

Train Our Pilots

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Marine heavy helicopter (HMH) squadron commanding officers receive no training and have little incentive to maintain their aircraft for future generations of Marine aviation. A squadron commander's operational success vice the material condition of his aircraft is the general metric by which his performance is reviewed. Brevity of ownership leads to a diminished interest in the long term health of the aircraft. Inadequate training in maintenance data systems leads to a fundamental misinterpretation of maintenance data. As the Global War on Terrorism (GWOT) continues to draw operational commitments, senior leaders are placing more pressure on squadron commanding officers to achieve the mission. In order to balance preservation of the Marine Corps' heavy lift helicopters against mission accomplishment, Marine pilots who work in the maintenance department need training in maintenance and maintenance data systems. This training would educate the younger pilots, who have a vested interest in the longevity of the aircraft, on how to evaluate their maintenance department's performance.

BREVITY OF A SQUADRON COMMANDER'S TOUR

The brevity of a Squadron Commander's tour evokes no incentive for a commander to evaluate his maintenance department's performance so long as the material condition of the aircraft does not impair the squadron's ability to train and perform missions. The current operational tour for the commanding officer of an HMH squadron is approximately eighteen months. During the first twelve months of his tour, the commanding officer faces a rigorous training schedule to prepare his pilots and aircrew for upcoming deployments. This training cycle utilizes one set of aircraft at a cost of forty maintenance man-hours per flight hour.¹ During the final six months of his tour the squadron commander supports some type of operational commitment. West coast squadrons deploy to Iraq with a second set of aircraft while east coast squadrons support a Marine Expeditionary Unit with four helicopters and pilots.

At most, a commander will own a set of aircraft for eighteen months while many commanders own one set of aircraft for twelve months and then deploy with another set which they own for only six months. This short period of

¹Douglas Nelms, *Aviation Today: A Bigger Better Giant*, 1 November 2003, http://www.aviationtoday.com/cgi/rw/show_mag.cgi?pub=rw&mon=1103&file=1103ch-53.htm

ownership does not produce an incentive to maintain the material condition of the aircraft.

LACK OF MAINTENANCE TRAINING FOR SQUADRON COMMANDERS

The data systems used to track and record aviation maintenance are complex. There is currently no requirement for a commanding officer to learn these systems or how they can be fouled. Without an understanding of how this data is generated and the common errors in interpretation, the commander cannot make an accurate assessment of his maintenance department's performance.

Naval Aviation Logistics Command Management Information System (NALCOMIS), the computer system used to generate and maintain maintenance data, is a complex system which produces raw data. Maintenance analysts then compile, interpret and put this data into graphs and charts which are used to give a commanding officer an idea of how his maintenance department is performing. However, the data that is entered into the system is often entered erroneously by aviation technicians who have not been trained on the system, have learned tricks to make their departments look better, or have made honest mistakes. It is the job of the maintenance analysts to find these

mistakes and correct them.¹ Because the maintenance analyst does not have any on aircraft maintenance experience, many of these mistakes are missed.

Without a proper understanding of how NALCOMIS data is generated and how it can be misinterpreted, it is difficult to judge the performance of a maintenance department. The maintenance officer course taught at NAS Pensacola for non-pilot aviation maintenance officers teaches the basics of how this data is generated.² This course is frequently offered to pilot students awaiting school seats, but there is no requirement to attend. Therefore squadron commanders are ill-equipped to evaluate their maintenance department's performance should they be interested in doing so.

6002/6004 Maintenance Officers

Military occupational specialty (MOS) 6002/6004 officers are the senior officers in a squadron with formal maintenance training. Trained maintenance officers at the squadron level are lieutenants or warrant officers, fresh from school who spend much of their first and only tour in the squadron learning how to run a maintenance department. Their fitness reports are written by non-maintenance

¹ COMNAVAIRFORINST 4790.2 Vol 1 pg 12-1

² CURRICULUM OUTLINE OF INSTRUCTION C-4D-2012 pg 38.

trained pilots who are ill-equipped to evaluate a 6002/6004's performance because pilots lack formal maintenance training. The 6002/6004's performance is generally metered by readiness and how well they make the squadron look in comparison to other squadrons.¹ This drives an impressionable young officer to concentrate on achieving operational readiness instead of ensuring the material condition of the aircraft.

Military occupational specialty 6002 and 6004 officers attend the Aviation Maintenance Officer's Course in Pensacola, Florida. The eight-week course is designed to teach the basics of aviation maintenance and introduce the data systems used to track and record maintenance.² As second lieutenants and warrant officers, these officers generally serve one tour with an aircraft squadron and hold the billet of maintenance material control officer (MMCO).

The MMCO is responsible for many maintenance related tasks and the material condition of the aircraft is one task with which he has a lesser concern. The MMCO's primary responsibility is organizing the maintenance effort and establishing priorities of work in order to support the squadron's flight schedule. The MMCO is responsible for

¹ Eric Santhuff, Interviewed by William McLearn 6 February 2006

² <https://www.npdc.navy.mil/cnatt/amo/indoccourse.html>

reporting the readiness of the squadron's aircraft. In order to maintain readiness, the MMCO must maintain contact with the supply system and intermediate level maintenance activities. In addition, the MMCO is responsible for millions of dollars worth of tools, support equipment, and aircraft gear. The MMCO is the weight and balance certification officer for the squadron.¹ The material condition of the aircraft by default falls by the wayside as a priority.

THE OPPOSITION'S ARGUMENT AND REBUTTAL

Dissenters will argue that a commander's material readiness is evaluated and that the squadron commander and the MMCO are evaluated on how well they maintain it. Aircraft material readiness reports are submitted daily and maintenance and material management (3M) data is reviewed on a monthly basis by the group commander. The aircraft material readiness report is a misnomer in this context as it reports only those systems which are deemed mission essential for combat and training operations. Furthermore, the group commander has received no more training in maintenance data systems than a squadron commander. In order to present 3M data to the group commander in terms

¹ COMNAVAIRFORINST 4790.2 Vol 1 pgs 11-12 & 11-13.

that he can understand, it is most frequently presented in terms of operational readiness of the squadron's aircraft.

A squadron that has good operational readiness numbers does not equate to a squadron that has aircraft which are in good material condition. An operationally ready aircraft is aircraft that is flyable and can perform all of its missions. The aircraft may be corroded and worn out, but as long as it does not have any discrepancies which prevent it from flying, it is operationally ready. An understanding of NALCOMIS and the reports it can generate would give the commander the tools necessary to assess his squadron's material readiness as well as operational readiness.

Train Pilots in the Maintenance Department

The problem with the current chain of command is that the senior person at the squadron level with formal schooling is a junior lieutenant or warrant officer whose performance is reviewed not by the material condition of the aircraft, but by the readiness numbers he can produce. Captains who aspire for command and have been formally trained in aviation maintenance would ensure the material condition of the Marine Corps' heavy lift capability because they have a vested interest in the long term life of the helicopters. These aircraft will be the same

aircraft they will be flying throughout their careers. Furthermore, this training could be accomplished with a minimal impact to the squadron.

The billets of the squadron assistant aircraft maintenance officer (AAMO) and quality assurance officer (QAO) are generally filled by senior pilot captains. They have generally served as maintenance department shop heads so they have maintenance exposure. Currently neither the QAO nor the AMMO is required to attend any formal schooling to hold these billets. This should be changed.

Providing the AAMO and QAO with formal schooling helps the Marine Corps in several ways. First, it gives the MMCO expertise within the squadron when questions arise. The AAMO and QAO have the advantage of experience when attending the formal school. They would be better prepared to learn by association and would therefore absorb more of the information in school. The MMCO attends the Aviation Maintenance Officer's course without this benefit of experience and therefore retains a lesser portion of the information presented. Training the AAMO and QAO gives the MMCO someone to go to with questions that can provide context as well as doctrine.

A trained AAMO can also lighten the overwhelming load of responsibility that the MMCO has in the current

scenario. The MMCO of an HMH squadron is currently responsible for many tasks because he is the only officer in the squadron with any formal training. While increasing the number of 6002s and 6004s in a squadron is one answer, a better answer would be to train the AAMO as this requires no increase in end strength.

A trained AAMO will give the squadron a better idea of how the MMCO is performing. Currently, the MMCO is responsible for providing the data by which he is reviewed. The MMCO publishes daily readiness reports and assists the maintenance analyst in scrubbing 3M data for presentation to the squadron and group commanding officers even though the maintenance analyst works for the AAMO. In effect, the MMCO writes the bullets for his own fitness report. By providing the AAMO with the tools to assist the maintenance analyst, the MMCO can be eliminated from this portion of the data processing. The squadron commander can be better assured that the MMCO is performing his duties and the Marine Corps gets aircraft in better material condition.

The Fleet Aviation Specialized Operational Training Group (FASOTRAGRU) offers several courses which are available to train the AAMO with minimal impact to the squadrons. There is a five-day course for maintenance officers which introduces the student to the Naval Aviation

Maintenance Program (NAMP). Several courses teach maintenance data systems and management skills. These courses can last anywhere from four days to two weeks.¹

In addition to being manageable in terms of tying up an AAMO's time outside of the squadron, the courses are conveniently located near Marine air stations which reduces travel expenditures. FASOTRAGRUPAC is 20 miles from MCAS Miramar at NAS North Island. FASOTRAGRULANT advertises that they will bring training to any unit that requests the training.² Despite the convenience of these courses and significant positive impact they offer, few Marine officers attend courses.

Conclusion

From the top down, Marine Heavy Helicopter pilots are ignorant of the maintenance processes and data systems which keep their aircraft flying due to a lack of training. Squadron Commanders are mainly interested in operational readiness. Operational readiness and material condition, while often linked, are not equivalent. The young lieutenant or warrant officer fresh from school is the

¹ <http://www.faso.navy.mil/>

² <http://www.fasolant.navy.mil/>

senior officer in a squadron with maintenance training. Because his chain of command does not understand maintenance and the associated data systems the junior maintenance officer is driven to achieve operational readiness. Training the Assistant Aircraft Maintenance Officer and Quality Assurance Officer will lead to an improvement in the material condition of our aircraft because it will train them to understand and interpret where their squadron is falling short according to data generated within the maintenance department.

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