HERE'S AN INSIDE LOOK AT THE US MILITARY'S "DOOMSDAY PLANE"

WHICH CAN ENDURE THE AFTERMATH OF A NUCLEAR BLAST

INCLUDES UPDATED INFORMATION ON THE NEXT DOOMSDAY PLANE

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KEY POINTS

The E-4B, or "doomsday plane," is a highly survivable flying fortress used to transport the secretary of Defense.

Designed during the Cold War, ***the four planes are built to endure the immediate aftermath of a nuclear detonation.***

"The plane is a flying command center," a Pentagon spokesman tells CNBC aboard the aircraft.

An E-4B aircraft sits on the tarmac at Travis Air Force Base, Calif., Sep. 11, 2017

ABOARD A US MILITARY AIRCRAFT

There is no aircraft quite like the U.S. Air Force's E-4B.

Affectionately known as the "***doomsday plane," the modified Boeing 747*** is used to transport the secretary of *Defense* ***and is born and bred for battle***. It stands nearly six stories tall, is equipped with four colossal engines, and is capable of enduring the immediate aftermath of a nuclear detonation.

"It's like a backup Pentagon," a U.S. Air Force crew member told CNBC aboard one of the aircraft. "There's always one plane on alert and ready to go 24 hours, seven days a week."

On Tuesday morning, acting Secretary of Defense Patrick Shanahan boarded the E-4B at Joint Base Andrews in Maryland for a week-long trip to Asia. It was his second time taking the plane on an international trip since ascending to the highest office in the Pentagon. ***The aircraft, also known as the National Airborne Operations Center,*** will ferry Shanahan and his staff to Hawaii, Indonesia, Singapore, South Korea, and Japan.

U.S. Acting Secretary of Defense Patrick Shanahan waves goodbye as he boards the E-4B.

Aircrew aboard the plane said that the aircraft would clock a total of 22,538 nautical miles with the help of three aerial refuelings and six tankers during the eight-day trip.

"It's great, but they keep giving me more work," Shanahan joked when asked about working and traveling on the E-4B. "The work never stops," he added, noting that he has a pulse on U.S. military operations across the globe while aboard the aircraft

"Think of it as this, the plane is a flying command center," a Pentagon spokesman said aboard the aircraft. The spokesman added that the secretary has access to both unclassified and the highest form of classified communication systems on the plane. "So, he's never out of the loop," another Pentagon spokesman added.

'It's like a backup Pentagon': Inside the E-4B 'doomsday plane'

Much like Air Force One, its sister aircraft with the same recognizable paint job***, most of the E-4B's capabilities are classified.***

Currently, there are four of these unique aircraft in the Air Force's fleet. The identical planes, which are based at ***Offutt Air Force Base in Nebraska, have been in operation since 1980.***

The noticeable hump on top of the plane is called a "radome" and houses some of the ***nearly 67 different satellite dishes and antennas***. The dome is one element in the E-4B's communication portfolio that gives those aboard the ability to contact ships, submarines, aircraft, and landlines anywhere in the world.

One of the planes is kept running at all times, with the engine running 24 hours a day at the Offutt base when the president is in the US. If an emergency happens, the plane is ready to meet with the president almost immediately

What's more, thanks to aerial refueling and the E-4B's massive fuel tanks, ***the plane can stay aloft for several days.*** The three-deck aircraft can support a crew of up to 112 people. It has 18 bunks, six

bathrooms, a galley, a briefing room, a conference room, a battle staff work area, and executive quarters.

Unlike Air Force One, the E-4B is built for utility, and its interior is dated and nearly windowless. With a few exceptions, the plane's electronics and flight instruments are also antiquated.

"It's a common misconception, but this plane doesn't have digital touch screens in the cockpit or elsewhere," explained another crew member. "The conditions that this plane is meant to fly in call for ***analog since digital tech would fry during a nuclear war," he added.***

In other words, the E-4B's analog technology is less susceptible to the electromagnetic pulse that follows a nuclear blast. The aircraft are slated to have reached their service life by 2039.

The following link provides much more information and a short video of the inside of the plane.

To view: Copy and paste the below link into your browser

https://www.youtube.com/watch?v=VWsYpac2D6M

EXTRACTED FROM THE "BREAKING DEFENSE" WEBSITE

https://breakingdefense.com/2020/02/air-force-to-kick-off-e4-b-replacement-competition-in-2021/

WASHINGTON: The Air Force intends to issue the first contracts for replacing the venerable E-4B "Doomsday" plane in 2021, with a budget of $76.4 million — more than six times the $12.7 million approved by Congress in 2020

NEW DOOMSDAY PLANE 2024

https://www.youtube.com/watch?v=2VtemWRDIXM

ABOUT THE PLANE

https://www.youtube.com/watch?v=meIuEVhyROQ

UPDATE ON THE NEW DOOMSDAY PLANE

AIR FORCE'S NEW DOOMSDAY PLANE WILL BE CONVERTED FROM KOREAN AIR PASSENGER JETS

AIR & SPACE FORCES

May 10, 2024

Sierra Nevada Corporation, which received the $13 billion contract in April to build the Air Force's Survivable Airborne Operations Center fleet, has secured five Korean Air 747-8 passenger jets to host the system.

Reuters first reported the aircraft sale, valued at about $674 million, which was concluded on May 8. The aircraft was built circa 2015 and will be about 15 years old when the first ones enter USAF service. The specific tail numbers have not been disclosed, but most of the late-model 747-8s owned by Korean Air have been parked for at least two of the last five years during the worldwide slowdown in air traffic associated with the COVID pandemic. The aircraft will be delivered to SNC by the third quarter of 2025. The fully operational SAOC aircraft are scheduled for delivery by 2036.

The E-4B National Airborne Operations Center (NAOC)—known as ***"Nightwatch"*** or the "Doomsday plane" - is USAF's four-aircraft fleet of flying command posts, each of which can command and control U.S. nuclear and conventional forces.

It dates to the late 1970s/early 1980s and suffers from parts obsolescence, deteriorating reliability, and "vanishing vendor" syndrome. An E-4B usually transports the Secretary of Defense and his staff on long trips, but in recent months, that mission has frequently shifted to other aircraft as the E-4B's availability has declined. The most recently published data from the Air Force pegs the E-4B's mission availability at just over 55 percent.

An E-4B National Airborne Operations Center stands ready at Royal Air Force Mildenhall, England, April 12, 2023. The NAOC aircraft has several missions, both operational and training, which require travel to a wide variety of locations, both within the United States and around the world. (U.S. Force photo by Karen Abeyasekere/This image has been altered for security purposes

The Air Force has said it's comfortable with using a "Commercial Derivative Aircraft" for the requirement, one that will be "hardened and modified to meet military requirements."
The Nightwatch aircraft are heavily hardened against electromagnetic pulses and are structurally strengthened to keep flying if buffeted by a distant nuclear blast. The new aircraft will be similarly equipped and have redundant analog systems to ensure their continued operations in an EMP environment.

The amount of communications and other gear required for the mission necessitates a large, four-engined aircraft, but the two jumbo aircraft builders, Airbus and Boeing, have stopped building new A380 and 747 aircraft, respectively, that can contain the system, requiring SNC to buy secondhand aircraft.

Boeing, which is building the new "Air Force One," bought 747-8s for that mission from a Russian charter company. Unlike the Korean Air jets, the ones that will serve as Air Force One never carried passenger traffic. There will be commonality between the SAOC jets and Air Force One.

It's not clear if SNC will build five SAOC aircraft or replace the existing fleet of four Nightwatch jets on a one-for-one basis and use the fifth airplane for engineering mockup, fit, and installation checks. The Air Force had said it might buy up to 10 Nightwatch jets. The company did not respond to queries.
SNC will do at least some of the conversion work at Dayton, Ohio, where it has a hangar sized to accommodate 747-8s.

The SAOC is required to be developed with an open systems architecture that will allow other companies to compete for future upgrades to its systems, and the Air Force will own the technical baseline for the system.

Service and industry officials said Boeing was ruled out of the SAOC competition late last year when it wouldn't agree on data rights/intellectual property aspects of the contract or accept fixed pricing on some aspects of the system. ***Boeing has in recent years lost more than $8 billion on the KC-46 tanker, MQ-25 Stingray carrier-based Navy tanker, and the Air Force T-7 Red Hawk trainer, all of which are fixed-price contracts.***

The SAOC buy marks the second time the Air Force will have acquired secondhand passenger jets to fulfill a vital mission. In the 1990s, the service bought Boeing 707s that had served with Iran Air and converted them to become the E-8 Joint STARS fleet. Although high-time aircraft, the Air Force reasoned that the aircraft could be overhauled to "zero time." In practice, the JSTARS fleet suffered from far greater structural fatigue and corrosion than other types. The 707 was chosen to achieve a degree of commonality with the KC-15, E-3 AWACS, and RC-135 Rivet Joint fleets.

Air Force Gen. Charles Q. Brown, chairman of the joint chiefs of staff, told the Senate Appropriations Committee on May 8 that the SAOC is needed to ensure "we have a viable platform that we can sustain from a maintenance standpoint."

"At some point," Brown said, "it gets more costly to maintain than to move into a new capability." Brown said the SAOC will not merely be a fresher version of the Nightwatch but will have "the most advanced capabilities that the nation has to offer."

In its fiscal 2025 budget proposal, the Air Force asked Congress for $1.69 billion for SAOC development.