The gang that created the Waypoint magazine and resurrected the computer version of the Harpoon naval & aerial warfare simulator in the early 2000s, strikes again!

Command: Modern Air / Naval Operations is the high-fidelity warfare simulator from **WarfareSims.com**. Combining massive scale (the entire earth is your theater) and incredible depth and breadth (conflicts from 1946 to 2020+) with unprecedented detail, realism and accuracy, a powerful Windows interface and challenging AI, Command has set the new standard for air-naval war games.

Praised by military professionals, hobbyists and the gaming press alike, Command swept the *Wargame Of The Year 2013* awards and shattered sales records in its category:

> **United States Naval Institute:** *"Command will find a following not only among civilian gamers but might have value among military, government, and policy circles as a simulator of modern warfare. […][This] is a game with broad appeal for everyone from casual gamers to government users looking to model unclassified, informal simulations. It likely will be the main choice for hard modern warfare simulators for years to come."*

> **Michael Peck, War Is Boring:** *"This isn't just a game. It's a simulation that's as close as many of us will ever get to real Pentagon simulation. C:MANO, as fans call it, is a real-time game that boasts an incredibly rich—and unclassified—database of the aircraft and ships of the Cold War and beyond. […] I strongly suspect that this game won't prove any less accurate than the government's tippity-top-secret simulations."*

Multiple awards.
Over 150 scenarios (as of June 2014).
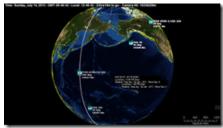**Thousands of fanatical players.**
Tens of thousands of planes, ships, submarines, land units, satellites, weapons, sensors, and other systems.

Command: Modern / Air Naval Operations is available only at Matrix Games.

For more information go to **WarfareSims.com**.

B-1 Lancer

By **Michael Mykytyn** and **Dimitris V. Dranidis**

General

Users: United States

Roles & Mission: The B-1 was initially conceived in the early-to-mid-70s as a high-altitude deep-penetrator (B-1A) for the task of breaking through the formidable Soviet national air defences, and delivering nuclear weapons to various targets that were unsuitable for other means of attack (ICBMs and SLBMs). However, the increasing sophistication and coverage of high-altitude Soviet defences, combined with the advent of a new class of attack weapon (nuclear-tipped cruise missiles) and the long-term planning for the mass production of an extremely advanced stealthy penetrator bomber led to the cancellation of the project in the late 70s. The entire program remained in limbo and limited testing phase until the election of the Reagan administration.

Under a new DoD leadership, the entire procurement roadmap of the US Strategic Air Command (SAC) was radically revised. Instead of relying almost exclusively on the B-52 & cruise missile combination for its strike needs until the stealth bomber came online, SAC would instead acquire a fairly large number of heavily redesigned B-1Bs as interim low-altitude penetrator bombers. (This decision was based on the estimation that the penetration-tasked B-52Hs would be totally outclassed by Soviet defences by the mid-80s). When the stealth bomber was available, the B-1B would then take over the cruise missile platform role, allowing the B-52 to be completely retired[1].

The design features revised on the B-1B to grant it a reasonable chance of survival against the increasingly lethal Soviet air defences were numerous: stealth technology was applied throughout the airframe (including a radical revision of the air-inlet structure which led to a significant decrease in maximum speed at altitude), a very advanced terrain-following system was installed, active electronic countermeasures were given much higher priority than before and the entire structure was strengthened to allow continuous transonic flight at tree-top height.

The state-of-the-art ALQ-161 self-defence suite was probably the biggest development hurdle, suffering from protracted delays and problems. In fact it was not until the late-80s (long after deliveries of 100 units to SAC had completed) that the system was certified to be working as originally expected. This deficiency notwithstanding, the improvements in the redesign made the B-1B a fearsome offensive platform and (in combination with the cruise missile threat) created a real nightmare for the Soviet PVO command and forced them to an extremely expensive upgrade program. The aircraft was criticized for not participating in the extensive air operations of the second Gulf War, but its absence must be put in perspective: The aircraft was not yet certified for any sort of conventional weaponry except plain iron bombs and, since many B-52G/Hs were pulled out of SAC's round-the-clock SIOP-readiness duty to participate in the bombing campaign, the B-1B had to shoulder the extra nuclear burden almost entirely on its own.

Ironically, after going through a protracted and ungodly-expensive development program with a specific nuclear-war mission in mind, the B-1B lost its nuclear capability in the early-90s as a result of the Strategic Arms Reduction Treaty (START) agreements. That was the bad news. The good news was that the re-orientation towards conventional operations meant that the aircraft could now finally be equipped with more advanced weaponry and be integrated with TacAir elements on a more regular basis. Designed to survive against the toughest air defences in the world, the Lancer had little trouble in exploiting its vast range & loiter duration and its considerable payload in operations over Yugoslavia and Afghanistan, where the threat level (particularly in the latter case) was drastically lower. Having received a new round of upgrades in avionics and weapons in 2001, the aircraft retains an important role in USAF offensive conventional operations planning.

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[1] *That the final versions of the B-52 are probably going to be retired much later than the B-1B is both a testament to the design of the Stratofortress and also one of those great ironies of military procurement planning.*

Strengths: The combination of ultra-low level, high-speed penetration, long range, much reduced RCS (in comparison to the B-1A), an advanced offensive avionics suite and an appropriate array of nuclear or (after 1990) conventional weapons makes the B-1B a true strategic asset. Its large fuel capacity coupled with efficient turbofan engines gives it an unprecedented endurance at low-level, and thus a unique ability for the penetration of enemy defences through protracted terrain masking. The high speed at low level is also a valuable defensive asset: few interceptors can chase the B-1B down in the weeds without soon having to break off on bingo fuel. Its strengths are maximized when used in consort with other tactical assets that help it overcome any threats that may pose a problem to it (e.g. fighters).

Weaknesses: For all its superlatives, the B-1B is still a long-range heavy bomber in its core: a high-value, low-availability asset that must take great care to avoid defences rather than risk direct confrontation with them. This means that a protective fighter screen (either in close proximity to the aircraft or in a distant advance-picket) is not a bad idea. The aircraft is also still somewhat limited on the range of weapons it can employ; it certainly cannot match the variety of stores available to tactical air assets or even sibling bombers like the B-52H.

Game Stats:
Max Speed: 900kts
Length: 44.8 Meters
Span: 41.7 meters
Weight: 81647 kg
Crew: 4
Climb Rate: 60 m/s at SL

Equipment: B-1B Lancer (1985) – DB2000 v6.3.2

Radars:

Type and Quantity	Max Range	Abilities	Notes
AN/APQ-64	60 nm	Surface Search, Air Intercept, Range Information, Bearing Information, Altitude Information, IFF Information	Multifunction radar

Electronic Warfare:

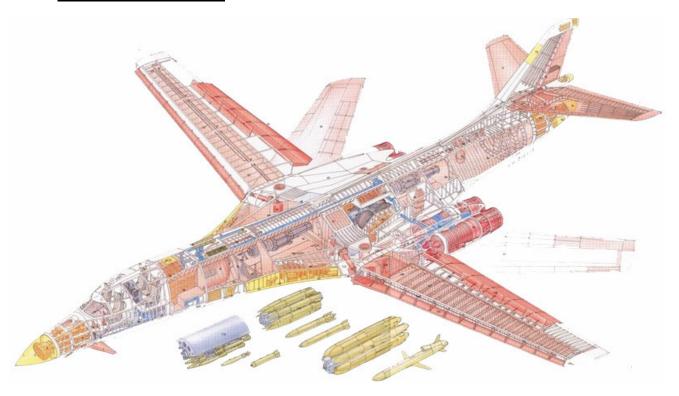| Type and Quantity	Max Range	Abilities	Notes
ESM	600 nm	Surface Search, Air Search, Bearing Information, Classification	ESM Array
AN-ALQ-161	0 nm		Defensive ECM Suite

Stores:

➢ AGM-69A Nuclear SRAM
➢ Mk-82 500lb LDGP
➢ Mk-84 2000lb LDGP
➢ M-117 750lb GP
➢ B-61 Tactical/Strategic Nuclear Bomb
➢ B-83 Strategic Thermonuclear Bomb

Versions (H3-DB2000)

➢ **B-1B Lancer (1985):** Baseline model, as described.

➢ **B-1B Lancer (1990):** Nuclear weapons removed.

- **B-1B Lancer Block C (1997):** New stores:
  - CBU-87 CEM
  - CBU-89 Gator
  - CBU-97 SFW)

- **B-1B Lancer Block D (1998):** No DB changes.

- **B-1B Lancer Block D (2001):** Major improvements:
  - New EW suite:
    - AN/ALQ-214 (ECM)
    - AN/ALR-56M (ESM, 200 nm, Surface Search, Air Search, Bearing Information)
  - New stores:
    - GBU-31(V)1/B JDAM [Mk84]
    - GBU-31(V)3/B JDAM [BLU-109]
    - CBU-105 WCMD [BLU-108 SFW]

- **B-1B Lancer Block E (2002):** New store: AGM-154A JSOW [BLU-97] stand-off dispenser.

- **B-1B Lancer Block E (2003):** New store: AGM-158A JASSM tactical cruise missile.

Current Service

United States AirForce (96 Aircraft):

- Dyess AFB, Texas: **7th Bomb Wing**
- Ellsworth AFB, South Dakota: **28th Bomb Wing**
- Mountain Home AFB, Idaho: **366th Expeditionary Wing**
- Robins AFB, Georgia: **116th Bomb Wing**
- McConnell AFB, Kansas: **184th Bomb Wing**
- Edwards AFB: **2 Test Aircraft**

*All of these aircraft have been assigned to various Air Expeditionary Wings. Each of these wings generally have 6 bombers assigned to them**.**

Aircraft basing information provided by the Global Security Web Site e at: http://www.globalsecurity.org