

The Test Drivers

By JO2 E. Blake Towler



Despite his considerable flight experience, Lieutenant Frank Morley, age 30, is still jokingly referred to as “the youngster” around the F/A-18E/F *Super Hornet* hangar at NAS Patuxent River, Md. As one of the youngest test pilots in the fleet, it’s something he’s gotten used to. But don’t let his youthful appearance fool you. With over 1,500 total flight hours under his belt in over 30 different aircraft types, Morley has earned a reputation as a pilot with exceptional skill. Still, after pushing the limits of the F/A-18E in high-G turns and acceleration tests, he can’t seem to get the expression off his face of a kid who just took his dad’s Corvette for a spin around the neighborhood.

“It’s fantastic,” Morley said enthusiastically of the *Super Hornet*. “It’s hard to describe what a real privilege and an honor it is for me to be able to fly this aircraft. For a test pilot, it’s the ultimate. New airplanes and developmental programs don’t come around very often.”

Lt. Morley is one of two Navy junior officer (JO) test pilots working with the *Super Hornet* Integrated Test Team (ITT) to ensure the aircraft will be ready for the fleet. His specialty is flight performance and carrier suitability, and this is what allowed him to be the first pilot to make an arrested landing in the two-seat “F” variant of the *Super Hornet*, on board the aircraft carrier *John C. Stennis* (CVN 74) on 18 January 1997.

The other JO is Lt. Tom Hole, the weapons separation specialist. His job, in his own words, is to make sure the bombs fall off the airplane correctly. It is crucial for a high-performance strike fighter such as the *Super*

Hornet to demonstrate that the various weapons it carries and delivers to an enemy will separate cleanly from the aircraft throughout a range of speeds and aircraft flight conditions.

“We start the testing with a particular piece of ordnance at level flight and benign speeds,” Lt. Hole explained. “We then slowly increase those conditions until we’re letting them go at 60 degrees nose down, which is about the limit for the plane to effectively drop bombs.” Recent



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Above, ITT pilot Lt. Tom Hole fires an AIM-9 Sidewinder air-to-air missile from the two-seat F2. Opposite, Lt. Hole gives a thumbs up after returning from another successful test flight in the *Super Hornet*.

successful tests included the release of a Standoff Land Attack Missile, Harpoon anti-ship missile, Sidewinder air-to-air missile, a ripple of 10 MK 82 bombs and center-line drop tanks.

There are three other Navy test pilots flying the *Super Hornet* for the team. The most senior, Commander Rob Niewoehner, is an aeronautical engineer and F-14 *Tomcat* pilot. Next is Cdr. Tom Gurney, an F/A-18 pilot who is the lead pilot for carrier suitability testing. The third test pilot is Lieutenant Commander Dave Dunaway, whose background in operational test and evaluation is a welcome addition to the program. A number of previous tours of duty at what is now Naval Air Weapons Station, China Lake,

Calif., round out his experience.

This seasoned team of Naval Aviators was assembled by the team’s Government Flight Test Director, Cdr. Robert Wirt, who stood up the group back in February 1995. Cdr. Wirt is also a test pilot, but reported that he has “regrettably not yet been able to fly the *Super Hornet*.”

While some pilots might wonder whose back one had to scratch in order to receive such a coveted

assignment, most of the test pilots agreed that they were just lucky.

“I graduated from TPS [U.S. Naval Test Pilot School] in 1995, which is when the E/F project was gearing up, and I knew they needed one guy from our class,” Lt. Hole said. “I was training to do ordnance testing with the F/A-18C/D, and they asked me . . . it was just good timing.”

Lt. Morley agreed. “Any number of test

pilots could be here, but the way it worked out, I was at the right place at the right time.”

Regardless of how they got the jobs, these two Navy JOs are certainly enjoying their work. And they both laud the *Super Hornet* as one exceptional airplane.

Lt. Hole is particularly pleased with the cockpit systems, especially the fact that the plane’s controls and avionics are nearly identical to the older version of the *Hornet*. “When I drop a bomb in the E/F, I press the same buttons as in the C/D,” Hole said. “Strike fighter software is very expensive to produce, and what we had working in the C/D was excellent, so we just used the same software for programming the E/F. The radars, the mission computer and the

Right, CNO Adm. Jay Johnson (right) and ITT pilot Cdr. Tom Gurney after the CNO received a familiarization flight in the *Super Hornet* on 28 March. Below, Lt. Frank Morley climbs into the cockpit of F1, the *Super Hornet* configured for carrier suitability testing. Bottom, Lt. Morley in F1 makes a successful trap aboard *John C. Stennis* (CVN 74) on 18 January.



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weapons displays are also the same. It'll be very familiar for transitioning C/D pilots."

The improved flying qualities of the F/A-18E/F were another bonus for Lt. Morley. The *Super Hornet's* extra 100 square feet of wing surface allows for slower, more controlled landings—on both a runway and the lurching deck of a carrier. "I'd like to claim to be the hero of the [successful carrier tests]," he said, "but quite honestly, the airplane made it pretty simple."



Not all test flying is done in the air, however. NAS Patuxent River boasts an extremely modern flight simulator complex, which can provide a simulated flight environment

for practically every airplane in the Navy's current inventory and those undergoing testing, such as the V-22 *Osprey* and the *Super Hornet*. Unfortunately, simulator flying is not exactly exciting. According to Lt. Morley, pilots "almost never" get to run simulated aerial combats or bombing missions, and instead do rather benign tasks, such as landing and taking off. "You'll end up doing 50 or so simulated landings in a row, each one just a little bit different from the one before," Morley explained. "It can be quite boring."

On the other hand, flying the *Super Hornet* itself is anything but boring. "I'm making a contribution to an airplane that's going to be the mainstay of carrier aviation for decades to come," Morley said. "As someone who will hopefully be flying this bird in the fleet, testing the *Super Hornet* is a really rewarding

experience. We test pilots get a fair amount of glory since we're in the cockpit, but this program employs roughly 450 folks from the Navy, civil service and industry, and all of them are one team working to produce one bird. It's magnificent to be a part of

that whole evolution."

Then "the youngster" resurfaced for a moment when he grinned and said, "Besides, the job is just a heck of a lot of fun." ✈