New Process to Drastically Change Programmed Maintenance

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ROBINS AIR FORCE BASE, Ga. -- On July 31, a C-130 Hercules will arrive at Robins and mark the beginning of what is expected to be a dramatic change in the way aircraft maintenance is done.

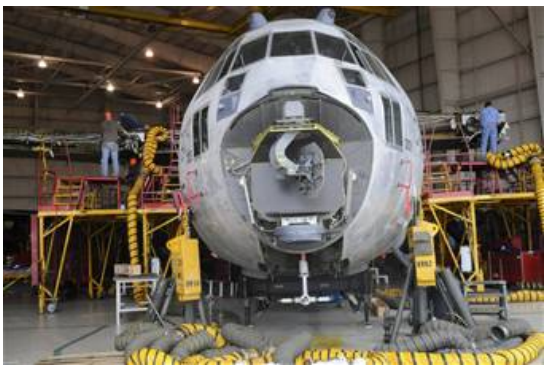
The Air Mobility Command plane will be the first validation aircraft for High Velocity Maintenance, which means it will be used to test the new method of programmed depot maintenance aimed at reducing aircraft downtime.

"It's the largest philosophical and cultural change in how we do scheduled maintenance in the last 25 to 30 years," said Jerry Mobley, the HVM team lead.

The essence of HVM is that rather than bringing planes in for PDM every five to six years, the planes will come in every 18 months. The expected benefit is that by bringing planes in more regularly, the overall downtime will be significantly less, which is critically important to meeting the Air Force's demand.

In the current PDM cycle, a C-130 is at Robins for an average of 164 days. HVM team members believe the new process will cut the total downtime in that same five- to six-year period by half or better.

They are confident HVM will achieve the expected results, Mr. Mobley said, because it is patterned after the same maintenance practice being used by major commercial airlines. For two years, the HVM team has consulted closely with several airlines on how the process works.



The first C-130 to undergo high velocity maintenance at Robins is scheduled to arrive July 31. (Air Force photo by Sue Sapp)

"We are very confident, and one of the reasons we are very confident is that we are not the first ones to come up with it," Mr. Mobley said. "Commercial airlines have been producing airplanes like this for years."

The reduction in downtime is expected to be achieved through several means. One of the biggest is that planes will be inspected in the field before coming to Robins for maintenance. That will allow maintainers to be far better prepared to get work done because they will know what the planes need before they get here.

For example, when the first validation aircraft was inspected, it was found to be in need of a new scuff plate, a 13-foot part where the ramp meets the fuselage. It's a significant replacement that requires numerous additional parts, said John Huff, production flight chief for HVM.

Previously the plane would have come in for PDM, an inspection would have been done, and then the determination would be made that a scuff plate replacement was needed. All of those parts would then have to be acquired, along with the needed tools - all while the plane was sitting in the hangar making no contribution to the war effort.

Now the scuff plate parts have been collected and prepared and a "task kit" has been made so when the plane gets here, the replacement can be made without delay.

Furthermore, now that the plane is scheduled to come back in 18 months, there will not be another need for a field inspection because with a shorter interval between PDM, there is little chance of significant problems for which advance preparation would be needed. Also, with that shorter interval between PDM, some work can be deferred if it does not relate to safety. Under the five- to six-year interval, that wasn't really an option because it would be so long before the plane would be seen again.

Also, Mr. Mobley said, HVM will eliminate the need for isochronal inspections, which are field maintenance inspections. In

the case of the C-130, those must be done every 15 months and puts the plane out of service for two to three weeks. But, because of the shorter interval, that inspection will now become part of the regular PDM, thus further reducing down time.

The move toward HVM began two years ago at the behest of Maj. Gen. Tom Owen, then commander of the Warner Robins Air Logistics Center, said Doug Keene, HVM product lead.

"The proposal was made at that time that we needed to take on an effort to dramatically increase the availability of aircraft," Mr. Keene said. "If we can increase the velocity of maintenance between scheduled maintenance in depot, we give those back to the warfighter and increase their availability."

The HVM process will be further tested with another C-130, which will arrive here Sept. 30 and another on Nov. 12. On those occasions, Mr. Mobley said, the focus will not be on speed but on seeing how the process is working and making any needed changes.

Following those evaluations, the plan is for C-130 maintenance at Robins to move fully into active HVM transition. Over the next seven years, the transition to full C-130 HVM will include both HVM and PDM C-130 aircraft. Eventually, other airframes will follow the C-130 lead into HVM.

Mr. Huff said maintainers have generally been enthusiastic about the change.

"They are excited about participation in the new process," he said. "The mechanic is the bread and butter of the Center and that's where the focus should be."

While Tinker Air Force Base in Oklahoma City and Hill Air Force Base in Ogden, Utah, are also doing HVM tests, with the B-1 Lancer at Tinker and the F-22 Raptor at Hill, Robins will be the first to actually implement the program.

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