



The Navy has a long tradition of buying training helicopters from Bell dating back to 1947. The current Navy primary helicopter trainer, the TH-57A, was purchased "off the shelf" as a Bell Helicopter Textron Model 206A *JetRanger* commercial light turbine helicopter. As such, it shares the lineage of over 5,000 Model 206s and derivatives of the basic designs.

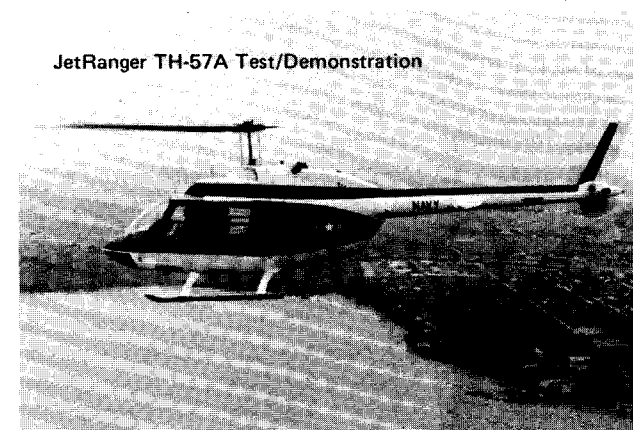
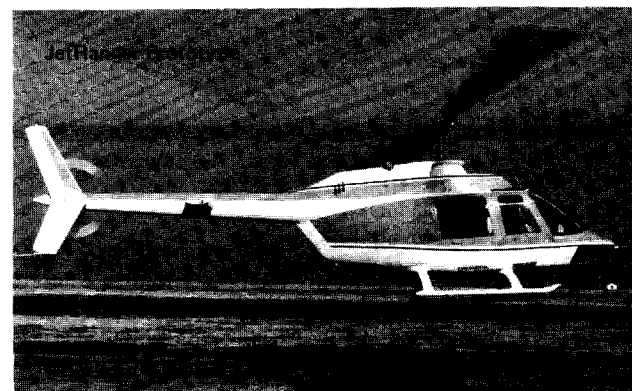
The *JetRanger's* origin can be traced back to the early 1960s with an Army requirement for a light observation helicopter (LOH). Before the Army began to develop its own aircraft, the Navy's Bureau of Naval Weapons (predecessor of NavAir) conducted a design competition, leading to procurement of evaluation quantities of Bell's OH-4A; Hiller's OH-5A (subsequently the Fairchild Hiller 1100); and Hughes' OH-6A. The Bell OH-4A, designed around a typical Bell two-bladed rotor system and powered, like the other LOH competitors, by the then new Allison 250-horsepower turboshaft engine, first flew on December 10, 1962. Five experimental/evaluation aircraft were built. The Army completed its competition in May 1965 and selected the Hughes OH-6A for the Army light observation helicopter.

Bell then redirected its Model 206 program toward development of a commercial light turbine helicopter in response to the emerging corporate helicopter market. Utilizing OH-4A dynamics, Bell engineers designed a new fuselage and turned the ugly duckling into a swan. The first civil *JetRanger* made its initial flight on January 10, 1966. Deliveries began in January 1967 and the *JetRanger* was on its way to becoming a commercial success. The 206 series has now evolved through 10 models with *JetRanger III* now being delivered and *JetRanger IV* in development. As noted earlier, over 5,000 206 series helicopters have been built and production continues at a rate of 350 per year.

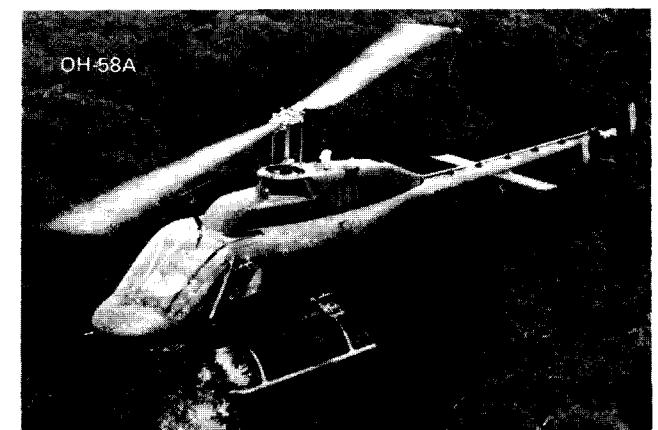
Beginning in 1964, the Navy had recognized the potential of the Army's LOHs as trainers. All three were evaluated by the Navy at Pensacola and Patuxent River. In early 1967, this interest became more serious and competitive procurement was initiated for one of the three FAA-certified civilian versions of the LOH helicopters — the Bell 206A, Fairchild Hiller 1100, and Hughes 500. These were also evaluated by the training command and by the Naval Air Test Center in the summer of 1967. In January 1968, the Navy selected the *JetRanger* as its primary trainer and ordered 40 as TH-57As. The Navy would become the first service to use turbine helicopters in the primary training role. The major differences between the Navy's TH-57A *SeaRangers* and the commercial



OH-4A Prototype

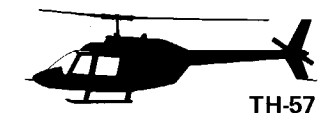


JetRanger TH-57A Test/Demonstration



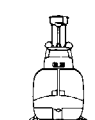
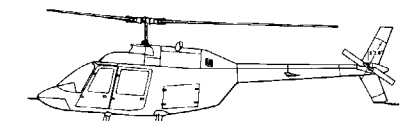
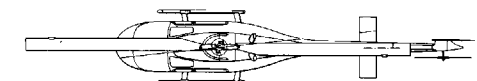
OH-58A

SeaRanger



TH-57

Length (fuselage)	32'2"
Rotor diameter	35'4"
Height	9'7"
Engine	Allison 250-C18 turboshaft 317 hp
Maximum speed	119 kts
Maximum range	406 nm



JetRangers are in the avionics and flight instrumentation. The first delivery was in October 1968. The Navy program included a new concept — contract support of the TH-57A in service. All TH-57As were assigned to HT-8, then at Ellyson Field.

The Army also operates a *JetRanger*. The Army elected to reopen the LOH competition in late 1967. Bell proposed a modified *JetRanger* with a larger rotor and a correspondingly longer tail boom and skids. Other structural and system changes, necessitated by its new role as a combat scout helicopter, were also made. Bell won the competition and 2,200 were ordered as the OH-58A *Kiowa* for Army use. Deliveries began in May 1969; by December the *Kiowa* was operational in the Vietnam conflict.

In the Navy training mission, all helicopter training is now at NAS Whiting Field. Responsible for fundamental helicopter pilot training, HT-8 continues to operate the TH-57As. They have demonstrated the *SeaRanger's* safety and inherent ruggedness, with 36 of the original 40 helicopters remaining in service today. Over 5,400 flying hours per aircraft have been accumulated. Current Navy planning for increased pilot training includes purchase of additional TH-57s.

Appreciation is extended to Mr. T. H. Thomason, Bell Helicopter Textron, for major contributions to this article.