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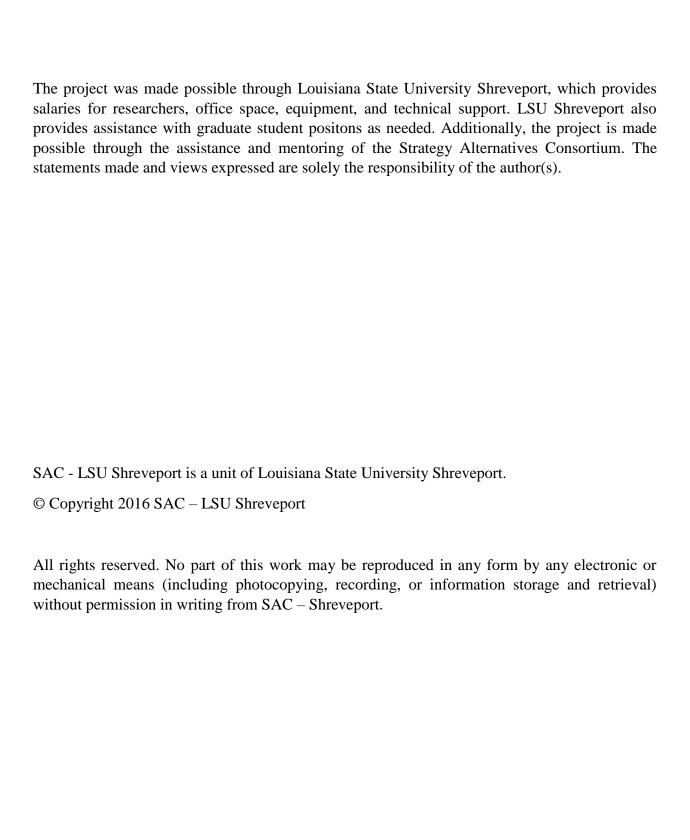


OPERATION SENIOR
SURPRISE: The Secret
Squirrels and the opening
of Operation Desert Storm

Report of the LSU Shreveport unit for the SAC Symposium, January 16, 2016

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Prepared for
The Strategy Alternatives Consortium
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Preface

The Strategy Alternatives Consortium (SAC) was developed to advance national policies, plans, strategies, programs (resources), and professionals to enable strategic alternatives development. Initially, the Consortium consists of two parts. External to the Louisiana State University System is a non-LSUS 501(c3) organization comprised of retired senior officers from the United States Air Force and other branches, active duty officers and professional analysts as well, that act as a project initiating, outside funding source (if available), and co-sponsor for symposia and publications. This entity is the Strategic Alternatives Council. The second unit, the Strategic Alternatives Center operates under the umbrella of the LSU System 501c 3 status as a non-profit and all accounting is conducted through LSUS. LSUS houses and maintains all office space and computer access.

The Strategic Alternatives Center (SAC) at LSUS (SAC-LSUS) examines strategic issues and events across time and regions, offers analysis and define outcomes, and identifies alternative solutions. SAC-LSUS is the focal point in collecting, synthesizing, and archiving data. The unit also acts as a single point of contact for information, inquiries, and requests for information from the Strategic Alternatives Consortium collaboration network (as entities in other academic institutions are added), public and news media. This includes being as well, the one-stop distribution point for Strategic Alternatives Center papers, presentations, and other materials as appropriate.

The Strategy Alternatives Consortium's goals are: (1) Identify major strategic events or processes, (2) Provide results to agencies or clients, (3) Deploy the results in publications, symposia, and to the public, and (4) Educate leaders, professionals, students and the public.

The Strategy Alternatives Consortium's objectives are: (1) Identify and clarify positions of strategic thought, (2) Educate the anticipated audience of these findings, and (3) Publish the results to enhance future outcomes.

SAC-LSUS serves to further the mission of the United States Air Force Global Strike Command. The Center provides a multi-disciplinary approach to strategic issues faced by the United States Air Force and Department of Defense. The central mission of the Center is to examine issues brought forth in direct contact with Air Force and Department of Defense officials and provide in-depth analysis of emerging issues. LSUS's close proximity to Barksdale Air Force Base has historically had, and continuing through today, provides close ties with base personnel and leadership.

Many faculty members have close relationships with Barksdale Air Force Base either through continued direct contact or retirement. Among the historians at LSUS, Dr. Gary Joiner (Professor and Chair of the Department of History and Social Sciences) has worked with the Eighth Air Force Museum (now Global Airpower Museum) at the base, advising on curation of the collections and cataloguing objects. During 2012-2014 Dr. Joiner committed to an eighteen month-long assistance to both the Eighth Air Force general staff and Global Strike General Staff

in commemorating the 70th anniversary of the creation of the Eighth Air Force, the 60th anniversary of the B-52, and the 40th anniversary of the Linebacker II operations in the Vietnam War, which drove the North Vietnamese to the negotiating table and effectively ended that war. At the end of this effort early in 2014, Dr. Joiner worked with retired Air Force Lt. General Robert Elder to create a symposium at Barksdale Air Force Base to coincide with the annual Air Force-wide bombing competition. The result was a well-received symposium featuring Dr. Joiner and Dr. Alexander Mikaberidze (Associate Professor of History at LSUS) lecturing to the Global Strike and Eighth Air Force leadership, headquarters staff, and air crews. Dr. Joiner's topic detailed the use of air power as a strategic and tactical deterrent in Operation Northern Watch and Operation Southern Watch between Operation Desert Storm and Operation Iraqi Freedom. Dr. Mikaberidze's lecture covered the development and changing environment of the Soviet and later Russian Air Force from 1970 to the present. This symposium was the impetus for the development of the Strategic Alternatives Center. The result is an ongoing relationship between LSUS and these commands with the intention of widening the scope of symposia and scholarly white papers and to bring historical and geopolitical events into focus for Air Force decision makers and other interested agencies and partners.

Barksdale Air Force Base was created in the mid-1930s as a major expansion of U.S. Army Air Corps presence in the South. The original concept of the airfield being home to the 3rd Tactical Air Wing changed with World War II, when Barksdale Airfield became the home of bomber training for B-17, B-24, B-26 and B-29 bombers. It also served as home for anti-submarine bomber patrols in the Gulf of Mexico during World War II. After the war, and with the creation of the Department of the Air Force, Barksdale become the headquarters of the Second Air Force and took on the mission of hosting B-47 and later B-52 strategic nuclear bombers. At the close of the Vietnam War in 1975, Barksdale became home of the Eighth Air Force, which remains there today. In addition, with the realignment of strategic forces, Barksdale is also the headquarters of Global Strike Command, which controls all nuclear capable war fighting assets in the United States Air Force. The Center and Louisiana State University as whole, are committed to this endeavor.

Executive Summary

Operation SENIOR SURPRISE, also known as Operation Secret Squirrel, was part of the air armada that brought Iraqi command and control ability, power transmission, and communications down on the first night of Operation DESERT STORM on January 16-17, 1991.

The mission, using seven B-52 G models with augmented crews was launched from Barksdale Air Force Base, Louisiana. The mission was, and remains, the longest wartime combat mission in aviation history. The crews flew over 14,000 miles in thirty-hours, flying to the target launch point, firing air launched cruise missiles, and returning to their home base. The bombers were the first combat aircraft launched to begin Operation DESERT STORM. Barksdale Air Force Base was chosen for the mission because it was the only base that housed the missiles and could strike

Iraq within sixteen hours. Operation SENIOR SURPRISE was the only combat mission launched directly from the continental United States during Operation DESERT Storm. The weapons deployed were top secret AGM-86C CALCM conventional air launched cruise missiles. They were converted from AGM-86B ALCM nuclear warhead carrying weapons. The AGM-86C CALCM is still in use along with the AGM-86D CALCM variant (with a deep penetrating warhead, still are able to attack targets anywhere in the world when called upon. This was the only mission of its kind during Operation DESERT STORM, due to the intensity and degree of destruction on the night of January 16-17, 1991, made and similar missions unnecessary.

Geopolitical Context

The 1980s witnessed many global changes that could not be readily imagined prior to that tumultuous decade. The United States experienced a period of rampant prosperity and increased military might as its perceived major rival, the Soviet Union, appeared teetering on collapse during the later 1980s. The Soviets lost control of its Eastern Bloc Warsaw Pact satellite states as they looked to the West for trade and political alliances. East Berliners, fed up with local conditions and the close proximity of western advantages, tore down a central portion of the Berlin Wall on November 9, 1989. This event proved catastrophic for the Soviets. In a relatively short period, the Soviets withdrew the bulk of their troops from Eastern Europe, the former Warsaw Pact nations realigned themselves to the West and the Soviet Union imploded, becoming fifteen separate nations. East and West Germany reunited into a single powerful entity.¹

While Europe experienced a major realignment, the Middle East witnessed the twentieth century's longest conventional war between the Islamic Republic of Iran and the Republic of Iraq. The war raged from September 1980 until August 1988. Iraq precipitated the conflict by invading Iran following the Shiite revolution in Iran. The Iranians pushed the Iraqis out of Iran by 1982 and for the next six years, they pressed deeper into their foe's territory and solidified their gains. The war settled down into a World War I style conflict with massive infantry charges countered by chemical weapons, particularly mustard gas. Most Middle Eastern nations supported Iraq due to fears of Shiite revolutions in their own lands. The United Nations brokered a cease-fire on August 20, 1988. Hostilities ended with United Nations Resolution 598.² Both sides agreed to pre-war boundary reinstatement.³ The Iraqi military increased his military tenfold to six million men.⁴

The collapse of the Berlin Wall and the weakened Soviet Union left the United States as the only Super Power. It was generally believed that this might be the end of the eternal threats of nuclear war and, perhaps, even large scale conventionally waged wars. This proved incorrect. The seeds

¹ Jeffrey J. Clarke, War in the Persian Gulf: Operations Desert Shield and Desert Storm August 1990 – March 1991 (Washington, D.C.: Center of Military History, United States Army, 2010), 1.

² United Nations Resolution 598.

³ Afshin Molavi, *The Soul of Iran: A Nation's Journey to Freedom* (rev. ed.) (London: W.W. Norton & Company, 2005), 152.

⁴ Secretary of Defense (SECDEF) unclassified report "Desert Storm, Final Report to Congress," April 1992, 42-46.

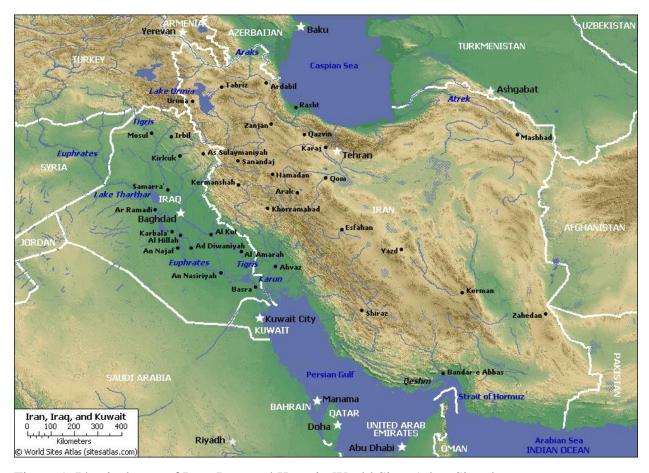


Figure 1. Physical map of Iran, Iraq, and Kuwait. World Sites Atlas. Siteatlas.com

sown in the Iraq-Iran War led to large scale United States involvement in the region which lasts today, a quarter century later.

Saddam Hussein, the Iraqi dictator, squandered the last vestiges of Western good will in 1990, when he threatened to annex the small sovereign nation, the Emirate of Kuwait, lying on his southern border. Kuwait is extremely rich in oil, closely allied to its other neighbor, Saudi Arabia, and is pro-western in business and diplomacy. Saddam laid claim to Kuwait through his contention that the Emirate was the nineteenth province of Iraq and that it had been carved out of Iraq by British interference in the Anglo-Ottoman Convention of 1913. The Iraqis accused the Kuwaitis of slant drilling under the border and stealing Iraqi oil, but the central reasons for aggression were the Iraqi intention to annex the Kuwait oil fields and Iraq's inability to pay repay loans to Kuwait for largely financing Iraq's role in the Iran-Iraq War for approximately \$80 billion. During the summer of 1990 Iraqi financial reserves were down to three months and

⁵ The Anglo-Ottoman Convention of 1913 was signed but never ratified due to the outbreak of World War I.

⁶ Thomas C. Hayes, "Confrontation in the Gulf: The Oilfield Lying Below the Iraq-Kuwait Dispute," *The New York Times*, September 3, 1990; Tom Cooper, "Iraqi Invasion of Kuwait, 1990" Air Combat Information Group August 26, 2007. http://www.acig.info/CMS/index.php?option=com_content&task=view&id=68&Itemid=1

inflation soared to forty percent.⁷ Late July witnessed attempts by Saudi Arabia and Egypt to mitigate the crisis, but the Iraqi delegation cut the meeting off on August 1, citing Kuwaiti unwillingness to discuss debt relief.⁸

On the eve of the invasion of Kuwait, Iraq was the strongest military power in the Persian Gulf region. The Iraqi military boasted 5,500 main battle tanks, 3,700 field artillery guns, 10,000 armored vehicles of various types,160 helicopters and fifty combat divisions within seven corps. The Iraqi Air Force flew between 500 and 600 modern combat fighter aircraft with battle seasoned pilots and crews. These were primarily French Mirage F-1s, and Soviet MiG-29s and Su-24s. Iraqi mobile and static air defense operated between 1,000 and 1,500 surface to air launchers (SAMs) and between 4,000 and 600 anti-aircraft guns (AAA).

Iraq-Kuwait War

Saddam Hussein sent an overwhelming force of arms into Kuwait early on the morning of August 2, 1990. Kuwait, a nation of only 14,000 square kilometers, contained a population of 1.6 million people. Defending it were five squadrons of fighter aircraft, two squadrons of helicopters and three brigades of land forces. The Iraqis attacked with three armored divisions of the elite Republican Guards, which raced toward Kuwait City. While the Republican Guards secured the vital roads and seized the capital, second tier units spread out to capture the oil fields, refineries, and oil loading port facilities. The Kuwaitis were completely overwhelmed by the Iraqi forces with the survivors fleeing to friendly countries in the region, Kuwait fell within two days and Iraqi forces dug in on the Kuwait-Saudi Arabia border. 12

Operation Desert Shield

The United Nations Security Council met the same day that Iraq invaded Kuwait. They denounced the invasion and issued United Nations Resolution 660, which contained four primary points: a condemnation of Iraq for launching the strike, a demand for all Iraqi forces to be withdrawn immediately from Kuwaiti territory to *status quo ante*, for Iraq and Kuwait to initiate negotiations to resolve their differences and support all efforts, especially by the League of Arab States in this regard, and to meet as often as necessary to consider further steps to ensure that all parties complied with the resolution.¹³

The United States and its traditional allies were concerned from the day of the invasion that Saddam's real objective was to consolidate his hold on the Kuwaiti oil fields and then strike into Saudi Arabia to capture those assets as well while resistance was weak. After a quarter century it

⁹ Center for Strategic and International Studies (CSIS), unclassified study "Iraq's Military Capabilities: Fighting a Wounded but Dangerous Poisonous Snake," December 2001; Dennis W. Pinner, Second Bomb Wing Historian, Barksdale Air Force Base, LA, "Operation Secret Squirrel," unclassified report, History of Air Power Course 08-A, 3.

⁷ SECDEF, "Desert Storm," 42-46.

⁸ Ibid.

¹⁰ CSIS, "Iraq's Military Capabilities"; Pinner, Operation Secret Squirrel, 3.

¹¹ Cooper, "Iraqi Invasion of Kuwait, 1990."

¹² SECDEF, "Desert Storm," 42-46.

¹³ United Nations Security Council Resolution, "Resolution 660," August 2, 1990.

appears that this was not the case. The Iraqi dictator's war plan seems to have stopped at the Kuwait-Saudi Arabian border and then dig in and hope that the regional powers would agree to his claims of ownership, which were similar to Adolph Hitler in Poland in 1939.

The United Nations watched and waited for Iraqi action but none came. The United States had relatively few assets in the region that could be called upon to repel an Iraqi thrust into Saudi Arabia or drive them out of Kuwait. Planning began immediately for a major response with the realization that sensitivities among the Arab states required that they be brought fully on board. All nations that agreed to help in any manner were accepted. The United States, acting through the UN, built a coalition of interested parties which included thirty-four nations which later became known as the "Coalition of the Willing:" Afghanistan, Argentina, Australia, Bahrain, Bangladesh, Canada, Czechoslovakia, Denmark, Egypt, France, Germany, Great Britain, Greece, Hungary, Honduras, Italy, Kuwait, Morocco, The Netherlands, Niger, Norway, Oman, Pakistan, Poland, Portugal, Qatar, Saudi Arabia, Senegal, South Korea, Spain, Syria, Turkey, the United Arab Emirates, the United Kingdom, and the United States. 14 As the alliance formed around United States' efforts, the United Nations basically ceded its military control under Chapter VII of its charter to the United States. 15 At the head of the coalition leadership was U.S. General Norman Schwarzkopf, Jr. The air campaign was led by the U.S. Central Command's Commander-in-Chief, U.S. Air Force Major (soon Lieutenant) General Chuck Horner. The commander in charge of the planning and bombardment of Iraq was Lieutenant General Buster Glosson. During the Gulf War and the months leading up to it, Glosson commanded the 14th Air Division (Provisional) and, simultaneously, served as director of campaign plans for the U.S. Central Command Air Forces based in Riyadh, Saudi Arabia. Glosson designed the plan to eliminate the Iraqi army's command and control structure on the first day of what became Operation Desert Storm.¹⁶

The United States made a concerted effort to keep the Soviet Union informed. By late October the two great powers reached an agreement that the use of force should be authorized. This was a particularly sensitive issue since the Soviets were the primary weapons providers to the Iraqis. With the coalition formed and forces pouring into the region at an ever increasing rate, The United Nations Security Council passed Resolution 678 on November 29, 1990. This resolution authorized the use of all appropriate force against Iraq if it did not completely withdraw from Kuwait before January 15, 1991. This effectively set the planning schedule for the beginning of Operation GULF STORM. Troop lives in the theatre increased to approximately 500,000 U.S. and 200,000 from twenty-seven participating coalition members. 19

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¹⁴ Steve Schifferes, "US says 'coalition of willing' grows," *BBC News US Edition*, March 21, 2003, http://news.bbc.co.uk/1/hi/world/americas/2870487.stm

¹⁵ B.E. Urquahart, "The UN and International Security after the Cold War," in A. Roberts and

B. Kingsbury (eds.), United Nations, Divided World Second ed. (Oxford: Oxford University Press, 2000), 81-103.

¹⁶ ABC News "Interview with General Buster Glosson," ABC Online, March 17, 2003; Al Santoli, "The Price," (Bowling Green, KY) *Daily News*, September 26, 1993.

¹⁷ Urquahart, "UN and International Security," 84.

¹⁸ United Nations Security Council Resolution, "Resolution 678," November 29, 1990.

¹⁹ "UN and the Gulf War" case study, https://www.polity.co.uk.

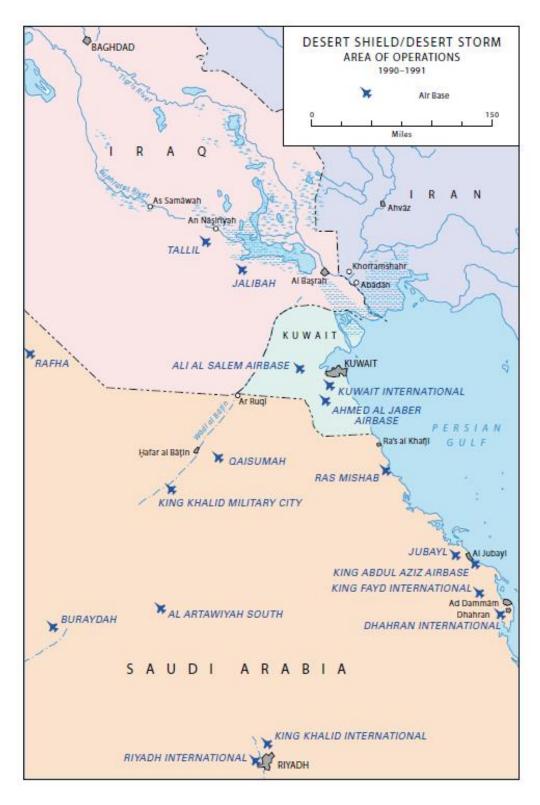


Figure 2. Map of Operation Desert Shield and Operation Desert Storm area of operations. Source: Jeffrey J. Clarke, *War in the Persian Gulf: Operations Desert Shield and Desert Storm August 1990 – March 1991* (Washington, D.C.: Center of Military History, United States Army, 2010), ix.

A New Secret Weapon

The primary nuclear cruise missile for the United States Air Force was the AGM-86B air launched cruise missile (ALCM). The ALCM program began in 1974 as an innovative response to increases in Soviet air defenses against manned bombers. Boeing Integrated Defense Systems designed the missile specifically for the B-52, making the venerable bomber a threat from as much as 1,500 miles from target and creating a force multiplier effect with each bomber carrying as many as twenty of these stand-off weapons; twelve carried on pylons under the wings and eight on a rotary launcher within the bomb bay. The high speed sub-sonic weapon, approximately twenty-one feet in length, a wing span of twelve feet, and weighing 3,200 pounds, could fly nap-of-the-earth using an internal programmable/radar enhanced terrain contour following navigation system.

The United States developed a new weapon based on the AGM-86B platform. The need arose following Operation ELDORADO CANYON, the attack on Libya responding to Muammar Qadafi's state sponsored terrorism.²³ This was a major effort involving aircraft carriers, dozens of land-based aircraft, including, for the US Air Force, F-111s, EF-111s, KC-10s, and KC-135s.

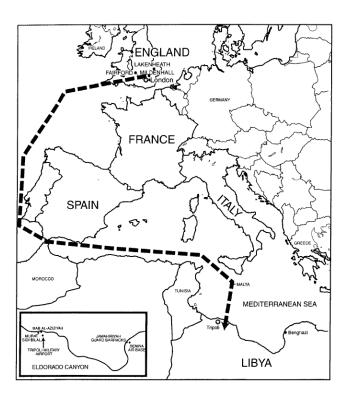


Figure 3. Operation ELDORADO CANYON. Source: Endicott, "Raid on Libya," 147.

²⁰ Mike Lombardi, "ALCM-B leapfrogged air defense gains," www.boeing.com/news/frontiers.

²¹ Ibid

²² "Factsheets: AGM-86B/C/D Missiles." U.S. Air Force. Public Affairs Office, Air Combat Command, United States Air Force, 2010. (Unclassified).

²³ Pinner, "Operation Secret Squirrel," 3.

Air Force assets flew from Royal Air Force (RAF) Fairford, RAF Lakenheath, and RAF Upper Heyford, all in the United Kingdom. ²⁴ The attack route was all over water so to not impose problems for friendly nations.

The operation was a success in that it reduced state sponsored terrorism, but it brought to light a major flaw in aerial warfare strategic thought. The mission was hugely expensive in manpower, hardware, time, and money. The Air Force lost a FB-111 and its crew and some bombs killed Libyan civilians.²⁵

A new weapon was needed for precision long-range, unmanned attacks. Boeing was tasked with converting some of the AGM-86Bs into conventional air cruise missile (CALCM) platforms. Planning for this new weapon, which was kept secret, began three months after ELDORADO CANYON.²⁶



Figure 4. ALCM-B Boeing file photo. http://www.boeing.com/news/frontiers/archive/2004/august/i history.html

²⁴ Judy G. Endicott, "Raid on Libya: Operation Eldorado Canyon." http://www.afhso.af.mil/shared/media/document/AFD-120823-032.pdf

²⁵ Pinner, "Operation Secret Squirrel," 3.

²⁶ John Tirpak, "The Secret Squirrels," Air Force Magazine, April 1994.

The new weapon would have a reduced range of less than 1,500 miles (CLASSIFIED), carry a conventional 2,000-pound warhead, and have a new global positioning system (GPS) internal navigation system.²⁷ Boeing stated on January 16, 1992, when the mission was acknowledged, that the warhead was a "high explosive blast/fragmentation type." This cruise missile was named the AGTM-86C. Externally, the missile was a twin to the B model. A B-52G or H carrying the conventional missile would appear to be carrying the nuclear warhead model. That was the reason for the secrecy. No one outside of a select few knew that Operation ELDORADO CANYON type missions were then obsolete. The Air Force now had a force multiplier effect of twenty times the number of existing B-52s in a conventional role. After flight testing in 1987, approximately thirty-six of the new missiles were brought to Barksdale and placed in storage for the next three years, ready if needed.²⁹



Figure 5. Loading three AGM-86 ALCMs on a B-52 Stratofortress at Minot Air Force Base. Public Domain image. http://www.minot.af.mil/news/story.asp?id=123400731.

²⁷ "Factsheets: AGM-86B/C/D Missiles."

²⁸ "Air Force Launched 35 ALCMs on First Night of Gulf Air War," Defense REDACTED, January 17, 1992, 88.

²⁹ Pinner, "Operation Secret Squirrel," 4: Fact Sheet (Unclassified), USAF/PA, "AGM-86B/C/D Missiles," November 2007.

A New Mission

The same day that Iraqi tanks rolled over the border into Kuwait, August 2, 1990, the Second Bomb Wing at Barksdale Air Force Base in Bossier City, Louisiana received orders for Lieutenant Colonel Jay Beard, commanding the 596th Bomb Squadron, to prepare for a top secret mission involving the AGM-86B weapons.³⁰ On that first day of the Iraq-Kuwait War, the United States and its allies assumed that the Iraqis would not stop at the Kuwait-Saudi Arabia border, but would forge on, attempting to take the Saudi oil fields, the capital at Riyadh, and Muslim holy cities of Mecca and Medina. With virtually no ground forces in the Kingdom of Saudi Arabia to thwart the assault, the initial planned response must come from the air to slow down and hopefully halt the Iraqis.

Air Force senior planners, led by Major General Buster Glosson, commander of the 14th Air Division (Provisional) and, simultaneously serving as director of campaign plans for the U.S. Central Command Air Forces based in Riyadh, Saudi Arabia, was tasked to work on scenarios to wage war against Iraq if the need arose. He later stated that he had just arrived in the region and had not "given the war plans for the region more than a cursory glance." ³¹ Two days before the attack began, General Glosson noticed a gap in his operational plan to increase intensity on the Iraqis to slow them down and make them cease hostilities. When war came the effort on the part of the allies would be to create non-stop chaos on the front lines and, particularly, within Iraq itself. There were simply not enough air assets available in and near the Theatre of Operations. ³²

Lieutenant Colonel Beard selected three aircrew members to be briefed and establish requirements for a mission if the Iraqis crossed into Saudi Arabia.³³ These four men created the mission plan, established the requirements of aircraft, men, ordnance, refueling, and execution.³⁴ Once the strike package was complete, eight full B-52 crews were selected. The B-52Gs were fitted with the AGM-86C CALCMs and placed on the alert pad at the north end of Barksdale's runway on August 18, 1990.³⁵ The mission was given the code name Operation SENIOR SURPRISE and given Top Secret status.³⁶ The alert status B-52s at Barksdale were the only strike package available to pound targets in Iraq in under sixteen hours.³⁷

It became clear that Saddam Hussein did not immediately plan to invade Saudi Arabia. This gave General Schwarzkopf and his commanders time to thoroughly plan the air and ground campaigns, to amass air, sea, and land forces to drive the Iraqis out of Kuwait, and to stabilize the region. General Schwarzkopf told President George H.W. Bush and his advisors on August 4

³⁰ Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d. Although the mission did not win the trophy for 1991, the 2nd Bomb Wing's narrative provides a compelling story and much useful information.

³¹ General Buster Glosson, USAF, (Ret.), *War With Iraq: Critical Lessons* (Charlotte, NC: Glosson Family Foundation, 2003), 7.

³² Biography (Unclassified), "Lieutenant General Buster C. Glosson," HQ USAF/PA, October 2003; General Noman Schwarzkopf, *It Doesn't Take a Hero* (New York: Bantam, 1992), 295.

³³ Pinner, "Operation Secret Squirrel," 4.

³⁴ Ibid.

³⁵ Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.

³⁶ The "Mackay Trophy Mission Narrative" _____is REDACTED for the operation name.

³⁷ Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.

that air power was the only deterrent available at the time, that two weeks would give him time to bring in a few hundred aircraft and rapid-reaction Marines, three months would buy time to "absolutely" beat back the Iraqi attack on Saudi Arabia, and eight to ten months to drive Saddam out of Kuwait. This gave the President the timeline he needed to gather the "Coalition of the Willing," give Secretary of State Colin Powell time to bring the allies to the table with firm promises of men and materiel, to get the Union Nations Security Council to make the necessary resolutions, and, to finalize the war plans.

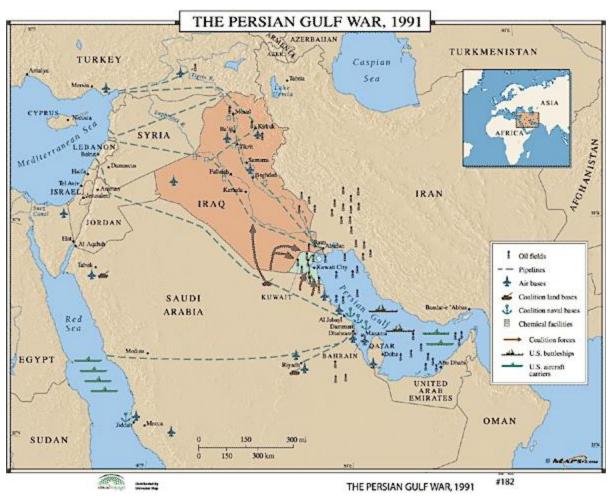


Figure 6. The Persian Gulf War, 1991 Theater of Operations. Source: 1-World Maps Online, 2007.

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³⁸ Schwarzkopf, It Doesn't Take a Hero, 300-01.

As all of these aspects interplayed as Allied forces staged in theatre, The Barksdale crews were kept under covert requirements. Complete secrecy was maintained and the eight crews began mission preparation each day at 0330.³⁹ The Joint Chiefs of Staff required a ninety-minute notification for a launch time of 0600.⁴⁰ This was necessary to allow the fourteen-hour flight to launch position to allow the BUFFs to fire the missiles at night over the target.

As days became weeks and then turned into months, the constant alert status required additional crews to be brought in for rotation. Seven more crews were briefed and a regular training regime was established, all under the requirements of covert mission status.⁴¹ On several occasions, curious base personnel noticed that not only were the same seven B-52Gs on the Alert Pad, but the ALCMs were oddly configured, no plane carried a full load of missiles on each pylon. The 596th Bomb Squadron and the 2nd Bomb Wing received several calls from the curious.⁴²

Normalcy under this status required a constant attention to mission detail. Crews studied each Tuesday, reviewing the mission, updating changes as the plans were constantly updated for new intelligence and a randomly selected crew would conduct a complete briefing and certification of all parts of the mission. As Each Thursday saw all strike aircraft generated and preflight tasks performed. Each missile received updated GPS data and the navigation systems were verified. Since Operation SECRET SURPRISE was code word sensitive and the planned operation was Top Secret, the crew dogs decided to refer to the mission as Operation Secret Squirrel and call the themselves Secret Squirrels, denoting the crewmen and the weapon they were to wield. Today, they still refer to themselves as "The Squirrels." A year and a day after the mission began, US Air Force Lieutenant General (ret.) E.G. "Buck" Shuler. Jr., former commander of the Eighth Air Force (and commander of the Mighty Eighth Air Force at the time of the mission) told the Shreveport *Times*, "This thing was so sensitive we couldn't afford any glitches in letting the Iraqis know we were coming."

Operation Secret Squirrel

As the deadline of January 15 approached, the pace quickened. All seven bombers were generated on January 11, 1991.⁴⁷ The day before the deadline, all crews were restricted to the 2nd Bomb Wing Alert Facility, located adjacent to the Alert Pad.⁴⁸ Lt. Col. Beard, Commander of the 596th Bomb Squadron, the mission leader, and Pilot Augmentee on the first sortie aircraft, received the "Go order" at 0300.⁴⁹ Lt. Col. Beard notified the crews at 0345 that the mission was "a go" and that they were to launch twelve hours prior to the beginning of Operation DESERT

³⁹ Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² Pinner, "Operation Secret Squirrel,"4.

⁴³ Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.

⁴⁴ Ibid.; Pinner, "Operation Secret Squirrel," 5.

⁴⁵ Pinner, "Operation Secret Squirrel," 4. Author's note.

⁴⁶ Alisa Stingley, "Barksdale Air Force Base B-52s flew secret gulf missions, the [Shreveport, Louisiana) *Times*, January 17, 1992.

⁴⁷ Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.

⁴⁸ Ibid.

⁴⁹ Pinner, "Operation Secret Squirrel," 5.

STORM, the Liberation of Kuwait, at approximately 0600 that morning.⁵⁰ Lt. General "Buck" Shuler addressed the crews and described their mission, harkening a comparison to the Doolittle Raiders bombing Tokyo almost fifty years earlier.⁵¹ The comparison certainly brought the crews to a realization that they all knew, there was a chance, however probable, that some of them might not return safely.⁵²

Operation SENIOR SURPRISE was about to begin. Dawn on Wednesday, January 16, 1991, saw the temperature in the mid-30s° F, the dew point was almost identical, the barometric pressure was at 30 inches of mercury and the winds were steady at about five miles per hour.⁵³ It began to rain and the alert pad and runway were wet. The cloud deck was low. One after another the BUFFs lumbered down the runway, kicking up spray, noisily announcing to anyone listening



Figure 7. B-52s taking off in Minimal Interval Take Off (MITO). Source. United States Air Force photo.

⁵⁰ Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.

⁵¹ Pinner, "Operation Secret Squirrel," 5.

⁵² Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.; ⁵² Pinner, "Operation Secret Squirrel," 5.

⁵³U.S. Weather Service data for Shreveport, Louisiana, January 16, 1991. Accessed through: http://www.wunderground.com/history/airport/KSHV/1991/1/16/WeeklyHistory.html?req_city=&req_state=&req_state=&req_state=&reqdb.magic=&reqdb.wmo=.

that several of the giant bombers were outbound. The bombers quickly entered the dense clouds and disappeared from view.⁵⁴ As the days leading up to the deadline for Iraq to withdraw from Kuwait counted down, the major news agencies staked out strategic bases in the United States and abroad. CNN had a reporter near Barksdale Air Force Base and duly reported the departure.⁵⁵ The BUFFs quickly broke into clear air and the crews saw the rising sun. They headed east on the first leg of the longest aerial combat mission in history.⁵⁶ According to *Defense Daily* in a report filed on the first anniversary of the mission, the planes "took off at 'roughly the same time'... and were the first aircraft launched in support of Operation Desert Storm."⁵⁷ The crews were at the beginning of 14,000-mile round trip lasting over thirty-five hours.⁵⁸



Figure 8. B-52G from the Secret Squirrel era with AGM-86C CALCMs attached on pylons. Source. United States Air Force photo.

⁵⁴ Richard P. Hallion, *Storm Over Iraq: Air Power and the Gulf War* (Washington, D.C.: Smithsonian Institution Press, 1992), 163.

⁵⁸ Ibid.

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⁵⁵ General Chuck Horner in Tom Clancy, General Chuck Horner, and Tony Koltz, *Every Man A Tiger* (New York: Berkley, 2005), 316.

⁵⁶ Hallion, Storm Over Iraq, 163.

⁵⁷ "Air Force Launched 35 ALCMs on First Night of Gulf Air War," *Defense Daily*, January 17, 1992, 88.

According to plan the seven aircraft divided into three cells. Cell One consisted of Sorties 1, 2, and 3. Cell Two consisted of Sorties 4 and 5. Cell Three consisted of Sorties 6 and 7.⁵⁹ Due to the lengthy duration of the mission, all crews were augmented with extra personnel.

Sortie 1 "Petie 3rd," call sign "Doom 31," carried an aircraft commander (pilot) and two additional pilots, a radar navigator and two navigators, an electronic warfare officer and a gunner. Sortie 2 (no nose art), call sign "Doom 32," carried an aircraft commander (pilot) and two additional pilots, a radar navigator and two navigators, an electronic warfare officer and a gunner. Sortie 3 "Grim Reaper II," call sign "Doom33," carried an aircraft commander (pilot) and two additional pilots, a radar navigator and two navigators, an electronic warfare officer and a gunner. Sortie 4 "Miami Clipper II," call sign "Doom 34," carried an aircraft commander (pilot) and two additional pilots, a radar navigator and two navigators, an electronic warfare officer and a gunner. Sortie 5 "Miss Fit II," call sign "Doom 35," carried an aircraft commander (pilot) and two additional pilots, a radar navigator and two navigators, an electronic warfare officer and a gunner. Sortie 6, "Valkyrie," call sign "Doom 36," carried an aircraft commander



Figure 9. KC 135 refueling a B-52H. Source: https://upload.wikimedia.org/wikipedia/commons/5/58/US Navy 100710-F-5964B-368

⁵⁹ Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.

(pilot) and three additional pilots, a radar navigator and two navigators, an electronic warfare officer and a gunner. Sortie 7, "EL Lobo II," call sign "Doom 37," carried an aircraft commander (pilot) and two additional pilots, a radar navigator and two navigators, an electronic warfare officer and a gunner. ⁶⁰ **NOTE:** A full list of aircrew members, the planes in which they flew, the nose art name and aircraft call signs are provided following this narrative.

The cells separated into wide intervals for the next tasks. The mission required four air refueling sequences (two outbound, two inbound.) The first, Air Refueling One, was carried out over Lajes Air Base, on the island of Terceira, in the Azores Islands (owned by Portugal.)⁶¹ Air Refueling One required two KC-135 tanker aircraft per bomber, each offloading 70,000 pounds of fuel.⁶² The refueling was successful and all aircraft received their full loads of fuel.

The air refueling completed and Lieutenant Colonel Beard, Mission Commander and pilot of Sortie 1 "Petie 3rd," call sign "Doom 31," asked each of the other aircraft commanders to check in via secure frequencies. All responded with an audio "thumbs up," except for "Doom 34," commanded by Captain Bernard Morgan. He informed Lt. Col. Beard that "he was working on something right now, we'll get back to you." A full hour passed and the formation was beyond the point of no return when Capt. Morgan stated that "Doom 34" was experiencing engine trouble. The pilots had to shut down an engine due to fluctuating oil pressure. Standard operating procedure called for the plane to abort the mission and fly to the nearest friendly base, but the crew did not want to fail and forfeit this important mission. 63

The seven bombers continued east, "threading the needle" to remain above the water air space over the Straights of Gibraltar. They continued east over the Mediterranean Sea. Air Refueling Two took place over the central Mediterranean. The refueling aircraft for this segment consisted of KC-10s flying east from Zaragoza Air Base, located about half way between Madrid and Barcelona, Spain. ⁶⁴ This refueling mission had a close call when Doom 31 in Cell 1 was tracked by an unknown fighter aircraft that passed through the refueling formation. ⁶⁵ The fighter pilot apparently did not have his radar active and continued on without investigating the large formation of U.S. Air Force aircraft.

⁶⁰ "Personnel by Sortie for the Air Medal" commendation, 2nd Bomb Wings archives, Dennis Pinner, 2nd Bomb Wing Historian; John Andrew Prime, "Fate of Secret Squirrel bombers, crews" (Shreveport) *Times*, January 16, 2011. All aircraft are listed by their call sign and nose art.

⁶¹ See http://www.lajes.af.mil/units/index.asp

⁶² Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.

⁶³ Ibid. for all information in this paragraph.

⁶⁴ Ibid.; www.globalsecurity.org

⁶⁵ Pinner, "Operation Secret Squirrel," 6.

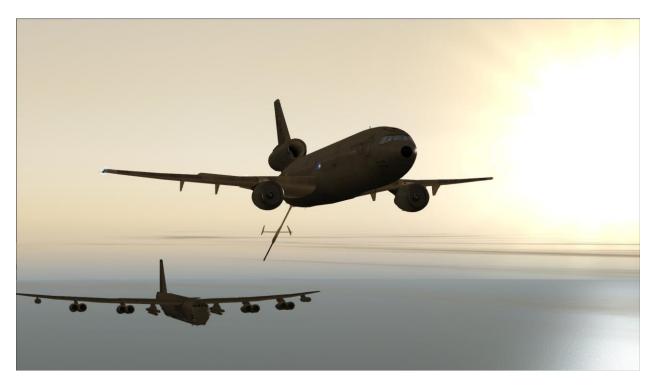


Figure 10. Source: www.youtube.com FSX B-52 Barksdale AIR FORCE BASE to Diego Garcia NSF [EXTREME REALISM+DETAILS] [AIR REFUELING[REX[ORBX[MAIW]]]

The aerial ballet that was to become the opening night of Operation DESERT STORM required the timing of each sortie within each mission in theatre to be as precise in time of execution as possible. General Glosson's plan for the air war over Iraq required that the B-52s launch twelve hours before the opening of hostilities. However, they must remain unnoticed while passing north of Libya while F-117 stealth fighters took out targets in and near Baghdad. If the BUFFs were seen as a formation by Muammar Qadafi's air defense system, the Libyans and their Iraqi allies might guess what was going to happen. The plans called for the cruise missiles to hit their targets an hour and a half after the F-117s were on target.⁶⁶

According to the unclassified 2nd Bomb Wing report, "Mackay Trophy Mission Narrative:"

Approaching [REDACTED] but assumed to be Libyan airspace] hostilities in Iraq had just begun. [REDACTED] tried to change the flight clearance to either reverse course or land at [REDACTED]. Colonel Beard responded with "stand by" as he pressed on with our mission. Once over REDACTED, [they]] became less interested in us, but Surface to Air missile and Ground Control Intercept frequencies were active. Prior to coast out [REDACTED] sortie six and seven were trailed by an unknown fighter for over five minutes. ⁶⁷

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⁶⁶ Ibid.

⁶⁷ Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.



Figure 11. United States Air Force photo.

The formation then crossed over [CLASSIFIED, but thought to be Egypt] and each cell descended, accelerated and controlled their own time and position for missile launch over [CLASSIFIED but thought to be] Saudi Arabia. The Squirrel's targets were eight high-value Iraqi sites that controlled power general, communications and transmission facilities. The mission assigned two launch areas in the western portion of Saudi Arabia, both approximately 100 miles from the Saudi Arabia/Iraq border and well out of range of the Iraqi air defense systems. Cell One veered to the northern area while Cell 2 and Cell 3 continued to the southern launch area. Of the thirty-nine CALCMs carried aboard the BUFFs, four internally reported software problems, probably affecting their GPS navigation tracking. This meant that they could not be fired. The mission sequence required that the thirty-five remaining missiles be launched over a ten-minute period at the precise launch points. The missiles dropped off their pylons and independently headed toward their predetermined targets. Multiple missiles hitting the eight targets insured a better result if one or more failed or were shot down.

⁶⁸ Ibid.

⁶⁹ Hallion, Storm Over Iraq, 163.

⁷⁰ Pinner, "Operation Secret Squirrel," 6.

⁷¹ Ibid.

⁷² Ibid.



Figure 12. Second Bomb Wing B-52 H from Barksdale AIR FORCE BASE launching a AGM-86C CALCM. Source: Federation of American Scientists (FAS) file photo.

The damage assessment was rated at between 80 and 91 percent by the Strategic Air Command Intelligence officers. One year to the day after the mission launch, the Air Force announced publicly, the importance of the operation. The news release came from SAC headquarters Offutt Air Force Base in Nebraska. Then Eighth Air Force Commander Lieutenant General Martin J. Ryan, Jr. announced that the following day, the crews would be honored. In part, it states "Launched from outside Iraq's air defense network, the conventional ALCM attacked high-priority targets including power generation and transmission facilities and military communications sites." Effectively, this told adversaries and potential adversaries that the Air Force had a weapon that would penetrate their air space, fly virtually undetected, and destroy with pinpoint accuracy, any high value targets at will. The following day, on January 17, 1992, Defense Daily quoted Pentagon spokesman Pete Williams. When asked about the accuracy of the missiles: "The Air Force considers it to have been very effective. But the experts who analyzed this don't believe that it is absolutely possible to pinpoint the success rate."

The bombers then turned west for the flight back to Barksdale Air Force Base after fifteen hours of flying. Two more inflight refueling and perhaps as much as twenty hours lay ahead of them, depending upon head winds. The three cells then reformed over Saudi Arabia in preparation for their third refueling of the mission.⁷⁶ KC-10s from Moron Air Base in the

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⁷³ Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.

⁷⁴ United States Air Force News Release Nr. 90-001 "USAF Announces Conventional ALCMs in Desert Storm," January 16, 1992.

⁷⁵ "Air Force Launched 35 ALCMs on First Night of Gulf Air War," *Defense Daily* January 17, 1992, 88.

⁷⁶ Pinner, "Operation Secret Squirrel," 6.



Figure 13. A view inside the cockpit of a B-52. United States Air Force photo.

Andalusia region, near Seville, Spain, had launched and raced east to the eastern Mediterranean Sea for Air Refueling Three for the Squirrels. The bomber formation encountered higher than expected head winds of 60 to 80 knots above what was previously thought. The bombers and tankers joined over the eastern Mediterranean Sea and fought the head winds together. Each bomber onloaded 200,000 pounds of additional fuel to allow for the new circumstances. This was 50,000 pounds more than planned. The eastern Mediterranean air was turbulent and clouds blanketed the area. Visibility dropped to below two miles and this was below the minimum required for air to air refueling. Fortunately, with the crews having only thirty minutes of fuel remaining and facing a very real possibility of diverting to a friendly airfield that could accommodate the giant bombers, the weather improved enough to allow the KC-10s to refuel the formation. The head winds caused an increased fuel consumption and added from six to eight hours to the mission at best. The head winds caused an increased fuel consumption and added from six to eight hours to the mission at best.

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 $[\]frac{77}{http://www.militaryinstallations.dod.mil/pls/psgprod/f?p=132}$

⁷⁸ Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.

⁷⁹ Pinner, "Operation Secret Squirrel," 6.

⁸⁰ Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.

⁸¹ Ibid.



Figure 14. Image of a B-52, probably a D Model, from a Russian source image. Source: http://ZN,UA/World/ September 23, 2013. The article from which it came was Рассекречен отчет о падении бомбардировщика с двумя водородными бомбами в США в 1961, describing a hydrogen weapon mishap in 1961. (Google Translate from an unstable website)

Adding to the problems were equipment malfunctions. Two bombers experienced a pair of seized engines, which increased drag significantly.⁸² Two other aircraft registered fluctuating oil pressure readings.⁸³ Three other bombers carried the four errant CALCMs on their pylons.⁸⁴

The head winds continued to plague the formation. Air Refueling Four was supported by more KC-10s from Zaragoza Air Base, Spain. Each bomber onleaded an additional 50,000 to 60,000 pounds of fuel than planned. During this vital effort, Sortie 3 "Grim Reaper II," call sign "Doom33," had a refueling malfunction combined with an engine that must be shut down due to fluctuating oil pressure. Sortie 3 was unable to onload all required fuel and found itself 40,000 pounds less than the other aircraft. Lieutenant Colonel Beard realized that, although the other six bombers could return to Barksdale without refueling, Sortie 3 could not. He contacted the Eighth Air Force command post and requested assistance. Two KC-135R

⁸² Pinner, "Operation Secret Squirrel," 6.

⁸³ Ibid.

⁸⁴ Ibid.

⁸⁵ Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.

⁸⁶ Pinner, "Operation Secret Squirrel," 6; Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative,"

⁸⁷ Ibid. (both sources.)

⁸⁸ Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.

⁸⁹ Ibid.

tankers were dispatched from Robins Air Force Base in Georgia to rendezvous with Sortie 3 over the Chattanooga VORTAC and onloaded sufficient fuel to complete the mission back to Barksdale. 90 All seven Squirrels returned to base successfully and uneventfully.

Aftermath

Air Force General Merrill A. McPeak commented on the mission at a flight suit briefing held at the Air Force Council Chambers in the Pentagon on September 19, 1991, stated that "the accomplishments of this mission was [sic] impressive." Briefings to the Vice-President, Dick Cheney, Dr. Donald Rice, Secretary of the Air Force, and to General Colin Powell, Chairman of the Joint Chief of Staff, on October 8, 1991, all met with similar comments. 92 Operation SENIOR SURPRISE remained classified until it was announced on January 16, 1992. 93 The mission remained shrouded in mystery and the media had not received official recognition of the existence of the AGM-86C CALCM for years. Sadly, after a full quarter of a century, the exploits of the mission as part of America's Global Reach – Global Power doctrine and the air warriors of the 596th Bomb Squadron, the Strategic Air Command and the United States Air Force on the night of January 16-17, 1991, have not been properly told. 94

Legacies

- 1. B-52-G bombers from Barksdale Air Force Base were the first combat planes launched to begin Operation DESERT STORM.
- 2. Operation SENIOR SURPRISE was the longest combat mission in aviation history.
- 3. It was the only combat mission launched directly from the continental United States during Operation DESERT Storm.
- 4. The AGM-86C CALCM is still in use along with the AGM-86D CALCM variant (with a deep penetrating warhead, still are able to attack targets anywhere in the world when called upon.
- 5. Barksdale Air Force Base was chosen for the mission because it was the only base that housed the missiles and could strike Iraq within sixteen hours.

91 Ibid.

⁹⁰ Ibid.

⁹² Ibid.

⁹³ United States Air Force News Release Nr. 90-001 "USAF Announces Conventional ALCMs in Desert Storm," January 16, 1992.

⁹⁴ Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.

| 6. | This was the only mission of its kind during Operation DESERT STORM, due to the intensity and degree of destruction on the night of January 16-17, 1991, made and similar missions unnecessary. |
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PERSONNEL BY SORTIE FOR THE AIR MEDAL⁹⁵

Sortie #1 B-52G tail number 58-0177, "Petie 3rd" Crew S-91 "Doom 31"

Airborne mission commander/Pilot Augmentee: Lt. Col. John H. Beard

Aircraft Commander: Capt. Michael G. Wilson

Pilot: 1st Lt. Kent R. Beck

Radar navigator: Capt. George W. Murray Ill

Navigator: 1st Lt. Mark W. VanDoren

Navigator Augmentee: Capt. Lee S. Richie Jr.

Electronic Warfare Officer (EWO): Capt. Richard P. Holt

Gunner: Sgt. Dale R. Jackson

NOTE: sent to Davis-Monthan Air Force Base, Arizona, for scrapping on Sept. 5, 1991.

Sortie #2 B-52G tail number 59-2564, no name/nose art, Crew E-54 "Doom 32"

Aircraft Commander: Capt. John P. Romano

Pilot: Capt. Eric K. Hayden

Pilot Augmentee: Maj. Steven E. Jackson Radar Navigator: Capt. Steven R. Hess

Navigator: Capt. Toby L. Corey

Navigator Augmentee: Capt. Alan C. Teauseau

Electronic Warfare officer (EWO): 1st Lt. Robert C. Lightner

Gunner: Airman 1st Class Steven L. Gramling

NOTE: sent to Davis-Monthan Air Force Base, Arizona for scrapping on Aug. 8, 1991.

Sortie #3 B-52 tail number 59-2582, "Grim Reaper II" Crew R-53 "Doom 33"

Aircraft Commander: Capt. Charles E. Jones Jr.

Pilot: Capt. Warren G. Ward

Radar Navigator: Capt. Patrick Hobday Navigator: 1st Lt. Aaron E. Hattabaugh Navigator Augmentee: Maj. Bruce F. Blood Pilot Augmentee: Maj. William H. Weller

Electronic Warfare Officer (EWO): Capt. Kevin M. Williams

Gunner: Sgt. William J. McCutchen

NOTE: sent to Davis-Monthan Air Force Base, Arizona for scrapping on Aug. 27,

1991.

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⁹⁵ Report (Unclassified), 2BW/CCE, "Mackay Trophy Mission Narrative," n.d.

Sortie #4 B-52G tail number 57-6475, "Miami Clipper II" Crew E-83 "Doom 34"

Aircraft Commander: Capt. Bernard S. Morgan Pilot: 1st Lt. Michael C. Branche (deceased 1993)

Pilot Augmentee: Capt. Steven E. Bass Radar Navigator: Capt. John S. Ladner Navigator: 1st Lt. Andre J. Mouton

Navigator Augmentee: Maj. Wesley H. Bain

Electronic Warfare officer (EWO): Capt. John L. Morriss Ill

Gunner: Airman 1st Class Guy W. Modgling

NOTE: sent to Davis-Monthan Air Force Base, Arizona for scrapping on Aug. 20,

1991.

Sortie #5 B-52G tail number 58-0238, "Misfit II" Crew E-81 "Doom 35"

Aircraft Commander: Capt. Marcus S. Myers

Pilot: 1st Lt. Michael L. Hansen

Pilot Augmentee: Capt. Chadwick H. Barr Jr.

Radar Navigator: Capt. David J. Byrd Navigator: 1st Lt. Don E. Broyles

Navigator Augmentee: Capt. Donald Van Slambrook Electronic Warfare officer (EWO): Capt. Todd H. Mathes

Gunner: Sgt. Martin R. VanBuren

NOTE: sent to sent to Davis-Monthan Air Force Base, Arizona for scrapping on Aug. 22,

1991.

Sortie #6 B-52G tail number 58-0183, named "Valkyrie" Crew S-92 "Doom 36"

Aircraft Commander: Capt. Alan W. Moe

Pilot: Capt. David T. Greer Jr.

Pilot Augmentee: Capt. Joseph M. Hasbrouck Radar Navigator: Capt. Blaise M. Martinick

Navigator: 1st Lt. John S. Pyles

Navigator Augmentee: Capt. Matthew G. Casella

Electronic Warfare Officer (EWO): Capt. Anthony Bothwell

Gunner: Sgt. Danny L. Parker

Additional Pilot: Maj. Steven D. Weilbrenner

NOTE: airplane is on display at the Pima County Air Museum in Tucson, Arizona,

Sortie #7 B-52G tail number 58-0185, named "El Lobo II" CrewS-93 "Doom 37"

Aircraft Commander: Capt. Steven D. Sicking

Pilot: 1st Lt. Russell F. Mathers

Pilot Augmentee: Capt. Steven W. Kirkpatrick Radar Navigator: Capt. Floyd W. Gowans

Navigator: 1st Lt. Gregory D. Moss

Navigator Augmentee: Maj. Frederick D. Van Wicklin

Electronic Warfare officer (EWO): Capt. (Dr.) Paul M. Benson (deceased 2006)

Gunner: Staff Sgt. William J. LeClair

NOTE: airplane is preserved at the Air Force Armament Museum at Eglin Air Force

Base, Fla.

ABREVIATIONS USED IN THIS PAPER

2BW 2nd Bomb Wing stationed at Barksdale Air Force Base, Louisiana

BUFF Affectionate name for the B-52

AAA Anti-Aircraft Artillery

AGM-86B Air launched Guided Missile with a nuclear warhead

AGM-86C Air launched Guided Missile with a conventional warhead

AGM-86D Air launched Guided Missile with a penetrating warhead

ALCM Air Launched Cruise Missile

CALCM Conventionally (armed) Air Launched Cruise Missile

CNN Cable News Network

CSIS Center for Strategic and International Studies

FSX Extremely detailed graphics effects

GPS Global Positioning System

LSUS Louisiana State University Shreveport

MITO Minimum Interval Take Off

RAF (British) Royal Air Force

SAC (1) Strategy Alternatives Consortium

SAC (2) Strategy Alternatives Center

SAC-LSUS Strategy Alternatives Consortium unit at LSUS

SAM Surface to Air Missile

SECDEF Secretary of Defense

USAF United States Air Force

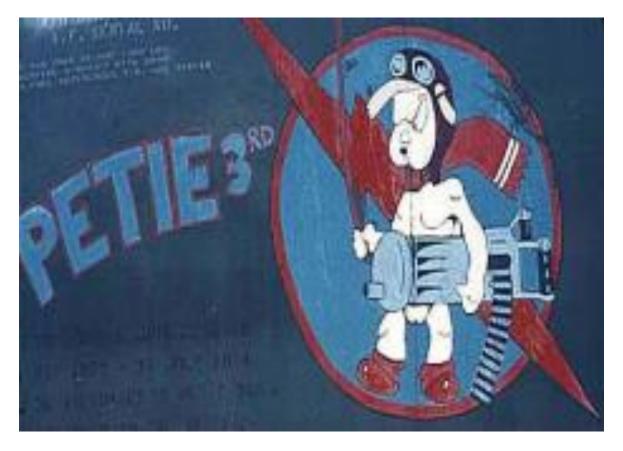
The Unofficial Patch of the Secret Squirrels







NOSE ART



Sortie #1 B-52G tail number 58-0177, "Petie 3rd" Crew S-91 "Doom 31"

Sortie #2 B-52G tail number 59-2564, no name/nose art, Crew E-54 "Doom 32"



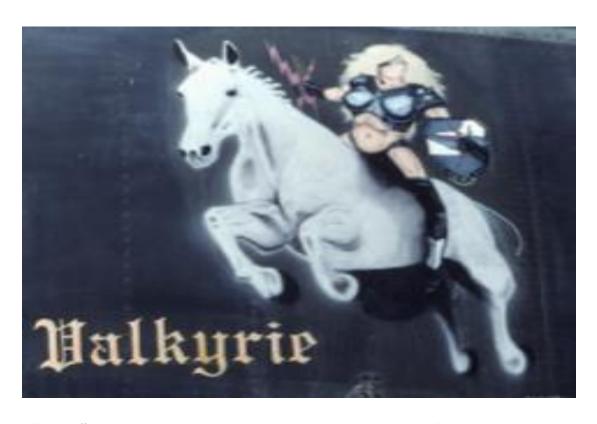
Sortie #3 B-52 tail number 59-2582, "Grim Reaper II" Crew R-53 "Doom 33"



Sortie #4 B-52G tail number 57-6475, "Miami Clipper II" Crew E-83 "Doom 34"



Sortie #5 B-52G tail number 58-0238, "Misfit II" Crew E-81 "Doom 35"



Sortie #6 B-52G tail number 58-0183, "Valkyrie" Crew S-92 "Doom 36"



Sortie #7 B-52G tail number 58-0185, "El Lobo II" CrewS-93 "Doom 37"

About the Author

Gary D. Joiner received a B.A. in history and geography from Louisiana Tech University, a M.A. in history from Louisiana Tech University and a Ph.D. in history from St. Martin's College, Lancaster University in the United Kingdom. He is a Professor of History at Louisiana State University in Shreveport and serves as the Chair of the Department of History and Social Sciences, where he holds the Mary Anne and Leonard Selber Professorship in History and serves as the Director of SAC LSUS and the Red River Regional Studies Center.

He is the author or editor of 24 books including: History Matters, Shiloh and the Western Campaign of 1862, One Damn Blunder From Beginning to End, Through the Howling Wilderness, The Red River Campaign: The Union's Last Attempt to Invade Texas, No Pardons to Ask Nor Apologies to Make, Little to Eat and Thin Mud to Drink, Mr. Lincoln's Brown Water Navy, The Red River Campaign: The Union's last Attempt to Invade Texas, The Battle of New Orleans: a Bicentennial Tribute, Red River Steamboats, Historic Shreveport-Bossier, Lost Shreveport: Vanishing Scenes From the Red River Valley, Historic Haunts of Shreveport, Historic Oakland Cemetery, Wicked Shreveport, Legendary Locals of Shreveport, and Legendary Locals of Shreveport: Dr. Joiner is also the author of numerous articles and technical reports and served as a consultant for ABC, the Associated Press, A&E Network, C-SPAN, the Discovery Network, HGTV, the History Channel, MSNBC, MTV, SyFy, and Louisiana Public Broadcasting among others.