was immediately given the Iron Cross.\(^\text{33}\) It was first among all the Air Forces for number of combat flights performed, with over 24,000 combat missions; on December 22nd 1944, they achieved a record of 324 sorties in one night. In February of 1943, after only eight months on the front lines, they became the 46\(^{\text{th}}\) Taman Guards Night Bomber Aviation Regiment. This designation was not easy to obtain even during war, and they earned it for their above average flight record and had a monument dedicated to them on the Taman peninsula in 1967.\(^\text{34}\) This achievement was significant because other male regiments in their division, who flew similar missions also on Po-2s, would never receive the Guards designation.

Irina Rakobolskaya said, “… [the men] called us silly girls who should still be playing with dolls. They didn’t believe we could fly. They were very derogatory. But in six months, their attitude changed completely. Our regiment was the first in the division to be awarded the honor of becoming a Guards regiment.”\(^\text{35}\) Their only commander, Evdokiia Bershanskaia, was singled out as one of the twelve most remarkable air regiment commanders in the VVS. With only as many as thirty-two deaths (twenty-seven percent of the flying personnel) during their unceasing three years on the front lines, this regiment produced as many as twenty-four heroes of the

\(^{33}\) The Iron Cross is the highest military decoration in Germany, like the US Medal of Honor. Some sources claim that the women were proud of this nickname, while others say they hated being called Night Witches; Cottam, Women in War and Resistance, 38, 85.

\(^{34}\) Cottam, Women in War and Resistance, 37 and Women in Air War, 118; Pennington, The Propaganda Factor and Soviet Women Pilots in World War II,” 7. The 586\(^{\text{th}}\) with henceforth be called the 46\(^{\text{th}}\).

\(^{35}\) Strebe, 26.
In order to become a Hero of the Soviet Union, Bershanskaia required a pilot to have logged a minimum of 700 hours of successful flight time; other commanders only required 500 hours of flight time and even then their regiments only produced two or three HSUs. One pilot for the 46th, A. I. Sebrova, flew 1,800 hours of combat missions.

Since their planes had a very short range and a limited amount of fuel, the 46th was always very close to the front lines, and often played a role in many critical air battles of the war. With relentless bombing from the rest of the 4th Air Army by day, the purpose of the 46th’s night bombing was to destroy supplies and keep the enemy awake at night. With constant bombing, nerves and lack of sleep would affect the German performance on the battlefield. Most of their service was near or around the Caucasus mountains, which the Germans aimed to control for its vast oil reserves and other raw materials; Hitler believed that the oil in the Caucasus would win him the whole war. They began performing sorties in the Taman peninsula and the Trans Caucasus until December 1942. This front presented many obstacles: fogs that blocked vision of the airfield, wind that could crash the fragile biplanes, and supply shortages. In January 1943, the regiment moved to Stavropol and Kuban, where they faced obstacles in obtaining supplies, extreme weather, and rough, grassy terrain that was not ideal for landing. The Kuban was the battle of Midway for the Eastern Front; the Soviets shifted

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36 Accounts disagree on these numbers. Pennington says there were thirty-one deaths and twenty-four HSUs, while Cardona and Cottam claims there were thirty-two deaths and twenty-three HSUs.
37 Accounts also differ slightly on how much flight time was needed to gain the HSU. According to Pennington, the 586th required 700 hours of successful flights, but Cardona says that the 586th required 800.
38 Cottam, Women in Air War, 116.
39 Mariya Smirnova interview in A Dance with Death, 31; Hardesty, 202, 291.
from a position of defense to one of offense against the Germans.\textsuperscript{40} Sorties preformed on the Taman and Novorossiysk from March to September were some of the most dangerous of the whole war. In trying to take down the German “Blue Line”,\textsuperscript{41} there were sixteen casualties.\textsuperscript{42} From November 1943 to January 1945, they were stationed in Kerch, Crimea, Sevastopol, Poland and Western Prussia. In March, they played a role in the liberation of Gdansk. They finished their service over the Oder in river April and May 1945.\textsuperscript{43}

Night bombing is not as exciting and glamorous as day bombing and fighter plane sorties, but it presents an equal amount of difficulty. Targets for the 46\textsuperscript{th}’s sorties included bridges, support vehicles, enemy headquarters and supply facilities, including fuel warehouses and ammunition depots.\textsuperscript{44} Their bombing took place from sunset to sunrise, with an average of forty-five to fifty minutes per mission. On average each crew flew five to ten missions a night, but during the long winter nights when it would be dark from five P.M. to nine A.M., they could perform anywhere between ten and fifteen missions per crew, with a total of eighty to ninety sorties a night.\textsuperscript{45} The pilots and crews got about two to four hours of sleep a night in dugouts or beneath the wings of their planes, and were given stimulants called Coca-Cola to stay awake. During missions Larisa Litvinova-Rozanova remarked, “We even had this kind of agreement

\textsuperscript{40} Hardesty, 167; 165; 173; Cottam, \textit{Women in Air War}, 114.
\textsuperscript{41} The German Blue Line was a series of strongpoints held by the Germans in defense against Soviet superiority in tanks and infantry.
\textsuperscript{42} Cottam says there were only fourteen casualties, while Pennington and Cardona stay there were sixteen.
\textsuperscript{43} Pennington, 73-79.
\textsuperscript{44} Bhuvasorakul, \textit{Unit Cohesion}, 26.
\textsuperscript{45} Cottam, \textit{Women in Air War}, 161.
between the pilot and the navigator that one of us would sleep going to the target and the other returning to the airfield."\textsuperscript{46}

VVS regulation stated that each mechanic and armorer must only be assigned to one plane. This meant that often the crews would be working night and day with very little time left for sleep. During missions, mechanics and armors would have to wait for the plane to land to be sure it was theirs, and would then they would have to fight over access to fuel trucks and bombs. So, this atypical regiment employed atypical methods to get its large flight record. Pilots would remain in their planes while a team of mechanics, each one responsible for a single job, would refuel and check on different components of the aircraft. Meanwhile, two teams of three armorers loaded the bombs; each armorer lifted three tons of fifty-kilogram bombs a night.\textsuperscript{47} This meant that a plane could be back at its target in five minutes. Even though the aircrew was female and had many strenuous loads, they were as tough and hardworking as the men. Crews were unable to wear gloves when it was cold because they had to be able to feel where things needed to attach in the dark, and the 46\textsuperscript{th} hardly even dug trenches on their airfield for the crews like in male regiments, because during missions they were constantly preparing aircraft as they would come back from missions.\textsuperscript{48}

Upon reaching the target, the pilots would often be blinded by searchlights at the German bases. Anti-aircraft units were an adept and widespread defense for the Germans against aircraft; anti-aircraft fire could not only take down a plane but would release a

\textsuperscript{46} Pennington, \textit{Wings, Women and War}, 82.

\textsuperscript{47} According to Sergeant Nina Karasyova-Buzina, the senior mechanic of armament, the bombs weighed anywhere from thirty-two to one hundred pounds.

\textsuperscript{48} Cottam, \textit{Women in Air War}, 118.
deafening sound and choking smoke that disorients the pilot.\textsuperscript{49} To make sure the fire and the searchlights did not affect the accuracy of the bombing, one plane would fly first to draw the anti-aircraft fire while another would bomb the searchlights. Then the first would cut their engine (making them essentially invisible in the dark) and bomb the target. If they could not see their target, they would swoop down into a glide, throw down a flare to illuminate the target, bomb from four hundred feet or higher, and glide away at a low altitude. If their bombs were stuck in their carrier, the navigator would climb out onto the wing to push them loose.\textsuperscript{50} They then had to navigate in the dark back to the airfield. The landing field would not be brightly lit up; the pilots had to land by the light of kerosene lamps, which they called flying mice, and vehicle headlights.\textsuperscript{51}

Only once during the war did these bombers have fighter escorts. While in the Taman on July 31\textsuperscript{st} 1943, the Po-2s were attacked by a group of German night fighters without warning.\textsuperscript{52} Eight planes were shot down by the fighters in a matter of ten minutes; this was the highest death toll in a single night suffered by the regiment. Even years later, many of the pilots remember this “most horrible tragic night.”\textsuperscript{53}

On this flight the anti-aircraft guns were silent. I sensed something very uncommon about that and then thought of the only reason for the silence- German fighter aircraft! We had not been attacked in this way before; we had not developed tactics to counter the attack of fighter planes. I had considerable experience in combat and maneuvered to escape the searchlights, for to escape the searchlights was to escape the fighter. But behind me flew young, inexperienced crews- reinforcements who did not escape...The tracer bullets set their planes on fire; airplanes were so vulnerable that they were

\textsuperscript{49} Nina Yegorova-Arefieva interview in A Dance with Death, 68; Hardesty, 189.
\textsuperscript{50} Irina Rakobolskaya interview in A Dance with Death, 29.
\textsuperscript{51} Pennington, Wings, Women and War, 81; Cottam, Women in War and Resistance, 86 and Women in Air War, 118.
\textsuperscript{52} Some accounts say it was a single German fighter.
\textsuperscript{53} Pennington, Wings, Women and War, 85.
burning like sheets of paper. We were not equipped with parachutes at that time... It is a horrible scene when a plane is burning. First it explodes; then it burns like a torch falling apart, and you can see particles of fuselage, wings, tail and human bodies scattered through the air. The other crews who were in the air at that moment witnessed this tragedy. I saw it with my own eyes as I returned from the mission.54

Though patriotism motivated them to enlist, it was not the only thing that motivated them to keep flying. Despite the stress of the sorties, these women pushed themselves to complete more missions. They had a rule that first pilot to reach their planes and start the engine would be the first to take off. Because the first pilot to take off on a mission was often the one who performed the most sorties in one night, the pilots would race to their planes.55 The male pilots in neighboring regiments chided them, saying the “less you fly the longer you live,” but these women had the impetus to stay airborne. Irina Rakobolskaya gave two separate motivations for their superb combat record. First, “Out of enthusiasm. In order to prove that we could do anything,” and secondly because, “We were not content just standing on par with men’s regiments. We had to constantly increase the daily number of sorties.”56 Every woman in the regiment was a patriotic volunteer, driven by anger at the Fascist invaders, but they were also women who wanted to prove that their regiment was the best.

Their desire to remain all-female also played a role in their success, because it facilitated the group cohesion that naturally grows out of a group of women working together for a common cause. Unlike the other two female regiments, which integrated quickly after their formation out of necessity, the 46th was able to remain all female through a system of in-house training. It began with pilots teaching their navigators how to fly as a way of keeping

54 Mariya Smirnova interview in A Dance with Death, 33.
55 Klavdiya Ilushina interview in A Dance with Death, 48.
56 Pennington, Wings Women and War, 80.
entertained during missions. As more navigators began to learn how to fly, a whole squadron
was assigned to be retrained in another discipline; navigators would learn to become pilots,
mechanics would learn to be navigators, etc.\textsuperscript{57} There was no military precedent for this kind of
training, and the 46\textsuperscript{th} never asked if they had permission to do it. Nevertheless, the retraining
system meant that the 46\textsuperscript{th} never ran out of replacements, and despite many offers, never had
to take on any male personnel.\textsuperscript{58} This system is also credited with saving the life of one
navigator. Pilot Evdokiia Nosal was shot in the head by a German fighter over Novorossiysk and
her navigator Irina Kashiriina was able to get the plane home because Nosal had taught her
how to fly.\textsuperscript{59}

With the entire regiment all female, the personnel grew closer than in the integrated
regiments. Only when they were on duty did they call each other by their ranks.\textsuperscript{60} When
comrades were shot down, they were driven to fly more sorties as a way of avenging them.
Despite injuries and emotional trauma, there are not many cases of the women requesting
leave, because they felt guilty leaving their sisters to risk their lives while they rested.\textsuperscript{61} Pilot
Mariya Smirnova said, “Once my regiment sent me to a recreation center for medical treatment
to restore my health. But I ran away after three days because I couldn’t stay when the others

\textsuperscript{57} The 46\textsuperscript{th} began with three squadrons, but when they gained the Guards designation they
were allowed to gain a fourth squadron. The fourth squadron was the one dedicated to
retraining.
\textsuperscript{58} Pennington, \textit{Wings Women and War}, 74.
\textsuperscript{59} Cottam states in Nosal’s biography that Kashirina was able to make the landing because she
had flight training before the war, but other sources say that Nosal was the one who taught her
to fly; Pennington, \textit{Wings Women and War}, 84.
\textsuperscript{60} Pursley, 74.
\textsuperscript{61} Cottam, \textit{Women in War and Resistance}, 38, 124 and \textit{Women in Air War}, 125.
were risking their lives, so I returned to my regiment.”

Even forty-five years after the war, the women still kept in touch. Also, they were able to bond by engaging in ‘feminine’ habits to take the edge off after missions. All of the veterans have described being very proud that their regiment was all female, because it created a separate world from the fighting, with forget-me-nots and poetry, that men would have made fun of. They would take their oversized men’s underwear and cut and embroider them to fit inside their boots to make them more comfortable, and they danced around the airfield when the weather was too poor to fly.

One pilot describes their desire to keep up appearances:

...After a night of combat we never forgot to curl our hair. Some girls thought it unpatriotic to look attractive. I argued that we should. I said ‘Imagine I have a forced landing at a male fighter aerodrome. Soldiers are rushing to my aircraft because they know the crew is female. I, absolutely dashing, slide out of the cockpit and take off my helmet, and my golden curly hair streamed down my shoulders. Everyone is awed about my dazzling beauty. They all desperately fall in love with me.’

Even though these women wanted to be fawned over, the whole regiment discouraged relations with the men, even flirting. When one of the girls gave birth while in Germany late in the war, she was said to have brought shame on the regiment. They believed that they did not volunteer to have affairs with men only to get pregnant and sent back home, so if they grew close to men it was in a strictly platonic way.

A comparison of the skill levels between the 46th and the other female regiments would be impossible to assess, because each of these regiments served on different fronts, flew

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62 Mariya Smirnova interview in A Dance with Death, 32.
63 Serafima Amosova-Taranenko in A Dance with Death, 48.
64 Cardona, Soviet Women on the Frontline, 102.
65 Irina Rakobolskaya interview in A Dance with Death, 28; Cottam, Women in Air War, 116.
66 Yevgeniya Zhigulevskaya interview in A Dance with Death, 56.
67 Cardona, Soviet Women on the Frontline, 104.
different aircraft, and preformed different combat roles. However, when comparing their achievements within their respective situations, it is easy to see how the motivations of the women in the 46th impacted the performance. Like the 46th, these other regiments faced initial challenges. The 587th, later renamed the 125th Guard bombers, was the last regiment to enter operation because Raskova trained them to fly Su-2s, but then used her ties with General-Lieutenant Novikov to get brand-new Pe-2 bombers to fly in combat. Though it was much faster and could hold more fuel, the Pe-2 was designed for high altitude flying and was much harder to fly than a Su-2. Too much weight on the aircraft and too little fuel meant for a tricky takeoff, and if the plane lost an engine during combat it was much harder to control. The Pe-2 also required a fourth person for each ground crew and a third aircrew member as a radio-operator gunner, so Raskova was forced to recruit men to fill roles. A further setback came with the death of Marina Raskova. Weather conditions on the way to the Stalingrad front had prevented the regiment from leaving Engels. Finally, the storms cleared and Raskova made the decision to lead some of the regiment to Stalingrad, but before they could get there the weather deteriorated. Though a highly capable pilot, Raskova lost visibility and crashed, killing all aboard her plane. The death of their beloved leader was a huge blow to morale of the regiment. The new temporary commander, Evgeniia Timofeeva, believed “all the effort expended in mastering the complicated aircraft was all in vain.” On February 2nd 1943, the 125th gained a new commander, Valentin Markov. Initially, Markov was as skeptical of these

68 Pennington, *Wings Women and War*, 51.
69 Hardesty, 15.
71 The death of Raskova was a national tragedy. For ten days, newspapers contained tributes to her, and she was interned in the wall of the Kremlin.
72 Pennington, 94.
women pilots as they were of their new, stricter commander. Being trained in military discipline, he implemented rules about clean collars and properly maintained aircraft that made the regiment hate him. However, they soon grew to understand one another; Markov learned not to yell at them because it would gain their resentment, and they grew to love him, even calling him daddy or “Batia.” On May 4th, 1943 the 587th received the designation “name for HSU Marina Raskova” and on September 7th 1943 they became 125th Guards Bomber Aviation regiment. The 125th produced five HSUs; in subsequent years Markov has stated he wished he had recommended more of the women to gain this honor.

The 586th was by far the least successful regiment. Despite the fact that only the best pilots were assigned to this regiment, and they flew the highly capable Yak-1, it did not gain a Guards designation, nor did it produce any Heroes of the Soviet Union. There is much controversy surrounding the reasons for this. Most historians cite the interference of its first commander, Major Kazarinova, for its lack of distinction. Kazarinova is claimed to be responsible for the reassignment of eight pilots to a male regiment in need of replacements, the death of pilot Valeriia Khomiakova, and for failing to deliver paperwork that would have given the 586th the Guards distinction.74

Though all three regiments had the same motivation for joining the VVS, patriotism, the 125th and the 586th were not as successful in overcoming their initial challenges because they lacked the drive of the 46th. Though often stationed with male regiments, the 125th and the

73 Pennington, *Wings Women and War*, 92-100.
74 With consideration to the topic of this paper, I will not go into more detail into the controversy surrounding this regiment and Major Kazarinova. For further information, read Pennington *Wings Women and War*, chapter five. It should be noted that two of the pilots that Kazarinova sent away, Liliia Litviak and Katia Budanova became fighting aces.
586\textsuperscript{th} did not feel they were in competition with the men or the other pilots; the 46\textsuperscript{th}’s motivation to outdo the men and each other lead them to perform more sorties and earned them the Guards distinction and many HSUs. Their desire to remain all female also made their regiment more cohesive, and lead to better performance, while the other two regiments did not try to embrace their male counterparts in the regiment; most personal accounts from the 125\textsuperscript{th} and the 586\textsuperscript{th} do not even mention the men. The drive of the commanders also shows why the 46\textsuperscript{th} was more successful. Commander Bershanskaia is credited with the implementation of the assembly line and the retraining system employed in the 46\textsuperscript{th}, something the commanders of the other two regiments, both military disciplined, would not have employed.\textsuperscript{75} It is also possible that because the commanders of the 125\textsuperscript{th} and the 586\textsuperscript{th} were both male,\textsuperscript{76} they were both more focused on the safety of the women than creating a successful regiment. Markov said in an interview that “sometimes I wished that the commanders had not forgotten that our regiment was women’s and that they would not throw us into the very thick of things.”\textsuperscript{77}

There are a number of factors besides motivation that might also have played a role in the 46\textsuperscript{th} being perceived as more prosperous. First, all of these women had experience flying Po-2s because they were used as training aircraft in air clubs, but the Yak-1s and Pe-2s were completely new to the pilots of the 125\textsuperscript{th} and 587\textsuperscript{th}. Secondly, there is more discipline associated with day bombing and fighter bombing, because these regiments were required to fly in formations; with more discipline comes less interpersonal relations. Additionally, the 46\textsuperscript{th}

\textsuperscript{75} Bhuvasorakul, \textit{Regiment Cohesion}, 55-6, 36.
\textsuperscript{76} Kazarinova was replaced with commander Alexandr Gridnev following Khomiakova’s death.
\textsuperscript{77} Pennington, \textit{Wings Women and War}, 98.
was never more than forty kilometers from the front lines, meaning they had more combat opportunities. Also, success in a fighter regiment is measured by the number of kills scored. Because the 586th was a defense regiment, they had less opportunity to score kills, meaning their success could be measured by chance rather than skill.

Despite the success of the 46th, it was disbanded in the fall of 1945 and most of its personnel were discharged from the military. There was no move to make women a permanent part of the military; they were congratulated for showing their ability at victory parades, and then asked “do not speak of the service you rendered.” Most historians place emphasis on how difficult it was for women to remain in military aviation after the war, but once again, the desires of the 46th itself must be examined. Most of the personnel went home to jobs, married, and had children. Before the war many were at universities studying physics and engineering, so after the war they went back to finish their education and enter the workforce. When war hit, “It seemed impossible to study history, physics and mathematics when we [sic] needed to be in trenches at the front,” but when the war was over they were able to return to their studies. Patriotism still inspired them; in the Soviet Union, which sustained more casualties than any other nation and had its economy built on a workforce, these women were still doing their duty for the Motherland when they left combat behind by raising families and going to work. Fighter pilot Alexei Maresyev summarized these sentiments nicely when he said:

It is hardly possible to overestimate the contribution made by women and our victory over Nazism... they had a zest for life; they wanted to study, to raise children, and to work hard, but when the need arose they faced danger and died without faltering. They

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78 Larisa Litvinova-Rozanova interview in A Dance with Death, 67.
79 Bhuvasorakul, Unit Cohesion, 18-19.
80 Strebe, 71; Pursley, 101.
81 Pursley, 58.
consciously sacrificed their young lives in the great cause... Onboard Fighters and bombers they fought the enemy every bit as well as the men did. Soviet young girls aptly demonstrated their iron will, steady hand, and accurate eye.82

The questions were should women remain in the military and were they needed; not did they have the capability to survive in combat.83 Most felt that women should only be called to arms in times of great need, and when the Germans invaded, it was life or death. In an interview pilot Mariya Smirnova said, “What did we all think then, the girls from the flying regiments? Was the war a women’s business? Of course not. But then we didn’t think about that. We defended Our Fair Motherland, our people whom the fascist had trampled. We won the greatest victory of the twentieth century.”84 Some wanted to continue flying, but not necessarily continue fighting.85 Also, some of the personnel of the 46th were medically unfit for combat after years of hard work and little sleep. In the same interview, Smirnova also admitted, “I had undermined my physical and mental health at the front. I was completely exhausted by my four years of war and combat. There was a period when we went without a day off for one hundred days.”86

In the Second World War, the Soviet Union became the first nation to enlist women in combat roles. Of the three female regiments formed, 588th Night Bomber Aviation Regiment, later renamed the 46th Guards Night Bomber Aviation Regiment, was the most successful. The creation and the success of this regiment can be understood by examining the motivations of the 46th’s personnel. Patriotic love of their Motherland drove them to push the government to

82 Strebe, 19.
83 Pennington, Wings Women and War, 144.
84 Mariya Smirnova interview in A Dance with Death, 37.
85 Strebe, 73.
86 Mariya Smirnova interview in A Dance with Death, 37.
let them enlist in the VVS. Despite many obstacles that stood in the way of their success, their motivation to perform more combat sorties and outdo the men’s regiments made them more successful than the other two female regiments and one of the best Po-2 Night bombing regiments in the VVS. After the war, the women returned home to serve their country by being mothers and factory workers. All in all, these women dedicated their lives to the service of their country, showing that at least for the Soviet Union, this really was the Great Patriotic War.
Appendix

Figure 1. Mechanics and Armorers of the 46th. Photo courtesy of Reina Pennington

Photo showing the oversized men’s uniforms they wore before receiving female ones. Photo courtesy of Reina Pennington

Po-2 Biplanes. Photos Courtesy of Anne Noggle and Reina Pennington.

Title Page: Some women of the 46th before the attack on Novorossiysk. Photo Courtesy of Reina Pennington.

Map detailing the combat service of the 46th, courtesy of Reina Pennington.
Bibliography

Primary Sources
This work by Alexiyevich contains primary accounts of women in all branches of the Soviet military, with the intent to portray the hardships and struggles these women were unduly exposed to.

This contains diary entries, letters and remembrances of Soviet pilots gathered many years after the war. All together, the sources present a primary theme of glorifying officers, particularly Marina Raskova and lack self glorification.

Written by a former WASP, this book offers biographical evidence gathered by Noggle after interviewing 70 Soviet women pilots after the war. Noggle, being a photographer and a not a historian, lacks an explanation of terms foreign to those not involved in aviation and does not include transcripts for historians to examine.

Secondary Sources

This thesis analyzes the factors that shaped the cohesion of the three women’s regiments formed from Aviation Group. The factors discussed in this study are: the effectiveness of command, the plane each regiment flew, the gender composition of the regiment, and the reaction of men to the women fighting. This thesis utilized the published memoirs written by veterans of the women’s regiments along with interviews conducted years later by Anne Noggle and Reina Pennington.

Cardona and Markwick discuss these contradictory times in which female military heroism was publicized in films and newspaper stories, while at the grassroots level young women were often discouraged from pursuing paramilitary training. They also note the prominent role of women in aviation. They then go on to discuss the roles and notoriety of nurses, rifle units, and aviation regiments that accepted women.

Presents 92 biographies of Soviet women who participated in combat from 1912 to 1945. All interviews, excluding the ones from the civil war period, are of women in combat who the Hero of the Soviet Union award.

This book gives an overview of the major air armies and their campaigns during the war, taking time to describe Front conditions and the motivations of the German and Soviet Air Force campaigns.


Krylova focuses on data and personal accounts that help make sense of how women became integrated into the military and how they were able to overcome obstacles while on the front. She does not attempt to construct a narrative following any particular regiment or woman, but rather gives an overview into the social conditions during this time.


Pennington and Erickson not only detail the formation of the 122nd Composite Air Group, but traces the origins of women’s military involvement to before WWI. They also explain how after the war, these dedicated airwomen who performed combat maneuvers in fighter aircraft and flew bombing raids were eager to return to more ordinary domestic pursuits, showing not only how men perceived them, but how they perceived themselves.


Sasha Pursley explores the relationship between women, communism and war, especially within Taman Guards Women's Aviation Regiment. She also explains the change in perceptions of women in combat in postwar Soviet Union.


A short comprehensive comparison of the 122nd Composite Air Group in the Soviet Union to the Women Air Force Service Pilots of the United States.