‘Little Bird’ grows up

Boeing’s new AH-6i helicopter comes from a good pedigree

by Marc Sklar

The prototype came from the genius of the Hughes Tool Co. Aircraft Division, predecessor to today’s Boeing Rotorcraft Systems operation in Mesa, Ariz.; the catalyst was a 1958 U.S. Army plan to improve light observation, manned surveillance and tactical transport for the future. The result was the OH-6A Cayuse, named for the Native American tribe.

Five decades later, its modernized, advanced descendant, the AH-6i, is being marketed by Boeing to international customers.

In what could be the archetype for rapid and Lean development, the AH-6i made its first flight last September. “In less than seven months we went from designing to flying this aircraft,” said Lauralie Campbell, AH-6i program manager. “This aircraft has taken as much as possible from the AH-64D Apache Block III technology, which helps with cost and taps into the demonstrated success of Apache.”

A new, integrated “glass cockpit” has much of the look, feel and functionality of the advanced Apache cockpit, Campbell noted. In addition to the new cockpit, the AH-6i includes a modified nose, to provide additional space for avionics, and the highest payload for any aircraft in its class.

“I’ve been with flight test for 30 years,” said Keith Sucher, Experimental Flight Test crew chief for the AH-6. “I’ve always had a love for this family of helicopters, and the AH-6i is the culmination of all we’ve done over the years. It’s always been a great aircraft—simple, reliable and easy to maintain.”

For international customers, the AH-6i offers a proven platform with the latest technology and the capability to carry out light attack and reconnaissance missions. The weapons suite includes Hellfire missiles, all varieties of 2.75-inch (70-millimeter) rockets (including laser-guided rockets), 7.62mm mini-guns, the GAU-19 .50 caliber Gatling gun and the FN/Herstal HPM400LC .50 caliber gun pod.

Weapons can be mixed and matched across four weapons stations and are automatically configured, with status displayed to the pilot. The electro-optic and infrared sight and targeting system provides pilots with day TV, low-light TV, infrared camera, laser range finder, laser pointer and laser designator capability—all tied into the advanced cockpit.

"In my entire career I've never seen an avionics suite and integrated cockpit come together so quickly," said Al Winn, Boeing vice president of Apache Programs. "It's a testament to the AH-6i and Apache teams. This proves the open-systems architecture of the Apache Block III is a success."

Boeing now is developing a version of AH-6 to fly in the thinner air at high, hot altitudes such as in Afghanistan, with the speed to keep up with the Apache and Sikorsky UH-60 Black Hawk helicopters as well as perform reconnaissance missions.

After 50 years, the "Little Bird" that started as the OH-6 has grown into a modern raptor with a promising future. ■

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AH-6i

key capabilities:

- Flexible mission configuration
- Combat-proven design
- Integrated and qualified weapons system
- Low maintenance costs
- High reliability
- Transportable by military C-130 transport
- Lightweight multiple weapons mount

PHOTOS (Left): The AH-6i light attack and reconnaissance helicopter for international customers is the latest derivative of the OH-6A Cayuse, which has a heritage of successful military service including models in use with U.S. Special Operations forces. MIKE GOETTINGS/BOEING

(Right): A Hughes OH-6A Cayuse hovers above a full-scale mock-up of its commercial sibling, the 500, in 1965. BOEING ARCHIVES