
104
NAVY

Jolly Rogers Take to the Skies in the Super Hornet

By Lt. Matt Koop

After bidding farewell to their beloved F-14B Tomcats in January, the Strike Fighter Squadron 103 Jolly Rogers have now completed their transition to the F/A-18F Super Hornet, receiving their safe-for-flight accreditation in July. This marks a historic event for the Jolly Rogers who are now flying in the squadron's ninth airframe in its storied history. Anxious to complete their training and begin flying as an operational squadron once again, most pilots and weapon systems officers (WSOs) have had positive reactions to their recent experiences in the newest Navy strike-fighter. Commenting on his first flight and afterburner takeoff in the Super Hornet, CO Cdr. Brian Koehr said, "It takes off like a scalded dog, and is very operator friendly in the air." Lt. David Reade remarked, "Some of the things this jet can do with the flight controls are amazing!"

The new Super Hornet offers the former Tomcat aircrew a 30-year leap forward in technology and innovation. New digital flight controls and displays make it apparent that this jet is not like the "muscle car" they flew previously. Learning to fly and employ a new strike-fighter takes some work, and getting used to being back in a training environment was an adjustment for many of the aircrew, who had spent their entire careers in the Tomcat and were suddenly taken out of their comfort zone. Cdr. Tom O'Dowd, the squadron's XO, explained, "Old habits need to be broken; the immediate action items that were so entrenched into our subconscious need to be removed and replaced with new procedures."

After leaving the F-14, many pilots are adjusting to the new digital flight controls and the "feel" of the new jet. The old Tomcat required a lot of "seat of the pants" feel to fly the jet well, as opposed to the Super Hornet, which utilizes control-by-wire technology in which computers analyze stick and throttle positions and send digital commands to the flight control surfaces. The pilots now find themselves as merely a voting member of

an advanced flight control system that analyzes airspeed, altitude, and G-forces, as well as pilot inputs, to maneuver the jet to its fullest potential.

After spending five months in training at the VFA-106 fleet replacement squadron, the Jolly Rogers now have to prepare for their workup cycle and next deployment. The squadron currently operates eight Super Hornets, and a total of twelve jets will display the Skull and Crossbones once workups begin at the end of 2005. Also, the Jolly Rogers are gradually incorporating more advanced capabilities into their jets to increase combat effectiveness. Some of these new systems include an integrated countermeasures suite capable of dispensing chaff and flares automatically while simultaneously jamming enemy radars and weapons systems. Another new capability that the Super Hornet offers is a data-link system that can link into the capabilities of the Aegis cruisers, the E-2C Hawkeye, and the aircraft of other wingmen to greatly increase situational awareness of other air-to-air and air-to-ground targets and threats.

One of the most lethal advances that the Jolly Rogers have seen is the new Joint Helmet Mounted Cueing System. VFA-103 is the first squadron to begin flying with these new weapons systems on the East Coast. The new helmet projects a "head-up" display into the pilot's visor so that he can view aircraft and target information no matter where he is looking. The helmet can also be used to designate targets that the pilot sees on the ground for much quicker bombing attacks in the close air support regime. When used in conjunction with the data-link system, aircrew from one Super Hornet can pass target information with the push of a button to another Super Hornet that is about to commence the attack so that the target is instantly displayed in the other aircrews' visors, thus eliminating any doubt about which target is supposed to be attacked next. The new helmet also works extremely well in the dogfight arena with another new weapon the Jolly Rogers are carrying, the AIM-9X. This next generation of Sidewinder missile allows the pilot to get a heat-seeker lock on enemy aircraft that are further from the nose of the fighter and shoot preemptively at an enemy jet. Becoming tactically proficient with all these new "toys" in the cockpit will take some time, but the Jolly Rogers have stepped up to the challenge and will soon be taking full advantage of these systems.

Above, a Jolly Rogers F-14 Tomcat, flown by Lt. Drew Pearson and LCdr. Mike Williams, approaches its final resting place at Davis-Monthan AFB. Photo by Lt. Matt Koop. Below, a squadron F/A-18F traps on board *Harry S. Truman* (CVN 75) during carrier qualifications on 28 July. Photo by PH3 Kristopher Wilson. Previous pages, a VF-103 Super Hornet conducts high performance maneuvers while carrying 8 AIM-120 AMRAAM and 2 AIM-9 Sidewinder missiles. Photo by Frederik Engelen.

The two-seat Super Hornets provide aircrew with a multitude of information and tactical capabilities above and beyond those available in the Tomcat. "Whereas the Tomcat was basically an analog jet, the Rhino provides a wealth of digital information. Management of that information is the challenge," stated Cdr. Koehr. Some new pilots have gone so far as to describe the displays as providing an almost overwhelming amount of information. This is the biggest challenge for former Tomcat pilots

CO Cdr. Brian Koehr, right, maintenance officer LCdr. Ray Drake, and other squadron personnel celebrate the completion of the Jolly Rogers' first official flight as an operational Super Hornet squadron. Photo by PH2 Danielle Hertlein.

and radar intercept officers to adjust to. "The mission hasn't changed," Koehr explained. "We are simply learning how to employ a new aircraft. We can bring to bear all our past experience and tactical savvy in the Tomcat and just focus on the [switchology] of the Rhino." One of the major breakthroughs in cockpit ergonomics is the Super Hornet's use of hands-on-throttle-and-stick (HOTAS) technology. Pilots and WSOs alike can now perform nearly every aspect of employing these jets tactically without taking their hands off the throttle or stick (or hand controllers in the rear cockpit). The new Jolly Rogers Super Hornet cockpits have also been modified for the advanced crew station (ACS) design. Using the ACS cockpit with HOTAS creates an efficient way for the two crew members to maximize the lethality of the jet and not accidentally interfere with each other by simultaneously performing the same functions.

So what's the best part about flying these brand new jets? According to Cdr. O'Dowd, "its systems reliability as well as its increased payload." Aircrew and maintainers alike can enjoy this reliability and reduction in maintenance man-hours required to keep the jets healthy and mission capable. The Super Hornets use 50 percent fewer parts than the Tomcats required, which means the new jets will be easier to maintain. In addition, the Tomcat required over four times as many maintenance hours per flight hour as will the Super Hornet. "We will be better able to meet mission requirements without breaking the backs of our maintainers," said Cdr. Koehr.

After 30 years of flying F-14 Tomcats, the VFA-103 Jolly Rogers have gotten off to a successful start as the first squadron to transition from Tomcat to the Super Hornet at NAS Oceana, Va. "It was a nice ride in the Tomcat while it lasted," is the general feeling about moving on. The junior officers of VFA-103 are happy they had the chance to fly the Tomcat at all before it was retired. Lt. Matt Morgan said, "Simply being a Tomcat aircrew makes us a part of an incredible piece of naval aviation history. It was a privilege to fly the F-14 and a privilege to take some of that history with us to the Rhino community."

With the Super Hornet's ability to carry over two dozen different types of bombs and missiles including the Navy's newest weapons like the Joint Standoff Weapon and the AIM-9X Sidewinder, Lt. Dave Reade would agree, saying, "The opportunity to fly one of the greatest fighters ever, the F-14, and one of the most modern fighters, the F/A-18F, is the best thing that has ever happened to me!"

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