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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.

1.1 Political Context

1. What are some major events that led up to this mission?

- a. The 1980s witnessed many global changes that could not be readily imagined prior to that tumultuous decade.
- b. The USSR lost control of its Eastern Bloc Warsaw Pact satellite states.
- c. 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.
- d. 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.

2. How did tearing down the Berlin Wall weaken the USSR?

- a. 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.
- b. East and West Germany reunited into a single powerful entity.
- c. The collapse of the Berlin Wall and the weakened Soviet Union left the United States as the only Super Power.

3. Iran-Iraq War

- a. The war raged from September 1980 until August 1988.
- b. Iraq precipitated the conflict by invading Iran following the Shiite revolution in Iran.
- c. 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.
- d. Most Middle Eastern nations supported Iraq due to fears of Shiite revolutions in their own lands.
- e. The United Nations brokered a cease-fire on August 20, 1988. Hostilities ended with United Nations Resolution 598. Both sides agreed to pre-war boundary reinstatement. The Iraqi military increased his military ten-fold to six million men.
- f. This cease fire, along with the weakened Soviet State, led world leaders to believe that this might be the end of the eternal threats of nuclear war and, perhaps, even large scale conventionally waged wars. This proved incorrect.
- g. The seeds sown in the Iraq-Iran War led to large scale United States involvement in the region which lasts today, a quarter century later.

4. What led up to the Iraqi invasion of Kuwait?



- a. 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.
- b. Kuwait is extremely rich in oil, closely allied to its other neighbor, Saudi Arabia, and is pro-western in business and diplomacy.
- c. 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.
- d. 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.
- e. During the summer of 1990 Iraqi financial reserves were down to three months and inflation soared to forty percent.
- f. On the eve of the invasion of Kuwait, Iraq was the strongest military power in the Persian Gulf region.

5. Iraq-Kuwait War

- a. Saddam Hussein sent an overwhelming force of arms into Kuwait early on the morning of August 2, 1990.
- b. 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.
- c. 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.
- d. 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.
- e. 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.

1.2 Gulf War

- 1. During the Gulf War, Operation Desert Shield was the operation leading to the buildup of troops and defense of Saudi Arabia. Operation Desert Storm was its combat phase. The USAF conducted Operation SENIOR SURPRISE (aka SECRET SQUIRREL) the first night of Operation DESERT STORM on January 16-17, 1991.**

- a. Gulf War (August 2, 1990-February 28, 1991)
A 35-nation coalition force led by the United States waged the Gulf War.
- b. Desert Shield (August 2, 1990-January 17, 1991)
- c. SENIOR SURPRISE (January 16-17, 1991)



- d. Desert Storm (January 17, 1991-February 28, 1991)
2. **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
 - b. demand for all Iraqi forces to be withdrawn immediately from Kuwaiti territory to *status quo ante*
 - c. Iraq and Kuwait to initiate negotiations to resolve their differences and support all efforts
 - d. to meet as often as necessary to consider further steps to ensure that all parties complied with the resolution
3. **What nations were members of 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
4. **What was the overwhelming concern for coalition leaders?**
 - a. During the first days of the Iraqi invasion of Kuwait, the United States and its allies assumed that the Iraqis would not stop at the Kuwait-Saudi Arabia border, but would attempt to take the Saudi oil fields, the capital at Riyadh, and Muslim holy cities of Mecca and Medina.
 - b. There were virtually no ground forces in Saudi Arabia to thwart the assault, meaning the main deterring force would have to be air power.
5. **Soon after, it was clear that Saddam did not intend to immediately invade Saudi Arabia.**
 - a. This gave General Schwarzkopf and his commanders time to fully plan the air and ground campaign, and to amass air, sea, and land forces in the planning stage of the Gulf War.
 - b. This also gave President George H. W. Bush 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 United Nations Security Council to make the necessary resolutions, and, to finalize the war plans.
6. **Which senior US military leaders oversaw this conflict?**
 - a. General (US Army) Norman Schwarzkopf, Jr.
 - b. Major General (USAF) Chuck Horner
 - c. Lieutenant General (USAF) Buster Glosson
Glosson was the commander in charge of the planning and bombardment of Iraq. During the Gulf War and the months leading up to it, Glosson commanded the 14th Air Division (Provisional) and served as director of campaign plans for the U.S. Central Command Air Forces based in Riyadh, Saudi Arabia. He designed the plan to eliminate the Iraqi army’s command and control structure on the first day of what became Operation Desert Storm.



7. 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.

1.3 Operation SENIOR SURPRISE -- Background

1. What is an ALCM?

- a. Until this point, the primary nuclear cruise missile for the USAF was the AGM-86B air launched cruise missile (ALCM).
- b. The ALCM program began in 1974 as an innovative response to increases in Soviet air defenses against manned bombers.
- c. Boeing designed the missile specifically for the B-52, making the aircraft a threat from as much as 1500 miles away from target.
- d. 21 feet in length, 12-foot wingspan, 3200 pounds
- e. Internal programmable/radar-enhanced terrain contour following navigation system

2. What is a CALCM?

- a. The U.S. developed this new weapon based on the AGM-86B platform after Operation ELDORADO CANYON (April 15, 1986).
- b. Boeing was tasked with converting some of the AGM-86Bs into conventional air cruise missile (CALCM) platforms, named AGTM-86C.
- c. 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.
- d. Boeing stated on January 16, 1992, when the mission was acknowledged, that the warhead was a “high explosive blast/fragmentation type.”
- e. 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.

3. What prompted the change from ALCM to CALCM?

- a. The need arose following **Operation ELDORADO CANYON**, the attack on Libya responding to Muammar Qaddafi’s state sponsored terrorism.
- b. 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.
- c. 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.
 - i. The mission was hugely expensive in manpower, hardware, time, and money.
 - ii. The Air Force lost a FB-111 and its crew and some bombs killed Libyan civilians.
 - iii. A new weapon was needed for precision long-range, unmanned attacks.
 - iv. Planning for this new weapon, which was kept secret, began three months after ELDORADO CANYON.
- d. 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.



4. When was the 2BW put on alert at BAFB?

- a. 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

1.4 Operation SENIOR SURPRISE – Timeline and Details

1. Buildup

- a. Lieutenant Colonel Beard selected three aircrew members to be briefed and establish requirements for a mission if the Iraqis crossed into Saudi Arabia.
- b. These four men created the mission plan, established the requirements of aircraft, men, ordnance, refueling, and execution.
- c. 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.
- d. The mission was given the code name Operation SENIOR SURPRISE and given Top Secret status.
- e. The alert status B-52s at Barksdale were the only strike package available to pound targets in Iraq in under sixteen hours.
- f. As all of these aspects interplayed as Allied forces staged in theatre, The Barksdale crews were kept under covert requirements. Complete secrecy was maintained.
- g. 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.
- h. 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.
- i. Each Thursday saw all strike aircraft generated and preflight tasks performed. Each missile received updated GPS data and the navigation systems were verified.
- j. As the deadline of January 15 approached, the pace quickened. All seven bombers were generated on January 11, 1991. The day before the deadline, all crews were restricted to the 2nd Bomb Wing Alert Facility, located adjacent to the Alert Pad.

2. The Mission Begins

- a. 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. 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 STORM, the Liberation of Kuwait, at approximately 0600 that morning.
- b. 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.



- c. General Glosson's plan for the air war over Iraq required that the B-52s launch twelve hours before the opening of hostilities.
- d. 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 Qaddafi's air defense system, the Libyans and their Iraqi allies might guess what was going to happen.
- e. The plans called for the cruise missiles to hit their targets an hour and a half after the F-117s were on target.
- f. According to the unclassified 2BW report, "Mackay Trophy Mission Narrative:"
 - i. "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. 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."
- g. The damage assessment was rated at between 80 and 91 percent by the Strategic Air Command Intelligence officers.
- h. 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."
 - i. 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.



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1.5 Aftermath and Legacy

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.
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.