

# BOEING

The second helicopter ever flown in the United States was the product of the predecessor company of today's Boeing Helicopters. The machine was the PV 2, which acquired its designation from the name of the early firm -- the P - V Engineering Forum which was founded by the legendary **Frank Piasecki**.

Boeing Helicopters is the rotorcraft division of the Boeing Company of Seattle, Washington (USA) one of the world's leading manufacturer of large civilians jets aircraft and aerospace products and services.

The tandem rotor design is a Boeing hallmark. By 1990, the company has built more than 2.500 aircraft in this configuration.



An historic first - A Piasecki reunion  
at the Hiller Aviation Museum  
'Vertical Challenge' 22 June 2002.

*Four Generations, from bottom to top: the HUP, CH-21, CH-46 and CH-47*  
Photo via [Classic Rotors](#)

**1940** : P - V Engineering Forum PV 1

Piasecki's first project was a NOTAR (see 80s page) class helicopter, but the time 1940 technology wasn't ready for that advancement yet and the machine was not built.

**1943** : P - V Engineering Forum PV 2



**March 7, 1945** : PV 3 Dog Ship ( HRP-X / XHRP-1 / [HRP-1](#) )

## **First world's successful tandem-rotor Helicopter**

A ten seats helicopter powered by a 600 hp Pratt & Whitney R-1340 engine.  
Near 20 units built for the US Navy and Coast Guard

XHRP stood for Ex perimental, Helicopter Tr ansport ("T" was already taken for Trainer), Piasecki. The "-X" indicated that this was not a US Navy aircraft yet, but a company

prototype. The official Navy prototypes fell under the XHRP-1 designation

The very unusual bent fuselage earned it the nickname **flying banana** which stuck to this and the later Piasecki models.

**1946 :**

The P - V Engineering Forum changed its name to **Piasecki Helicopter Corp.**

**1948 :** Piasecki PV 14 (XHJP-1)

The HUP prototype

**1950 :** [Piasecki PV 17](#) (HRP-2)

An HRP-1 variant with an all metal fuselage and a number of refinements and modifications for the US marines. 5 built.

**1952 :** [Piasecki PV 18 Retriever "HUP" /Mule \(H-25\)](#)

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**1953 :** Piasecki PD 22 Shawnee / Workhorse (H-21)



**1954 :** [Piasecki PV 15 Transporter \( H-16 / H-27 \)](#)

A 40 passenger aircraft, it was the largest helicopter in the world at the time. The second unit produced was first designated **H-27** and then H-16A

**1955 :** Piasecki 42 / 43 / 44 / 63 / 71 [ Vertol 105 ]

Commercial developments of the H-21



1956 :

Vertol Aircraft Co.

1957 : [Vertol 76 \(VZ-T\)](#)

An Experimental tiltrotor, complete its first successful conversion flight on July 15, 1958.

April 22, 1958 :

[Vertol \[Boeing Vertol\] 107 Sea Knight \(H-46\)](#) ~~PAGE~~

April 1960 :

Vertol is acquired by Boeing, becoming the Vertol Division of Boeing Co., and later changed to  
**Boeing Vertol**

September 21, 1961 :

[Boeing Vertol 114 Chinook \(H-47\)](#) ~~PAGE~~

May 27, 1970 : Boeing Vertol 347

A CH-47A modified for research with wings, four-blade rotors and fly-by-wire controls. Serial number 65-7992



1973 : Boeing Vertol **Number Unknown**

The proposal for the US Army **AAH** competition. ( *Advanced Attack Helicopter* ) See AH-64 Apache later in this page.

Only a mock-up, not built.



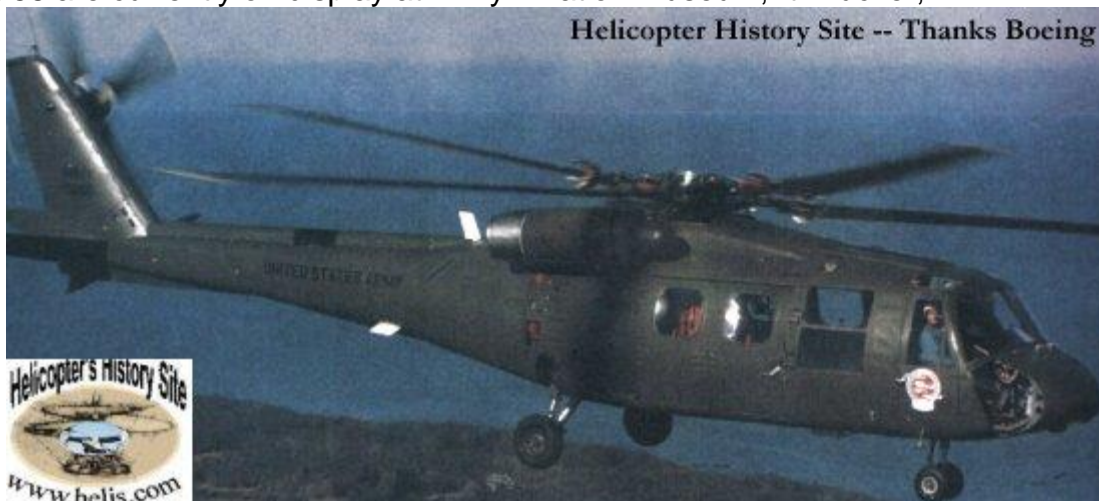
**1974 :** [UTTAS program](#) - Boeing Vertol 179 (YUH-61)

The proposal for the 1972 's US Army **UTTAS** program ( *Utility Tactical Transport Aircraft System* ) for a new helicopter to replace the Bell Huey.

Lost the competition against the

[Sikorsky UH-60 BlackHawk](#) ~~SECRET~~

US Army Serial numbers 73-21656 to 73-21660, but only first 3 units were delivered. A 4th aircraft, called the "COP", stood as Company owned plane, was painted white with two tone blue stripes. 73-21656 & 58 are currently on display at Army Aviation Museum, Ft. Rucker, AL.



**1975 :** [Boeing Vertol HLH \(XCH-62\)](#) ~~SECRET~~

**1981 :** Boeing Vertol 234

The civilian variant of the Chinook

**1985 :**

Began LHX ( later known as RAH-66 ) collaboration between Sikorsky and Boeing.

**June 10, 1987 :** [Boeing Vertol \[Boeing\] 360](#)

World s largest all-composite helicopter

This Advanced Technology Demonstrator made an extensive use of composite materials in the construction of the fuselage, rotor hubs, upper controls and drive system components.

Designed and built as a private venture of Boeing is powered with 2 Textron Lycoming AL5512 turboshaft engines of 4,200 shp each and is similar in size to the model 107M ( CH-46 Sea Knight )  
One unit built ( N360BV )

**December 2, 1987 :**

Boeing starts developing the SOF ( *Special Operations Forces* ) Chinook

Name changed to **Boeing Helicopters**

**January 13, 1989 :** Boeing CH-47D

An US Army program to modernize more than 470 Chinooks.

A new triple-hook system allows outsized cargo to be flown with greater stability at speeds up to three times faster than prior variants.

With a max gross weight of 22.680 kg, the center hook has a capacity of 11.974 Kg and the forward and aft hooks are rated at 7.711 Kg each.

**March 19, 1989 :**

[Bell / Boeing 901 Osprey \(V-22\)](#) **PAGE**



**May 31, 1990 :** Boeing MH-47E



The worldwide deploy ability variant of the Chinook to perform clandestine, deep-penetration missions in adverse weather day or night over any terrain.

**1993 :** Boeing 414

The civilian variant of the CH-47D Chinook

**1995 :** CH-47J Chinook

Boeing & Kawasaki Heavy Industries co - produced the Chinook in Gifu, Japan to procure near 50 units to the Japanese Ground and Air Self-Defense forces.



January 4, 1996 : [Sikorsky / Boeing RAH-66 Comanche](#) ~~PAGE~~



**1997 :** Boeing acquired [Mc Donnell Douglas](#) ~~PAGE~~ **Timeline**

The [AH-64 Apache](#) is now owned by Boeing. ~~PAGE~~

**September 8, 1998 :**

After 10 pre - production units built, the first production V-22 Osprey fuselage is shipped.

**February 19, 1999 :**

[Boeing sold MD commercial line to RDM](#) **news**

The dutch company buy the ex Mc Donnell Douglas models MD 500E and MD 530F single-engine helicopters with conventional tail rotors, the MD 520N and MD 600N single-engine NOTAR helicopters and the MD Explorer series of twin-engine, eight-place helicopters.

**May 15, 2002:**

Boeing delivered the first remanufactured [CH-47F Chinook](#) helicopter to the U.S. Army which plans to upgrade 300 of its 432 CH-47Ds to the F-model configuration in order to keep Chinooks in the Army rotary wing fleet at least through the mid-2030s.

**June 20, 2003:** [Boeing Delivers 300th Apache Longbow to US Army](#) **news**

**May 7, 2004:** MH-47G Chinook

[Boeing Delivers First MH-47G Special Operations Chinook](#) **news**

**Dec 2, 2005:** [A160 Hummingbird](#) First Flight **news**



**March 4, 2006:** V-22 Osprey Operational  
[USMC VMM-263 become first operational MV-22 Osprey squadron](#) news

**June 15, 2006:** new-built CH-47F Chinook  
[Boeing Unveils New Chinook Helicopter to US Army](#) news

**July 12, 2006:** [Boeing Unmanned Little Bird Demonstrator First Flight](#) news



**August 9, 2006:** [Boeing Delivers 501st AH-64D Apache Longbow to US Army](#) news

**October 9, 2006:** A/MH-6X [Manned/Unmanned Light Helicopter Makes First Flight](#) news

**November 8, 2006:** CSAR-X  
[Boeing HH-47 Awarded U.S. Air Force Combat Search and Rescue Contract](#) news

**November 16, 2006:** [A160 Hummingbird UAV resumed test flight operations](#) news