

Is It Supposed to Bend That Way?

By Lt. Michael Crisp

We launched a Hornet, Sharpshooter 264, on a day, functional check flight from MCAS Miramar, Calif. While doing rig checks and accelerating to 500 knots, the aircrew felt and heard a “thump.” They noticed the right wing was canted upward from the wing-fold joint, moving the LAU-7 wingtip missile launcher almost eight inches above the normal wing line.

The threaded rods, ends on the outer-wing panels are supposed to have washers nuts and cotter pins installed.



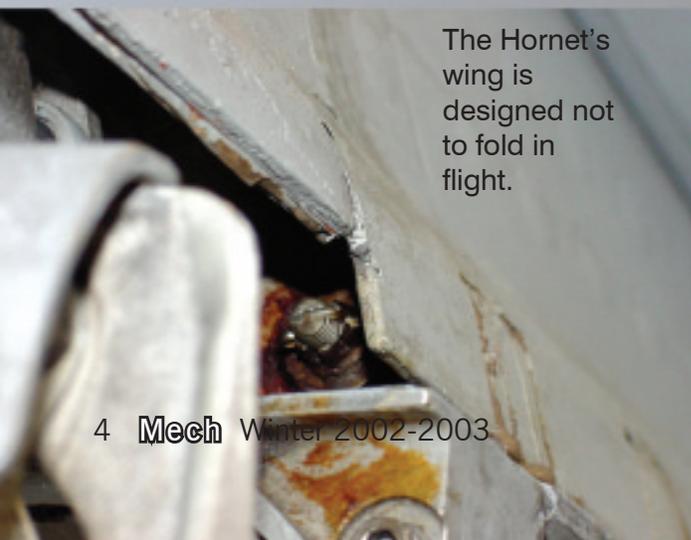
The aircrew stopped the FCF profile and contacted the squadron operations duty officer (ODO). The ODO enlisted the support of an airframes supervisor, and they decided the aircrew should perform a no-flap, arrested landing. A gear down, flap-up controllability check at 15,000 feet revealed no flight-control problems. The flight ended with a visual, straight-in approach to an arrested landing at 163 knots.

A post-flight inspection found the threaded rods on the right, outer-wing were missing all washers, nuts and cotter pins. The rods had moved approximately two inches forward of correct position, enabling the outer wing to fold up a little.

Further research found a depot had removed and reinstalled the wing components during a scheduled integrated-maintenance concept, phase 2 (IMC2) inspection. This aircraft had flown 154 hours since that time. The depot’s review of maintenance actions on this aircraft found maintainers had failed to re-install the “securing hardware” to the threaded end rods and to the aft end of the outer wing-to-transmission interface. This maintenance error allowed the rod to work loose from normal vibration and let the outer wing move about freely.

We were lucky this time; maintenance malpractice could have resulted in loss of the aircraft and aircrew. This incident again emphasizes the need for all maintainers to conduct business in only one manner: by the book. 

Lt. Crisp flies with VMFAT-101.



The Hornet’s wing is designed not to fold in flight.

Without the necessary hardware, the wing inadvertently could move.

