

ALONE, UNARMED, AND UNAFRAID OVER CUBA:
THE STORY OF MAJOR RUDY ANDERSON

BY
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APPROVAL

The undersigned certify that this thesis meets master's-level standards of research, argumentation, and expression.

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DISCLAIMER

The conclusions and opinions expressed in this document are those of the author. They do not reflect the official position of the US Government, Department of Defense, the United States Air Force, or Air University.



ABOUT THE AUTHOR

Major Cameron entered Air Force service as a graduate of the U.S. Air Force Academy in 2003 where he majored in civil engineering. Upon completing Undergraduate Pilot Training he served a tour as a T-38 First Assignment Instructor Pilot at Laughlin AFB, TX before entering the U-2 program in 2008. He flew the U-2 operationally for five years including tours supporting five Combatant Commands. Major Cameron then served on staff at United States Central Command as the Executive Officer to the Chief of Staff. He is a senior pilot with over 3000 flying hours.



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ABSTRACT

This thesis provides a biographical sketch of the life of Major Rudolf A. Anderson, Junior. Major Anderson was a U-2 pilot during the Cuban Missile Crisis and was shot down on 27 October 1962 while conducting a reconnaissance mission over Cuba. His was the lone combat death of the Crisis, and yet his story has not been told in more detail than a few paragraphs in the context of the larger story of the Cuban Missile Crisis. This thesis analyzes two questions: "Who was Major Rudy Anderson and what impact did his missions have on the Cuban Missile Crisis?" In the process of reviewing these two questions the thesis explores Rudolf Anderson's childhood and early life. It analyzes the impact of Anderson's experiences on the Air Force officer he became and how, in turn, his personality shaped the Cuban Missile Crisis. The thesis also examines the development of strategic reconnaissance in the Cold War, focusing on the first dedicated reconnaissance aircraft, the Lockheed U-2 Dragon Lady. Finally, the thesis examines the impact of Major Anderson's missions and death on the Cuban Missile Crisis, and ultimately in the larger context of the Cold War.



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Chapter 1

Introduction

The twelfth day of the Cuban Missile Crisis, 27 October, 1962, broke with the United States and the Soviet Union teetering on the precipice of nuclear war. Tensions were extremely high and it appeared that even the slightest provocation would force the crisis down a path of escalation leading to thermonuclear world war. The day prior was full of political highs and lows, with an end to tensions seemingly imminent as Soviet Premier Nikita Khrushchev proposed a course of action intended to deescalate hostilities. However, 26 October did not end with resolution but rather with US President John F. Kennedy ordering an increase in flights over Cuba and accelerated planning for an invasion of the island. Any hope for a peaceful solution ended with Cuban Prime Minister Fidel Castro ordering his military forces to fire on any US aircraft or vessel approaching Cuba.¹

Acting on orders from the President, Major Rudolf Anderson Jr. woke up early on the morning of 27 October prepared to fly as a back-up pilot for one of four missions scheduled that day. For reasons that will be explained later, three other missions were cancelled but Major Anderson's flight remained on the schedule. Major Anderson completed his briefing, was integrated into his partial pressure suit, and began the long process of pre-breathing one-hundred percent oxygen for two hours before take-off. Captain Roger Herman, Anderson's mobile pilot, escorted him to the U-2, followed him up the steps to the plane, and ran through a series of checklists with Anderson prior to take-off. Captain Herman ensured that all of Major Anderson's critical life support equipment was properly connected, and that his maps and target folder for the mission

¹ Laurence Change & Peter Kornbluh, *The Cuban Missile Crisis, 1962 Chronology 1*, (New York: The New Press, 1992).

were in the aircraft and properly stowed. When the checklists were complete and Major Anderson was ready to start the aircraft, Herman slapped Anderson on the shoulder, gave him a hand-shake and said, "Okay, Andy, here we go, have a good trip, see you when you get back."² Anderson gave a thumbs-up sign as Herman closed the canopy. Major Anderson quickly started the aircraft and taxied out.

At 9:09 AM Anderson rolled down the runway of McCoy Air Force Base, Florida in his U-2. The aircraft leapt into the sky and climbed like a rocket as he headed toward Cuba. On the 500-mile track south, Anderson silently streaked through the stratosphere talking to no one, alone with his thoughts and the sound of his breath as he studied his route of flight and the targets he was to photograph that day. He was flying at over 72,000 feet, 14 miles above the state of Florida. On this particular Saturday, the families below were not making a trip to the beach but rather were stockpiling groceries and watching the seemingly endless influx of military personnel that had descended upon the state in preparation for an invasion of Cuba.

The Saturday morning's flight was Anderson's sixth mission over Cuba as part of "Operation BRASS KNOB". Unbeknownst to Anderson, and the rest of the 4080th Strategic Reconnaissance Wing (SRW), it would be the most dangerous mission of the Crisis. Until that day, Soviet surface-to-air missiles (SAMs) were not fully operational and the men running the sites had not been given permission to use them. This had all changed late on the evening of the 26th of October when Castro issued an order for the Cuban soldiers to fight and the air defense system was finally complete and integrated. Because of the lack of information regarding the status of the SAM sites and the order by the president to prepare for an invasion which would include the use of US

² Ted Shelton, "The Major Flew Into the Page of History," *Greenville News*, 17 October 1963, 5.

Air Force (USAF) tactical fighters and bombers, the imagery targets selected by the national intelligence agencies were Soviet SA-2 SAM sites in eastern Cuba. SAMs posed the only threat to the high-flying U-2, but two weeks into the crisis there had been no reported attempts to engage any aircraft.³ Despite significant signals intelligence (SIGINT) activity on the morning of 27 October, Anderson's pre-flight intelligence brief indicated no change in the Cuban air defense posture. Tragically, his intelligence briefing was wrong and the Soviet forces were waiting for the first of what they expected to be multiple U-2 flights that day.

After slightly less than one hour of flight time, Major Anderson entered Cuban air space. He immediately appeared on the radar scopes of the Soviet forces operating throughout the island. While he was not aware of the status of the missiles deployed to Cuba, Anderson was well aware of the threat posed by the Soviet S-75 Dvina missile (known to NATO as the SA-2 Guideline). Two and a half years earlier one of his friends, Francis Gary Powers, flying a similarly configured U-2, was shot down over Soviet territory by the same type of missile. Additionally, just a month earlier, in September 1962, Taiwanese pilot Huai Chen, who had trained with Anderson at Laughlin Air Force Base (AFB), was shot down by a People's Republic of China (PRC) SA-2 over Nanchang.⁴ Anderson likely spent his time peering through the U-2's drift sight to acquire his targets along the route of flight while scanning for the tell-tale signs of a surface-to-air-missile launch.

The Soviet officers tracking Anderson's U-2 that day grew more and more concerned as they watched his track and anticipated the

³ Brig Gen (Ret) Gerald McIlmoyle claims to have been fired upon by an SA-2 the day prior. However, the Department of Defense and Central Intelligence Agency reports state that this never occurred and that the missiles were not operational until the evening of 26 October.

⁴ Wei-Bin Chang, The Blackcat Squadron, U-2 Operations, <http://www.taiwanairpower.org/u2/index.html>

images his flight would produce. Their concern peaked when they realized that Anderson's flight had taken him directly over the locations of short-range nuclear cruise missiles that had just been positioned for an attack on the US Navy base at Guantanamo Bay, as well as any forces attempting to conduct an amphibious assault on the island.⁵ General S.N. Grechko was in the command post monitoring Major Anderson's U-2 as it flew over the island. In an interview conducted by A.I. Gribokov, General Grechko recalls telling his men, "I think that we should give the order for downing the American plane, as he could discover our positions in depth, and Washington will be informed about the intelligence data in a few hours."⁶ General Grechko tried to reach his leadership for permission but was unable to get in touch with anyone. Shortly after his attempts to call, Anderson overflew Guantanamo Bay and began a turn toward the North. While he still had a large portion of his route to fly, the Soviets feared he had completed his mission and was returning to Florida. Grechko felt strongly that the aircraft had collected vital information and that the Americans could not be allowed to learn about the tactical nuclear missiles. Grechko recalls that after multiple attempts to gain permission he announced to his men, "Well, let's take responsibility ourselves."⁷ He ordered his men to fire upon Anderson's U-2 in order to ensure that the intelligence the plane collected did not make it back to Washington. The men of the 1st Battalion of the 507th Anti-aircraft Rocket Regiment at the Banes SA-2 site immediately complied with the general's order and fired two missiles.

⁵ Michael Dobbs, *One Minute to Midnight: Kennedy, Khrushchev, and Castro on the Brink of Nuclear War*, (New York, NY: Random House, 2009), 236.

⁶ A.I. Gribokov et al. "On the Edge of Nuclear Madness," 1998, 1.

⁷ A.I. Gribokov et al. "On the Edge of Nuclear Madness," 1998, 3.

At 10:19 AM the two SAMs roared to life, piercing the silence of a quiet Saturday morning in the eastern port city of Banes. Although the exact details of the next few minutes will probably never be known, what is certain is that at least one SA-2 exploded near Anderson's U-2. Shrapnel from the exploding warhead pierced the cockpit, tore a hole in Major Anderson's partial pressure suit, and shattered the face-plate on his helmet. The rapid change in pressure likely killed him instantly. His aircraft, with Anderson still in the cockpit, spiraled over 72,000 feet to the island below, landing close to the missile site that brought it down.

Meanwhile, at McCoy AFB, Anderson's fellow U-2 pilots awaited his return. When he did not return as scheduled, the men of the 4080th SRW notified Strategic Air Command (SAC) and within a few hours of Anderson's death, word of the loss of a U-2 over Cuba reached the White House Cabinet Room. In his memoir about the Cuban Missile Crisis, then Attorney General Robert F. Kennedy described the way that events unfolded upon hearing the news. He recalled the tension as Assistant Secretary of Defense Paul Nitze declared, "they've fired the first shot," and urged the necessity of a strong response. Robert Kennedy also recalled his brother President John F. Kennedy stating that, due to the destruction of the U-2, "we are now in an entirely new ball game." Robert Kennedy wrote that after that moment "there was the feeling that the noose was tightening on all of us, on Americans, on mankind, and that the bridges to escape were crumbling."⁸

Members of President Kennedy's Executive Committee (ExCom) declared that the President must respond to Soviet aggression with a wave of tactical airstrikes against Cuba's air defenses no later than the following morning. Kennedy felt a responsibility to respond and avenge the death of an American pilot but also questioned whether Khrushchev

⁸ Robert F. Kennedy, *Thirteen Days*, (New York, NY; W.W. Norton, 1969), various locations

and the Kremlin had actually ordered the destruction of an American reconnaissance aircraft. Kennedy was angry and saw the shoot down as an escalation in the conflict. However, he was conflicted about ordering retaliation when less than 24 hours prior all indications from the Soviet Premier indicated that Khrushchev was seeking a diplomatic solution. The President worried aloud that any type of retaliatory airstrike would spiral into a global nuclear war: “It isn’t the first step that concerns me, but both sides escalating to the fourth or fifth step and we don’t go to the sixth because there is no one around to do so.”⁹

The tape recordings of the ExCom meetings from the afternoon and evening of 27 October show that President Kennedy and his inner circle saw Anderson’s death as a point of no return unless an immediate resolution was negotiated with the Soviets. While the ExCom’s debate over a military response to the SA-2 attack reached a crescendo, the President sent his brother Robert to meet with the Soviet Ambassador Anatoly Dobrynin at the Justice Department in order to deliver an ultimatum to Khrushchev.¹⁰

President Kennedy was not alone in his fear that the next step might lead to the destruction of the world’s two great super powers. Major Anderson’s death shook Premier Khrushchev and caused him to fear that if a resolution were not achieved immediately, total war would be inevitable. Khrushchev’s son Sergei Khrushchev recalled that Major Anderson’s death was the “very moment—not before or after—that father felt the situation was slipping out of his control.”¹¹

⁹ 27 October 1962 ExCom recordings

¹⁰ Laurence Change & Peter Kornbluh, *The Cuban Missile Crisis, 1962 Chronology 1*, (New York: The New Press, 1992)

¹¹ Sergei Khrushchev, William Taubman, Trans., *Khrushchev on Khrushchev: An Inside Account of the Man and His Era*, (New York: Little, Brown, and Company, 1990)

Over the course of the next several tense hours, an agreement was reached. The Soviets agreed to remove their offensive weapons from Cuba, and Kennedy publicly promised not to invade Cuba while privately agreeing to remove American Jupiter missiles from Turkey. Following an event that could have caused the end of civilization, the Cuban Missile Crisis was over. A crisis that could have brought about the death of millions throughout the world ended with a lone casualty, Major Rudolf Anderson. His death brought the Cuban Missile Crisis to a critical point of no return—fortunately it was a point that pulled the two sides back from a potential nuclear war rather than propelling them forward.

In the days that followed, all operations over Cuba ceased until assurances were made that no further hostile acts would occur. Major Anderson's body was recovered by the Cuban forces and later returned to the United States for burial in his home town of Greenville South Carolina. Shortly after his funeral, under direction from President Kennedy and Air Force Chief of Staff Curtis LeMay, Anderson was posthumously awarded the Air Force Cross. This was the first time the newly created medal was bestowed upon anyone.

Just days after the crisis ended, Major Richard Heyser was invited to the White House to meet with President Kennedy and receive personal thanks for his piloting of the first mission that discovered missiles on the island of Cuba. In subsequent interviews, Major Heyser described his meeting with the President and more often his meeting with General LeMay on the way to the White House. General LeMay told Heyser that, "Every fracas deserves a hero, and we decided to make Anderson the hero because he's dead and you're alive." Heyser simply responded with a "yes sir"¹² and official SAC history and USAF accounts of the crisis gave Heyser and Anderson equal credit for taking the first photos.¹³

¹² Richard Heyser, Interview 1963

¹³ SAC Official History 1962-1963

While it can be argued that Rudolf Anderson's death was the causal factor in ending the Cuban Missile Crisis, little is known about the man other than a few brief paragraphs in the many works written about the crisis. As the 55th anniversary of the Cuban Missile Crisis approaches, the number of people still alive who participated in the events of those thirteen days that brought the world to the brink of destruction is dwindling. Additionally, Major Heyser and the nine other USAF U-2 pilots who flew missions over Cuba have received even less recognition for their work in discovering missiles on Cuba and helping to resolve the crisis peacefully. While Major Anderson is considered a forgotten hero of the Cuban Missile Crisis, the ten other pilots who flew missions over Cuba were never known in the first place, let alone forgotten.

What follows is the story of Major Rudy Anderson, a man whose "death escalated the (Cuban Missile) Crisis significantly...and was a jolt to Kennedy and Khrushchev that pushed the crisis to a point where they had to take one of two paths, both of which had clear consequences."¹⁴ This is the story of a young boy who grew up in a small town in South Carolina building model airplanes and dreaming of one day being able to fly the real thing. A man described as both a "boy scout" and a "class clown". A man whose high school year book quote was, "Good humor is the clear blue sky of the soul." This is the history of a man known as Rudy by his hometown, Andy by his wife and fellow pilots, and the U-2 pilot who died in the Cuban Missile Crisis by the rest of the world. It tells of the events that forged Rudolf Anderson into a man who would fly missions alone, unarmed, and unafraid over Cuba at the height of the Cold War.

¹⁴ Christopher Klein, "The Cuban Missile Crisis Pilot Whose Death May Have Saved Millions," *History Channel*, 26 October 2012, <http://www.history.com/news/the-cuban-missile-crisis-pilot-whose-death-may-have-saved-millions>.

Chapter 2

Rudolf A. Anderson, Jr.

In a period of great international stress, he performed his duty of great responsibility with honor. He was awarded the distinguished service medal, and gave his life that America could proceed on a course toward peace without the threat of tyrants. 'Greater love hath no man than this, that a man lay down his life for his friends' John 15:13.

Rudolf Anderson Jr. Memorial

Rudolf Anderson's life was short but full. During his brief thirty-five years, he touched the lives of those around him everywhere he went. In death, he touched millions, giving his life in service to the United States while highlighting the true cost of conflict to Washington, DC and Moscow. He built model airplanes as a child, participated in Boy Scouts, softball, and football throughout primary and high school and excelled at both sports and academics. Following high school he studied at Clemson University earning a degree in Textile Engineering. He entered the aviation cadet program in 1950 and piloted RF-86A and RF-86F Sabres in and around Korea in the years following the Korean War. Some of these sorties included RF-86F missions over Chinese and Soviet territory. For his work in Korea, he was twice awarded the Distinguished Flying Cross. Anderson was recruited to the highly-secretive U-2 program and flew many critical missions, culminating in missions flown over Cuba in what would become known as the Cuban Missile Crisis.

Throughout his brief, but influential life, he was described as quiet, dedicated, and serious. He was known for his compassion, love of the military, love of his parents, and love of his family.¹ He had a complex personality; being described as both very serious and happy-go-

¹ Lutie McGee, "The Breakfast Hour," "Bruised Hearts Supplant Anxiety in Loss of a Local Hero," *Greenville News*, 2 November 1962, 24.

lucky. From childhood, he wanted nothing more than to fly airplanes and ultimately lost his life doing just that. “That continued danger which so gravely concerned his family and friends had little effect on his happy, fearless nature as he went about the business of serving his country as if it were only a continuation of some of those childish adventures, which many in Greenville recall with pleasure.”² This chapter will highlight key events in Anderson’s life. The stories that follow are not complete; Anderson’s life was full, and many stories will go untold here. Rather, this chapter focuses on the key events that forged Rudy into a man that would lay down his life for his friends and country.

Early Childhood

Rudolf Anderson Junior was born on Thursday, 15 September 1927 in the town of Spartanburg, South Carolina. This late summer day was warm, and the sky was clear. His parents, Rudolf Anderson Jr. and Mary Barksdale Anderson were proud of their baby boy, their second child. Young Rudy had an older sister, Mary Elizabeth, who was two when Rudy was born. His parents were prominent figures in the local community.

Rudolf, Sr. was a veteran of the First World War. He served in England and France as an artilleryman in the 75th Coastal Artillery Regiment³ Rudolf, an accomplished businessman before his service, returned from war with a drive to do more. He drove the citizens of Greenville to expand outside of the textile industry and grow the Chamber of Commerce.⁴ By the time of Rudy’s birth, his father was a

² Lutie McGee, “The Breakfast Hour,” “Bruised Hearts Supplant Anxiety in Loss of a Local Hero,” *Greenville News*, 2 November 1962, 24.

³ “Rudolf Anderson Back From Overseas,” *Greenville Daily News*, 4 April 1919, 10.

⁴ “Business Concerns Determine a City,” *Greenville Daily News*, 25 April 1920, 8.

prominent leader in the greater Greenville area, a nursery owner, and a partner at Citizens Trust Company of Greenville.⁵

Mary Barksdale Anderson was the daughter of a wealthy businessman and farmer. She grew up in a family of four, as the sole daughter and oldest child. As the oldest child in a well-to-do family, Mary worked hard both at school and in the rearing of her three younger brothers. She was independent and well-educated for a woman of her time. The *Greenville Daily News* contains numerous reports on her attendance at weddings, banquets, and galas where Mary was described as being both beautiful and elegant.⁶ Mary became a leading member of the social scene in Greenville and Spartanburg after her marriage to Rudolf Anderson, Sr. She was a dedicated mother and always put the needs of her family before herself.

Rudolf Anderson, Jr. was raised in a prominent home, guided by two hardworking, influential and loving parents. The boy flourished, and certain traits became immediately apparent, foremost was his fascination with flight. Years later family members would recall that his “destiny...from the cradle even, was somehow always associated with the sky and with flying.”⁷ Anderson’s mother recalled reading the infant newspaper articles about Charles Lindbergh and how the boy’s eyes would light up. In December of 1927, Lindbergh flew over their home in Spartanburg, SC. The three-month-old Rudolf lifted his head and followed the passing aircraft with his eyes as it soared by. That night his mother recorded the incident in his baby book and noted that his love of airplanes was evident from that point on. When he was a little bit older,

⁵ Associated Press, “Major Rudolf Anderson,” *Greenville News*, 21 October 1968, 1.

⁶ Edna Kent Forbes, “Beauty Chats,” *Greenville Daily News*, 23 June 1918, 10.

⁷⁷ Ted Shelton, “Loved Ones of Major Rudolf Anderson Jr. Wait for Word in the Serenity of the Mountains,” *Greenville News*, 31 October 1962, 11.

severe weather forced a passing aircraft to make an emergency landing near the Andersons' home. The family took the pilot in for the night while the weather passed. The next morning, the pilot, took Rudy, then a toddler, to see the aircraft. He was so excited to see the plane and cooed with joy.

Further demonstrations of his love of flight are evident throughout his early childhood. On 27 February 1931, a few years after his first encounter with an airplane, Rudy decided to imitate an airplane and achieve flight on his own by jumping out of a window. However, the three-and-a-half-year-old lacked the ability to do so and fell hard. He landed on his arm and broke it ending up in the hospital for a day.⁸ He was also fascinated with model rockets and airplanes. Throughout his early childhood, he built model planes and flew them around his yard, imagining a day when he could take to the skies himself.⁹



Figure 1: Rudy Anderson Holds a Model Plane

Source: Scott Mandeem, "Remembering a Hero, Major Rudolf Anderson," *Academy of Model Aeronautics*, 31 October 2012

⁸ Society Club News: Has Broken Arm, *Greenville News*, 27 February 1931.

⁹ J. Hunter Stokes, "Greenville Man's Death Disturbed JFK," *Greenville News*, 17 December 1972, 20B.

Rudy Anderson was always independent in nature. When he was just four years old, he wandered away from home and walked to his sister's elementary school. Her first-grade teacher, Mrs. Sara Earle remembered that the young toddler walked right into the classroom and told her that he was there just to "see how my sister's getting along."¹⁰ He was not worried at all about being away from home but was concerned for his sister and decided to take it upon himself to check up on her.

A year later Rudy began school at Augusta Circle Elementary. While in his first year at school Rudy found a stray cat on the way to school. Worried for the cat's health he snuck it into school and kept it inside of his desk. He named it Frisky and after that day took it with him everywhere. He would place it in the basket of his bike and ride all around town. He would stop by Campbell's Pharmacy in Greenville and ask for milk to feed the cat on his way home from school. The compassion he showed for this stray animal was indicative of the way the people of Greenville remember him throughout his childhood, concerned for others well-being.¹¹

Rudy was a good student throughout his time at Augusta Circle Elementary. His principal, Mr. B. T. Gault remembered that Rudy "was an outstanding boy...a very likable person and a good student."¹² He worked hard at school while enjoying outdoor activities like fishing, biking, and sports. It was during elementary school that Rudy developed an interest in two other events that would shape his life, Boy Scouts and Church.

¹⁰ Ted Shelton, "Loved Ones of Major Rudolf Anderson Jr. Wait for Word in the Serenity of the Mountains," *Greenville News*, 31 October 1962, 11.

¹¹ Ted Shelton, "Loved Ones of Major Rudolf Anderson Jr. Wait for Word in the Serenity of the Mountains," *Greenville News*, 31 October 1962, 11.

¹² "Native Son 'Rudy' Anderson (1927-1962)," Inscription on the Major Rudolf Anderson Jr. Memorial, Cleveland Park, Greenville, South Carolina, October 2012.

As a boy, Rudy Anderson was very active in Boy Scouts of America. He was a member of Troop 19 in Greenville, having joined at the age of seven.¹³ Roy Gulick, Anderson's Scout Master, remembered how much Rudy loved Scouting.¹⁴ Being a Boy Scout, Anderson learned about teamwork, loyalty, and bravery. He also learned the Boy Scout Oath, a promise containing three clauses: duty to God and country, duty to others, and duty to self.¹⁵ Rudy embraced these principles as a child, and they stayed with him throughout his life.

Anderson also learned about the reality of war through his participation in the Boy Scouts. Troop 19 actively supported war efforts throughout WWII. The Troop conducted food drives, sold war bonds, and served food at several shelters. Additionally, as part of a broader national efforts, Greenville scouts were recruited to serve as laborers on local farms. These "soldiers of the soil" diligently worked while their fathers, uncles, and older brothers were away on foreign lands. Such projects instilled a sense of belonging and an understanding of service to Rudy and his fellow Scouts.

In February 1943, on the occasion of the thirty-third anniversary of Scouting in America, President Franklin D. Roosevelt addressed the over 1.5 million scouts across the Country through a radio address and printed message in national and local papers. The President said, "The leaders of our armed forces in training camps and on the battle fronts have emphasized the value of scout training in developing knowledge and skill, as well as courage, self-reliance, resourcefulness and initiative which are proving to be so essential in our determination to win the

¹³ Shelton, "Major Anderson Was One 'Man of Honor and Courage and Truth'," 2.

¹⁴ "Memorial," *Greenville News*, 28 October 2012, 11B

¹⁵ Boy Scouts of American, *Boy Scouts Handbook 1911*, (New York, NY: Doubleday, Page and Company, 1911), 10.

war.”¹⁶ President Roosevelt went on to say that the physical strength, mental agility, and morality taught in Scouts were the most important part of America’s strength. He addressed the fact that a significant number of individuals that were decorated for heroism or bravery were Scouts, and that their experience in scout training developed the courage and initiative needed for such trying times as battle. These statements would ring true for Rudolf Anderson almost twenty years later.

This first area of interest, scouting, tied directly into Rudy’s second, church attendance. At the time, Boy Scouts of America were heavily tied to local churches. Troop 19 marked the start of a new scouting year by a week of church attendance at their respective houses of worship.¹⁷ These events tied Rudy, and many other boys, interests together and strengthened their wartime motto of, “toughen up, buckle down, and carry on to victory.”¹⁸

Anderson was influenced greatly by his church, Buncombe Street Methodist Church. Rudy became involved in religion at an early age. He participated in church activities and played on church sports teams. His minister, Dr. Pierce Cook, recalled, “Rudy has the faith that you like to see in a person.” He regularly attended services and was active as a volunteer to help those in need. The compassion that Rudy showed as a child to a stray cat named Frisky extended to those around him. Dr. Cook also recalled that Rudy genuinely enjoyed reading the Bible. The young Anderson would discuss the Scriptures with his pastor leader Dr. Cook to say, “he loved his Father’s word, and he especially loved the Psalms.”¹⁹

¹⁶ Editorial, “President Sends Scouts Message on Anniversary,” *Greenville News*, 8 February, 1943, 6.

¹⁷ Editorial, “President Sends Scouts Message on Anniversary,” *Greenville News*, 8 February, 1943, 6.

¹⁸ Editorial, “President Sends Scouts Message on Anniversary,” *Greenville News*, 8 February, 1943, 6.

¹⁹ “Anderson Laid to Rest Here,” *Greenville News*, 7 November 1963, 3.

Rudy's childhood was full of activity. Between school, Scouting, church, and sports his elementary years kept him busy. In 1939, at the age of 12, he finished up his time at Augusta Circle Elementary and returned from summer vacation as a freshman student at Greenville High School.

High School and College

In elementary school Anderson excelled at sports and studies. When he arrived at Greenville High School in the summer of 1939, he planned to do the same. However, when he tried out for the Greenville High football team, Rudy did not make the cut. Never one to quit, he joined the team as the equipment manager. Rudy still practiced with the team but focused his efforts on ensuring that they had everything they needed. Although he did not play on the field, Anderson was part of the Greenville High football team that won the 1943 South Carolina State Championship.

In addition to being part of the football team, Anderson was involved in multiple other sports and activities while in high school. Rudy remained active in Boy Scouts, achieving the rank of Eagle Scout. He also played on the Buncombe Street Methodist Church's softball team. His good friend Dan Foster remembered that Rudy was excellent, especially when playing outfield. Foster recalled, "he was so fast that we sometimes asked the middle outfielder just to stay out of his way."²⁰

In addition to sports, Anderson continued his love of flying. In high school, he found time to learn to fly while continuing to build model aircraft. He joined the Model Aircraft Club and rented aircraft to practice flying on his own when money allowed.

Anderson graduated from Greenville High School in the summer of 1944. Beside his senior yearbook picture, he chose the quote, "Good

²⁰ Deb Richardson-Moore, "Anderson," *Greenville News*, 20 May 1998, 7B.

humor is the clear blue sky of the soul.”²¹ The boy who had spent his entire childhood dreaming of flight now had the opportunity to go out and do something about it.

Anderson enrolled in Clemson University and began classes in the Fall of 1944. He also enrolled in Clemson’s first ROTC class.²² While at Clemson, Rudy was very active in extracurricular activities. He participated in intermural football, basketball, swimming, and softball. He also was involved in several ROTC organizations and leadership roles.

One of the more remarkable stories regarding Rudolf Anderson’s time at Clemson occurred during his senior year. Just three months before graduation the Clemson senior narrowly escaped serious injury when he fell out of a third-story window of his barracks. On the night of 3 March 1948, Rudy was trying to catch a pigeon that had flown into the barracks and chased the bird right out the window. The Clemson Tiger reported:

It is understood that the student was chasing a pigeon down the hall of the third floor of the second barracks, and was unable to stop at [sic] the bird flew out the window. Several witnesses said that he hit the eaves that protrude over the door of second barracks, breaking his fall, and saving him from more serious injuries. He was conscious when arriving at the college hospital, and was able to identify himself. Dr. Lee Milford (Clemson campus doctor) said that it was a miracle that Anderson escaped with the injuries he obtained. The gangplank that he finally came to rest on is constructed of iron and concrete. The college physician further stated that Anderson had a good chance to recover provided nothing unforeseen turned up.²³

²¹ Greenville High School, *Nautilus*, May 1944.

²² Manuel J. Rogers, “Wiggins Addresses Clemson Graduates,” *Greenville News*, 7 June 1948, 1.

²³ “*Rudolph [sic] Anderson Is In 'Good Condition'*,” *The Tiger*, 4 March 1948, Volume XXXI, Number 19, 1.

The following day Dr. Milford reported that he was very pleased with Anderson's condition, given the fall that he survived. The doctor reported that Anderson suffered a "laceration of the right forehead, complete dislocation of the right wrist, and a fractured pelvis bone."²⁴ Luckily for Rudy, a fractured pelvis was the worst of his injuries. His parents took turns staying with him in the hospital for weeks. It was initially feared that Rudy would not be able to graduate on time, but he pulled through and recovered much more quickly than doctors expected.²⁵

One week later, on 11 March, the Clemson Tiger reported on Anderson's condition. The article included a report of a note received at the University President's office. The note read:

Gentlemen:

I read in the paper that one of your distinguished senior students fell out of a third-story window while chasing a pigeon down the hall. It did not state whether he caught the pigeon or not. This has me worried because I have often wondered whether a Clemson man is capable of catching a pigeon or not.

Yours truly,

A Cute Pigeon²⁶

Rudy fully recovered from the incident and graduated in 1948 with a degree in Textile Engineering. Despite finishing his ROTC training at Clemson, the military was drawing down in size, and not all cadets were able to become commissioned officers. On 7 June 1948, Anderson received a commission as an aircraft maintenance officer. However, this was short lived and his commission was soon rescinded.

²⁴ "Rudolph [sic] Anderson Is In 'Good Condition'," *The Tiger*, 1.

²⁵ Lutie McGee, "Visit Injured Son," in "Society News," *Greenville News*, 5 March 1948, 18.

²⁶ "Letter to the President," *The Tiger*, 11 March 1948, Volume XXXXI, Number 26, 1.

All was not lost. At the time, Greenville was considered the textile capitol of the world. Anderson's degree and family connections made it easy for him to find a job in the busy textile industry. Upon graduation, he was immediately hired by the Hudson Mill and worked there for two years in a high paying job. While at Hudson Mill, he was fast moving up the corporate ladder in the textile world as one of the preeminent textile engineers in the town. He also served as a cost accountant for the City of Greenville.²⁷

Anderson's Air Force Service

For almost three years Anderson worked as a civilian in the City of Greenville. He became an important part of the textile industry in Greenville and was becoming an influential member of the city council. However, his comfortable life in Greenville changed in November of 1951. *The Greenville News* later reported that "He could have in good conscience remained in civilian life where a comfortable and rewarding career was his for the taking. However, he loved to fly, and he wanted to serve his country."²⁸ Therefore, when Rudy Anderson got the call to join the USAF full-time and fly, he quickly left his hometown and reported for duty.

²⁷ "Lt. Rudolf Anderson, Jr." in "Town Talk Column" *Greenville News*, 22 November 1951, 2.

²⁸ Ray Tucker, "Hero of a War for Survival," *Greenville News*, 2 November, 1962, 4.



Figure 2: Rudolf Anderson as a New Lieutenant

Source: *Clemson Alumni*, "Rudolf (Rudy) Anderson Jr.," retrieved from <https://cualumni.clemson.edu/page.aspx?pid=1176>

Rudy's first assignment after commissioning was service as an adjutant to the Wing Commander at Tyndall AFB, FL.²⁹ He remained at Tyndall for nearly nine months at which point he was selected for pilot training. Anderson's boyhood dream of becoming a pilot was becoming a reality. In August of 1952 Rudy was transferred from Florida to San Marcos, TX for pilot training. Before departing for Texas, Rudy stopped by Greenville for a brief visit with his parents.³⁰ He told them he was excited and not to worry about him, then departed to fulfill his dream.

Rudy made the trip to San Marcos for brief introductory training and then traveled ninety miles south to the small town of Hondo, Texas. He started primary training in the Piper Super Cub. Flying the Piper Cub was similar to the flying he had done as a boy, and he picked it up quickly. Anderson and his classmates flew approximately twenty hours

²⁹ "Lt. Rudolf Anderson, Jr." in "Town Talk Column" *Greenville News*, 22 November 1951, 2.

³⁰ Lutie McGee, "The Breakfast Hour," "Is Transferred," 7 August, 1952, 14.

in the Super Cub, then progressed to the North American T-6, a World War II vintage trainer.

After graduating from primary training in the Super Cub and T-6, Anderson's class was divided into two groups for basic training: single-engine jet or multi-engine. Anderson was selected for the single-engine jet track and stayed Texas to complete basic training at Webb AFB in Big Spring, Texas. At Webb AFB, Rudy learned to fly the piston-engine T-28A, and then graduated to the Lockheed T-33A. The T-33, or "T-Bird" as its pilots knew it, was a variant of the F-80, the USAF's first operational jet fighter.³¹ Upon completion of basic training Rudolf Anderson was selected to fly tactical reconnaissance in the North American RF-86 Sabre. He was reassigned to Nellis AFB, NV to undergo training in the F-86. After only six months of training, in four different aircraft, Rudy Anderson received his pilot wings in February of 1953. He finally achieved his childhood dream, Rudolf Anderson Jr. was a pilot.³²

Anderson arrived at Nellis AFB in March of 1953 for F-86 training followed by introductory fighter training. On 15 September 1953, Anderson's twenty-sixth birthday, he completed the last course at Nellis, aerial gunnery. The course was the only time he fired weapons from an aircraft, for the remainder of his life his weapon was a camera. Upon graduation from Nellis, Anderson immediately departed to Park Air Force Base in San Francisco to undergo a familiarization check-out in the RF-86 before departing for his first duty assignment as a pilot, the Republic of Korea.³³

³¹ Thomas Manning, "History of Air Education and Training Command, 1942-2002," (Randolf AFB, TX: Office of History and Research, Headquarters, AETC, 2005), 85.

³² 4080 Strategic Reconnaissance Wing History, Appendix 1, "Biography of Major Rudolf Anderson, Junior," 6 November 1963, 2.

³³ Lutie McGee, "Completes Training," 15 September 1953, 14.

Although the Korean War ended in July 1953, reconnaissance missions in the area remained important. A great need existed for short-range overflights of the USSR, China, and North Korea. These missions were very sensitive in nature, and each one went through an arduous approval process. Each request was submitted through the Commander of the Far East Air Forces (FEAF), then forwarded to the Joint Chiefs of Staff for review. If the military channels recommended an overflight mission, it was referred to President Eisenhower for approval. The process kept the number of flights low to prevent a reaction from one of the communist nations.

While assigned to the 15th Tactical Reconnaissance Squadron at Kunsan AB, South Korea, Anderson was deployed as part of a special unit. The unit was tasked to conduct the missions above and deployed to Komaki AB in Japan. The special unit of eight pilots, including Anderson, flew a modified version of the RF-86F. To make the aircraft lighter (a concept Anderson would become very familiar later with the U-2) the guns were removed from the RF-86. The nose of the aircraft was painted where the guns were normally housed to make it look like a normal F-86. Three cameras were installed in place of the guns. These cameras gave the aircraft panoramic vision and allowed it to cover a broad swath of territory.

Anderson quickly upgraded to flight lead and was chosen to lead one of the first missions of the special unit. On 1 May 1954 1st Lt Rudy Anderson led a two-ship alongside his wingman 2nd Lt Robert Depew. Because of the difficulty in gaining clearance for such missions, the 1 May sortie was tasked to overfly both Chinese and Soviet territory. Even with full drop tanks, such a sortie was too far for the little RF-86 to make round trip so it was decided the men would take-off from Japan and fly directly to the unit's home base at Kunsan, South Korea and launch the overflight mission to return at Komaki. This plan was challenging for some reasons, the most pressing of which was the fact that the RF-86F

was not allowed to operate out of Kunsan. The 1953 armistice contained a clause stating that only the military equipment that was present in either North or South Korea at the time of signing could operate out of those two countries.³⁴ The RF-86F did not meet this requirement, and the crew risked severe repercussions for the United States if they were discovered.³⁵

The two-ship took off from Japan at 0400 on the morning of 1 May. They landed and stayed in the aircraft while the maintenance crews refueled the drop tanks and checked the camera equipment. Less than an hour later, Anderson and Depew were airborne en route to the ports at Dairen, China. The men fueled the aircraft from the drop tanks first and, when they were emptied, jettisoned them to maximize their altitude. As they approached the coast of China, the formation was flying at nearly 54,000 feet, over 12,000 feet above the operational ceiling of the aircraft.



Figure 3: Rudy Poses in RF-86

Source: Rudolf Anderson Memorial Monument, Greenville, SC

³⁴ Armistice Agreement for the Restoration of the South Korean State, 27 July 1953, retrieved from

<https://www.ourdocuments.gov/doc.php?flash=true&doc=85>

³⁵ Curtis Peebles, *Shadow Flights: America's Secret Air War Against the Soviet Union*, (Novato, CA: Presidio Press, 2000), 56.

The F-86 was notorious for being difficult to handle at altitude, and it was an even greater challenge operating well outside of the published limits. Anderson led his wingman through this difficult process, and they overflow Dairen uneventfully. Upon collecting their imagery of the Chinese port, Anderson directed the flight west over Port Arthur in the Soviet Union. Once again, they met no resistance nor any sign that they were detected and turned for home. It was rare for pilots to see the fruits of their labor, however, on this occasion Anderson was able to see the imagery he captured. The intelligence branch of FEAF headquarters wanted to debrief the pilots on the Chinese and Soviet reactions and asked them to report to the headquarters. Anderson and Depew flew to Tokyo on the morning of 2 May and saw the processed film. Depew recalls being amazed by the number of submarines docked at Port Arthur. As usual, Anderson was all business and just wanted to get back to Komaki to do their job.³⁶

Over the course of the next two years, Anderson flew many more missions out of Korea and Japan. He was twice awarded the Distinguished Flying Cross for missions like the one described above. He spent nearly eighteen months flying reconnaissance missions in post-war Korea and as part of a special unit overflying North Korea, China, and the USSR. In April of 1955, Rudy packed up his gear and returned to the United States. He was given leave before reporting to his new squadron at Larson AFB, Washington and used that time to go back to the East Coast. This time was used to visit his family in South Carolina and start the beginning of a new family.

While on leave before reporting to Larson AFB, Rudy proposed to Miss Frances “Jane” Corbett. The two had met when Rudy was on duty in Georgia before departing for Texas in 1952. They kept in touch over

³⁶ Peebles, *Shadow Flights*, 57.

the course of the next three years, and when Rudy returned from Korea, he traveled to Georgia to ask for her hand in marriage. Jane accepted, and they married on 20 November 1955 at the First Methodist Church in Parson, OR, near where Rudy was stationed.³⁷

The Andersons enjoyed their life at Larson AFB. Rudy excelled in the RF-84 and was even recognized as Strategic Air Command's Pilot of the Month for April 1956.³⁸ Such recognition was no easy feat for a tactical reconnaissance pilot in a Command dominated by bombers focused on nuclear war. The fact that Rudy was chosen for such recognition is a testament to his abilities as a pilot and an officer. In June of 1956, Anderson was awarded the Distinguished Flying Cross for missions in Korea while stationed at Larson AFB. Col C.F. McKenn, Commander of the 71st Strategic Reconnaissance Wing, held a ceremony to present Rudy the medal for performance during a classified mission in March 1955.³⁹

In May 1956, Rudy's childhood friend and Air Force Reserve pilot, Dan Foster, flew into Larson on his way to Alaska. The aircraft was grounded for maintenance and Dan was stuck at Larson. He contacted Rudy's squadron and got in touch with his old friend. The two decided that they should take advantage of the opportunity and go on a fishing trip. Instead of fishing, Rudy found out that he was on alert that weekend. Rudy told Dan and another friend from the squadron to take his car and go fishing without him. After a weekend enjoying fishing while Rudy sat alert, Dan asked him if he was tired of it and when he was going to get out. "Get out" Rudy replied with indignation, "man, I'd

³⁷ Lutie McGee, "Interesting Betrothals are Revealed this Morning," *Greenville News*, 6 November 1955, 2B

³⁸ "City Air Officer Awarded DFC," *Greenville News*, 15 June 1956, 14.

³⁹ "City Air Officer Awarded DFC," *Greenville News*, 15 June 1956, 14.

do what I'm doing for nothing, and they pay me."⁴⁰ Again Rudy's love of the Air Force and flying prevailed.

In the Spring of 1957 Rudy Anderson, along with some of his fellow pilots at Larson, were recruited to a special program. The CIA began looking for tactical reconnaissance or Tac-Recce pilots to fly the U-2 as early as 1955, but many officers chose not to apply due to the requirement to resign from the USAF. There is no indication whether or not Rudy was party to one of these early recruitment trips. However, given his previously mentioned statement to longtime friend Dan Foster, it is doubtful he would have resigned his commission if they had tried to recruit him.

Towards the end of 1956, the USAF picked up a significant portion of the U-2 mission and recruiting changed. At the same time, the Air Force began to transfer most of the tactical reconnaissance missions from Strategic Air Command (SAC) to Tactical Air Command (TAC). With the shift came a change for many of SAC's Tac-Recce pilots, a move to a new command dominated by the fighter aces of the Korean War. The USAF used this opportunity to recruit RF-86 and RF-84 pilots from SAC bases.⁴¹ Anderson's performance in SAC and experience involving overflight missions while assigned to the 15th Tactical Reconnaissance Squadron made Rudy a prime candidate. He accepted the offer and prepared to make a series of major transitions.

In the Spring of 1957, the Andersons time at Larson came to an end, and they departed for an unknown adventure. Rudy was given vague orders to Laughlin AFB, TX but with intermediary temporary duty assignments in between. The first of these assignments brought the

⁴⁰ Dan Foster, "Thirteen Days' stirs memories of hero, friend," *Greenville News*, 29 January 2001, 6D.

⁴¹ Interview with Brig Gen (Ret) Gerald McIlmoyle, 1 February 2017.

Anderson family back to the South East, for Captain Anderson to attend Squadron Officer School at Maxwell AFB, AL.

Jane left Larson eight months pregnant, and on March 26, 1957, the Anderson's welcomed their first son Rudolf Anderson III into the world. Jane returned to her hometown of Pearson, GA to give birth to the boy. As would be the case at many points throughout his career, the Air Force had other plans for Rudy, and he was not able to stay with his new family. He departed for Squadron Officer School (SOS) a day after the birth of his boy, where he would remain for the next month and a half.⁴²

Anderson completed SOS in April of 1957 and departed for California. His orders called for him to attend training at March AFB, CA but he knew this was not the full story. Rudy arrived at March AFB in May and found an empty squadron with no aircraft. He quickly learned that his training would take place elsewhere and that he would have to board a C-123 to get there.

For the first class of USAF U-2 pilot trainees there were no instructor pilots, no trainer aircraft, and no base to speak of from which to conduct their training. When Rudy arrived in the summer of 1957, he found a desolate, dry lakebed in the Nevada desert. The area had nothing but scorching heat and wild animals. The site was officially called Groom Lake, but those who operated out of the remote facility called it "The Ranch."⁴³

Although the CIA had been flying the aircraft out of "The Ranch" for almost two years, there was no operational testing done by the USAF before its pilots began flying the Dragon Lady. The USAF pilots operated without the assistance of their Agency brethren. They taught themselves

⁴² Lutie McGee, "The Breakfast Hour" "Parents of a Son," *Greenville News*, 28 March 1957, 22.

⁴³ Gerald McIlmoyle, *Remembering the Dragon Lady*, (Utica, KY: McDowell Publications, 2008), 31.

to fly the new aircraft, learning capabilities and handling characteristics while at the same time developing checklists and procedures. Another challenging aspect of learning to fly the U-2 was the partial-pressure suit.

Each pilot was custom fitted for two partial pressure suits. The U-2 program was very secretive in nature, but getting one's pressure suit took secrecy to the extreme. Anderson and his colleagues were sent out in either a pair or traveling alone and told to pack only civilian clothes, leave their military identification at home, and fly to Boston, MA. There they would meet a man at the train station who would give them tickets for a train ride 40 miles west to the town of Worcester, MA. After arriving in Worcester, Anderson and his fellow pilots were met by another individual who would pick them up in a car and drive them to the David Clark Company, maker of women's brassieres. Once inside the factory, the men had to navigate through the factory floor to a special room at the back where they were fitted for their suits. They returned the following morning to try on their suits that had been put together overnight and then took it with them back to March. The process seemed completely normal for the agency pilots who were accustomed to such clandestine lifestyles, but for the USAF pilots, it was uncomfortable and unfamiliar.⁴⁴

After they had received their pressure suits, this first class of pilots had to learn everything about the Dragon Lady. The USAF aircraft were flown from the Lockheed plant in California in the back of a mobility aircraft, assembled, and then flown once by a Lockheed test pilot to ensure it was put together correctly. From that point on the pilots were on their own to figure out how to fly this strange powered glider that could outclimb anything in the sky.

In the book, *Remembering the Dragon Lady*, Retired Colonel Tony Bevacqua recalled the challenges at Groom Lake and how he and the

⁴⁴ Interview with Brig Gen (Ret) Gerald McIlmoyle, 1 February 2017

other men of the first class were focused completely on training. He wrote, "there wasn't anything to do except fly and get the training, it was pretty boring really unless we were learning a new system."⁴⁵ They knew that the quicker they finished their training at "The Ranch" the sooner they could get back to their families and start flying real missions.

Like Anderson, the pilots were all very experienced. Because of their backgrounds and airmanship, they were thrust right into training. The training began with a series of low-altitude flights and focused on the strange landing characteristics of the U-2. After about a week of low-altitude flights the men donned their partial pressure suits and took the Dragon Lady to altitude. For the next two weeks, the pilots learned how to operate the jet at altitude and manage its various sensors. The first class of USAF pilots arrived at Groom Lake and completed their entire training in less than three weeks.

On 3 September 1957, just twelve days before his thirtieth birthday, Rudy became the 83rd pilot to solo the Dragon Lady.⁴⁶ He completed training by the end of the month and departed for Laughlin AFB, TX where he would join his family and begin the life of a Dragon Lady pilot. Anderson quickly upgraded to instructor pilot and was tasked with training the second-year group of U-2 pilots who learned to fly at Laughlin rather than "The Ranch."

Between September 1957 and October 1962 Rudy Anderson amassed over one-thousand flight hours in the U-2. He flew operational missions around the world and was always one of the first pilots to test a new upgrade to the aircraft or receive an additional qualification. When he was home at Laughlin, Rudy made time for his wife and son. In 1959 Jane gave birth to a second boy, James. When work permitted, he would

⁴⁵ McIlmoyle, *Remembering the Dragon Lady*, 23.

⁴⁶ Robert Ray, "U-2 Checkout Dates," current as of April 2017.

take the boys fishing in nearby Lake Amistad and play catch with them in the backyard.

At the squadron, his fellow pilots recognized his talent and dedication. Fellow Cuban Missile Crisis pilot, Dan Schmarr said, “In this profession, you appreciate and understand people that are really tops at what they do. And he was.”⁴⁷ Anderson rose to lead the Standardization and Evaluation Branch of the 4080 Strategic Reconnaissance Wing at Laughlin. It was a job at which he excelled. In this role, he was able to make an impact on the entire U-2 program. Anderson used his attention to detail to organize checklist and write procedures manuals for his fellow pilots.⁴⁸

Although no records show that President Kennedy remembered meeting Rudy Anderson when the Crisis occurred in October of 1962, it was Anderson who first introduced the President to the U-2. In May of 1962, Major Rudolf Anderson was the special briefing officer for the President when he received his first read-in on the capabilities of the Dragon Lady. Anderson presented the President with a briefing of the status and capabilities of the USAF version of the U-2 program. Following the brief, Anderson provided Kennedy an aerial demonstration of the high-performance climb of the aircraft.⁴⁹

Rudolf Anderson, Jr.’s life impacted all of those around him. It can best be summed up by a quote that appeared in his hometown newspaper a week after his death:

⁴⁷ Quote from Lt Col (Ret) Dan Schmarr, Deb Richardson-Moore, “Spy Plane Pilots Captured Missiles of October on Film,” *Greenville News*, 23 March 1998, 1A.

⁴⁸ Interview with Brig Gen (Ret) Gerald McIlmoyle, 1 February 2017.

⁴⁹ “Major Rudolf Anderson Jr.,” 22 May 1962, 7.

He represents the very finest of American manhood which is being offered up for sacrifice that we may remain free and secure. We own him and them a debt no less that that we owe to those who died or were permanently injured in other wars. Rudolf Anderson was a credit to his family and his community. All who knew him were impressed by his singular character, his absolute manliness, his outgoing personality and spirit and his devotion to the right.⁵⁰



⁵⁰ Ray Tucker, "Hero of a War for Survival," *Greenville News*, 2 November, 1962, 4.

Chapter 3

The Development of the U-2 Dragon Lady

We have reached a period in history when our peacetime knowledge of the capabilities, activities, and dispositions of a potentially hostile nation is such as to demand that we supplement it with the maximum amount of information obtainable through aerial reconnaissance. To avoid political involvements, such as flying in friendly airspace, or – a decision on this permitting – from vehicles whose performance is such that they can operate in Soviet airspace with greatly reduced chances of detection or interception. The political obstacles to performing reconnaissance of the latter type are often mentioned as justifying a lack of effort on equipment and systems for pre-D-Day reconnaissance involving penetration of Soviet airspace. This is unwise.

*Recommendation in the Beacon Hill Report
Beacon Hill Study Group, 1952*

The use of lighter-than-air vessels became a part of warfare in the 19th century; however this form of reconnaissance was limited in range due to the static nature of the craft used. With the advent of the airplane in the early 20th century, visionaries recognized the military value of such craft. The earliest uses of military aircraft were for reconnaissance and artillery spotting. However, as airplane technology advanced, so did its military application. By the end of the Second World War, military aviation had progressed tremendously to include a myriad of missions, and in the United States was poised to become its own separate branch of the military. Through the crucible of two world wars, reconnaissance developed from a man with binoculars (or sometimes just his own eyes) peering over the side of the aircraft into something much more precise and technical. From these developments came strategic reconnaissance, the idea that the airplane could provide intelligence on an adversary or potential adversary in order to facilitate strategic decisions, even outside of wartime operations. This became very important as World War II ended and a Cold War between the US and USSR began.

At the onset of the Cold War a vast information gap existed. From its inception, the USSR was a very secretive and closed society. US intelligence had little to no information about Soviet military strength and did not even have accurate maps of the USSR.¹ The best aerial photographs available to Western planners came from aerial photography taken by the *Luftwaffe*. These photographs were captured by the Allies after the German surrender in May 1945. Outside of these captured photos, virtually no maps or aerial photography of the USSR existed, especially of those areas in the Urals, Siberia, and the Far East.²

As victory in WWII appeared imminent, the USAAF under General Hap Arnold commissioned studies to assess the impact of strategic bombing in the war. In addition to an evaluation of the contribution of strategic bombing, the U.S. Strategic Bombing Survey (USSBS) concluded that “the U.S. should have an intelligence organization capable of knowing the strategic vulnerabilities, capabilities and intentions of any potential enemy.”³ In spite of the aforementioned dearth of intelligence on the USSR, very specific information was needed for military and political leaders to make decisions regarding Soviet strengths, weaknesses, and capabilities. Additionally, the strategic bomber forces needed a list of verified targets in case conflict with the USSR broke out. In order to fill the major voids in information, US civilian leaders employed a bifurcated approach: human intelligence (HUMINT) obtained through agency operatives, and signals (SIGINT) and imagery (IMINT) intelligence acquired by the newly formed United States Air Force.

¹ Curtis Peebles, *Shadow Flights, America's Secret Air War Against the Soviet Union*, (Novato, CA: Presidio Press, 2000), 5.

² Peebles, *Shadow Flights*, 7.

³ David Macisaac, *United States Strategic Bombing Survey, Over-all Report*, 30 September 1945 (New York: Garland Publishing, 1976), 107.

Civilian and military leaders adapted the use of reconnaissance to begin collecting intelligence to close the large information gap and instituted new roles and missions for the aerial reconnaissance arm. The United States created its initial aerial reconnaissance force from a few converted bombers and fighters with the goal of developing a robust and capable force. Within 5 years of the end of WWII, USAF RF-80As were flying along the borders of Soviet airspace.⁴ Just over 5 years later U-2 aircraft were conducting overflight missions deep within Soviet territory.⁵ By the Vietnam War, the USAF had multiple dedicated ISR assets that were conducting useful SIGINT and IMINT missions, as well as gathering targeting and bomb damage assessment information. This intelligence provided decision makers with information allowing them to reduce miscalculation and prevent escalation, as in the case of the Cuban Missile Crisis.

Throughout the Cold War, the USAF and Central Intelligence Agency (CIA) conducted highly classified reconnaissance operations against the Soviet Union and its proxy states. They did so while operating within very tight constraints imposed by national leadership, due to a fear of a Soviet response. This chapter addresses the development of strategic reconnaissance in the Cold War. It begins with the use of retrofitted fighters and bombers conducting reconnaissance operations and follows the evolution that led to the development of dedicated reconnaissance assets to include the U-2 that the men of the 4028th Strategic Reconnaissance Squadron flew over Cuba during the Missile Crisis. Throughout this development, men like Major Rudolf Anderson flew highly dangerous and covert missions into unfriendly skies. They were often alone, unarmed, and unafraid; relying on their aircraft and skill to take them deep into the heart of enemy territory and

⁴ Peebles, *Shadow Flights*, 9.

⁵ Peebles, *Shadow Flights*, 131.

back out, ensuring that the US had the latest intelligence on Soviet capabilities.

Post WWII Development

Despite their alliance during World War II, in the waning moments of the war tensions grew between the two emerging superpowers. The United States saw the Soviet Union's ability to mobilize massive amounts of men and machines, and the manner in which it crushed the seemingly invincible *Wehrmacht*, as a direct threat to a stabilized world order. On the other side, the USSR was threatened by the US due to numerous factors, the strongest of which was its own insecurity and concern over another great war on the continent. First and foremost, General Secretary Joseph Stalin and other members of the Central Committee of the Communist Party of the USSR wanted to ensure that postwar actions resulted in a weak and dismembered Germany. They felt that the Germans should be made to pay for the atrocities of both World Wars and wanted to exact revenge in the form of both monetary and physical reparations. The USSR also saw its annexation of eastern Germany as part of the necessary creation of a buffer zone between itself and potential adversaries. The USSR saw the growing alliance between the US and United Kingdom (UK) as a threat. Stalin also felt these allies were rebuilding and strengthening Germany and Japan too quickly. The USSR had fought both of these nations multiple times in the recent past and wanted to see them crushed rather than restored. In addition to diplomatic actions, the Soviet Union warily watched as the US continued to develop and test new and more powerful atomic weapons, while calling for international controls over other nations' development of similar devices. The Soviets feared the United States' growing monopoly on nuclear weapons and viewed the development of longer-range strategic bombers from which atomic weapons could be delivered as a major threat to the Soviet Union. The growing tensions in the second half of the 1940s also led to an end of US backed loans and aid to the USSR,

while the US greatly increased aid to other world nations under the Marshall Plan.

In the early years of the Cold War, the Soviet Union did not have nearly enough resources or the technology required to monitor the vast borders of its 8.6 million square mile territory.⁶ Major gaps existed along the Soviet borders through which men, vehicles, or aircraft could easily enter into the Soviet Union undetected. At the end of World War II the USSR had very limited radar coverage, and what it did have was based on primitive radar technology which had been provided by the US and UK. These radar sets were focused to the west and were very limited in range and capability. They also relied on parts provided by the US and UK, and as relationships deteriorated the flow of supplies needed to maintain the sites was cut off. Additionally, even if the Soviets could detect an incoming aircraft, their Air Force was designed to combat German fighters on the Eastern Front at medium-to-low altitudes. While their pilots were proficient, they did not have an interceptor aircraft that was capable of intercepting a World War II-style bomber, like the B-29, until 1948.⁷

This was the environment in which US Cold War reconnaissance operations began. The United States had a perceived need to fill a vast void of information, and the USSR had little means of stopping them. Immediately after the end of World War II, the US began flying intelligence and reconnaissance missions along the Soviet borders. This was primarily conducted along the coastal region in the east and along Soviet occupied Germany in the west. When they detected these flights, the Soviets tried to intercept any intruding aircraft that they could. For the most part these intercept attempts were unsuccessful due to the higher altitudes and faster speeds of US and UK aircraft. When they

⁶ Peebles, *Shadow Flights*, 12.

⁷ Peebles, *Shadow Flights*, 36.

were able to successfully intercept reconnaissance aircraft, the Soviets focused on identifying the aircraft and would normally follow the aircraft along its route of flight. As time went by, intercepts became more aggressive, and eventually, the interceptors tried to chase flights away rather than simply following them. After nearly five years of this game of cat and mouse, the Soviets had had enough and their air defense fighters shot down the first US reconnaissance flight on 8 April 1950.⁸ The Soviets were frustrated by the continual US overflights and wanted to put an end to them.

The Soviet Ambassador to the United States delivered a formal démarche to US Secretary of State Dean Acheson on 11 April 1950, three days after the aircraft had been shot down. In the accusatory note, the USSR described the manner in which their defense force shot down a US reconnaissance aircraft that had flown over 21 kilometers into Soviet territory. The Soviets claimed that their interceptor aircraft discovered the violating aircraft and signaled for it to depart Soviet airspace or land. Rather than comply, the Soviets stated that the aircraft fired on the Soviet interceptors, which of course required them to fire back in self-defense. The letter went on to describe how the Soviets shot at the US aircraft and how it flew out over the water trailing smoke and eventually crashed into the sea.⁹ Secretary Acheson was furious and blamed the entire event on the Soviets. Shortly after the formal démarche, the US released a statement that refuted Soviet claims and portrayed them as the aggressor. The report detailed the US account of the incident and stated that the US aircraft was unarmed, flying over international waters, and not spying but rather on a routine training mission.¹⁰

⁸ Peebles, *Shadow Flights*, 51.

⁹ Dick van der Aart, *Aerial Espionage: Secret Intelligence Flights by East and West* (London: Macmillan General, 1986), 52-53.

¹⁰ In 1975 the US Navy admitted that this flight was indeed a reconnaissance mission. The aircraft was a Consolidated PB4Y-2

The April 1950 incident marked a major shift in Soviet policy regarding US and UK reconnaissance flights. Rather than simply intercepting aircraft and escorting them out of Soviet territory, the USSR took a more aggressive stance. A new intercept policy was released in which the Soviet Union asserted the right and necessity to intercept any aircraft flying near or over their airspace. Included in this new doctrine was the right to force violators to land and subject them to search and seizure. If the reconnaissance aircraft attempted to flee rather than land, they claimed the right to shoot them down before they returned to international airspace.¹¹

This new Soviet policy meant that the US and UK had to rethink their own policies towards gathering intelligence on the Soviet Union. In 1946, British Prime Minister Winston Churchill gave a speech entitled “Sinews of Peace” at Westminster College in Fulton, Missouri. In the speech, he described the Soviets as hiding behind an Iron Curtain, a curtain which prevented other nations of the world from peering in and knowing what was happening inside their vast empire. By the middle of 1950, the Iron Curtain that Churchill had so eloquently described in 1946 had extended higher into the heavens and was threatening the ability of the US and UK to gather information and understand what the Soviets were doing. Both nations knew that reconnaissance operations would demand a higher price as Soviet air defenses increased and Soviet pilots became better equipped and trained.

This, however, did not alleviate the need for reconnaissance. On the contrary, after the August 1949 test of the first Soviet atomic bomb,

Privateer, a modified version of the B-24 bomber that was outfitted with special electronic equipment designed to collect signals intelligence. Additionally, the PB4Y-2 was heavily armed including twelve .50 caliber machine guns, so the story that it fired first is highly likely.

¹¹ Paul M. Cole, *POW/MIA Issues Volume 2; World War II and the Early Cold War* (Washington DC: Rand Corporation, 1994), 41-43.

both the US and UK were more dependent on aerial reconnaissance to fill intelligence gaps. This need for intelligence forced the US to accept an even greater price in lost aircrews and aircraft. Meanwhile US policy makers feared that continuing escalation could lead to an increase in tensions precipitating another World War. If the US was to regain the reconnaissance advantage it enjoyed from 1946 to 1950 it had to find a new solution to circumvent the increasingly impenetrable Iron Curtain.¹²

However, as reconnaissance flights continued into the early 1950s, a new solution was not adopted. Rather, the US and UK continued flying modified fighters and bombers over and around the periphery of the USSR in increasing numbers. Through late 1953 the significant increase in military, especially atomic, development in the USSR led the US to dramatically increase reconnaissance operations. This surge coupled with improvements in Soviet air defenses resulted in increased losses in reconnaissance aircraft and aircrew. After over three years of discussing the need for a new aircraft or new techniques, the United States finally received the catalyst it needed to bring about change.

President Dwight D. Eisenhower and the Technology Capabilities Panel

The 1952 presidential election occurred during a time of political upheaval and rapid technological change. The US was mired in a stalemate in Korea that showed no promise of ending soon and polarized the nation. Additionally, McCarthyism was rampant, driving a strong fear of communist conspiracy and aggression. In the background, the US military was expanding its nuclear arsenal in preparation for an all-out war with the USSR and newly-Red China. The first US hydrogen bomb was tested just 3 days before the 1952 election, on 1 November. The US knew that the Soviets were working on a similar device but were

¹² Harold Austin, "A Cold War Overflight of the USSR," (New York: Daedalus Flyer, Vol. 35, No. 1, Spring 1995), 16.

unsure how far along the program was. It was in this dynamic environment that a man who said he had no interest in politics became the standard bearer for the Republican Party.¹³ Dwight D. Eisenhower ran on a platform focused on resolving the situation in Korea and strengthening the US position abroad. On 4 November 1952, Eisenhower won a resounding victory, securing 55 percent of the popular vote and delivering a landslide victory in the electoral college, 442 votes to 89.¹⁴

Due to the overwhelming results of the election, President Eisenhower knew he had a mandate from the people of the United States to resolve Korea and strengthen the international position. Shortly after his inauguration in January 1953, he informed members of his newly expanded National Security Council that he was not pleased with either the quantity or quality of intelligence gathered regarding the strategic capabilities or intentions of the USSR. This lack of quality intelligence led to the creation of the President's Technology Capabilities Panel (TCP) in 1954.¹⁵ The panel, led by James R. Killian, president of the Massachusetts Institute of Technology, outlined the various programs that were currently under development and proposed new ideas that would enable the US to collect vital intelligence on the Soviet Union. The following were the list of the top ideas suggested by the TCP: use of high-altitude, camera-equipped balloons; development of a conveyance system employing a large aircraft to carry a smaller high-speed jet aircraft; modification of current bombers to serve in reconnaissance role; development of reconnaissance versions of NAVAJO and/or SNARK

¹³ Miller Center of Public Affairs, University of Virginia. "Dwight D. Eisenhower: Campaigns and Elections." Accessed January 8, 2017. <http://millercenter.org/president/biography/eisenhower-campaigns-and-elections>.

¹⁴ Miller Center

¹⁵ David Haight, *Ike and His Spies in the Sky*, (College Park, MD: National Archives, Winter 2009), 12.

missiles, and finally the search for a new high-altitude reconnaissance aircraft that could operate above threats.¹⁶

Many of the ideas proposed by the TCP were simultaneously explored or developed under the direction of President Eisenhower. The President thought that one of the most promising of the options presented was the use of balloons and cameras known as Project GENETRIX. He and his advisors believed that these balloons would not only be beyond the reach of Soviet ground and air based interceptors, but that would also pose the least strategic threat to the USSR. Because they were not manned and not carrying weapons, the TCP believed that Project GENETRIX would not escalate the Cold War. Unfortunately, the balloons proved very unreliable in both quality of collection and more so in the unpredictable nature of their flight path, and the project was abandoned.¹⁷

While the TCP, Department of Defense, and industry explored other technological solutions; President Eisenhower proposed another, more diplomatic idea. The President suggested that the RB-36, which the US was then flying on the periphery of the Soviet Union in a reconnaissance role, could be used in a new way. Eisenhower envisioned an idea that would allow both the US and USSR to use the aircraft as a tool to verify arms levels and push for a reduction with open, predictable, reconnaissance flights over each other's territory. President Eisenhower proposed this idea at the 1955 Geneva Summit. The project, which he named OPEN SKIES, offered the Soviets the use of US airfields, aircraft, and support from which the USSR could fly anywhere they chose over

¹⁶ Attachment to Memorandum for Director, Central Intelligence (Allen Dulles), "Project GENETRIX Summary", (Washington DC: CIA Archives, 15 Feb 1956)

¹⁷ David Haight, *Ike and His Spies in the Sky*, 18.

the US to verify the status of weapons.¹⁸ This proposal was predicated on the idea that the Soviets would provide reciprocal support to the United States, ensuring both sides knew what the other was doing in order to reduce the chance of miscalculation.

While the idea could have reduced tensions, it rested on the US perception of parity between the two nations. In reality, the USSR knew that its forces were significantly weaker than they claimed, and therefore such a program would reveal this weakness to the world. Because of this, the new Communist Party Secretary, Nikita Khrushchev, categorically and forcefully rejected the OPEN SKIES initiative at Geneva as an American attempt to collect intelligence on the USSR. Secretary Khrushchev believed that the US, with its new war hero president, was attempting to identify targets for strategic attack on a Soviet Union weakened by the recent death of Joseph Stalin.¹⁹ Unbeknownst to Khrushchev, President Eisenhower was determined to get intelligence from flights over the Soviet Union and would not be deterred by the denial of OPEN SKIES. While Eisenhower hoped for a diplomatic solution, by the time he proposed OPEN SKIES in 1955 Eisenhower had already approved and developed a fallback plan, the Lockheed U-2. Prior to the Geneva Summit the President stated, "I'll give it [the Open Skies initiative] one shot. Then if they don't accept it, we'll fly the U-2."²⁰

Project AQUATONE and the U-2

As USAF reconnaissance capability evolved from the end of WWII to the early 1950s, Soviet defense systems grew along with it. What began as fairly non-confrontational flights along the periphery of the

¹⁸ Gregory W. Pedlow and Donald E. Welzenbach, *The CIA and the U-2 Program, 1954-1974* (Washington DC: Center for the Study of Intelligence, Central Intelligence Agency), 96.

¹⁹ William Taubman, *Khrushchev: The Man and His Era*, (New York, NY: WW Norton and Company, 2003), 240.

²⁰ Michael R. Beschloss, *Mayday: The U-2 Affair* (New York, NY: Harper and Rob Publishers, 1986), 105.

Soviet Union turned into more aggressive flights over Soviet territory in an increasingly contested environment. This intensification in Soviet response to overflight operations came at the same time as growing Soviet rhetoric about the strength of its bomber force and the development of more powerful atomic weapons. The changing geopolitical landscape placed the US in a position requiring the USAF to innovate or accept a major gap in intelligence. Accepting a gap in intelligence was something President Eisenhower was unwilling to do and, as mentioned above, he pushed for a better answer. While the TCP pursued many options, the one that seemed the most capable also appeared to be the most technologically difficult--high-altitude reconnaissance.

Although several factors led the Eisenhower administration to pursue high-altitude reconnaissance aircraft, the major driving factor was an early-1954 RAND study regarding Soviet capabilities.²¹ One of the TCP chairmen, Trevor Gardener, Assistant Secretary of the Air Force for Research and Development, was briefed on the study which indicated that the Soviets were now capable of conducting a surprise attack on the US which could destroy as much as 85 percent of SAC's bomber fleet in a single day.²² At the same time that this RAND study was being conducted, the United Kingdom made its first attempt at developing a high-altitude reconnaissance capability in the form of the English Electric Canberra. Their first attempt at overflight of the USSR met with poor results. In early 1953 a Canberra attempted a dangerous overflight of the Soviet missile test range at Kapustin Yar. The attempt was

²¹ Edward Kaplan, *To Kill Nations: American Strategy in the Air-Atomic Age and the Rise of Mutually Assured Destruction*. (New York, NY: Cornell University Press, 2015), 48.

²² RAND Corporations, Plans Analysis Section, "Vulnerability of US Strategic Power to a Surprise Attack in 1956," RAND Special Memorandum No. 15, (Santa Monica, CA: RAND Corporation, April 1953) (Declassified May 1967)

disastrous and the Canberra was quickly shot down by fighters over Soviet territory. RAF intelligence officials estimated the failure was due to the USSR's ability to track the aircraft and the inability of the Canberra to outclimb or outrun Soviet interceptors.²³ This information was briefed to another TCP member, Dr. James Baker, the same month that Gardener was told about the RAND study.

These two events were briefed to President Eisenhower in early 1954 and solidified his determination to pursue a true high-altitude option. The memories of the surprise attack at Pearl Harbor heavily influenced the members of the TCP, the National Security Council, and the President. The idea that the Soviets could launch a surprise attack that could destroy a majority of the US strategic forces, and that US and UK were not capable of continuing to monitor their strategic forces, was not acceptable. President Eisenhower knew that manned-aerial reconnaissance was rapidly becoming the only means available to get answers to these vital national security concerns.

The US Air Force began seriously pursuing the idea of high-altitude reconnaissance a year earlier, in January 1952. Under the newly established Wright Air Development Center (WADC) at Wright Patterson Air Force Base, two men recognized the need to address high altitude flight, specifically for reconnaissance uses. The two men were an Air Force civilian engineer, Mr. Bill Lamar, and an active duty engine specialist, Maj. John Seaberg. Their team submitted a request to industry for design proposals for a low-production run of aircraft that could perform high-altitude reconnaissance missions. Because of the small scale of production, the WADC team decided to bypass the largest aerospace firms and instead submitted the request to Bell Aircraft

²³ Gregory Pedlow and Donald Welzenbach, *The Central Intelligence Agency and Overheard Reconnaissance: The U-2 and OXCART Programs, 1954-1974*, (New York, NY: Skyhorse Publishing, 2016), 42.

Corporation, Fairchild Engine and Airplane Corporation, and the Martin Company. They believed that these smaller companies would care more about the project and that the major companies like Lockheed and Boeing would not be interested in designing an aircraft that would be produced in small numbers.²⁴

The three aforementioned companies were asked to submit design proposals by January 1954 for consideration. The proposal, which would become known as Project BALD EAGLE, had very clear requirements but called for capabilities that had not yet been achieved in aviation. The requirement was for a lightweight aircraft with a range in excess of 3,000 nautical miles, capable of attaining an altitude of 70,000 feet while carrying a single pilot and a payload of approximately 700 pounds. Additionally, the aircraft was to be developed using available production engines in order to reduce cost and have as low a gross weight as possible, enabling it to be transported via existing cargo aircraft.²⁵

While Bell and Fairchild studied the proposal, and began working on designs, the Martin Company explored the idea of modifying their B-57 bomber, which was already in the USAF inventory. The light twin-jet bomber could fly at altitudes above 40,000 feet, and Martin's engineers believed that with a longer wingspan and improved engines the B-57 would fulfill the requirements described by WADC. As requested, the three companies submitted their respective studies by January 1954. The front runner, Martin's modified B-57, featured a longer wingspan, a modification of the bomb bay to accommodate a camera or other sensors, and modified engines capable of operating at higher altitudes. The

²⁴ Chris Pocock, *50 Years of the U-2* (Atglen, PA: Schiffer Military History, 2005), 10–11.

²⁵ US Air Force Development Directive No. 00034, "High Altitude Strategic Bomber/Reconnaissance Weapon System," (Wright Patterson, Ohio: USAF(DDC/DR&D), 1952)

Fairchild Corporation took a different approach. Their proposal, the M-195 was a long-winged, single engine aircraft featuring a unique engine intake on top of the fuselage, over the wings. Finally, the Bell Corporation submitted a twin-engine aircraft with very long thin wings that they called Model 67.2. All three proposals used the existing Pratt & Whitney J57-P19 engines, modified for high-altitude flight. The WADC accepted the Bell and Martin proposals based on their two engine designs and provided funding for further research and development in the form of the Bell X-16 and Martin RB-57.²⁶

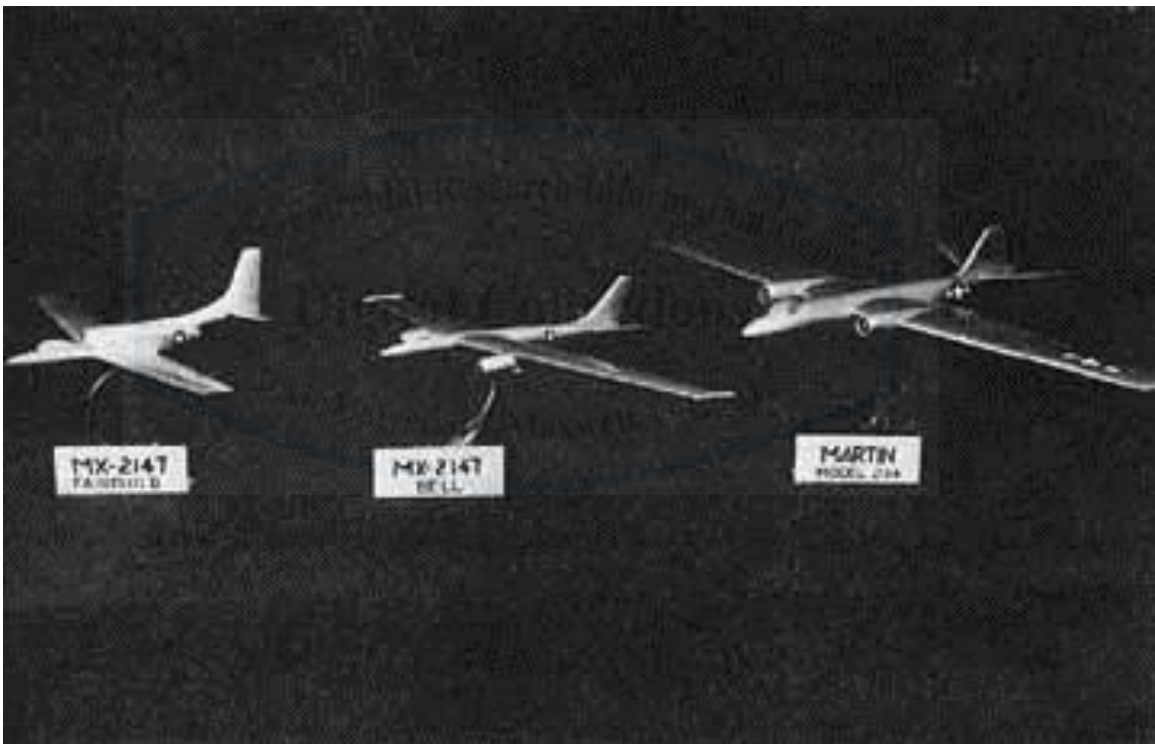


Figure 4: Models of Proposed Aircraft

Source: Peter W. Merlin, *Unlimited Horizons*, (Washington DC: NASA Publications, 2015)

Meanwhile, Lockheed engineer Clarence “Kelly” Johnson heard of the Air Force request for designs and began work on his own unsolicited

²⁶ Paul F. Crickmore, *Lockheed Blackbird: Beyond the Secret Missions*, (New York: NY, Bloomsbury Publishing, Nov 2016), 19.

proposal. Johnson was well-known and well-connected in Air Force circles. His work on the design and development of the USAF's first jet fighter, the P-80, made his Lockheed "Skunk Works" team a name known for designing seemingly impossible technological developments quickly and affordably. Johnson began work in early 1954 and, by March of that year, had completed a design proposal which Lockheed called the CL-282. Johnson sent the proposal for the design to Air Force Colonel Bernard "Bennie" Schriever, who was also working on secret Air Force projects in Southern California at the time.²⁷ Schriever was impressed with the Skunk Works' proposal and used his connections to get the CL-282 in front of senior USAF leadership. In early April, just three months after starting design for the project, Johnson briefed a CL-282 proposal to the Commander of Strategic Air Command (SAC), General Curtis LeMay and a small group of other Air Force general officers at the Pentagon. Both LeMay and Lieutenant General Donald Putt, Commander of Air Force Research and Development Command (AFRDC), cut the briefing short, and categorically rejected the fragile looking glider-type design and the idea of a single-engine aircraft. LeMay stated that the thought of flying an aircraft with only one engine over the Soviet Union was ridiculous and had been a primary reason for rejecting Fairchild's M-195.²⁸

Shortly after Johnson's briefing, Martin was given further funding and approval to proceed with production of the RB-57D.²⁹ Under LeMay's direction the USAF decided that a twin-engine design was best and, due to its existing infrastructure, the RB-57 could be fielded quickly. To the USAF it seemed that the problems were solved and that

²⁷ Crickmore, *Lockheed Blackbird*, 20.

²⁸ Crickmore, *Lockheed Blackbird*, 22.

²⁹ Pocock, *50 Years of the U-2*, 14.

project BALD EAGLE had found a solution; however, not everyone was convinced.

As the “Top Secret” Air Force study of high altitude reconnaissance aircraft progressed, CIA officials learned of the work being done by the USAF and were furious. The CIA argued that clandestine reconnaissance was its jurisdiction and that flight over denied territory should be a function of a civilian intelligence agency rather than a military service. Their argument gained little traction with the Air Force, which argued that reconnaissance was a military function and therefore under their purview. The CIA decided to begin a parallel effort in hopes of gaining further support once they had a completed aircraft.

Although Johnson’s design was rejected by LeMay and AFRDC, he was not deterred. Much like Martin’s redesign of the existing B-57, the Lockheed design for the CL-282 was based on an existing aircraft, the XF-104 fighter interceptor. The XF-104 was designed to be a high-altitude, high-speed interceptor and Johnson believed that by shedding weight and increasing the wings’ surface area he could create an even higher flying aircraft while being able to utilize existing equipment from the F-104 production line. Johnson foresaw the CL-282 as being a short-lived, almost disposable, aircraft and decided to eliminate most of the structural supports that allowed the F-104 to maneuver under heavy gravity (G) loads. Additionally, Johnson’s initial design called for the elimination of all landing gear and created space behind the cockpit to carry the WADC required 700 pounds of equipment.³⁰

Johnson’s tenacity paid off and by November of 1954 his “Skunk Works” team was making their second presentation on the East Coast, this time at CIA headquarters in Langley, Virginia. One of the attendees at Johnson’s CL-282 brief to the USAF was Trevor Gardner, assistant

³⁰ Jay Miller, *Lockheed Skunk Works: The First Fifty Years* (Arlington, TX: Aerofax, 1993), p. 213.

secretary of the Air Force for Research and Development. While the Air Force generals were not impressed with the presentation, Gardner believed it showed the most potential for success. Gardener knew the CIA was looking for an aircraft of their own so he briefed the CIA's lead intelligence analyst, Philip Strong, on the CL-282. Strong recommended that the CIA listen to Johnson's proposal and invited him to Langley to brief the CL-282.

The CIA liked the Lockheed design, but being impressed with a design did not generate funds for further development. Once again, Trevor Gardner intervened. Gardner requested a meeting with CIA Director Allen Dulles to discuss the future of CIA aircraft operations. Dulles accepted the meeting, but was skeptical that the CIA should involve itself with the design and production of aircraft, something that he believed fell into the purview of the military services. However, Gardner, while serving as the Assistant Secretary of the U.S. Air Force for Research and Development, insisted that the CIA had not only the right but the obligation to pursue aircraft for intelligence collection. Further, he briefed Dulles that he believed that as a civilian agency, the CIA was better suited to conduct covert operations. The briefing concluded with a caution that time was of the essence and that rapid developments in Soviet technology might soon make any overflight impossible. Gardner told Dulles that it was imperative to get the CL-282 funded and flying over the USSR as soon as possible.³¹ Dulles was convinced; now the USAF and CIA were each pursuing their own high-altitude reconnaissance projects.

In November 1954, President Eisenhower's advisors briefed him on the CIA and USAF projects. Eisenhower listened to the briefing and asked both sides many hard questions. Despite knowing of the existing

³¹ Chris Pocock, *The U-2 Spyplane: Toward the Unknown* (Atglen, PA: Schiffer, 2000), p 16-17.

Air Force commitments and expenditures on the project, the President approved development of the CL-282. Part of the reason that Eisenhower approved the Lockheed proposal was the loss of the RAF Canberra, an aircraft nearly identical to the RB-57, over the USSR just months before. Additionally, after 38 years of military service, Eisenhower knew that military procurement was often plagued with delays and inter-service rivalries. He directed that the new reconnaissance program be controlled by the CIA and stipulated that it should be handled in an unconventional way so as to avoid bureaucratic entanglements and delays.³² The decision was made: the CIA had the lead on reconnaissance operations over the Soviet Union. The Air Force, however, still continued to pursue both the RB-57 and X-16.³³

Thus, under the direction of the President, what would become the U-2 program was the responsibility of the CIA and not the USAF. Shortly after gaining approval to run the program, the CIA signed a contract with Lockheed for the development of the U-2 under the codename Project AQUATONE. Although the CIA had the lead on the project, they could not handle the influx of \$35 million required for Project AQUATONE without drawing attention. Therefore, in an ironic twist, the funding for procurement came through the Air Force.³⁴ The U-2's development, which now involved Lockheed, the CIA, and the USAF, was conducted in the tightest secrecy with funds being sent personally to Kelly Johnson to avoid someone at Lockheed or in the Government discovering the project. The project progressed quickly; just one month after the contract was signed the Skunk Works team began production. The single-engine,

³² David Haight, *Ike and His Spies*, (Washington DC: National Archives, 2009), 16.

³³ Pedlow and Welzenbach, *The CIA and the U-2 Program*, p 33–35.

³⁴ Andrew J. Goodpaster, *Memorandum of Conference with the President*, (Washington DC: 24 November 1954). Eisenhower Presidential Library, from https://www.eisenhower.archives.gov/research/online_documents/aerial_intelligence.html

glider-like design would enable the U-2 to fly in excess of 70,000 feet high and take photographs over vast swaths of terrain using cameras that were being designed and developed in parallel.

While the U-2 was under development and production in the first half of 1955, worldwide aerial reconnaissance missions continued using the existing fighter and bomber aircraft upgraded with reconnaissance equipment. During the summer of 1955 two events further shaped the US perception of a bomber gap and reinforced the urgent need to field the U-2. In May, 1955 the USSR showcased its newest long-range bomber, the Tu-95 BEAR, at the Moscow May Day parade. The aircraft was seen by Western reporters, and intelligence officials believed that the USSR had surpassed US and UK bomber capabilities. Additionally, in July 1955, the USSR conducted multiple fly-bys of Mya-4 bombers at a demonstration. This convinced Western observers that they had numerous aircraft when in reality it was a much smaller formation of aircraft flying a circuit pattern.³⁵

The two events caused US intelligence analysts to dramatically overestimate the number of bombers being produced by the USSR. This overestimate, in turn, led to increased concern over Soviet capabilities and the 1954 RAND study's implications. If the Soviets were capable of destroying 85 percent of the US bomber force before the recent surge in bomber production, analysts were even more concerned with what they could do after they increased production. The combination of the 1954 RAND study and the summer 1955 bomber demonstrations dramatically highlighted the threat to national security and the importance of overflight reconnaissance of Soviet bomber bases. The CIA had published a report just days before the TU-95 was first revealed at the

³⁵ Luke Benjamin Wells, "The 'bomber gap': British intelligence and an American delusion," (Journal of Strategic Studies, 21 Dec 2016), 9. <http://dx.doi.org/10.1080/01402390.2016.1267006>

parade, projecting the Soviets to have 600 long-range bombers by 1960. After the May and July bomber demonstrations the estimates were doubled, projecting over 1200 long-range bombers in the near future.³⁶

While concerns over a bomber gap during the summer of 1955 raised tensions, events in the fall of that same year drove the Cold War into a deep freeze. After lagging in atomic weapons development, the Soviets finally closed the gap. In November 1955 the USSR air-dropped its first megaton thermonuclear device at the Semipalatinsk test site.³⁷ While both nations had tested thermonuclear weapons prior to this test, they were too large and cumbersome to have tactical application. This Soviet weapon, dropped from a Tu-16 bomber, reinforced concerns over a bomber gap and further fueled fear of a Soviet first strike.

While the U-2 was completing flight tests and sensor development, the USAF continued collecting intelligence on Soviet bomber forces and nuclear weapons testing. The US and UK increased aerial reconnaissance missions along the periphery of the northern frontier of the USSR. Aircraft including USAF RB-47s and RAF Canberras conducted flights along the borders of the Soviet Union, but were continually harassed and unable to complete their missions.

Concerns grew over a lack of ability to collect intelligence coupled with strong Soviet rhetoric backed up by rapid advancements in capabilities. In February 1956, the USSR tested its first medium-range ballistic missile, which achieved a flight of over 900 miles.³⁸ US leadership grew worried that they might be facing not only a bomber gap but might be behind in all nuclear capabilities. The missile was a weapon that the US could not defend against and one that gave the

³⁶ Paul Lashmar, *Spy Flights of the Cold War*. (Annapolis, MD: Naval Institute Press, 1996), 109.

³⁷ Richard Rhodes, *Dark Sun: The Making of the Hydrogen Bomb*, (New York, NY: Simon and Schuster, 1995), 569.

³⁸ Rhodes, *Dark Sun*, 572.

Soviets a rapid, first strike capability--an apprehension that would play out a few short years later on the island of Cuba. Eisenhower was driven from anxiety to action in April of 1956. While visiting London on 23 April 1956, Premier Nikita Khrushchev announced, "I am quite sure that we shall have a missile with a hydrogen-bomb warhead which could hit any point in the world."³⁹ This statement and others in the same speech from Khrushchev regarding Soviet bomber capabilities finally convinced Eisenhower to deploy the U-2.

In early April 1956, the first round of U-2 aircraft was delivered to the CIA and the first crews completed their training. Following Khrushchev's London speech, Eisenhower ordered the deployment of two aircraft and their crews to the UK. Between May and mid-June of 1956 training flights were conducted from RAF Lakenheath. On 15 June, the unit moved to Wiesbaden, West Germany and began flying operational missions over East Germany and Poland. These June flights were but a prequel to the real purpose of the U-2's deployment to Wiesbaden.

Operation OVERFLIGHT, U-2 collection over the USSR

Following the success of the first three operational missions over Eastern Europe, President Eisenhower approved the final plan to initiate U-2 overflights under the somewhat unimaginative codename Operation OVERFLIGHT. Eisenhower was anxious about ordering OVERFLIGHT and was afraid of provoking a Soviet response. However, given the events of the previous months, the need to gather intelligence outweighed his anxiety. One of the President's biggest concerns was the likely Soviet response if a U-2 was detected over their territory. Eisenhower was bothered by the myriad possible responses that could occur, both tactically and strategically. As the decision to conduct overflight

³⁹ "Russ Claim Near Perfection of H-Bomb Guided Missile," The Stanford Daily, Volume 129, Issue 46, 24 April 1956, retrieved from <http://stanforddailyarchive.com/cgi-bin/stanford?a=d&d=stanford19560424-01.2.15#>

missions was being taken, President Eisenhower was admitted to Walter Reed Hospital for tests for an abdominal ailment. He was required to undergo surgery and while recovering at the hospital took his final briefs and made the decision regarding OVERFLIGHT.⁴⁰ He asked his team about the capabilities of Soviet radar, aircraft, and expected responses. Eisenhower approved a series of overflights during a ten-day window, but only after being reassured that the Soviets were incapable of shooting down a U-2.⁴¹

The CIA conducted its first overflight of the USSR on 4 July 1956. Hervey Stockman piloted the first mission which flew over Poland, Belorussia, and the primary target area of Leningrad's shipyards (the home of development for Soviet naval submarines) as well as Bison bomber airfields. The next day Carmine Vito flew over Moscow and numerous bomber bases and the missile plants at Kaliningrad and Khimki. Over the next seven days, three other missions were flown against numerous airfields and production facilities within the Soviet Union. The CIA's belief that the U-2 would be invisible proved false, and the USSR was able to track the flights sporadically throughout their time in Soviet airspace.⁴²

Due to their ability to track the U-2 flights, the Soviets began to make official protests a week after Stockman's first flight over their territory. On 10 July, the Soviets delivered their first *démarche*, in the form of a note to the U.S. Embassy in Moscow. The contents of the note were communicated to President Eisenhower who reacted by immediately ordering the CIA to terminate any additional overflights of the USSR.

⁴⁰ "AQUATONE Operational Plans" 31 May 1956, retrieved from <http://nsarchive.gwu.edu/NSAEBB/NSAEBB434/docs/U2%20-%20Chapter%202.pdf>

⁴¹ Dwight D. Eisenhower, *Waging Peace: The White House Years a Personal Account 1956-1961*, (Garden City, New York: Doubleday & Company Inc, 1965), 41.

⁴² Pedlow and Welzenbach, *The CIA and the U-2 Program*, 104-106.

Although the Soviet information was detailed and accurate regarding dates, times, and routes of flight, it was grossly incorrect about the altitude and type of aircraft being flown. The CIA saw this as an indicator that Soviet radar could track the U-2's course but not provide any other information regarding its altitude. Additionally, while reviewing the film, photo analysts in Langley discovered images of Soviet MiGs attempting to attack the U-2, however, in various stages of climbing, the interceptors stalled and fell well below the U-2. These photos demonstrated that while the Soviets were able to track the U-2, they could not bring it down at operational altitudes.⁴³ This information moved the CIA from a feeling of invisibility to one of invincibility. They believed that they could resume missions immediately without fear of Soviet reactions.

Washington officially replied to the démarche on 19 July. The response was simple: no military aircraft have overflown the USSR.⁴⁴ While this was a truthful statement, the Soviets knew that it was disingenuous. However, they did not further respond, relieving Eisenhower of the concern over further escalation. Although the President was discouraged by the evident Soviet abilities to track the U-2, he was encouraged by their inability to do anything about the intrusions and their apparent unwillingness to escalate beyond a démarche. Additionally, the value of information gathered from these first eight flights was immense. After overflying most of the potential BISON bomber bases in the USSR and Eastern Europe, no BISON were photographed. This did not mean that the Soviets had no bombers, but did assure Eisenhower and the National Security Council that the bomber gap was a fabrication. This information allowed the President to

⁴³ Pedlow and Welzenbach, *The CIA and the U-2 Program*, 108.

⁴⁴ Pedlow and Welzenbach, *The CIA and the U-2 Program*, 110.

cancel a plan to drastically increase the number of B-52s being produced in an effort to reach bomber parity with the Soviets.⁴⁵

While Eisenhower greatly valued the intelligence collected, he also concluded that the strategic risks of overflight operations were too great to justify conducting them on a routine basis. Although the potential was low, the possibility of an aircraft being shot down or crashing over Soviet territory was too dangerous to be worth the potential information gained. The CIA and military leaders continually asked for more overflight operations. During almost four years of Soviet U-2 overflights, President Eisenhower only approved 24 total missions. The driving factor for those missions was concern over the rapidly developing Soviet missile program; the same program that would produce the missiles that Khrushchev would deploy to Cuba in 1962.⁴⁶

After months of requests from the CIA and Defense Department, in July 1959 the State Department joined their colleagues and asked for renewed overflight missions. Secretary of State Herter told the President that, "the intelligence objective outweighs the danger of getting trapped."⁴⁷ The collective request from the CIA, Defense, and State Departments finally convinced President Eisenhower to approve limited missions. From 9 July 1959 through 9 April 1960 missions were flown under Operation TOUCHDOWN with very limited political response from the Soviets. Their air defense systems tracked the aircraft and fighter intercepts were attempted, but none came close to the U-2. For almost a year, the limited flights of Operation TOUCHDOWN had produced excellent results. The photography revealed Soviet expansion of the primary launch facility at Tyuratam but did not confirm the massive

⁴⁵ Pedlow and Welzenbach, *The CIA and the U-2 Program*, 114-118.

⁴⁶ Pedlow and Welzenbach, *The CIA and the U-2 Program*, 159.

⁴⁷ Pedlow and Welzenbach, *The CIA and the U-2 Program*, 162-163.

missile buildups that Khrushchev had described in multiple public addresses.⁴⁸

Given the success of Operation TOUCHDOWN, another operation was planned to finally solve the missile gap debate, Operation GRAND SLAM. The pilot chosen for this mission was Francis Gary Powers, the most experienced pilot in the U-2 program. After a series of cancelled flights due to aircraft malfunctions and weather, Powers finally launched for his mission on 1 May 1960. Powers' mission was planned to take him over the Tyuratam Missile Test Range, the missile fields at Chelyabinsk, northwest to more missile facilities at Kirov, and continue north to a landing at Bodo, Norway. Unfortunately for Powers, the U-2 program, and the Eisenhower administration, a little over four hours into his flight he was shot down by a barrage of missiles from an undetected SA-2 site at Sverdlovsk. Powers was unable to eject but was able to successfully get out of the aircraft, although in official debriefs he stated that he did not remember how.⁴⁹ Despite not knowing how he successfully bailed out, and a strong CIA belief that no one could survive a high altitude shoot down, Powers landed successfully. Additionally, his aircraft landed relatively intact. Because the CIA did not think it was possible for man or aircraft to survive such an event, on 3 May they released a cover story that a NASA aircraft was missing over Turkey and that the pilot had reported oxygen problems. The Agency felt that this story would allow them to justify how an American aircraft ended up so far inside Soviet territory.⁵⁰

The Soviets were initially quiet about the real events of 1 May 1960. They did not announce the fact that they were successful in shooting down the U-2, nor the fact that they captured the pilot. Rather,

⁴⁸ Pedlow and Welzenbach, *The CIA and the U-2 Program*, 168-170.

⁴⁹ Brigadier General Gerald McIlmoyle Interview, 2 Feb 2017.

⁵⁰ Pedlow and Welzenbach, *The CIA and the U-2 Program*, 178.

Khrushchev waited to see how the US would respond. After the NASA cover story was released and made worldwide news, Khrushchev took the opportunity to announce the truth and showed pictures of both the aircraft and Powers as evidence that the US was conducting illegal spy operations.⁵¹ The Soviets made a very public display of the incident and attempted to humiliate the US and President Eisenhower.

Eisenhower took full responsibility for the incident and the loss of the U-2. In an 11 May press conference he stated that a US reconnaissance aircraft had been shot down and that reconnaissance flights over the USSR were critical to US national defense and had occurred many times over the past four years. This, the first U-2 shoot down, had important consequences that shaped U-2 operations, Soviet defense systems, and most importantly US-Soviet relations. A scheduled peace summit in Paris was cancelled, as was President Eisenhower's June visit to the USSR to discuss future peace talks.⁵²

By the end of 1960, all overseas U-2 detachments were closed and the CIA's hold on the program began to slip. The USAF began standing up a robust U-2 unit at Laughlin AFB that would include Major Rudolf Anderson, while CIA units were moved to Edwards AFB, California. Although the strategic impact of Gary Powers' shoot down spelled the end of U-2 operations over the USSR and the beginning of the end of CIA U-2 operations, it did not herald the end of the U-2. Nor did the events of May 1960 eliminate the need for the US to conduct aerial reconnaissance. Conversely, just two years later, aerial reconnaissance would warn a new President of a great Soviet threat in Cuba and provide him with the tools to reach a successful and peaceful conclusion.

⁵¹ Alexander Orlov, *The U-2 Program: A Russian Officer Remembers*, (Washington DC: Center for Studies of Intelligence, Winter 98/99), 3.

⁵² Orlov, *The U-2 Program*, 5.

Chapter 4

Crisis and Tragedy

The story of the Cuban Missile Crisis has been told many times and from multiple vantage points. From memoirs written shortly after the Crisis, like Robert Kennedy's *Thirteen Days*, to recollections of the events many years later such as Castro's *Fidel Castro: My Life*, the Crisis was explored through many lenses. One part of the account, however, has eluded telling: the story of the eleven men who flew U-2 reconnaissance missions over Cuba during that tumultuous time. Their story has received brief mention in chronicles of the Crisis, but for the most part exists only in forgotten unit histories and in the minds of the ever-shrinking group of individuals who flew and supported the missions.

The Cuban Missile Crisis is typically portrayed as a thirteen-day period in October 1962. However, for Major Rudy Anderson and the members of the 4080th Strategic Reconnaissance Wing (SRW), operations over Cuba began much earlier. This chapter will tell their story chronologically, starting with the missions flown over Cuba following the "Bay of Pigs" disaster through the decision to concentrate U-2 operations in search of Soviet missiles. It will then examine the deployment of Majors Anderson and Heyser to learn to fly the CIA version of the U-2. Next, the chapter will detail the flight flown by Major Heyser on 14 October, the first flight that discovered Soviet ballistic missiles on Cuba. Ensuing sections will focus on the remainder of the Crisis through the perspective of the U-2 missions over Cuba culminating with Rudy Anderson's final flight on 27 October.

This 70,000-foot view of the events that unfolded in October 1962 will examine the Cuban Missile Crisis through a new lens. This chapter will present the unique challenges faced by the men who gathered the

critical intelligence that informed President Kennedy and the ExCom. It will also convey the internal struggles between the CIA and the USAF, as both entities battled for primacy in the realm of airborne intelligence collection. Finally, the chapter will explore the importance of the information gathered in resolving the Crisis.

Prelude: U-2s Observe Soviet Buildup on Cuba

Most coverage of the Cuban Missile Crisis presents the U-2 flights that discovered Soviet weapons on Cuba as an isolated event. However, this is far from the truth. In reality, U-2s flew numerous missions over Cuba before the ill-fated “Bay of Pigs” invasion in April of 1961. Even after the failed attempt to overthrow Castro’s regime, Cuba remained a high-priority reconnaissance requirement. Shortly after Cuban forces defeated the invasion, the 4080 SRW stood up Detachment G to address the growing concern over Cuba. Both USAF and CIA U-2s began flying monthly missions over Cuba from both Laughlin AFB, TX and Edwards AFB, CA. This program, known as Project NIMBUS, focused on acquiring photographic intelligence on airfields and military installations throughout the island.¹ Project NIMBUS demonstrated one of the first employments of the U-2F, a model modified to refuel in-flight, which extended both range and duration of missions.

Missions progressed routinely throughout 1961 but began to collect images of massive build-ups of military equipment on the island in the spring of 1962. This upsurge in activity led the USAF and CIA to request missions increase from one per month to two, so that photo interpreters could better monitor changes taking place.² The second monthly mission was approved, and aircraft began flying over the island twice a month in May 1962 with planned missions scheduled every two weeks. The

¹ Gregory Pedlow and Donald Welzenbach, *The CIA and the U-2 Program: 1954-1974*, (Langley, VA: Center for the Study of Intelligence, 1992), 200.

² OSA History, Chapter 6, 19-20.

missions of August 1962 were spaced further apart than desired due to inclement weather. However, the extra week between missions led to an intelligence windfall. The missions flown on 29 August flew a similar route to the mission flown three weeks earlier (see figure 4.1). However, the second August mission discovered eight surface-to-air missile sites that were not present just twenty-four days prior. As soon as the photos were interpreted, they appeared in the President's daily brief on 31 August 1962.

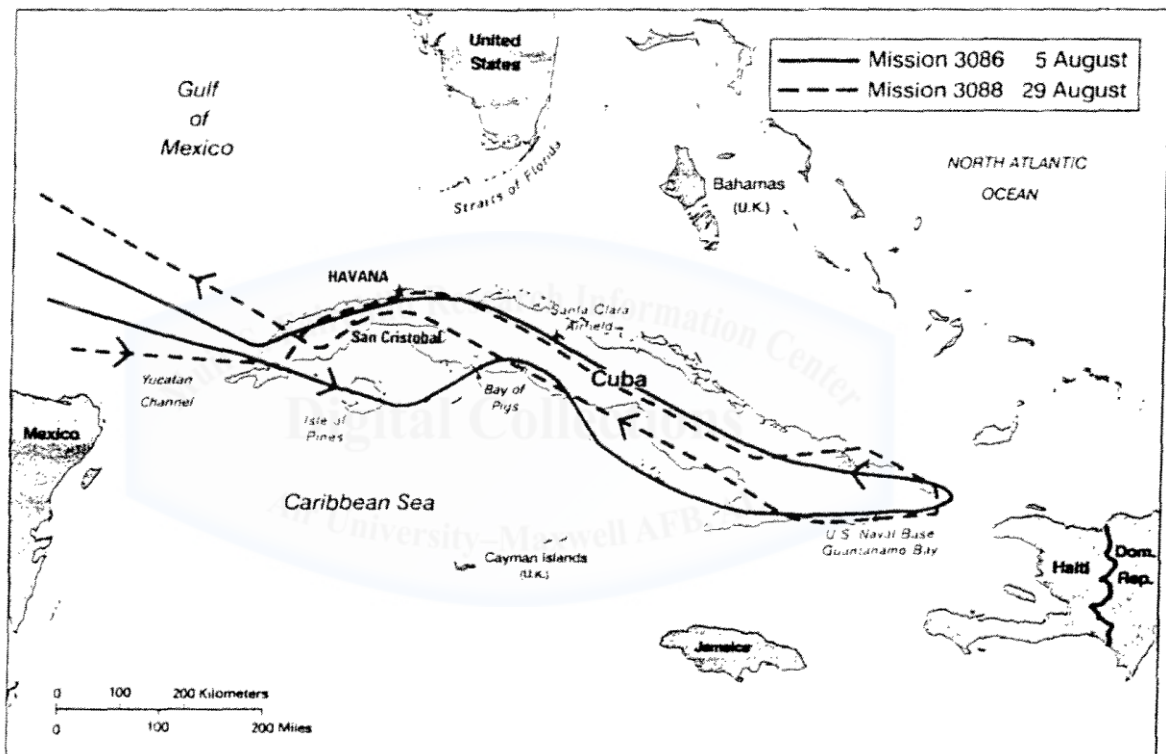


Figure 5: August 1962 U-2 Missions Over Cuba

Source: Gregory Pedlow and Donald Welzenbach, *The CIA and the U-2 Program: 1954-1974*, (Langley, VA: Center for the Study of Intelligence, 1992)

President Kennedy's 31 August brief contained two other disturbing reports. On 30 August a SAC U-2 flying a routine reconnaissance mission inadvertently penetrated Soviet airspace when the pilot missed a heading and overflew Sakhalin Island, a part of the USSR just north of Japan. This incursion received significant Soviet

attention on the day of the overflight, and SAC officials (correctly) assumed it would result in diplomatic action. Days later the Soviets protested at the United Nations and delivered a formal *démarche* to the United States.³ President Kennedy's administration apologized for the event but saw the possibility for similar protests over Cuban overflights. Even more concerning was another report from 30 August that detailed the events surrounding a US Navy S2F anti-submarine aircraft on a training flight. The S2F was operating fifteen miles off the coast of Cuba when it was fired upon by Cuban patrol boats. The fear of escalation would only grow in the weeks that followed.

Alarm over the safety of further NIMBUS missions escalated on 8 September. Huai-Sheng Chen, a Taiwanese U-2 pilot, was shot down by an SA-2 over the People's Republic of China.⁴ This loss of a second U-2, to the same type of missile recently discovered on Cuba, led members of the Kennedy administration to question the risk of further U-2 overflights. On 10 September 1962, National Security Advisor McGeorge Bundy called an informal meeting with Secretary of State Dean Rusk and Deputy Director of Central Intelligence Marshall Carter. Bundy, Rusk, and Carter decided that, in the interest of safety, overflights would no longer traverse the whole island as depicted in figure 4.1 but would use standoff cameras and only perform quick overflights of the main target areas. They also directed planners to avoid the weapons engagement zone of the newly discovered SAM sites. By minimizing time over Cuba and avoiding the missiles, Kennedy's team hoped to reduce the risk of

³ Alexander Orlov, "The U-2 Program: A Russian Officer Remembers," (Langley, VA: Center for the Studies of Intelligence, 1998), 12.

⁴ Wei-Bin Chang, "U-2 Operations: Losses," retrieved from <http://www.taiwanairpower.org/u2/losses.html>

another incident while continuing to monitor the military buildup on Cuba.⁵

Three missions were flown in September in adherence to Bundy's guidance.⁶ While these changes were effective in reducing the danger to the U-2, they also significantly reduced the aircraft's ability to collect intelligence in the major areas. Given the likelihood that SA-2 sites were placed to defend critical areas, by avoiding these sites the U-2 was not fully effective in its mission to monitor Soviet activity on the island. These September missions revealed more SAM sites and a buildup of Soviet aircraft but not the reason that they were there. The Director of Central Intelligence (DCI), John McCone, suspected that the Soviets installed these weapons to defend ballistic missiles on the island, but thus far had no proof.

The mounting evidence that something was happening in western Cuba drove McCone to call for a meeting of the National Security Council (NSC) on 4 October 1962. McCone outlined the problem with the Council's current policy regarding U-2 flights and informed them that he believed the Soviets were installing medium-range ballistic missiles (MRBM) in western Cuba. McCone stated, "The absence of coverage of the western end since August 29, coupled with the rate of construction we have observed, means that there may well be many more sites now being built of which we are unaware. Ground observers have in several recent instances reported a sighting of what they believe to be the SS-4 (SHYSTER) MRBM in Cuba. These reports must be confirmed or denied by photo coverage."⁷ The group, including Robert Kennedy, concluded

⁵ Richard Lehman, "CIA Handling of the Soviet Buildup in Cuba: 1 July-16 October 1962," (Langley, VA: 1962) (Known as the Lehman Report) retrieved from <https://www.cia.gov/library/readingroom/docs/CIA-RDP80B01676R001700180076-4.pdf>

⁶ History, 4080 SRW Unit History, 1962.

⁷ Minutes of the Special Group meeting, 4 October 1962.

the meeting in agreement that the US must go “all out” in an increased intelligence gathering effort, and recommended that the CIA prepare a proposal for overflight missions to be agreed upon at a 9 October meeting of the Special Group of the NSC focused on Cuba.

Two additional missions were flown between the 4 October and 9 October meetings. These missions, 3098 and 3100, were flown out of Laughlin AFB and remained well clear of the area of interests near San Cristobal (Figure 4.2). They collected relatively little information and provided further ammunition for DCI McCone to press the need to fly over western Cuba as soon as weather allowed.

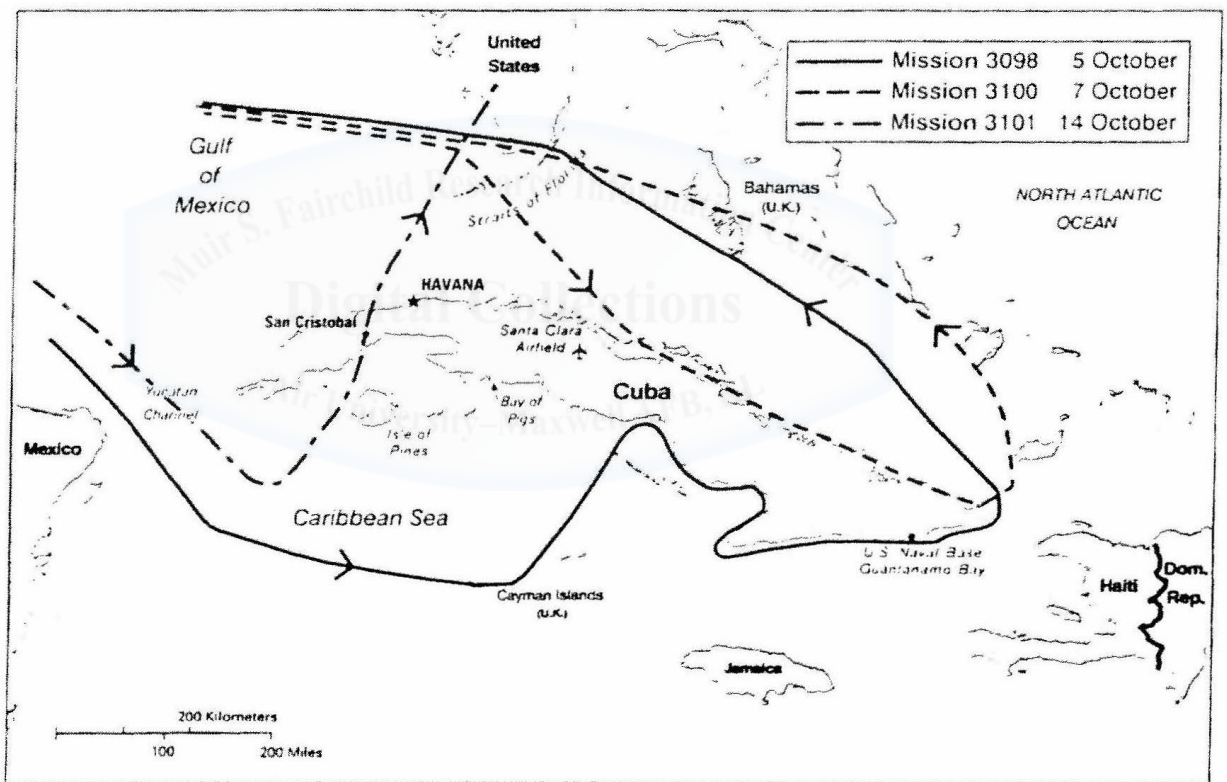


Figure 6: 14 October U-2 Mission

Source: Gregory Pedlow and Donald Welzenbach, *The CIA and the U-2 Program: 1954-1974*, (Langley, VA: Center for the Study of Intelligence, 1992)

During the 9 October meeting of the Special Group, DCI McCone presented his recommendation to focus efforts around the area of San

Cristobal. He also recommended that the first mission should overfly the SA-2 sites thought to be closest to operational status. He told the Special Group that if there was no reaction from those sites, there should be immediate saturation of U-2 flights over the area. Bundy was still concerned about the loss of a U-2, so McCone brought in an intelligence expert to address the possibility of losing an aircraft. US Air Force Colonel Jack Ledford, head of the CIA Office of Special Activities, briefed that the odds of losing a U-2 were 1-in-6, a fact that the pilots who would fly the missions were never briefed, but these odds were acceptable to the Special Group.⁸

The Special Group approved McCone's proposal and recommended that the flight over the San Cristobal area occur as soon as possible. There were, however, disagreements about who should fly the mission. Previous Project NIMBUS flights were a joint effort between CIA and USAF U-2s. Given the heightened risks of the flights over known SA-2 sites some of the Special Group questioned the CIA's role in the new missions. Deputy Secretary of Defense Roswell Gilpatric believed that the use of CIA pilots created a greater risk of escalation should they be shot down or crash over Cuba.⁹ Given the sensitivities surrounding the capture of Gary Powers over the Soviet Union just two years prior, the importance of cover stories for these missions was at the forefront of Gilpatric's argument. The Group decided that USAF should fly the missions, but that, on Colonel Ledford's advice, they should fly Agency U-2s. The CIA version of the aircraft was outfitted with a primitive suite of electronic countermeasures and the Pratt and Whitney J75 engine that gave the aircraft over 3,000 extra feet of altitude.¹⁰

⁸ Gregory Pedlow and Donald Welzenbach, *The CIA and the U-2 Program: 1954-1974*, (Langley, VA: Center for the Study of Intelligence, 1998), 207.

⁹ Minutes of the Special Group meeting, 4 October 1962.

¹⁰ Chris Pocock, *50 Years of the U-2: The Complete Illustrated History of the Dragon Lady*, (New York, NY: Schiffer Publishing Ltd, 2004), 12.

It was agreed upon, in a turn of events that would later cause consternation between the USAF and CIA, that Air Force pilots would fly Agency aircraft over Cuba.¹¹ Bundy, McCone, and Gilpatric presented the proposal to President Kennedy and Operation BRASS KNOB was born. The President transferred full responsibility for the operations to the USAF, “to include command and control and operational decisions, with regard to all future overflights of Cuba.”¹² This decision angered the new acting DCI Army Lt Gen Marshall Carter, who did everything in his power to stop the transfer. After two days of constant struggle, McGeorge Bundy sent Carter an official memorandum. This memo ordered the CIA to train pilots on the Agency aircraft and transfer control of U-2 operations to SAC immediately. The date was 12 October 1962 and SAC needed to get pilots trained up in the CIA aircraft to meet a planned 14 October mission. There was no time to spare.

Learning to Employ the Agency Aircraft

Majors Rudy Anderson and Steve Heyser received a knock on their door on the afternoon of 10 October. They were told that they needed to be ready to depart immediately for Edwards AFB and to be in place no later than that night. The two pilots were also informed that they would be gone for an indeterminate amount of time. This type of short notice deployment was nothing new for the members of the 4080 SRW, and all members kept a “go bag” by the front door for such short notice trips.¹³

Both Heyser and Anderson had spent a considerable amount of time at Edwards and were familiar with some of the CIA’s aircraft and procedures. Rudy Anderson was SACs lead inflight refueling (IFR) pilot and had just spent 12 days at Edwards working with his Agency counterparts on procedures. His trip was focused on preparing the

¹¹ Interview with Brig Gen (Ret) Gerald McIlmoyle, 1 Feb 2017.

¹² Memorandum for DCI McCone from McGeorge Bundy, “Reconnaissance Overflights of Cuba,” 10 October 1962.

¹³ Interview with Brig Gen (Ret) Gerald McIlmoyle, 1 Feb 2017.

USAF to take on the newest U-2E model. The “E” model U-2 was modified for IFR and Anderson was the lead on establishing “tactics, procedures, and handbook changes” for the aircraft.¹⁴ Anderson and Heyser were the only two IFR certified pilots in the Air Force and the only two who had ever flown the J-75 engine, although they were never certified in the modified U-2.

Heyser and Anderson were both quickly checked out in the Agency aircraft. Heyser flew a flight on both 12 and 13 October, which emphasized landings in the slightly different CIA aircraft. Anderson completed one checkout flight on 13 October but did so while in extreme pain. According to his medical records, Anderson reported to the squadron flight surgeon and was diagnosed with bursitis. He had slipped and fallen on the ice while on assignment in Alaska just a few days earlier, and severely bruised his shoulder. Despite his desire to fly again as soon as possible, the flight surgeon placed him on duty not involving flying (DNIF) status and ordered him not to fly for at least three days. Initially, there was a discussion of two flights departing on 14 October, but McCone thought it best to send one aircraft over the SAM sites first to ensure that they did not react.¹⁵ McCone’s suggestion, coupled with Anderson being grounded until 15 October, meant that Steve Heyser was the only one able to fly the scheduled 14 October mission over Cuba.

14 October: The Mission That Discovers Missiles

Steve Heyser began preparing for the Special Group’s planned mission over Western Cuba on the afternoon of 13 October, only hours after he landed from his second training flight in the Agency U-2.¹⁶

¹⁴ History of the 4080th Strategic Wing (SAC) 1-30 September 1962, 40.

¹⁵ Gregory Pedlow and Donald Welzenbach, *The CIA and the U-2 Program: 1954-1974*, (Langley, VA: Center for the Study of Intelligence, 1998), 208.

¹⁶ History of the 4080th Strategic Wing (SAC) 1-30 September 1962, Project *Brass Knob* Annex, 2.

Heyser sat in the mission planning room at Edwards with a navigator and went over the route of flight that would take him from southern California, across the Southwest, and over the Gulf of Mexico to Cuba. The plan was timed so that he would arrive at his target directly over the SA-2 batteries hidden along the coast of Cuba, west of Havana, at just the right sun angle to provide the best image for the photo interpreters. Timing was critical; if he arrived too early, it would be too dark; too late, and the sun would not cast shadows needed by the analysts to detect the missiles.

In addition to his navigation planning, Heyser received a brief from CIA and USAF intelligence officers. These men briefed him on the threat from the SA-2s and suspicions that they were intended to protect Soviet nuclear missile sites. After completing his pre-flight requirements, Heyser took a sleeping pill and tried to get some sleep before flying a mission across the country that night.

While Heyser was asleep, the rest of the team was busy. Maintenance crews immediately got to work applying USAF insignia onto the fuselage of the Agency U-2. Life Support personnel from the Physiological Support Division (PSD) prepared Heyser's partial-pressure suit and ensured that there was adequate oxygen in the aircraft and ground equipment that would support him. SAC planners reviewed the mission and prepared Heyser's inflight charts and navigational information. While all of this was happening, the newly arrived members of the 4080 SRW at both Edwards and McCoy prepared to launch and recover Heyser's aircraft.¹⁷

Following slightly less than eight hours of sleep, Heyser awoke around 8 PM Pacific Time. He was greeted by a squadron flight surgeon and given a routine physical exam that was requisite before all high-

¹⁷ Strategic Air Command Operations in the Cuban Crisis of 1962, Historical Study No. 90, Vol. 1, (1963), 9.

altitude flights. The exam consisted of an overall check of health, examination of ears, nose, and throat, and a test of temperature and blood pressure. Following his medical review, it was time for Heyser to eat. He was served the traditional “high-flight breakfast,” a high-protein, low-residue meal, including steak, eggs, toast and coffee. The meal was designed to carry him through the next eight to ten hours of flight, while not generating excess waste in the body that would require him to relieve himself, something that he could not do in the partial-pressure suit.¹⁸

Following his meal, Heyser donned his partial pressure suit with the help of the PSD technicians. They then connected his suit to an oxygen tank, and Heyser began the U-2 preflight ritual of “pre-breathing” one-hundred percent oxygen. This pre-breathing period was designed to facilitate the removal of as much nitrogen as possible from the pilot’s body. The presence of nitrogen in the blood of pilots at the U-2’s operational altitudes was dangerous. By breathing one-hundred percent oxygen, the pilot removed most of the nitrogen, thus alleviating some of the potential dangers.

While Heyser was pre-breathing, others were hard at work preparing his aircraft for takeoff. A mix of CIA, Lockheed, and USAF maintenance crews ensured that the U-2 had the correct fuel loading, contained enough oxygen for the pilot, and that there were no structural problems with the aircraft. Additionally, technicians from Lockheed and the Hycon Corporation monitored the status of the “B” Camera installed in the plane’s “Q-Bay.” The camera was sensitive to temperature and humidity and was connected to ground equipment that monitored those variables while providing conditioned air for maintaining the desired

¹⁸ Dino Brugioni, *Eyeball to Eyeball*, (New York, NY: Random House, 1990), 182.

settings. Meanwhile, Heyser's mobile officer, Rudy Anderson, prepared the U-2 for Heyser to arrive.¹⁹

Approximately thirty minutes before his scheduled takeoff, Heyser was transported to his plane in an air-conditioned van. Even at nighttime in October, it could be stifling inside of his pressure suit. To keep the pilots cool, they remained indoors as long as possible and were brought to the aircraft in an air-conditioned vehicle. The PSD technicians helped him into the cockpit and ensured that he was fully connected to the ejection seat. Then Rudy Anderson climbed up to the cockpit and conducted a final check to make sure that both Heyser and the aircraft were ready for this all-important mission. Once he was ready to take-off, Heyser gave Anderson a thumbs up, and they closed and locked the cockpit, securing Heyser in the small enclosed space that would be his home for the next seven to eight hours.

For this mission, Heyser elected not to carry all of the normal CIA issued equipment. For operational missions, the Agency provided its pilots with suicide devices. These came in the form of needles or pills,

¹⁹ The mobile officer is another U-2 pilot who is responsible for ensuring the safety of the mission. They are typically the back-up pilot for that day and fill the role of a wingman and co-pilot wrapped up in one. While the pilot is pre-breathing, the mobile officer conducts the pre-flight duties that most pilots would take care of for themselves in another aircraft. These duties include a review of the aircraft's paperwork, a preflight inspection of the aircraft, and setting up the cockpit for the mission. These duties are very cumbersome in the pressure suit, so to ensure they are safely and adequately completed, the mobile officer performs them for the pilot. The name "mobile" comes from the primary action performed by the officer. They drive a chase-car, typically a high-performance sedan, and follow the aircraft out to the runway through take-off and upon landing. In the landing phase of flight, it is very difficult for a U-2 pilot to see the runway. The mobile officer acts as an extra pair of eyes, calling out the aircraft's altitude above the runway over a radio. This action aids the pilot flying the aircraft and talks them down to the runway. Additionally, the mobile officer monitors and aids the pilot throughout the flight. This can include coordination with outside agencies or simply helping the pilot flying with checklists, which can be difficult to review in the pressure suit.

and the pilots were highly encouraged to use them if they were shot down or forced to depart the aircraft over enemy territory. In an interview later in life, Heyser said he had no use for the pills. He told everyone "there was no bullet out there with my name on it" and "I will come home safely."²⁰

Major Heyser started the aircraft, taxied out to the runway, and prepared to take off for a mission that would change the course of the Cold War. Once lined up on the runway he looked over at Anderson and received the thumbs-up sign meaning he was ready to take-off. Heyser pushed the throttle forward, and the U-2 roared down the runway, seemingly leaping into the air after rolling just a few hundred feet. The aircraft soared into the pitch-black night sky over southern California and turned to the east, setting a course that would bring the U-2 over the Western end of Cuba and, in doing so, would change the lives of millions.

After all of the excitement of a full day of work, mission planning, and preparing for this flight, it was now midnight over the deserts of the southwest of the United States and Heyser was alone with his thoughts and the hum of the aircraft engine. Heyser would later recall that piloting the U-2 was a little like returning to the early days of aviation. It was nothing like the fighters he had learned to fly before transitioning to the U-2. He remembered that when you were flying the U-2, you were physically doing everything. There were no hydraulic or electronically assisted flight controls. It was all pulleys and cables, pure flying, in a fragile aircraft designed to minimalist safety standards to reduce weight, and therefore gain altitude.

Now that he was at operational altitude flying east along the US-Mexico border, Heyser was required to exercise one of the most challenging aspects of flying the U-2. According to Heyser's friend and

²⁰ Richard S. Heyser, Audio Interview, 1975.

fellow U-2 pilot, General Jerry McIlmoyle, a U-2 pilot was faced with a strange dichotomy. The pilot was required to sit still in a small and cramped space, inside of a pressure suit that separated their body from everything. While flying long missions, the pilots had to reduce their food, water, and oxygen intake by totally relaxing their bodies and minimizing movement. At the same time, their brains had to be very active, calculating fuel burns, plotting their position on the land and through celestial navigation, and operating sophisticated intelligence equipment.²¹

As he entered international airspace over the Gulf of Mexico, Heyser turned south. His planned route of flight (see figure 4.2 above) took him south of Cuba and turned north to minimize time over the island, and more importantly over the SA-2 sites clustered in that area. Approximately 70 miles south of the isle he turned to a northwesterly heading and prepared to overfly the island. His mission planning contained specific points to look for as indicators for when to activate his B camera; for this mission it was the small Isle of Pines on the southern coast of Cuba. He noted the time; it was just before 0731 Eastern Standard Time, less than one minute off on his planned arrival of 0730.²² He turned on the camera and felt the mechanical rhythm as the four-hundred and twenty-pound camera began clicking away on one of two six-thousand foot rolls of film. His first target route took him over the swampy coastline of the Pinar del Rio province. From there he turned to fly over the hills of the Sierra de los Organos and exited over the rocky coasts west of Havana. His time over Cuba was brief, less than thirty minutes of a seven-hour flight, but would prove to be of great strategic importance in the days to come.

²¹ Interview with Brigadier General (Retired) Gerald McIlmoyle, 1 February 2017.

²² Dino Brugioni, *Eyeball to Eyeball*, (New York, NY: Random House, 1990), 186.

As he exited Cuban airspace, Heyser turned northeast instead of back to the west. Rather than returning to California, SAC decided to operate future missions from McCoy Air Force Base near Orlando, Florida. Operations out McCoy served two purposes: they allowed for shorter, more responsive missions in the future and, more importantly, enabled a shorter transit time to get the film developed as soon as possible.

Shortly before Heyser took-off from Edwards, most of the members of the 4080 who had deployed there for his mission departed en route to McCoy. They were led by the 4080 SRW Commander, Colonel John DesPortes and accompanied by Generals Don Wilson, Deputy Director of the Defense Intelligence Agency (DIA) and Keith Compton, SAC Director of Operations. A total of 30 USAF personnel were on the flight bound for McCoy, along with CIA and Lockheed maintenance representatives. This team arrived just before Heyser entered Cuban airspace and began the process of preparing the airfield for his arrival and the BRASS KNOB missions that would follow in the coming days.²³

After landing, Heyser and his aircraft were met by Brigadier General Robert W. Smith, SAC Director of Intelligence. While the maintenance crew removed the film from the plane, General Smith quickly debriefed Heyser on the mission. He asked about his brief time over the island and enquired about any resistance from the defense forces located on the island. In his typical *blasé* fashion Heyser responded that the mission was “a milk run---a piece of cake.”²⁴ Immediately after the film was downloaded and Heyser’s post-flight debrief completed, General Smith and his team boarded an aircraft bound for the National Photographic Intelligence Center (NPIC) at

²³ Strategic Air Command Operations in the Cuban Crisis of 1962, Historical Study No. 90, Vol. 1, (1963), 11.

²⁴ Strategic Air Command Operations in the Cuban Crisis of 1962, Historical Study No. 90, Vol. 1, (1963), 10.

Suitland, Maryland. General Smith personally escorted the film directly to the NPIC facilities where it was processed, and analysts got to work reviewing it immediately.

Meanwhile, back at Edwards, Major Anderson and the remaining maintenance crew members were preparing for a second mission scheduled out of Edwards that night. Anderson was expected to fly a route similar to Heyser's, departing from Edwards on the evening of 14 October, overflying Cuba the following morning, and landing at McCoy. However, as maintenance prepared the aircraft, they discovered that the tailwheel strut was defective. The part was not on hand at Edwards, and the CIA and SAC had to coordinate with Lockheed for a replacement. By the time that the part was flown up from the Skunk Works factory in Burbank and installed, it was too late for Anderson to make the mission with the requisite crew rest needed to fly through the night. In a Herculean logistics effort and a true example of interagency cooperation, the CIA ferried Anderson's aircraft to McCoy while he departed on a KC-135. This plan gave Rudy an extra five hours of rest while he slept on the flight from Edwards to McCoy. SAC planners worked to design a new route out of McCoy and, after working through the night, everything came together for a pre-dawn departure on the morning of 15 October.

It would take over a day to review the film that Heyser gathered on 14 October. While it would not be discovered for another twenty-four hours, in an interesting twist of fate, Heyser's aircraft had collected images of Soviet nuclear missiles on Cuba on President Dwight Eisenhower's seventy-second birthday. Eisenhower sponsored the U-2 program and used the intelligence it produced to disprove the missile gap. Now, on his birthday, the U-2 would discover that fears of Soviet missiles were now valid.

While analysts were busy reviewing thousands of feet of imagery, two more missions were flown out of McCoy. After a whirlwind three days, Anderson and Heyser were rewarded for their hard work with more

work. They would each fly a mission on 15 October, initially scheduled to cover the remaining areas of interest over the western tip of Cuba.

15 October: Anderson's First Flight Over Cuba

In the pre-dawn hours of 15 October Majors Heyser and Anderson awoke to fly two more missions over the areas of interest in the San Cristobal region. Anderson had just landed in the back of a KC-135 and was awakened to begin mission planning and to go through the arduous process of preparing for his flight. Heyser was on the ground at McCoy for less than twenty-four hours and spent much of the time debriefing his 14 October mission and working with planners to determine the routing that he and Anderson would fly on 15 October.

Based on Heyser's report of no response from the Cuban defenses, SAC decided to spend more time over the island on the 15 October missions. Heyser's flight had been brief due to the concern of Soviet SAMs. His "milk run" comment encouraged Major General Compton, and he decided to push for greater collection. Aiding in this decision was the fact that the weather was forecast to be cloud free, a rare occurrence during Cuba's rainy season.²⁵ The Special Projects Group agreed, and it was decided that the 15 October missions would photograph nearly the entire length of the island.

Anderson and Heyser took off just before 0700 EST. In the pre-dawn hours, the roar of the two J-75 engines pierced the Monday morning silence and signified the start of a week that would bring the world to the brink of nuclear war. Their time of flight was short, and soon they were over the island with cameras on and film clicking away. The two spent almost four hours over the island collecting imagery on areas of interest related to the buildup of Soviet weapons on Cuba.

²⁵ Strategic Air Command Operations in the Cuban Crisis of 1962, Historical Study No. 90, Vol. 1, (1963), 10.

When Anderson and Heyser were about halfway through their 15 October missions, Heyser's 14 October film arrived at the desk of the photo interpreters tasked to analyze the mission. The relatively short time of flight over the island produced a limited amount of film, and the NPIC team only devoted half of a normal crew to examine it. The team was oriented to the route of flight, given a list of known terrain and manmade features, and told to look for a build up of military equipment.

Just before noon, members of the analysis team discovered six large canvas-covered objects. The members of this team were unsure exactly what they were looking at but believed it to be missile-related equipment. A special, "back-up" team was called in to review the unusual equipment. The team included Vince DiRenzo, a former Marine, and CIA analysts. DiRenzo was an expert on Soviet air defense systems and recognized that these six objects were not anything he had ever seen before. He had the team measure the objects multiple times, all resulting in a size in the sixty-five to seventy-foot by nine-foot range. This was far too large for any known Soviet air defense system, and DiRenzo called senior analyst Dino Brugioni for support. Brugioni's team consisted of experts on both Soviet surface-to-air and surface-to-surface missiles. When the team saw the images, Heyser collected the day prior they recognized the size of the canvas-covered objects. The group collectively agreed that it was either the SS-3 (Shyster) or SS-4 (Sandal) nuclear missiles.²⁶

Around this time, Anderson and Heyser were landing from their 15 October missions. Like the day prior, the missions proved to be uneventful from the standpoint of Cuban or Soviet reactions. The skies were over ninety percent cloud free, and the equipment had worked as advertised. Like the mission on the 14th, SAC intelligence officers were in

²⁶ Dino Brugioni, *Eyeball to Eyeball*, (New York, NY: Random House, 1990), 199.

place to debrief the two pilots and collect their film upon landing. The film was loaded onto the waiting aircraft and escorted to NPIC. Anderson and Heyser's film arrived just as news of the imagery collected the day before reached Arthur C. Lundahl, Director of NPIC.

When Brugioni and DiRenzo determined that what they were viewing were probably Soviet surface-to-surface nuclear weapons on Cuba, they immediately elevated the finding. The men reported the discovery to their team leads who reviewed the photos and informed their leadership. By the time consensus was reached it was nearly 1700. They knew that Director Lundahl typically left for the evening around 1700 and Jack Gardner, Brugioni's division chief, ran to the Director's office to catch him before he departed NPIC. Lundahl proceeded to the analysts' workstation and reviewed the images. Upon viewing the pictures, Brugioni recalls Lundahl saying, "I think I know what you guys think they are, and if they are the same thing and we both are right, we are sitting on the biggest story of our time."²⁷ Lundahl directed the teams to keep their findings quiet, work through the night, and prepare enlarged copies of the images for briefings.

News of the discovery slowly circulated around Washington, DC. Through a series of cryptic, unsecure phone calls and in-person messages word of the missiles reached National Security Advisor McGeorge Bundy. Bundy elected to stop the news at his level and directed the teams to prepare briefs for the Secretary of Defense and the President to take place the following morning.²⁸

While parts of NPIC were busy preparing briefing boards from Heyser's 14 October flight, others began reviewing Anderson and Heyser's flight from that morning. The intelligence from these three

²⁷ Dino Brugioni, *Eyeball to Eyeball*, (New York, NY: Random House, 1990), 201.

²⁸ Dino Brugioni, *Eyeball to Eyeball*, (New York, NY: Random House, 1990), 209.

flights provided the President with conclusive evidence of the existence of strategic missiles in Cuba. According to official SAC history, these discoveries directly precipitated the Presidential action that led to a quarantine of Cuba on 22 October.²⁹

The men worked through the night examining the film from the three missions. Lundahl decided that the briefs for 16 October would only include material from Heyser's 14 October mission since the other two missions were still being analyzed. Brugioni and DiRenzo worked on creating three briefing boards for the President; they included: the MRBM launch site at San Diego de los Banos, the military encampment, missiles at Los Palacios, and the military encampment at San Cristobal. Lundahl also asked Brugioni to develop a map that showed the ranges of the missiles indicating their ability to hit key points in the United States, to include Washington DC.³⁰ These boards were finished around 0430, almost twenty hours after the team began work on analyzing the film from Heyser's mission.

16 October: President Kennedy is Briefed

No U-2 missions were scheduled for 16 October. For Heyser and Anderson, this was a welcome respite. After five days of day and night operations, sleeping in the back of transport aircraft and flying missions, the men were exhausted. The two pilots used the morning of 16 October to rest before mission planning for the next day. The rest of the 4080 SRW used the break in flying to stand up an operations headquarters and to build the secure communication lines needed to talk to SAC Headquarters.³¹ The USAF maintenance crews also used the time to

²⁹ Strategic Air Command Operations in the Cuban Crisis of 1962, Historical Study No. 90, Vol. 1, (1963), 10.

³⁰ Dino Brugioni, *Eyeball to Eyeball*, (New York, NY: Random House, 1990), 211.

³¹ Strategic Air Command Operations in the Cuban Crisis of 1962, Historical Study No. 90, Vol. 1, (1963), 12.

work on the new “F” model U-2s and learn from their agency and Lockheed counterparts. However, tensions between the crews began to simmer on this, the second day of operations at McCoy. The Agency personnel were not happy that their aircraft were being flown and worked on by USAF men. According to Lieutenant Colonel Anthony Martinez, the Agency people “were very resentful and made no bones about hiding it.”³² In an interview, Brigadier General McIlmoyle recalled that when the mission depended on it, everyone worked together as a team, but when there was down time between flights tensions were very high between USAF and Agency members.³³ While tensions may have seemed high to the men arguing over who was in charge at McCoy, tensions were about to be much higher in Washington DC as NPIC and the CIA prepared to brief the American leadership on their findings.

Director Lundahl arrived at NPIC early on the morning of 16 October to prepare for what he knew would be a long day of briefings. He reviewed the products that his team had put together the night before, asked many questions, and jotted down notes on multiple 3-by-5-inch cards. Lundahl and a courier, Frank Beck, gathered up the briefing charts and classified information and departed for the CIA. At the CIA Lundahl met with Ray Cline, head of the Agency’s Intelligence Directorate. Lundahl briefed Cline on the details, and then the two men departed for the White House where they would spend most of the rest of the day.³⁴

Upon arrival at the White House, the men went directly to McGeorge Bundy’s office for what would be the first of many briefs. At

³² Gerald McIlmoyle, *Remembering the Dragon Lady*, (Utica, KY: McDowell Publications, 2008), 330.

³³ Interview with Brigadier General (Retired) Gerald McIlmoyle, 1 February 2017.

³⁴ Dino Brugioni, *Eyeball to Eyeball*, (New York, NY: Random House, 1990), 219.

this point, Bundy was still the only one at the White House that knew about the news of Soviet missiles in Cuba. After seeing the presentation, and the three briefing boards (Figures 4.3, 4.4, and 4.5) Bundy went to the President's bedroom and told Kennedy the news. The President's morning schedule was full, so he directed Bundy to call a principals meeting at 1145, the first time he had a break. Although the President's schedule was full, his brother Bobby had free time. He stormed into Bundy's office and demanded to see the pictures. He was angry and swore as the team presented the 14 October images. Bobby recalled to the group that, "on September 11, Moscow publicly disclaimed any intention of taking such action and stated that there was no need for nuclear missiles to be transferred to any country outside the Soviet Union, including Cuba."³⁵ Bobby was angry about the missiles and ready to respond aggressively to the Soviet betrayal. Over the course of the next two hours, Lundahl and Cline would brief many of the principals who would attend the 1145 meeting.³⁶

Across the Potomac, the second set of briefers were bringing the Pentagon team up to speed. At the Pentagon, John Hughes, Special Assistant to the DIA director, briefed his boss on the information he had received from NPIC. Brugioni provided Hughes with the same material that Lundahl was given to brief the Administration, and Hughes was responsible for sharing the news with the Department of Defense. Hughes briefed his boss, Lieutenant General Joseph Carroll and then the two proceeded to Secretary of Defense Robert McNamara's office. Many members of the Joint Chiefs of Staff were present. McNamara directed the NPIC team to send their officers and brief their respective Service Chiefs so that everyone was prepared for the President's 1145 briefing.

³⁵ Robert F. Kennedy, *Thirteen Days*, (New York, NY; W.W. Norton, 1969), 7.

³⁶ Dino Brugioni, *Eyeball to Eyeball*, (New York, NY: Random House, 1990), 225.

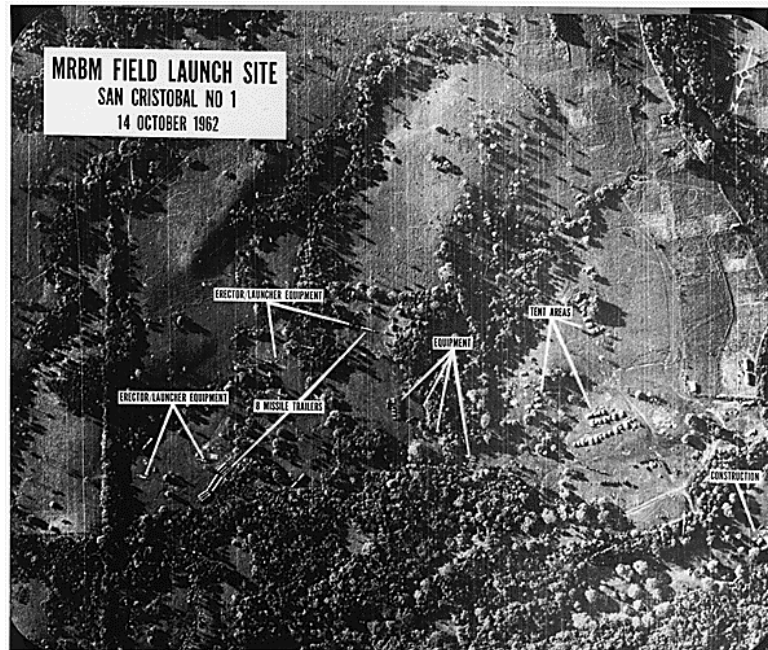


Figure 7: MRBM Site at San Cristobal

Source: National Security Archives, *The Cuban Missile Crisis of 1962: Photographs*, (Washington DC, George Washington University, 2015)

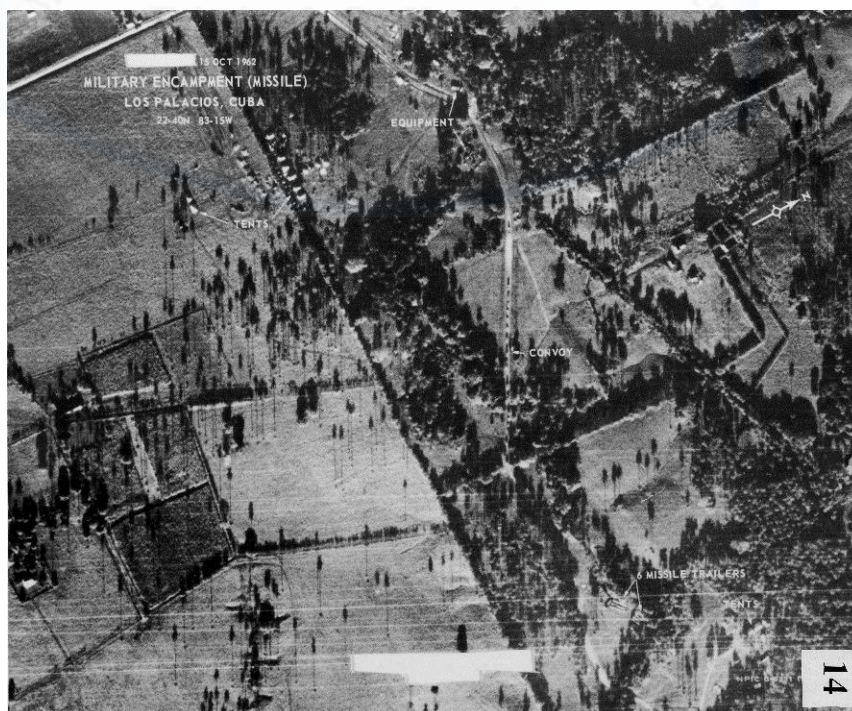


Figure 8: Military Encampment at Los Palacios

Source: National Security Archives, *The Cuban Missile Crisis of 1962: Photographs*, (Washington DC, George Washington University, 2015)

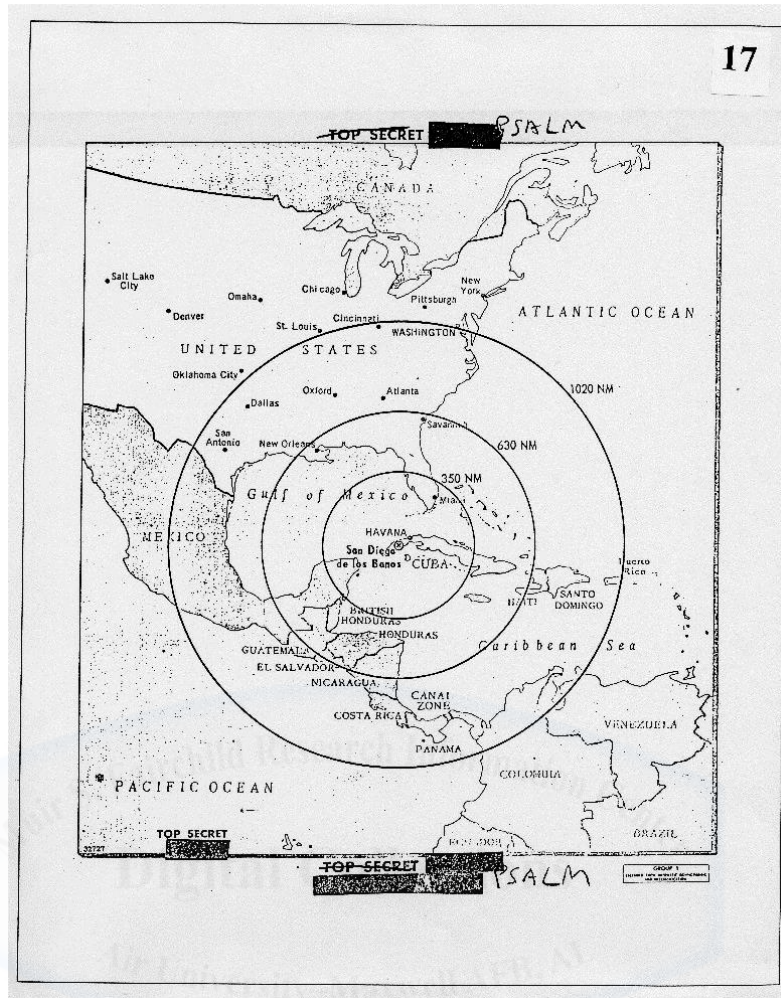


Figure 9: Map Showing Range of Missiles in Cuba

Source: National Security Archives, The Cuban Missile Crisis of 1962: Photographs, (Washington DC, George Washington University, 2015)

At 1145, all members of the Cabinet were seated in the large conference room. Lundahl's briefing boards seemed rather small in such a large setting, but he had come prepared. Upon completion of his formal brief, he presented President Kennedy with copies of the photos and a magnifying glass to walk him through the key features. After looking at the photos for a few minutes, the President looked at Lundahl

and asked, “Are you sure?”³⁷ Lundahl replied that he was as sure of this as any photo that he had ever interpreted, and the President joked that to him it looked like a football field, but that he trusted Lundahl and the men of NPIC.³⁸ The President next asked how long it would be before the missiles were operational. Lundahl stated that he was unsure but believed it would be a matter of days given the current conditions in the photos and the fact that the missiles were shipped across the sea. Those at the brief recall that the President was very calm and asked thoughtful questions. Rather than displaying the anger of betrayal that Bobby demonstrated, JFK was “crisp and businesslike.”³⁹ He directed the Cabinet to fly as many U-2 missions as possible and that he wanted the photos interpreted as fast as Lundahl’s team could do it. Kennedy then expressed his gratitude and that of the nation for the men who had collected the photographs and those who had interpreted the film.⁴⁰

Following the briefing, the Department of Defense immediately began investigating what it could do to maximize U-2 coverage over the island. There were only two aircraft at McCoy, and only two USAF pilots checked out in the Agency’s aircraft. McNamara decided to waive the restriction that only CIA U-2Fs could fly over Cuba and directed 4 U-2As from Laughlin to join the detachment at McCoy. Plans were now in place for what would be one of the busiest days of the Cuban Missile Crisis.

17 October: Laughlin Dragon Ladies Deploy to McCoy

In the pre-dawn hours of 17 October, Anderson and Heyser once again took to the skies just before sunset and began the flight south to

³⁷ Dino Brugioni, *Eyeball to Eyeball*, (New York, NY: Random House, 1990), 230.

³⁸ Robert F. Kennedy, *Thirteen Days*, (New York, NY; W.W. Norton, 1969), 24.

³⁹ Maxwell Taylor, “Reflections on a Grim October,” (Washington DC: Washington Post, 15 October 1982), A-19.

⁴⁰ Dino Brugioni, *Eyeball to Eyeball*, (New York, NY: Random House, 1990), 232.

cover more of Cuba. Things proceeded as they had two days prior and weather over the target areas remained clear. This time, however, they would be joined by four additional U-2s arriving from the west.

Three hours prior Majors James Qualls and Buddy Brown, along with Captains Roger Herman and George Bull departed Laughlin AFB, TX in four A-model U-2s. These men were notified of the mission on the afternoon of 16 October. After a brief description of what they would be doing; they were to go home, get some rest, and report back at 0100 on the morning of 17 October. Buddy Brown recalled that he believed that their missions would be canceled because as he tried to get to sleep that afternoon, a massive thunderstorm was delivering devastating weather to the airfield. As the four men arrived in the pouring rain, they were surprised to see what “seemed to be everyone from the Wing in the briefing room.”⁴¹ The men went through the normal pre-flight routine, as described above, but believed the whole time that the missions would be scrubbed on account of the horrendous weather. All four were shocked when they were told that SAC approved the missions, despite the weather being well outside of the operational limits of the aircraft. Brown described his disbelief when he got to his aircraft, and the cockpit was full of water from the torrential rains and his apprehension when he could not even see the taxiway to get to the runway. He said the last words of wisdom imparted by his mobile officer were, “say your prayers, Buddy Boy,” words that did not instill confidence.⁴² Eventually, all four aircraft made it out of the West Texas thunderstorm and were on their way to Cuba.

These six aircraft photographed the entire island of Cuba. The planners ensured that they all flew parallel flight paths to both deconflict

⁴¹ Gerald McIlmoyle, *Remembering the Dragon Lady*, (Utica, KY: McDowell Publications, 2008), 324.

⁴² McIlmoyle, *Remembering the Dragon Lady*, 325.

so many aircraft operating in a limited area and to guarantee that no territory was missed. These missions revealed that the situation was even more serious than previously known; two additional MRBM sites were found along with MiG-21 and MiG-15 aircraft and IL-28 nuclear bombers.⁴³ An increased operational tempo would be the norm in the days to come, but 17 October was the only day on which SAC flew six U-2 aircraft in the same airspace throughout the course of the Cold War.

18-26 October: Operations Normalized

From 18-26 October, operations began to normalize at McCoy. Heyser and Anderson flew the U-2F every other day and were augmented by the other nine pilots flying the A-model Laughlin aircraft as required. SAC requested to use other pilots and fly the A-model aircraft more often, but McNamara refused. He wanted the Agency aircraft to fly missions to the maximum extent possible, which meant that Heyser and Anderson would see the lion's share of the sorties.⁴⁴

After a few days, the men became accustomed to the nighttime schedule. The pilots' day would begin shortly after 0100, and they would take off around 0700. Most missions were short, between two and five hours, and the pilots returned for what would become a familiar debrief by the intelligence personnel who took their film to the NPIC.

As the Crisis progressed, the weather deteriorated. By 18 October, Hurricane Ella was approaching Florida, and with it came increasing cloud cover.⁴⁵ In addition to the U-2 operations, low-level reconnaissance missions flown by US Navy (USN) and USAF pilots began. Providing another source of intelligence were electronic intelligence (ELINT) operations conducted by USAF aircraft and USN ELINT vessels.

⁴³ Strategic Air Command Operations in the Cuban Crisis of 1962, Historical Study No. 90, Vol. 1, (1963), 14.

⁴⁴ Dino Brugioni, *Eyeball to Eyeball*, (New York, NY: Random House, 1990), 275.

⁴⁵ Brugioni, *Eyeball to Eyeball*, 251.

These missions were not as impacted by the weather and often continued when U-2 PHOTOINT missions were canceled. On 23 October Anderson flew a mission that started fairly clear but by the time he finished his collection run, he estimated that the coverage had dropped to 10 percent cloud free.⁴⁶ The missions scheduled for the 24th and 26th were canceled due to weather, and only one mission was flown on the 25th. This mission was a prelude to the tragedy that occurred on 27 October.

While Captain Gerald McIlmoyle prepared for his 25 October mission, members of the world community readied themselves for a showdown at the United Nations. Throughout the morning of 25 October, both pro-Soviet and pro-American nations sought a peaceful resolution to the crisis. They proposed a missile exchange, the removal of US missiles in Turkey for a removal of Soviet missiles in Cuba. However, throughout the debate, Soviet Ambassador Valerian Zorin denied the existence of offensive missiles on Cuba. Additionally, the Cuban representative, Dr. Mario Garcia-Inchaustegui adamantly denied the presence of any offensive weapons. Dr. Garcia stated, "The representative of the United States presented no valid proof of the affirmations made by his President that Cuba constitutes a nuclear threat to the countries of the Western Hemisphere. The weapons that Cuba possesses are exclusively for defensive purposes."⁴⁷

After a long day of being berated by Soviet Bloc nations, both US Ambassador Adlai Stevenson and President Kennedy were frustrated. The President instructed his brother to relay a message to Stevenson giving him the go-ahead to display the photos of Soviet missiles on the floor of the Security Council. Emboldened by the President's encouragement, Stevenson went on the attack. After a lengthy series of

⁴⁶ Strategic Air Command Operations in the Cuban Crisis of 1962, Historical Study No. 90, Vol. 1, (1963), 14.

⁴⁷ Dino Brugioni, *Eyeball to Eyeball*, (New York, NY: Random House, 1990), 425.

remarks by Zorin, Stevenson replied, “all right, sir, let me ask you one simple question: Do you, Ambassador Zorin, deny that the USSR has placed and is placing medium- and intermediate-range missiles and sites in Cuba? Yes or no – don’t wait for the translation – yes or no?”⁴⁸ After a series of back and forth statements Zorin told Stevenson that he would have his answer in due course, to which Stevenson shot back, “I am prepared to wait for my answer until hell freezes over if that is your decision.”⁴⁹

Following the war of words, Stevenson decided it was time for proof. He called on his aides to bring in the briefing boards to demonstrate that proof to the members of the Security Council. Stevenson showed the development of the MRBM and IRBM sites erected at San Cristobal and Guanajay respectively. The audience was silent; for the first time in history aerial photography was used in a public forum as a mean of resolving an international dispute. In the words of Cold War author and former USAF pilot DeWitt Copp, “No other proof could have been more irrefutable, and no other proof would have been acceptable to many among ourselves, our allies, and, of course, those unsympathetic to us. The UN could not debate away the iron reality of the aerial photographs, nor could the world.”⁵⁰

As Stevenson and Zorin were engaged in a war of words and a battle of wills, Gerald McIlmoyle was involved in a fight for survival. Nearing the end of his mission McIlmoyle was tasked to collect images of the SA-2 site near Banes. The majority of the mission was flown over a cloud-covered island, but the area around Banes looked clear. As he

⁴⁸ Anita Ehrman, “Adlai Blows Top, Tongue-lashes Zorin in the UN,” (New York, NY: New York Journal-American, 26 October 1962), A-1.

⁴⁹ Anita Ehrman, “Adlai Blows Top, Tongue-lashes Zorin in the UN,” (New York, NY: New York Journal-American, 26 October 1962), A-1.

⁵⁰ George W. Goddard and DeWitt S. Copp, *Overview*, (New York, NY: Doubleday, 1969), xi.

approached the site, he noticed the yellow radar warning receiver light illuminate.⁵¹ The light was known to malfunction, and McIlmoyle thought nothing of it as he went into his planned turn over Banes. However, as the aircraft rolled into the turn, he saw the unmistakable contrails of two missiles streaking towards his aircraft. McIlmoyle applied the proper avoidance maneuver and watched as the missiles passed his aircraft and exploded in the sky about a mile away from him. McIlmoyle was already on the outbound leg of his mission and returned to McCoy with news of the SAM launch. McIlmoyle recalled that he was met at the aircraft upon landing by a three-star Air Force General. The General told McIlmoyle that he was not fired upon and not to talk to anyone else about it. McIlmoyle promptly disregarded the General's instructions and shared the story with his comrades. All of the pilots believed him, but none seemed deterred.⁵² The mission the following day was canceled due to weather. Due to cloud cover on the processed images, the wing was tasked to refly McIlmoyle's 25 October mission, a mission that would be Rudy Anderson's sixth and final flight over Cuba.

27 October: "Black Saturday."

Before going to sleep on the afternoon of 26 October, Rudy Anderson mission planned for the following day and then called his mother, Mary Anderson. He told her that things were going well and that he was enjoying his job. He also urged her not to worry about him because he was in a safe place.⁵³ Anderson hung up the phone with his

⁵¹ The U-2A had a very rudimentary radar warning receiver. If the aircraft detected the tracking radar of an SA-2 a yellow light would illuminate. If the aircraft detected a guidance signal, meaning that a missile was fired, the light would illuminate red. The system was very unreliable and known by the pilots to malfunction; McIlmoyle recalls that most pilots simply ignored the lights.

⁵² Interview with Brigadier General (Retired) Gerald McIlmoyle, 1 February 2017.

⁵³ Rick Hampson, "Cuban Missile Crisis Really Touch-and-Go?" (Washington DC: USA Today, 14 October 2012), from

mother, took a sleeping pill, and went to bed. He awoke early on the morning of 27 October, expecting to be one of four missions flown that day. Forecast weather in the target area dictated a mission cancellation. The other three missions were canceled but Anderson's remained on the schedule. Because McIlmoyle's 25 October mission was ineffective over much of the proposed area, it was decided to launch Anderson. The need to revisit the key sites near San Cristobal outweighed the weather forecast, and Anderson proceeded as scheduled.

The story of Anderson's fateful "Black Saturday" mission was detailed in the introduction and will not be repeated here. However, parts of the story have not been written about and may help shed light on the reasons that Anderson was shot down and why he was (likely) unaware the missiles were fired at his aircraft. These stories reside in recently declassified unit histories and the mind of the last remaining U-2 pilot from the crisis, Brigadier General (Retired) Gerald McIlmoyle.

When they approved BRASS KNOB missions at the beginning of October, President Kennedy and Secretary of Defense McNamara did so with the understanding that ELINT would cover U-2 throughout their flights. This was promised by SAC, but in reality, it was a promise that was rarely, if ever, delivered upon. SAC coordinated with Navy ELINT teams at Naval Air Station Key West and Guantanamo Naval Base. These teams confirmed that they were willing and able to support U-2 missions over Cuba. However, their equipment was neither capable of tracking the U-2 at operational altitude, nor detecting adversary radar emissions. On the day of Anderson's mission, the teams were indeed attempting to uphold their commitment to SAC but never detected Anderson's aircraft or the offending SAM site at Banes.

<https://www.usatoday.com/story/news/nation/2012/10/13/cuban-missile-crisis-scary-memory-or-fuzzy-footnote/1631419/>.

The USN had additional ELINT assets located off the coast of Cuba that had proven effective at detecting SAM sites. However, on the day of Anderson's fateful flight, the asset had been ordered to operate further off the coast due to security concerns. Additionally, the USN and USAF did not coordinate a common frequency for the two reconnaissance platforms to communicate. Therefore, even if the Navy had detected the site at Banes, it is questionable if they would have been able to contact him quickly enough to facilitate the reaction.

Following Anderson's death, SAC addressed these failures to use all available resources to protect the U-2. They developed a plan to employ an R-4 ELINT aircraft off the coast of Cuba to support U-2 missions. These aircraft cooperated with the aforementioned naval assets and operated on a common frequency, ensuring that the U-2 had adequate warning of a threat. General McIlmoyle recalls the importance of this change and the fact that it became a requisite for further missions over Cuba after they resumed in November.⁵⁴

In addition to the technical details of Anderson's last flight, the opinions of his fellow pilots regarding the events of that day have received scant discussion, although they warrant telling, and will be discussed here. His fellow pilots wrote the following in the official SAC history of the Cuban Missile Crisis, "Major Anderson would probably have scoffed at the suggestion that his work over Cuba could be termed heroic. He was a veteran reconnaissance pilot, accustomed to long, silent flights in the U-2. He was a professional who had learned to accept the risks of his profession."⁵⁵ Gerald McIlmoyle remembered that even after his near miss on 25 October, none of the pilots admitted that

⁵⁴ Interview with Brigadier General (Retired) Gerald McIlmoyle, 1 February 2017.

⁵⁵ Strategic Air Command Operations in the Cuban Crisis of 1962, Historical Study No. 90, Vol. 1, (1963), 14-15.

they were afraid of the SA-2s.⁵⁶ Buddy Brown wrote, “You don’t think about that, you are immortal. You don’t think it will happen to me. It may happen to one of the other guys, but not to me.”⁵⁷ The pilots all thought that they were ten feet tall and bulletproof, and Anderson was no exception.

The men all remembered the deep, gut-wrenching feeling when the time for Anderson’s arrival to McCoy came and went without his return. McIlmoyle said that he and eight of the other pilots were out on the golf course that morning, enjoying a break from their otherwise hectic schedule. When the time for Andy’s arrival approached, he remembers looking up and checking his watch more often than he looked at the course.⁵⁸ Brown voiced what everyone else was thinking; he said aloud, “I don’t know what happened, but Rudy should have been back by now.”⁵⁹ The men returned to the squadron and waited until they knew that Anderson’s aircraft would have run out of fuel. That night the normally boisterous group was silent. They sat quietly in the Officer’s Club, thinking about the friend they had lost and how it could have been them. “When Rudy was shot down we all went ‘gulp,’” remembered Brown. The reaction of Anderson’s fellow pilots was echoed as a collective gulp in Washington, Moscow, and Havana.

⁵⁶ Interview with Brigadier General (Retired) Gerald McIlmoyle, 1 February 2017.

⁵⁷ Gerald McIlmoyle, *Remembering the Dragon Lady*, (Utica, KY: McDowell Publications, 2008), 327.

⁵⁸ Interview with Brigadier General (Retired) Gerald McIlmoyle, 1 February 2017.

⁵⁹ Gerald McIlmoyle, *Remembering the Dragon Lady*, (Utica, KY: McDowell Publications, 2008), 327.



Figure 10: Wreckage of Rudy Anderson's aircraft

Source: Picture of the wreckage of Anderson's aircraft, retrieved from the National Archives http://nsarchive.gwu.edu/nsa/cuba_mis_cri/dobbs/anderson.htm



Chapter 5

Responses to Major Anderson's Death

The afternoon of 27 October 1962 brought three nations, and possibly the world, to the brink of nuclear war. The crescendo of “Black Saturday” occurred when the Banes SAM site launched its missiles at Target 33 and destroyed an American U-2, killing its pilot Major Rudolf Anderson. By all accounts, this event should have escalated the crisis and nudged the belligerents over the brink--but instead it did the opposite. Each nation saw the shooting down of an unarmed reconnaissance aircraft differently, but all saw it as a slippery slope leading to all-out war. For the Americans and Soviets, this was a wake-up call that invigorated negotiations and resulted in an end to the Crisis. For the Cubans, it was a call to arms and preparation for what they believed would be an invasion of their homeland.

This chapter will explore the three contending nations' military and political responses to the loss of Major Anderson and his aircraft. It will begin with an exploration of Cuba's response and then examine the sense of betrayal felt by Fidel Castro when the Soviets sought a peaceful end to the crisis. It will then review the Soviet response, analyzing both the opinions of the military officers deployed to Cuba and the political response from Premier Khrushchev and the Kremlin. Finally, the chapter will survey the American actions and the gulf between the planned response and the course that President Kennedy decided to take, despite the guidance of his military advisors.

Castro and Cuba Respond

On 27 October, in Oriente province, a battery of SAM missiles operated by the Soviets fired on and brought down a U-2 spy plane. It was at that point that the moment of maximum tension occurred. The American officer, Rudolf Anderson, the pilot of the U-2, was killed. That was the sign that combat had practically begun. At any time, another incident could have occurred and could have led to all-out war. And let me repeat that in Cuba, the people were very ready.

Fidel Castro

In Cuban Prime Minister Fidel Castro's autobiography, he recalls the impact of "Black Saturday" and the results of the attack on Major Anderson's aircraft. This quotation, along with the exchange of letters between Castro and Khrushchev in the days that followed, demonstrates Cuba's response to the downing of an American U-2. Castro felt that war was inevitable and was prepared to sacrifice himself, his people, and ultimately the world to defeat America. He later said, "it never occurred to us to give into the adversary's threats."¹

Castro sincerely believed that his people were at the center of the Cuban Missile Crisis, rather than proxies through which a larger conflict was playing out. He viewed the fight as between the Cubans and their aggressive neighbors to the north. Because of this, he was angered and disillusioned by the Soviet response to Major Anderson's death.

Less than a year after the Bay of Pigs incident, Castro was approached by the Soviets with a proposal to defend Cuba from further attack. Senior Soviet officials, including Marshal Sergei Biryuzov, commander of the Strategic Rocket Forces, visited Cuba in February 1962 to inform them of an American plan to invade the island.² As part

¹Fidel Castro, and Ignacio Ramonet, trans Andrew Hurley, *Fidel Castro: My Life*. Translated by Andrew Hurley. (New York: Simon & Schuster, Inc., 2006), 277.

² Castro, *Fidel Castro*, 271.

of the plan to defend Cuba, the Soviets asked to install MRBM's on the island, along with tactical nuclear weapons and the necessary surface-to-air systems to protect them. Castro initially rejected the proposal, one that he saw as a Soviet attempt to balance power against US weapons in Turkey and Italy.³ However, Castro feared that if he did not accept the Soviet offer, he would be unable to defend against US aggression. The USSR and Cuba signed numerous agreements, and within three months, ships departed the Soviet Union bound for ports in Cuba. For his part, Khrushchev promised that he would defend Cuba to the end, remarking that if it looked like the US was becoming aggressive, he would send the entire Baltic Fleet to defend Cuba.⁴

The first Soviet equipment installed on the island of Cuba consisted of air defense systems. It was agreed that the Cubans would employ the less sophisticated and easier to use anti-aircraft artillery (AAA) and that the Soviets would maintain control of the SAM systems. These air defense systems were installed rapidly, and most were operational by the time Majors Heyser and Anderson began flying over the island in October.

From the outset of the Crisis, Castro ordered his forces to fire upon US aircraft flying over Cuba. However, the early missions over Cuba were only flown by the high-altitude U-2 which operated well outside of the range of Cuba's AAA. Although Castro's forces were ordered to shoot on sight, the Soviet forces were not given the same directive. This disparity in operational guidance frustrated Castro and the Cuban military leadership. They had invited the Soviet forces to their country to prevent American aggression, and now US aircraft were flying freely over Cuban airspace with no repercussions. Castro later stated, "what's hard

³ Castro, *Fidel Castro*, 272.

⁴ Sergo Mikoyan, *The Soviet Cuban Missile Crisis: Castro, Mikoyan, Kennedy, Khrushchev, and the Missiles of November*, (Washington, DC: Woodrow Wilson Center Press, 2012), 112.

to believe about Khrushchev's attitude is that while surface-to-air missile batteries were located all over the island, there'd been no attempt to prevent the adversary from spotting the Soviet-Cuban defense positions with spy planes overflying the island."⁵

While there was a sentiment that the Kremlin lacked the willingness to engage the US aircraft, the same was not true of the Soviet military men on the island of Cuba. They shared the same frustrations as their Cuban comrades and did not understand why Moscow would not let them fire upon the US intruders. At the 1992 Havana Conference on the Crisis, Soviet General Anatoly Gribkov, army chief of operations in Cuba, shared feelings similar to those expressed by Castro. Gribkov recalled, "I was not able to understand the purpose of the S-75 installation. If it was installed, it was installed for something, but there was no use for it...we reported that they flew around us every day, but there was no order to open fire."⁶

Frustrations grew as the Cubans monitored multiple U-2 flights each day with no reaction from the Soviet defense forces. Castro continually asked the officers in charge of the SAM sites why they were not firing upon the invading aircraft. At one point an exasperated Castro reportedly said, "Khrushchev promised us to send the Baltic Fleet, but he never gave an order to shoot the U-2 down! I do not understand!"⁷ Tensions between the Cubans and their Soviet guests grew as likely confrontation loomed just over the horizon. On the evening of 26 October, the Cuban intelligence service obtained information that the Americans were preparing for an invasion. In response to that news, and

⁵ Fidel Castro, *Fidel Castro: My Life*, 274.

⁶ Mikoyan, *The Soviet Cuban Missile Crisis*, 107.

⁷ Mikoyan, *The Soviet Cuban Missile Crisis*, 113.

without consulting the Kremlin, at 21:30 local time that night, all air defense systems were placed on a 6-minute alert.⁸

Following the news of an impending invasion, Castro reiterated his order to fire, without warning, on any American aircraft entering Cuban airspace. This order was passed to the Soviet air defense officers who queried Moscow about their response. The question went unanswered and, in light of the aforementioned intelligence information and a growing frustration with US reconnaissance flights, the Soviet officers ordered their SAMs to fire upon Major Anderson's U-2.⁹

The Cubans were elated that the Soviets had finally defended them as promised. At the same time, they saw the act of destroying a US aircraft and killing its pilot as a prelude to war and expected immediate escalation. Castro even went as far as to send a cable to Khrushchev asking him to carry out a nuclear first strike on the US.¹⁰ However, rather than escalation, the Soviets sent a proposal to withdraw the missiles. This proposal was not coordinated with the Cubans and, according to Castro, "seemed to us absolutely the wrong decision...it occasioned great indignation."¹¹

Confusion and frustration are apparent in a series of letters exchanged in the days following the death of Major Anderson. At multiple times Khrushchev accused Castro and Cuban forces of shooting down the U-2, and therefore escalating the Crisis. Further confusing the issue, Castro did not dispute these claims but rather stated, "we decided that we could not simply sit back and wait for a surprise attack." He did, however suggest "the Soviet Forces Command will be able to provide you with further information as to what happened with the downed plane."¹²

⁸ Mikoyan, *The Soviet Cuban Missile Crisis*, 143.

⁹ Mikoyan, *The Soviet Cuban Missile Crisis*, 145.

¹⁰ Castro, *Fidel Castro*, 281.

¹¹ Castro, *Fidel Castro*, 277.

¹² Castro, *Fidel Castro*, 280.

The subsequent letters through the 31st of October grew less cordial and became more accusatory. In his final cable to Khrushchev, Castro succinctly summed up Cuba's reaction to the downing of Anderson's aircraft and the response that played out in the days that followed. Castro wrote, "the eyes of many men, Soviet and Cuban, who were willing to die with supreme dignity, wept when they learned of the surprising, unexpected and practically unconditional decision to withdraw the weapons...you may not know to what degree the Cuban people were prepared to fulfil their duty to the *patria* and humanity."¹³

Despite Castro's initial misgivings about Soviet intentions, he allowed Khrushchev to deploy weapons to the island of Cuba. Over the course of the five months during which the missiles were deployed to Cuba, Castro began to believe that the plight of his people was the *raison d'être* for Soviet forces in Cuba. However, he grew frustrated when Soviet SAMs were not permitted to fire upon American aircraft overflying his airspace. When Rudolf Anderson was shot down on 27 October, Castro was euphoric, but the euphoria was short-lived. The Soviets quickly abandoned Castro and the people of Cuba, leaving them to live under increased sanctions and monitoring. In the words of Soviet statesman Anastas Mikoyan, "as a participant in the conflict, the Cuban side was all but forgotten."¹⁴

Khrushchev Turns Away From Military Escalation

At one point, Castro ordered our antiaircraft officers to shoot down a U-2 reconnaissance plane. [Major Rudolf Anderson, Jr., the pilot of the U-2, was killed when his plane was shot down on October 27, 1962.] There was another uproar. This time we feared that America's patience would be exhausted and war would break out. We ordered Pliyev to obey only orders from Moscow. However, in the case of an invasion, our troops should coordinate with the Cuban forces and be subordinate to Castro. We felt sorrow and pain to hear

¹³ Castro, *Fidel Castro*, 283.

¹⁴ Mikoyan, *The Soviet Cuban Missile Crisis*, 151.

Castro's words of disappointment in our Cuban policy. Everything we did was in the interest of Cuba. We had no interests of our own there. Our only goal was for the Cuban people to become the masters of their own natural resources and to help Cuba embark on the path of building scientific socialism.

Nikita Khrushchev

In 1970, eight years after the Cuban Missile Crisis, ex-Soviet Premier Nikita Khrushchev still believed that Fidel Castro ordered Soviet Air Defense forces to fire upon Major Anderson's U-2. Despite confessions by Generals Leonid Garbuz and General S.N. Grechko, Khrushchev felt that his officers would not have disobeyed a direct order not to fire without the prompting of the Cuban Prime Minister. This belief that his soldiers were falling under the influence of Castro, and had destroyed an American aircraft at Castro's behest, frightened Khrushchev and drove him to seek an immediate resolution to the Crisis.

This section outlines the Soviet response to the downing of Major Anderson's U-2. It reviews the response of the military forces on Cuba and Premier Khrushchev's response to the loss of the U-2 flown by Anderson. Rather than escalation that would lead to assured destruction, the attack that killed Rudolf Anderson caused the Soviets to abandon haggling over specific details and seek an immediate end to tensions.

As mentioned above, the Soviet military forces in Cuba were disheartened by what they felt was a lack of reaction from their government. The men operating the SA-2 sites did not understand why they were deployed to Cuba to protect nuclear weapons from being observed or attacked, only to be prevented from fulfilling their role. The SA-2 sites were the first set up on the island, under the assumption that they were there to stop any further aerial reconnaissance from occurring. The officers and men manning the sites felt that the Kremlin was prohibiting them from preventing the U-2 from collecting intelligence on

the nuclear weapons. They also believed that their positions were compromised and that they would likely be targeted if hostilities commenced.¹⁵

Therefore, the men of the Air Defense Forces were anxious to do their job and prevent the U-2 from gaining any further valuable reconnaissance information. According to Colonel Grigory Romanovich Danilevich, head of the political section of the Air Defense Forces, he was ready to stop merely observing the Americans and fight. Colonel Danilevich said it was “not only me but all our soldiers. Do you know what one soldier said? He said, ‘Well, Comrade Colonel, I wish we could put on our uniforms and go fighting.’”¹⁶ When asked about his response to the destruction of Anderson’s U-2, Colonel Danilevich said that he and his men were happy. “Of course, it’s not such a simple thing to shoot down a plane,” he responded, “...the people fulfilled their task...that’s it. Gerchenov and others should not have shuddered at the thought that they shot down U-2. They had to shoot it down...and should have been glad that everything went ok.”¹⁷ Although the Soviet military members in Cuba were slightly frightened by the prospect of a negative response from the USSR for disobeying orders, they were universally happy and proud of their accomplishment. This sentiment was not echoed in the halls of the Kremlin.

Premier Khrushchev was shocked and frightened by the news that an American U-2 was shot down over Cuba. His son, Sergei Khrushchev recalls, “it was at that very moment...not before or after...that father felt the situation slipping out of control...as Father said later, that was the moment when he felt instinctively that the missiles had to be removed,

¹⁵ Mikoyan, *The Soviet Cuban Missile Crisis*, 107.

¹⁶ Michael Dobbs, “Interview with Grigory Romanovich Danilevich, Colonel. Head of the political section of the PVO division,” July, 2004, 7.

¹⁷ Dobbs, “Interview with Grigory Romanovich Danilevich, 12.

that disaster loomed.”¹⁸ The shooting down of the U-2 demonstrated to Khrushchev that the situation represented real danger. Up until that point, no lives were really at risk and the crisis was a series of moves and countermoves, posturing for a position of strength. After Anderson’s death, the reality of the situation hit Khrushchev, and he realized that it was important to get the Americans to promise not to invade Cuba, but “beyond that, it was not worth forcing the situation to the boiling point.”¹⁹

The second area that concerned Khrushchev and the Kremlin was the level of control that they exerted over the military. The orders from the Kremlin were very clear; SAMs were not to be fired unless in self-defense when under attack from US aircraft. The men in the Air Defense Forces had asked for permission but been denied multiple times. The fact that they acted autonomously in firing upon and destroying an unarmed aircraft worried the Politburo. If such high-ranking officers could make a decision like firing a SAM, could equally high ranking officers elect to fire a nuclear weapon? The thought sent shockwaves through the military and political establishment and drove Khrushchev to conclude that continuing down the path of escalation would lead to assured destruction.²⁰

The third response from the Kremlin was one of fear of Cuban actions. On the same day that Anderson was shot down, Castro sent a cable to Khrushchev proposing that the Soviets carry out a nuclear first strike against American forces.²¹ Khrushchev began to see Castro as too

¹⁸ Khrushchev, *Khrushchev Remembers*, 180.

¹⁹ James G. Blight and David A. Welch, *On the Brink: Americans and Soviets Reexamine the Cuban Missile Crisis*, (New York, NY: Farrar, Straus and Giroux Publishers, 1990) 264.

²⁰ William Taubman, *Khrushchev: The Man and His Era*, (New York, NY: WW Norton and Company, 2003), 572.

²¹ Castro, *Fidel Castro*, 281.

“revolutionary” and not capable of understanding the consequences of nuclear weapons. Khrushchev appreciated Cuba’s plight and believed in its people, but began to feel that Castro was irrational in his approach to war. Additionally, Khrushchev feared that Castro’s revolutionary zeal had permeated the ranks of the Soviet soldiers on Cuba. Many people in the Soviet Union admired Castro’s fervor and strength. However, Khrushchev worried that this attitude was adversely affecting the judgment of his men stationed in Cuba. This feeling grew when his Minister of Defense, Rodion Malinovsky, explained the reason that Soviet forces fired on Anderson’s aircraft. Malinovsky told Khrushchev that due to time constraints and an inability to receive guidance from Moscow, the soldiers elected to follow the guidance Castro had given his men. Khrushchev was furious and exploded, “Who’s army is our general in? The Soviet or the Cuban army? If he’s in the Soviet army, then why does he follow someone else’s orders?”²² The fear that his men were willing to follow Castro’s orders, coupled with the Cuban call for the use of first-strike weapons on the US, crossed a line that Khrushchev could not tolerate.

These three factors shaped the Soviet response to the downing of an American U-2. When Major Anderson was shot down, Khrushchev was confronted with the likelihood of escalation in a conflict that he did not deem important enough to commit full Soviet resources. Additionally, he questioned the possibility that his forces might drive escalation. If his Air Defense officers were willing to fire a SAM in violation of their orders, might his Rocket Forces fire a ballistic missile on their own accord? Finally, the rhetoric coming out of Cuba led Khrushchev to believe that Castro was acting irrationally and that his charismatic and persuasive nature might influence other Soviets to follow suit. In the end, the Soviets responded by immediately de-

²² Taubman, *Khrushchev*, 572.

escalating the crisis and agreeing to the removal of missiles from the island. Fortunately, their Cold War adversaries also peered into the abyss and elected to take a step back rather than forward.

Kennedy Revises the Planned US Response

We had to send a U-2 over to gain reconnaissance information on whether the Soviet missiles were becoming operational. We believed that if the U-2 was shot down that...the Cubans didn't have capabilities to shoot it down, the Soviets did...we believed if it was shot down, it would be shot down by a Soviet surface-to-air-missile unit, and that it would represent a decision by the Soviets to escalate the conflict. And therefore, before we sent the U-2 out, we agreed that if it was shot down we wouldn't meet, we'd simply attack. It was shot down on Friday. Fortunately, we changed our mind, we thought, "well, it might have been an accident, we won't attack." Later we learned that Khrushchev had reasoned just as we did: we send over the U-2, if it was shot down, he reasoned we would believe it was an intentional escalation. And therefore, he issued orders to Pliyev, the Soviet commander in Cuba, to instruct all of his batteries not to shoot down the U-2.

Robert S. McNamara

This brief statement, made by former Secretary of Defense Robert McNamara in the 2004 documentary film "The Fog of War," outlines the chasm that existed between a preplanned response and the actual course of action taken by the United States as a result of Major Anderson's death. Before committing to increased reconnaissance flights over Cuba, the ExCom collectively agreed that any offensive action taken by the Soviets or Cubans would result in a retaliatory response from the United States. Nevertheless, President Kennedy chose to revise the plan and did not order the reactive strikes. This section will explore how Major Anderson's death drove the President to reject the desires of his military advisors and alter the course of a nation.

In his memoir, *Thirteen Days*, Robert Kennedy describes the deliberations made in ExCom meetings before the commencement of military operations over Cuba. Part of the discussion of the ExCom centered on US response to Soviet or Cuban actions against American

forces. In particular, the manner by which the US would respond to a Soviet SA-2 launch against a U-2 reconnaissance mission become a topic of discussion. The ExCom collectively understood that “after obtaining specific permission from the President—bomber and fighter planes would destroy the surface-to-air missile site.”²³ The group was in consensus about the need for a response, but there was some deliberation about the necessity of gaining Presidential approval. The military leadership felt that this was an unnecessary step and believed that they should be able to react to aggression. However, President Kennedy expressed a keen interest in verifying the attack and was adamant about his role as the final approval authority for such retaliatory strikes.

When the news of the loss of a U-2 over Cuba reached the ExCom at 4:00 pm on “Black Saturday,” the group reacted strongly. General Maxwell Taylor immediately requested permission to strike back. He wanted to scramble the alert aircraft and destroy the SAM site that had killed Anderson, along with the Cuban AAA sites that had fired on Navy RF-8As flying low-level reconnaissance that morning. Secretary of Defense Robert McNamara went even farther; he stated, “the military plan is very clear, a limited strike is out. We can’t go on a limited strike without the reconnaissance aircraft. So, the military plan now is basically invasion, because we’ve set a large strike to lead to invasion.”²⁴ McNamara’s tirade went as far as ordering his military officers to begin calling up the reserves. Bobby Kennedy recalled that the news of Anderson’s death made him feel as if a “noose was tightening on all of us, on Americans, on mankind, and that the bridges to escape were crumbling.”²⁵ The ExCom collectively inferred that the Soviets shot down

²³ Robert Kennedy, *Thirteen Days*, (New York, NY: WW Norton & Company, 1969), 58.

²⁴ Max Frankel, *High Noon in the Cold War: Kennedy, Khrushchev, and the Cuban Missile Crisis*, (New York, NY: Random House, 2004), 148.

²⁵ Kennedy, *Thirteen Days*, 97.

Anderson's aircraft because they were preparing to complete the deployment of nuclear weapons, and did not want that information getting back to Washington. All signs pointed to a US response against, at a minimum, the SAM site that shot down Major Anderson.

However, President Kennedy took a more measured approach. Kennedy saw the act of shooting down Anderson's U-2 as deliberate escalation, but also challenged the idea of an immediate response. While most of the ExCom was clamoring for airstrikes, Kennedy reminded them of the slippery slope down which such a response could lead them. In response to the retaliatory strikes Kennedy said, "It isn't the first step that concerns me, but both sides escalating to the fourth and fifth step—and we don't go to the sixth because there is no one around to do so. We must remind ourselves we are embarking on a very hazardous course."²⁶ Through this statement and the dialogue that followed, the President emphasized the importance of considering each step in the process and the implications of those steps. The President realized the importance of a response, but also knew that after Anderson was killed, the Crisis was "an entirely new ballgame."²⁷

By making everyone aware of the danger of the escalatory spiral, President Kennedy focused the ExCom on its responsibility to consider the implications of every step. Rather than mechanically implementing the planned response, Kennedy asked his team to verify that the U-2 was intentionally shot down by Soviet forces. He also asked them to consider what a surgical airstrike in Cuba would mean for US forces in Berlin and Turkey. By opening up the scope of the repercussions of action, the team looked at the conflict in terms of a global war instead of a localized airstrike. The President quickly decided that he would not authorize immediate retaliatory strikes against the SAM site at Banes but allowed

²⁶ Kennedy, *Thirteen Days*, 98.

²⁷ Kennedy, *Thirteen Days*, 98.

the ExCom to deliberate about launching strikes the following day or on Monday at the latest.

Following the President's decision to delay attacks on the offending SAM site, the focus turned from military action to diplomacy. Ultimately, this move enabled the President to focus on a response to Khrushchev's letters, while preserving options for military engagement and buying time for a diplomatic solution to take effect. Kennedy worked with the ExCom to devise a response to Khrushchev while simultaneously sending his brother Bobby to meet with Soviet Ambassador Anatoly Dobrynin. This two-pronged approach ensured that the Soviets received a clear and concise message from the United States in an attempt to de-escalate the crisis before an American response became necessary.

Until the downing of the U-2, both the Soviets and Americans relied on vague statements and diplomatic "hints and feints."²⁸ In the aftermath of Anderson's death, President Kennedy, like Premier Khrushchev, decided a direct approach was in order. Kennedy's written response, and that provided verbally through Bobby to Dobrynin, communicated clear incentives to reach an agreement and even more obvious threats if the conflict was not rapidly resolved. Bobby Kennedy leveraged the loss of the U-2 in his communications with Dobrynin. He later recalled, "I explained to him that in the last two hours we had found that our planes flying over Cuba had been fired upon and that one of our U-2s had been shot down and the pilot killed. I said these men were flying unarmed planes. I told him that this was an extremely serious turn in events. We would have to make certain decision within the next 12 or possible 24 hours. There was very little time left."²⁹ This move towards direct communication tied to timelines and consequences was driven by a concrete event: the loss of Major Anderson and his aircraft.

²⁸ Frankel, *High Noon in the Cold War*, 150.

²⁹ Frankel, *High Noon in the Cold War*, 151.

A single surface-to-air missile site destroying a lone aircraft and taking one life might seem like an insignificant event in the scale of global conflict. However, it proved exceedingly influential in shaping the course of the Cuban Missile Crisis. The loss of Major Rudolf Anderson and the U-2 that he was flying caused the US and USSR to realize the gravity of the situation, reassess their objectives, and step back from the brink of nuclear war.



Chapter 6

Legacy of Rudy Anderson and Cuban Missile Crisis

The strategic importance of reconnaissance was evident throughout the Cold War. Although reconnaissance had a major impact on decisions throughout the Cold War, it was especially significant during the Cuban Missile Crisis. From the discovery of nuclear capable ballistic missiles, to Major Rudolf Anderson's death, and finally the missions that verified the removal of missiles from the island, U-2 reconnaissance played a vital role in providing actionable intelligence that enabled President Kennedy to apply diplomatic pressure on Premier Khrushchev and the Kremlin. This chapter begins with an exploration of Major Rudolf Anderson's legacy--in the U-2 community, in his hometown, and throughout the Air Force. It then examines the impact of the Cold War on strategic thinking and civil-military relations. An examination of the aforementioned topics provides insight into the importance of U-2 operations during the Cuban Missile Crisis and the strategic significance of Major Anderson's last flight.

The Legacy of Major Rudolf Anderson

The loss of Rudy Anderson on 27 October 1962 had an effect on many people. As outlined in the previous chapter, the US, USSR, and Cuba each reacted differently to his death, but all were impacted by the gravity of the situation. These reactions resonated at the tactical, operational, and strategic levels of the Cuban Missile Crisis. Furthermore, Rudy's death had much longer lasting effects on his family, the U-2 community, his hometown of Greenville, South Carolina, and the United States Air Force.

When Rudy Anderson was shot down in October of 1962 his wife, Frances Jane Corbett, was at their home on Laughlin Air Force Base in Texas. Jane, like the other wives of U-2 pilots, had grown accustomed to

her husband being gone to unknown places for indeterminate lengths of time. According to Brigadier General (Retired) Gerald McIlmoyle, it was common for the U-2 pilots stationed at Laughlin to get only a few hours' notice before being asked to depart for another mission somewhere around the world.¹ This trip had been no different for the Anderson family, as Rudy had been asked to depart for California on short notice. While General McIlmoyle believes that many of the wives knew where their husbands were on this particular occasion, (primarily because most had asked their wives to send their golf clubs to Orlando), Jane had no way of being certain where her husband was or what missions he was flying. For the two weeks Andy had been gone this time, Jane was busy at home taking care of their two boys, Rudolf III, who was five when his father was killed, and James, who was three. Jane was also pregnant with a daughter, Robyn, who was born seven months later.

When the car carrying the Chaplain and Wing Commander Colonel John DesPortes arrived at her home on the evening of 27 October 1962, Jane was devastated. Seven months earlier, Jane Anderson had been traumatized by a false report of Rudy's death in an air crash. On that occasion, Rudy called just moments before the casualty team arrived and told her he was ok. That experience dramatically shook Jane, but Rudy was still alive and they moved on. However, this time when the casualty notification team arrived at her door, there would be no call. As Colonel DesPortes approached the front door of the Anderson home, Jane ran into the bathroom and locked the door. It took the prodding of her best friend, Marlene Powell, to coax her out of the bathroom. That same night President Kennedy hand-wrote a note of condolence to Jane that said, "your husband's mission was of the greatest importance but I know how deeply you must feel his loss."²

¹ Interview with Brig Gen (Ret) Gerald McIlmoyle, 2 Feb 2017.

² History, Strategic Air Command 1962-1963.

The President was right. Rudy's death shook his wife to her core. According to Marlene Powell, "She felt that if he hadn't been in the military, it wouldn't have happened. She was pretty bitter at the end. It was like I hardly knew her."³ Richard Heyser escorted Jane to Rudy's funeral in Greenville, SC. He recalls that she told him she wished it had been him flying that day and not Rudy. At the funeral McIlmoyle recalls that Jane was despondent; "Rudy's death blew her mind and she never recovered."⁴

Following Anderson's death and funeral, Jane moved her family to Georgia. She gave birth to the daughter that Rudy had always wanted seven and a half months later. Jane named their daughter Robyn, after her father's love of flight. Later in life Jane told Robyn that she had a very hard time believing that her husband was dead. Although Jane Anderson eventually remarried and had another child, she was never the same. While her former friends from the U-2 community tried to reach out to her, McIlmoyle said, "we couldn't do anything for her; she didn't want anything to do with the Air Force." Jane passed away in 1981 leaving behind two sons and two daughters. Rudy Anderson's family was significantly impacted by the events of 27 October 1962. They remain deeply private people, and according to Robyn Anderson Lorys, "the matter of our father's death is intensely personal."⁵ In an interview with the *Greenville News* in April of 1965, Jane told the reporter, "The price of freedom is heavy, we tend to take it for granted. Rudy never took it for granted. He was concerned over America and willing to give his life to

³ Michael Dobbs, "Into Thin Air," *Washington Post*, 26 October 2003

⁴ Interview with Brig Gen (Ret) Gerald McIlmoyle, 2 Feb 2017.

⁵ Bryan Bender, "A pilot's sacrifice helped defuse Cuban Missile Crisis," *Boston Globe*, 27 Oct 2012, <https://www.bostonglobe.com/news/nation/2012/10/26/shootdown-pilot-years-ago-propelled-peaceful-resolution-cuban-missile-crisis/hFM3xaCrZg4mLf4w0iXrKL/story.html>.

defend her. If our children can be anywhere near the sort of person their father was, they'll be my wealth."⁶

In addition to a family legacy, Rudolf Anderson impacted the lives of his fellow pilots, and in the process shaped the future of the U-2 and strategic reconnaissance. To those that flew with him he was remembered as "an outstanding pilot - you had to be of the highest quality to be in the U-2 program; he also was a good husband, a good father and a good Christian man."⁷ When Gary Powers was shot down over the Soviet Union the result had been to stop overflights of the USSR. After the loss of Rudy Anderson and his U-2, the CIA and USAF stood down all flights until the aircraft were fitted with a radar warning receiver (RWR). Anderson's aircraft had been equipped with a very primitive version of RWR but subsequent models would receive upgrades, stressing the importance of being able to detect, evade and/or jam enemy air defense systems. While no study has been conducted to examine the impact these systems have had since they were implemented, no US U-2 has been lost to a surface-to-air missile since 1962. The importance of the upgraded defense system was especially evident during the Vietnam conflict, in which no U-2s were lost to SAMs despite nearly 10,000 SA-2s fired by the North Vietnamese.⁸ The weapon that was designed to counter the U-2 was completely ineffective against the U-2s flying over Vietnam.

Not only did Rudy Anderson affect the future of the U-2, he had an impact on the future of the Air Force. President Kennedy posthumously awarded Anderson the first-ever Air Force Cross in 1964. Until that

⁶ Lutie McGee, "Late Major Anderson's Family Bravely Facing Life, With Pride," *Greenville News*, 5 April 1964, 7.

⁷ Michael Dobbs, "Into Thin Air."

⁸ Air Force Flight Dynamics Laboratory, "A Comparative Analysis of USAF Fixed-Wing Aircraft Losses in Southeast Asia Combat (Wright Patterson AFB, OH: Air Force Systems Commander, 1977), 4.

point, the highest award allowed for non-combat action in the Cold War was the Bronze Star. President Kennedy believed Anderson's actions warranted much more and elected to bestow upon him the Air Force Cross, Purple Heart, and Cheney Award.⁹ The AF Cross citation stated that "Major Anderson...materially assisted our leaders in charting the nation's military and diplomatic course."¹⁰ As the first recipient, Anderson set the tone for the 191 other individuals (to date) who would receive the award.¹¹

In addition to shaping the future of the Air Force Cross, his legacy impacts the over 400 student pilots who graduate from pilot training at Laughlin AFB each year.¹² In 2001 the Air Force honored Rudy Anderson by renaming its operations building Anderson Hall. Anderson Hall is the location where over 25% of all US Air Force pilots are now trained. Each day, walking into the building, the students pass a plaque describing Anderson's action and a display of his partial pressure suit along with his Air Force Cross and the accompanying citation. Anderson's example is a constant reminder to the students that he and many pilots in the past gave their lives under enemy fire. It is also a reminder of the importance of the service to which they are committing, the potential dangers that lie ahead, and the reason that they must vigorously train and prepare every day.

⁹ The Cheney Award was established in honor of First Lieutenant William Cheney, a US pilot who died in a collision over Foggia, Italy on 20 January 1918. The award was established in 1927 and is awarded annually to an airman for an act of valor, extreme fortitude or self-sacrifice in a humanitarian interest, performed in connection with aircraft. This act does not have to be military in nature and many recipients, like "candy bomber" Colonel Gail Halvorsen received the award for acts of service rather than combat.

¹⁰ History, 4080 SRW History, 1962

¹¹ Air Force History,
www.af.mil/history/spotlight_print.asp?storyID=123009509

¹² Laughlin AFB Fact Sheet, retrieved from www.laughlin.af.mil

In his hometown of Greenville, South Carolina, Anderson is remembered by those who knew him growing up. While the memories have faded as time has passed, for some members of the Greenville community interest in Major Anderson has grown. In 1998, Greenville resident and former Air Force officer Jack Parillo began a campaign seeking Congressional approval to award Anderson the Medal of Honor. This was not the first time that the idea of awarding the Medal of Honor had been considered. Some had called for it in 1962 and 1963 but the Commander of Strategic Air Command, General Power, rejected the idea.¹³ Mr. Parillo believed that, as the lone casualty of the Cuban Missile Crisis, Anderson earned the nation's highest honor. Parillo wrote a letter to the surviving pilots who flew with Anderson, asking for their support. Fellow pilot Steve Heyser thought that Mr. Parillo's proposal was ridiculous and wrote back telling him so. Heyser said that he believed that Andy would be turning over in his grave with embarrassment if he knew about the proposal. He and the other pilots believed that Anderson was just "doing his job" and that "the only thing Andy did, and we didn't do, was that he died."¹⁴

Despite the feelings of Major Anderson's fellow pilots, almost twenty years later Mr. Parillo continues his campaign to convince Congress and the Air Force to upgrade Anderson's Air Force Cross to the Medal of Honor. He believes that Rudy's death directly led to the defusing of the Cuban Missile Crisis by bringing Khrushchev and Kennedy to the bargaining table. Additionally, he is confident that the fear of further escalation after an American pilot was killed by a Soviet SAM made the dangers of the situation apparent and saved both nations from a nuclear exchange. According to Parillo, Anderson's death brought

¹³ History, 4080 SRW History, 1963.

¹⁴ Michael Dobbs, "Into Thin Air"; Michael Dobbs 2002 interview with Steve Heyser.

the world back from the brink of destruction and therefore he is deserving of the highest possible honor.

In an interview, Brigadier General McIlmoyle said that no one in the U-2 community cared about the medals. McIlmoyle stated that it was an honor to meet the President but that the medals themselves meant little. What the 11 men that flew the missions over Cuba in October of 1962 cared about was getting the job done and ensuring that they presented their leaders with the best intelligence possible. General McIlmoyle added, “Rudy knew the threat, we all knew the threat, but we flew the missions anyway, that was our job.” As the 55th anniversary of the Cuban Missile Crisis approaches, the question is once again being asked. Did Major Rudolf Anderson, “distinguish himself through conspicuous gallantry and intrepidity at the risk of life above and beyond the call of duty?”¹⁵ Or, as those who flew with him have said, was he simply doing his job that October day?

While few know his name or the significance of his actions, Rudolf Anderson is a part of popular culture surrounding the Cuban Missile Crisis. The loss of Anderson's U-2 was portrayed in the climax of New Line Cinema's 2000 film *Thirteen Days*. In the film, American actor Charles “Chip” Esten plays the role of Anderson. The scenes leading up to Anderson's flight are fictionalized with a personal call from Kennedy's assistant, Kenny O'Donnell, telling Anderson that his mission was important and to be safe. Robert McNamara disputed O'Donnell's role in the ExCom and stated that Ted Sorenson was the key confidant of the President. There were also no calls from the White House to McCoy AFB throughout the Crisis. Anderson's role in the Cuban Missile Crisis was also referred to in the 1974 TV movie *The Missiles of October*. Rudy did

¹⁵ Military Awards for Valor, “Description of Medals: Top 3” (Washington DC: Department of Defense), retrieved from <http://valor.defense.gov/Description-of-Awards>.

not make an appearance in the movie, but the impact of his death on the President is portrayed by actor William Devane. Similar to his appearance in *The Missiles of October*, the events surrounding Rudy's death were discussed in the 1985 TV show "Call to Glory" hosted on the ABC network. Anderson's appearance in these shows has highlighted the role he played in the crisis, but they are a snapshot in time that look at the death of the man rather than his life of service.

Although there may be some debate about what award Rudolf Anderson should have received, there is no debate that he gave his life serving his country at a time of extreme peril. Additionally, there should be no debate that his death was the catalyst that drove the US and USSR to seek a peaceful resolution to the Crisis.

Strategic Thinking in the Cold War

As outlined in Chapter 3, President Eisenhower grappled with the tension between the need for gathering intelligence on the Soviet Union and the danger of provoking a Soviet reaction. Throughout his Presidency, Eisenhower weighed all decisions through the strategic lens of assured destruction.¹⁶ Once the USSR gained the ability to strike the US with atomic, and later thermonuclear weapons, Eisenhower's primary goal was the prevention of nuclear war. Therefore, while reconnaissance operations were necessary, they were always weighed against the risk of pushing the Soviets to respond. Throughout his second term, Eisenhower retained tight control over all reconnaissance operations over or around the USSR and the People's Republic of China (PRC).

While this level of control was something Eisenhower resented when he was in the military, as President he understood that the value of information gained did not always outweigh the possible consequences. Eisenhower would often approve the planning of concepts or even

¹⁶ Campbell Craig, *Destroying the Village: Eisenhower and Thermonuclear War*, (New York, NY: Columbia University Press, 1998), X.

operations but would not approve their execution unless he felt the strategic impact was greater than the chance for miscalculation. This policy frustrated the CIA and military leadership who felt they were being handcuffed by the former General. When President Kennedy took office in January of 1961, he inherited one such plan, the infamous Bay of Pigs Invasion.

Relations between Cuba and the US deteriorated dramatically towards the end of Eisenhower's presidency. In 1959, following Fidel Castro's overthrow of the Cuban government, President Eisenhower implemented a trade embargo on Cuban goods. A short time later, Castro led a brutal purge of dissenters and those who did not support his insurgency against President Batista. In reaction to the gross human rights violations and increasing ties between Cuba and the USSR, Eisenhower broke off diplomatic relations with Cuba. Additionally, Eisenhower approved, but did not launch, a covert plan devised to overthrow Castro. When Kennedy assumed the presidency in 1961, he retained Eisenhower's advisors who had helped plan the operation. These advisors saw an opportunity to act and persuaded the young President to implement the plan sending approximately 1,200 CIA-trained Cuban exiles to land at Bahia de Cochinos (Bay of Pigs) on Cuba's southern coast.¹⁷ The coup attempt failed miserably, with most of the exiles killed or captured and the Cuban people united ever more firmly behind Castro, rather than rising up to overthrow him.

Kennedy was embarrassed by the incident and the disaster weighed heavily on his decisions for the remainder of his life. JFK was concerned about how such a failure, mere months into his Presidency, would reflect upon his leadership and the nation's credibility. However, always one to learn from both mistakes and success, Kennedy saw the

¹⁷ Theodore C. Sorensen, *Kennedy*, (Old Saybrook, CT: Konecky & Konecky, 1965), 294-309.

failure as an important lesson regarding international policy decision making. He knew that in the future he had to contemplate the strategic impact of his decisions and consider both the effects of success and the consequences of failure. Following the Bay of Pigs, Kennedy kept his military advisors on a shorter leash and took a more measured view towards strategic decisions.¹⁸

However, Premier Khrushchev saw the incident as a sign of weakness which he felt he could exploit. This led to the deployment of Soviet short-range ballistic missiles (SRBMs) and medium-range ballistic missiles (MRBMs) to the island of Cuba in an attempt to gain a foothold in the Western Hemisphere.¹⁹ The result of the deployment of those missiles became Kennedy's ultimate test during his presidency and the closest that the Cold War ever came to escalating out of control. Based on the experience of the Bay of Pigs and the Vienna Summit, Khrushchev felt he could bully President Kennedy into submission.

Rather than a pushover, Khrushchev met a deliberate and calculating adversary in 1962's Cuban Missile Crisis. As outlined in Chapter 4, Kennedy applied the lessons of the Bay of Pigs and deliberately considered the consequences of all actions before making a decision. His prudent use of reconnaissance and diplomacy resulted in a de-escalation of the Crisis. Instead of acting rashly or responding to the adversary kinetically, Kennedy used strategic reconnaissance to make strategic decisions. Kennedy studied what the enemy was doing and, rather than keeping that information stove-piped, he revealed it to the world to shape a strategic narrative, much like Khrushchev's unveiling of Gary Powers and the U-2 photos in 1960. The deliberate use of reconnaissance photos as both a diplomatic and military instrument of

¹⁸ Sorenson, *Kennedy*, 294-296.

¹⁹ Dino A. Brugioni, *Eyeball to Eyeball: The Cuban Missile Crisis*, (New York, NY: Random House: 1990), 61.

power garnered international support and helped bring about an end to the Crisis. As President Kennedy told Brigadier General McIlmoyle following the Crisis, “Thank you boys for getting me those pictures, they allowed me to negotiate a peaceful resolution to a crisis that could have ended the world.”²⁰

For the remainder of the Cold War, the threat of escalation and the potential for nuclear holocaust shaped national security. President Nixon ensured he had the support—or at least the acquiescence--of the Soviet Union and China through détente before escalating attacks against North Vietnam in the 1972 LINEBACKER I & II operations. Before commencing both of these operations, Nixon ordered significant reconnaissance of the target areas to ensure maximum destruction and force the enemy to the bargaining table. Likewise, President Reagan increased defense spending dramatically and invested in reconnaissance systems like the TR-1 and the E-8 JSTARS. He did so in order to monitor Soviet responses as he built up the US nuclear enterprise, espousing a belief that “the Soviet Union cannot possibly match us in an arms race.”²¹ Much like Eisenhower and Kennedy, later US presidents were cognizant of the potential for escalation and the strategic impacts of their decisions for the remainder of the Cold War. How those decisions impacted relations between the US and USSR/PRC varied, but the importance of considering strategic impacts of tactical actions remained at the forefront of US decision making.

²⁰ Interview with Brig Gen (Ret) Gerald McIlmoyle, 2 Feb 2017.

²¹ Daryl G. Kimball, “LOOKING BACK: The Nuclear Arms Control Legacy of Ronald Reagan,” (Washington DC: Arms Control Association, Jul 2004). Retrieved from https://www.armscontrol.org/act/2004_07-08/Reagan.

Chapter 7

Conclusion

I cannot get Major Anderson Jr. out of my mind. The thought will not go away that a time may come when it will be a tradition for Americans – and foreigners as well – to place wreaths at the grave of the U-2 pilot shot down over Cuba, our one casualty in the showdown – our “known soldier” representing hosts of others who did not die in one of history’s most decisive victories.¹

Eric Sevareid, CBS journalist, and commentator

Many scholars agree that the most intense moment in the near 50-year Cold War between the United States and the Soviet Union was the Cuban Missile Crisis. This thirteen-day period in 1962 began with the discovery by U-2 aircraft of Soviet missile installations on the island of Cuba. These offensive, medium, and intermediate-range ballistic missiles were less than one hundred miles away from Florida and capable of reaching nearly any point on the continental United States, with Washington, DC less than twenty minutes time of flight away.

Almost fifty-five years ago, the US and USSR were poised on the brink of destruction. To many, it appeared that both nations were engaged in an escalatory spiral that could only end in a nuclear exchange. Throughout the US, families tuned in to their radios and were glued to their television sets, anxiously awaiting news about the Crisis while anticipating an announcement of war with the Soviet Union. Civil defense programs sprung up everywhere in preparation for a Soviet attack. Students participated in daily “duck and cover” drills at school, citizens stocked up on non-perishable supplies, and churches everywhere called on their faithful to pray for peace. Pope John XXIII addressed “all men and women of goodwill” through Vatican Radio and

¹ Quoted in James Wilson, “Greenville U-2 Pilot Was Lone US Casualty of Cuban Missile Crisis,” *Greenville News*, 29 September 1965.

written statements to the White House and Kremlin. The Pope pleaded, “I beg heads of state not to remain insensitive to the cry of humanity: peace, peace. Let them do all that is in their power to save peace; in this way, they will avoid the horrors of war, the appalling consequences of which no one could predict. Let them continue to negotiate.”²

However, as the Crisis progressed, it seemed that even the smallest escalation would propel the two nations to war. That escalation came on the morning of 27 October 1962 and shocked the leaders of both nations. A Soviet-manned SA-2 site fired upon Major Rudolf Anderson’s U-2, instantly killing him and destroying the aircraft. The established standard operating procedures dictated a swift response, a strike against the offending missile site and possibly the entire air defense network. Such a strike would inevitably kill Soviets and force the USSR to retaliate. Many members of the ExCom and Politburo believed that war was the only possible outcome and began preparation for hostilities. Years after the Crisis, Secretary of Defense Robert McNamara remembered “leaving the White House at the end of that Saturday and thinking that might well be the last sunset I ever saw.”³

Despite the rhetoric, war did not ensue. Major Anderson’s death had a profound, although unexpected, effect on the Crisis. Rather than a rally to arms and a declaration of war, his death came as a wake-up call to President Kennedy and Premier Khrushchev. The two men understood that the chance for war was high and that their decisions had potentially devastating consequences. Anderson’s passing led the two leaders to the negotiating table instead of the war room.

² Vatican Radio, “An Historical Perspective: Pope John XXIII and the Cuban Missile Crisis,” 27 March 2012, http://en.radiovaticana.va/storico/2012/03/27/an_historical_perspective_pope_john_xxiii_and_the_cuban_missile/en1-575062.

³ Sony Pictures Classics presents “The Fog of War : Eleven Lessons from the Life of Robert S. McNamara.” (Culver City, CA: Columbia TriStar Home Entertainment, 2004).

Throughout the evening of “Black Saturday” and into the following day, an agreement was reached and both Kennedy and Khrushchev announced the removal of missiles and the end of the Crisis. The people of the world breathed a collective sigh of relief. The most intense and dangerous moment of the Cold War passed peacefully. McNamara and billions of others would live to see many more sunsets due to Rudy Anderson’s death. The heavy tensions that weighed on Americans were lifted, the Crisis complete.

Given this reality, Eric Sevareid’s statement seems poignant. Anderson’s life was sacrificed so that the rest of the world could carry-on. Sevareid genuinely believed that Major Rudolf Anderson would become a national hero, a symbol of sacrifice, and our “known soldier.” Time has shown, however, that Sevareid’s prediction could not be further from the truth. In reality, the shooting down of the U-2 over Cuba is an often-overlooked event in the Cuban Missile Crisis, and the man whose death helped bring an end to the Crisis has been largely forgotten. Even in the immediate aftermath of the events of October 1962, Anderson was regularly referred as simply “the U-2 pilot,” with more emphasis placed on the platform than the man.

Today, Anderson’s memory has faded further into obscurity. Only one of his fellow pilots is still alive, the rest having succumbed to disease or old age. Few outside of Anderson’s hometown of Greenville, South Carolina even recognize his name, and fewer still know anything about him other than the fact that he died in the skies over Cuba.

Perhaps this is what Rudy would have wanted. Maybe the quiet, hard-working man, who did not seek attention and said that he would continue to serve even if he was not being paid to do so, would prefer to be forgotten. His fellow pilots have stated, “as long as the mission was complete that was all that mattered, Andy would not care who got the

credit for it.”⁴ Likewise, it is possible that the truth is, as Steve Heyser said, that “the only thing Andy did, and we did not do, was that he died.”⁵

However, the evidence presented here shows that Rudy Anderson’s life, and death, had a profound impact on the Cuban Missile Crisis. His blood spilled on Cuban soil made very real the threat of war. His sacrifices in life and death ensured that national leaders had the tools they needed to make decisions of grand strategic importance. While Rudy did not want to be a hero and did not seek fame or glory, he should be remembered.

In 1997, Anderson’s Clemson Reserve Officer Training Corps (ROTC) classmate and friend, Frank Sherard, wrote a letter to Senator Strom Thurmond, beseeching the Senate to award Rudy the Medal of Honor. Sherard’s efforts did not gain traction, but the words he wrote should. He wrote that we must remember Anderson “so that on other nights [sic], no matter how dark and cold, no matter how desolate or alone, no matter how far from home or how great the odds may seem, other men will remember, if not the name of Major Anderson, the mere important fact that one man can make a difference. Let Congress recall and proclaim that act, just as they did for Captain Charles A. Lindbergh and General William C Mitchell so that every American will know that he or she as a single individual, may truly be able to save our nation in time of crisis.”⁶

Sherard’s statement is accurate and timeless. In a world of intense competition and focus on personal recognition, Steve Heyser’s statement takes on a new meaning. Rather than a negative connotation, the observation that Rudy Anderson was just doing his job that October

⁴ Brigadier General Gerald McIlmoyle Interview, 2 Feb 2017.

⁵ Michael Dobbs, “Into Thin Air,” *Washington Post*, 26 October 2003.

⁶ S. F. Sherard & Sons, Founder S.F. Sherard & Sons, to the Honorable, J. Strom Thurmond, letter, 11 June 1997.

morning is powerful. He volunteered to take on an extra mission when he could have canceled due to weather and joined the rest of the squadron on the golf course. Rudy flew over the most heavily contested part of Cuba, after knowing that his friend and fellow pilot was fired upon flying the same routing just two days prior. Anderson did not do these things for glory or recognition; he did them because they needed to be done and he had trained hard and prepared diligently to do them. Remembering Rudolf Anderson's legacy is important, and not only because of his death or its impact on the Cuban Missile Crisis. It is important to remember the way he lived his life, a life of integrity, never taking shortcuts or the easy way out; a life of service to his nation and those around him; a life focused on excellence in every endeavor in which he participated. This legacy is the real story of Rudolf Anderson and the eleven men that took to the skies over Cuba in October of 1962 and is one that we must never forget.

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