

# B-1 Backbone

*Let's Give This Bomber Its Due*

In crafting the document "Global Engagement: A Vision for the 21st Century Air Force" last fall, the Air Force revised its view of the role of airpower in conflict. This vision "is based on a new understanding of what air and space power mean to the nation—the ability to hit an adversary's strategic centers of gravity directly as well as prevail at the operational and tactical levels of warfare." The expected revolution in the employment of US air power is based on the synergistic combination of information dominance, precision guided standoff weapons, robust space capabilities, and electronics combat systems and ballistic missile defense.

Until these capabilities are realized, however, the Air Force will have to employ currently fielded combat forces well into the next century. The challenge will be to optimize their use and capability. The B-1 is a

To illustrate the value of this strike power, assume that a CinC has 36 aircraft to employ. From CONUS, he could expect 11 to 15 B-1 sorties per day. These missions would add significant firepower to his campaign plan: 1,200 500-lb bombs, or 300 cluster bomb units (CBUs), or 240 2,000-lb bombs per day, or some combination of these weapons. From forward bases, because of the greater sortie rate available, the quantity of firepower increases dramatically: 2,400, 780, and 620 weapons in the respective categories dropped during 26 to 38 sorties.

The B-1 has a large and diverse weapons payload. The primary weapons are: MK 82 (general purpose 500-lb bombs), CBU-87 (Gator Mines), CBU-89 (Combined Effects Munitions), and CBU-97 (Sensor Fuzed Weapons). The aircraft can also drop MK 62 (500-lb Sea Mines). The B-1 can carry 84 500-lb weapons—28 in each bay. It can also carry 30 CBU canisters—10 in each bay. Although each bay can carry a different weapon, weapons cannot be mixed within a bay. Further, near-precision weapons are coming to the B-1 in January 1999 with certification to carry the 2,000-lb Joint Direct Attack Munition (JDAM). Each bay can hold eight JDAMs.

Given this large and diverse weapons payload, the B-1 can destroy a significant portion of the target base designated by the warfighting CinC. These targets include air-defense sites, aircraft in the open or in revetments, airfields, industrial complexes, rail yards, shipyards, fuel storage facilities, barracks, staging areas, port facilities, missile launchers, and armor. The fact that the aircraft carries so many weapons increases the probability that the target will be severely damaged, thereby contributing to the desired level of intensity in the air campaign.

In addition to range, deployment flexibility, and a large, diverse payload capacity, the fourth characteristic that makes long-range strike aircraft responsive to the warfighter is survival probability.

The mission planner avoids or destroys heavy threat areas, using high- or low-altitude tactics depending on the threat and the target. If the choice is low-level attack, the B-1 is a very elusive target because of its low frontal radar cross-section, its capability to take advantage of terrain masking down to 200 feet, its high-speed, improved situational awareness, better threat jamming, and employment during night or adverse weather. If a mission calls for high altitude employment, the aircraft operates in a force package or within the support provided by the overall Air Task Order (ATO) force package. In any case, the B-1 can penetrate and survive in all medium- and low-



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case in point. This aircraft has matured into a formidable conventional weapons system that is committed to the warfighting commanders-in-chief (CinCs) for conventional operations.

## **THE B-1 AND THE WARFIGHTING CINC**

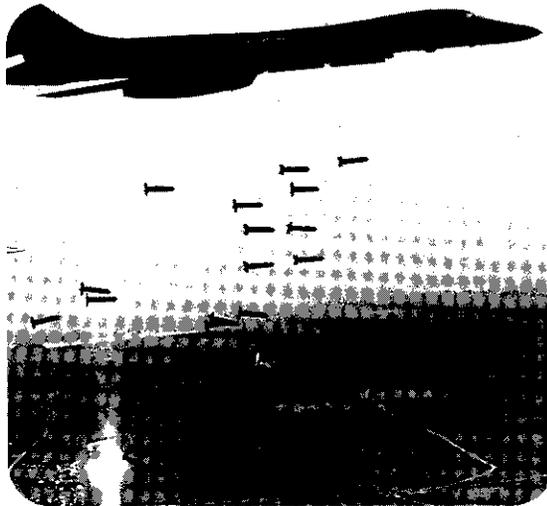
The operational range of the B-1 gives commanders the capability to strike targets anywhere in the world within 24 hours from a conventional alert status in the continental United States (CONUS). In the last few years, B-1 units have regularly demonstrated these capabilities through global reach missions (bombing overseas target ranges after launching from home station), Operational Readiness Inspection flights, Gunsmoke competitions, Red Flag exercises, as well as routine training.

threat environments. With the availability of the Joint Air-to-Surface Standoff Munition (JASSM), it will be capable of launching standoff weapons against targets in high-threat environments.

The Air Force sees the B-1 as the backbone of the conventional bomber force. The plan is to have a total of 95 B-1s, 82 in the active inventory and 13 set aside for training and depots. For the newer B-2 stealth bomber, the respective numbers are 21, 16, and 5; for the venerable B-52H they are 71, 56, and 15. The total number of long-range strike aircraft will be 187, with 154 available for combat.

Today's B-1 units are trained, equipped, and organized to support theater commanders. A major milestone was reached in 1994 with the successful completion of a six-month Operational Readiness Assessment (ORA). Congress had directed the Air Force to assess the readiness rate of one B-1 Bomb Wing with the full complement of spares, logistics support, maintenance equipment, and manpower.

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The ORA was an unqualified success, resulting in the achievement of an overall readiness rate of 84 percent—9 percent higher than the 75 percent goal.

The final point is that the B-1 is dedicated to the theater commander for conventional operations. The Joint Strategic Capabilities Assessment Plan (JSCAP) makes B-1s available for contingency planning. The aircraft is also designated as the swing force for a second conflict. Once in the theater, B-1s will normally be assigned to a provisional wing reporting directly to the Joint Force Air Component Commander (JFACC) and will be tasked daily on the ATO.

**EMPLOYMENT VIGNETTES**

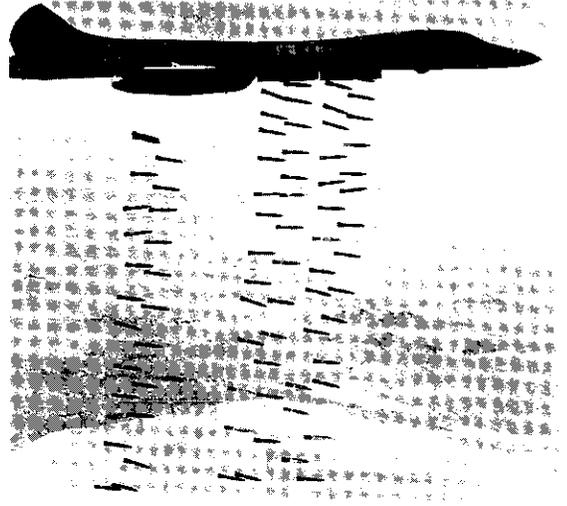
The B-1 is a very capable weapons system that is getting better every day. Responsive to the needs of the warfighters, the aircraft is ready to “fly and fight” anywhere in the world. Hypothetical scenarios from Southwest Asia illustrate potential employment of the B-1 across the spectrum of conflict.

**Show Of Force:** In the early hours of an international conflict, the goals of the US are to reduce tensions, return the situation to the status quo, and take whatever follow-up action is necessary. On-scene forces, such as a carrier battle group (CVBG), may be sufficient to accomplish the goals; however, the fact that those forces did not deter the crisis begs the ques-

tion of their influence over the solution. Regardless, the CinC may decide that he wants to show additional force.

The B-1 would be particularly effective in conducting low-level flights through the Straits of Hormuz or along the borders of Iran or Iraq, employing weapons on theater bombing ranges, and deploying forward with the USAF's Air Expeditionary Force. The CinC would probably place the long-range strike aircraft in a force package including F-14s for air cover, EA-6Bs for jamming support, and F/A-18s for suppression of enemy air defenses (SEAD) if he wanted to insure that the potential enemy was fully aware of all the air power in theater.

**Crisis Management:** The task is to plant sea mines. The JFACC would select a night mission unless the plan required that the potential enemy be aware of the mine-laying operation as a deterrent measure. If an offensive minefield is being laid, the possibility of enemy action would be an important planning



factor. Defensive minefields would normally be seeded out of harm's way. The B-1 is a perfect choice, because the crew can drop 84 sea mines.

Although no Flexible Deterrent Options have been exercised, theater and coalition forces have assumed a heightened readiness posture, to include flying Combat Air Patrol and reconnaissance missions. This may be sufficient support for the planned surprise mission, as the B-1 can fly under early warning and acquisition radar coverage. Normally, the sea mine would be dropped from low altitude.

**Regional Conflict:** As we move up the spectrum of conflict, more force is necessary to protect US national interests. This example involves an Iranian action that upsets the status quo. The Iranians plan to use warships to collect tolls from ships transiting the Strait of Hormuz. As part of their plan, they decide to reinforce Qeshem island with forces as the backup military capability to threaten US/coalition forces that attempt to prevent toll collection.

During the buildup of forces on Qeshem island, Washington asks CinCCENT for a plan to stop toll collection and prevent the Iranians from securing their positions on the island. Time is of the essence. There is a carrier battle group (CVBG) in theater, plus the lightly armed Middle East task force. A sec-

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ond CVBG is several days away. In addition, there is not time to get basing rights from the Gulf Cooperation Council.

CinCCENT decides on a course of action, but he desires more firepower than the CVBG can generate. His solution is long-range strike aircraft, launching from CONUS and recovering in-theater. The most available aircraft is the B-1. A potent strike package can be assembled using the carrier air assets and six B-1s. Tomahawk Land Attack Missiles would be used against fixed air defense sites and SAM targets. The surprise, low-level attack would neutralize the Iranian forces on the island—an infantry battalion with cruise missiles and SAM 2/3 batteries. With the additional firepower of the B-1s, which essentially equals that of the carrier's F/A-18s, CinCCENT has selected a course of action with sufficient intensity to put the Iranian forces out of action for a significant period. With the B-1s in-theater, he is also prepared for a follow-up attack.

The truth is that a force package has high survival probability and exceptional firepower, and is the way air combat will be conducted for the foreseeable future.

But there is another type of force package available if long-range strike aircraft have been released from the nuclear mission and are on conventional alert at home station. If an enemy invasion occurs, the first strike of the campaign could be a coordinated cruise missile and CONUS-based aircraft attack against the enemy's center of gravity (COG).

The synergy of the B-2, B-1, and B-52H force package is critical to a successful attack when operating in high-threat areas. The B-2 leads the attack with strikes against key command, control, communications, and air defense nodes, as well as the enemy's immediate capability to deliver weapons of mass destruction.

The B-1 will slow the invasion force and attack selected airfields to begin the process of establishing air dominance over enemy territory. B-52H cruise missile and Tomahawk attacks against other key air defense targets would be timed to occur after initial B-2 strikes that have degraded the enemy's ability to detect cruise missiles on radar. The overall objective would be the destruction of the enemy's COG.

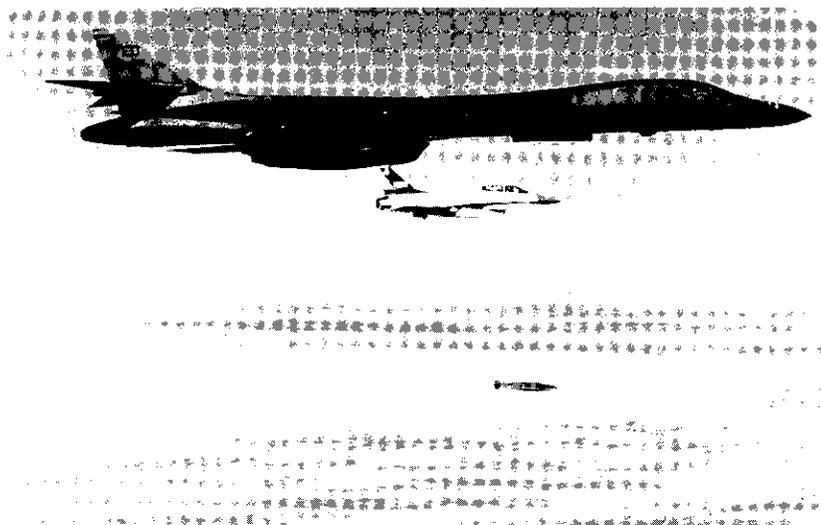
#### **COUNTERING THEATER MISSILES**

There's yet another B-1 mission that might prove critical to success in a future conflict. The CinC must neutralize the enemy's missile threat. Adversaries are likely to rely on inexpensive but very effective ground-to-ground missile systems to attack US forces and political COGs. Targeting airfields, ports, ships, and population centers with missiles, especially those with chemical or biological warheads, can have an impact far beyond what high explosive ordnance can accomplish.

The B-1 will threaten the launcher and the crews who operate the system. Why will the B-1 be more successful than strike aircraft were in Desert Storm? First, detection systems are greatly improved today and will be even better tomorrow. Second, the B-1 can loiter for an extended period, easily 10 hours without degradation in crew capability. Third, the B-1 can attack the mobile launcher with 30 CBU weapons, dramatically increasing the probability that the target will be destroyed. Finally, with the next software release, the aircraft will have a significantly improved capability to target mobile systems.

Given its ability to carry a different type of weapon in each bomb bay, the B-1 can be extremely useful in supporting the ground scheme of maneuver, whether the task is close air support, interdiction, or deep attack. Depending on the threat, the B-1 could rely on its own defensive capabilities, be mated with a force package, or be integrated into the overall ATO threat suppression scheme.

The B-1 is ready to fight in any conventional conflict now. It is the backbone of the long-range strike fleet. Its value to warfighters will continue to increase as programmed capabilities come on line. If US airpower is used in the next conflict, the warfighting CinC can rely on the formidable capabilities of the B-1. ■



*Maj. Gen. Charles May retired as the USAF Assistant Vice Chief of Staff in 1992.*

*During his operational career in the Strategic Air Command, he headed B-52 units at the squadron and wing level and KC-135 units at the group and wing level. A 1959 Air Force Academy graduate, he flew A-37s in Southeast Asia.*

*Gen. May worked on a B-1 operational concepts study for a defense consulting firm.*

As the enemy threat increases, the air campaign planner controls force attrition. If the mission calls for strikes against heavily defended targets deep in enemy territory, only the B-2 will be capable of carrying it out. If the targets are not deep, the F-117 or cruise missiles are available. For the rest of the target system, the planner has to roll back the air defenses before the other weapons systems can attack with an acceptable probability of survival.

#### **SURPRISE**

Today, the defensive suite on the B-1 is far more effective than earlier systems. Still, B-1s will be optimally employed as part of a broader air campaign unless the element of surprise is available—as was the case in the previous scenarios. In most situations, B-1s will be employed in coordination with other forces or as part of a force package. The tactics will take advantage of surprise, mass, maneuver, timing, tempo of operations, and darkness.

A typical force package would be two B-1s, eight F-15Es carrying air-to-surface munitions, four F-15Cs or F-14s providing air cover, four F-16Cs or F/A-18Cs carrying HARM missiles for the SEAD mission, and one EA-6B. In fact, the B-1, because of its speed and maneuverability, is the only long-range strike aircraft that can be fully integrated into the force package.