FLYING DISPLAY

Farnborough heads are tilting to watch V-22 tiltrotor in flight

Paul Derby

Easy up! The V22 tilts its rotors to suit mission.

As thousands of eyes gaze skywards during the daily flying display this week, you can guarantee that one aircraft will stop everyone in their tracks.

The Bell Boeing V-22 Osprey tiltrotor, fresh from a weekend of wowing the crowds at RAF Fairford in Gloucestershire, makes its Farnborough debut as the military version gears up for operational deployment from next year.

The two MV-22 US Marine Corps variants on show logged thousands of miles in the air in the weeks leading up to Farnborough, including their first ever transatlantic deployment – a feat that is of particular importance to Marine Tiltrotor Operational Test and Evaluation Squadron 22 (VMX-22) based at New River, North Carolina.

"This deployment to the UK is extremely valuable to us," says Maj Brian McAvoy, VMX-22 Operations Officer. "It's an opportunity to test our procedures for long-range, over-water operations and also to monitor things like fatigue for the aircrew."

Speaking on the eve of the show, he described the 9h flight from New River via Goose Bay in Newfoundland, made in the company of two KC-130J tankers. The MV-22s tanked up after take-off and again about 3h into their 9h flight.

For the mission, the two MV-22s were fitted with two internal tanks allowing an additional 5,000lb (2,300kg) of fuel. The tanks were removed for the flying displays in the UK.

The aircraft is being flown at Farnborough by aircrew from Bell Boeing, under a lease agreement, although USMC aircrew are at the show, manning the static display and taking part in briefings.

In its Farnborough flying display, showgoers can expect to see the aircraft in conversion and in aeroplane mode.

The UK deployment is another important step toward initial operating capability for the V-22. The same two aircraft and crews coming to Farnborough completed an equally ambitious deployment last month with two coast-to-coast flights across the US as a precursor to the transatlantic mission.

"It was basically a dress rehearsal over land," explains Maj McAvoy. "Those flights went very well, in fact we were in the air for a total time that was within 3min of what we predicted and that's over a 2,000 mile (3,200km) trip. We're spreading our wings."

During the coast-to-coast operation, VMX-22 launched two aircraft from Marine Corps Air Station New River for a 2,100nm, 9h flight to Miramar, California.

Speeds

The MV-22s returned three days later, flying at altitudes of 14,000-16,000ft (4,200-4,800m) with sustained ground speeds of 240-300kt (440-550km/h).

The aircraft were supported by a pair of KC-130J tankers from Marine Aerial Refueler Transport Squadron 252 (VMGR-252) to further validate the Osprey's long-range fuel systems capabilities.

"Unlike conventional rotary wing aircraft, which must be transported into overseas theatres of operation aboard amphibious shipping or heavy lift transport planes, the V-22 can self-deploy thousands of miles over water to get itself to the fight," said V-22 joint programme manager Col Bill Taylor.

"This was the first time that an assault support aircraft has ever flown across the Atlantic. It is also the first time in more than 20 years that Marine Corps KC-130s have supported a transatlantic deployment."

Under current plans, the USMC will take delivery of 360 MV-22s for missions including amphibious assault and sustained operations ashore.

The Ospreys will ultimately replace all Boeing CH-46E Sea Knights and CH-53 Super Stallions. The US Navy will receive 48 MV-22s for fleet logistic support and search and rescue, while the USAF Special Operations Command has ordered 50 CV-22 variants.

Fuelled for action: The Osprey on its way here.