

Raid on Libya: Operation ELDORADO CANYON

Judy G. Endicott

DATES: April 14–15, 1986

LOCATION: Libya

OVERSEAS BASES USED: Royal Air Force (RAF) Fairford, RAF Lakenheath, RAF Mildenhall, RAF Upper Heyford, United Kingdom

AIR FORCE ORGANIZATIONS:

WINGS:	GROUP:
48th Tactical Fighter	11th Strategic
306th Strategic	
	SQUADRON:
	42d Electronic Combat

AIR FORCE AIRCRAFT: F-111, EF-111, KC-10, KC-135

Operations

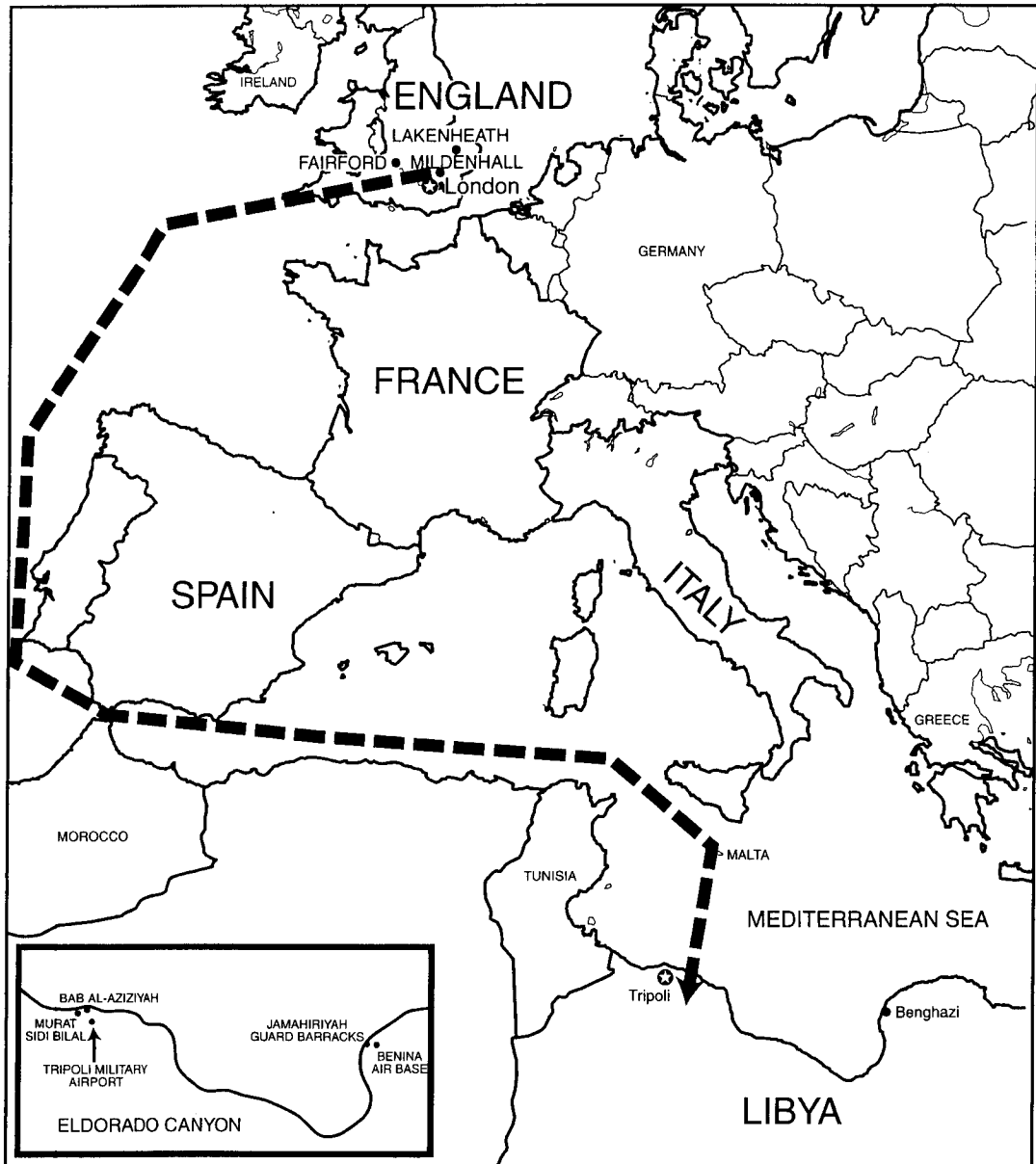
In 1969, a group of junior military officers led by Muammar Qadhafi overthrew the pro-Western Libyan Arab monarchy. Since then, Qadhafi's relations with the United States, and most Western European nations, as well as moderate Arab nations, have been confrontational. By the mid-1980s, Libya was one of the leading sponsors of worldwide terrorism. In addition to subversion or direct military intervention against other African nations and global assassinations of anti-Qadhafi Libyan exiles and other "state enemies," Qadhafi has sponsored terrorist training camps within Libya and supplied funds, weapons, logistical support, and safe havens for numerous terrorist groups.

As a presidential candidate, Ronald W. Reagan criticized President James (Jimmy) E. Carter's approach to the Iranian hostage crisis, saying that, if elected, his policy would be one of "swift and effective retribution" against international terrorists. Between January 1981 when President Reagan took office and

April 1986, terrorists worldwide killed over 300 Americans and injured hundreds more. With National Security Decision Directive 138 signed on April 3, 1984, President Reagan established in principle a U.S. policy of preemptive and retaliatory strikes against terrorists. But the very nature of terrorism has usually made impossible the assignment of certain guilt to any one government. By the mid-1980s, Americans had grown angry and frustrated with elected officials' inability to stem the increasing tide of terrorism.

On December 27, 1985, terrorists attacked passengers in the Rome and Vienna airport terminals, killing nineteen (including five Americans) and injuring over one hundred. The terrorists possessed passports confiscated from Tunisian guest workers in Libya and grenades from the stocks of the Libyan Arab army. In addition, intelligence sources claimed that Qadhafi had paid the terrorist Abu Nidal a bonus of five to six million dollars for the operation. Despite the strong evidence that connected Libya to the incident, the U.S. administration officials determined that they did not have sufficient proof to order retaliatory strikes against Libya at that time. President Reagan imposed economic and other sanctions against Libya, publicly denounced Qadhafi for sponsoring the operation, and sent the Sixth Fleet to exercise off the coast of Libya.

Contrary to international law, Qadhafi had proclaimed 32° 30' N, including the entire Gulf of Sidra, to be the northern boundary of Libya. To dispute this claim, the U. S. Navy periodically staged freedom of navigation exercises in or near the Gulf of Sidra. During the 1986 exercises, a naval surface action group crossed on March 24 below the disputed latitude, which Qadhafi dramatically called the "Line of Death." Soon afterward, a Libyan missile battery near Sirte fired two SA-5 missiles at the F-14s flying combat air patrol. The F-14s, aided by naval EA-6B electronic jammers, evaded the missiles, as they did on two other occasions that evening, but the Navy's restraint had ceased. Before the exercise ended on March 27, naval forces sank at least two Libyan antiship-missile vessels racing toward the surface action group and damaged another. In addition, carrier-based aircraft damaged the radar at the Sirte air defense facility (one of Qadhafi's most sophisticated) after it had again locked onto naval aircraft.



USAF Strike Force Route for ELDORADO CANYON
Inset: Operation ELDORADO CANYON Targets

However, if the Reagan administration thought that evidence of Libya's military weakness and vulnerability might encourage Qadhafi to give up his support for terrorist activities, it was mistaken.

On April 2, plastic explosives detonated aboard a TWA flight bound for Athens, killing four Americans. Although a caller in Beirut claimed the bombing constituted a response to the

recent U.S. Navy's actions against Libya, the few physical traces of the bombing pointed to involvement by Syria, not Libya. However, Qadhafi praised the terrorists as freedom fighters and vowed to escalate the violence against U.S. targets, civilian and noncivilian, throughout the world. Then, in the early hours of April 5, in Berlin a large bomb gutted LaBelle Club, a discotheque popular with U.S. servicemen. The explosion immediately killed an American infantryman and his girlfriend and injured over 200 others, including more than 75 Americans. This time, electronic surveillance intercepted two messages to Qadhafi from the East Berlin Libyan People's Bureau that definitely linked Qadhafi to the bombing. A few hours prior to the detonation, the People's Bureau had told Qadhafi that something being planned would make him happy. Following the bombing, they sent notification in general terms, stating the precise time of the discotheque explosion. President Reagan now had the evidence he sought. On April 9, he authorized an air strike against Libya and attempted to obtain support from European allies.

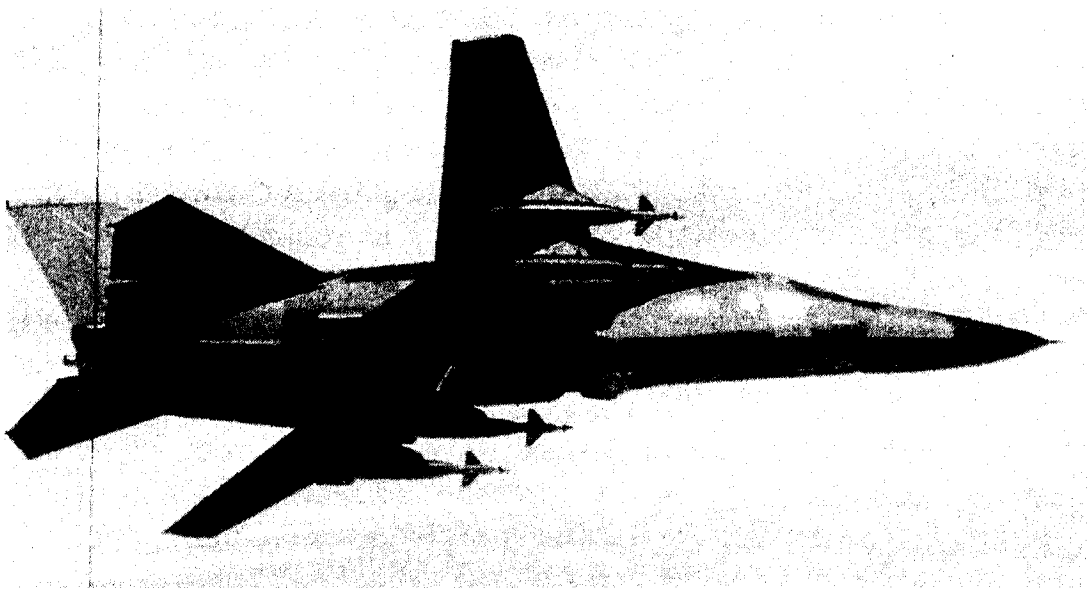
Armed with the evidence against Qadhafi, Vernon Walters, U.S. Ambassador to the United Nations, pressed the governments of Italy, Germany, England, France, and Spain for more severe sanctions against Libya. With the last three nations he also discussed support for a raid against Libya. Margaret Thatcher, Prime Minister of Great Britain, gave permission for the U.S. Air Force to launch its portion of the raid from British bases. The governments of France and Spain denied permission to fly over their countries, thereby increasing the Air Force's round-trip to almost 6,000 miles.

Military planning for a possible operation against Libya had begun shortly after the December attacks in Rome and Vienna. The U.S. President ordered the joint U.S. European Command (USEUCOM) to prepare contingency plans for possible targets in Libya. U.S. Air Forces in Europe (USAFE) military planners identified possible targets, along with planning on how those targets could be attacked, assuming that the British government would allow the United States to stage operations from British bases. General Bernard W. Rogers, USA, Commander, USEUCOM, designated Vice Adm. Frank B. Kelso, USN, Commander, Sixth Fleet, to be overall commander of the joint

service operation, code-named Operation ELDORADO CANYON. Planners determined that a nighttime attack provided the best chance of evading Libya's formidable air defense network. Considering the proximity of possible targets to civilian population centers, use of aircraft that provided the most precise targeting available would afford the least possibility for collateral damage in civilian areas.

USAF planners chose the 48th Tactical Fighter Wing, based at RAF Lakenheath, to perform the Air Force portion of the attack. Col. Sam W. Westbrook III, USAF, a former Oxford Rhodes scholar and Southeast Asia combat veteran, commanded the 48th, USAF's only F-111F wing. Its aircrews regularly trained for nighttime-precision missions. While it had its systems reliability problems, the F-111F (nicknamed Aardvark) provided the long-range, nighttime, all-weather, and precision-strike capabilities required. Using terrain-following radar, the F-111F could avoid enemy radar and ground obstacles, while flying as low as 200 feet above the ground; its Paveway laser-targeting system guided ordnance to the target.

Navy and Air Force liaison officers coordinated strike planning that incorporated President Reagan's desire to avoid damage to Libya's economic infrastructure or the death of innocent civilians. From the list of possible targets, the National Security Council, with President Reagan's approval, selected five; four were linked to Qadhafi's terrorist-training infrastructure and the fifth dealt with the enemy defensive threat. The Bab al-Aziziyah barracks in Tripoli was the command center of the Libyan terrorist network. The complex included a billeting area for Qadhafi's personal Jamahiriyyah guards and, at times, Qadhafi's own residential compound. The Murat Sidi Bilal training camp, near Tripoli, trained naval commandos and terrorist frogmen. The military side of the Tripoli Airport held Soviet-built IL-76 Candid aircraft that had been used in support of terrorist activities. The Benghazi Jamahiriyyah military barracks served as an alternate terrorist command center and included a storage and assembly facility for MiG aircraft. The fifth target, Benghazi's Benina fighter base, housed night-capable MiG-23 Flogger E interceptors that posed a threat to the attacking force.



A 48th TFW F-111F bomber based at Lakenheath, England.

Admiral Kelso assigned the three targets in and around Tripoli to the 48th Tactical Fighter Wing, while assigning to the Sixth Fleet the two targets at Benghazi, as well as responsibilities for combat air patrol and suppression of enemy air defenses. EF-111A Ravens (also nicknamed Sparkvarks) from the 42d Electronic Combat Squadron, based at RAF Upper Heyford, would accompany the F-111Fs to help the Sixth Fleet's Marine EA-6B Prowlers jam enemy radar systems. The plan called for striking all targets simultaneously and limited each aircraft to a single pass at its target to lessen the time that Libyan air defenses could react to the attack. Admiral Kelso imposed strict rules of engagement to avoid or reduce the possibility of civilian casualties in the congested urban area of Tripoli, while inflicting as much damage as possible on the targets. He insisted that each airplane should have positive identification of its assigned target on multiple systems and abort its attack if weapon-guidance or navigation systems were not fully functional.

At nearly the last moment, the strike force increased from six to eighteen F-111s, forcing the 48th to readjust the timing and flow of aircraft against each target, as well as identifying specific aiming points for the additional aircraft. Adding aircraft also necessitated gathering more Strategic Air Command

tankers from far-flung locations. The strike force could not hit Libya and then return to its English base without aerial refueling en route. The European Tanker Task Force, a collection of KC-135s and KC-10s and aircrews on temporary duty from stateside wings, operated through the 306th Strategic Wing and 11th Strategic Group, located at RAF Mildenhall and Fairford, respectively, to refuel U.S. forces. In the two days before the Monday night strike, additional tankers streamed into the English bases, many of the aircrews not knowing their mission until they arrived. Col. Lynn T. Berringer, USAF, Commander, 306th Strategic Wing, and his staff planned the crucial refueling. Using the "mother-tanker" concept, each F-111 aircraft would remain with the same tanker during the long flight to Libya and rejoin that tanker following the attack.

By Monday, April 14th, all USAF forces were gathered and ready. At 5:13 P.M. Greenwich Mean Time, the tankers began launching in radio silence, with the F-111Fs and EF-111s beginning twenty-three minutes later, most of the force joining together over southern England. The aircraft flew and refueled entirely in radio silence to preserve tactical surprise. The nighttime silent air refueling was difficult for the strike force because few of the fighter crews had experience receiving fuel from the KC-10 tankers, which were relatively new in the European Theater. The F-111s flew with their electronic identification equipment turned off, hoping that inquisitive radar operators would see only a group of tankers on their screens. After the first refueling, six F-111 and one EF-111A airborne spares returned to their bases, leaving eighteen Aardvarks and five Ravens whose targeting, weapons delivery, and terrain-following radar were all fully functional at that point. From England, the aerial armada proceeded south, in flight cells, past Portugal and turned east through the Strait of Gibraltar into the Mediterranean Sea toward Libya, aiming for a simultaneous strike at 2:00 A.M. Libyan time. Those aboard the lead airborne command KC-10 included Colonel Westbrook, Colonel Berringer, and Maj. Gen. David W. Forgan, USAF, Headquarters USAFE Deputy Chief of Staff for Operations, who was the airborne mission commander for Operation ELDORADO CANYON.



A 48th TFW F-111F takes on fuel from a KC-135 Stratotanker.

At about the same time that the USAF task force took off from bases in England, the Navy's *Coral Sea* and *America* battle groups began a high-speed dash toward Libya in electronic silence, eluding Soviet surveillance. At 12:45 A.M., the Navy began launching its strike, surface-to-air missile (SAM) suppression, and support aircraft, also in electronic silence. After the F-111s finished their last refueling, they left their mother tankers in three attack groups: nine for Bab al-Aziziyah barracks; six for the Tripoli Airport; and three for Sidi Bilal.

At ten minutes before strike time, the EF-111As and the Navy's EA-6Bs began their electronic jamming against Libyan radar and communications, reputedly one of the most advanced air defense systems in the world. As the Libyan radars sprang into activity, trying to find and identify the airplanes,

the Navy's A-7s and F/A-18s began firing missiles that rode the radar beams back to the sites, destroying more than a dozen before the raid was finished. An official from the tiny island of Malta notified Libya at least one-half hour before the raid began that unidentified aircraft were heading south toward Libya. Despite the warning, when the F-111Fs reached Tripoli, they found the streetlights on in the city below, cars driving with their headlights on, floodlights illuminating principal buildings, and airport runway lights shining. Libyan defenders launched unguided SAMs and directed intense antiaircraft fire at the Aardvarks, lighting up the night sky.

The Bab al-Aziziyah target, located in the densely populated city, was the most difficult of the Tripoli targets, because it did not show up well on radar. Mistakes and equipment failures especially hampered this attack. Of the nine F-111Fs (call signs Remit, Elton, and Karma) assigned to strike this target, one had flown the wrong direction after the final refueling, one aborted while still over the water, three aborted their attacks in the target area due to equipment malfunctions, and one (Karma 52) crashed into the ocean before reaching the target. Only three F-111s remained to drop their one-ton laser-guided bombs. Two of these attacks caused considerable damage to the compound, but the third F-111 crew misidentified its "offset aim point" on the radar screen, dropping the GBU-10s near the French embassy, one and one-half miles northeast of the intended target.

Three F-111s (call sign Jewel), also armed with laser-guided bombs, struck the Sidi Bilal naval commando training complex about fifteen miles west of Tripoli. All three dropped their bombs, despite the last being hampered by smoke from the preceding Paveways. The attacks severely damaged several buildings and destroyed a number of small training vessels at the docks.

The objective of the last six Aardvarks (call signs Puffy and Lujac) was the military side of the Tripoli Airport, with the specific objective of hitting the Soviet-made IL-76 jets used to transport terrorists and their weapons. Unlike the other two groups, which approached their targets from the sea, this group entered Libyan territory east of Tripoli and circled to attack the airport from the south, thus avoiding the main body of Libyan air defenses. One F-111 lost its terrain-following radar

and aborted before reaching the target. The remaining 5 dropped their 500-pound Snakeye retarded-delivery bombs, which were equipped with parachutes to slow their descent so that the aircraft would not suffer damage from their own ordnance. Poststrike reconnaissance showed that the Snakeyes damaged several buildings, destroyed or severely damaged five IL-76s parked on the flight line, and touched off a number of fires and explosions.

Meanwhile, on the eastern side of the Gulf of Sidra, six A-6E Intruders from the carrier *America* struck the Benghazi Jamahiriyah military barracks, heavily damaging them and a nearby MiG-23 assembly facility. Another six A-6Es from the *Coral Sea* cratered the runway at Benghazi's Benina military airfield and destroyed or damaged numerous aircraft on the parking apron, including the MiGs that might have risen in opposition to the American forces.

By 2:13 A.M., all strike aircraft, except Karma 52, had safely crossed the Libyan coast, the A-6s heading toward the carriers and the F-111s toward the tankers waiting for them over the Mediterranean. Libyan antiaircraft guns and missile batteries continued to fire blindly into the sky for hours after the American aircraft had departed. Rattled Libyan gunners lit the skies for several nights following as well. All Navy aircraft had recovered on their carriers by 2:53 A.M., while the Air Force F-111s and EF-111s tried to locate their assigned tankers near Sicily, a task made more difficult because the F-111s were low on fuel. After the F-111s refueled, the Air Force armada remained in the area for an hour, hoping that the missing airplane would join up. The Navy continued the search for another twenty-four hours but found no trace of the plane or its crew. The survivors, as they made the long journey back to their English bases, mourned their two comrades, the pilot, Capt. Fernando Ribas-Dominicci, and the weapons system officer, Capt. Paul Lorence.

Politically, the raid against the terrorist state was extremely popular in the United States and almost universally condemned or "regretted" by our European allies, who feared that the raid would spawn more violence. The operation spurred Western European governments to increase their defenses against terrorism, and their intelligence agencies began to

share information. Moderate Arab governments did not fall, nor did they rally behind Qadhafi; in fact, some (especially those who had suffered Qadhafi's interference) were quietly pleased. If the Reagan administration hoped the raid would create the internal conditions for Qadhafi's opponents to topple his reign, it was disappointed. However, Qadhafi's arrogance was shaken, and he retreated into the desert for many months afterwards.

The Air Force was saddened by the loss of the one F-111F crew, but the loss of one out of over a hundred aircraft used in the raid statistically was not a high toll. The high abort rate was disappointing, but made understandable by the severe rules of engagement under which the F-111Fs operated, coupled with the extreme length of the mission and the known fragility of some of the critical F-111 subsystems. Of the eleven crews that dropped their bombs, only one made a critical error that caused significant collateral damage. The U.S. government expressed regret for the loss of innocent lives but pointed out that unguided Libyan missiles and antiaircraft shells falling back to earth had caused much of the damage. Reconnaissance flights after the raid showed that all the targets had been severely damaged. Despite the disappointments, the Air Force could be proud that it successfully bombed three targets seen beforehand only in photographs, after a flight of over six hours, and in the face of strong enemy opposition.