



A new hangar will bring presidential and R&D aircraft in with the rest of the museum's collection.

Big Plans for the Air Force Museum

By Peter Grier



An aerial view of the National Museum of the United States Air Force in Dayton, Ohio. The dashed outline shows where the new building will be.

USAF photo

SAM 26000 is one of the most historic aircraft ever flown by the US Air Force. A military version of a Boeing 707-320B, it entered service right off the assembly line on Oct. 10, 1962. Painted a striking blue and white, with a large American flag on the tail, this Special Air Mission airplane (tail No. 26000) was known as Air Force One when the President of the United States was aboard.

John F. Kennedy flew on SAM 26000 to Dallas on Nov. 22, 1963. In the chaotic hours following his assassination, Lyndon B. Johnson took the presidential oath of

That soon is likely to change. A major capital construction program at the Air Force museum aims to expand the facility's current one million square feet of space with a new building that will allow hundreds of thousands of visitors a year to see SAM 26000, Franklin D. Roosevelt's Douglas C-54 *Sacred Cow*, and other presidential airplanes.

The building will also contain a Space Gallery big enough to allow the world's largest and oldest military aviation museum to display a full Titan IV booster.

"All of this will be indoors, out of the rain and snow, and the public will get a much better picture of the Air Force story

and careers in science, technology, and math. We want to teach their parents about this," Hudson said.

The National Museum of the US Air Force began life in 1923 as a display of World War I aircraft and equipment in the corner of a hangar at the Army's McCook Field, near downtown Dayton.

Even at that early date the area was steeped in the history of flight. Dayton had long served as home base for the Wright brothers, who developed their 1903 flyer there and used nearby Huffman Prairie for test runs through 1910. The Wrights' first successful flight was at Kitty Hawk, N.C., but it was at the

Aircraft from aviation's early days include a Cacquot Type R observation balloon and a Curtiss JN-4D (foreground).



National Museum of the US Air Force photos

office in the aircraft's cabin. An iconic photo of the event shows a grim LBJ raising his right hand while Jackie Kennedy stands next to him in the crowded space, her face a mask of shock. SAM 26000 flew JFK's body back to Washington. In later years it carried National Security Advisor Henry A. Kissinger to Paris for secret meetings with North Vietnamese leaders, and President Nixon to China on his famous 1972 visit.

Today the aircraft resides at the National Museum of the US Air Force in Dayton, Ohio. While a popular exhibit, it is difficult to reach.

Space limitations relegate it and other presidential aircraft to an old hangar a mile from the main museum, in a controlled-access portion of Wright-Patterson AFB, Ohio. Only one out of every 10 visitors manages to see the display.

in these particular mission areas," said the museum's director, retired Air Force Lt. Gen. John L. Hudson.

Wide Appeal

Today only about one-third of museum visitors have military experience. As time goes by, the percentage of Americans who have served in the armed forces gets smaller and smaller, and it is important to show them a full and updated picture of what the Air Force is about, said Hudson.

The new building—funded by private donations—should also help the museum in its mission of educational outreach. There is a lot of science, technology, and math behind the Titan IV, the space shuttle, and other displays intended for the museum expansion.

"We'd like to motivate American youth towards the Air Force, or civilian service,

prairie where they developed an airplane fully controllable by a pilot, able to turn, land, and take off at will. Later they established and ran a training school for pilots at the site. Among their students was then-Lt. Henry H. "Hap" Arnold, who rose to command the US Army Air Forces in World War II.

By the mid-1920s the Army owned Huffman Prairie and 5,000 surrounding acres, and the area was named Wright Field. In 1927 the nation's nascent military aeronautical museum moved there from McCook Field, taking up 8,100 square feet in a laboratory building. In 1935 the Works Progress Administration built a separate museum building to house the 3,000 items of the growing collection, but in 1941 the museum was commandeered for wartime needs, and the collection went into storage.



World War II Gallery aircraft include this Curtiss C-46D.

The Air Force Museum did not reopen until 1947. At that point it emphasized aircraft technical developments and was open by appointment only. In 1955, the Air Force finally threw the doors open to the general public. That year some 42,000 visitors trooped through its exhibits, housed in an old engine-overhaul facility at Patterson Field, next to Wright Field. As the museum's popularity grew, it became increasingly

apparent it needed a new home. The engine-overhaul building had posts every 16 feet in one direction, making it difficult to display aircraft. The building was also not air-conditioned and did not offer adequate fire protection.

Enter the Air Force Museum Foundation, a nonprofit formed in 1960. This group raised the \$6 million needed for a new building designed specifically to display aircraft. The long, open facility

with its half-curve roof can hold nearly 100 airplanes.

It opened in 1971 on a 400-acre site back at Wright Field and today holds the museum's collection of artifacts from the early years of flight—everything from a 1909 Wright Military Flyer, to an extensive collection of World War I biplanes, and an observation balloon—and a large display telling the story of World War II military aviation.



Also in the World War II Gallery are displayed (from left): a Stearman PT-13D, Vultee BT-13B, and Laister-Kauffmann TG-4A.



The museum highlights engines and armament as well as airplanes in the Cold War Gallery.

Among the many notable aircraft from 1939 to 1945 is *Bockscar*, the B-29 Superfortress that dropped the “Fat Man” atomic bomb on Nagasaki, Japan.

A second building opened in 1988, running parallel to the first one and similar in appearance. Its \$10.8 million cost was shared by the federal government and the museum foundation.

Currently, it tells the story of the Korean and Vietnam Wars. The Korean section includes, among other things, a

MiG-15 delivered to the West by a North Korean defector in 1953. The Southeast Asia Gallery contains such iconic aircraft as an F-4 Phantom II and a UH-1 “Huey” helicopter as well as displays dealing with 1972’s Linebacker II and other key air campaigns of the conflict.

The third phase of the museum’s growth occurred in 2003 with the opening of the \$22 million Eugene W. Kettering Cold War Gallery. This provided the space for curators to rearrange their

entire collection in chronological order and show such large aircraft as a B-2 (the only stealth bomber on permanent public display) and the huge B-36J, the last piston-powered strategic bomber produced in the US.

Today the National Museum of the US Air Force is among the most popular public attractions in the Midwest. In 2011 about 1.2 million visitors walked through its doors, just short of the museum’s all-time attendance record of 1.34 million,



One of only two B-2 test articles built is on display at the museum. The airframe is marked to resemble Spirit of Ohio.



President Kennedy's Air Force One (SAM 26000) arrives at the museum, where it is currently displayed in a hangar about a mile from the main complex. Right: Lyndon Johnson, with Jackie Kennedy at right, takes the oath of office on SAM 26000 the day Kennedy was assassinated.

set in 2003 when it celebrated the 100th anniversary of powered heavier-than-air flight. "We're within a day's drive of better than 60 percent of the American population," Hudson noted.

Arranging Easy Access

With some 360 aircraft and thousands of other aviation-related items on display, the facility is already the largest such military museum anywhere.

But aviation continues to develop, and curators continue to amass items reflecting that development. The museum's master plan has long called for a fourth building alongside the existing three.

Today the institution's leaders and the Air Force Museum Foundation are moving to make that new building a reality. The museum is an Air Force facility, and government money pays for normal operations and maintenance. The foundation will pay for the fourth building, constructed by the Army Corps of Engineers.

So far the foundation has raised about \$37 million of the estimated \$47 million building cost. "We are planning on getting this started as soon as we can," Hudson said. "We would like to begin construction in 2013 and finish in 2014."

One big reason the museum needs a fourth building is to configure its entire collection for easy public access. Right now, two entire galleries—those housing the presidential aircraft and research and development—are located apart



from the main museum complex, in the secure zone. Visitors must take a shuttle bus to and from this area, and the bus only runs four times a day.

Yet the Presidential Gallery contains some of the museum's gems, such as *Independence*, a Douglas VC-118 that carried President Harry Truman on his historic flight to Wake Island in 1950 to discuss the situation in Korea with Gen. Douglas MacArthur.

Plans call for all the presidential aircraft to move into the museum expansion space. More visitors will be able to enter the aircraft, walk down their aisles, and envision the historic scenes that have occurred in their cabins. "This is a very popular set of exhibits," Hudson said.

Another reason is the need to further document the Air Force's evolving role in space.

A silo-shaped annex of the museum's Cold War Gallery currently houses a limited missile and space exhibit. It includes an array of Air Force ICBMs and a temporary display of space objects, including the Apollo 15 capsule.

The museum's expansion would allow it to display many more space items in a new gallery—among them, a Titan IV rocket in storage. "That was a launch vehicle that did a lot of important work for the Air Force. We would like to put one on display, but we can't do it now because we just don't have the room," Hudson said.

The Air Force museum was not successful in its recent attempt to obtain a retiring space shuttle. However, NASA is sending it one of two full-scale simulators used for training astronauts in Houston. Museum officials plan to use the simulator as the centerpiece of a large shuttle-related exhibit. It will include a payload bay that visitors can walk inside of, and perhaps interactive displays shaped like shuttle wings. Among other things it will tell the story of what the Air Force did for the shuttle program in terms of providing astronauts and launch and recovery infrastructure.

“We’ll really be able to tell the more technical side of the shuttle. We’re going to take what NASA is going to give us and make a great display,” Hudson said.

Eye on the Future

Adding museum space will also allow curators to better tell the story of Air Force airlift. A new Global Reach Gallery will allow the museum to bring together workhorse aircraft now scattered in other buildings or outside in the air park adjacent to the main complex. Among the stars of this new gallery, to be relocated from the Southeast Asia Gallery, will be the “Hanoi Taxi.”

The Lockheed C-141 Starlifter was a cargo transport for three decades, but it carried its most important load on Feb. 12, 1973, when it lifted the first American prisoners released by the North Vietnamese out of Gia Lam Airport in Hanoi. In total it made two runs to Hanoi, and four from the Philippines to the US, to repatriate more than 70 POWs.

Airplanes the museum anticipates showing alongside the “Hanoi Taxi” include a massive C-5 Galaxy and a KC-135 tanker. As in the presidential



A Minuteman I ICBM, displayed in the Missile & Space Gallery.

USAF photos



This KH-7 Gambit, a Cold War spy satellite, was only declassified in 2011.

USAF photo

exhibit, the Global Reach Gallery will feature walkways to allow public access into interior spaces. “People love getting inside the airplanes,” Hudson said. “When you get inside you can see how they were designed, how big they were, see the engineering that goes into the cargo bay, and so forth. That will all be new with that fourth building.”

Looking into the future, the museum’s master plan contemplates even further developments. For instance, officials would like to have enough space to move the Research and Development Gallery into the main complex and expand its displays. But this is just on the drawing board. For now museum leaders are focused on making the current expansion a reality.



Displayed near the Boeing RB-47H (I) is a Lockheed U-2A.

The museum is busy with new acquisitions, as well. It is restoring *Memphis Belle*, one of the most storied B-17s ever produced. *Belle* was the first US heavy bomber to complete 25 missions over Europe and return to the United States. In June 1943 its crew flew the airplane on a three-month morale-boosting barnstorming tour of the US. It has been the subject of both a 1944 documentary and a 1990 feature film depicting its exploits.

Thanks to the National Reconnaissance Office, the museum has also received on loan a series of “Keyhole” spy satellites,

KH-7, KH-8, and KH-9, declassified in September 2011. The museum planned to put them on display in January.

“It is a remarkable feat of mechanical engineering the way they put these thousands and thousands of feet of film inside that thing,” said NRO Director Bruce A. Carlson last September when he announced the satellites were being declassified. “Running a camera that’s 60 feet long, you’d think what if it jams, what if something goes wrong? ... Well, it didn’t happen very often, and they took more pictures on the first flight, the first successful flight

of that system, than they did in all the U-2 flights that have ever taken place.”

The Air Force “and airmen helped make these satellites function correctly and operated them while they were on orbit,” noted Hudson. “To have those three here and put them on display is really terrific.” ■

Peter Grier, a Washington, D.C., editor for the Christian Science Monitor, is a longtime defense correspondent and a contributor to Air Force Magazine. His most recent article, “The B-52 Gunners,” appeared in January.



The new building will allow additional large aircraft to move indoors. Seen here are a B-1B (foreground) and a Northrop AT-38B in aggressor markings.