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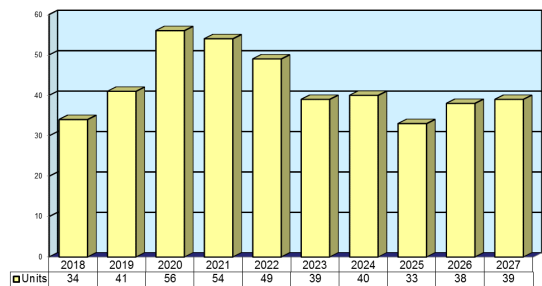
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VUIT

Outlook

- FI estimates that Lockheed will sell some 423 VUIT-2 systems to defense departments worldwide over the next decade
- This projection is being driven by the production of Apache helicopters and the need of defense departments worldwide for streaming video information from aircraft systems
- Expect sales to peak in 2020 and average 46 units per year from 2018 through 2021

**Unit Production Forecast
2018-2027**



Orientation

Description. The VUIT-2 (Video from Unmanned aircraft for Interoperability Teaming-Level 2) is a kit-based system that enables Apache helicopter aircrews to view streaming video and metadata from unmanned aerial systems (UASs). It also gives Apaches the ability to receive video from aircraft equipped with advanced targeting pods (ATPs).

Sponsor

U.S. Army
Aviation Applied Technology Directorate (AATD)
Ft. Eustis, Virginia
USA

Status. Available for sale.

Application. Intelligence, surveillance, and reconnaissance (ISR).

Price Range. Based on an FY13 U.S. Army budget document (dated February 2012), Forecast International estimates the price of one Apache VUIT-2 kit to be \$1,184,722 in FY11 dollars. Calculated for inflation, a single VUIT-2 kit costs \$1,282,871 in 2017 dollars.

Contractors

Prime

**Lockheed Martin Missiles &
Fire Control – Orlando**

<http://www.lockheedmartin.com/us/mfc.html>, 5600 Sand Lake Rd, MP 455, Orlando, FL 32819-8907 United States, Tel: + 1 (407) 356-2000, Fax: + 1 (407) 356-2080, Prime

Contractors are invited to submit updated information to Editor, International Contractors, Forecast International, 22 Commerce Road, Newtown, CT 06470, USA; rich.pettibone@forecast1.com

VUIT

Technical Data

The VUIT-2 is designed specifically for the AH-64 Apache helicopter. The VUIT-2 is a kit-based system that enables Apache aircrews to view streaming video and metadata (location) from Shadow, Raven, Hunter, Predator, Warrior A, Reaper, and other unmanned aerial systems. The system significantly improves battlefield ISR, as well as targeting and acquisition. The VUIT-2 also provides joint interoperability by giving Apaches the ability to receive Air Force and Navy video from platforms that are equipped with Sniper and Litening ATPs, including the A-10, F-15, F-16, and F/A-18.

Apaches fitted with the VUIT-2 receive a VUIT Interface Panel (VIP) and a VUIT Power Panel (VPP) for operating the system. The VUIT-2 Thermite central processing unit (CPU) includes

Lockheed Martin-developed software to integrate MIL-STD-1553 databus information, an RS422 interface, Remote Video Terminal (OSRVT) software, and Mini Tactical Common Datalink (MTCDL) software.

UAS video is displayed on the Apache's multipurpose display. A keypad allows the pilot to switch between UAS video images and a GPS-powered FalconView digital map that notes the aircraft's location.

The VUIT-2 system can be installed in the field using a Tri-band Omni-directional Mast Mounted Assembly (TOMMA) sensor, a Right EFAB Chassis Video Receiver (RCVR), and a VUIT Mini-TCDL (tactical datalink) for simultaneous display by soldiers equipped with an OSRVT or another ground terminal/station.



Lockheed Martin produces the VUIT-2 system.

Source: Lockheed Martin

Program Review

In July 2008, Lockheed Martin was awarded a contract from the U.S. Army Aviation Applied Technology Directorate to lead the Apache Video from Unmanned aircraft for Interoperability Teaming-Level 2 program through September 2009. In February 2009, Lockheed Martin reported that its VUIT-2 system had begun

in-theater operation. During the same month, Lockheed said the company's VUIT technology was available as a standard kit for use across multiple aviation platforms. The VUIT-2 system advanced from design to production in less than seven months to accommodate a rapid fielding request from the U.S. Army vice chief of

VUIT

staff. "VUIT-2 has proven its worth in combat operations," said Col. Eric Peterson, brigade commander of the 10th Combat Aviation Brigade (CAB). The 1-10 Attack Reconnaissance Battalion (ARB), a component of the 10th CAB, was the first VUIT-2-equipped unit and deployed with the system in late 2008.

The latest information suggests that Lockheed Martin is making a push to sell its VUIT technology to the United Kingdom. In an article in the April 2013 edition of *Rotor & Wing* magazine, Lockheed's VUIT program director said the export version of the VUIT system could be installed on the U.K. Ministry of Defence's Apache Longbow helicopters.

Contracts/Orders & Options

<u>Contractor</u>	<u>Award (\$ millions)</u>	<u>Date/Description</u>
Lockheed Martin	Unknown	2007 – Contract from U.S. Army for development, production, and rapid fielding of VUIT-2 for initial demonstration.
Lockheed Martin	Unknown	Jul 2008 – Contract from U.S. Army AATD to lead Apache VUIT-2 program through Sep 2009.
Lockheed Martin	9.30	Dec 2008 – Contract from U.S. Army for Phase 2 nonrecurring engineering for VUIT-2.

Timetable

<u>Month</u>	<u>Year</u>	<u>Major Development</u>
	2007	U.S. Army awards Lockheed Martin contract for development, production, and rapid fielding of VUIT-2 for initial demonstration
Jan	2008	VUIT-2 demonstrated at Army Aviation Senior Leaders Conference
Jul	2008	Lockheed receives contract from U.S. Army AATD to lead Apache VUIT-2 program through Sep 2009
Feb	2009	Lockheed announces that VUIT technology is available as standard kit for use across multiple aviation platforms
Apr	2013	Lockheed's VUIT program director says export version of VUIT could be incorporated into U.K. MoD's Apache Longbow helicopters

Worldwide Distribution/Inventories

The U.S. Army purchased the VUIT-2.

Forecast Rationale

The VUIT-2 (Video from Unmanned aircraft for Interoperability Teaming-Level 2) is a kit-based system that enables Apache helicopter aircrews to view streaming video and metadata from unmanned aerial systems (UASs). It also gives Apaches the ability to receive video from aircraft equipped with advanced targeting pods (ATPs).

Information regarding the VUIT-2 is scarce. That said, Forecast International projects that defense departments throughout the world will purchase over 420 VUIT-2 systems over the next 10-plus years. This forecast matches FI's projected production of the AH-64

helicopter and includes miscellaneous sales (spares, etc.). These sales are being driven by needs in Asia and the United States for streaming video information from aircraft systems.

Expect sales to peak in 2020 and average 46 units per year from 2018 through 2021.

In the most recent news on the VUIT-2 system, *Rotor & Wing* magazine quoted Lockheed's VUIT program director as saying that the export version of the VUIT system could be installed on the U.K. Ministry of Defence's Apache Longbow helicopters.

VUIT**Ten-Year Outlook**

ESTIMATED CALENDAR YEAR UNIT PRODUCTION												
Designation or Program		High Confidence				Good Confidence			Speculative			
	Thru 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Lockheed Martin Missiles & Fire Control - Orlando (Prime)												
VUIT -2 Military <> United States <> Army <> AH-64 E												
	17	0	0	11	9	12	5	5	0	0	0	42
VUIT -2 Military <> Asia <> AH-64 E												
	126	18	24	29	25	23	19	18	15	15	14	200
VUIT -2 Military <> Worldwide <> Department of Defense <> AH-64												
	65	16	17	16	20	14	15	17	18	23	25	181
Subtotal	208	34	41	56	54	49	39	40	33	38	39	423
Total	208	34	41	56	54	49	39	40	33	38	39	423