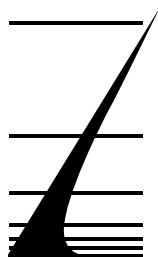


# The Market for Light Military Rotorcraft

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Product Code #F602

A Special Focused Market Segment Analysis by:



**FORECAST** INTERNATIONAL



# Analysis 1 The Market for Light Military Rotorcraft 2010-2019

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## PROGRAMS

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The following reports are included in this section: (**Note:** a single report may cover several programs.)

AgustaWestland AW109  
AgustaWestland AW129  
AgustaWestland AW139/149  
AgustaWestland Lynx  
Bell 407  
Bell AH-1 Cobra Series  
Bell UH-1/412  
Eurocopter AS 350/550/EC 130  
Eurocopter AS 365/565/EC 155  
Eurocopter EC 120  
Eurocopter EC 135/EC 635  
Eurocopter Tiger  
Eurocopter/Kawasaki BK 117/EC 145  
HAL Dhruv Advanced Light Helicopter (ALH)  
Harbin Z-9  
Kawasaki OH-1  
Kazan Ansat  
Schweizer S-300  
Schweizer S-333  
Light Helicopter Design, Development and Inactive Programs



## Introduction

The light military rotorcraft market is in the midst of a growth cycle that will see annual unit production, as well as annual production value, continue increasing through the year 2014. Eventually, however, the momentum in the market will begin to lessen, with yearly output generally declining after 2014.

During the first half of the forecast timeframe, new military helicopter models will enter worldwide fleets in increasing numbers. Some of these are all-new designs that have finally entered production after lengthy development efforts. Others are advanced models derived from helicopters that have been in service for years with the world's militaries.

The year-by-year unit and value forecasts contained within this study also form the basis for our manufacturer market share projections. All of these projections and forecasts are tools that can be used to evaluate the expected shape of the market for light military rotorcraft over the next 10 years.

This market is being driven by a variety of trends and factors. How manufacturers respond to the changing needs of the marketplace will ultimately determine the extent of their success in this segment. This study examines manufacturers' competitive strategies, and compares and contrasts their various product lines.

The major rotorcraft manufacturers certainly do not pursue a uniform strategy in regard to the light military segment. AgustaWestland and Eurocopter are quite active in pursuing this market with a mix of all-new products and improved derivative models. Bell also maintains a strong position in the light military segment, mainly with the latest versions of the AH-1 Cobra and the ubiquitous UH-1 Huey. Boeing, on the other hand, bypasses the segment almost completely (with the sole exception being the AH-6), and Sikorsky maintains only a relatively small presence through its Sikorsky Global Helicopters/Schweizer operation.

**Methodology.** Forecast International separates the military rotorcraft market into two categories: light military rotorcraft and medium/heavy military rotorcraft. This study concerns the light military rotorcraft segment.

In order to divide military rotorcraft into these two categories, we have (somewhat arbitrarily) established a dividing line at 6,804 kilograms (15,000 lb) maximum gross weight. In general, those military rotorcraft below this weight are categorized as light, while those at or above this mark are labeled as medium/heavy.

This rule, though, has not been applied without regard to market realities or even market perceptions; thus, a few exceptions have been made. For example, Bell's UH-1Y has a maximum gross weight of 8,390 kilograms (18,500 lb), but we have included it in the light segment as most (though not all) of its primary competition can be found in this category.

The military rotorcraft covered in this market analysis include the following:

AgustaWestland AW109  
 AgustaWestland AW129  
 AgustaWestland AW149  
 AgustaWestland Lynx  
 Bell 407  
 Bell AH-1  
 Bell UH-1  
 Eurocopter AS 550  
 Eurocopter AS 565  
 Eurocopter EC 120  
 Eurocopter EC 135/EC 635  
 Eurocopter Tiger  
 Eurocopter UH-145  
 HAL Dhruv Advanced Light Helicopter (ALH)  
 Harbin Z-9  
 Kawasaki OH-1  
 Kazan Ansat  
 PZL-Swidnik SW-4  
 PZL-Swidnik W-3 Sokol  
 Schweizer S-300C/CBi  
 Schweizer S-333  
 Schweizer S-434

Thus, the light military class includes a wide variety of products, ranging from small, single-engine pistons to light single turbines to light/intermediate twin turbines.

\* \* \*

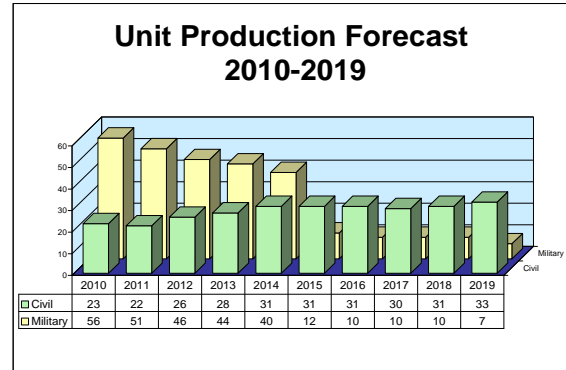




# Eurocopter/Kawasaki BK 117/EC 145

## Outlook

- More than 100 UH-72As have been delivered to the U.S. Army, with more on the way
- EADS is bidding an EC 145 variant for the Army's Armed Aerial Scout requirement
- Kawasaki markets the EC 145 as the BK 117C-2



## Orientation

**Description.** Six- to 10-passenger, twin-turboshaft-engine, single-main-rotor commercial and military utility helicopter.

**Sponsor.** The BK 117 was originally sponsored by MBB and Kawasaki, with substantial funding provided by the governments of Germany and Japan.

**Status.** Production in Japan and Germany.

**Total Produced.** Approximately 783 units were produced through 2009, including an estimated 136 by Kawasaki, three by IPTN, and 644 by Eurocopter.

**Application.** Emergency medical services (EMS), law enforcement, firefighting, resource development, mountain rescue, military utility duties, corporate transportation, and short-haul passenger operations.

**Price Range.** EC 145, \$5.75-\$7.09 million in 2010 U.S. dollars.

## Contractors

### Prime

<b>Eurocopter Deutschland GmbH</b>	<a href="http://www.eurocopter.com">http://www.eurocopter.com</a> , Industriestrasse 4-6, Postfach 1353, Donauwörth, 86609 Germany, Tel: + 49 906 71 0, Fax: + 49 906 71 40 11, Prime
<b>Kawasaki Heavy Industries (KHI), Gifu Works</b>	<a href="http://www.khi.co.jp">http://www.khi.co.jp</a> , 1, Kawasaki-Cho, Kakamigahara, Gifu, 504-8710 Japan, Tel: + 81 583 82 5712, Fax: + 81 583 82 2981, Prime

### Subcontractor

<b>Thales Avionics</b>	<a href="http://www.thalesgroup.com/aerospace/">http://www.thalesgroup.com/aerospace/</a> , 25 Rue Jules Védrières, Valence, 26027 France, Tel: + 33 4 75 79 85 11, Fax: + 33 4 75 79 88 15 (MEGHAS Avionics)
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## Eurocopter/Kawasaki BK 117/EC 145

<b>Turbomeca SA</b>	<a href="http://www.turbomeca.com">http://www.turbomeca.com</a> , Bordes, 64511 France, Tel: + 33 5 59 12 50 00, Fax: + 33 5 59 53 15 12 (Arriel 1E2 Turboshaft)
<b>NOTE(S):</b> Above contractors apply to EC 145/BK 117C-2 model.	

Comprehensive information on Contractors can be found in Forecast International's "International Contractors" series. For a detailed description, go to [www.forecastinternational.com](http://www.forecastinternational.com) (see Products & Samples/Governments & Industries) or call + 1 (203) 426-0800.

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



EC 145

Source: Eurocopter

## Technical Data

(EC 145)

**Design Features.** Single-main-rotor, all-metal helicopter with rigid four-blade main rotor, triple tail fins with the center fin carrying the tail rotor, and four-post skid-type landing gear.

	<u>Metric</u>	<u>U.S.</u>
<b>Dimensions</b>		
Length overall, rotors turning	13.0 m	42.65 ft
Fuselage length	10.20 m	33.48 ft
Height overall	3.96 m	12.99 ft
Main rotor diameter	11.0 m	36.09 ft
Cabin		
Maximum length	4.55 m	14.93 ft
Maximum height	1.22 m	4.0 ft
Maximum width	1.40 m	4.59 ft

## Eurocopter/Kawasaki BK 117/EC 145

	<u>Metric</u>	<u>U.S.</u>
<b>Weight</b>		
Empty weight (standard configuration)	1,792 kg	3,951 lb
Maximum takeoff weight	3,585 kg	7,903 lb
Useful load (standard configuration)	1,793 kg	3,953 lb
Sling load	1,500 kg	3,307 lb
Standard fuel	694 kg	1,530 lb
<b>Capacities</b>		
Usable fuel	867.5 liters	229 U.S. gallons
<b>Performance(a)</b>		
Never-exceed speed (VNE)	268 km/h	145 kt
Maximum cruise speed	246 km/h	133 kt
Range with standard fuel	680 km	370 nm
<b>Propulsion</b>		
BK 117B-1/B-2	(2)	AlliedSignal LTS 101-750B-1 turboshaft engines rated 410 kW (550 shp) each for takeoff.
BK 117C-1/EC 145	(2)	Turbomeca Arriel 1E2 turboshaft engines rated 550 kW (738 shp) each for takeoff.

**Seating**

Six to 11 passengers; crew of one or two.

(a) Maximum normal gross weight, SL, ISA.

## Variants/Upgrades

**Commercial Derivatives**

**BK 117A-1.** Initial production version. First deliveries were made in 1983.

**BK 117A-3.** Certificated by the German LBA in March 1985, this version had an increased maximum takeoff weight: 3,200 kilograms versus 2,850 kilograms for the A-1. The A-3 had a larger tail rotor with twisted airfoils.

**BK 117A-4.** Introduced in early 1987 as a replacement for the A-3, the A-4 was powered by LTS 101-750B-1 engines, flat-rated to 550 shp each. This version provided improved hot/high performance as well as an increase in maximum takeoff weight. Other improvements were made to the main rotor transmission and the tail rotor mast. German-produced A-4s were also fitted with a larger capacity fuel tank than was carried aboard the A-3 version.

**BK 117B-1.** Certificated in late 1987 and introduced in early 1988, the B-1 featured the same LTS 101-750B-1 engines as the A-4 model and was optimized for improved hot/high performance. MBB Helicopter Corp of the U.S. introduced a corporate version in 1990, including a Honeywell SPZ-7000 digital automatic flight control system and a Custom Aircraft Interiors cocoon-type interior system. Options included a

Bendix/King electronic flight instrumentation system (EFIS) and a clamshell cabin door.

**BK 117B-2.** Certificated in January 1992, this version provided a maximum takeoff weight increase to 3,350 kilograms (7,385 lb) and 150 kilograms (330 lb) greater payload.

**BK 117C-1.** This version was a basic B-2 powered by Arriel 1E2 engines. It made its first flight in April 1990. Certification was achieved in mid-1992, and deliveries began soon thereafter. The aircraft was equipped with a revised EFIS panel and an improved environmental control system.

Although the overall performance of the C-1 was similar to that of the earlier BK 117B-2, the C-1 could carry a greater payload and provided better hot-and-high performance.

**EC 145.** The EC 145 is a stretched version of the BK 117C-1. It is powered by Turbomeca Arriel 1E2 engines and has new avionics and a new tail rotor. Eurocopter is responsible for the forward section of the helicopter, while Kawasaki is responsible for the tail section. Maximum takeoff weight of the new variant is 3,585 kilograms (7,903 lb). Cabin volume is significantly increased compared to that of the

## Eurocopter/Kawasaki BK 117/EC 145

BK 117C-1. The EC 145 cabin measures 4.55 meters (14.93 ft) in length and 1.4 meters (4.59 ft) in width. Maximum speed is 268 km/h (145 kt), and range is 680 kilometers (370 nm).

Although Eurocopter uses the EC 145 designation for the new version, Kawasaki markets it under its original BK 117C-2 name. An initial prototype made its first flight in June 1999 at Eurocopter facilities in Germany. A second prototype, built by Kawasaki, flew in Japan in March 2000. A third prototype made its initial flight in April 2000 in Germany. A fourth prototype flew in October 2000.

The EC 145 received German certification in December 2000, Japanese certification in March 2001, French certification in June 2001, and U.S. certification in February 2002.

Kawasaki delivered its initial production BK 117C-2 in November 2001, to Aero Asahi.

Eurocopter began deliveries of production EC 145s in 2002. The company had earlier delivered two preproduction EC 145s to the French Securite Civile (French Civil Defense and Emergency Preparedness Organization) in May 2001 for training.

**NBK-117.** IPTN designation. Only three were produced and delivered.

### **Military Derivative**

**BK 117A-3M.** An armed gunship variant, this derivative was introduced in 1985 at the Paris Air Show. The aircraft could carry eight Euromissile HOT 2 missile launchers; an SFIM APX-M 397 roof-mounted, stabilized sight; and digitized weapon electronics. A Lucas chin-mounted turret, housing a Browning 12.7mm automatic machine gun, was controlled by a helmet-mounted sight. The gunship was fitted with high-skid landing gear to accommodate the gun turret.

## Program Review

**Background.** In February 1977, Kawasaki of Japan and MBB of West Germany agreed to collaborate on development of a new, six- to 10-passenger light helicopter. The project received a boost in November 1977 when the West German government announced that it would fund half of the development costs. By April 1978, definition studies had been completed, powerplant selection had been announced, and metal cutting had begun on the prototype aircraft. Each company built one flight test and one ground/static test machine. MBB's prototype flew in June 1979, and Kawasaki's was airborne in August of that year.

The project was essentially a successor to MBB's proposed BO 107 and the Japanese firm's developmental LTH (Light Twin-engine Helicopter). For the new helicopter, Kawasaki provided the main transmission, much the same unit developed for the aborted KH-7 design, as well as the fuselage and electrical systems. Eurocopter (into which MBB's helicopter division was merged in 1992) supplied the main and tail rotor systems, hydraulic systems, tail boom empennage, skid landing gear, engine firewall and cowlings, power-amplified controls, and systems integration. BMW, the German auto manufacturer, assisted the airframe companies in the styling of the BK 117 design, which was basically an enlarged BO 105.

### ***First Flight***

The first production BK 117, a Kawasaki-built model, made its initial flight in December 1981. The first MBB production helicopter made its initial flight in April

1982. West German certification was obtained in early December 1982, followed by Japanese certification a few days later. U.S. Federal Aviation Administration (FAA) certification was granted in March 1983.

**Licensed Production.** Industri Pesawat Terbang Nusantara (IPTN) of Indonesia began licensed production of the BK 117 in 1985 after signing an agreement in November 1982. However, only three NBK-117s were produced by IPTN.

### ***LUH Selection***

In June 2006, the U.S. Army selected the UH-145, a version of the commercial EC 145, as the service's new Light Utility Helicopter (LUH). The UH-145 was chosen over the AgustaWestland AW139, the Bell 412EP, and the MD Helicopters MD Explorer.

The LUH program covers the acquisition of 345 helicopters. The UH-145 is designated UH-72A in U.S. Army service. The Army's official name for the UH-72A is Lakota, which is the name of a Sioux tribe in North America.

The UH-145 team is led by EADS North America. Primary partners on the team include: American Eurocopter, which handles production, assembly and delivery; Sikorsky Aircraft, which is responsible for contractor logistics support (CLS); WestWind Technologies, responsible for systems integration and engineering support; and CAE, which supplies cockpit procedural trainers. EADS North America is a unit of Eurocopter parent EADS, and American Eurocopter is the U.S. subsidiary of Eurocopter.

## Eurocopter/Kawasaki BK 117/EC 145

Other suppliers on the UH-145 effort include Aerolite, BAE Systems, Goodrich, Keith Products, Nordam, Sagem Avionics, Thales North America, Turbomeca USA, and Wulfsberg Electronics.

EADS North America delivered the first two UH-72As to the Army in late 2006.

The initial UH-72As were built by Eurocopter in Donauworth, Germany. American Eurocopter has gradually taken over responsibility for UH-72A assembly and production in a three-phase process. The first phase, known as the "light assembly line" phase, began with aircraft number 10, which was delivered to the Army in August 2007. Starting with this aircraft, German-built UH-72As were disassembled, transferred to American Eurocopter's facility in Columbus, Mississippi, and then reassembled, painted, and customized.

The second phase, called the "final assembly line" phase, began with aircraft number 41, which was delivered to the Army in the third quarter of 2008. For this phase, seven of the UH-72A's 14 final assembly workstations were transferred from Donauworth to Columbus. Among other items, these workstations involved installation of flight instruments, engines, the tail boom, and doors.

The third and final phase is called the "production line" phase. For this phase, all 14 workstations for UH-72A final assembly are now located in Columbus. The first helicopter to be entirely built in Columbus was scheduled to be delivered to the Army in mid-2010.

In June 2009, EADS North America and American Eurocopter selected an industry team to provide components and subsystems for the UH-72A Security and Support (S&S) mission equipment package (MEP). Team members, tasked to supply components and subsystems for the MEP, include L-3 Communications, LCX Systems, MARK IV Luminator, Ranger Rotorcraft Group, and Sierra Nevada Corp.

The S&S-configured UH-72A is intended to provide Army National Guard units with the flexibility to respond to a wide variety of homeland security, homeland defense, and civil law enforcement support missions. The MEP consists of an electro-optical infrared sensor, a data communications suite, a moving map display, cabin and cockpit screens, a digital video recorder, and a searchlight. The Army plans to equip 200 National Guard UH-72As with the S&S MEP.

## Related News

**New Cooperation Agreement** – Kawasaki president Shigeru Murayama and Eurocopter CEO Lutz Bertling signed a new cooperation agreement in July 2010 regarding the EC 145. After more than 30 years of cooperation on the BK 117/EC 145 program, the new agreement extends the partnership of the two companies by 15 years to 2025. The two firms are confident of further market success for the BK 117/EC 145 family and future derivatives.

Bertling said, "The cooperation between KHI and Eurocopter in Germany works very smoothly despite the long distance, time zone difference, and cultural differences. The extension of our contract by another 15 years underlines the success story of our joint product." (Eurocopter, 7/10)

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## Funding

### U.S. FUNDING

	FY08 QTY	FY08 AMT	FY09 QTY	FY09 AMT	FY10 QTY	FY10 AMT	FY11 (Req) QTY	FY11 (Req) AMT
<u>U.S. Army</u>								
LUH	42	228.9	44	276.4	54	325.2	50	305.3

All \$ are in millions.

## Eurocopter/Kawasaki BK 117/EC 145

## Contracts/Orders &amp; Options

<b>Contractor</b>	<b>Award (\$ millions)</b>	<b>Date/Description</b>
EADS North America Defense	43.1	Jun 2006 – Contract from U.S. Army for the Light Utility Helicopter with Medevac B-kits and Hoist B-kits, along with pilot transition and maintainer training.
EADS North America Defense	170.6	Oct 2006 – Contract modification from U.S. Army for Medevac B-kits, Hoist B-kits, student pilot and maintainer training, and a procedural training device for the LUH aircraft.
EADS North America Defense	213.8	Dec 2007 – Contract from U.S. Army for the Army's Light Utility Helicopter.
EADS North America Defense	24.8	Sep 2008 – Contract from U.S. Army for the purchase of five LUH aircraft for the U.S. Navy Test Pilot School.
EADS North America Defense	208.4	Nov 2008 – Contract from U.S. Army for funding of Program Year 04 of the Army's LUH contract for 39 Light Utility Helicopters.
EADS North America Defense	25.6	Jan 2009 – Contract from U.S. Army for funding of the Army's LUH contract for five UH-72A Light Utility Helicopters, two Medevac B-kits, two Hoist B-kits, two environmental control units, and two Medevac Mission Equipment Packages.
EADS North America Defense	247.2	Dec 2009 – Contract from U.S. Army for funding of Program Year 05 of the Army's LUH program for 45 UH-72A Light Utility Helicopters, 30 Medevac Mission Equipment Packages, 30 Medevac B-kits, 30 Hoist B-kits, four VIP Mission Equipment Packages, 11 engine inlet barrier filters, 34 environmental control units, and 45 ARC-231s.

## Timetable

<b>Month</b>	<b>Year</b>	<b>Major Development</b>
Feb	1977	MBB/Kawasaki joint development agreement signed
Nov	1977	West German government agrees to fund 50 percent of development costs
Apr	1978	Definition studies completed; LTS 101 engines selected
Jun	1979	First prototype flown in West Germany
Aug	1979	Second prototype flown in Japan
Dec	1982	VFR certification
Early	1983	Initial production deliveries
Late	1985	Indonesian licensed-production program begins
	1987	BK 117A-4 introduced
Early	1988	BK 117B-1 introduced
Apr	1989	First flight of BK 117 with all-composite fuselage
Apr	1990	First flight of BK 117 with Arriel 1E
Jan	1992	Certification of BK 117C-1
Jun	1999	Initial flight of EC 145
Beyond	2010	Continued production

## Eurocopter/Kawasaki BK 117/EC 145

## Worldwide Distribution/Inventories

**Military/Government Operators**

(As of July 2010)

Operator	Designation	Quantity
Australia Government	BK 117B-1	1
Chile Air Force	BK 117B-1	1
Chile Police	BK 117B-1	1
Colombia Navy	BK 117	1
France Gendarmerie	EC 145	15
France Securite Civile	EC 145	32
Japan Aerospace Exploration Agency	BK 117B-1	1
Lithuania Government	EC 145	1
Ontario MNR Aviation Services (Canada)	BK 117A-4	1
Peru Police	BK 117B-1	2
South Africa Air Force	BK 117	8
South Africa Government	BK 117A-1	3
South Africa Government	BK 117A-3	2
South Africa Police Service	BK 117	2
United Arab Emirates - Abu Dhabi Police Air Wing	BK 117	3
United States Army	UH-72A	101
United States Navy	H-72A	5

## Forecast Rationale

EADS delivered the 100th UH-72A Lakota to the U.S. Army in March 2010. Current plans call for the service to take delivery of 345 UH-72As, of which a total of 182 are so far under contract. The Army utilizes the UH-72A for various utility missions, thus freeing up UH-60 Black Hawks for combat duty. The UH-72A itself is not intended for combat use.

The Army is considering a possible increase to its UH-72A acquisition objective beyond the currently planned 345 units. No timeline has been announced as to when such a decision would be reached.

Meanwhile, the U.S. Navy has joined the Army as an operator of the EADS helicopter. In Navy service, the aircraft is called the H-72A. The Navy ordered five H-72As for use in pilot training. Deliveries began in November 2009 and were completed in January 2010.

The five helicopters are used at the Naval Test Pilot School in Patuxent River, Maryland.

Export sales of the UH-72A are certainly possible, and the helicopter has already drawn interest from a number of prospective customers.

In November 2009, the U.S. Defense Security Cooperation Agency notified Congress of a possible Foreign Military Sale to Iraq of up to 15 light utility helicopters and up to 12 medium utility helicopters. The deal is worth a potential \$1.2 billion. For the light utility portion of the proposed sale, the Iraqi government has requested either the UH-72A, the AgustaWestland AW109, or the Bell 429. Candidates for the medium utility portion are the AgustaWestland AW139, the Bell 412, and the Sikorsky UH-60M Black Hawk.

## Eurocopter/Kawasaki BK 117/EC 145

In late 2009, the Armed Forces of Malta shelved plans to acquire one UH-72A for use in the search-and-rescue (SAR) role. It is now looking to fill its requirement with a purchase on the used market.

### *EC 645/AAS-72X*

In June 2010, Eurocopter unveiled a militarized version of the EC 145, dubbed the EC 645. This new model is a multirole machine intended for use in such missions as armed reconnaissance, fire support, observation, airlift, and SAR.

The EC 645 is powered by the same Arriel 1E2 turboshaft engines as found on the EC 145. Other features include a glass cockpit, self-sealing fuel tanks, a missile warning system, and chaff/flare dispensers. The EC 645 is available with the new Stand Alone Weapon System (SAWS), which has been developed by Eurocopter and the South African company ATE. The SAWS package provides a mission computer, an electro-optical system, a targeting system with a helmet-mounted sight and display, and two weapons pylons. Armament can include guns, missiles, and rockets.

The EC 645 is targeted at non-U.S. customers. A U.S.-specific armed version is called the AAS-72X, and is being proposed for the U.S. Army's Armed Aerial Scout (AAS) program. EADS North America and American Eurocopter have teamed with Lockheed Martin to bid the AAS-72X for this program. Lockheed Martin acts as mission equipment package integrator, while American Eurocopter is to build the helicopter in Columbus. The AAS-72X will be equipped with a more powerful version of the Arriel 1E2 engine.

EADS intends to privately fund and produce three AAS-72X demonstrators, the first of which is slated to fly in late 2010.

The Army issued a Request for Information in January 2010 concerning the AAS program. A Request for Proposals will likely follow in 2011. The AAS effort encompasses the procurement of 368 helicopters to replace Bell OH-58D Kiowa Warriors in the Army fleet. Besides the AAS-72X, other contenders for the award include the Boeing AH-6 and a pair of Sikorsky products: the UH-60M Black Hawk and the new X2 Technology Light Tactical Helicopter. Fort Worth, Texas-based AVX Aircraft Company is proposing an OH-58D upgrade package for the AAS requirement, and Bell might do so as well.

While we are refraining from predicting a winner of the AAS contest, the AAS-72X may be a slight favorite at this point in time, due to its commonality with the UH-72A and the Army's familiarity and success with the latter.

### *The Civil Market*

Eurocopter continues to produce EC 145s in Germany for the civil marketplace. Some 65 percent of the worldwide civil EC 145 fleet is specifically equipped for EMS, SAR, and rescue duties.

The EC 145 also finds success in other segments of the market, including the law enforcement, homeland security, and corporate/VIP transport sectors. In a bid to further expand sales of the type to corporate/VIP customers, Eurocopter has recently introduced two new EC 145 versions.

The VIP-configured EC 145 Stylence model is designed to provide a fully equipped, in-flight office for corporate executives and other VIPs. The initial EC 145 Stylence was delivered in June 2009 to Banco Cruzeiro do Sul SA of Sao Paulo, Brazil.

In May 2010, Eurocopter announced a special edition of the EC 145 targeted at VIP and high-end business customers. The new model is being developed in conjunction with automobile manufacturer Mercedes-Benz, and is called the EC 145 "Mercedes-Benz Style" version. The helicopter's interior is inspired by the new Mercedes-Benz R-Class luxury SUV, and features deluxe seating upholstery and a wood-paneled ceiling. All seats are mounted on rails, and can be reconfigured for different seating configurations or removed to make room for luggage. Ambient cabin lighting from the Mercedes-Benz E-Class and S-Class vehicles is integrated into the cabin design. New-production EC 145 Mercedes-Benz Style helicopters are scheduled to become available in the fourth quarter of 2011.

Kawasaki builds the EC 145 in Japan, but markets it under the designation BK 117C-2.

**Note:** *Historical production (through 2009) figures do not include 359 BK 117s built by Eurocopter, 123 BK 117s produced by Kawasaki, and three NBK-117s built by IPTN.*



## Eurocopter/Kawasaki BK 117/EC 145

## Ten-Year Outlook

ESTIMATED CALENDAR YEAR CIVIL UNIT PRODUCTION												
Designation or Program	High Confidence					Good Confidence			Speculative			Total
	Thru 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
<b>Eurocopter Deutschland GmbH</b>												
<b>EC 145 Civil &lt;&gt; Arriel 1E2</b>												
	189	21	20	23	24	27	28	28	27	29	30	257
<b>Kawasaki Heavy Industries (KHI)</b>												
<b>BK 117 C-2 Civil &lt;&gt; Arriel 1E2</b>												
	13	2	2	3	4	4	3	3	3	2	3	29
<b>Total</b>	202	23	22	26	28	31	31	31	30	31	33	286
ESTIMATED CALENDAR YEAR MILITARY UNIT PRODUCTION												
Designation or Program	High Confidence					Good Confidence			Speculative			Total
	Thru 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
<b>Eurocopter Deutschland GmbH</b>												
<b>UH-145 Military &lt;&gt; Arriel 1E2</b>												
	96	56	51	46	44	40	12	10	10	10	7	286
<b>Total</b>	96	56	51	46	44	40	12	10	10	10	7	286



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