

RADIOPLANE B-67 CROSSBOW

The Radioplane/Northrop B-67 Crossbow, later re-designated GAM-67 (Guided Air Missile), was a pilotless drone initially designed as a high altitude target. The Crossbow was powered by a Continental J69 gas turbine (based on the French Turbomeca Marboré II) and could achieve speeds approaching Mach I. The Boeing B-47 was capable of carrying 4 GAM-67s on specially designed underwing pylons and the Boeing B-50 could carry a pair of these missiles. The Crossbow was also capable of being ground launched using a zero length rail system.

The Crossbow was later adapted to various missions including Electronic Counter Measures (ECM) decoy and tactical reconnaissance. In the ECM decoy configuration, the GAM-67 would transmit radar jamming signals to confuse enemy defensive radar systems. The carrier aircraft would launch one or more Crossbow's and the resulting radar jamming would allow the bomber force to (theoretically) penetrate to the target area. As a battlefield surveillance vehicle, the Crossbow was launched for a reconnaissance mission over heavily defended areas or locations where time critical reconnaissance was needed and no traditional reconnaissance aircraft were available or suited to the particular reconnaissance target. With a range of only 483 km (300 miles) and endurance of about 30 minutes the Crossbow was usually flown against a single target area. Recovery of the drone was done with parachutes. Once over the recovery area, a drag chute was deployed and once slowed sufficiently, a large parachute opened. Cushioning air bags deployed before landing to lessen the ground impact forces.

Only 14 Crossbows were built before the program was cancelled in 1957, in favour of a more sophisticated system that ended up being cancelled in turn. However, it did point the way to the range of missions that would be performed by UAVs in later decades. The GAM-67 was controlled through ground control signals and an onboard autopilot. Beginning the late 1950s, the GAM-67 was replaced by more efficient single purpose drones like the **Boeing GAM-72 Quail decoy** and the **Teledyne Ryan Firebee (AQM-34L)** reconnaissance vehicle.

Technical notes:

|                     |  |
|---------------------|--|
| Engines:            | One Continental Model 354 J69-T-17 gas turbine of approx. 454 kg (1000 lbs.) thrust; the J69 was a licensed version of the French Turbomeca Marboré II gas turbine |
| Maximum speed:      | 1086 km/h (675 mph)  |
| Endurance:          | 30 minutes   |
| Range:              | 483 km (300 miles)   |
| Operating altitude: | 12,192 m (40,000 ft.) maximum  |
| Span:               | 3.81 m (12 ft. 6 in.)  |
| Length:             | 5.82 m (19 ft. 1 in.)  |
| Height:             | 1.37 m (4 ft. 6 in.)   |
| Weight:             | 1270 kg (2800 lbs.) gross weight   |
| Armament:           | None   |

(Source: U.S.A.F. Fact Sheet)

**WB-47E-55-BW no. 51-2387**  
Converted B-47E; on display at the Kansas Aviation Museum Wichita, Kansas

**B-47E-75-BW no. 51-7066**  
Was converted to a WB-47E, but restored to bomber configuration for display at the Museum of Flight Seattle, Washington .  
**B-47E-75-BW no. 51-7071**  
Former 96th Bombardment Wing, Medium aircraft named 'The City of Altus'. On display at Altus, Oklahoma.

**EB-47E-80-BW no. 52-0412**  
Converted from B-47E; later operated by the US Navy's Fleet Electronic Warfare Support Group (FEWSG) as a Government Owned/Contractor Operated aircraft (with tail no. 24100) until retired in 1977. On display at Dyess Linear Air Park, Dyess AFB, Abilene, Texas.

**B-47E-105-BW no. 52-0595**  
On display at Little Rock AFB Little Rock, Arkansas.

**B-47E-110-BW no. 53-2275**  
On display carrying the name 'Betty-Boop' at March Field Air Museum, March



Lockheed Marietta built Boeing B-47E no. 53-1904 fitted with the external JATO bottles.

Air Reserve Base (formerly March AFB) Riverside, California.

**B-47E-110-BW no. 53-2276**  
Former 303rd Bombardment Wing, Medium aircraft. On display at the Eighth Air Force Museum Barksdale AFB Shreveport, Louisiana.

**B-47E-111-BW no. 53-2280**  
In the 1960s this aircraft was used as a test bed at Wright-Patterson Air Force Base under the designation JB-47E. It was the first USAF aircraft with a fly-by-wire control system. It was transferred to the NMUSAF in 1969 and displayed until 2003. In 2013 it was transferred to the



B-47E no. 51-7052 photographed at Brize Norton U.K. in 1957.





Former RB-47H no. O-34296 as used for radar experiments for the General Dynamics F-111 fighter. It was operated by the U.S. Air Force Avionics Laboratories.



Another shot of the RB-47H radar test bed. After its operational life it was converted into B-47E configuration for static display at the Air Force Armament Museum, Eglin AFB, Valparaiso, Florida. (Mark Nankivil collection)

National Museum of Nuclear Science & History in Albuquerque, New Mexico for permanent display at the National Museum of Nuclear Science & History Kirtland AFB Albuquerque, New Mexico.

**B-47E-125-BW no. 53-2385**  
As ‘Pride of the Adirondacks’ displayed at Plattsburgh International Airport (formerly Plattsburgh AFB) Plattsburgh, New York.

**B-47E-130-BW no. 53-4213**  
Operated by Strategic Air Command’s 98th Bombardment Wing, Medium & 308th Bombardment Wing, Medium. One of the last B-47s operated at the former Lincoln AFB, Nebraska before departing on 7 December 1965; 53-4213 participated in Operation ‘Fast Fly’ which was the re-

tirement of the last B-47s in USAF service. Displayed at McConnell AFB, Kansas.

**B-47E-135-BW no. 53-4257**  
On display at Tinker AFB Air Park Tinker AFB, Oklahoma.

**B-47E-25-DT no. 52-0166**  
Strategic Air Command operated by the 9th Reconnaissance Wing 9th Bombardment Wing, 509th Bombardment Wing, Medium & 40th Bomb Wing, Medium; last used by the United States Navy as a photographic training target at NAWS China Lake, California, and performed the very last flight of a B-47 in June 1986 from NAWS China Lake to Castle AFB. as the ‘Spirit’. On display at Castle Air Museum (former Castle AFB) Atwater, California.

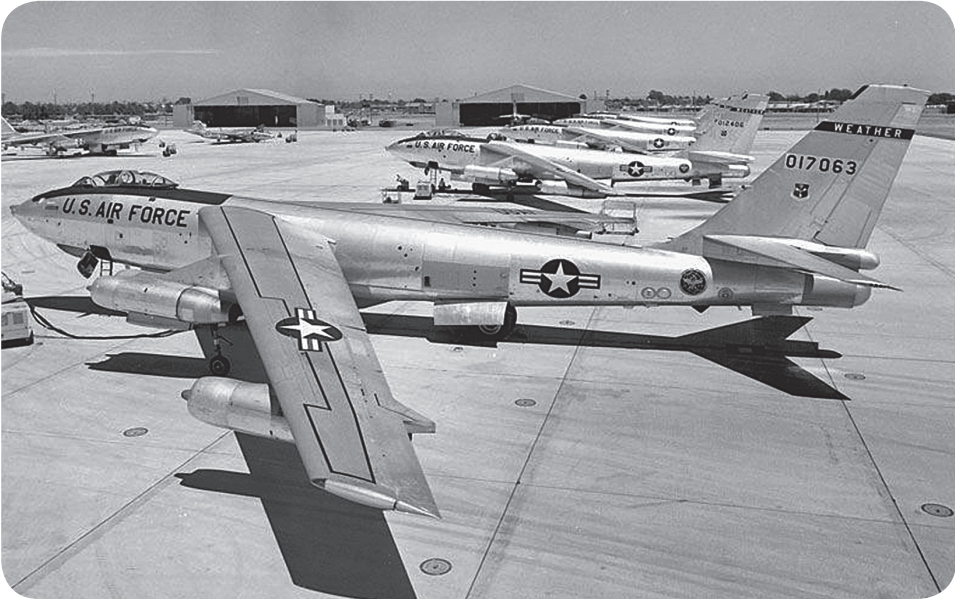
**B-47E-35-DT no. 52-1412**  
Assigned to the 301st Bombardment Wing, 97th Bombardment Wing, 384th Bombardment Wing, 321st Bombardment Wing, and 70th Bombardment Wing prior to its retirement in 1964. Displayed at Strategic Air and Space Museum adjacent to Offutt AFB Ashland, Nebraska.

**B-47E-45-DT no. 53-2104**  
Last role was as a TF34 engine test-bed designated a NB-47E; civil registered as N1045Y for delivery flight to Pueblo Memorial Airport in 1979. Displayed at Pueblo Weisbrod Aircraft Museum and Pueblo Historical Aircraft Society, Pueblo, Colorado.

**B-47E-55-DT no. 53-2135**  
Converted to an EB-47E; formerly operated by the 376th Bombardment Wing, Medium. On display at the Pima Air and Space Museum (adjacent to Davis-Monthan AFB).

**RB-47H-1-BW no. 53-4296**  
Former 55th SRW aircraft; returned to duty from MASDC, Davis-Monthan AFB, for tests of F-111 radar system by the Air Force Avionics Laboratory, then retired to Eglin AFB, ca. 1976; RB-47 nose and F-111 radome replaced by standard B-47E nose, making it a bastardized configuration. On display at the Air Force Armament Museum, Eglin AFB, Valparaiso, Florida.

**RB-47H-1-BW no. 53-4299**  
This RB-47H was delivered to the USAF in October 1955. The aircraft served with the 55th Strategic Reconnaissance Wing from 1955 until its retirement in 1966. It was deployed to several locations, including Incirlik Air Base, Turkey, and Yokota Air Base, Japan. It also flew missions over the former Soviet Union. The aircraft was delivered to the NASM museum in 1998. After extensive restoration by museum personnel, it went on display in 2003, marked as it appeared in 1960. Location: National Museum of the United States Air Force, Wright-Patterson AFB, Dayton, Ohio.



A row of WB-47Es air weather service aircraft with no. 51-7063 on the foreground. It was converted from a Wichita built standard B-47E. (Mark Nankivil collection)



B-47E no. 51-5258 at Moffet Field with removed tail guns.



Ground view of RB-47H no. 53-4292. (USAF photo)





Rare picture of B-47E no. 52-0337 taken at Alaska. It was one of the hundred converted into the Tee Town version with two jamming pods on each side of the fuselage. (Mark Nankivill collection)

The Lunar Landing Research Vehicle (LLRV) in flight above Edwards above the wrecks of a B-58 and a B-47. They were later both replaced to the desert as radar targets as carcasses with everything removed that could be removed! (NASA)



QB-47E no. 53-4256 in a high-visible dayglo-red scheme. It was used as a radio-controlled drone. Only two were built and one was destroyed in the air by accident by a direct hit during Bomarc missile testing experiments. (Mark Nankivill collection)



B-47E no. 53-4256 in storage at the David Monthan facility.



The single B-47B, no. 51-2059, loaned to Canada for conversion into a flying test bed for the Avro Orenda jet engine. (Photo: Boeing)





*Boeing B-47E no. 52-216 was based in the U.K. Note KC-97 tanker.  
(Mark Nankivill collection)*



*Another shot of B-47E no. 52-216 during an Open Day.  
(Mark Nankivill collection)*



*WB-47B no. 51-2417 was one of the special conversions for weather reconnaissance. They were extensively used and in fact they outlived the operational B-47 bombers for some years.*



*WB-47E no. 51-7066 as exhibited in the Museum of Flight museum at Seattle was originally a B-47E.*



*Detail of the S.A.C. emblem painted on the nose of a B-47E.*

*One of the surviving Stratojets: Douglas-built B-47E no. 53-2135. It is an EB-47E, formerly operated by the 376th Bombardment Wing, Medium and currently on display at the Pima Air and Space Museum, Arizona.*

