## **ARCHIVED REPORT**

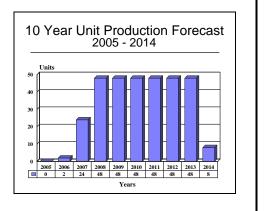
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# U.S. Army Light Utility Helicopter (LUH) - Archived 11/2006

#### Outlook

- 322-unit requirement announced with Comanche cancellation
- Army to buy off-the-shelf, non-developmental design
- FY05 funding reduced, but program launched; finalist selection set for April 2006



#### Orientation

**Description.** Light single- or twin-engine, single-rotor helicopter.

**Sponsor.** U.S. Army Aviation & Missile Command, Redstone Arsenal, Alabama, USA.

Status. Competitive selection process.

Total Produced. None to date.

**Application.** Aerial transport for logistical/administrative support.

Price Range. Estimated to be \$4 million in 2005 dollars.

#### Contractors

Not applicable at this time.

#### **Technical Data**

To be determined by finalist selection.

### Variants/Upgrades

Not applicable.

#### **Program Review**

**Background.** The U.S. Army announced a requirement for 303 (subsequently increased to 322) new Light Utility Helicopters following the cancellation of the Boeing Sikorsky RAH-66 Comanche program in the spring of 2004. The LUH will replace the Army's current UH-1 utility model.

#### U.S. Army Light Utility Helicopter (LUH)

The LUH will carry out non-combat utility missions, providing administrative-type aerial support at reduced operating and support costs as compared with the Army's current UH-1 and OH-58 types. The service has set a goal to equip the first LUH unit in October 2008.

The service said it would select a finalist from an existing design, or a current model optimized for the LUH mission. The anticipated field of contenders includes the following types:

<u>Bell 210 and 412EP</u>. The 210, Bell's initial proposal, is a refurbished, remanufactured, and re-engined (with the Honeywell T5317B) upgrade of the military UH-1H model. The 210 will feature an improved reduction gearbox and new turbine disc material, and will offer a 640-pound increase in useful load over the UH-1H. It will sell for about \$3 million. Bell achieved certification of the 210 in July 2005.

At the end of August 2005, however, came word that Bell was expected to instead offer its more powerful, twin-engined 412EP, particularly if the Army were to specify two engines for the LUH.

EADS/Eurocopter UH-145. EADS is proposing the UH-145, a variant of the eight-passenger Eurocopter EC 145, which would be produced in the U.S. by American Eurocopter.

<u>DynCorp</u>. DynCorp plans to offer a refurbished UH-1 powered by a P&WC PT6C-67D engine. The company claims that, compared with Bell's own 210, its contender would be lighter in weight due to its P&WC engine. <u>AgustaWestland A109 Power</u>. The Italian manufacturer said it plans to propose its A109 Power light twin, which is already in military use. Conflicting reports indicate that the company may offer its single-engine A119, either instead of, or in addition to, the A109 Power.

<u>MD Helicopters/Lockheed Martin MD 902</u>. The two U.S. firms have teamed to offer the twin-engined MD 902 Explorer, featuring the no-tail-rotor (NOTAR) anti-torque system. New York-based financial firm Patriarch Partners LLC very recently acquired a controlling interest in MD Helicopters, which had been struggling.

<u>HAL/IAI Dhruv</u>. India's Hindustan Aeronautics Ltd. (HAL) and Israel Aircraft Industries (IAI) have teamed to offer the former's Advanced Light Helicopter (ALH), or Dhruv design. IAI notes that the Dhruv "was designed to operate in harsh conditions at altitudes up to 21,000 feet and is capable of carrying 14 people or 1.5 metric tons of cargo." The 12,100-lb helicopter is powered by a pair of Turbomeca TM 333-2B2 engines and is capable of 126-knot cruise speeds at sea level.

The Army requested \$30 million in FY05 funds to procure the initial 10 LUHs, and sought an additional \$15 million in support costs. However, the Senate Armed Services Committee blocked the entire request pending the receipt of a full update on the service's aviation modernization plan. The Congress subsequently approved \$22.9 million in FY05 funding for three aircraft, as shown below.

#### Funding

U.S. FUNDING									
	FY03	FY03	FY04	FY04	FY05	FY05	FY06 (Req)	FY06 (Req)	
LUH	<u>QTY</u> -	<u>AMT</u> -	<u>QTY</u> -	<u>AMT</u> -	<u>QTY</u> 3	<u>AMT</u> \$22.9	<u>QTY</u> 28	<u>AMT</u> 108.0	

Note: The Army plans to request 50 LUHs in FY07(\$191 million); 57 in FY08 (\$221.6 million); 56 in FY09 (\$221.8 million); and 38 in FY10 (\$157.3 million).

All \$ are in millions.

#### **Recent Contracts**

None

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<u>Month</u> Feb May Apr End	<u>Year</u> 2004 2004 2006 2006	<u>Major Development</u> LUH requirement announced after Comanche cancellation Senate Armed Services Committee blocks Army's FY05 funding request Planned finalist selection Initial LUH deliveries planned
End	2006	Initial LUH deliveries planned

#### **Timetable**

#### **Worldwide Distribution**

Not applicable.

#### **Forecast Rationale**

The LUH will only be deployed in U.S.-held territory, according to the Army (although about 24 are expected to be based in Germany), and so will not be fitted with some of the survivability equipment typically required for Army helos. The LUH will serve primarily in the supply, distribution, and medevac roles in order to free up UH-60s currently operating in utility roles for combat use.

The Army wants an off-the-shelf, non-developmental design in order to hold costs down, and has set a target unit cost of \$3.6 million, which includes a logistics support package.

The service had planned to select a finalist in late 2005, but that milestone has since been slipped to April 2006. At that time the service plans to let a low-rate initial production contract for 26 aircraft, with eight to be delivered in 2006. The Army had planned to receive an additional 44 aircraft in FY07, with production stabilizing at 72 per year until completion of the 322unit inventory objective. That delivery schedule may have changed following the decision to slip the finalist selection date.

We feel that both these production targets and the \$3.6 million LUH price tag may prove to be overly optimistic. In July 2005 the Army selected the Bell 407X (see report in this Tab) to fill its other new, post-Comanche helicopter requirement, the Armed Reconnaissance Helicopter (ARH), and the service plans to acquire 368 of these by the middle of the next decade. The cost savings achieved by canceling the Comanche notwithstanding, we feel the service could be hard pressed to fund large-scale ARH and LUH procurements simultaneously.

A number of analysts believe Bell may have the inside track with its Model 210, a refurbished, re-engined UH-1H. The manufacturer claims to be able to deliver the 210 at less than \$3 million a copy. Recent reports are that Bell may instead propose its larger twinengined 412EP model. DynCorp was planning to propose a refurbished UH-1, powered by a P&WC PT6C-67D engine, but little has been heard of that plan in recent months.

Lockheed Martin and MD Helicopters have offered the latter's MD 902 Explorer, featuring the unique NOTAR (no tail rotor) anti-torque system.

Eurocopter has decided to pitch a UH-145 version of its EC 145 in lieu of the smaller, less expensive EC 135 model. AgustaWestland's A109 Power military versions have already been purchased by the South African Air Force, Britain's RAF, and the Nigerian Navy. The HAL/IAI Dhruv, seen as a dark horse candidate by some, is in production in India to fill large military orders for that country.

We are not calling out a winner at this time, nor do we expect the planned six-per-month LUH production tempo to be achieved.

Our forecast below represents what we consider a bestcase scenario, in which the Army selects a finalist in the spring of 2006, and the chosen type is a true off-theshelf design that will not require additional time and funds for modifications. This scenario calls for the first two LUHs being handed over to the Army at the end of 2006.

#### U.S. Army Light Utility Helicopter (LUH) - Archived 11/2006

We are projecting LUH output to rise to four per month by early 2008, and to remain at that level into early 2014. This assumes that the currently planned 322-unit inventory objective is not cut back. We are not forecasting export sales at this time. We are projecting deliveries of 322 LUHs during the 2005-2014 timeframe.

### **Ten-Year Outlook**

#### ESTIMATED CALENDAR YEAR PRODUCTION

			High Confidence Level			Good Confidence Level			Speculative			Total	
Aircraft	(Engine)	thru 04	05	06	07	08	09	10	11	12	13	14	Total 05-14
NOT SELECTED US ARMY LUH	NOT SELECTED	0	0	2	24	48	48	48	48	48	48	8	322
Total Production		0	0	2	24	48	48	48	48	48	48	8	322