



The Newsletter of the Northern Illinois Rocketry Association

March/April 2009

Congratulations to Steve Eves' Record Setting Rocket





THE LEADING EDGE

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Dedicated to the idea that rocketry is fun!



Contributors this issue;

Articles Tony Lentini
Photographs Rick Gaff,
 Tony Lentini

-T Minus One- Launch Windows

NIRA Club Launches

May 17	East Branch Forest Preserve
June 21	East Branch Forest Preserve
July 19	East Branch Forest Preserve

Fox Valley Club Launches

May 9	Stephens Farm
June 14	Raintree Park
July 11	Raintree Park

Meeting Calendar

NIRA

May 1	Monthly meeting Helen Plum Library, Lombard
June 5	Monthly meeting Helen Plum Library, Lombard
July 3	Monthly meeting Helen Plum Library, Lombard

Fox Valley Rocketeers

May 4	Monthly meeting McHenry Public Library
June 1	Monthly meeting Woodstock Public Library
July 6	Monthly meeting McHenry Public Library



Model Of The Month



March Winners

A family affair! New member **Joseph Diethelm** walked in and walked off with the Adult honors by wowing the crowd with his flawless, scratch designed and built **Gibson Flying V**.

Son **Joey Diethelm** won Youth with his **Pikachu** that included detachable floppy ears.



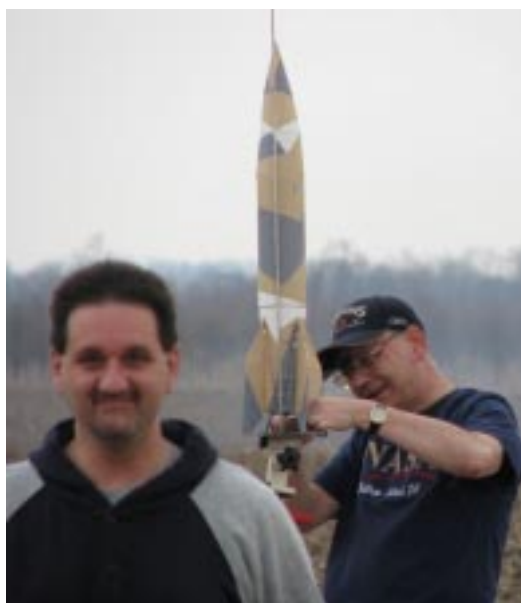
April Winners

The Adult winner was **Don Kennedy** with his upscaled **Estes Guardian**.

Youth was taken by **Joey Diethelm** again, this time using his **Pokeball Launcher**.

Junior went to **Joey Charaska** and his school science class project **Water Rocket Egg Lofter**.

Fox Valley Rocketeers Mid-Power Launch



NIRA members take advantage of FVR's launch held at the Hughes Seed Farm in Woodstock to do a little high flying.



Rocket Record: The Largest, Heaviest Amateur Rocket Ever Launched

By Davin Coburn

Steve Eves broke two world records Saturday, when his 1/10th scale model of the historic rocket—built in his garage near Akron, Ohio—lifted off from a field on Maryland’s Eastern Shore. The 36-ft.-tall rocket was the largest amateur rocket ever launched and recovered successfully—and at 1648 pounds, also the heaviest. Eves’ single-stage behemoth was powered by nine motors—eight 13,000 Newton-second N-Class motors and a 77,000 Newton-second P-Class motor. (Five Newton-seconds is equivalent to about a pound of thrust.) All told, the array generated enough force to chuck a Volkswagen more than a half-mile—and sent the Saturn V more than 4440 feet straight up. It was arguably the most audacious display of raw power ever generated by an amateur rocket.

Just before 1 p.m. on Saturday April 25, a Saturn V rocket carried one more man into history. Steve Eves broke two world records Saturday, when his 1/10th scale model of the historic rocket—built in his garage near Akron, Ohio—lifted off from a field on Maryland’s Eastern Shore. The 36-ft.-tall rocket was the largest amateur rocket ever launched and recovered successfully—and at 1648 pounds, also the heaviest.

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The launch took place at Higgs Farm, near Price, Md., home field for the Maryland-Delaware Rocketry Association (MDRA). The MDRA has a history of generating headlines along with serious thrust: Eves broke records set here five years ago by the Liberty Project, a 24-ft.-tall rocket that weighed 1368 pounds. But as a testament to the camaraderie in the hobby, Neil McGilvray, one of Liberty Project's team leaders, packed the parachutes for Eves' Saturn V. "When something like this comes along," McGilvray says, "there's no competition."

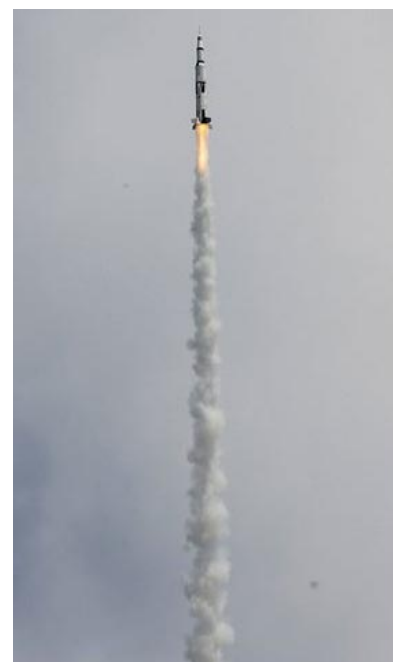
Organizers anticipated a crowd of 1,000 for the historic day, but they may have gotten twice that. Enthusiasts arrived from nearby states like Pennsylvania—but also from places like Texas and California. One local church group carpooled out to the field, as did members of the New Hampshire Wing of the Civil Air Patrol. In fact, the launch, which had been scheduled for noon, was delayed because the crowd created a traffic jam that kept Eves from the launch pad.

Saturday's showing was all the more impressive because larger rockets have more potential points of failure. Something goes wrong with NASA's launches roughly 10 percent of the time, and they're supposed to be the very best in the business. In the buildup to Eves' launch, meanwhile, amateur enthusiasts had all but pronounced the world records a foregone conclusion. "You try to test everything you can think of," Eves said before the flight, "but this is amateur rocketry. Who knows what might happen?" As MDRA members like to say, "We have cool launches, and we have really cool launches. The cool ones are when everything goes according to plan."

Two years ago, Eves says, he began thinking back to his childhood—to the days teachers would roll a TV set into the classroom for the students to watch Apollo launches. He tracked down schematics for the 36-story-tall rocket on the Internet and in old NASA drawings. Then the man who spends his days as an auto-body repair specialist built a skeleton from seven-ply aircraft-grade plywood. He built the tubular skin from Luan plywood—nearly 300 square feet of it, according to *Rockets* magazine—and then coated it with fiberglass. He told *Rockets* it took more than six hours, and 14 gallons of resin, to apply all the fiberglass cloth. All told, the project cost about \$25,000—including nearly \$13,000 for the fuel alone, which burned up in less than 10 seconds Saturday.

The rest of his rocket will have a greater shelf life. NASA has already contacted Eves about displaying it at the U.S. Space & Rocket Center in Huntsville, Ala., beneath an original Saturn V. There was talk of relaunching it and setting more records—but after such a successful flight, Eves probably won't risk it. "It could be launched again," he told the Akron Beacon Journal, "but it's going to be retired and put on display so people can enjoy it."

Photographs by Robert Coburn Published on: April 27, 2009

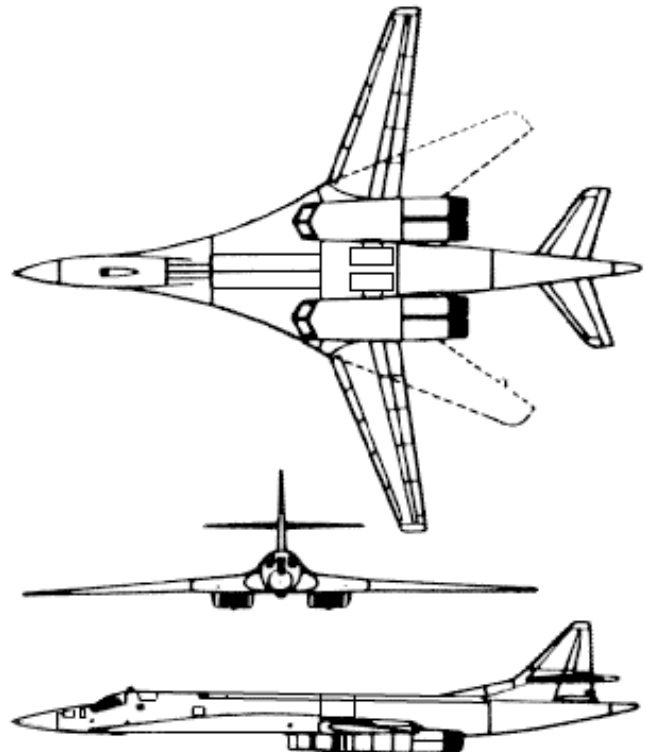


East**vs.****West****Rockwell B1 'Lancer'****vs.****Tupelev 160 'Blackjack'**

A case of parallel development, or international espionage? The similarity in the outlines of the Blackjack and the Lancer are undeniable, although their scale and capabilities are quite different. The B1 Lancer has one of the longest and most storied histories in the world of military aircraft development, while the Blackjack itself spans fifteen years and two Soviet design bureaus. Allegations remain that the Soviet Union once again resorted to copying western designs, while some believe that in this case, the west may have actually stolen design ideas from the Russians.

Initial requirements for the B1 bomber date back to 1961 after the cancellation of the Valkyrie project. During the Nixon administration, approval was given to Rockwell International to produce prototypes of a Mach 2 capable variable geometry aircraft, with a lower radar profile than the B-52 it was meant to replace. Cancellation during the Carter administration, and revival during the Reagan administration resulted in a plane which now operates as a low level bomber, rather than at high altitude and high speed. The new design first flown in 1984 cruises subsonic, but can still make speeds of Mach 1.25.

In 1972, the Soviet Union was aware of the American B1 project, and issued requirements for its own multi-purpose variable geometry wing Mach 2+ bomber. Designs were submitted by Myasishchev, Sukhoi, and Tupelev, with the Myasishchev design being regarded as the best. But Tupelev had the better record in the construction of heavy bombers, and so they were ordered to adopt the Myasishchev design and begin work. The prototype TU-160 flew in 1981, production was authorized in 1984, and production craft delivered in 1989.

**Rockwell B1 'Lancer'****Tupelev 160 'Blackjack'**



The Tupolev Tu-160 (NATO reporting name Blackjack) is a supersonic, variable-geometry heavy bomber designed by the Soviet Union. It is similar in configuration to the B-1 Lancer but is significantly larger and faster than the B-1B with a greater combat range and payload capacity. It is the largest variable-wing aircraft ever built. Entering service in 1987, the Tu-160 was the last strategic bomber designed by the Soviet Union but remains in production, with at least 16 currently in service with the Russian Air Force. Pilots of the Tu-160 call it the "White Swan", due to its maneuverability and antiflash white finish.

The first competition for a supersonic strategic heavy bomber was launched in the Soviet Union in 1967. The new plane was to have a cruise speed of over Mach 3, in response to the American B-70 Valkyrie. It soon became apparent that such an aircraft would be too expensive and difficult to produce, so it was decided to reduce demands (in the US, the B-70 bomber project had already been cancelled).

In 1972, the Soviet Union launched a new multi-mission bomber competition to create a new supersonic, variable-geometry ("swing-wing") heavy bomber with a maximum speed of Mach 2.3, in response to the US Air Force B-1 bomber project. The Tupolev design, dubbed Aircraft 160M, with a lengthened flying wing layout and incorporating some elements of the Tu-144, competed against the Myasishchev M-18 and the Sukhoi T-4 designs. Myasishchev's version, proposing a variable-geometry aircraft, was considered to be the most successful, although the Tupolev organization was regarded as having the greatest potential for completing this complex project. Consequently, Tupolev was assigned in 1973 the development of a new aircraft based on the Myasishchev design.

Although the B-1A was cancelled in 1977, work on the new Soviet bomber continued, and in the same year, the design was accepted by the government committee. Production was authorized in 1984, beginning at Kazan Aircraft Production Association. Production of the aircraft, designated Tu-160 was originally intended to total 100 aircraft, although only 35 have been produced, including three prototypes.

The Blackjack is a variable-geometry wing aircraft, with sweep selectable from 20° to 65°. The aircraft employs a blended wing profile and full-span slats are used on the leading edges, with double-

slotted flaps on the trailing edges. The Tu-160 has a fly-by-wire control system. It is powered by four Kuznetsov NK-321 afterburning turbofan engines, the most powerful ever fitted to a combat aircraft. Unlike the B-1B, which abandoned the Mach 2+ requirement of the original B-1A, it retains variable intakes, and is capable of reaching speeds slightly higher than Mach 2 at altitude.

Although the Tu-160 was designed for reduced detectability to both radar and infrared, it is not a stealth aircraft. Russian sources claim that it has a smaller radar cross section (RCS) than the B-1B. Nevertheless, on 25 April 2006 Commander Igor Khvorov claimed that Tu-160s had managed to penetrate the US Arctic zone undetected, leading to a NATO investigation.

The Tu-160 has a crew of four (pilot, co-pilot, weapons systems officer and defensive systems operator) in K-36DM ejection seats. The pilot has a fighter-style control stick, but the flight instruments are traditional "steam gauge" dials. There is no HUD, nor are CRT multi-function displays provided in the original aircraft; however, plans for modernization of all Tu-160s were announced in 2003. They include a new digital flight control system, and the ability to carry new weapon types, such as new non-nuclear long-range cruise missiles.

Weapons are carried in two internal bays, each capable of holding 20,000 kg (44,400 lb) of free-fall weapons or a rotary launcher for nuclear missiles; additional missiles may also be carried externally. The aircraft's payload capacity is 45,000 kg (99,208 lb), making it the heaviest bomber ever built. However, no defensive weapons are provided; the Tu-160 is the first unarmed post-World War II Soviet bomber.

The Tu-160 was first presented to the public in a parade in 1989. In 1989 and 1990 it set 44 world speed flight records in its weight class. Squadron deployments to Long Range Aviation began in April 1987. Until 1991, 19 of those aircraft served in the 184th Guards Heavy Bomber Regiment in Pryluky in the Ukrainian Socialist Republic, replacing Tu-16 'Badger' and Tu-22M3 'Backfire' aircraft. In January 1992, Boris Yeltsin decided to discontinue production of the Tu-160. By this time, 35 aircraft had been built. After the fall of the Soviet Union, 19 of 35 of those aircraft became Ukrainian property, although in 1999 a deal between Russia and Ukraine led to eight of those aircraft being returned to Russia in exchange for a reduction in Ukraine's energy debts. Ukraine, which gave up nuclear weapons as part of the collapse of USSR, destroyed the other Blackjacks in its possession, except for one airframe retained for static display.

Russia's second Tu-160 unit, the 121st Guards Heavy Bomber Regiment basing in Engels, was organised in 1992, but by 1994 it had received only six aircraft. Between 1999 and 2000 the eight former Ukrainian planes were assigned to the regiment, and another newly factory-built aircraft was assigned in 2000. By early 2001, in accordance with the START-2 Treaty, Russia has had 15 new-built Tu-160s, of which six were formerly missile-armed strategic bombers. One aircraft was lost during a test flight after engine repairs, on 18 September 2003.

There were 14 Tu-160s in service as of November 2005. Another two new-built aircraft are nearing completion at the Kazan Aircraft Plant, one of which was due to enter service in March 2006, with the other following later in the year. As of 2001, six additional Tu-160 have served as experimental aircraft at Zhukovski, four of them remaining airworthy.

Copied from Wikipedia



The B-1 Lancer is a strategic bomber used by the United States Air Force. First envisioned in the 1960s as a supersonic bomber with sufficient range and payload to replace the B-52 Stratofortress, it developed primarily into a low-level penetrator with long-range and capable of supersonic speed. The design was canceled and reinstated multiple times over its lengthy development history, as the theory of strategic balance changed from flexible response to mutually assured destruction and back again. It eventually entered service more than 20 years after first being studied.

The B-1B production version has been in service with the United States Air Force (USAF) since 1986. The Lancer serves as the supersonic component of the USAF's long-range bomber force, along with the subsonic B-52 and B-2 Spirit. The bomber is commonly called the "Bone" (originally from "B-One"). With the retirement of the EF-111 Raven in 1998 and the F-14 Tomcat in 2006, the B-1B is the U.S. military's only variable-sweep wing aircraft.

The B-1 was conceived as the Advanced Manned Strategic Aircraft (AMSA) program around 1965. In December 1957, U.S. Air Force selected North American Aviation's proposal to replace the B-52 Stratofortress. This would lead to the B-70 Valkyrie. The Valkyrie was a six-engine bomber that could fly very high at Mach 3 to avoid interceptor aircraft, the only effective anti-bomber weapon in the 1950s. At the time, Soviet interceptors were unable to intercept the high-flying Lockheed U-2; the Valkyrie was to fly at similar altitudes and much higher speeds. But by the late 1950s, surface-to-air missiles could threaten high-altitude aircraft, as demonstrated by the downing of Gary Powers' U-2 in 1960.

Recognizing this, the USAF Strategic Air Command had begun moving to low-level penetration before the U-2 downing. This greatly reduces radar detection distances while at that time SAMs were ineffective and interceptors less effective against low-flying aircraft.

Operations at low levels would limit the B-70 to subsonic speed, while dramatically decreasing its range due to much higher fuel requirements. The result would be an aircraft with similar speed but much less range than the B-52 it would have replaced. The Mach 2 B-58 was similarly limited to subsonic speeds at low altitudes. Unsuitable for this new role, the viability of the B-70 as a bomber was questioned. Citing high cost, a growing ICBM force, and poor survivabil-

ity against missiles, the operational bomber fleet was canceled in 1961 and the program was changed to a supersonic research program with two XB-70 prototype aircraft.

The cancellation of the B-70 project had led some to question the need for a new strategic bomber at all. The Air Force was adamant about retaining bombers as part of the nuclear triad concept that included bombers, SLBMs, and ICBMs in a combined package that complicated any potential defense.

One of the biggest critics of the bomber portion of the triad was Secretary of Defense Robert McNamara who preferred ICBMs over bombers for the Air Force side of the deterrent force. His opposition led to the AMSA program being stopped in 1964. The program was revived only a few years later however, and in 1968 an advanced development contract was issued to IBM and North American Rockwell. McNamara remained opposed to the program in favor of upgrading the existing B-52 fleet, and adding just under 300 FB-111s for shorter range roles then being filled by the B-58. He vetoed the AMSA program and canceled it once again.

President Richard Nixon re-established the program after taking office, in keeping with his administration's flexible response strategy that required a broad range of options short of general nuclear war. Secretary of Defense Melvin Laird reviewed the programs and decided to lower the numbers of FB-111s, claiming it lacked the required range, and recommended that the AMSA design studies be accelerated. In April 1969 the program officially became the B-1A. This was the first entry in the new bomber designation series, first created in 1962.

After the prolonged development period, the production contract was finally awarded in 1970. The original program called for two test airframes, five flyable aircraft, and 40 engines. This was cut in 1971 to one ground- and three flight test aircraft.

Rockwell's design featured a number of features common to 1960s U.S. designs. These included the use of variable-sweep wings in order to provide both high lift during takeoff and landing, and low drag during a high-speed dash phase. With the wings set to their widest position the aircraft had considerably better lift and power than the B-52, allowing it to operate from a much wider variety of bases. Penetration of the USSR's defenses would take place in a dash, crossing them as quickly as possible before entering into the less defended "heartland" where speeds could be reduced again.

The B-1A mockup review occurred in late October 1971. There were 297 requests for alterations. In 1970, the estimated per-unit price was \$40 million, and by 1972, the cost had risen slightly to \$45.6 million. By 1975, this figure had climbed to \$70 million.

In 1976 Viktor Belenko defected to Japan with his MiG-25 "Foxbat". During debriefing he described a new "super-Foxbat" (almost certainly referring to the MiG-31) that had look-down/shoot-down radar systems in order to attack cruise missiles. This would also make any low-level penetration aircraft "visible" and easy to attack. Countering this problem would require another upgrade to the electronic countermeasures suite, already one of the most complex and expensive ever fitted. The debate over the need for the bomber opened anew, and this time the reduced low-speed dash was a particular target. Given the performance and the armament suite that was similar to the B-52, the program was increasingly questioned as a very expensive solution that appeared to have limited benefits over the existing fleet.



During the 1976 federal election campaign, Jimmy Carter made it one of the Democratic Party's platforms, saying "The B-1 bomber is an example of a proposed system which should not be funded and would be wasteful of taxpayers' dollars."

When Carter took office in 1977 he ordered a review of the entire program. By this point the projected cost of the program had risen to over \$100 million per aircraft, although this was lifetime cost over 20 years. He was informed of the relatively new work on stealth aircraft that had started in 1975, and decided that this was a far better avenue of approach. Pentagon officials also stated that the ALCM (Air Launched Cruise Missile) launched from the existing B-52 fleet would give the USAF equal capability of penetrating Soviet airspace. A program to improve the B-52 and develop and deploy the ALCM would cost perhaps 20% of the price to deploy the planned 244 B-1As.

On 30 June 1977 Carter announced that the B-1A would be canceled in favor of ICBMs, SLBMs, and a fleet of modernized B-52s armed with ALCMs. Flight tests of the four B-1A prototypes for the B-1A program continued through April 1981. The program included 70 flights totalling 378 hours. A top speed of Mach 2.22 was reached by the second B-1A. Engine testing also continued during this time with the YF101 engines totalling almost 7,600 hours

It was during this period that the Soviets, also acting in proxy through Cuba, started to exert themselves in several new theaters of action, in particular the Cuban support in Angola starting in 1975 and the Soviet invasion of Afghanistan in 1979. The U.S. strategy to this point was containment and a conventional and nuclear war in Europe, which almost all military planning had been focused on. These newer actions revealed that the military was simply incapable of supporting any sort of effort outside these narrow confines.

During the 1980 presidential campaign, Ronald Reagan campaigned heavily on the platform that Carter was weak on defense, using the cancellation of the B-1 program as a prime example. During this time Carter's defense secretary, Harold Brown, announced the stealth bomber project, apparently implying that this was the reason for the B-1 cancellation. Brown later denied this claim, stating Carter was simply opposed to any military buildup.

On taking office, Reagan was faced with the same decision as Carter before; whether to continue with the B-1 for the short term, or to wait for the development of the ATB, a much more advanced aircraft. He decided to do both. Air Force studies suggested that the existing B-52 fleet with ALCM would remain a credible threat until 1985, as it was predicted that 75% of the B-52 force would survive to attack its targets. After this period the introduction of the SA-10 missile, MiG-31 interceptor and the first Soviet AWACS systems would make them increasingly vulnerable.

During the FY81 budget funds were given to a new study for a bomber for the 1990s time-frame. These studies led to the Long-Range Combat Aircraft (LRCA) project which compared the B-1, F-111 and ATB as possible solutions. An emphasis was placed on the design being multi-role, as opposed to a purely strategic weapon. At the time it was believed the B-1 could be in operation before the B-2, covering the time period between the B-52s increasing vulnerability and the introduction of the ATB. Reagan decided the best solution was to purchase both the B-1 and ATB, and this eventually led to Reagan's 2 October 1981 announcement that a new version of the B-1 was being

ordered to fill the LRCA role.

Numerous changes were made to the design to better fit it to real-world missions, resulting in the new B-1B. These changes included a reduction in maximum speed, which allowed the variable-aspect intake ramps to be replaced by simpler fixed geometry intake ramps in the newer design. This reduced the B version's radar signature because the compressor faces of the engines, major radar reflectors, would be partially hidden. Low-altitude speed was somewhat improved, from about Mach 0.85 to 0.92. This left the B-1B with the capability for speeds of about Mach 1.25 "at altitude", a reduction from the B-1A's Mach 2 performance.

Opposition to the plan was widespread within Congress. Critics pointed out that many of the original problems with the concept remained. In particular it seemed the B-52 fitted with electronics similar to the B-1B would be equally able to avoid interception, as the speed advantage of the B-1 was now minimal. It also appeared that the "interim" time frame served by the B-1B would be less than a decade, being rendered obsolete shortly after introduction by the much more capable ATB design. The primary argument in favor of the B-1 was its large conventional payload, and that its takeoff performance allowed it to operate with a credible bombload from a much wider variety of airfields. The debate remained rancorous. But the Air Force very astutely spread production subcontracts across many congressional districts, making the aircraft more popular on Capitol Hill.

The first production model of the revised B-1B first flew in October 1984, and the first B-1B, "The Star of Abilene", was delivered to Dyess Air Force Base, Abilene, Texas, in June 1985, with initial operational capability on 1 October, 1986. The 100th and final B-1B was delivered 2 May 1988.

The B-1 has a blended wing body configuration, with variable-sweep wing, triangular fin control surfaces and four turbofan engines, to improve range and speed with enhanced survivability. Forward-swept wing settings are used for takeoff, landings and high-altitude maximum cruise. Aft-swept wing settings are used in high subsonic and supersonic flight. The length of the aircraft presented a serious flexing problem due to air turbulence at low altitude. To alleviate this, Rockwell included small canards near the nose on the B-1. An accelerometer would actuate the canards automatically to counteract turbulence and smooth out the ride.

Unlike the B-1A, the B-1B made no attempt at Mach 2+ speeds. Its maximum speed at altitude is Mach 1.25, but its low-level speed increased to Mach 0.92.

Operationally, the B-1 was first used in combat in support of operations against Iraq during Operation Desert Fox in December 1998. B-1s have been subsequently used in Operation Allied Force (Kosovo) and most notably in Operation Enduring Freedom in Afghanistan and the 2003 invasion of Iraq.

The B-1 now fills an important niche in the Air Force inventory. With the arrival of limited numbers of B-2s in the 1990s and the continuing use of B-52s, its value has been questioned. However, the capability of a high-speed strike with a large bomb payload for time-sensitive operations is useful, and no new strategic bomber is on the immediate horizon.

A total of 100 B-1Bs were produced with 93 bombers remaining in 2000 after losses in accidents. Copied from Wikipedia



All The News That Fits To Print

Obama Depressed, Distant Since 'Battlestar Galactica' Series Finale



Obama told aides he feels
"like a cylon without a Resurrection Ship."

WASHINGTON—According to sources in the White House, President Barack Obama has been uncharacteristically distant and withdrawn ever since last month's two-hour series finale of *Battlestar Galactica*.

"The president seems to be someplace else lately," said one high-level official, speaking on condition of anonymity. "Yesterday we were all being briefed on the encroachment of Iranian drone planes into Iraq, when he just looked up from the table and blurted out, 'What am I supposed to watch on Fridays at 10 p.m. now? *Numb3rs*?'"

"I haven't seen him this upset since Admiral Adama realized that Earth was actually an uninhabitable wasteland," the official continued. "Or at least that's what he told me. I don't actually watch the show. It's not really my thing."

Since the end of the series, Obama has reportedly brushed off key budgetary decisions, ignored his wife and children, and neglected his daily workouts, claiming that he no longer cares if he lets himself go "just like Lee did before the rescue on New Caprica."

In addition, sources confirmed that instead of meeting with Treasury Secretary Timothy Geithner on Monday, the depressed president sat alone in the Oval Office, scouring Internet message boards for posts by other fans about the series conclusion.

Hoping to cheer himself up, Obama also decided to re-watch the extended director's cut of "Unfinished Business," a season three episode he once described as "bringing the Starbuck-Apollo relationship to a head in the best possible way."

Revisiting the series, however, has only made the president more miserable. After a staffer suggested he bring DVDs of the show along on a recent policy trip to Denver, Obama reportedly muttered under his breath, "What's the point? It's over."

"We were going over his schedule when he sighed and asked if I watched *Battlestar*," said a White House secretary, whom Obama used to playfully call "Billy." "I told him I was planning on it because my sister's a big fan, but he just stared out the window the whole time."

"I also noticed he took down his *Battlestar Galactica* season 4.5 poster," she added.

Obama watched the finale just as he had every previous episode, alone in the White House screening room with the volume turned all the way up. Sources said he emerged exhilarated and told several aides that the show's writers "wrapped things up the best they could, though the very end was a little much."

The commander in chief also bragged that he "totally called" the fact that "All Along The Watch Tower" would be used as the jump coordinates for the FTL drive.

Despite his initial excitement, by Monday morning the absence of the hour-long Sci-Fi program had begun to affect the president.

"I'm a little concerned," first lady Michelle Obama was overheard saying at a fundraising event Tuesday. "When *Firefly* was canceled, he walked around like a zombie for a week, and *Serenity* was the only thing that snapped him out of it. Last night he said he felt like he had just discovered David Axelrod was one of the Final Five, whatever that means."

A devoted fan of the original 1978 *Battlestar Galactica*, Obama was initially hesitant to watch the new series, saying he was upset to learn that hotshot pilot Starbuck would be played by a woman. However, during a particularly slow week in the U.S. Senate, Obama decided to rent the first season from Netflix.

Aides said Obama "blew through" season one in a weekend, then purchased season 2.0 from a local Best Buy, and, in order to catch up in time for season three, downloaded the majority of season 2.5 from iTunes.



Obama attempts to console himself with leaked production stills from the upcoming spin-off *Caprica*.

"When we spoke last month, he said season three was his least favorite because some of the episodes with Helo and the Sagittarons—and pretty much anything that involved Cally—were boring and didn't advance the plot," Afghan president Hamid Karzai said. "But I told him that when you watch it all on DVD, and you don't have to wait a whole week for a new show, those peripheral episodes actually add new color to the already established world."

Added Karzai, "Lately, though, it seems like he'd rather talk about the resurgence of Taliban warlords in Kandahar than the show."

During an emergency press conference on Wednesday, Obama addressed his recent detachment, as well as various other matters facing the United States.

"Our nation finds itself in uncharted territory in the deep emptiness of space," Obama announced. "The Old Girl has limited supplies, no allies, and now, no hope. I never said this would be an easy journey. Yet I promise you this: There is a place where there is no war and no economic turmoil. It is where, according to the Sacred Scrolls handed down to us by the Lords of Kobol, the thirteenth tribe traveled over three thousand years ago. That place is called Earth. Not the other Earth. This Earth. It's complicated. Anyway, I plan to take us there."

Added Obama, "So say we all! So say we all! So say we all!"

Reprinted from 'The Onion'

NASA:

A History Of Setbacks



1958

After a series of technical failures, budget cuts, and a small fire, NASA successfully opens its headquarters

1961

President John F. Kennedy announces plans to send an astronaut to the moon within the decade, instantly putting NASA scientists 61 weeks behind schedule

1969

America becomes the first country to dilly-dally putting a man on the moon

1979

Voyager I, the first probe to reach Saturn's orbit, spends a third historic week on the launch pad

1986

The space shuttle Challenger is launched right on schedule

1992

Costing an estimated \$980 million, the state-of-the-art Mars Observer becomes the first NASA probe to delay its own return to Earth

2009

NASA announces plans to begin initial talks on setting a future date for announcing their next epic delay

Sci-Fi Classics **Destination Moon / Luna (1950)**

