

AIR WAR COLLEGE

AIR UNIVERSITY

ADVANCED MAINTENANCE OFFICER TRAINING

A FOCUS ON AMMOS: RETURN ON  
INVESTMENT...STAYING THE COURSE

by

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Lastly, I would like to thank my family for their undying love and support for their husband and dad who was often hidden behind mounds of books and papers and a laptop computer. They were instrumental in helping see this tasking through to completion and for that I am most appreciative.

## **Biography**

Lieutenant Colonel Scott T. Fike is a student at the Air War College, Spaatz Center for Officer Education, Air University, Maxwell Air Force Base, Alabama. The Air War College is the Air Force's senior professional military education institution providing post-graduate senior leader development programs based on joint, multinational, multi-agency, warfighting and international security operations, air and space force strategy development and national security planning. He is joined by 236 students representing all military services, the interagency, and 44 allied nations in a fully accredited program awarding a Master of Strategic Studies Degree and Joint Professional Military Education II credit.

Lieutenant Colonel Fike received his commission from the Reserve Officer Training Corps in 1988 from the University of Kentucky. Prior to his current assignment, Colonel Fike's most recent assignments were as the 379<sup>th</sup> Deputy Maintenance Group Commander at Al Udeid AB, Qatar and as the Director, Maintenance Group Commanders' Course, Eaker Center, Air University, Maxwell AFB, Alabama.

## **Abstract**

Given recent force reductions, fewer maintenance officers are leading and managing the maintainers who ensure an ever-increasing aging weapon system fleet remains combat ready -- a fleet that now averages approximately 24 years. The need exists for aircraft maintenance and munitions officers to remain trained and developed in preparation for the challenges ahead. The desired Advanced Maintenance/Munitions Officer School (AMMOS) outcome is a graduated officer who is better enabled to 1) produce 2) instruct and 3) advise upon return to their wing and/or in the forward deployed environment. Given the length and cost of an advanced functional training course, and in light of diminishing personnel resources, the training investment in terms of time, costs, and loss of personnel for approximately 4 months deserves reflection with respect to its *return on investment* (ROI).

Objectively-measurable ROI that links organizational improvements directly to AMMOS graduate's training (or any training for that matter) remains a challenge with respect to isolating organizational impacts solely due to training. Arguably, improvements in performance are only partially due to training and education programs. This paper explores the costs associated with AMMOS, comparison with other Air Force school's curricula, sentiments expressed by senior maintenance leaders and graduated AMMOS students, and possible alternative courses of action. In the final analysis and at least for the near term, the 7-year old AMMOS should be retained as it continues to evolve as a more mature learning institution and the maintenance leaders in the field mature as well with respect to utilizing graduates from the advanced school.

## **Introduction**

Seven years since the launch of the Advanced Maintenance/Munitions Officer School (AMMOS), questions remain whether the return on investment (ROI) justifies the costs associated with sending officers to a 14-week advanced school as the program is currently structured and executed. Does a directly-attributable and quantifiably-measurable ROI exist wherein improved organizational performance can be linked with the officer's AMMOS training? Should the Air Force be concerned with realizing a measurable unit-performance ROI or does the notion that training is inherently beneficial circumvent the need to ascertain a more directly-attributable ROI, which is often easier said than done? This paper explores the history of AMMOS, the current advanced maintenance and munitions officer school training construct, what senior maintenance leaders and graduates had to say, and whether AMMOS execution, in its present state, should remain status quo, be modified, or completely eliminated.

## **Background**

### **1999-2002: Pre AMMOS**

Aircraft maintenance operations had not gone as well as expected in support of Operation ALLIED FORCE. The Commander, Air Force Forces Logistics Staff raised concerns over aircraft arriving in theater with engines overdue time changes and grounding inspections as well as aircraft requiring phase inspections immediately upon arrival in the AOR.<sup>1</sup> Additionally, several units arrived to their designated locations without critical tools for repair,

resulting in aircraft spending several days in non mission capable status while awaiting tools that were “standard” equipment items for deployed locations.<sup>2</sup>

Not coincidentally, General John Jumper, the former Chief of Staff of the Air Force, clearly articulated his belief that flying and fixing our weapons systems are two of the hardest things we do in our Air Force.<sup>3</sup> He expressed the need for and felt that maintainers should obtain their PHDs in aircraft maintenance.<sup>4</sup> Acquiring such a PHD entails an accumulation of experience, training, and education. What was the impetus behind the original decision to create an Advanced Maintenance and Munitions Officer School? The following excerpt provides some insight into this question:

“In July 1999, the Air Force chief of staff initiated the Chief’s Logistics Review, a one-year bottom-up assessment of Air Force logistics. One component of the review- a look at the professional development, education, and training of logistics officers- identified a deficiency in integrated logistics training and revealed a gap between the Air Force’s agile combat support (ACS) logistics doctrine, air expeditionary force (AEF) strategy, and training of logistics officers. A cross-functional training course for logistics officers modeled after the USAF Weapons School program was originally recommended as a solution to bridge the gap among logistics-officer training requirements, ACS doctrinal principles, and AEF employment strategy. Following presentation of the proposal at the Corona meeting in fall 2000, Headquarters ACC was tasked to develop an integration plan for incorporating logistics-officer training at the Weapons School.”<sup>5</sup>

The Weapons School (WS), after which AMMOS was modeled, teaches graduate-level instructor courses that provide the world's most advanced training in weapons and tactics employment to USAF officers. Graduates go to squadrons across the AF as unit Weapons Officers, responsible for all instruction and training necessary to maximize the unit's ability to meet combat taskings and also serve their commanders as influential role models and leaders pivotal to unit success.<sup>6</sup>



As the 1990s came to a close, the need to create an Expeditionary or Agile Logistics School gained momentum and as noted above, was a CSAF-induced endeavor. The idea was that a vital enabling factor to deploying, employing, and sustaining the deployed force was through the creation of an agile logistician school and an agile logistics officer who could work all related logistics issues.<sup>7</sup>

The field grade logistics officers in the late 1990s who proposed the agile logistician school concept for senior leader's consideration promoted the idea the school would be for a specified population of company grade officers who would be most likely to support AEF deployed operations—not all officers would be expected to deploy.<sup>8</sup> Following the 11 September 2001 attacks, the Air Force, in 2005 began to augment the Sister Services with what are now called Joint Expeditionary Taskings (JET). This was in addition to supporting organic USAF taskings. Most 21A/M officers deploying today have not attended what became the derivative of the original agile logistics school and, most all officers are expected to deploy.

### **AMMOS: 2003 – PRESENT**

Shortly after the implementation of the Combat Wing Organization, the present-day AMMOS began operations. In 2003, AMMOS opened its doors and launched Class 2003A. The Logistics Readiness Officer (LRO) disciplines splintered off into a separate school at Fort Dix, New Jersey. The advanced maintenance officer school began program execution with the following mission:

“...to expand combat capability by developing graduate-level expertise in aircraft and munitions maintenance using the USAF Agile Combat Support (ACS) master process construct. Graduates can skillfully manage aircraft fleet-health challenges to ensure combat-ready systems...anywhere in the world.”<sup>9</sup>

Doctrinally, Agile Combat Support includes a vast array of support functions ranging from the core logistics functions of maintenance, supply, and transportation to health services, finance, and services.<sup>10</sup> The intent is to put students through an extremely rewarding and demanding academic experience. Three AMMOS classes are held per year with the class size accommodating 12 officers per 14-week session. Beginning in 2010, only two classes per year will be taught.<sup>11</sup>

Of 18 classes to date accounting for a total of 214 students, 34 officers failed to complete the instruction with 28 disenrollments due to academic reasons, 5 due to self initiation, and 1 for medical reasons.<sup>12</sup> Excluding the medical dismissal, the attrition rate to date is approximately 15%. In comparison with the WS, during the same 6-year period, 140 out of 1,430 officers failed to complete that program for a 10% attrition rate.<sup>13</sup> Before being academically disenrolled, AMMOS students are placed on probation. Probationary measures include:

- Additional student access to the cadre and deputy of operations (DO), if requested
- DO also acts as the primary academic advisor and meets with the student prior to each graded event which includes a review of the student's study plans, etc.
- The above actions are in addition to the standard advisor each student is assigned<sup>14</sup>

During the academic probation period, the officer's home unit Group Commander is notified and kept apprised. The AMMOS Commandant (CO) makes the final decision regarding dismissal if students fail to make adequate academic progress.

## **HHQ INTEREST**

Headquarters (HQ) Air Combat Command (ACC) and HQ Air Force (HAF)/A4L focused on the AMMOS extensively in 2009. In March, HQ ACC sponsored a week-long AMMOS working group to examine issues related to the advanced school. The group included A4 staff

members and the AMMOS/CO. A portion of the working group study findings included responses from a survey sent to approximately 75 Maintenance Group Commanders in early 2009. Favorable assessments are summarized below:

Aircraft maintenance is a profession and we need to have those who can take our profession to the next level. It's a needed program to develop PhD level maintenance officer; it takes great officers and makes them better. AMMOS is an outstanding method of identifying future maintenance leaders, equipping them with advanced skills and marking them for future assignment consideration. It is very valuable in producing the expertise our AF needs. Great program, curriculum is comprehensive and at the right level and no free lunch—as it should be.<sup>15</sup>

As depicted above, there were several positive aspects expressed by the group commanders. The study also indicated that 50% had a neutral or negative opinion of AMMOS while 78% had suggestions for improvement or dissatisfaction.<sup>16</sup> A few comments associated with Group Commander dissatisfaction included: course length is too long especially with deployment tempo, not valuing the course education itself as much as the fact the AMMOS officer is normally stronger than their peers anyway, the officer was a superstar before AMMOS and is one afterwards with the inference being no noticeable difference from attending AMMOS, and while pushing their officers to attend MXG/CCs do not see a return on investment.<sup>17</sup> In August 2009, the HAF A4L staff dispatched an initial problem statement to the MAJCOM A4 staffs for review which was later amended to read as follows:

The Air Force is sending the best maintenance officers to become USAF AMMOS graduates without a clearly defined requirement for AMMOS educated officers in operational or staff positions. A clearly stated requirement needs to be developed so all training options, such as sending a select few 21A/M officers through USAF AMMOS or sending all 21A/M officers through the Maintenance Officer Intermediate Course, can be evaluated for the best return on investment.<sup>18</sup>

## **Analysis**

Remaining focused on the question of investment/ROI linkage, the following areas will be addressed: 1) survey assessments from currently-sitting Maintenance Group Commanders (MXG/CCs), Deputy Group Commanders (MXG/CDs), and graduates 2) the resource strain associated with the deployment pace and manning posture and 3) the school's curriculum and costs together with a review of other training venues.

### **SURVEY SAYS...**

Surveys were provided to 75 MXG/CCs, 65 MXG/CDs, and 150 AMMOS graduates. The return rate for each group was 33%, 54%, and 55% respectively. Of 180 AMMOS graduates, 30 could not be located, thus the population size of 150 surveyed.<sup>19</sup> Of the MXG/CC respondents, 52% served with graduates in multiple leadership capacities, indicating interactions with AMMOS officers dating back to the approximate 2005-2006 timeframe. Sixty-eight percent of the MXG/CDs served with graduates in multiple capacities as both a squadron commander and/or MXG/CD, indicating they also had experiences with AMMOS graduates dating back to the approximate 2005 timeframe. If the MXG/CC/CD respondent indicated they had never served with an AMMOS graduate, their ratings were not included. This paper addresses partial survey results with all unedited comments provided in accompanying appendices. Beginning with the senior leaders, MXG/CC perspectives are discussed followed by the deputies, graduates, and a wrap-up analysis of the three groups.

## **MAINTENANCE GROUP COMMANDERS**

Sixty-five percent of MXG/CCs responded favorably to retaining AMMOS, although only 35% attributed organizational improvements as directly attributable to the AMMOS graduate's training. Of 18 CCs who provided remarks, 14 were characterized as neutral or positive while only 4 were negative in nature. The percentage of MXG/CCs who provided slight to significant improvement responses regarding producing, advising, and instructing in addition to the associated impacts on fleet health and deployment processes ranged from 22% as the lowest ranking (deployment processes) to 52% (fleet health—with 26% ranked as moderate/significant). Accounting for the CCs who answered the subjective vice objective assessment question, 65% of respondents characterized their assessments as *subjective*.<sup>20</sup> Thirty-five percent indicated the ROI did not justify the cost/manpower loss (43% indicated it did) and 74% felt the officer's positive organizational impacts were derived from their innate capabilities irrespective of AMMOS training. Lastly, 100% of CCs acknowledged they understood the purpose/intent of the AMMOS while 91% indicated they were familiar with the curriculum.

## **DEPUTY MAINTENANCE GROUP COMMANDERS**

MXG/CDs were surveyed because many from this pool of officers will soon become the future MXG/CCs. Compared to the MXG/CCs, a higher number of MXG/CDs, 74%, indicated it was in the maintenance community's best interest to retain AMMOS and 42% directly attributed organizational improvements to the AMMOS graduate's training. Of the 28 who provided remarks, 21 deputies provided favorable or neutral comments with only 7 respondents offering less favorable remarks. The percentage of MXG/CDs who provided slight to

significant improvement responses regarding producing, advising, and instructing in addition to the impacts on fleet health and deployment processes ranged from 48% as the lowest ranking (advisor impact on fleet health) to 61% (advisor impact on deployment processes—with 29% ranking as moderate/significant). Forty-five percent characterized their determination of the AMMOS graduate's return on investment assessments as subjective while 48% considered their assessments as both subjective and objective.<sup>21</sup> A higher number of deputies (47%) felt the ROI did not justify the cost and manpower loss while 80% (higher than the CCs) felt the officer's positive organizational impacts were derived from their innate capabilities irrespective of the advanced training. The understanding of the AMMOS intent and familiarity of the curriculum was high though slightly lower than the Group Commanders.

## **AMMOS GRADUATES**

Given the arduous academic rigor that AMMOS graduates experience, it is not surprising that 96% of graduates indicated it was in the maintenance community's best interest to retain AMMOS. The percentage of graduates who provided slight to significant improvement responses regarding producing, advising, and instructing in addition to the impacts associated with fleet health and deployment processes ranged from 68% as the lowest ranking (instructor impact on fleet health) to 82% (producer impact on deployment processes). Twenty percent considered the return on investment assessments as subjective while 66% considered their assessment as both subjective and objective.<sup>22</sup> The graduates indicated that 60%, 28%, and 17% were utilized *significantly* as producers, advisors, and instructors, respectively. While there were a predominately high number of extremely favorable assessments provided by the graduates, a few recurring themes stood out:

- LRO issues and security strategy/PME type topics in the curriculum
- Comparison with the WS graduates
- Concern with attrition rate (shared by the CCs as well)
- MXG leadership does not fully buy into the AMMOS program, understand graduate capabilities, and properly utilize graduates

To adequately address the ROI issue, some attention should be devoted to the investment side of the equation as well. To that end, the next two sections address the impact of manning/deployments, costs and curricula.

## **MANNING/DEPLOYMENT IMPACTS**

Approximately ½ of the MXG/CCs and CDs indicated that manning and deployments would impact their ability to provide an officer for advanced AMMOS training. In 2005 the number of 21A/M AEF 0-3 taskings was 157, increased to approximately 250 in 2006 and 2007, and declined to 180 taskings in 2008 and 2009.<sup>23</sup> These numbers do not include Reserve/Guard officers. In addition to the AEF taskings, the 21A/M community has 36 1-year JETs forecast for CY 2010<sup>24</sup> - a 620% increase since 2005.<sup>25</sup> While the majority of the taskings are at the 0-4/0-5 level, a ripple effect occurs as CGOs step up to fill the voids. Concurrently, captain and first lieutenant (1Lt) 21A/M manning decreased by approximately 19% and 44%, respectively, since 2002.<sup>26</sup> The loss of 1Lts created another “void-filling” dilemma wherein there now exist fewer 1Lts to step up and fill 0-3 vacancies. Additionally, the 21A/M community provides 8-10% of its 0-3 force to non-21A/M assignments, equating to approximately 100 officers a year that perform duties as ROTC, USAF Academy instructors, etc.<sup>27</sup>

The intent here is to not overly fixate on personnel-related matters per se or provide rationale for not supporting extended training venues, but rather to provide context with respect to losing a 21A/M officer for approximately 4 months. A HQ/ACC draft briefing acknowledged

similar concerns including the impact PBD 720 manpower reductions and heavy deployment taskings had on CGO availability for AMMOS nominations/attendance earlier in 2009.<sup>28</sup> The decision to conduct two AMMOS classes in 2010 versus three in previous years should help offset to some degree the stress described above.

## **COSTS**

To round out the discussion on training ROI and “manning” investment costs, student attendance costs and a curriculum review to include a comparison with other education and training venues is provided. The average cost for a 21A/M officer to attend AMMOS is approximately \$800 per week (ACC-funded) which accounts for per diem, lodging, and travel expenses.<sup>29</sup> This equates to approximately \$11,000 for the 14-week duration, nearly \$135,000 for a typical class size of 12 students, and slightly over \$403,000 for a 3-class/year total (as noted above, beginning in 2010, there will be two vice three classes, equating to approximately \$270,000). Not included in this study are cost factors associated with infrastructure, overhead, and staff. In comparison, the MOIC costs are basically the same as AMMOS with an average weekly cost of approximately \$785 (AETC funded).<sup>30</sup> The annual total MOIC costs for seven 3-week long classes with 14 students/class is approximately \$230,700. Specific costs for ALROC, the LRO equivalent to AMMOS, could not be obtained. An approximation based on 12 students per 12-week class conducted twice annually using an approximate \$800/week figure similar to AMMOS/MOIC equates to approximately \$230,400.



## **CURRICULUM**

A review of the AMMOS, ALROC, ACSC, and ASBC curricula reveals a level of redundancy. Given that the AMMOS and ALROC splintered off from the original school concept, the similarity of the two courses is not surprising. Excluding instructional blocks such as visiting mentors/leaders, off-site tours, etc., a review of the AMMOS and ALROC curricula indicates approximately 70 of 140 blocks of instruction are identical or nearly identical.<sup>31</sup> A review of the distance-learning ACSC and in-residence ASBC professional military education (PME) curriculum reveal several instructional blocks that are covered in both AMMOS and ALROC. Subject matter such as National Security Strategy, Joint Planning Process, and Contingency Planning are just a few duplicative examples of topics that nearly all 0-4/0-4 selects will be exposed to via ACSC and ASBC.<sup>32</sup> An argument may be made, however, that despite various topics being addressed in multiple courses, benefits are gained through instruction at a consolidated and integrated setting such as AMMOS or ALROC. In fact, the ACC implementation team verified during the formative stages of the Expeditionary Logistics School that certain components of instruction did exist but no dedicated centralized course existed to teach tactics, techniques, and procedures.<sup>33</sup>

## **ANALYSIS RECAP**

The majority of all three survey groups indicated that AMMOS should be retained as part of the 21A/M training development regimen. While a substantial majority of the MXG/CCs and their deputies combined felt that AMMOS should be retained, a significant minority also indicated the ROI did not justify the AMMOS investment of time and costs.<sup>34</sup> Given the \$400K annual investment in per diem and travel costs alone, some attempt to determine a form of return

on investment should be considered. Studies indicate that of the top 100 highest-performing United States businesses, 67% of the top performers measure some form of ROI associated with training programs, compared to only 20% of underperforming peers.<sup>35</sup>

The majority of the MXG/CCs and CDs indicated their AMMOS officer's *innate abilities* had a positive organizational impact irrespective of advanced AMMOS training while also indicating a high understanding of the AMMOS intent and curriculum. However, several graduates (21%) indicated CCs do not fully appreciate the graduate's potential and how to use them. A particular point of AMMOS graduate emphasis regarding utilization centered on the instructor function -- a predominate function that the WS counterpart graduate fulfills at the wing. Given the increase in AEF and 365-JET deployment taskings and decrease in 0-2s and 0-3s during the past 6 years, it is likely that commanders were challenged to utilize the graduates as many of them suggested they should be. With only 18% of the graduates indicating they were significantly used as instructors and approximately 11% indicating they were not being utilized as intended patterned after the WS model, a brief reflection on this ensues below.

Though the original premise of starting a 21A/M functional advanced training school was to assimilate that of the WS, there is of course a distinct difference between the two communities. The 0-3/0-4 WS graduates will be specifically assigned to a wing or operational support squadron weapons and tactics flight position. They are responsible for instructing weapon system tactics, maneuvers, and procedures on a daily (or near daily) basis, as well as being assigned to and performing in a W-coded position until they become 0-5 operations officers and/or squadron commanders.<sup>36</sup> AMMOS graduates generally return to their leadership positions at the AMU, backshop, or squadron operations officer levels. Unlike their WS counterparts, they are dealing with daily operational maintenance/munitions issues as well as the

typical personnel and leadership issues associated with large support squadrons. They will assume command at a much earlier point in their career than their peers in operations. By design, the WS officer returns to predominately instruct/advise whereas the AMMOS graduates return to lead and manage a fleet of jets and 100-500+ personnel. AFI 21-111 stipulates the AMMOS graduate will conduct, at a *minimum*, one instructional period per month. This by no means, however, suggests more frequent ad hoc sessions could not be conducted. One could infer that AMMOS graduates are not expected to instruct to the same degree or frequency as their WS counterparts. This correlates with the fact that several graduates indicated they were not being utilized in the same vein as the WS graduate. It is interesting that a substantial amount of AMMOS curriculum focuses on the instructor function and students can be disenrolled for instructor-related failures given graduates are only *required* to conduct a minimum of one training session per month.

## **Recommendations**

Given the investment costs in fiscal obligations and manpower losses, an increased deployment tempo, and decreases in overall manning levels, should AMMOS remain as is in its current 14-week construct, be modified, or eliminated all together? First, a case can be made for retaining AMMOS unchanged as part of a select few maintenance officers' post-AMOC training structure. A considerable amount of leadership effort and focus has been devoted to the program. The current AMMOS/CO has aggressively attempted to provide a higher sense of purpose and direction for the school (spread-the-words, site visits, published success stories, etc.) and brings a recent year-long AOR assignment perspective to the equation. HQ/ACC and the 21A/M Development Team community have invested a considerable amount of time reviewing

21A/M advanced training. Neither Rome, nor the 60-year old WS, was built in a day. The 21A/M community's advanced training AMMOS program should be given more time to evolve as well. Though perhaps easier said than done, attempts to systematically ascertain a results-oriented ROI would help validate the investment costs. Some MXG/CCs and graduates suggested benefits to objectively capturing an ROI and if possible identifying the differences in performance metrics between bases with and without AMMOS graduates as a means of further validating the impact of advanced training.<sup>37</sup> As inspection teams examine the MXGs, in addition to looking for *outputs* such as number of training sessions conducted, etc., it would be worthwhile to look for AMMOS-attributable *outcomes*.<sup>38</sup>

Given the viability of the first recommendation, a second option exists as well, one that also retains AMMOS and takes advantage of AMMOS/ALROC similarities. As alluded to earlier, there is significant redundancy in the AMMOS and ALROC curricula. Approximately 50% of the course material is identical or nearly so. There are economies of scale and professional functional synergies to be gained by merging the two schools. Earlier in 2009, the AMMOS/CO and ACC staff suggested the idea of combining the two as a course of action for consideration. A merger enabling the return of a certain number of cadre back to the field, given the deployment and operational tempo, in itself would be beneficial.<sup>39</sup> While the student per diem and travel costs discussed above would remain basically unchanged, a merger could allow for overhead-type savings. Lastly, a third and final option merits consideration.

Rather than AMMOS remaining status quo or merging with ALROC, a third option entails eliminating AMMOS and potentially lengthening MOIC by 1 to 2 weeks. A 5-week MOIC would be similar in length to SOS and ASBC.<sup>40</sup> The 21A/M officer receives exposure to several blocks of instruction such as Defense Planning Systems, Joint Force Structure,

National Security Strategy, JOPES, Crisis Action Planning, etc., during various stages of PME. Additionally, effective January 2010, Air University unveiled a new series of on-line distance learning courses that cover a wide array of topics to include Operational and Strategic Art, USAF/Joint/Coalition Capabilities, Crisis Response, Doctrine, etc., for company grade officers.<sup>41</sup> In essence, the 0-1 through 0-4 will be able to receive in-residence, correspondence, and now on-line opportunities for training in many of the topics addressed at AMMOS (and ALROC). Debate may ensue with respect to receiving exposure to non-maintenance related topics in a non-consolidated/integrated manner as opposed to an integrated ACS-centric methodology at AMMOS (or ALROC). The trade-off is that of returning a captain to the field nearly 2.5 to 3 months sooner under a more robust and shorter MOIC option vice the potential benefits gained via a more in-depth and integrated AMMOS/ALROC *lab-like* experience that includes exposure to non-maintenance related topics. Certainly, pros and cons likely exist to support either case.

## **Conclusion**

While there remains room for debate regarding a way ahead, in the final analysis and for the near term, retaining AMMOS as a post-AMOC training venue is the recommended course of action. The majority of *today's* operational wing-level senior maintenance leaders i.e., the MXG/CCs and *tomorrow's* senior leaders i.e., the Deputy Gp/CCs surveyed, expressed favorability to retaining AMMOS. Additionally, 70% and 80% of the CCs and CDs, respectively, indicated the AMMOS program as providing either *long-term* benefits or both long-term and immediate benefits. In other words it may take the current generation of AMMOS graduates evolving into *day-after-tomorrow's* senior maintenance leaders before one can realize

the true benefit of the AMMOS program. However, considering the impact of high operations tempos, declining 21A/M manning, and fiscal costs associated with AMMOS training...other recommended alternatives may require consideration in the near future. In particular, strong consideration should be reserved regarding an AMMOS/ALROC merger. The program continues to mature and it may indeed take more time to evolve into a “culturally” accepted paradigm. Carefully “inspecting” the AMMOS culture into the maintenance group psyche is a definite step in the right direction. If *organizational* improvement *outcomes* can also be realized or captured that are directly correlated with AMMOS training, then the program solidifies its case for the future.

## APPENDIX A

### Air Force Manpower Agency Survey Control Number Approval

5 Nov 09

MEMORANDUM FOR MAJ GEN MCMAHON

FROM: AFMA/MAPP

550 E Street East, Suite 116

Randolph AFB TX 78150-4451

SUBJECT: Request for Survey Approval

1. The Advanced Maintenance/Munitions Officers School (AMMOS) Survey is approved for use with AMMOS graduates, MXG/CC and MXG/CD. A Survey Control Number (SCN) of USAF SCN 09-065A, B, and C is assigned and valid through 30 Nov 09. Please ensure SCN and expiration date are stated in the introductory protocol and on all survey administration documents.

2. Please ensure compliance to the following guidance, as applicable:

a. IAW AFI 33-129, all websites hosted in the commercial environment (i.e. .com, .org, etc.), require SAF/XC approval. Send the original Survey Control Number request form with the survey to [safscio.networkdivi@pentagon.af.mil](mailto:safscio.networkdivi@pentagon.af.mil) to request a waiver from requirements.

b. IAW AFI 64-106, surveys administered to bargaining unit civilian employees require Labor Relations coordination. Send the original Survey Control Number request form with the survey to [afpc.dpieca.af.programs.oversight@randolph.af.mil](mailto:afpc.dpieca.af.programs.oversight@randolph.af.mil) or call DSN 312-665-5737.

c. The public may request survey results under the provisions of the Freedom of Information Act (FOIA). Results released outside the Air Force require coordination with Air Force Public Affairs before dissemination.

3. We wish you great success with your data collection effort.

//Signed//

DR. DONNA-MISCHELL NAVARRO  
Personnel Psychologist, Air Force Survey  
Office



## APPENDIX B

Air War College Maintenance Group Commander

Survey Instrument and Comments (x17)

SURVEY POPULATION: current Maintenance Group Commanders a/o Oct-Dec 2009: Survey Control  
USAF SCN 09-065B

PURPOSE: To ascertain the value that sitting MXG/CC senior leaders place on the USAF Advanced Maintenance & Munitions Officers School (AMMOS) with respect to the product produced i.e, AMMOS graduates who return postured to better produce, instruct, and advise both at home station and while deployed upon completing a 14-week training & education program. How do current MXG/CCs view and determine the return on investment with respect to advanced training received at AMMOS?

Q1) Please mark all positions you have held in which you served with an AMMOS graduate

- Never
- Sq/CC
- Deputy Maintenance Group Commander (MXG/CD)
- MXG/CC

Q2) As producers, the AMMOS graduate provided what level of improvement in my unit's fleet health metrics i.e, improvements that were/are directly attributable to AMMOS training

- Significant improvement
- Moderate improvement
- Slight improvement
- No change
- Don't know

Q3) As producers, the AMMOS graduate provided what level of improvement in my unit's deployment processes i.e, improvements that were/are directly attributable to AMMOS training

- Significant improvement
- Moderate improvement
- Slight improvement
- No change
- Don't know

Q4) As advisors, the AMMOS graduate provided what level of improvement in my unit's fleet health metrics

- Significant improvement
- Moderate improvement
- Slight improvement
- No change
- Don't know

Q5) As advisors, the AMMOS graduate provided what level of improvements in my unit's deployment processes

- Significant improvement
- Moderate improvement
- Slight improvement

- No change
- Don't know

Q6) The AMMOS graduate provides/provided structured instruction to unit members on a recurring periodic basis

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q7) As instructors, the AMMOS graduate provided what level of improvement in my unit's fleet health metrics

- Significant improvement
- Moderate improvement
- Slight improvement
- No change
- Don't know

Q8) As instructors, the AMMOS graduate provided what level of improvement in my unit's deployment processes

- Significant improvement
- Moderate improvement
- Slight improvement
- No change
- Don't know

Q9) For questions 2-8, if you marked any of the "improvement" responses, which of the following most accurately describes your response decisions:

- Objective, measurable assessments
- Subjective assessments
- Both

Q10) The current 14-week AMMOS course length is where it should be

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q11) The AMMOS graduate's ROI justifies the monetary training cost and 14-week manpower loss

- Disagree
- Slightly disagree
- Neither agree or disagree

- Slightly agree
- Agree

Q12) Under the premise that it is a top-tier maintenance officer who is targeted for AMMOS attendance, I believe the officer's positive impact on unit performance & readiness is a direct result of AMMOS training

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q13) Under the premise that it is a top-tier maintenance officer who is targeted for AMMOS attendance, I believe the AMMOS graduate's positive impact on unit performance & readiness is due to his/her innate ability to effectively lead & manage, irrespective of attending advanced training

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q14) Competing resource interests (manning losses, deployment commitments, home station obligations, etc.) has impacted/would impact my ability and willingness to provide a CGO for advanced training

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q15) Overall, I believe it is in the maintenance community's and AF's best interest to retain the AMMOS

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q16) I view AMMOS /AMMOS graduates as more of a:

- Long term benefit
- Immediate benefit
- Both
- Neither

Q17) I understand the AMMOS' purpose/intent

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q18) I understand/am familiar with the AMMOS curriculum

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q19) Please mark the following you feel most applies:

- AMMOS graduates made/make noticeable improvements in my unit's performance
- AMMOS attendance serves as a peer-discriminator for potential career progression
- Both
- Neither

Q20) Please feel free to expand on any of the specific survey questions above or other comments related to AMMOS and maintenance officer training in general in the space below. Thank you for taking the time to complete this survey.

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Operational Security (OPSEC), AFI 10-701

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My current AMXS/MOO was the #1 grad in his AMMOS class. However, I think the vast majority of the benefit we gain from him is due to his intelligence, ability, etc, not due to his having attended AMMOS. Guess I'm in the "I can't see a benefit at my level" crowd. It may be we don't effectively utilize all their AMMOS learnin', and if so, shame on us, but the fact remains that the AMMOS training doesn't seem to make us an awful lot of money.

Benefits: increased knowledge of Supply issues; scheduling; mx theory; briefing/writing skills. These are, however, diluted over time (anyone can learn these things OJT).

My guess is AMMOS grads do well at their units not necessarily because they went to AMMOS, but because they're sharp folks who's abilities/potential made them competitive for selection to AMMOS and, had they not gone, they would still be making largely the same positive impact on their units.

---

*Need to structure the course from the AMU OIC to Sgdn MOO. By the time we get someone to AMOSS they have passed the AMU stage.*

*The course needs to go from 14 to 16 weeks and be offered twice a year. We can't support three classes per year*

---

AFPC has no clue of what AMMOS is, they're using them to fill positions regardless of their AMMOS graduation. I support move and hope it is expanded to mark expeditionary assignments with AMMOS requirement.

My negative responses are more my fault than my AMMOS grad. He is an outstanding officer and I need to use him better in the role that he was intended.

---

If my AMMOS grads are doing good things for the unit, it isn't being credited to their AMMOS training. The best thing AMMOS does for me is to publish TTP. If that is all AMMOS did it would be worth having them around. I would hope that classes argue over TTP and help refine it and make it better. The curriculum still remains based in the ACS master processes, but I can't think of another instance where anyone talks about Agile Combat Support in the mx group. I am not recommending a curriculum change. I am just point out facts. I would like to see the course do more in the continuous process improvement arena than the ACS . AMMOS provides a level of training that it is important to our profession, but it improves individual performance more than it does unit performance. I would like AMMOS to provide training to pro supers and expediters as part of its mission.

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We need to further define AMMOS graduate employment in units to make their contribution more consistent across the Air Force.

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I use AMMOS grads as advisors and as instructors ... they excel! My Ammos grads are also used as inspectors in prep for UCI. Making the group \$\$!

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I've only worked with one AMMOS grad; thus one may note my responses may be tainted. However, in discussion with other senior leaders, I find my perception to be relevant. It is my belief that an officer's contribution to a unit has nothing to do with AMMOS attendance, but it more closely related to his/her innate abilities to lead and excel at those functions we find imperative of an effective mx officer. The officers attending AMMOS are not necessarily the "best" qualified but are often the "available" qualified. Further, oftentimes operational tempo does allow for an AMMOS grad who is resident in a key position with the wing to instruct at unit level, especially when a deployable unit is tasked for back-to-back AEFs plus other ancillary mx officer taskings. I feel AMMOS should disband and more emphasis placed to enhance MOIC with attributes of AMMOS, however, making MOIC a mandatory course for all Mx Officers.

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I believe AMMOS is a great program. However, the training will be squandered if senior leadership at homestation does not provide the graduate with the opportunities, time, support and other resources required to ensure maximum sustained return on investment.

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I strongly agree in principle with the intent and purpose of AMMOS. I'm a huge supporter of AMMOS to the point where my CGO have deployed, attended AMMOS and redeployed again at the unit's expense. I have keep up to 5 AMMOS graduates in my group over the past 2 years. My concern is the push to get qualified CGOs to attend this course. If AMMOS is to be a weapons school for maintenance/munitions officers, then quotas should not be established for attendance. We just do not have that many top tier CGOs to attend this type of program.

In addition, the course needs to be revamped. AMMOS instructors teaching methods introduce fear and intimidation to remold CGOs attending this program. I have had several calls from students failing first and second exams thinking they are going to get kicked out of the program and not succeed later on in a career. I know several officers who will not attend or have their name put in the selection process, because they do not want to put up with the mental hazing occurring at the school. We need to revamp how the AMMOS program and instructors are teaching the material and what material is really necessary. Holding them accountable for

endless reading does not make a better officer. It makes a disgruntle officer. I asked some AMMOS grads what they have learned and most of them say they are glad they survived. A 30 percent washout rate is pretty dismal, concerning we are selected are best to attend. Those who are dismissed for academic progression are penalized the rest of their careers. I believe we need to model the Joint PME at Joint Forces Staff College at Norfolk.

With that being said, I believe there are tangible things they do learn. The field trips to various units and outfits are perfect for learning new capabilities and processes. The research paper is also necessary to bring new thought and ideas to the logistics environment. However, these papers very seldom get published or distributed to the entire logistics community. You can put them on a COP or AMMOS web page, so what. Very few individuals will seek them out. Need to push these papers out through the Exceptional release, other journals or send them out to senior leaders to disseminate them out to have AMMOS graduates lead discussion.

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I have served with personnel selected for AMMOS as well as AMMOS graduates. From my perspective, the quality of the AMMOS graduate has almost, if not always been the result of a top notch, go-getter being nominated for an accepted to AMMOS. I would also say that I have sharp officers who have elected to NOT apply for AMMOS that are as capable to serve anywhere within a MX Group as a AMMOS graduate. They may not be as versed in the full spectrum of expeditionary logistics, but when it comes to leading people, understanding maintenance and putting combat capability in the air on-time, they have what it takes. In many ways, AMMOS as it is today, takes very sharp officers and provides them with a few more tools to make them a better officer and likely more competitive as AMMOS graduates become MXG's. AMMOS also does not make them MX 101 experts/troubleshooters.

I also believe that AMMOS focuses too much on trying to “be the same” as the Fighter Weapons School. We are maintainers, not operators, and do not need to look or act like one. For example, naming ceremonies are nearly 100 percent ops oriented – why does AMMOS feel the need to have an ops style naming ceremony as part of the course. Also, it is extremely painful to lose a high caliber officer for 14 weeks. Since 2004, I've personally known about five high caliber mx officers who were at the top of their game and could hold their own with both peers and some senior to them. At least three were on “academic probation” before the mid way point of the course and notifications were sent from the AMMOS Commandant to the owning MXG. This in and of itself makes many senior maintainers question the intent/value added of sending a star performer to a course with a good chance of having a permanent negative mark in their records. Although I know this is not the intent, there are MXGs and Senior Raters who in fact do hold the student who did not make it in a different light once they are returned to the unit – I talked to one such person at the Oct 09 LOA conf. This fact is also aware to many eligible CGOs and many quite frankly do not want to sign up for the course based on the perception “failure is not an option”.

Bottom Line: I believe the overall intent of AMMOS is good – however, the length of the course combined with the mentality that we must equate ourselves to FWS have detracted from many of the overall benefits that could be gained from making this a truly advanced course that we target our bright and shiny MX officers to attend. Keeping it competitive is good, but the



current level of competitiveness/seemingly excessively high standards is a distractor to many eligible CGOs.

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The AMMOS course was established to be the maintenance version of the “Weapons School” that operators attend. The key difference between the two is that operators return to their units and are placed in jobs that their training has direct impact and benefit on. Maintenance does not do this, nor is there a structure for maintenance to leverage this training to the benefit of the wing. The AMMOS goals for graduates has never been fully realized at the unit level because some do not return to ops o jobs, nor in this environment is there many opportunities to utilize the graduate in a training/instructional role. On this latter point, the AMMOS course does not bridge the gap in experience between the graduate and most FGOs. FGOs still carry the overwhelming bulk of all mentoring and training that happens at the wing. There is no substitute for experience.

Another, more troubling output of this program is the breeding of” elitist” within the maintenance officer corp. My predecessor attempted to serve an Art 15 to an AMMOS graduate due to actions the individual did because of his perception that he was “special, entitled, and above other maintenance officers.” In my opinion the officer deserved the Art 15, but due to the wing commander’s intervention the troop left the wing without a decoration vice the Art 15. There are other similar stories out there today about AMMOS graduates. I have one commander today who is a graduate of the AMMOS course. He is the most difficult commander I have and ranks under all the others. Of course I am not painting all graduates with a broad brush, but like everything else it is individual dependent. The practical realities do not allow most AMMOS graduates to realize the goals of the program that I think leads to some extent a frustration on the graduate’s part. Even the “approachable” word in the mission statement implies an “elitist” label to the graduate that works as a negative to all concerned. I have no doubt that most AMMOS graduates would perform at a high level without ever having attended this course. The problem graduates would likewise have become a problem without attending the course as well. The course only serves those officers as another reason that they are above and somehow more knowledgeable than all other maintenance officers.

I’d propose that the resources being poured into this course be applied to the maintenance officer corp in a more broad fashion. Having more specific training tied to an officer’s career progression similar to PME would yield more benefit to the officer and their unit as their experience and knowledge grow. The net result would be a more capable maintenance officer to meet the ever evolving challenges we face.

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I’ve never seen the payback as originally envisioned. I think AMMOS grads return right about the time they PCS. Once assigned to the new unit, I think they wait for the MXG to ask them to set up training programs vice ascertaining what training is needed themselves, then recommending conducting the training.

---

I value good officers; those who are willing to learn, teach and lead their units’ to higher levels of performance and capabilities. I expect senior officers to teach younger officers and our NCOs how to:

- Measure success (read metrics), identify weaknesses and develop proactive action plans;

- Prioritize publication and plans reviews;
- Prioritize, assign and assess work;
- Work effectively with our mostly talented enlisted corps;
- Take courage and tell a weak troops how to improve or when him/her when it is time to look for another career field or profession;
- Set and enforce standards; and,
- Work with other units across the wing and beyond the wing to accomplish the missions.

In my experience, AMMOS has not provided the specific skills an officer needed to learn, leach and lead – perhaps it provided them time to refine their knowledge or reflect on leadership. Only one or two of the half dozen AMMOS graduates I’ve worked with have proven to be good officers (worked with two in garrison and four while a deployed EMXG/CC). (Most recently I had to fire an AMMOS graduate who was a squadron maintenance operations officer – he didn’t understand what was important to the unit’s mission after 9 months on station, couldn’t accomplish his work in a timely manner or effectively communicate in writing or orally.)

AMMOS provides some valuable information all of our senior Capt and FGO maintainers should know/learn, not just a select few. This information is what we used to emphasize in the Maintenance Officer Cross-over Course and later tried to resurrect in the Advanced Logistics Officers Course – both were two to three weeks long. We need recreate this kind of course for ALL maintenance O-4 and even senior O-3 officers to complete (two to four weeks long, focused on planning, scheduling, deploying and a bigger picture perspective than the flight or AMU). Perhaps this should be a prerequisite for the (senior or) master maintenance badge.

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Disagree that it should continue to be at Nellis, Sheppard would be a much better location for the AF.

Troubled that we take our best and washout a significant portion, leaving them with the stigma of having failed

---

AMMOS is valuable and needed in our mx career field. Some of your questions are difficult to answer in the way they are asked. By comparison, how would you respond if asked how much your next unit will improve based on your personal attendance at AWC? Assuming there is some improvement, how much of that is "directly" attributable to AWC, versus inevitable because you were already a top officer to attend AWC? If you are not careful in how you interpret the responses to your survey, the answers to these limited scope questions could just as easily condemn AWC as AMMOS.

My view of AMMOS is simple. It is another tool our AF uses to make us better maintenance leaders. The curriculum is very thorough and demanding, so the course produces solid experts. Smart grads are doing the behind the scenes work to help train their fellow AMU OICs when they see them stumbling. They also give mini-seminars at LOA meetings or other events which help, but aren't really measureable in their effectiveness. In my unit, I used a recent AMMOS grad with tremendous success to completely "rebuild" a 1Lt who was utterly failing as a 21A and had his Capt promotion delayed for 6 months. My grad built daily agendas and created practical evaluations from assigned daily tasks to convert this Lt from totally useless to acceptable in those 6 months. The grad's thought process was humbling to me in his depth, breadth, and

excruciatingly-honest feedback. The biggest problem I see is the MXG/CCs don't always know how to effectively use the graduates.

I can't measure or give tangible evidence in MC rate or other improvements that AMMOS grads are directly producing, any more so than our air crew can measure mission effectiveness rate improvements because of FWIC attendance of individual pilots, but I am absolutely certain AMMOS is making a difference in the health of our fleet. As we try to make our maintenance operations more and more efficient every day with aircraft availability numbers barely meeting the need, our AF absolutely cannot afford to cut back on the training we give our mx leaders. Yes, it is quite difficult to lose a top-notch AMU OIC for 4 months but I believe the payback is worth it.

---

Bottom line is that AMMOS is a benefit to the unit and the officer; however, it is a heavy price to pay to allow someone to be TDY for 14 weeks. I would not change the course but simply suggest everyone has to be realistic about it. Many young officers do not want to put in the 14 weeks away from home and units are hard pressed to lose the officer's service as well. Regardless, the program has benefits that I believe outweigh the costs and as such, should continue

---

My exposure to AMMOS as a Munitions Maintenance Group commander has been with one nuclear munitions graduate. My mission does not require deployment since the nuclear munitions community is considered deployed in place.

Overall, I recommend the course remain but the concern is it will be used as a discriminator for choice positions and possibly for promotion which could unbalance future year groups as officers' progress.

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## APPENDIX C

Air War College Deputy Maintenance Group Commander

Survey Instrument and Comments (x30)

SURVEY POPULATION: Maintenance Group Deputy Commanders a/o Oct-Dec 2009: Survey Control  
USAF SCN 09-065C

PURPOSE: To ascertain the value that sitting MXG/CDs place on the USAF Advanced Maintenance & Munitions Officers School (AMMOS) with respect to the product produced i.e, AMMOS graduates who return postured to better produce, instruct, and advise both at home station and while deployed upon completing a 14-week training & education program. How do current MXG/CDs view and determine the return on investment with respect to advanced training received at AMMOS?

Q1) Please mark all positions you have held in which you served with an AMMOS graduate

- Never
- Sq/CC
- Deputy Maintenance Group Commander (MXG/CD)

Q2) As producers, the AMMOS graduate provided what level of improvement in our unit's fleet health metrics i.e, improvements that were/are directly attributable to AMMOS training

- Significant improvement
- Moderate improvement
- Slight improvement
- No change
- Don't know

Q3) As producers, the AMMOS graduate provided what level of improvement in our unit's deployment processes i.e, improvements that were/are directly attributable to AMMOS training

- Significant improvement
- Moderate improvement
- Slight improvement
- No change
- Don't know

Q4) As advisors, the AMMOS graduate provided what level of improvement in our unit's fleet health metrics

- Significant improvement
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- Slight improvement
- No change
- Don't know

Q5) As advisors, the AMMOS graduate provided what level of improvements in our unit's deployment processes

- Significant improvement
- Moderate improvement
- Slight improvement
- No change

- Don't know

Q6) The AMMOS graduate provides/provided structured instruction to unit members on a recurring periodic basis

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q7) As instructors, the AMMOS graduate provided what level of improvement in our unit's fleet health metrics

- Significant improvement
- Moderate improvement
- Slight improvement
- No change
- Don't know

Q8) As instructors, the AMMOS graduate provided what level of improvement in our unit's deployment processes

- Significant improvement
- Moderate improvement
- Slight improvement
- No change
- Don't know

Q9) For questions 2-8, which of the following most accurately describes your response decisions:

- Objective, measurable assessments
- Subjective assessments
- Both

Q10) Which of the following most accurately depicts your thoughts on AMMOS course length

- Stay the same
- Lengthen
- Shorten

Q11) The AMMOS graduate's ROI justifies the monetary training cost and 14-week manpower loss

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q12) Under the premise that it is a top-tier maintenance officer who is targeted for AMMOS attendance, I believe the officer's positive impact on unit performance & readiness is a direct result of AMMOS training

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q13) Under the premise that it is a top-tier maintenance officer who is targeted for AMMOS attendance, I believe the AMMOS graduate's positive impact on unit performance & readiness is due to his/her innate ability to effectively lead & manage, irrespective of attending advanced training

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q14) Competing resource interests (manning losses, deployment commitments, home station obligations, etc.) has impacted/would impact our ability and willingness to provide a CGO for advanced training

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q15) Overall, I believe it is in the maintenance community's and AF's best interest to retain the AMMOS

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q16) I view AMMOS /AMMOS graduates as more of a:

- Long term benefit
- Immediate benefit
- Both
- Neither

Q17) I understand the AMMOS' purpose/intent

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q18) I understand/am familiar with the AMMOS curriculum

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q19) Please mark the following you feel most applies:

- AMMOS graduates made/make noticeable improvements in our unit's performance
- AMMOS attendance serves as a peer-discriminator for potential career progression
- Both
- Neither

Q20) Please feel free to expand on any of the specific survey questions above or other comments related to AMMOS and maintenance officer training in general in the space below. Thank you for taking the time to complete this survey.

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Only had privilege of working with 1 AMMOs grad. We noticed an improvement in his scope of expertise since he completed the school and his area of responsibility's key performance indicators also improved slightly. I have not observed AMMOS graduates over all having an advantage over peers when it comes to job selection, SDE selection, CC candidate list, PRFs, etc., thus far. Most senior officers outside acft mx have no idea what AMMOS is and I'm not sure AFPC identifies the education on graduates' SURFs

---

My short comings with AMMOS grads is not the material taught but the production of the grads at their bases. My experience is that most Mx Sqs are so thin on officers that the grads are often put in AMXS as Ops officer or OIC where they are way to busy to instruct others, nor do I see them leading the charge in Rapid Improvement Events, deployment processes, analysis etc...

I still have not been in a scenario where I was in any meeting at the insight the AMMOS grad provided over the non grad was such that my jaw hit the ground and said, "wow, this must be an AMMOS grad".

The AMMOS program seems flawed; once the washout rate is met, it has to be an act of congress to kick out more than the attrition rate allows.

---

AMMOS is/was supposed to be Fighter Weapons School (FWS) for maintenance.

The models do not match. FWS is hands on employment of tactics. AMMOS is not. You would have to commit a unit of aircraft and people to be deployed/employed by a student to achieve the same model.

AMMOS is another tech school.

AFCOMAC was the best tech school I have ever been to as an officer because they have a no kidding exercise at the end where you actually build munitions to an ATO with all real moving parts. That is the essence of FWS all real moving parts for the operator to learn advanced tactics. The money, aircraft, and personnel requirement that it would take to make AMMOS on that model will not be committed by the USAF.

---

I believe quality of the officer is what makes them beneficial to the unit when they return form AMMOS. In that light we need to ensure we only send qualified Capts. I believe some units have sent Capts to AMMOS because they were the only one eligible vice being a worthy candidate. At my last two wings we did not do that but felt some pressure from command when we didn't submit anyone.

It is challenging in today's environment to send someone to AMMOS. Our last graduate deployed for 4 months, was back for 2, went to SOS, back for 6 weeks, went to AMMOS and the only reason he isn't deployed now again is that he PCS'd. Tough on the family.

Another thought is that we "mark" Lts as candidates when they show signs of superior performance. The way the PCS system works now we get brand new Capts into the unit and have to evaluate them quickly and then fit them into the AMMOS schedule along with their next

deployment. If the Capt came to me with a "candidate" title, first, I would know he was shit hot, and second we could work that scheduling issue immediately. I shared this with Capt Mike McConnell when he visited us from AMMOS this week.

---

I'm not sure I understand the purpose of AMMOS...is it to improve the knowledge of our maintenance officers to make them better maintenance leaders or is it just an attempt to differentiate our "elite" maintenance officers and allow them to wear a special patch (sounds like we are trying to copy the pilot career path). I don't understand the need to "weed" out officers in the first week of the course. I understand it is a demanding program and they have to work hard...but the goal should be to improve ALL of our maintenance officers that attend.

I also think we should not be so restrictive to who can attend...our goal should be to provide valuable training to all of our maintenance officers.

---

I don't think senior leadership understand the value of AMMOS grads based on the little bit they are tasked. They have a wealth of knowledge but are underutilized.

Because AMMOS grads are underutilized, I believe being an AMMOS grad has just become a "discriminator for potential career progression (they met a board and were selected above others). This, I believe, is due to their supervisors not taking advantage of the AMMOS grads.

---

Current unit has AMMOS experienced personnel; however, no aircraft assigned, so there is no impact to fleet health metrics or deployment processes.

Even though AFI 21-111 states that "the operational need for USAF AMMOS graduates exceeds student production capacity," candidate "selection of the most highly qualified individuals who will enhance combat capability throughout the Air Force" has resulted in negative impacts for those eliminated individuals and their unit, both in terms of the perceptions of others and their own self confidence.

Comparing AMMOS to WIC, both incredibly demanding and intense courses, students do not feel the same pressures of "each day could be your last day" as AMMOS experiences. Groups/wings have selected and nominated outstanding officers that "exhibit an extraordinary amount of intelligence, dedication, technical skills, military bearing, and professionalism." Negative training reports inserted into people's permanent records really do impact career advancement of otherwise very capable officers (already a top percentile).

It is not evident that the 21A/M career field has received a significant return on investment from USAF AMMOS graduates as producers, instructors, and advisors. My general consensus is that these mx officers are already operationally task saturated, many only one deep, so concentrated efforts to utilize the AMMOS graduate are not happening -- AMMOS is not gaining us any traction at the tactical or operational level. Also, these high caliber graduates are often being utilized and vectored outside of D-prefix billets, based on other higher priorities.

Our maintenance and munitions community needs to make a concerted effort to use these folks as the assets they're meant to be with the same flexibility given to the ops community and their WIC graduates.

---

If the AMMOS curriculum is critical to mission success, then the MX community will only realize a ROI if all mx officers are taught the information. To paraphrase former SecDef Rumsfeld, we go to war with the officers we got and by and large, those that have been going to war have not been the AMMOS grads.

---

Comments. My grads have come back with significant expanded knowledge, but typically can't find the time to build a structured program for the peers to absorb the benefits from the graduate. We have a structured program at the school house with expectations for the D coded position upon return, but lots of stuff gets in the way after graduation. In general, I would keep the course as is, but focus on utility of the graduate in the first 3 years after school in the D coded position and bring fidelity to that expectation/requirement.

---

Q10

-Option of "eliminate" would be my answer if given

Q 12/13

-The number of AMMOS grads I have been exposed to is in the double-digits. Most notable feature of an AMMOS grad is an increased level of arrogance. If the training is as valuable as advertised, then all mx officers should receive, and we need to stop this inference that "top-tier" officers are "selected" to attend.

Q15

-Best feature of AMMOS is high academic standards. The maintenance community needs to apply these same expectation levels to AMOC and MOIC...set the bar high and students will perform.

Q19

-AMMOS attendance does serve as a peer-discriminator, but it should not. It is one of the last discriminators I would reluctantly use (slightly before date of birth and height).

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In my first command, our AMMOS grad was the "wrong" person sent because he was available. He was later RIF'd largely due to lack-luster performance. I wouldn't have trusted him as an instructor. In my second command we had a very sharp officer who was an AMMOS grad. However, our MXG wasn't a big proponent of AMMOS, so we didn't use our AMMOS grads for instruction. In my current role as a deputy, we don't use the AMMOS grads purely as intended, but we use the class for our brightest folks.

Some of the initial grads, in my opinion, were curiosities and often poor picks that were least painful to let go. Additionally, I had at least 2 officers actively campaign NOT to go during our force shaping, so that they wouldn't risk their careers. I see more recent grads being better quality officers. I think our real benefit will come in the future as we build more grads.

In my wings, we haven't fully used the grads as designed. Until we get a "Mx weapons shop" we won't fully see the value of AMMOS. But, that being said, AMMOS is beneficial education to make our top officers even better. Maintainers are still behind the power curve on "building our replacements". I still run into FGO Mx Officers that haven't seen, or don't use, our mx TTPs. CFETPs, AMMOS, MOIC, etc, are great tools in pushing professionalism. We must learn, expand, adapt, and evolve, or we'll fail. This is too much to ask an individual to do on his/her own. We must formally educate. AMMOS isn't perfect, but at least it exists. We do need to continue to use it to build better maintainers. We'll see the benefits in the future.

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I don't see a measurable benefit from AMMOS attendance. Also, the best people aren't always the ones targeted. We've gotten desperate to fill slots and some of those attending are "average" mx officers.

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Overall AMMOS is a valuable program and generates highly trained logistics officers. The problem with AMMOS is not the school house or the officers that graduate from AMMOS, it is the way in which those officers are utilized once they return to their unit. Without getting off on a tangent on wing structure, our AMMOS grads are not as effectively utilized as they could be. AMMOS has a heavy emphasis on the deployment functions and deployed operations, yet much of that function is outside the mx group at the wing level. Our AMMOS grads have an impact on the mx group deployment functions, but they don't have as great an impact on the wing as they could. Secondly, it is my experience that we do not utilize our AMMOS grads as educators as much as we should. Unlike the Ops community that uses their Weapons School grads effectively to teach tactics, we have not done a good job of doing that on the mx side. The AMMOS grads I have recommended for AMMOS and the ones I have worked with have all benefited from AMMOS and have had an impact on the wing as a result of the training. They were all good leaders before AMMOS, but they were definitely more effective after.

---

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I believe that the bright/shineys which we send to AMMOS are destined to do great things regardless of this course. This program currently serves as a discriminator when comparing individuals for promotion, command and PME. I also would submit that this is another case of 'school selection leads to future school selection'.

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I found that with our normal day-to-day operations that it was difficult if not impossible to have our AMMOS graduate perform actual training to our maintenance officer corps. Since these personnel are top tier Captains, they are usually in the most challenging MOO positions and as such are very busy.

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I appreciate the importance of this project. As the Air Force continues to struggle with resource allocation I imagine there are a few pencil pushers who want to dissolve AMMOS to save a few dollars. I seem to recall the same mentality in the early 90s when SAC stood down and look what this “penny wise and pound foolish” idea got us.

AMMOS grads are just the first pillar in strengthening the development of the maintenance officer corps into what it should be—officers who lead, vice technical managers.

Thx for letting me comment...

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AMMOS graduates are competitively selected but only from a volunteer pool. It is used as a discriminator later but also by AFPC which mandates that each base only get one assigned. I have heard from several graduates that it is the toughest academic course they have ever been through. That rumint is “on the streets” and therefore I believe it is having a negative impact on the number of volunteers because of a perceived negative connotation on their careers if they do not successfully complete the course. Ultimately, these are top tier performers as individuals , now armed with the knowledge gained at AMMOS, what I have seen is the synergy and impact a CGO can have in motivating and leading teams of maintainers....huge impact. Arguably, this has been objectively validated by ACC IG teams selecting our AMMOS grad as a Superior performer in our last 2 ORIs. The weak link in the program is the AMMOS grad teaching in the unit, which may be a localized problem of not knowing how best to utilize these talented members. Suggest formalizing a block of instruction such as CFETPs for officers that they can be armed with the training syllabi and teach to their peers thus formalizing/institutionalizing their instructor skills/reqmt.

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The AMMOS trained officer is a significant force multiplier at the Group level. Unfortunately, the structure of 21A job opportunities gives Groups little return on the investment as sending officers at the 6 to 8 year point is too late as many graduates spend less than one full assignment in the sortie producer level job (i.e. AMU OIC/MOO jobs). We should target officers at the 4 to 6 year point for this training so you get at least 3 years of sortie producing time from these graduates. Most graduates quickly transition to IDE, Sq/CC or MAJCOM/Air Staff slots based on their competitive edge among their peers when they pin on Major. Units therefore struggle to maintain AMMOS graduates that can truly influence sortie production.

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It is difficult to determine if a person’s attendance at AMMOS has made a significant impact on an organization. These officers have and will always make an impact. What I have noticed is a better understanding of deployment machine, joint operations, and overall maintenance support structure (depot/MAJCOM/etc) from graduates earlier in their careers. What it took most of experience to get, they got in class training.

I am concerned that it has become more of a promotion factor than valued training. In a way, I want more than just a few officers understanding the concepts taught at AMMOS. For this

reason, I have still to see a wing fully utilize them as instructors...basically there is no time to get this done. Hard enough to get a monthly training session for an hour.

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While I responded that the course length needs to remain the same, I'm VERY concerned about the "eat your own young" reputation AMMOS has gained. While washing out students can be explained, ruining/damaging "top tier" confidence and careers should be a VERY rare event. Unfortunately, this doesn't seem to be the case and has created a perceived reluctance to submit officers to the carnage.

While the extraordinary high pace of AMMOS may work well with some underlying indoctrination, it erodes the opportunity for people to think, strategize and visualize maintenance improvements. I'm unsure what the physical fitness program contributes to your academics...but you may want to review the pros/cons with respect to critical maintenance objectives.

I recommend LSET be engaged to be far more critical in their evaluations of maintenance groups regarding the use of AMMOS as educators. I firmly believe there are more great ideas/concepts to harvest at base-level.

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I have worked with two AMMOS graduates while stationed in the En Route from 2006-2009. They were at En Route locations, Elmendorf and Kadena, while I was stationed with the 515 AMOG at Hickam. I was not able to accurately judge the impact on their units due to the fact that one moved out of maintenance and the other PCS'd shortly after returning from the class. In that respect it was very difficult to determine the immediate or long term impacts to their respective squadrons or follow on locations. Both agreed that the curriculum was demanding and time consuming.

An interesting item to note was identified during a briefing I was at concerning the AMMOS program within the last 1-2 years. Of the maintenance officers that had graduated up until that time, approximately 10 percent of the graduates had already separated or retired from the Air Force. That statistic leads me to believe that nomination and selection process needs to be better refined to ensure a return on the Air Force's investment.

A complaint that I did hear from attendees is that the program is primarily designed for fighter aircraft and does not accurately take into account the issues associated with setting up a deployed airlift or tanker operation. How that gets incorporated into the curriculum, I do not know.

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Overall my answers would be more positive if there was a deliberate "flight plan" for the AMMOS grads. Right now due to manning constraints/varying experience levels AMMOS grad normally are thrown right back into the same jobs before they left for school. Unlike Ops patch wearers who go to tactic shops, planner jobs, etc—there are very few Mx positions that require/desire AMMOS graduates. There is not a problem with the school curriculum rather there is a problem with the MXG or CFM utilization of the grads. Nothing that hasn't been discussed at length before.

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The value of the AMMOS graduate is almost entirely dependent on the Squadron and Group leadership—if they understand what an AMMOS graduate brings to the squadron/group

and if they understand how to use them, they will capitalize on the graduate. Therefore, the Group and Squadron leadership absolutely set the tone for the use of an AMMOS graduate.

Of the three roles an AMMOS graduate is supposed to fill: producer, advisor, and instructor, the advisor role is the most difficult. While the graduates are typically high-caliber maintenance officers, few MXG/CC or Sq/CC are willing to allow a Captain to fill an advisory role—our rank structure does not easily allow that. I have not seen, personally, an AMMOS graduate used in a Stan/Eval or IG type role where they could advise on exercises, inspections, in addition to their normal maintenance officer duties. Quality Assurance may be the best fit for an AMMOS graduate to act in an advisory role.

An AMMOS graduate will always easily succeed as a producer. They would succeed regardless of AMMOS, but AMMOS gives them more tools for their toolkit, expands their knowledge, and makes them better producers.

I believe the most under-utilized, but best skill, the AMMOS graduate brings back to the unit is his/her capacity as an instructor. Again, it is incumbent on the Group/Squadron leadership to realize the AMMOS graduate is a certified instructor and if used properly can have a significant impact on the entire MXG. As an instructor, the AMMOS graduate is both a mentor and a role model for the younger officers, as well as a credible source of knowledge for all SNCOs and officers in the MXG.

It is incumbent on the Air Force to continue to improve the AMMOS curriculum, address current and future maintenance officer TTPs, and continue to attract high caliber officers. AMMOS is a long-term investment in excellence—and one that must be continued.

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Before I comment, let me say that I have encouraged my officers to apply for and attend AMMOS if at all possible – not because I believe they’ll have a great impact on USAF fleet health – but because the 21A career field leadership has defined AMMOS as a discriminator for job/DE selection and promotion. Also, I am familiar with many AMMOS grads – a few who have served in their intended capacity well. Unfortunately, I have had more negative experiences with AMMOS grads than positive ones.... I do not know if the officers selected entered the program with huge egos or the program helped them develop one....but there has not been much benefit to creating a class system among maintenance officers. I don’t know where the program went wrong – or even if it was on track from the start – but somehow many of these graduates believe they are better than their peers – which, in some ways, they may be (job knowledge resulting from the program, etc) -- but if they can’t work well with others, no amount of book smarts is going to yield increased productivity. Additionally, their peers don’t seem to tolerate their efforts to be mentors – and AMMOS grads sense this quickly – which leads to their “lying low” when it comes to developing training/OPD sessions, or taking initiative in the name of AMMOS, etc.

Note the “projects” required for graduation while interesting enough, seldom contain any statistical analysis that proves their conclusions to a reasonable test for validity ( $p < .05$ ,  $.01$ , etc) As such capability usually requires a full semester or two of statistical analysis methods-- that is understandably beyond the scope of the program....

I think the Air Force would be much better off developing a continuing education-type approach for all maintenance officers –something that should be more closely woven in to their CFETP....there is a lot of overhead (manpower) tied up in that school and I don't think the USAF is getting much out of it....put those folks to work defining a continuation training plan for all maintenance officers – not just a chosen few – THAT would have an AF-wide impact.

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How is AMMOS any different than the Weapons School attendance for pilots? It's not, or shouldn't be any different. While wearing the patch is a sure sign of dependability and skill, it's not exclusive—there are plenty of non-grads who deliver outstanding results. That said, it is and should be a discriminator—no way around that. It takes a lot of hard, uncompromising work to graduate, and I've consistently noticed graduates coming home as more capable officers & maintenance leaders than before attendance.

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My feeling is that we need to do away with sending folks to MOIC and push that teaching down to the AMMOS graduates. We need to rethink our processes and ensure we are getting as much for our money as possible. By giving the AMMOS grads the MOIC curriculum we can train our CGOs on our time schedule and work it around the least amount of impact to the unit. I find AMMOS to be quite helpful to the unit. We utilize our grads as teachers of processes and procedures to our other Mx officers. We hold monthly AMMOS sessions, where we have the grads pull out something from their instruction booklet and teach it to our Loggies—not just our Mx Os, we invite our entire LOA from the base to these events. I have found that it is very helpful to the students who have never experienced the CAF. I would like to see AMMOS give some time to PFT scheduling for non-CAF units (AETC student training). To me PFT scheduling is more dynamic and if you are able to schedule PFT sorties you can definitely schedule CAF sorties. I understand that AMMOS is very difficult and not something you want to send a “weak” Mx officer to. However, it doesn't seem to be very prestigious (as say graduating from FWS) in the grand scheme of things. I don't think folks should be singled out from the rest of the herd because they were fortunate enough to attend AMMOS. I think opportunities should be fairly distributed to all who meet the requirements—not every good deal should be reserved for an AMMOS grad because of timing some VERY qualified folks weren't able to attend.

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While AMMOS graduates gain in-depth maintenance knowledge, fleet health metrics are a result of aircraft performance and management/availability of resources not an AMMOS graduate

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Because we send our brightest and best to AMMOS, when we get them back we thrust them into the fray immediately where they can make the most impact (NOW) – which is the flightline. We seldom give them the time to act like the weapon systems officer they were intended to be, and establish training and mentoring for his/her peers.

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Any training is value added and there is no doubt that the AMMOS curriculum will give a good maintenance officer an improved knowledge base. However, I don't think that AMMOS is the only way this knowledge base can be improved. The “selective” process to identify the best and brightest to go to AMMOS does not work. People are actually selected either by who pushes hardest to go, who can be spared by the organization for the class, or who has a boss that believes in it and pushes his people to go. There is no doubt that those who are selected,



regardless of the reason, earn a “halo” that they will wear for the rest of their career whether it is deserved or not. I think we would be better off to modify the MOIC curriculum to include those key HOF training objectives so they are available to every Mx officer. The good officers will learn and apply the principles and will improve their organizations based on their own merit.

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I actually think that the AMMOS class provides some great information for our young maintainers. However, I have not seen it actually improve day to day performance. In some cases, what they are being taught doesn't come in to play for several years after and we will have to see how much they retain when they need it. We haven't done a good job of assigning graduates equally throughout the AF, so you will have several at one base and none at another. I think that if the school stays around long enough for previous graduates to make it to senior positions, it may take on a more favored position similar to weapons school for pilots.

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## APPENDIX D

Air War College AMMOS Graduate  
Survey Instrument and Comments (x63)

AWC SURVEY POPULATION: AMMOS Graduates: ~ 150  
Survey Control # : USAF SCN 09-065A

PURPOSE: To ascertain the value that graduates place on the USAF Advanced Maintenance & Munitions Officers School with respect to returning to operational bases postured to better produce, instruct, and advise upon completing a 14-week advanced training program. How do AMMOS graduates view their return on investment with respect to AMMOS attendance? Do AMMOS graduates believe they can make or have made noticeable improvements regarding fleet health metrics, instruction, and deployment processes that are objectively and directly attributable to their AMMOS training? What aspects of AMMOS were more beneficial with respect to further developing them as aircraft maintenance/munitions officers?

Privacy Act of 1974 and AFI 33-332

The Material / Information contained herein falls within the purview of the Privacy Act of 1974 and will be safeguarded in accordance with the applicable system of records notice and AFI 33-332. This survey is anonymous. No attempt to identify you or your organization will be made unless information indicates a credible or potential threat. By participating in this survey, you acknowledge that the information you provide, including the open text comments, may be viewed and released in accordance with the Freedom of Information Act. Do not include personal identifying information.

Operational Security (OPSEC), AFI 10-701

Do not provide OPSEC information. OPSEC is a process of identifying, analyzing and controlling critical information indicating friendly actions associated with military operations and other activities such as: 1) Identify those actions that can be observed by adversary intelligence systems. 2) Determine what specific indications could be collected, analyzed, and interpreted to derive critical information in time to be useful to adversaries. and 3) Select and execute measures that eliminate or reduce to an acceptable level the vulnerabilities of friendly actions to adversary exploitation. Comply with all OPSEC measures outlined in AFI 10-701. Do not provide critical information or indicators.

Q1) What year did you attend AMMOS

- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009

Q2) To what degree were/are you utilized as an AMMOS graduate producer upon return to your unit after AMMOS completion?

- Significant
- Moderate
- Slight
- No change

Q3) To what degree were/are you utilized as an AMMOS graduate instructor upon return to your unit?

- Significant
- Moderate
- Slight
- No change

Q4) To what degree were/are you utilized as an AMMOS graduate advisor upon return to your unit?

- Significant
- Moderate
- Slight
- No change

Q5) As producer, completing AMMOS enabled me to make what level of improvement in my unit's fleet health metrics i.e, improvements that were/are directly attributable to my AMMOS training

- Significant improvement
- Moderate improvement
- Slight improvement
- No change
- Don't know

Q6) As producer, completing AMMOS enabled me to make what level of improvement in my unit's deployment process i.e, improvements that were/are directly attributable to my AMMOS training

- Significant improvement
- Moderate improvement
- Slight improvement
- No change
- Don't know

Q7) As advisor, completing AMMOS enabled me to make what level of improvement in my unit's fleet health metrics

- Significant improvement
- Moderate improvement
- Slight improvement
- No change
- Don't know

Q8) As advisor, completing AMMOS enabled me to make what level of improvement in my unit's deployment processes

- Significant improvement
- Moderate improvement
- Slight improvement
- No change

- Don't know

Q9) I applied/am applying the instructional techniques covered in the AMMOS curriculum, i.e., what I learned at AMMOS translated into actionable training/instruction at my base on a recurring basis

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q10) As instructor, completing AMMOS enabled me to make what level of improvement in my unit's fleet health

- Significant improvement
- Moderate improvement
- Slight improvement
- No change
- Don't know

Q11) As instructor, completing AMMOS enabled me to make what level of improvement in my unit's deployment processes

- Significant improvement
- Moderate improvement
- Slight improvement
- No change
- Don't know

Q12) **For questions 5-11, if you marked any of the "improvement" responses, which of the following most accurately describes your response decisions:**

- Objective, measurable assessment
- Subjective assessment
- Both

Q13) The training I received on Joint Command Structure i.e., (COMAFFOR, JFACC, DIRMOBFOR, etc.) was useful in executing my maintenance officer role and responsibilities while forward deployed in the AOR

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree
- N/A

Q14) The training I received on National Security Strategy, National Military Strategy, National Security Organization, AF Basic Doctrine, Combat Support, etc., enhanced my:

- General officership knowledge
- Maintenance officer skills
- Neither
- Both

Q15) The training I received on National Security Strategy, National Military Strategy, National Security Organization, AF Basic Doctrine, Combat Support, etc., was/is useful in executing my maintenance officer responsibilities

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q16) The training I received on the Defense Planning System, budget process, contingency planning, JOPEs, intelligence, etc., enhanced my:

- General officership knowledge
- Maintenance officer skills
- Neither
- Both

Q17) The training I received on the Defense Planning System, budget process, contingency planning, JOPEs, intel, etc., was/is useful in executing my maintenance officer responsibilities

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q18) The training I received on expeditionary site planning, embassy support, crisis action planning, USAF services, civil engineering, contingency contracting, medical system support, etc., enhanced my:

- General officership knowledge
- Maintenance officer skills
- Neither
- Both

Q19) The training I received on expeditionary site planning, embassy support, crisis action planning, USAF services, civil engineering, contingency contracting, medical system support, etc., was/is useful in executing my maintenance officer responsibilities

- Disagree
- Slightly disagree

- Neither agree or disagree
- Slightly agree
- Agree

Q20) The training I received on manpower, flying hour program, flying and maintenance scheduling, propulsion systems maintenance management, generation planning, maintenance information systems, maintenance metrics etc., enhanced my:

- General officership knowledge
- Maintenance officer skills
- Neither
- Both

Q21) The training I received on manpower, flying hour program, flying and maintenance scheduling, propulsion systems maintenance management, generation planning, maintenance information systems, maintenance metrics etc., was/is useful in executing my maintenance officer responsibilities:

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q22) The training I received on sources of supply, stockage policy, repair cycle management, readiness spares packages, mission support kits, integrated deployment system, etc., enhanced my:

- General officership knowledge
- Maintenance officer skills
- Neither
- Both

Q23) The training I received on sources of supply, stockage policy, repair cycle management, readiness spares packages, mission support kits, integrated deployment system, etc., was/is useful in executing my maintenance officer responsibilities:

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q24) Which of the following most accurately depicts your thoughts on AMMOS course length

- Stay the same
- Lengthen

- Shorten

Q25) I believe AMMOS should be retained as an advanced maintenance officer training program

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q26) I recommend AMMOS attendance for CGO maintenance officers

- Disagree
- Slightly disagree
- Neither agree or disagree
- Slightly agree
- Agree

Q27) Which of the following most accurately captures your assessment of AMMOS?

- AMMOS training enabled me to make noticeable improvements in my unit's performance that otherwise would not have occurred
- AMMOS is a positive discriminator for my career progression, i.e., sets me apart from my peers
- Both
- Neither

Q28) In addition to your personal/professional development and improvement upon completing AMMOS, to what degree do you feel your AMMOS training should manifest itself in measurable/noticeable organizational improvement(s)

- Significant
- Moderate
- Slight
- No change
- Not sure

Q29) I view my AMMOS training as more of a:

- Long term benefit
- Immediate benefit
- Both
- Neither

Q30) Please feel free to expand on any of the specific survey questions above or other comments related to AMMOS and maintenance officer training in general in the space below. Thank you for taking the time to complete this survey.



If AMMOS grads are not placed in the right positions upon graduation, it is near impossible to make a significant, lasting impact on our units. D-coded positions are fine, but there is no consistent expectation (at least in AMC) to keep them filled with AMMOS grads. Without consistency in these positions, it is very difficult to build units founded in TTP. Furthermore, MXG/CCs, MXG/CDs, and AMXS/CCs need to be better informed on what AMMOS grads can/should do for them. There is a ton of underutilized knowledge/experience out there!

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AMMOS wasn't exactly what I expected. At the time I went through it was touted as the PhD for maintainers but I felt it was more about opening my eyes to the bigger picture. The times we did focus on maintenance/deployment specifics was immediately beneficial but the NSS, NDS, Defense Planning System, JOPES, budget system, etc. only served provide me a different perspective on how things work as compared to my peers who have not attended AMMOS. I think it is intentional made extremely difficult when at times it doesn't need to be. For example, some of my peers or subordinates who have gone and failed at the instructor training in the first few weeks were sent home so I ask the question, wouldn't the Air Force be better served to allow these students to continue the course provided they pass the tests/paper and be better officers and maintainers? I wouldn't call them graduates or give the D prefix but they would stand to gain a lot of knowledge and skills that would benefit the Air Force as a whole.

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I feel the training I received in AMMOS was immensely valuable. I understand and can execute the deployment process much better now. I think much of that information should be presented earlier (not so much strategy and JCS stuff, but how SF and SVS work and how to procure things while deployed) in a maintenance officer's career as my first thought was, "I wish I would've have known that then." I also better understand aspects of maintenance operations which I think make me more effective at my job as an AMU OIC. While it would've have been nice to get formal instruction on that earlier, I think I needed the experience of a captain to be able to really get it. I've not attend MOIC, so I can't make a fair comparison, but I'm told it's the same curriculum in less detail. If so, I would recommend pushing junior captains through as quick as possible, maybe even some first lieutenants, assuming they've been in the career field the whole time.

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The AMMOS program looks good on paper but falls extremely short of the USAF Weapons School program in every measurable aspect. USAF Weapons School graduates have a clearly defined career path from the day of graduation. Their roles are known and their knowledge is sought/demanded for the benefit of the squadron, group, and wing assigned.

However, Weapons School graduates are taught the tools of their trade in great detail without the additional miscellaneous information that runs parallel to or worse has no impact on their duties as a weapons officer. Conversely, AMMOS glasses over information that falls within the 21R career field.

The Air Force Institute of Technology already has fantastic courses available, i.e. LOG 199, LOG 299, LOG 399, LOG 262, etc. that currently provide better and more in-depth instruction on all areas that a USAF Aircraft Maintenance Officer need know to fully execute our roles. I attended each of these courses and

can attest to each as sources that better provide the critical information and education we need to execute as 21A's. I did not attend MOIC therefore I have no insight or opinion on this course.

AMMOS proclaimed that graduates would serve as the "PhD maintenance officers" for the AF; again this looks good on paper but this is in fact not true. AMMOS graduates do not get the "graduate-level expertise in aircraft and munitions maintenance" as claimed. The reality of AMMOS in my five years post graduate is as follows:

- I have served four MXG group commanders since graduating the course and none have anything for the program or the graduates.
- My MXG/CC advised upon my return from AMMOS that "he did not need any Captain to tell him how to do his job and to leave that AMMOS crap at home".
- Few graduates actually teach within their units; the TTP is looked upon as "fighter centric" and/or non applicable. I actually had on MXG/CC ask me to make a false record of events taught just in case we were asked by the ACC ORI team to produce records showing AMMOS graduate instruction. I refused and was therefore not stratified or pushed for IDE. In the end the MXG/CC was removed and I am a sitting squadron commander, but IDE in-residence is unattainable.

This said, many of the MXGs should not rely on the AMMOS graduate as the "PhD" because in reality most graduates do not have the skills and experience to serve in the capacity as designed, but this is a product of our 21A career path and education process. Many of the AMMOS graduates are very good at their jobs and for some, AMMOS may have provided tools that enhanced their knowledge, especially if they have not attended any of the AFIT courses or have limited experience in Mx officer billets.

Who should go to AMMOS: Core 21A senior Captains and/or new Majors with at least three combat deployments, minimum AMU OIC for two years, if a Major then operations officer for one year, SOS complete, all AFIT courses listed above completed, Aircraft Mishap Investigation and Jet Engine Mishap Investigation courses completed. The AMMOS graduate needs to have a high degree of technical proficiency as a 21A and not simply rise to the list of accepted applicants because he/she is an Exec or Aide. Bottom-line: pick your career path, be it the exec route, AFIT, Intern, etc.

My bottom-line on AMMOS is to delete the program.

On a larger scale, we have failed as a 21A community to establish a standard of training which is evident in our failure to adequately provide initial AMOC training with a true pass/fail criteria. We do not track upgrade training and haphazardly place officers in positions to gain OJT only. Our CFETPs in reality are non-existent or tracked as our enlisted for upgrade and promotion. Officers are often placed in positions to build biographies, and some spend their careers jumping from one staff to the next only to find themselves as my previous MXG/CC forced to retire because they do not have the skills of a born and bred 21A. The proof is in black and white in various reports from failed ORI, NSI, LCAP, etc. Rated

officers command fighter/bomber units. But in the AF anyone can be a 21A “leader”. Are we that diluted a community that is just doesn’t matter? I think not.

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AMMOS is invaluable. Having humble, credible, approachable mx officers is very important to home station and deployed ops. I would definitely keep the course and encourage application and attendance. I understand this is difficult because it’s nearly the length of a deployment and usually is wedged in between deployments, but the time invested will pay off.

That said, if leadership does not see the value of AMMOS grads then this is all a moot point. My current bosses are very supportive and expect quite a bit from me as an AMMOS grad. Many out there do not share that same outlook for a variety of reasons. All this leads to the effectiveness of Producer/Instructor/Advisor. Given the slack to develop lesson plans and apply lessons learned, HOF and general knowledge will greatly increase.

However, at non-AEF bases where the tempo is simply insane, HOF is typically the first thing that gets dropped in order to meet all the TACC taskings and deployed training requirements. Without that 16 month training/recovery period, Health of Fleet just isn’t looked at as being very important by those who lead the AF.

Supply and Logistics functions have been decimated and are not nearly as effective as they have been in the past. Just in time logistics, lean logistics, and Force Shaping (kicked out way too many LROs) have all lead to the need of more knowledgeable mx officers. knowing our way around supply and the depot is very important and help with day to day operations....though a poor substitute for having the parts and expert supply Airmen at location.

AMMOS needs to be bolstered....if that means shortening the class by a little bit then fine. But the more logistics and mx savvy officers we have, the better things will work out in the long run for training and the warfighter.

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I noticed that the survey neglected to capture a point I think is critical to the rest of the questions. Namely, that the effectiveness of graduates in the field will likely correlate to the credence given the program by senior officers who have not had the opportunity to attend the course based on its brief existence. When considering concepts such as “fleet health,” the group commander’s support or opposition to the concepts and graduates of AMMOS is a critical factor. The same argument could be made for deployment readiness. Therefore, adding some questions to quantify that support (or lack thereof) will likely paint a clearer picture of “why” behind the responses you receive. I believe it would be inaccurate to correlate the questions regarding unit level metrics without capturing to what degree the concepts of AMMOS are implemented in those units.

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We have two AMMOS graduates at my base and we conduct maintenance academics sessions every month. The sessions promote good discussions and as a result, I believe that this improves our maintenance capabilities.

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I may be a unique grad; I completed AMMOS as a brand-new O-4, PCS'd right after I finished to a joint staff assignment and now I'm in IDE. I didn't use all the maintenance-centric tools for improving fleet health or the information on how to get a deployment squared away, but the concepts I learned in the course were a tremendous value to my knowledge of logistics across the services.

While I was working for a J4, I had to prepare information related to mortuary affairs, munitions, fuel, FAD codes and multiple other logistics-related issues. Thankfully, I had lessons to refer to from AMMOS on almost every topic. Although my Air Force maintenance experience taught me how to manage my time and handle challenges, AMMOS gave me the knowledge to answer those kinds of questions, and more importantly, where to look when I didn't know the answer immediately.

Additionally, AMMOS taught me how the military plans. This was critical since the deliberate planning process drives most military efforts. I found myself referencing my AMMOS notes, and then using the knowledge I gained from AMMOS to teach fellow staffers about the content and construction of various plans. I was able to find answers to many planning-related questions quickly (and easily) due to the education I got from AMMOS.

Prior to attending AMMOS, I was skeptical of the benefit of attending. Also, the school culture was unattractive to me. I was told by many people the climate at the schoolhouse was extremely antagonistic toward students and the attitude from the staff was "this sucked for me, so it's going to suck for you." Fortunately, when I attended, either the culture changed or those stories were not true (I believe the culture changed due to new leadership based on my conversation with a previous AMMOS CO).

I know AMMOS has reduced the number of classes and the number of students due to a variety of factors. I hope these reductions are not a sign of a decreasing appreciation of what the course brings to the maintenance community. As more AMMOS grads reach command, in-residence PME and other successful milestones, I expect more maintenance officers will pursue the program. In any case, AMMOS is the premier (and most valuable) maintenance training program the Air Force.

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I am on my third post-AMMOS assignment (1x short tour, 1x overseas long, 1x CONUS; two AEF deployments and one NATO deployment), and the biggest changes in how I fulfill my AMMOS grad roles/responsibilities are driven by the sitting MXG/CC. During those three assignments, I have had six MXG/CC's. While all of them have put me in duties to make use of my sortie gen/maintenance knowledge, it has been 50/50 on which ones want me to fulfill the instructor role on an active basis. Some have even gone so far as to say, "I want you producing sorties; you don't have time to teach" (or something similar). Even during those leadership periods, I have still performed instructor duties, but it has been much more on the ad hoc or one-on-one basis. As far as the advisor role I find that my leadership chain quite often asks my opinion on how to respond to maintenance situations, but I cannot say if that is because of AMMOS or the position I hold. However, I have found that a lot of the "trivia" type things you learn in AMMOS (supply stuff, what other agencies provide while deployed, etc, etc)

have enabled me to provide insight/answers in numerous situations when even groups of senior and more experienced leaders have been present.

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AMMOS curriculum should focus on giving young mx officers a “PHD” in maintenance. The curriculum I experienced did not approach that goal. AMMOS should focus less on topics like National Security Strategy, National Military Strategy, National Security Organization, etc. and more focus should be placed on bread and butter mx issues like aircraft generation, deployment, FHP/scheduling, mx manpower requirements/management and long term fleet health. Having spent 4 years on the flightline prior to attendance, AMMOS gave me no new knowledge with respect to these bread and butter mx concepts. However, AMMOS did enhance my knowledge of logistics/mobility processes that proved very useful in my duties as a mx officer.

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There is no tangible reward for being an AMMOS grad, just more work to do when there is already too much work to go around.

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The AMMOS course is very ACC-centric. I came from/returned to an AMC unit under leadership not necessarily “sold” on the AMMOS doctrine. Therefore, my job responsibility/leadership role did not change post-course (and my responses on this survey reflect as much.) My next assignment, however, was in the CAF and my MXG leadership had a higher expectation of AMMOS grads. My role/responsibilities reflected accordingly. For example, in the CAF unit, graduate-led “Friday Academics” was both mandated by and attended by the MXG/CC (and all MXG officers). In the MAF unit, the concept received zero support. Moreover, in the CAF unit, I was pushed to plan/lead TDYs & deployments—to the point where I was “temp-PCA’d” to a new unit with less than 45 days left on station just so I could lead a 40-day RED FLAG. Not something I saw in the AMC unit.

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Teaching on JOPES, DPS and NSS/NMS is redundant as this is taught much more in depth at ACSC. I believe from my experience at AMMOS more time should have been spent on things a mx officer should know and less on being an LRO.

As one of the first four classes through AMMOS I believe the curriculum has changed to much more mx officer focus from the LRO focus of early classes and development of TTP which didn’t exist when I was there. I can’t say whether it has helped or hurt my career as I don’t have insight to promotion board decisions. I can say it has probably got me some pretty good jobs however the 3 yr operational commitment and D21A3 AFSC also hurts because you get deployed/sent remote a lot more than peers and the perception that I’ve seen is people think of you as the guru of mx and some kind of prima donna. Advice given can even be resented.

For the extensive time spent in the training and investment by the AF I’m not sure the return on the investment has been realized. Much of the instructor portion is based on the MXG/CC willingness to have a program to teach the young officers, if they support it and the AMMOS grad it works well, if they don’t the program is non-existent.

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Question 29 sums up the value of AMMOS well, it provides both short term and long term benefits. The short term benefit I gained had more to do with improving my actual production abilities thanks to intimate knowledge of flying hour program management, deployment planning, and general fleet health knowledge. Long term, I have benefitted more from the early exposure to concepts like National Security Strategy, the Defense Budget process, and especially the instructional skills we practiced at AMMOS. As I attain higher rank, there are more and more opportunities to talk to younger Mx Os and LROs about experiences I've had in the career field and how they can significantly influence mission accomplishment even at the early stages in their careers. Right out of AMMOS, the chances to actually instruct were few and far between because most times, we were so focused on accomplishing the mission of MXG. Also, if there was instructing to be done, our MXG/CC liked to do it himself rather than rely on us "young whipper-snappers."

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When you are an AMU OIC with numerous airframes, personnel, TDYS (ME, WS, RED FLAG, etc.) or deployments to go on or prep for, mxs mtgs 3x a day, etc. – try to instruct, advise, etc..... That is the issue I had with them talking about all the things you should do when you get back to your base.

Look at the concept of the rated side having weapons and tactics instructors that are weapons school grads assigned at the wings in the OSS. Their job is developing and teaching – where are we at with making positions like that in mxs so a grad would actually have the time to do just that and teach the other mxs officers, etc.

I think AMMOS is a great course with a very demanding academic load, more so than my masters or IDE. I think it is beneficial and the immediate and long term benefits will help the logistics community in the Air Force. Now we need to work on tying in the TTPs in or day to day business.

I think there are/were a lot of Colonels sitting out there that were "offended" by the fact that AMMOS, HAF, or MAJCOM (not sure what level) was telling MXGs that they would use the AMMOS grads this way or that way....many were going to do what they wanted! I think that will change as some of the grads move into higher ranks. I also think it is imperative that written guidance is provided on the role (like the AFI out there) and then it is followed up on or part of an inspection process....

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The most frustrating aspect of being an AMMOS grad is the widespread inability or unwillingness of MXG/CC's to utilize their grads to the fullest potential. Mentoring and molding younger MX Os is an important part of being a grad, but that's also a responsibility of all "more senior" Mx Os. I never really felt that the MXG/CC and CDs I worked for appreciated the pain of going through the course. I never got the sense that I was asked to do something strictly because I was a grad.

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I feel that the advisor role of AMMOS grads is not understood well by senior leaders and graduates. Roles are not clearly defined for AMMOS grads like they are for Fighter Weapons School grads. Jobs that are coded for graduates can be filled by non-graduates without repercussions or without a great difference in results. That is the most disheartening part of being an AMMOS grad....you have a lot of knowledge but no one knows how to use it or wants to hear it.

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In the unique position of a 21M graduate of AMMOS, I feel I was better able to understand how the flight line side of the world worked, but did not use many AMMOS skills as a munitions flt/cc and EMS Ops O. Overall, AMMOS made me a better officer, benefited me in terms of being a discriminator in my officer records, and gave me a tremendous sense of accomplishment...as a 21M, though, it didn't directly impact my basic munitions/missile officer tactical-level leadership.

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AMMOS is a good school, with a strong curriculum. I don't think it has the support it needs to flourish at the 05/06 level throughout the Air Force. As a result, AMMOS is not necessarily getting the best of the best to attend. I think too many MXG's around the Air Force haven't necessarily bought into what AMMOS is or what a graduate can actually do for them once they are done. As a result, too many Capt's are either being pushed away from AMMOS or scared out of competing for a slot. Each class has difficulty getting packages submitted. AMMOS isn't a career booster nor should it be viewed as one. AMMOS should be a place where the finest of the career field go to become better at what they do. With the curriculum that is taught there, we should have a large pool of highly trained people capable of pushing knowledge down and making the next generation better. Instead, I think graduates are brought back into the mix and either forgotten, or given no top cover or guidance. As a result, the effects they have on the group they are in are minimal.

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My experience as a graduate is from the point of view as having a MXG/CC that understood and supported the school. He allowed me the opportunity to flourish as a graduate and utilized me to expand the impact of maintenance on the wing's deployment and daily flying programs. He was very supportive of my Friday Academic efforts and continually placed me in situations of additional workload in important situations that highlighted the value a graduate could bring to the wing.

Unfortunately, fellow graduates have worked for MXGs that took a more negative approach toward the abilities of the graduates and limited the impact they could have in the wing. Those graduates were still able to be productive, particularly in the producer/instructor roles, but were given less opportunity to be productive in the advisor role.

I encourage CGOs that have the aptitude and desire for the tremendous workload that AMMOS brings, both in the class and as a graduate. I believe the long term success of the school, through its graduates, hinges on selecting the right individuals for the program.

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I found that many of your questions were more geared toward gauging the impact to only maintenance officers. While this may be the focus of your study, it is important to note that many of us graduates are also munitions officers working either conventional, big missiles, or other space systems. Additionally, many of us will "cross flow" into other logistics functions such as Logistics or exercise planners working at the Wing, MAJCOMS, or CNAFs, or even go on to work at a maintenance/munitions depots. If you are trying to measure the impact of the AMMOS course on only Maintenance officers, then your questions are sufficient, but if your intent is to capture the impact to all graduates, then I suggest including munitions/logistics officer roles in your questions.

My overall assessment of the course is positive, but I would like to see the course lengthened to line up closer to the Weapons School curriculum and having more interactive courses or activities with our fellow operators so there is a better understanding between Ops and maintenance/ammo/loggies.

Additionally, I have not really seen the correct utilization of graduates enforced like it is for Weapons Grads. I was able to immediately utilize the knowledge and skills garnered from the course to directly impact my unit's preparation for an upcoming ORI, and I am currently assigned in a Logistics Planner position (CNAF). However, there is still no formalized wing or squadron position for AMMOS grads like our Weapon School counterparts.

Of the three AMMOS graduate roles, producer is by far the most measurably impacted by those who return to operational assignments. This is primarily due to the fact that most will be placed in either AMU OIC or MOO positions that have a direct impact on producing sorties. Although I have seen a change over the years in the attitude of most MXG/CC towards AMMOS grads, the advisor role is more of an informal one. Finally, depending on the attitude/support of your MXG/CC and MX squadron CCs, the instructor role may also be an informal one rather than a structured one (Friday Academics) that you might see on the Ops side of the house.

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Question 29 is a great question since I believe my skills have helped me a better AF officer and a Maintenance Officer. I do see the training a huge benefit upfront to help see a bigger picture and realize there is more out there but I also understand that some of the areas we trained in will be very useful in the long term when working a Staff/HQ/Joint job. I would recommend AMMOS to anyone who wants to expand their knowledge and become a more rounded AF officer.

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Answers to "improvement" areas within my organization upon completing AMMOS are dependent upon MXG and SQ/CC support as well as Ops support in understanding that we are in the Mx field what their Weapons School Grads are to them on the Ops side. If you can't attain "buy-in" from Ops that you are going to ensure they attain the training they require by supporting them with safe, reliable, and lethal weapons systems, then it is very difficult to change or affect that culture.

Selection for AMMOS should be something that every young Mx officer aspires to attain. In order to send highly educated/qualified graduates to the field to continue to maintain the aging fleet that we have, we need to ensure that only the best candidates are being selected as opposed to sending someone that does not want to be there.

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There are many very good lessons taught at AMMOS. I believe these lessons would help the deploying individual greatly. The information presented would have benefited me during my deployments. It was a little disheartening to find out I was accomplishing some of the needed tasks wrong because of lack of knowledge/experience.

I would highly recommend AMMOS to my fellow CGOs. Perhaps even a modified version for all mx officers.

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As with any specially qualified personnel, utilization of those skills is dependent upon numerous things, including senior leader support and competing job demands. Although I have a significantly greater understanding of the bigger picture as a result of AMMOS, much of that has nothing to do with tactical flight line sortie generation. As a result, since senior leaders (i.e. MXG/CCs) see minimal tangible difference on the tactical mission, they do not strongly advocate for a significant professional development forum to teach "tactics." As a result, it is left to already over-worked graduates to take the initiative to develop course material, coordinate a plan/location, and advertise to the officer/SNCO population. There is minimal incentive for them to do this for two reasons: 1) because there is no visible career or organizational benefit; 2) because recruiting an audience is challenging because there is no visible incentive to attend.

And why? It all comes full circle...there is minimal tangible day-to-day mission impact as a result of the AMMOS curriculum so senior leaders don't make supporting it a priority. And why is there minimal tactical impact? Because maintenance officers are not tactical employers of combat airpower! AMMOS was created to parallel the Weapons School, where a graduate returns to a squadron to instruct young pilots on new maneuvers, employment methods, tactics, etc... Such a parallel does not translate to a support career field. We do not have new weapons, avionics, and attack profiles to share and practice. Our curriculum carries a much broader, strategic agenda that prepares staff officers and AOC officers, not flight line sortie generators.

If it were possible to show significant differences in performance metrics at bases with vs. without AMMOS grads then there could be a stimulus for change. Until such a parallel is drawn most wing-level CGOs (that I have spoken to) view AMMOS as "an ass-pain" with no payback.

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AMMOS made me a more complete Maintenance and "general" officer. Specific results for me include, but are not limited to: Numerous explanations of higher level processes to CGO's and SNCO's. Being handpicked by MXG/CC's to perform key projects: re-wrote base supp to OPLAN 8010, designed entire flying training unit (FTU) flying schedule which has produced masterful results, led Phase 1 and Phase 2 ORI prep and execution (1 excellent, 1 sat 2x Superior Performer), led LSET prep (pass/earned "Honorable Mention"), and Blue Flag deployment (superior performer and coined by 12 AF/CC).

In 3 yrs since graduation, my MXG/CC has selected me to be the lead or supplement to every major project or inspection in the group. While the knowledge gained has been useful to varying degrees depending on the subject, the confidence gained by graduating such an arduous course has proven invaluable! CC's trust me and I have never let them down. Some of the information I learned has never been used, but that can be easily attributable to the situations I have faced. Had I deployed in one of the traditional LRO billets, perhaps the information would have been useful. Bottom line, I would hate for AMMOS to remove any information. In fact, I would like to see the course lengthened.

Talking with many of my peers and my CC's, AMMOS does not seem very popular (this despite the fact that my CC's love that I attended and use my insight repeatedly). Lately, LCBP is being trumpeted as the

greatest training a mx officer may receive. I believe lengthening AMMOS to include more information, becoming accredited, having General and Col Mx Officers promote it, and reducing the fear that failure to complete AMMOS will end a career would greatly enhance the reputation. I am very thankful for AMMOS. For this officer, I can provide concrete evidence that AMMOS produced real impacts on my career and, most importantly, my wing.

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AMMOS is a great institution and it was an experience I will never forget. I definitely think it sets you apart from your peers that have not attended. MOIC is not even close, and should not even be mentioned in the same sentence as AMMOS. I am a much better Mx Officer due to attending AMMOS

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AMMOS was a challenging and yet rewarding experience. Having spent no time in the AOR, I gained an immense amount of knowledge that's given me confidence for when I'll eventually deploy. Additionally, the focus on developing individual knowledge and the instructor skill set grew me immensely as an AF officer and as a maintenance leader. AMMOS content aggressively develops maintenance officers' understanding and application of Agile Combat Support. I think it's a brilliant concept to focus on specialized maintenance officer education as well as cultural development/refinement; both are critically important to developing an optimal maintenance culture. The role of the maintenance community is integrally linked to the Air Force operator's ability to execute the mission.

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Q13-18)

It is my experience that our career field and AF officers learn very little doctrine as a CGO. As compared to other CGO in sister Departments, there CGO community speaks in doctrinal vernacular daily. This was evident with any joint operation I experienced.

Q24)

The course is a tough schedule but could be reduced a couples weeks by assign more on the pre-TDY taskers. Asking a Commander to let his MOO/Flight commander leave for 4-5 months is stressful on a unit and less likely to be approved.

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AMMOS and the AMMOS curriculum is a highly beneficial experience. However, it's exceptionally frustrating that after all these years, the 21A/M functional communities still fail in regard to AMMOS graduate placement, assignments, etc. In my experience, I had to "push" my skillset into the organization (wing, group, etc.), rather than it being recognized as an asset and pulled by leadership. There were few occasions where my specific AMMOS skills were sought, rather I had to interject and create opportunities to use them. By doing so, I had to skirt the boundaries of "humble and approachable" by "forcing" my credibility in certain situations. There is still no common knowledge among senior leaders of what the AMMOS grad brings to the fight. My networking tells me most of us are returned to our units, plugged back into the same types of jobs, and could easily allow our skills to atrophy if we allowed them to.

The 21A/M functional community and senior leaders MUST make a concerted effort to identify specific positions within each wing for AMMOS grads and place them in those positions! In my humble opinion, the AF and 21 community are losing a tremendous amount of return on investment under the current structure.

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I graduated from the first AMMOS class. The school needs to be retained and supported as the center of excellence for graduate-level instruction and preparation for our best Maintenance Officers. The Aircraft/Munitions Maintenance career field is every bit as critical as any Operations specialty. Our community and the AF need graduate-level trained instructors on par with the USAF Weapons School weapons instructor courses (WIC).

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I've found that the knowledge gained while attending AMMOS was incredible. As a 21M, with zero deployment experience, it gave me the tools necessary to make my first deployment to Bagram totally successful. I went to AMMOS with zero knowledge on what to expect and going up for my Majors board, it was not a discriminator.

Benefits: tremendous deployment knowledge, I learned about TTPs and their usefulness, I connected a lot of the dots on how Big AF works with US Govt, you automatically gain a relationship with other AMMOS grads, and overall I learned a lot

Negatives: Not sure the risk to our career is worth reward, but that is still to be determined. The instructor portion is worthless when the OPSTEMPO is so high that no one has the time to want to be there. Being in an EMS and AMXS having an AMMOS grad, I didn't have as much of an opportunity to teach (21Ms rarely get on training deployments). Current MXG leadership is very micromanaging, so the Advisor role is most often not heard.

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The use of AMMOS graduates is laughable. Less than 75% of the graduates actually go back and utilize their skills and instruct to better those around them (both officers and SNCOs). Out of my class of 12, I was the only one that said that I did the course to become a better maintenance officer. The other 11 stated they were there for promotion purposes. Acceptance into the course is waived, especially in the deployment experience, which detracts from the basics taught at the school house. I have not seen any action on graduates that have come out of school after I did. I ran an extensive 12 month syllabus, sponsored by the maintenance group commander when I got back from school. Once I deployed none of the 3 remaining AMMOS graduates picked up the program. The next maintenance group commander was not interested in having the instruction until it became a LCAT requirement, then it was a new priority.

Management of D21A3 is another laughable function that was "promised" and not kept. There is a Major assigned to AFPC to work all D21A3 assignments, regardless of MAJCOM. However when you call said Major he will forward you to the MAJCOM Captain and there appears to be no reason behind where they assign AMMOS graduates. The program on paper looks great, however the execution is non-existent.

From the Maintenance Group Commander support it depends on if they are “believers”. Out of my last 4 Group Commanders, only one saw validity in it, and I believe it was because this individual was predominantly a staff officer that had not been in the field for more than 10 years. If the credibility does not come from the school house, the graduates, and enforced by the GP/CCs the program is just another box to fill for a maintenance officer to get promoted ahead of their peers – which is the WRONG reason for the school.

I know they (weapons school) tried to marry up the “patch wearers” at the field level. There was an effort to co-instruct between the Wing Weapons Officer and the Senior AMMOS graduate. However, nothing came of the program. Another failed effort to try and validate the need for the school house.

As it stands, I believe the AMMOS school house should be shut down until there is clear support from the MAJCOM/GPCC level. Until then you simply lose an officer for 5-6 months. If they “cheat” the system then it is no more than ACSC in residence for Mx Officers.

Finally, questions above are difficult to answer 4 years after completing the school. Although I was very active when I came out of the school, I am less and less used (based on the structure set up with FGOs). Not sure the questions are valid for FGO input on their impact on the basic maintenance etc. By the time you become an FGO if you don’t know and can’t explain and affect change you should have a different AFSC. This is geared towards the CGOs that just graduated, in my opinion. This is at least the 5<sup>th</sup> survey I have taken of this sort from students in AMMOS, ACSC, and now AWC. Hopefully these papers are being seen by the A-4 and they are taking the recommendations, because in the field I have seen no change in the graduates or how the MXG/CCs support the program.

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I absolutely believe the AMMOS curriculum adds to our core 21A competencies while expanding our understanding of how the entire DoD fights. Graduates are both skilled tacticians and effective operational thinkers. What I learned in AMMOS paid immediate and continuing dividends running an AMU in Korea, being a Mx Ops Officer (3 times), advising/training foreign militaries and now as a squadron commander.

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1. I graduated in the 2<sup>nd</sup> class. AMMOS was unknown and my MXG/CC was more focused upon the producer role. He was keen upon setting up MX Academics, but wanted all of the CGOs to instruct general knowledge. The only AMMOS instruction I performed for the CGOs was on deployment preparations.
2. Due to this limitation, I focused most of my instruction within my squadron (AMXS). This is where the greatest gains were made. SNCOs understood the need to prioritize manpower for TPFDD purposes and with instruction we got it down to an exact science. The same held true for accelerating sched mx prior to our AEF. We had an exceptionally smooth AEF and while I attribute 75% of that to the leadership of my SNCOs, the remaining 25% is attributable to the actions we took as a team based upon our Academic sessions.

3. Advisor—MXG initially had the same reservations in this arena. However, as time progressed and he saw the results in my producer role, I was able to transition more into the Advisor role. Within a year, I became the MXG go to person for all OREs/ORIs and deployments. I never did become a “wing” advisor. I think there is too much confusion in that role in comparison to the IDO.
  4. Length. I’m for increasing the length. Our current operations tempo makes it difficult at best to allow a student to perform all the advance studying and paper proposal while they are still expected to do their current job. This creates a conflict of interest.
  5. Increase the length and reduce the number of offerings. I question the ability of our careerfield in 2009 to be able to field quality candidates for 3 classes a year.
  6. Need to clarify for our officers a few things
    - a. What is the “premier” program for 21As/21Ms. Mixed messages b/w AMMOS and LCBP
    - b. Impact of washing out—many fear it will kill a career—but, I have seen no evidence to date.
    - c. What track being an AMMOS grad places you on—are you really “ahead” of your peers?
      - i. It shouldn’t be about being “better” rather its about having a specialized skill set
      - ii. Might help deal with some of the perceived “egos” out there
  7. We still don’t have universal buy-in from MXG/CCs—we need that.
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Produce, advise, instruct....

AMMOS grads use what they learned throughout their careers in various ways.

I returned to base-level and produced and advised. Although not “used” as an instructor right after AMMOS, it wasn’t because MXG leadership chose not to use me, it was more because I was busy producing and prepping for deployment/deploying. Any instruction then was the “informal discussion” type at the bar on a Friday night.

At the following base, as a commander, I wasn’t developing phase flow plans or generating sorties (produce) but was definitely involved as advisor and mentor/instructor.

At the next base, a staff job, my #1 duty is to instruct, producing educational materials (guides), running a website, building courses and instructing on the road and coording on course curriculum for various levels of PME. Although I don’t really “produce” as a maintenance officer, I’m definitely instructing.

Produce, advise, instruct .... I’ve done each to varying degrees at different assignments and would suspect you’ll find the roles expand as AMMOS grads move to different jobs/roles in the Air Force.

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-Upon returning from AMMOS, I was in a MOS squadron where I did not have as much direct impact on A/C fleet health as a MOO or OIC in an AMXS squadron would have. I also moved into an exec job after less than 6 months from graduation so I never got to utilize the info fully. I do still teach in the MXG about once a month even though I'm not assigned to the unit.

- I truly feel that AMMOS is a good course and is structured in the right manner. You often hear that it is too hard, but that is how it is supposed to be. If it was easy, everyone would go.

-One of the keys to AMMOS success is that it is given time for the grads to become commanders so they can utilize the grads under them in the right manner. The current group commanders don't fully understand what AMMOS grads are and how to use them.

-As for the National Security Strategy, National Military Strategy, National Security Organization, AF Basic Doctrine, Combat Support, etc, I feel that this should be addressed much earlier in the AF Officers career. Having that knowledge would have helped me much earlier in my career and it is something that every officer needs to know.

-Another difficulty that I see in the future for AMMOS is that the lines between AMMOS and other courses (MOIC) are being blurred. I understand that the course has valuable info, but it is the responsibility of the grads to teach and spread the info/knowledge. AMMOS needs to ensure that they stay unique and offer something in terms of grads that other courses don't.

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My responses on the value of AMMOS are skewed by my MXG at the time. He was an excellent mentor and imparted much of the information taught at AMMOS on myself and the other 23 Mx officers in the group prior to attending, so I don't feel AMMOS enhanced those skills for me. However, based on conversations with my classmates, not everyone had the same luxury and they did learn from the class. I believe AMMOS is a very valuable class and should be continued, it fills a huge gap for those officers who don't have great mentors. I think AMMOS should be lengthened and utilized by the MAJCOM A4s to address issues they are encountering in their commands. I think the A4s should solicit trouble areas they are encountering and send classes/former grads to those areas as troubleshooters/researchers.

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AMMOS is an intense course that produces more knowledgeable and better trained maintainers across the board. However, I feel that the course is still misunderstood at the wing/mxg level and graduates are not always properly utilized. Additionally, I'm not a fan of modeling AMMOS after Weapons School but, after talking with pilots, Weapons School is something that all pilots strive for as soon as they hit their first base. I feel that AMMOS should become that level of school for maintenance officers where our young Lts strive to become a student/grad. That will take time and it will take a mindset change within the 21A community but there needs to be tangible benefits to our young maintainers taking the risk of going to this course. Perhaps that benefit is career progression beyond just the first or second assignment after AMMOS or must fill jobs at each base where, when an AMMOS grad arrives they get that position. However, without some additional incentive other than becoming a more knowledgeable maintenance officer I think that AMMOS will continue to be under utilized.

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General John P. Jumper former CSAF and LtGen Terry Gabreski started AMMOS and made it an opportunity to correct the logistics mistakes of the past. Logistics was always thought to be an art versus a science---when in fact it is both. AMMOS helped me realize that. From studying logistics from Alexander the Great to the logistics from Operation Allied Force it's readily apparent that logistics wins or loses wars.

The trouble with AMMOS is that our current fleet of MXG/CC's are not fully bought into AMMOS as necessary. Because of their experience in the AF they feel that it's not necessary. There's no delineation between an AMMOS grad and a non-AMMOS graduate they feel. The difference is opportunity to be exposed to different material. The same argument could be made between OTS vs ROTC vs USAFA; there's no difference in the outcome—a 2Lt. But it's not about what the outcome is so much as what is recruited. Bottom line is that the standards for success at AMMOS are HIGH, the entrance criteria is HIGH as well.

AMMOS helped me tremendously. While deployed to SOUTHCOM I realize that the 12AF NAF was there to assist in all aspects of support. From contracting, supply, transportation and maintenance, they could be called on for all of these items. If I had not gone to AMMOS I would not have fully understood this. AMMOS helped me understand the full extent of the reasons for deployment processing and the AOR structure & Irregular Warfare. As Irregular Warfare increases in its importance so will courses like AMMOS. Why repeat the mistakes of the past? Our aircraft maintenance officers are NOT fully getting the training they need to be effective leaders in the AOR.

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AMMOS was the most challenging and most rewarding training experience in my 20+ year career. By far, the most difficult training I've received – officer, enlisted, or civilian. It's not for everybody and requires commitment and dedication – certainly not a “gentlemen's course.” There should be measurable return on investment reporting – mandated and tracked – to hold grads accountable for post-AMMOS performance. Many grads simply leave AMMOS with the “box checked” and don't give back to the operational mx community. Likewise, more emphasis needs to be directed toward senior leader “buy-in” – to make sure WG and MCG/CCs are truly nominating their best candidates.

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As a strat-lift mx officer with 11 years of fighter experience in three AMUs, I feel this course is much more useful for those assigned to CAF units. As you probably know, strat lift units feed into en-routes using a centrally controlled scheduling process (TACC), unlike CAF units that assign much of the deployment/scheduling processes to the CGO/AMU Chief level. In other words, our AMC AMUs are not attached to flying squadrons and do not deploy together. As a former 8 EAMS MOO who was deployed when you were the 379 EMXG/CD I'm sure you understand what I am talking about.

As for role of “advisor,” I have yet to run into a MXG/CC that was remotely interested in having the CGO AMMOS grad “advise” them. This might be different in CAF units.

Overall, I think AMMOS provided me with a much better appreciation of the “big picture” when it comes to Agile Combat Support; however, much of what I have learned since '05 I have forgotten.

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AMMOS, like many other professional continuing education courses within the AF, provides a tool set to grow from and not become complacent to (just because I graduated). In my opinion, there is a deficiency within the MX O community as a whole---not everyone feels the pain. It takes time to produce a Combat Coded AMU OIC and his/her experience far outweighs a course. I think we have lost touch with the fact that there was once a Lt Col SMO versus a junior captain....

I am a firm believer that AMMOS is a step in the right direction. There is a lot of that can still be done to improve our AF—for example, combine AMMOS with the Weapons School. I feel that I am a better Maintenance Officer for attending. However, the Instructor portion does not, in my opinion, constitute a course removal. Standards are high, but the Instructor portion can use some work. Not everyone can instruct/teach...to include some past AMMOS instructors....but, with the right tool set, they can become better. The instructor portion needs to be expanded and lengthened. However, great instructors are built in time through the critique process established. For example; Capt Lynn Shores and Andre Le'Coures (MOIC Instructors). Producing one in a week does not constitute an AF instructor---it takes years.

I am not a careerist. I love maintenance and the art of maintenance. I am not an elitist, but I believe in high standards. Approachable, Credible and Humble needs to go; it is expected with every officer.

The target group is right, but needs to expand to new Majors. If you serve in the role of Mx Ops Officer or OIC, you can be better for attending. Prior enlisted is good....spread the pain to a few more Majs out there. Sq CCs need to be tested before command and not during it. The best commanders I served were AMMOS grads.

Finally, I am a 21A with 21M experience. Please, more than the instructor portion, have all of the attendees attend the full AFCOMAC...a couple hours on the bomb pad makes us dangerous. So, make it a six month course...expand on the Instructor portion, expand on the 21M portion and include it into the Weapons School curriculum. And, for the sake of the entire maintenance community, give up on the patch---the coin is good enough.

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First and foremost the data points used to answer questions about fleet health were taken from my time as an Ops O in both (fighter) MOS and (fighter)AMXS. My current position as a nuclear MUNS/CC doesn't allow for a 1:1 translation of fleet health. On that line of thought, however, I fully believe that my AMMOS education played a significant role in my selection as a conventional/nuclear munitions squadron commander. Additionally, with virtually zero experience in the bomber conventional/nuclear munitions realm I was also tasked to stand up a new nuclear munitions squadron, again, I believe based on my AMMOS education and experience.

Significant and much needed changes have been made within the last 1.5-2 years that make the AMMOS experience a true force multiplier for the 21A and 21M world with the ultimate benefactor being the Air Force as a whole. I fully support the AMMOS concept, plan and execution. The investment of manpower is vastly exceeded by the returns gained and in the current environment of reduced



capabilities, downsized manpower and dwindling funding it is an investment we can't afford not to make.

Finally, understand any AMMOS graduate will only be as productive as he/she is permitted to be by their leadership. To clarify; there are still MXG/CC, MXG/CDs who maintain the position that AMMOS is for "fair-haired boys" and adds nothing to the 21A pool that a Capt of that wouldn't (shouldn't) have already learned if they were worth anything. (Directly attributed to past leadership.) If a grad's efforts are stymied simply BECAUSE he/she is an AMMOS grad, the corollary contributions will reflect. With this, it may provide worthwhile to ask a question(s) about how AMMOS grads are accepted in the role of producer/instructor/advisor at an installation as a means of further quantifying answers provided.

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I think a 3 – 4 month course is the right length. The course needs to stay on a level of magnitude that is commensurate to the USAF Weapons School.

One of the great challenges for AMMOS is for sitting MXG Commanders to recognize the value of the AMMOS graduates...Its important for commanders and deputy commanders to recognize the producer, instructor, advisor roles that the graduates play and emphasize those roles. Additionally, when Group Commanders have AMMOS coded positions, they should posture their graduates in those positions as much as possible.

As AMMOS is somewhat CAF centric, it highlights the need for the MAF and CAF to come closer together in standardization. For instance, utilization of one Maintenance Data Collection System (eliminate G081, everyone go to IMDS), standardize analysis and metrics reporting, standardize scheduling (develop a set of scheduling rules applicable to all commands).

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AMMOS was far and away the most challenging and in-depth training I've received in the USAF. Although, I cannot quantify all the benefits AMMOS has made on the units I can attest that it has better prepared me as a both a CGO and more specifically a maintenance officer.

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The graduates' experiences after USAF AMMOS is too dependent on the personality of both the group commander and the graduate. You can't go through this school and not be a better producer, instructor, and advisor—unless you don't want to/or lack the confidence to make it happen. There should be a requirement for graduates to hold at least 1 class per quarter on the topic of the MXG's choosing. (depends on what problems they are having).

Moreover, the USAF AMMOS should expand and formalize its support of graduates and require backward communication and updates. The above mentioned lessons should be posted for everyone to draw from and use.

Mx AOR Trip reports and major exercise reports should be sent to USAF AMMOS to data mine possible lessons learned and enhance TTP developments. Otherwise, we are doomed to repeat the same mistakes and don't share the best ideas.

The read ahead exam should be scrapped and/or changed to cover the “basic” blocks currently taught at USAF AMMOS. This would free them to expand the PHD level mx TTPs.

You don’t survey or ask about one are the most valuable portions of the course--visits to both AMC, ACC HQs, and AFCOMAC and time with FAMs. Also the various labs and simulations you have to go through as the course progresses. Additionally, the MEX is a key simulator that everyone should go through at least once. Finally, the exposure to senior leaders and their experiences---not due to networking, but the ability to ask “anything” in this environment makes anyone who graduates a more effective maintenance officer. The key is translating this experience into actions the help their fellow officers—and this only comes with expectations.

The USAF isn’t fully capitalizing on all the capabilities of a USAF graduate. Setting clear expectations for both the graduate and group commander will greatly improve the AF payback for this school. Additionally, better screening of who is sent is imperative. Much of the mythology around people failing out has to do with the officers who were sent and not the cadre who have to make this touch choice.

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Q24. AMMOS should be lengthened to allow for more in depth concept understanding/application of what is presented. Course pace forced surface grasping of some material. Greater short and long-term benefits would be gained if additional time were allotted.

AMMOS was heavily weighted toward IDO type functions (great stuff), with aircraft maintenance following. The few munitions elements (e.g. explosives site planning, bomb components, weapons selection, etc.) were poorly compiled and presented. As a 21M with 21 years in munitions both enlisted and commissioned (former course developer/instructor for the AETC enlisted munitions courses), I learned a great deal about aircraft maintenance—much of it was new to me. However, from a munitions perspective, not only was the course material poorly selected/written, it was in many instances inaccurate and of little value. At the time of my attendance, there wasn’t a 21M Instructor on staff. In my view, the course intent is superb, but the application needs improvement!

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My experience (in 5 MAJCOMs) has been that we, as a maintenance community, don’t put a lot of emphasis on training officers. We tend to throw Lts out and tell them to ride with a Pro Super.

I attended AMMOS in 05, before the rewrite; so I qualify my comments by saying that my info on the course is dated. (However, I do know people currently in the course.)

There was a lot of extraneous material in the course. Although the doctrine stuff actually helped me later in ACSC, it did not have a lot to do with the curriculum. The read ahead test was an exercise in copy-paste. The class length has led some leadership (wrongly, in my opinion) to think that they can’t “afford to let my best people go for that long.”

The course seemed to be an exercise in trying to eliminate people. My class lost 25%. The history that I’ve seen shows a 15-20% elimination rate. They intentionally would dump a major project on us with

no notice on Friday at 1700 just for fun. We all get that the unexpected can (and does) come along in the real world, but in an academic environment it detracts from the learning experience. There's not another maintenance course like that anywhere, we're not training SEALs here. Let's not push people to the breaking point for fun.

The field has not embraced the class and as a result, there haven't been a lot of applicants. That equates to grads who have more commissioned service than the target audience (several in my class had line numbers for major) and who aren't placed in assignments that are D-coded and don't produce-advise-instruct as intended. It becomes a vicious cycle.

I know of a few people who have conducted regular classes the way AMMOS intends, but the majority don't have the time to independently develop course material and teach it. The school should provide lessons shell on its AFKN site that can be customized for local conditions.

I've heard that MOIC has incorporated condensed AMMOS lessons, which I whole-heartedly indorse. I believe the research paper is worthless. How many of the hundreds of papers have been used to improve an AF level problem, as intended? The school places instructors in the position of being Master's level academic advisors, something they have no background in. Even when I was at the school, the staff mentioned a need for a 'true' academic if they were going to continue with papers.

By removing the paper and the cutting out the abuse and extraneous doctrine/PME, the course can focus on teaching what it should: Fleet management, production, deployment, redeployment. It could also be shortened a month, which would please SQ and Group CC's. If this is implemented, a massive PR blitz will be required to overcome the generally negative opinion of the course held in the field.

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Always felt AMMOS did not make better Maintenance Officers, however it does produce better logistic Officers. The majority of the students who attend are young CGOs. At many locations the Squadron Commander or Operations officer takes on the role as mentor/instructor. This is especially the case at smaller locations and for officers assigned to a HQ staff. Also feel many senior leaders in the wings have very little knowledge at AMMOS and how to use their grads.

AMMOS grads are not used in the wing deployment process. Majority of the time this falls under LRS (21R). This is where the school house needs to do a better job in advertising.

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This was by far the toughest training I've encountered in my 17+ years in the USAF. It was well worth the time for both home station and deployed settings. I've use the training while deployed to Iraq, TDY to Chile and Peru, as well as at home station.

I think you'll find those that seem frustrated with the training are so for two reasons:

1. They didn't think the training needed to be so "intensive,"
  2. They aren't being used by their MXG/CCs in the instructor/producer/advisor role and/or they're not proactive in using the training they've received.
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AMMOS needs to determine what type of individual they want to graduate: At one end of the spectrum is the maintenance officer with a PhD in maintenance management. At the other end of the spectrum is essentially the Log Planner/LRO savvy maintenance officer capable of doing the LRO's job. In 2005, it was evident that the school didn't know what it wanted to produce. When we toured the CAOC at Nellis, we asked the POC's from ACC if there was any CAOC officer training course, and we were told AMMOS is it. Which caused us to ask the question: Are we getting trained in AMMOS to be PhD's in maintenance, are we being trained as action officers to work in the CAOC, or are we being trained in mobility/LRO type things because we don't either trust the LRO's to do their jobs, or they won't be available for us when we deploy?

I also question the level of AMMOS' target audience. In 2005, we had young Captains who only had 1 full assignment under their belt and their second assignment was at a SPO. They just didn't have the background/experience to fully appreciate the AMMOS curriculum and put it into practice.

Another criticism I have is the focus on fighter maintenance as opposed to understanding the mobility piece, helicopters, bombers, etc. I have heard it is getting better with a bigger emphasis on MAF aircraft and not just CAF, but I cannot confirm that rumor.

The role that is most debatable for the AMMOS grad is the advisor role. I have yet to meet an AMMOS grad who truly has the ear of his/her MXG strictly because they graduated from AMMOS. If they do have the ear of the MXG, it's because the MXG trusts them already, not because they're an AMMOS grad. In the aviation community, it's understandable that the Captains/Majors are the most technically competent in the employment of their weapon system's TTPs, but it's very difficult in the Maintenance community for a senior Captain/junior Major to advise an O-6 maintenance officer who's been in the career field for 20+ years. Had we gone to the objective wing where maintenance was indeed under an Ops commander, I think the AMMOS grads would have been utilized more in the advisor role, but since that didn't happen, I don't see this trend changing any time soon.

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The applicability and impact of AMMOS training on operations is directly linked to 1) the individual member and how they utilize the training (must be engaged), 2) how group leadership acknowledges and utilizes the AMMOS resource, and 3) the position/organization the graduate is assigned to following training. I was fortunate to be in a wing that was bedding down and integrating an emerging weapon system which enabled the use of many of the skills taught at AMMOS. Many grads find themselves in legacy operations fighting significant organizational and cultural momentum that may or may not agree with either the academic or operational view presented/taught at AMMOS.

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BLUF—put them to work and get results...

I don't think there's a more demanding course for a Mx officer to attend and there's no doubt that any graduate would be of the same opinion if asked. I personally feel stronger as an officer and maintainer for having graduated the course and have been fortunate to have leadership that has charged me with executing as an AMMOS grad. Unfortunately, I'm not sure this is the case at all bases. It hasn't been embraced in the Mx community and, as a result, the positives that an AMMOS grad brings back are lost.

The Ops community has it right. Their grads go back to a tactics shop, develop/teach TTPs, and are pushed/supported by the leadership. In my humble opinion, it's not as much a "school" issue as it is a "community that doesn't know what to do with the grads when they return" issue that has to be overcome. A number of grads return to home station and remain in jobs where they are not able to fully utilize the skill sets they've just been given. If these folks are our best and brightest put them in a position that makes sense and utilize their talents. They can help in any area of logistics and should be expected to "produce" in problem/issue identification and resolution for the wing/groups they're assigned to. Put them to work!

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I feel AMMOS is a viable asset to the USAF. However, until it is looked upon by all leaders, at all levels, as a "weapons school/patch wearing" equivalent, the real value won't be able to be determined effectively. If Group/CC's don't take it seriously and send only their very best, and demand the very best from their grads, once again, you'll never see the true value of the school. You get out, what you put in.

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My experience with AMMOS taught me a lot of stuff about the deployment process and the supply system that would have been a great help on any of the three deployments I had been on prior to attending, however, it did not help me much as an Ops Officer. I think the course needs to be more tactical and the target audience needs to be aligned to that focus....no 2-3 time AMU OICs with a bunch of deployments under their belt already

My opinion on the "instructor" role: Compared to the Weapons School, who build graduates with a very specific tactical skill set, we create a generalist who is not really an expert on anything. A quick primer on how to instruct is nice, but it doesn't make you a credible expert on anything. In my experience, before I could teach anything to the level of competence required of a credible graduate, I had to go find the NCO expert in that arena and take up a lot of their valuable time making sure I had it right. For example, think about how a MX Officer would prepare to teach a lesson on the supply system, or anything loggie related for that matter. The AMMOS curriculum is a great foundation, but it's not enough to make you an expert equivalent to a Weapons school grad. I think many grads fail in that role

because they don't have the will or time once back in the unit to go build on what AMMOS started, and therefore cannot really pull off the "patch-wearer" role.

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In 2003 I attended the 19-week version originally named the "AEF Logistics School", which was a combined 21A and 21R class **and** curriculum.

One of the main values in AMMOS is that it opens the "stovepipe" training model and enables integration horizontally across our enterprise. This has been **especially** useful since 2003 when we "stovepiped" maintenance officers away from the logistics jobs...the value to the USAF in this season and to this generation that we are raising is incalculable. This value would be enhanced **greatly** if the USAF would return to the integrated training model by putting ALROC and AMMOS (and others eventually?) into a multi-track course with some common academics and lots of integration.

Graduate ability to perform in the Advise and Instruct roles is developing...in 2003 it was unheard of for a CGO to perform in such capacities within the MXG/wing...culture change takes time and it is happening...I expect current and future grads to have even greater impact on their organizations as these roles become culturally accepted.

I returned to AMMOS to teach from 2004-2006 and when I left I had some doubts as to the value of what we were doing and whether the school should or would remain. I knew it could be valuable, but I wasn't sure the AF leadership was leading the school and curriculum in the right direction. Last month (Oct 09) as I looked around the room at the AMMOS and ALROC gathering at the LOA Conference I had a **strong impression**: that we have created a national treasure. The knowledge base, character, leadership, relationships, and accountability that the AMMOS community represents is an absolute treasure of operational capability...I'm convinced the AMMOS product will have massive impacts on the future force, future fleet, and future operations.

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AMMOS was one of the most useful courses/experiences that I have had in my Air Force Career. As a 2x squadron commander in both Aircraft Maintenance and Logistics Readiness I have found the skill sets that I learned in AMMOS proved invaluable. For me, AMMOS provided the missing link to logistics and aircraft maintenance performance. The course provided a detailed focus on doctrine and how important the budgeting system and joint logistics system is to overall fleet performance, requirements, capability and health. Especially important when more and more of the Air Force is deployed and more often. Most importantly, AMMOS provided the "missing link" needed for the well rounded logistician. It was an educational process designed to provide the logistics professional an understanding of how their process is critical in ensuring the end product (sortie generation) is delivered. For the maintainer it provided an understanding of the process in place to deliver, parts and capability to the flightline. Moreover, it gives the maintenance officer insight on how to make the process more effectively work to their advantage to ensure combat air power is delivered to the right place at the right time. I believe the course should be 5+ months long, in line with the weapon school criteria and should only be available to the Air Force's proven logistics professionals.

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I've had the opportunity to serve on the AMMOS Cadre and use my skills as an Expeditionary Squadron Commander. During my time on the cadre I had always hoped that the lessons that we were teaching our students were current and meaningful enough to produce tangible results at home and in the deployed environment. As a graduated Expeditionary Squadron Commander, I know without question that AMMOS works. We had several AMMOS graduates rotate into our Group with their units and by far, their units out performed and ran much smoother than the other units without the AMMOS grad. Additionally, in that environment change management and planning for contingencies is often the difference between success and failure. Planning for contingencies and change management are core competencies for AMMOS graduates and all the grads I saw over there were able to execute at a very senior level. Finally, not all AMMOS grads are exceptional...it is like many things in our AF it depends on the level of professionalism and commitment of the person. However, I'm confident that the lessons and information that AMMOS provides mixed with a winning personal attitude can have a tremendous impact on a unit's success.

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I was selected to attend AMMOS from AFSPC while I was assigned to an ICBM maintenance unit. It was my first assignment as a 21M. My first four years I was a transportation officer. I had not been assigned to an aircraft maintenance or conventional munitions unit when I went to AMMOS so I was severely behind the power curve for what was being taught. I suggest that a new Advanced Course be written specifically for the 21MxN and 21MxI career fields. I think that the current curriculum at the ICBM Advanced Course in Colorado Springs is a good place to start but suggest the course length be stretched to provide more breadth and understanding within all of the nuclear weapons in the enduring stockpile and their delivery systems.

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I attended the last AMMOS class in 2005 prior to the revamped course and I understand they made significant changes. However, I feel we wasted too much time, appx one month on strategic concepts. For a class supposedly focused on flightline officers, intended to make me a PhD in Maintenance, I thought we spent way too much time on topics other than maintenance. The maintenance centric exercises were great but far too stressful. Too much emphasis placed on adding stressors as opposed to learning and discussing the material.

I also recommend FGOs or retired maintenance officers as instructors. Too much reading from slides and not teaching the material. I don't think the Captains had the experience or qualifications to teach some of the material.

Unfortunately too many MXG/CCs still don't accept the AMMOS program. I've debated my current MXG/CC several times on the need for this school and for his support but the school length, poor performance by some grads and lack of identity continue to haunt us. Once we get the MXG/CCs on board which will lead to the right use of the grads and recognition for the graduates at the wing level (something to say I graduated from AMMOS) I think the school will take off. A patch or something similar is a must! This is how we identify WPS grads and keep them on a pedestal.

Too many graduates go back to exec jobs or the MAJCOM. This is killing us!

Maintenance officers are deathly afraid of AMMOS. They only hear the horror stories and think it will kill their careers. Also, why go through all that pain? For what? What is the payback?

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This survey (particularly Q13 – Q23 and Q25 & Q26) was focused on “maintenance” officer responsibilities even though munitions officers also attend. I answered the questions as a graduate of the Advanced Maintenance and Munitions Officer School and not just based on my maintenance officer evaluations.

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## ENDNOTES

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<sup>2</sup> Ibid

<sup>3</sup> Webb, “Why a PHD in Maintenance?” Research Report no. AU/AWC/AY2002, 3

<sup>4</sup> Ibid

<sup>5</sup> Hall, “Evolution of the Air Force Expeditionary Logistics School: A Revolutionary Approach to the Employment of Combat Support,” *Aerospace Power Journal*, 1

<sup>6</sup> Jezairian, Joe S LtCol, USAF, ACC USAFWS/DCO [Joe.Jezairian@nellis.af.mil] e-mail, 5 Nov 2009

<sup>7</sup> Stinson, Blair, and Dubovik, “Employment of the Agile Logistician: Future EAF Leaders Propose Creation of a Loggie Weapons School Counterpart to Meet new Challenge,” *Air & Space Power Journal*, 1

<sup>8</sup> Stinson, Blair, and Dubovik, “Agile Loggie School: Team With a Vision Works to Refine the Concept,” 30, 38-39

<sup>9</sup> USAF AMMOS website (assessed 5 Aug 2009)

<sup>10</sup> AFDD 1, 17 Nov 2003, 81

<sup>11</sup> DePorter, Subject: USAF AMMOS Update Briefing, 01 Oct 2009, 6

<sup>12</sup> Powell, Briefing. Subject: USAF AMMOS, provided to MXG Commanders Course, 27 July 2009

<sup>13</sup> Ibid, note 6

<sup>14</sup> Andre, Todd W., previous Deputy of Operations, Advanced Maintenance/Munitions Officer School, 2005-2007 [todd.andre@hill.af.mil] e-mail, 11 Jan 2010

<sup>15</sup> Smith, Subject: AMMOS Way Ahead Briefing, Apr 2009, 5

<sup>16</sup> Ibid, note 15

<sup>17</sup> Ibid, note 15

<sup>18</sup> Ibid, note 11

<sup>19</sup> At time of research, there were approximately 180 graduates since AMMOS inception. Using an AMMOS-provided graduate database, the author e-mailed surveys to graduates who were located using the global access list (GAL). 150 of 180 officers were located/identified using this approach. Due to research time constraints and an extensive survey-approval process, the author chose not to locate the other 30 graduates, some of whom may have separated or retired. Given an adjusted graduate population size of 150 officers, the author felt this number provided an adequate population size for research purposes.

<sup>20</sup> It should be noted that of those who indicated their assessments were objectively made, there was no actual objective methodology or instrument indicated regarding the assessments

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<sup>21</sup> Similar to the MXG/CC responses, there was no actual objective methodology or instrument indicated regarding their objective assessments.

<sup>22</sup> Again, similar to both the MXG/CC and MXG/CD responses, there was no objective methodology or instrument indicated regarding their objective assessments.

<sup>23</sup> Sloger, Jeremy, USAF, Executive Officer to the Director, AEF & Operations Center, [Jeremy.sloger@randolph.af.mil] e-mail, 06 Nov 2009

<sup>24</sup> Long, AFPC Logistics Officer Association Briefing. Subject: Indeterminate (365-day) TDYs, 10 Oct 2009

<sup>25</sup> Author's personal knowledge as AFPC Branch Chief, 2005 - 2007

<sup>26</sup> Long, James E., Lt Col, Branch Chief, Logistics Officers Branch [james.long@randolph.af.mil] e-mail, 10 Nov 2009

<sup>27</sup> Sablatura, Josef E., Maj, Chief, Maintenance Officers Assignments [Josef.sablatura@randolph.af.mil] e-mail, 09 Nov 2009

<sup>28</sup> Mench, Subject: AMMOS Project Briefing, Mar 2009, 11 (notes page), 17

<sup>29</sup> Powell, Matthew J., Lt Col, Commandant, Advanced Maintenance/Munitions Officer School [matthew.powell@nellis.af.mil] e-mail, 20 Sep 2009

<sup>30</sup> Hutchinson, Richard, Financial Analyst, AETC/FMAT [Richard.hutchinson@randolph.af.mil] e-mail, 06 Nov 2009

<sup>31</sup> AMMOS and ALROC curricula

<sup>32</sup> Kerr, Mark, Lt Col, Course Director, Practice of Command (Masters Program) ACSC/DLC, [mark.kerr@maxwell.af.mil] e-mail, 13 Oct 2009

<sup>33</sup> Hall, "Evolution of the Air Force Expeditionary Logistics School: A Revolutionary Approach to the Employment of Combat Support," *Aerospace Power Journal*, 3

<sup>34</sup> While 70% of the MXG/CCs and their deputies combined felt that AMMOS should be retained, 42% indicated the ROI did not justify the AMMOS investment of time and costs. This could be due to the subjective nature of their assessments i.e., more objectively-measurable means does not exist to justify a non-retaining decision. Regarding organizational performance improvements, a majority of CCs and CDs indicated their assessments were subjectively based (or did not indicate either way).

<sup>35</sup> Staples, "Cult of Accountability." *Canadian Business* (assessed 5 September 2009), [123-124]

<sup>36</sup> Interview with Lt Col Dean Ostovich, 13 Nov 2009

<sup>37</sup> Anonymous survey respondents, Nov 2009. Author's note: As noted earlier, the latter would be challenging to ascertain given a multitude of variables i.e., manning, morale, weapon system, supply posture, leadership, etc., that can influence unit performance. Given that most bases experience the aforementioned constants, it would be interesting yet likely challenging to accomplish, if one could isolate at least to some degree the "AMMOS factor."

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<sup>38</sup> Examples include: deployment processing line improvements, fewer pallet discrepancies, improved fix rates, scheduling, etc.

<sup>39</sup> For instance, between the present AMMOS and ALROC staffs there are 10 officers, 11 civilians (both contractor and GS series to include a secretary), and 2 technical administration/computer assistant personnel.<sup>39</sup> The AMMOS/CO assessed that possibly up to 2 or 3 positions could be reduced in addition to combining the CO/Director position.

<sup>40</sup> The premise partially being that some LRO course material could be reduced. The fact that nearly 50% of the AMMOS and ALROC curricula is interchangeable indicates possibilities for course length reduction.

<sup>41</sup> Information provided by Squadron Officer School faculty, Maxwell AFB AL

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