

# In-service report: EC145



EUROCOPTER

With eight EC145s on its roster, France's Gendamerie will make a decision on possible further acquisitions this summer

mainly for use offshore and in the highly active electronic news-gathering role. Five EC145s are in service in Japan, where air regulations restrict para-public operations – helicopters, for example, can fly over an accident site and film it for a TV network but not land to help.

## North American orders

The first of five EC145s ordered by North American customers was delivered to Florida's Lee County emergency medical services in March, and went straight into service. The EC145 joined a BO105 that has been in operation with Lee County since 1990, and which will continue to serve as a back-up aircraft in its life support and search-and-rescue operations.

"Our Bolkow [BO105] has met the county's needs for years," says Lee County chief pilot Rick O'Neal. "The EC145 offers

us many operational advantages, including a larger cabin and the ability to accommodate additional equipment." Lee County emergency medical services supports a region of Florida where the population more than doubles during the winter, and which is bordered by 75 barrier islands in the Gulf of Mexico – a lot of them with no road access to the mainland. Aircraft completion was carried out by Metro Aviation at Shreveport, Louisiana.

Like its BO105 predecessor, the original BK117 continues to give good service. One aircraft, with over 10,000 airframe hours on the clock and recently refurbished by Texan completion centre Heli-Dyne, is thought to be the oldest surviving production model. The helicopter saw 20 years service with the Medstar air medical services (AMS) programme at Washington DC before being cycled into operator CJ Systems' back-up fleet.

Heli-Dyne then performed a complete interior refurbishment, avionics upgrade and paint job, the aircraft even receiving a new tail number. "When that BK117 left here, it was a piece of machinery that any AMS operator would love to have," says Heli-Dyne president David Horton. "It's every bit as good – if not better – than

some of the newer aircraft that service the industry today." CJ Systems has since placed the aircraft back into full-time AMS service with Baptist LifeFlight in Mobile, Alabama.

## UK police niche?

David Lewis, sales director for distributor McAlpine, believes the EC145 will find a niche within UK police aviation, but as much for its passenger capacity as its equipment payload. "The EC135 is ideal as a surveillance aircraft but, like the Gendarmerie, there is often a need for UK police forces to carry teams of various specialisations, and the two extra seats in the EC145 can be very useful. I see one type as complementing the other – but with the larger one operated perhaps as a shared resource."

When the BK117 entered service, there was limited demand for the payload capability the helicopter offers. "Nowadays though, such is the amount of mission equipment that para-public helicopters want to carry that the type is coming back into fashion," says Kidd. "[The EC145] may stretch some budgets, but it can give you 1,300kg of payload coming out of a helipad, and that is attractive to any public service operator." ■

## PARTNERSHIP

# A marriage that lasted

In true Japanese tradition, the partnership between MBB and Kawasaki came about with the help of a third-party "matchmaker" – Boeing-Vertol – which was working on the Kawasaki-Vertol 107 commercial variant of its CH-46 Sea Knight and marketing MBB's BO105 in the USA. When the US manufacturer decided it was not interested in developing a light twin, in 1977 the Japanese and German companies got together.

The Europeans saw a market for the BK117 as a passenger and utility transport: Kawasaki wanted to be the first Japanese company to build and certificate an indigenous rotorcraft – market success was almost a secondary goal. "The prospective market in Japan was at the time quite small, but the public were already educated on the safety aspects of single-engine types: as a result there was a demand for a twin in corporate, offshore and utility markets," says Eurocopter programme manager Manfred Merk.

The companies split the BK117 development costs, workshares and markets: Europe, Africa and the Americas for the European firm; and the Asia-Pacific region for Kawasaki –

an arrangement that persists to this day. Production was organised on the "sole source" principle, whereby each company manufactured the parts it had developed, and supplied them to the other partner.

The first BK117 flew in 1979 at Ottobrunn in Germany, followed shortly afterwards by the Japanese prototype, leading to type certification from the respective regulators in 1982. The EC145 made its maiden flight in June 1999, and obtained type certification in late 2000.

Compared with the BK117-C1, the EC145 has a higher, 3,585kg, take-off weight, a more spacious cabin, lower noise signature, better visibility and a digital cockpit. Deliveries started in April 2002.

Eurocopter's 60% workshare includes the main and tail rotors, intermediate and tail gearboxes, engine integration, control system, tail structure, landing gear, cockpit structure, windows and doors. Kawasaki's 40% share includes the fuselage structure, main transmission, and electrical and fuel systems. Final assembly takes place in Donauwörth, Germany, and Gifu, Japan.

## EC145 TECHNICAL SPECIFICATIONS

Length overall	13.03m
Main rotor diameter	11m
Tail rotor diameter	1.96m
Fuselage maximum width	1.84m
Height overall	3.96m
Weight empty	1,790kg
Maximum usable fuel, standard	694kg
Maximum usable fuel, optional	869kg
Maximum take-off weight	3,350kg
Maximum underslung load	1,500kg
Maximum cruising speed	138kt
Never exceed speed (V <sub>NE</sub> )	145-150kt
Maximum service ceiling	18,000ft
Range at normal cruising speed	680-705km
Powerplant	2 x 738shp Turbomeca Arriel I E2