Help Wanted, Experience Needed

Lessons learned from a Huey crew chief behind a desk in a program management office

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A couple of years ago, I called the monitor to find out my options for my last duty station. Of the choices he presented, the test and evaluation squadron, HX-21, sounded like my next new adventure. I had spent the better part of my Marine Corps career as a Huey crew chief and flightline mechanic. I had made the trips to Okinawa, Iraq, and Afghanistan. I had trained junior aircrew and converted the old breed to the new aircraft. Like my peers, my plans were to spend as much time flying in my Huey as I could until I retired. So, it was strange to receive a phone call from the Program Management (Aviation)-276 (PMA-276) office a few months later. They were excited to have a crew chief coming to the program office. I said I would call them back and immediately called the monitor. He said he would call me back. And he did, with the news that the billet at HX-21 had been moved to PMA-276. While it was disappointing to move to a non-flying billet, I found that the PMA wanted my experience.

As the first in my billet, I quickly learned that my maintenance and operational experience was a very valuable resource. While the PMA was staffed with a few pilots, there was little maintenance experience on the new aircraft in the PMA. I was able to bring that expertise to them. That is where I noticed the gap. While the PMA cares about the Marines and the equipment it has, very few of the Marines had any hands-on experience with the aircraft or understood the mission of the Marine light attack helicopter squadron.

During one trip to Camp Pendleton, CA, I was able to take one of the engineers from the PMA over to a squadron. The flightline division of the squadron was kind enough to loan us a qualified plane captain who took the engineer on a detailed nose-to-tail tour of the UH-1Y. While I was able to provide historical knowledge from the introduction of the first UH-1Ys to the fleet, our on-loan plane captain educated us on current problems, techniques, and publication deficiencies. This was the starting point of my idea.

Why not take small teams from the PMA to the squadrons to learn about the day-to-day?

The first trip was to Weapons and Tactics Instructors Course 18-1 (WTI 18-1). While we did not achieve all the goals we set out with, and our plan did not survive first contact with the Marine Aviation Weapons and Tactics Squadron One (MAWTS-1) Operations Department, we did accomplish a few of our main goals. The three engineers I took to WTI learned about the work

UH-1Ys taking off to conduct search operations following Hurricane Harvey. *(Photo by LCpl Niles Lee.)*

required to get an aircraft mission ready and were able to see some of the challenges faced by the Marines maintaining the aircraft—but not before the H-1 maintenance chief held a "complaint session" between his quality assurance representatives and the PMA engineers. Four pages of notes later, the engineers were free to get their hands-on experience out on the Hueys and Cobras.

By spending some time on the ramp, the engineers' and maintainers' comfort level increased. The Marines became comfortable enough with the engineers to begin pointing out some of the challenges they faced with maintaining the aircraft, mostly related to the tools and publications. The electronic portable document format publications, as they pointed out, were difficult to use, and it was hard to reference figure callouts with the written instructions. What was telling in this exchange was how the Marine lost his place in the publication he was using while trying to demonstrate the difficulties in switching between instructions and figures.

The Marines also identified an interesting tool problem while they were working on a complex maintenance action. To complete the job they were assigned, they needed to check out two different toolboxes because the toolbox with the required tools did not contain the quarter-inch wrench they needed to perform the maintenance. Soon after, another Marine came by to show the engineers a maintenance discrepancy on the rotor system of a UH-1Y that had just failed a functional test flight.

The discrepancy and subsequent maintenance action to fix the problem takes a little time, but it's nothing that cannot be completed in a single shift. The problem the engineers could fix, after I pointed it out, was the 24-hour dry time on the sealant. The entire maintenance process for this discrepancy effectively keeps the aircraft out of the fight for nearly two days. After returning to Patuxent River, the three engineers and I analyzed what we had seen and made a plan to attempt to fix some of the issues.

Within two months of our return, we had added a wrench to the toolbox so the Marines could stop checking out two toolboxes for one job. We also changed the sealant from a 24-hour dry time to a sealant that was ready in two hours. While the engineers brought back experience and insight, the Marines had solved two problems that may never have been addressed through normal channels.

Few Marines in the PMA had actual hands-on experience with the aircraft. *(Photo by PFC Melany Vasquez.)*

In terms of the acquisitions world of naval aviation (NAVAIR), we were involved in stakeholder engagement with the customer. This is where the stakeholders, in this case, the end user maintaining the product, provide feedback on the quality of the product and whether their requirements have been met. Unfortunately, Marines are used to making do with what they have, so while there are complaints about the equipment and tools peer to peer, our stakeholders are not readily able to identify where their requirements are not being met or how to pass those deficiencies on to the acquisitions and procurement specialists who can solve those problems.

In coming across this breakdown, my focus began to change from getting team members from the PMA out to the fleet to get some hands-on experience, to seeing a piece of a larger problem. While there is engagement between the PMA, HQMC, and fleet leadership, that engagement is myopic and focused on the bigger picture. Day-to-day problems with time-consuming or risky workarounds are filtered and screened out before they get to leadership. A part of that is our culture of doing so much with so little that we consider ourselves to be qualified to do everything with nothing. It is part of the territory of being a Marine. But in that, we miss out on what NAVAIR considers "low-hanging fruit" and quick wins for the fleet.

Initially, I considered the problem to be one of a lack of experience on the part of the engineers. That is still true for the majority of government civilians working in the PMA. In trying to get some hands-on experience, I found the problem with stakeholder engagement. Now that this problem has been identified, my suggestion is to look for different courses of action and modify our stakeholder engagement plan. Any modification, however, requires the understanding of the goal and a means to achieve that goal.

The ideal would be if the PMA understood the complete mission of the Marine light attack helicopter squadron as well as I and a few others in the PMA had. It is also unrealistic to think the acquisitions talent needed at the PMA can be found in the population of the light attack community. However, a realistic

goal is to have engagement between the maintainers, logisticians, engineers, aircrew, and project managers. The PMA has the means to achieve this through recurring travel to squadrons, integrated training exercises, or WTI. There would be no change in leadership engagement, only the addition of the frontline acquisitions specialists engaging with the frontline maintainers.

What are we really looking for? Engagement at that level provides education and experience for the PMA and the maintainers, especially in terms of procedures and processes on both sides of the life cycle of the aircraft. The qualitative information returned to the PMA from recurring engagement supports the quantitative analysis of data gathered from the many information management systems. While a corollary benefit to such engagement may result in quick wins for the fleet in terms of a new tool, the long-term result is a return to sharing information at multiple levels, not just between the top tiers of leadership.

Something I was able to bring to the PMA was the structure of the Marine light attack helicopter community. Bringing in the knowledge about engagement with the proper stakeholders, such as the Model Manager Squadron, HMLAT-303, or the Training and Education Command subject-matter experts, MAWTS-1, has provided some direction of where to turn when information is needed. However, the points of contact and relationships have not been developed at the working level in either the PMA or the fleet.

What I learned in my time at PMA-276 was to bring the necessary points of contact and established relationships from my time in the squadrons to the PMA. While my knowledge of the aircraft and the mission of the light attack squadron was very valuable, the human resources I was able to bring to bear to answer questions and provide specifics to requirement development proved to be an invaluable resource.

In conclusion, I recommend that every PMA managing an aircraft have an organizational-level maintainer sitting in the office. It does not matter if he is an air framer, flightliner, or in avionics because he brings a network of resources with him. For PMA-276, the inclusion of a Huey crew chief was what they needed, even if I had to outsource the avionics questions to a few friends. I would also recommend recurring visits to WTI and model manager squadrons for engagement between the working-level members of the enterprise. These changes in how Marines do business in acquiring and sustaining our aircraft will pay dividends over the life of our aircraft.