

## IQ Builder

### Operation Desert Storm B-52 Specific

At the height, 68 B-52Gs deployed at four bases:

20 B-52Gs at Prince Abdullah AB, Jeddah Saudi Arabia assigned to the 1708<sup>th</sup> Bomb Wing(P)

20 B-52Gs at Diego Garcia assigned to the 4300<sup>th</sup> Bomb Wing(P). The 4300 was made up of elements from the 62d Bomb Wing at Carswell AFB, Texas; the 69th Bomb Squadron at Loring AFB, Maine; and a handful of crews from Griffiss and Castle AFBs.

The remainder of B-52Gs operated from Moron AB, Spain (801st Bomb Wing(P)) and RAF Fairford in England (806th Bomb Wing(P)). The numbers of B-52Gs assigned fluctuated at these two bases so it is hard to document the exact number of bombers at any given time.

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Despite the B-52's advanced age, few of its missions had to be aborted; and its overall mission-capable rate averaged 86.2 percent. The B-52 flew 1,741 sorties without a combat loss.

B-52G aircrews used a variety of weapons including:

Weapon	Jeddah	Diego Garcia	Moron	RAF Fairford	Totals
M117 (750lbs)	22,532	10,398	9,527	2,193	44,650
Mk-82 (500 lbs)	8,261	6,225	2,632	560	17,678
CBU-52	2,122	360	457	None	2,939
CBU-58	3,278	979	1,674	None	5,931
CBU-71/-87/-89	387	162	None	255	804
UK 1,000 lbs	None	287	None	None	287
Totals	36,580	18,411	14,290	3,008	72,289

The B-52G could carry up to 51 Mk-82s (500lbs) or M-117s (750lbs) internally

At first war planners used the B-52Gs for night strikes employing the electro-optical viewing system using a forward looking infrared (FLIR) and low-level-light TV sensors to improve low-level night penetration. Then as the Coalition gained air-supremacy, the BUFFs began operating around the clock.

After the first three days, the low-level missions gave way to high-level missions mainly against the Republican Guard divisions and troop concentrations and against bunkers and other logistics complexes. They were also used to breach huge berms the Iraqis had built-up to fend off the expected amphibious attack. Interdiction missions continued against ammunition factories, storage areas, Iraqi oil refineries and fuel depots, Scud missile storage and production facilities, industrial sites, and air bases.

The B-52G worked well as a psychological weapon. Days before the land battle began, B-52G aircrews dropped psychological warfare leaflets to warn Iraqi forces that the B-52s were coming. After the attack, aircrews dropped more leaflets telling the Iraqi they would be back. General Norman Schwarzkopf, the ground commander, favored using the B-52 against the massed Republican Guard, but he rejected the term “carpet bombing,” which he said, “tends to portray something totally indiscriminate, en masse with regard to the target.” Despite some inaccuracy, it was estimated from POW interviews, during and after the war, that the B-52G influenced 24% of Iraqi soldiers to desert.

In the end, much of the air effort centered on attacking the equipment of the Iraqi military in the KTO. Air attacks aimed at destroying or damaging measurable, quantifiable percentages of the Iraqi Army's tanks, armored personnel carriers, and artillery pieces. Ironically, however, when the war was over, many rows would suggest that the B-52s, the most inaccurate and least precise platform in the Coalition inventory had had the greatest impact on their morale.

17 Jan 1991 (D-Day)

Dawn brought no relief to the Iraqis: the pounding that had begun in the night continued right through to the war's end. Between 0830 and 1200, after exhausting flights from Barksdale AFB, Louisiana, seven B-52s arrived at launch positions in Saudi Arabia and fired thirty-five CALCMs (Conventional Air Launched Cruise Missile) at targets throughout Iraq. One missile crashed into Saudi Arabia shortly after launch; at least twenty-eight hit their targets, while a further three may have impacted in the target area. The attack by CALCMs on the AI Musayyib Thennal Power Plant suggests both the accuracy of the weapons system and the problems with bomb-damage assessment that would soon plague the air campaign.

The B-52 strike underlines the effort required to support the first day's missions. The Barksdale bombers needed no fewer than thirty-eight KC-135 tanker sorties from Lajes in the Azores and nineteen KC-10 sorties out of Spain. Of eight targets attacked, SAC intelligence estimated that six ceased functioning, one was damaged, and one was missed by the missiles.

The first day's effort ended with heavy attacks in early evening. Seven B-52s struck the Tawakalna Division of the Republican Guard.

18 Jan 1991 (D+2)

Ten SAC B-52s deploying from Wurtsmith AFB, Michigan, conduct strikes enroute to their deployment location in theater. To date, SAC active and reserve force tankers have flown 16,643 sorties and 72,073 hours in support of Desert Shield and Storm, performing 32,511 air refuelings and delivering 427 million pounds of fuel in the process.

## **B-52 in Operation Desert Storm**

B-52 Stratofortress: (nicknamed "BUFF" for Big, Ugly, Flying Fellow) a long-range, heavy bomber capable of flying at high subsonic speeds at altitudes up to 50,000 feet. The B-52 first flew on 15 April 1952 and attained initial operational capability in June 1955. Seven hundred and forty-four aircraft were produced through October 1962. Numerous modifications had been made to the B-52, including the new Offensive Avionics System and improvements in electronic countermeasures. In all, 41 B-52Gs were modified with improved conventional capabilities. The aircraft carried a full range of conventional munitions internally and externally along with conventional air-launched cruise missiles (CALCMS) for standoff operations.

As the air campaign evolved, the B-52 force grew to 68 B-52Gs which flew out of Barksdale in Louisiana, Wurtsmith in Michigan, Saudi Arabia, Diego Garcia in the Indian Ocean, RAF Fairford in Great Britain, and Moron de la Frontera in southern Spain. In all, B-52s flew 1,741 sorties for 15,269 combat hours during Operation Desert Storm. B-52s dropped ordnance on both strategic and tactical targets and were important for psychological operations. The following are representative examples of B-52 missions in Desert Storm:

- Seven B-52s from Barksdale AFB, Louisiana, carried CALCMs and launched before H-Hour. Aircraft carrying out these round-trip sorties flew a total distance of over 14,000 miles and remained aloft for over 35 hours-completing the longest combat missions in history and the first combat employment of CALCM. In the early hours of Desert Storm, the B-52s launched 35 CALCMs programmed to attack 8 targets, including military communications sites and power generation/transmission facilities.
- Night low-level operations against strategic targets continued through the third day of Operation Desert Storm. After striking the Uwayjah petroleum refineries during the air campaign's third night, a B-52G apparently was hit by a missile or anti-aircraft artillery, but the aircraft returned safely to its base. After the third night, all B-52 missions were conducted at high altitude.
- B-52s flew ninety-nine offensive counter-air strikes against airfields, aircraft on the ground, and airfield-supporting infrastructure, using general-purpose bombs and cluster bomb units. Thirteen B-52s launched in the opening attack, using mixed loads of weapons (UK-1000s, CBU-58s, and CBU-89s). One B-52 sustained minor damage when it was hit leaving the target area, but there were no casualties.
- B-52s flew 303 strikes against strategic targets (industrial facilities, command, control, and communications (C3) facilities, nuclear/chemical/biological facilities, and short-range ballistic missiles); interdiction targets including fixed installations such as petroleum, oil and lubricant storage facilities, and railroad. Most raids were conducted at high altitude with weapons employed using radar deliveries.
- B-52s using a variety of general-purpose bombs and cluster munitions, flew 1,175 strikes against Republican Guard, armor, and mechanized and infantry units in the KTO. The B-52's large bomb load and area coverage rendered it most effective in this role.

B-52s generally flew in threes and were most useful for attacking area targets. Its outstanding characteristic was its ability to fly large bomb loads great distances without refueling, freeing tankers for other missions. B-52s were not sent into the highest threat areas and were always used in conjunction with Wild Weasels and/or CAP aircraft in areas where a significant threat remained. Despite the B-52's advanced age, few of its missions had to be aborted; and its overall mission-capable rate averaged 86.2 percent. The B-52 flew 1,741 sorties without a combat loss.

As in Vietnam, the effect of B-52s on Iraqi material and morale was debated in the absence of definitive evidence. Although B-52s only comprised 3 percent of the total combat aircraft, they dropped 72,000 bombs weighing a total of 27,000 tons, which amounted to approximately 30 percent of all U.S. tonnage dropped. Because of a lack of precision capability, bombing was directed at area targets such as chemical storage sites, factories, and supply depots in northern Iraq. Raids against the Republican Guards began on Day 1 and continued throughout the campaign. The B-52 can carry approximately 70,000 pounds of ordnance internally and externally. Defensive armament included 4 50-caliber machine guns, chaff, and flares.

B-52s flew 1,741 missions and dropped 27,000 tons of munitions, which amounted to 30 percent of the overall Gulf War tonnage. The bomber's long range capability was demonstrated on the third day of the war when 7 B-52s launched from Wurtsmith AFB in Michigan, bombed Republican Guard targets in the KTO, and landed in the theater.

B-52s attacked mostly large area targets, dropping unguided general purpose and cluster bombs from above 30,000 feet. Targets included "dug in" armored units, suspected Scud storage and production facilities, and troop concentrations. However, their main effort (37 percent of all B-52 sorties flown) was against the Republican Guard.

B-52 support must be measured not just in terms of direct hits or physical damage but also in terms of the psychological effects it produced. Recognizing the impact of these bombing missions, General Schwarzkopf directed the B-52s to focus on the Republican Guard. The result was a three-ship formation of bombers striking troops in the KTO every three hours, twenty-four-hours a day.

B-52s conducted four distinct missions during the Gulf War: attacking strategic fixed targets, Scud hunting, attacking Iraqi Army and Republican Guard targets, and supporting breaching operations.

To prepare the battlefield for the ground assault, B-52s dropped dual-fuzed MK-82s designed to break up barriers, berms, and obstacles such as multistrand concertina wire. Near the end of the war, B-52s dropped CBU-87s on Iraqi tank and vehicle columns along the highways leading north out of Kuwait

## **The Battle of Khafji**

Although the battle of Khafji absorbed only a small portion of Coalition air assets, it provided the first real challenge to the responsiveness of the CAS/BAI capabilities. The battle was important not because of the size of the force or the actual battle, but because of what it told Coalition forces about the Iraqis. On the evening of 29 January 1991, Iraqi forces crossed the border in three places: Ras Al Khafji, Wafrah, and Umm Hujul (Observation Post-4). Coalition forces, particularly Saudi ground forces in conjunction with the 3d Marine Air Wing and the Joint Force Air Component Command, successfully repelled the attacks. A wide variety of aviation assets were used at the battle of Khafji; unmanned aerial vehicles and the Joint Surveillance Target Attack Radar system to provide near real-time target information, a wide variety of platforms for signals intelligence, and AC-130 Spectre Gunships, AH-1 Cobras, A-10s, AV-8Bs, F/A-18s, B-52s, and F-16s for interdiction, CAS, and close-in fire-support missions.

At the request of the Marine Commander, Lieutenant General Boomer, and with the approval of Lieutenant General Horner, CENTAF, a B-52 strike and two tactical air packages were diverted from Republican Guard targets to southern Kuwait where Iraqi armor was moving to reinforce the initial Iraqi penetration. The tactics employed, while not standard, resulted in a successful attack on approximately one-hundred Iraqi armored vehicles. As described in a field report, the effect of the B-52 strike was "like turning on a light in a cockroach infested apartment." The B-52 strike sent the vehicles scurrying for survival only to find that their movement was awaited by tactical air, eager to "squish them like bugs."

## **B-52 Leaflet Operations**

An important precept at work in the radio and leaflet operations was operant conditioning, using fixed, positive reinforcement. Tactical psyopers announced to certain Iraqi ground units that they were to be bombed. That specific unit was then attacked. The repeated cycles of announcement-and-execution helped persuade the audience that the message and delivery means were credible and that surrender was a viable alternative to a useless death.

In late January 1991, the 4th PSYOP Group asked if the Air Force would support a campaign to tell the Iraqis when they were going to be bombed and by what aircraft. A plan was presented and approved to incorporate PSYOP with B-52 strikes along the front lines. The Concept of Operation for such missions outlined a plan to print and disseminate leaflets to specific Iraqi units. The leaflets, together with radio broadcasts, would specify which Iraqi unit or units would be hit the next day. The following day, CENTAF would bomb the specified unit with three B-52s. This would be followed with another day of leaflets indicating that the same unit would be bombed again and that surviving Iraqi soldiers should defect or desert. The next day, CENTAF would bomb the same unit. CENTAF continued to support this effort. By the start of the ground war, as many as eight B-52s were dedicated to these missions, and the U.S. Army EYOP commander was effectively influencing the employment of strategic PSYOP forces.