



BACK TO THE BOAT

The US Navy's F-35C Lightning II began its third and final developmental test (DT) carrier embark, known as DT-III, on August 14 aboard USS *George Washington* (CVN-73) off the coast of Virginia. *Combat Aircraft* was afforded a look at the testing on the second day of the three-week phase.

report: **James Deboer**

Inset right: **RADM Roy 'Trigger' Kelley**, the new director of the **Joint Strike Fighter Fleet Integration Office**. James Deboer



Right top to bottom: **A VFA-101 'Grim Reapers' F-35C prepares to launch during the carrier qualification part of DT-III.** US Navy/MCS2C Kris R. Lindstrom

The two aircraft from VX-23 arrived with external stores pylons ready for DT-III's weapons testing phase. James Deboer

Below: **The busy flight deck on the USS *George Washington* (CVN-73) with six F-35Cs from VX-23 and VFA-101 in action.** James Deboer

DURING THE FIRST two developmental test programs in October 2015 on the USS *Dwight D. Eisenhower* and in November 2014 on the *Nimitz*, pilots conducted catapult take-offs, arrested landings, and touch-and-gos on the deck while opening up the flight envelope of the F-35C. August's DT-III takes it all a step further, with more than 600 test points being conducted and the bulk of the flights focusing on launch and





recovery with external stores such as GBU-12 laser-guided bombs and AIM-9X Sidewinders. This will include approach handling qualities with symmetric and asymmetric external stores, so-called delta flight path testing, joint precision approach and landing system trials, crosswind and maximum-weight launches, and military-/maximum-power launches.

Leading DT-III is LCDR Daniel 'Tonto' Kitts, who is part of the Integrated Test Force (ITF) with VX-23 'Salty Dogs' at NAS Patuxent River, Maryland. Kitts told

Combat Aircraft: 'This third trip to the boat is about creating a complete set of launch and recovery bulletins for fleet use, so that when the [F-35C achieves] IOC [initial operating capability] the fleet has everything that they need to launch the aircraft in all its IOC configurations on the ship. We are getting up to the heaviest gross weights with external stores and will also clear out the full crosswind envelope for launching and recovering. We can launch with up to a 15kt crosswind and we can recover with up to a 10kt crosswind.'



'The objective test points are ones that we *have* to get done. They number about 315, and the other threshold test points we will look to do as long as we have the time and the asset support. This trip is about verifying the testing we have already done shore-based.'

Kitts and his test crew of about 170 people included five pilots and two F-35Cs from VX-23 (aircraft CF-03 and CF-05), the two ship-capable systems development and demonstration (SDD) aircraft from Pax River. Joining them were five F-35Cs from the Navy's first training unit, the 'Grim Reapers' of VFA-101. They used DT-III to carry out the squadron's first ever carrier qualifications (CQs) with the Lightning II, while also demonstrating an engine removal and replacement on board the ship. Kitts added: 'One of the great things that I have seen already is

watching the guys from VFA-101 catching the three wire nearly 100 per cent of the time. My team has been working on the development of the F-35C for a long time, so it is rewarding for us to come out here and see the hard work in use, making a difference for the fleet.'

RADM Roy 'Trigger' Kelley was aboard as well. He will begin a new position as director of the Joint Strike Fighter Fleet Integration Office for the Navy in September. The job was created to help unify the Navy's efforts to bring the F-35C into the fleet. Kelley said: 'We are standing up the new integration office on September 19 at the Pentagon, with the idea to reach out to all of the different organizations that have something to do with [the] F-35C and represent the Navy when it comes to interactions with them.' He adds: 'We have a range of dates

for IOC from August 2018 to February 2019, and so my challenge is beating that timeframe. We want block 3F software in that aircraft for IOC. Having access into environments that are highly challenged with integrated defense systems is going to be so important to the air wing so we can have day-one access during a conflict.'

Maj 'Elroy' Northam of VX-23 completed his first F-35C 'trap' on day one of DT-III, adding nine more to his tally the following day. 'It's very easy to come aboard', he said. 'Landing on a carrier used to be one of the most stressful things I would ever do, but landing for the first time yesterday in CF-05 was really great. We took off from Pax River in the morning and I was pleasantly surprised how 'vanilla' it was coming aboard. For three of the pilots at VX-23, it was our first time landing on board and we all had that same feeling' 

Above: **F-35C CF-05 of VX-23 'traps' aboard the USS George Washington on August 14.** Lockheed Martin/ Michael D. Jackson

Below: **A VFA-101 F-35C blasts off from the deck in full reheat.** US Navy/ MCS2C Kris R. Lindstrom

