

Twisted Metal

By AM2 Jonathan Parker



Door 103 on a Hornet covers the tailhook actuator.



Removing this actuator can get complicated.



Attention to detail would have prevented this damage.

I faced another busy day on an aircraft carrier in the Arabian Gulf: A war was going on, and we had a list of things to fix. Life was stressful, but that condition was not unusual. I had adjusted to the routine—at least, I thought I had.

After the morning pass down and job assignments, I began work on an FA-18C that was having trouble with one of its horizontal-stab servos. After a low-power turn and complex troubleshooting, the malfunction still could not be duplicated. The stab was working as advertised; however, I noticed a leak coming from the tailhook actuator. One of the switching valves for the hydraulic system was not working, and the pressure-differential indicators (delta-P's) showed two bad filters. This aircraft also had an existing problem with a corroded brake-pressure gauge that needed to be changed.

My supervisor and I began work on the switching valve, while two other workers started on the tailhook. A fifth worker took care of the filters. Once done, that maintainer would work on the brake-pressure gauge. As you can see, a lot of maintenance was being done on this particular aircraft.

As the day progressed, we removed several parts, ordered new ones, and installed them. The work was going well: The switching valve was in, the lines were tight, and the system was ready for an operational check. Replacing the tailhook actuator was complicated and was taking longer to complete. I took a break after my task was done and then relieved the CDI on the tailhook job, so he could eat lunch. This step meant we wouldn't lose any time installing a new tailhook. He showed me his work and then left for chow.

Having done this job countless times, I felt I knew how to install a tailhook actuator. One well-known step in our shop is to make sure door 103 is installed before operating the tailhook or moving the speedbrake, which is located directly above door 103 and the tailhook. The book repeats this caution several times and explains how to remove and replace this actuator. It states, "Structural damage may occur if door 103 is not completely installed and either the tailhook or speedbrake is operated." During the job, this caution was noted, and the steps for installing the tailhook