



Product of the join of the companies founded by **James S. McDonnell** and **Donald W. Douglas** , *Mc Donnell Douglas* was a leader manufacturer in commercials, military, helicopters and space aircrafts. The WW II 's C-47/DC-3, the military jets A-4 Skyhawk, F-4 Phantom, AV-8 Harrier, F-15 Eagle, F-18 Hornet, and the DC family of civilian jets are examples of the success of this corporation. Mc Donnell Douglas was great involved in the helicopter market when in 1984 acquired the Hughes Helicopters Company founded by

Howard Hughes .

Notice : The helicopter 's history of Mc Donnell Douglas is being considered in this page with the early firms Mc Donnell and Hughes.

April 27, 1946 : Mc Donnell Whirlaway (XHJD-1)

The first helo of the company was designed for the US Navy.
The engine were 2 Pratt & Whitney R-985 of 450 Hp each
One unit built.
See *Platt-LePage XR-1* in [Pioneers](#)



May 5, 1947 : Mc Donnell "Little Henry" (XH-20)

First world's ram-jet helicopter It was powered with ram-jets mounted at the tips of the rotor blades.



It had no tail rotor and weighed only 280 pounds.
Was cancelled due the heavy consumption of fuel

A proposed **H-29** improved version was cancelled

August 1948 :

Hughes acquired Kellett projects

1952 : Hughes "Flying Crane" XH-17

First project of the Hughes company, the XH-17 had a two-bladed main rotor system with a diameter of 40.8 m, and was capable of flying at a gross weight of more than 18600 kgs
One unit built.



The **H-28** was a derivate with a max weight of 47.000 Kg but the program was cancelled and therefore none built.

July 14, 1954 : Mc Donnell Model 86 (XV-1) [**H-35**]

Was a convertiplane compound helicopter for the US Army

April 29, 1955 : made the first successful conversion from vertical rotor lift to horizontal winged flight It engine was a Continental R-975 of 525 hp and was capable of reach a max speed of 322 km/h
Two units built.



First designation was **H-35**

1956 : Hughes 200 / 269 / 300 (TH-55 Osage)
First military aircraft production of the Hughes Company
An observation version called **YHO-2** was cancelled.
792 units of the military Osage were built.



[See TH-55 Video Clip](#)

300C

*Rotor diameter: 8.18 m
Length: 9.40 m
Height: 2.67 m
Weight: 480 kg - Max: 930
Engine: 1 Avco Lycoming HIO-360 of 190 hp
Speed: Max: 150 km/h
Range: 370 km
Service Ceiling: 3100 m*

November 13, 1957 : Mc Donnell Model 120

A private project of the company that uses the XV-1 concept, the model 120 was a flying crane that was also cancelled



February 27, 1963 :

[Hughes 369 Cayuse \(OH-6\)](#) ~~PAGE~~



1964 : Hughes "Hot Cycle" (XV-9)

Was an experimental design, where the engine exhaust was ducted through the rotor hub and the blades, and expelled from the rotor tips.

One unit built



1966 : Hughes 500

Commercial version of the OH-6 Cayuse

April 28, 1967

Merger of
McDonnell and Douglas

1968 :

Hughes OH-6 Cayuse 's peak production, during the Vietnam War, as many as 100 OH-6As were built a month.

August 1970

Last deliveries of OH-6A, 1434 units completed.

1973 : Hughes Model 77 (YAH-64)



The Model 77 wins US Army
AAH (*Advanced Attack Helicopter*) competition

The YAH-64 has it first flight
on September 30, 1975

1976 :

Hughes received the AH-64A full-scale development contract.

August 1981 :

AH-64A development completed

1983

Hughes licenses the Model 300 product line to the Schweizer Aircraft Corp

January 1984 :

Mc Donnell Douglas acquired
Hughes Helicopters

February 1984 :

Mc Donnell Douglas AH-64A Apache

~~PAGE~~

AH-64A deliveries began.

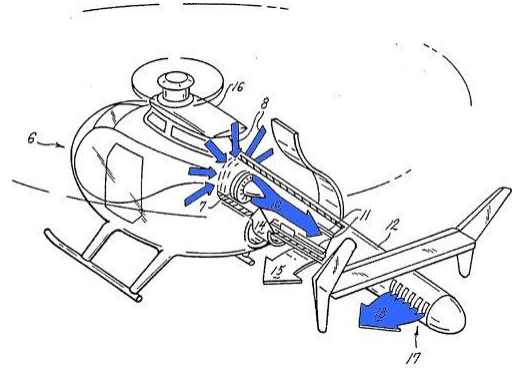
1986 :

The Hughes [Model 300](#) product line is finally sold to Schweizer

90s Commercial Helicopters

[MD 500 series NOTAR](#) (NO Tail Rotor)

This configuration uses jet thrust rather than blades to give the [directional stability](#), providing the world's quietest helicopters.



MD 600 series



MD 900 Explorer (MDX)



1992 :

Venezuelan helicopter pilots Francisco Pacheco and Tomas Spanier flew a record-setting, trans-Atlantic trek from Venezuela to Spain on a **MD 500D**. Beginning on October 11, 1992, from Ft.

Lauderdale, Fla., and ending at Palos de la Frontera on December 16, the flight was marked as the **longest over-ocean flight**

1997 :

Boeing acquired
Mc Donnell Douglas

Bell Helicopters (*Textron Inc.*) try to buy the MD 500 and 600 series, but didn't want to buy the Explorer because they have their own twin turbine models, so its future is unknown.

The AH-64 Apache is now owned by

[Boeing](#). [Timeline](#)

1998 :

The initial planned sale of the commercial line to Textron Inc. fell through after the Federal Trade Commission raised unspecified concerns.

February 19, 1999 : Boeing sold commercial line to RDM



MD Helicopters Inc

The dutch company buy the 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.

[Related News
click here](#)

Sept 14, 2006 :

MD Helicopters **NOTAR** Fleet Clocks [670,000 Flight Hours](#)

Thursday September 14, 2006

MD Helicopters NOTAR Fleet Clocks 670,000 Flight Hours

MESA, ARIZONA, USA ([MD Helicopters Press Release](#)) - MD Helicopters, Inc. (MDHI) today announced its fleet of NOTAR helicopters have clocked more than 670,000 flight hours since MDHI's exclusive NOTAR anti-torque technology was introduced in 1991. MDHI's MD 520N®, MD 600N® and MD Explorer® helicopters utilize this technology.



"As a leading member of the team that developed and fielded the NOTAR® system, our customers' successful fleet experience is an overwhelming gratification for the MD Team's effort," said MDHI Chief Technology Officer, Andy Logan.

The NOTAR anti-torque system helps MDHI provide some of the safest, quietest helicopters available. It provides a responsive FOD-resistant directional control system using the natural characteristics of helicopter aerodynamics. An enclosed variable-pitch composite blade fan produces a low pressure, high volume of ambient air to pressurize the composite tailboom. The air is expelled through two slots which run the length of the tailboom on the right side, causing a boundary-layer control called the "Coanda Effect". This results in the tailboom essentially becoming a "wing," flying in the downwash of the rotor system, producing up to 60 percent of the anti-torque required in a hover. The balance of the directional control is accomplished by a rotating direct jet thruster.

In forward flight, the vertical stabilizers provide the majority of the anti-torque; however directional control remains a function of the direct jet thruster. The NOTAR® anti-torque system eliminates all of the mechanical disadvantages of a tail rotor, including long drive shafts, hanger bearings, intermediate gearboxes and ninety-degree gearboxes.

MD Helicopters is a leading manufacturer of commercial and military helicopters. The MDHI family of rotorcraft is world renowned for their value, versatility and performance. The MD Helicopters family includes the twin-engine MD Explorer®, and single engine versions of the MD 600N®, MD 520N®, MD 500E® and MD 530F®. The NOTAR® system for anti-torque control is the exclusive property of MD Helicopters. The Company is based in Mesa, Arizona. Patriarch Partners, LLC is an investment firm in New York and Charlotte, North Carolina which together with its affiliates, provides portfolio management services and serves as investment advisor to multiple leveraged funds and a private equity fund. Founded in 2000 by Lynn Tilton, Patriarch provides innovative financial solutions, strategic direction and operational expertise to companies undergoing periods of pervasive change. Patriarch currently monitors credit facilities in respect to approximately \$5 billion dollars of assets under its management, including equity positions (majority and minority) in more than 65 companies. Lynn Tilton serves as Chairman of the Board of MDHI. Funds managed by Patriarch Partners own a majority and controlling interest in MDHI.