

# ROTORHUB

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**It remains one of the more familiar shapes in the rotary-wing world, and yet even today, 35 years after its first flight, the Eurocopter Dauphin continues to sell well.**

At the 2009 Paris Air Show, the manufacturer marked a milestone in the programme, delivering the 900th Dauphin and 100th EC155 to be built by the company.

The current production models of the type are the AS365 N3, which first flew in October 1996, and the EC155 B1, originally the AS365 N4, which is a wide-bodied version of the aircraft equipped with a five-blade main rotor. Members of the AS365 family are now in use with some 300 customers in 64 countries worldwide. The aircraft's sleek lines and distinctive fenestron tail rotor system have given the type a 'fan base', and for some customers, the only replacement for a Dauphin is another, or an upgrade to the latest version.

### The line continues

Programme manager Antoine Rivet told **ROTORHUB** that although the AS365 and the EC145 offered similar capabilities, both types were complimentary. 'The success is due to the versatility of the aircraft – we offer 100 different equipment options for this aircraft and this allows [it] to carry out a range of missions from VIP and parapublic to search and rescue.



# Dauphin delight

'For us, the Dauphin is like the 500 is to Fiat or the Golf is to Volkswagen, and the looks of the helicopter are still an incentive to the market.'

Rivet said there is a two-year backlog of Dauphin orders and this may increase as Eurocopter is now marketing an updated version of the current AS365 N3 called the N3+. This latest model delivers avionics improvements such as a four-axis autopilot, FMS and new communications equipment. The autopilot also introduces a series of SAR

search modes. The standard avionics suite is based on the Garmin GNS 430 system, although an enhanced version fitted with the Rockwell Collins Pro Line 21 suite is also on offer, along with an instrument panel that is compatible with night vision goggles.

Customers also have the option of installing TCAS, an enhanced GPWS and life rafts. There are also five VIP and four corporate cabin configurations on offer, with four to six seats for passengers, who can enjoy personal video screens and improved air conditioning.

But Eurocopter is not the only one marketing new versions of the aircraft. China's AVIC is also promoting its latest iteration of the Z-9, known as the H425, which has been described by Eurocopter as 'somewhere between an AS365 N2 and N3' in capability.

### Long history

The Dauphin first emerged back in 1972 in the form of the SA360. This was single-engined but incorporated many of the design characteristics that would feature on future Dauphins. A year later, the SA365 C was announced. A derivative of the SA360, the new aircraft delivered a second engine, but retained the blunt glass nose of its predecessor, and introduced landing skids.

Aérospatiale worked to improve the design, and the AS365 N (for 'Nouvelle') flew for the



Another EC155 is readied for flight test in front of the Eurocopter plant at Marignane. There is a two-year production backlog for the Dauphin family. (Photo: Tony Osborne)



**With special markings on the rear fuselage, the 900th Dauphin and 100th EC155 clearly displays its significance. (Photo: Eurocopter)**

first time in March 1979 with a re-profiled nose and retractable landing gear. New versions followed, with the N1, N2 and current N3/N3+ delivering improved payload, engine power and performance compared to previous models. The EC155 builds on the standard Dauphin by offering extra seating capacity, making it attractive to offshore operators, and first flew in 1997.

The 900th Dauphin, registered OY-HJB, carries a special decal on the tail boom recognising its historic significance, and is the sixth EC155 to join Esbjerg-based DanCopter. Delivery of a seventh example to the company was due later this summer. DanCopter was the first to introduce the EC155 in the North Sea, and performs offshore oil and gas operations for companies such as Shell, Dong and Hess.

The total of 900 includes 100 or so produced as HH-65s for the United States Coast Guard and the military variant known as

the AS565 Panther, in service with the French Navy and Brazilian armed forces, but does not cover licence-built aircraft such as the small number built by IAR in Romania or the 200 or so that have been produced by Harbin, now Avicopter, in China as Z-9s. These are flown by military and parapublic agencies in the People's Republic.

Although it seems that other Eurocopter products attract more media attention, the Dauphin still gets its fair share of the headlines, with recent orders from Citic Offshore Helicopter in China and the Dubai Air Wing in the UAE and deliveries to the Malaysian Maritime Enforcement Agency, while the United States Coast Guard (USCG) celebrated its own landmark in August 2007, when it recorded its one millionth flight hour on the HH-65.

Many of the USCG Dolphins are now being upgraded to the multi-mission MH-65C and MH-65D, which flew on 17 March with an upgraded avionics suite. Despite plans for its replacement, the H-65 fleet now features in the long-term plans of the agency, and the Dauphin family looks set to fly on for some time to come. **Tony Osborne**

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