Minus One

By PR1(AW) Lee Reichard

The flight started routinely on a cold January day: a simple training hop for a new VR-52 pilot. Our C-9B had a crew of three pilots and just had taken off from NAS JRB Willow Grove. The aircraft climbed through 4,000 feet, maintained runway heading, and flew four miles from the airfield. The routine part suddenly changed.

The pilots heard a loud bang, and the cabin pressure fluctuated. The aircraft commander called home station and returned to the field. After landing, quality-assurance reps looked over the airplane and found a "kidney panel" was missing. That panel is located on the belly, just forward of the starboard main-landing gear.

An investigation immediately was launched, and investigators determined maintainers failed to follow basic maintenance practices, lacked communication between shifts, and allowed a holiday routine to cause this TFOA incident.

A "blue water gripe" had been written for a leaky toilet line. Workcenter 130 normally is responsible for maintenance of this system. The Christmas leave periods had started, and that shop couldn't begin work on the gripe until the end of December.

On Dec. 28, the aircraft was scheduled for a mission, departing at 1000 and returning at 1330. While fueling the aircraft, the crew chief noticed a "blue water leak" and was unaware a gripe already had been written. QA was asked to look at the problem, and they determined the starboard kidney panel had to be removed to check the source and severity of the leak.

A plane captain and a technician from workcenter 200 were tasked to remove the panel, even though an airframer normally does that job. A "remove to facilitate other maintenance (FOM)" MAF should have been initiated. This paperwork would require the workcenter to document the panel's removal, accumulate man-hours expended, and account for the tools used. No one wrote that paperwork.

The work was routine, but two stripped screws made the job more complicated and prevented the panel's removal. This problem made maintenance control select a different aircraft for that flight. The other screws finally were removed and taken to airframes. The two technicians who had begun the job were assigned other tasks and failed to document the work they had done on the kidney panel.

To add insult to injury, the QA passdown log had been annotated improperly. It showed that all the screws had been removed from the panel. The maintenance-control passdown log didn't show any work being done on the "blue water leak" discrepancy. Had any of these logs been documented correctly, the entry would have told the next shift to verify the work. When the crew chief, also a QAR, returned from his flight, he realized an in-process inspection should have been annotated on the MAF, showing the screws had been removed. That in-process entry, however, failed to

Kidney Panel

note anything about the two screws left in the panel. The new MAF was not printed with an in-process requirement, and the ADB was not updated.

The troubled aircraft was not going to fly that afternoon, so the plane was placed in a maintenance status, and a MAF was issued to do a phase C inspection. Everyone assumed the stripped screws and "blue water leak" would be handled in the next couple of days. No one passed on the word about the gripe, and the work didn't happen because of the holiday routine.

Upon completion of the scheduled maintenance, a post-phase QA check had begun. The QAR was permitted to leave midway through the job without completing the paperwork. I was assigned to complete the task but failed to do it correctly. I signed off the MAF without looking at the aircraft, assuming the first QAR had completed the inspection.

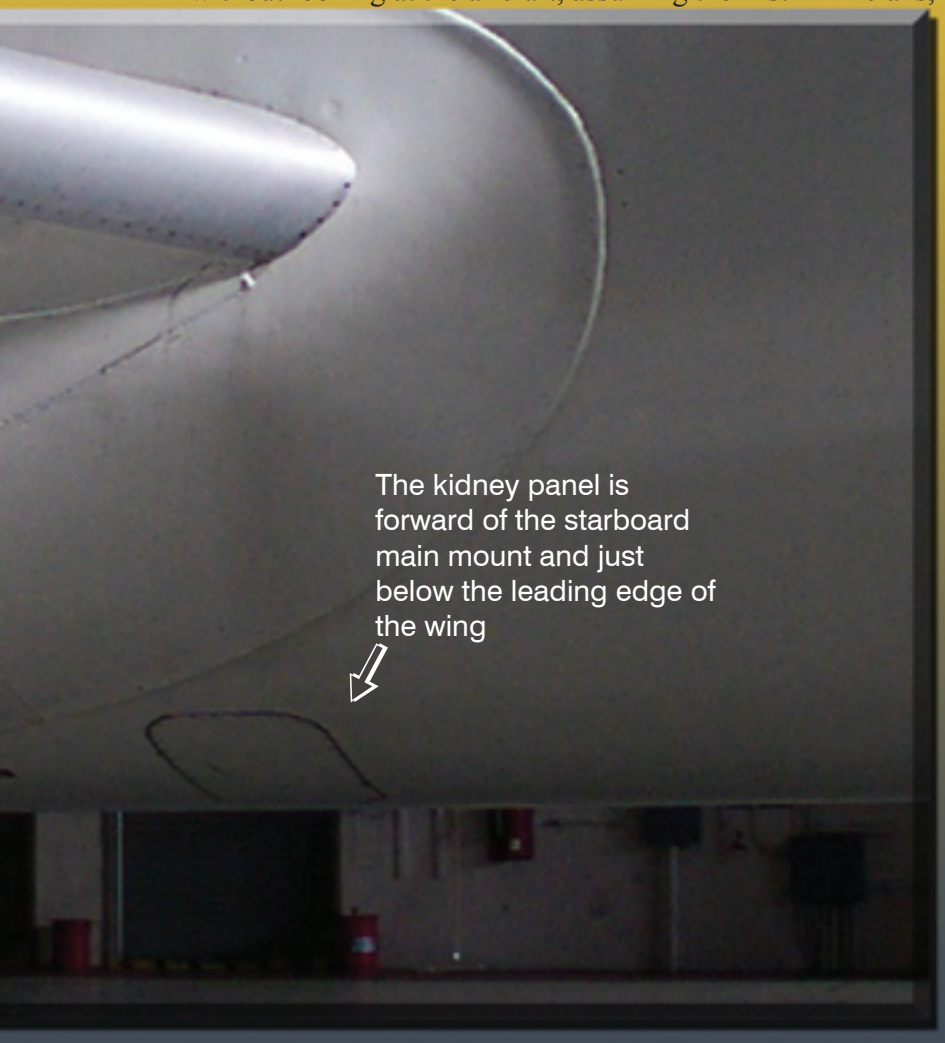
On Jan. 2, a daily inspection was done, and the plane was readied for the next day. The plane captain, who did that inspection, missed the unsecured kidney panel.

The next day, another PC did a preflight inspection but didn't notice the kidney panel, signing the preflight saying the aircraft was ready to fly. The pilot also missed this problem on his walk-around inspection.

Twelve opportunities existed to prevent this TFOA. A breakdown in communication and failure to follow procedures directly were responsible for this loss. Everyone had a considerable amount of time off, making the situation worse.

This incident involved very senior and skilled technicians, as well as seasoned maintenance-control personnel. The event also highlights the need for constant adherence to procedures and a thorough use of administrative tools. Incidents like this one provide an opportunity for maintenance personnel to train on the basics. We learned that procedural problems, if not corrected, can lead to more serious problems.

Had this panel been located where it could have been ingested into an engine, or had the aircraft been at a more critical stage of flight, the outcome easily could have been catastrophic.



Petty Officer Reichard wrote this story while assigned as the Quality Assurance LPO at VR-52. He now is assigned to VR-61.

The squadron's maintenance officer noted that almost all the players in this incident had received an "EP" on the last E-6 eval cycle, and most were crew-chief qualified. The squadron also was a "Golden Wrench" award winner. He added, "If it can happen to us, it can happen to anyone."—Ed.