

Improving the 'Well-Rounded' Air Command and Control Officer

Captain M. E. Hall

Major R.C. Leaman, CG 9
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In the individual sense, the officer, like the lawyer, clergyman, or medical doctor, is a specialist, an individual practitioner, employed because of his unique learning, experience, and expertise, to perform a necessary service of value to society.

-The Armed Forces Officer

The Marine Air Control Group (MACG) consists of six units that have a wide variety of missions that require skill sets ranging from communications, radar employment, control of aircraft, and employment of surface to air missiles.¹ An officer begins service within the MACG with one of four occupations and gains specific knowledge and skills within their field during their first three years of service. When the same officer progresses to approximately 10 years of service (regardless of experience, qualification, and achievement) promotion to Major is the sole criteria which an additional Military Occupational Specialty (MOS) of Air Command and Control Officer is awarded. Marine Air Command and Control Officers must receive additional training, education, and development to maximize their capabilities and effectiveness across the MACG.

The Backbone of the MACG

Four Military Occupational Specialties (MOS) compose the backbone of the current Marine Air Command and Control System (MACCS): Air Support Control, Air Traffic Control (ATC), Air

¹Marine Corps Warfighting Publication (MCWP) 3-25.3, *Marine Air Command and Control System Handbook*.

Defense Control, and Low Altitude Air Defense (LAAD). These are the four specialties that officers enter service with the MACG. Officers are trained to specific standards at each of the MOS schools. When they enter the operating forces, they train to a specific training and readiness manual (T&R) for each specialty. Each tier of training is progressive in nature, building upon the previously attained skills to achieve individual qualifications and overall MOS core competence. When employed as the MACCS, each of the specialized units synergize to achieve effective Command and Control (C2) of aviation assets on the battlefield.

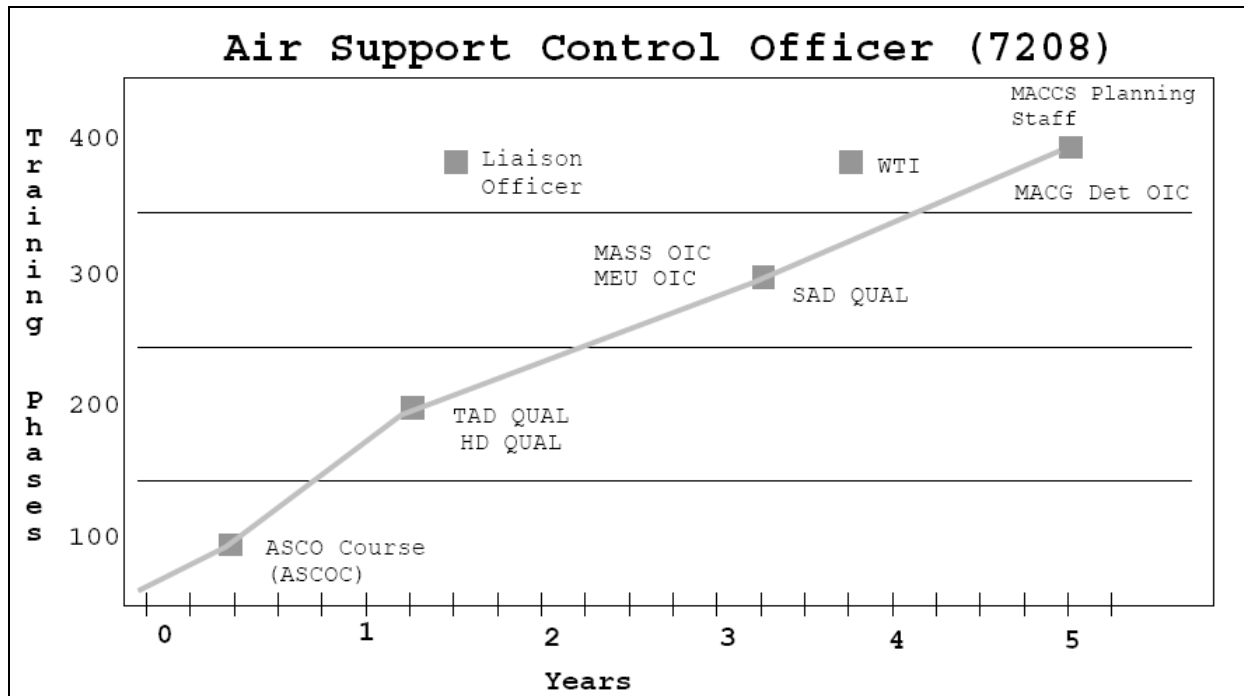
Air Support Control

Air support control officers (MOS 7208) perform their duties as part of the Direct Air Support Center (DASC). The DASC is the principal air control agency responsible for the direction of close air support for ground forces. Air support control officers process immediate air support requests, coordinate aircraft employment with other supporting arms (artillery) and control assigned aircraft in its area of responsibility². They utilize control measures established and

² Marine Corps Order (MCO) P3500.19B. *Aviation Training and Readiness (T&R) Manual, Volume 5 , The Marine Air Command and Control System (MACCS)*. Washington, DC: Headquarters, U.S. Marine Corps, 2004.

universally understood by aviators and the controlling agency to safely direct aircraft within the airspace.

In the air support community, building core competency in the MOS begins with qualifications as a Tactical Air Director



(Figure 1.)³

(TAD) and Helicopter Director (HD) at just over a year (see figure 1). These qualifications certify that a Marine has the requisite skill, knowledge and ability to understand the flow of aircraft supporting the operation, and they have demonstrated the ability to perform their duties according to the Training and Readiness Manual (T&R). Additional qualifications are reflected (see Figure 1) for Senior Air Director (SAD), Weapons

³ NAVMC DIRECTIVE (NAVMC DIR) 3500.97. *Aviation Training and Readiness (T&R) Directive, Direct Air Support Center*. Washington, DC: Headquarters, U.S. Marine Corps, 2006.

and Tactics Instructor (WTI) and additional opportunities to hold positions as an Officer-in-Charge (OIC) for detachments. The T&R manual provides the roadmap for building MOS credibility and specifies the performance criteria in each area of evaluation for the air support MOS and other MOSs within the MACG.

Air Traffic Control

Marines who provide ATC (MOS 7220) provide friendly aircraft with continuous all-weather radar approach, departure, and en route ATC services within assigned controlled airspace.⁴ ATC Marines operate main air facilities, expeditionary airfields, and air points to ensure safety of flight, adequate separation of aircraft, and adherence to flight regulations.

Figure 2 depicts the progression model of an ATC officer's training. Key qualifications along this progression are at the 18 month mark where the officer is expected to be a qualified ATC watch commander and also have the ability to perform as the OIC of a Marine Expeditionary Unit (MEU) detachment. There is a significant difference in the two progression models of the Air Support and ATC Marines because of the nature & regulations of the MOS field and timeline of anticipated qualifications.

⁴ Marine Corps Order (MCO) P3500.55. *Aviation Training and Readiness (T&R) Manual, Air Traffic Control*. Washington, DC: Headquarters, U.S. Marine Corps, 2003.

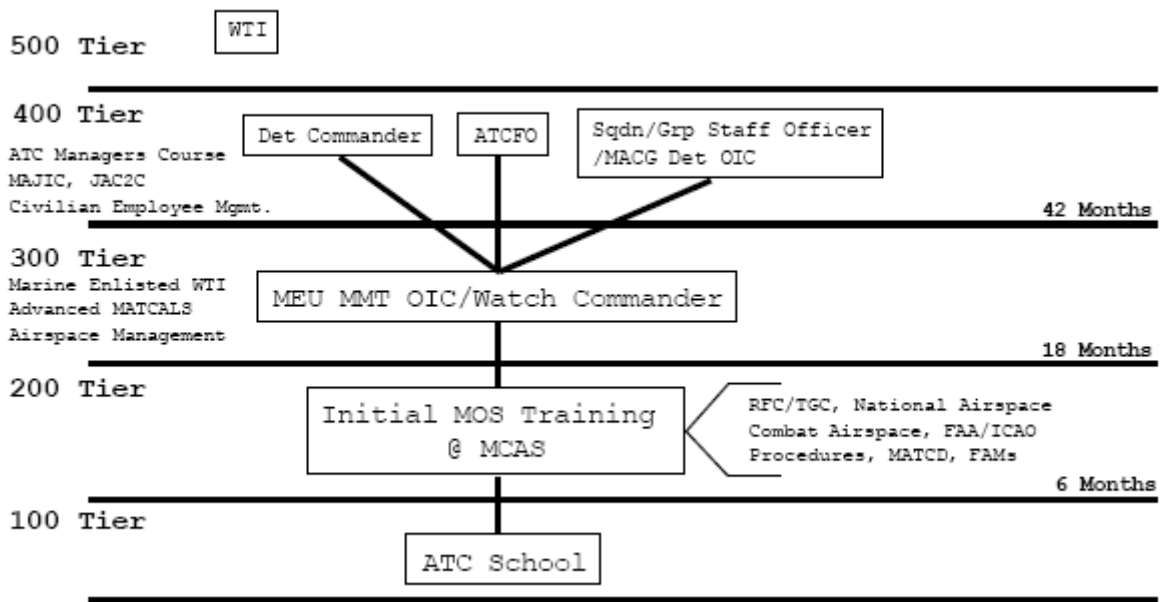


Figure 2.⁵

Additional differences exist between ATC and Air Defense controllers because Air Defense is concerned with the safety of friendly aircraft and also with detection of theater ballistic missiles.

Air Defense Control

Air Defense Control Officers (MOS 7210) are assigned to operate the Tactical Air Operation Center (TAOC) which relies upon radar to execute airspace surveillance and management. The TAOC is able to integrate its sensors (multiple ground radars) with other agencies (Army Patriot missiles, and other airborne

⁵ Marine Corps Order (MCO) P3500.55. *Aviation Training and Readiness (T&R) Manual, Air Traffic Control*. Washington, DC: Headquarters, U.S. Marine Corps, 2003.

C2 aircraft) to provide real-time direction and control of anti-air warfare operations involving aircraft and surface to air weapons.⁶ The noteworthy distinction of this MOS concerns the employment of multiple radar sources (multiple ground based and additional airborne platforms) sharing information via data links to facilitate a common picture that all agencies can view to share / corroborate data detected by the radar systems in different locations.

Additionally, qualifications are extensive in this MOS field and include the crew positions of identification, traffic, weapons and the senior air director. All have stringent T&R requirements in order to meet those qualifications and obtain MOS credibility. While the three aforementioned specialties focus on aircraft control and radar employment, one MOS focuses more on a provisional infantry role in the current operating environment.

Low Altitude Air Defense

The Low Altitude Air Defense (LAAD) Officers (MOS 7204) mission focus is providing close-in, low altitude, surface-to-air weapons fires in defense of forward combat elements, vital

⁶ U.S. Marine Corps Warfighting Publication (MCWP) 3-25.3. *Marine Air Command and Control System Handbook*. Washington, DC: Department of the Navy, December 1997.

areas, and installations⁷. In the current operational environment, LAAD units are employed as an infantry force supporting installations with air base ground defense. LAAD Battalions are restricted to male Marines because their mission is closely related to an infantry unit.

The contrast in employment of the LAAD unit to the DASC, ATC, and TAOC also manifests itself in T&R requirements to achieve the MOS core competencies as a LAAD officer.

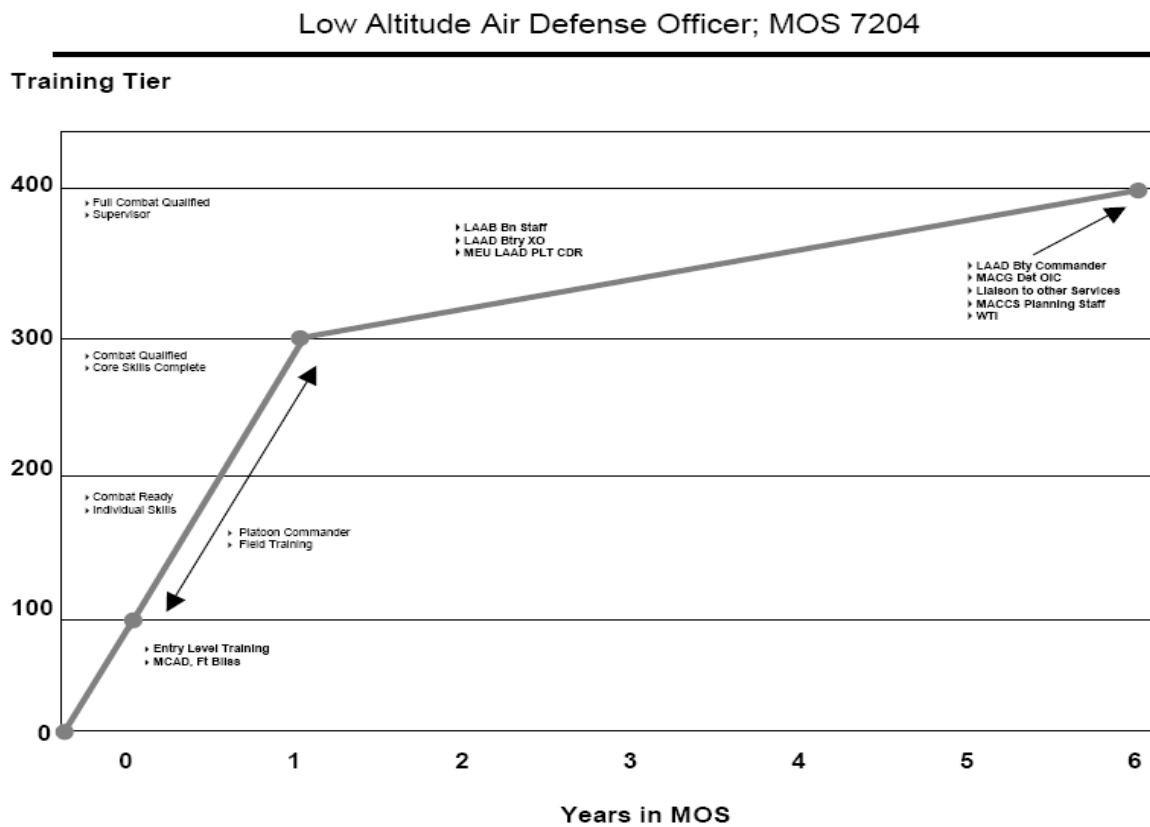


Figure 3.⁸

⁷ Marine Corps Order (MCO) P3500.57. *Aviation Training and Readiness (T&R) Manual, Low Altitude Air Defense*. Washington, DC: Headquarters, U.S. Marine Corps, 2002.

⁸ Marine Corps Order (MCO) P3500.57. *Aviation Training and Readiness (T&R) Manual, Low Altitude Air Defense*. Washington, DC: Headquarters, U.S. Marine Corps, 2002.

Figure 3 represents the progression of the LAAD officer who quickly reaches the 300 level tier of training inside of 18 months, well ahead of the air support and ATC progression model. Additional comparison reveals that the LAAD Officer is slated to attend the WTI course at approximately six years within the MOS. The difference in attendance of the advanced WTI course potentially puts the LAAD Officer two years behind air support officers who attended WTI at 4 years in the MOS (Figure 1).

Officers in the Air Support, ATC, Air Defense, and LAAD specialties build a diverse and vast amount of experience during their first tour, this experience does not guarantee a common understanding of how to facilitate the MACCS overall. The synergy of the units employed together is what provides the required C2 capability over the aviation assets on the battlefield. During the first operational tour, the officers in the four MOSs (air support, ATC, air defense, LAAD) that comprise the backbone of the MACCS gain an appreciation for one another. But specific training in the intricacies and details of the other units becomes a burden to deployment and exercise tempo. The officers are most concerned with establishing credibility in their own MOS before learning more about the MACCS and other agencies.

Lack of MOS credibility and Institutional Mediocrity:

Establishing credibility as an Air Command and Control Officer is contentious because of the diversity of experience of the individual, the various MOS sources, and the lack of a common understanding of the MACCS. The designation of an additional MOS based on promotion alone, regardless of an individual's qualifications, achievement, or performance leaves a potential void and ambiguity about the abilities of the Majors returning to the operating forces as Air Command and Control Officers.

First, the lack of credibility directly and negatively impacts the perception of an appointed leader's abilities to perform in their area of specialty and primary staff role. Essentially, an air support officer would be a lame duck in the staff role as an operations officer of a LAAD unit which he has no operational experience or qualification. The Officer may be able to organize, direct and supervise the actions of the unit. However, he will not be able to advise the commanding officer based on past operational experience or supervise to a detailed level because of his limited knowledge and experience.

Second, a Major who does not have MOS credibility cannot effectively critique, mentor, and counsel the junior officers in MOS related performance, therefore perpetuating

"institutionalized mediocrity"⁹ and limiting the professional growth of the junior officers in the command. Majors are often assigned as the OICs of detachments and are responsible for: the planning, logistics, coordination, training and mission accomplishment of the unit. A LAAD officer who is the OIC for an air support detachment will be able to provide sound counseling for leadership issues. They will be unable to provide specific feedback to air support crews on the conduct of crew briefs, coordination and specific critiques for the senior air director and the aircraft directors on the crew. This professional limitation due to lack of knowledge and experience of the Major's part directly limits the growth of the junior officers under his supervision. The second and third order effects could be seen in the fitness reports which the senior officer writes on the junior officer. The same lack of knowledge and experience of the senior may translate to lower marks and can negatively impact the junior officer's promotion eligibility.

Establishing MOS Integrity

An example of the most well prepared Marines to assume the role of 7202's would be Marines from the ATC, LAAD, Air Support and Air Defense communities who are designated as Weapons and

⁹ Arms, p 11.

Tactics Instructors (WTIs). The Command Control and Communications (C3) division focuses training the 72XX Marines on employment of the MACCS from planning through execution. This training opportunity is one of the rare occasions where the full spectrum of MACCS agencies are employed simultaneously. The WTI course produces experts in their respective 72XX fields to return to their units and facilitate the training of junior officers and enlisted Marines. Additionally, the WTI course is an excellent foundation for 7202 knowledge of employing the MACCS in its entirety.

With limited availability of WTI classes (2 per year) there is a constraint where attendance of the full WTI program while ideal is not feasible for all air command and control officers. A feasible alternative to completion of the WTI course is to establish a PME requirement for the 7202 MOS to facilitate establishing credibility in the specialty. Coupling a T&R syllabus with a required PME program is a realistic, feasible application and possible avenue to provide the additional training and knowledge to Marines about to fill 7202 jobs. By taking one more step and making the PME completion a requirement for promotion to LtCol would provide the sense of urgency and stress the importance of completion of WTI or the required PME and T&R syllabus.

Counter-Arguments:

The attempt to fill the void of no formal school for 7202's is compensated by ad-hoc training at the unit level and optional courses ranging from a few days to a few weeks long. Additional Marine and Joint Courses are "available" to officers to refresh their skills yet none are a mandatory requirement to obtain the new designation. The Air Command and Control Officer's Course (ACCOC) is a one-week refresher course for those officers who have been assigned extended duties outside the MACG yet it is not a mandatory requirement.¹⁰ By not providing standardized training via a mandated MOS school or PME requirement, MOS credibility is compromised and leadership growth opportunities are lost.

As a field grade officer, the 7202 will become a primary staff officer, typically the operations officer. He or she will be focused on overall employment of the unit, management of the Training and Exercise Employment Plan (TEEP), and not on the specialized skills that concern the officer's MOS in that unit. The Air Command and Control officer functioning as an operations officer needs to know how to employ the unit in accordance with its capabilities and limitations.¹¹ Marines may perform well upon assuming the role as the operations officer who remain

¹⁰ Cepeda

¹¹ Ibid

within their original MOS¹² or those that are certified WTI's. He is the Marine who is not qualified in their initial MOS, who is not a WTI, chooses not to attend the 1 week course (as a refresher) who will struggle in this situation and this is the rule not the exception. To improve the 72XX career progression model, a path similar to the intelligence occupational field progression should be followed.

MOS Parallel Universe

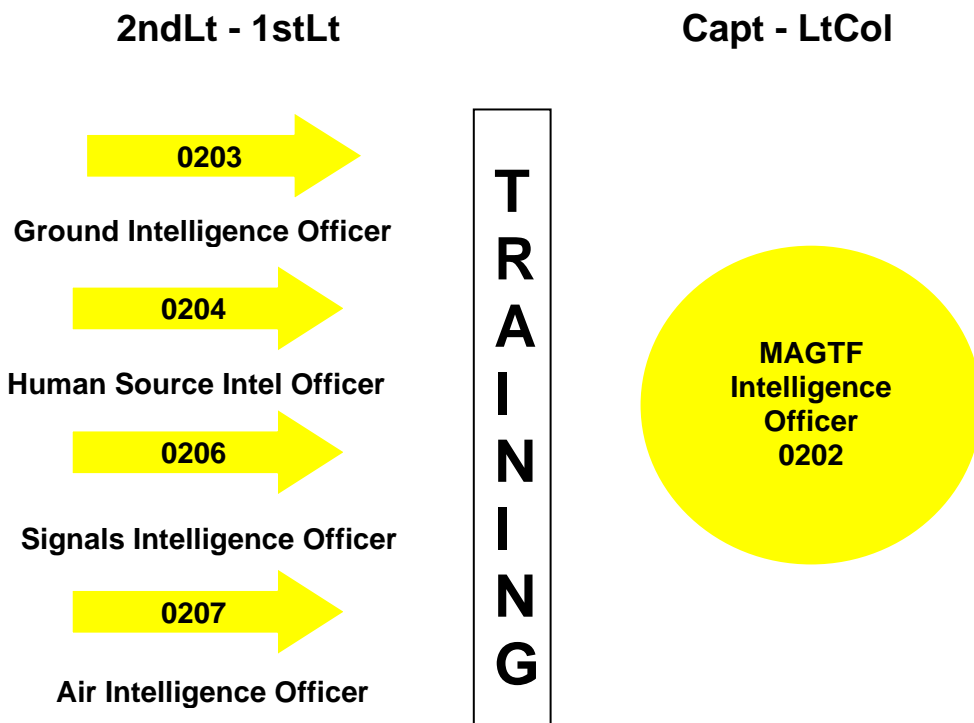


Figure 4¹³

Marine Officers in the intelligence field are assigned to one of four specialties: 0203 Ground, 0204 Human, 0206 Signals,

¹² Ibid

¹³ Cepeda

and 0207 Air Intelligence upon initial entry into the community. The intelligence pipeline mainstreams these four MOSs into a Marine Air-Ground Task Force (MAGTF) Intelligence Officer Course (MIOC) which is a formal MOS school and PME requirement for senior captains prior to their designation as a 0202: MAGTF Intel Officer¹⁴. In this fashion, designation of a new MOS is based on skills versus strictly on promotion alone. This model of specialization to generalization is in concert with the Marine Corps leadership progression theory and has established credibility within the intelligence community and overall in the Marine Corps.

In a similar fashion, (Figure 5) the four specialties that comprise the backbone of the MACCS (air support 7208, ATC 7220, air defense 7210 and LAAD 7204) begin with specialized schools and initiate entry into the MACG. What the MACCS community is missing is the formal school and PME "bridge" or requirement at the Captain level to standardize the knowledge base of the Marines as they are promoted in rank to Major. By adding the PME requirement, designation as a 7202 Air Command and Control Officer will become based upon ability, not only on promotion.

¹⁴ Marine Corps Order (MCO) P3500.32. *Intelligence Training and Readiness (T&R) Manual*. Washington, DC:Headquarters, U.S. Marine Corps, 2004.

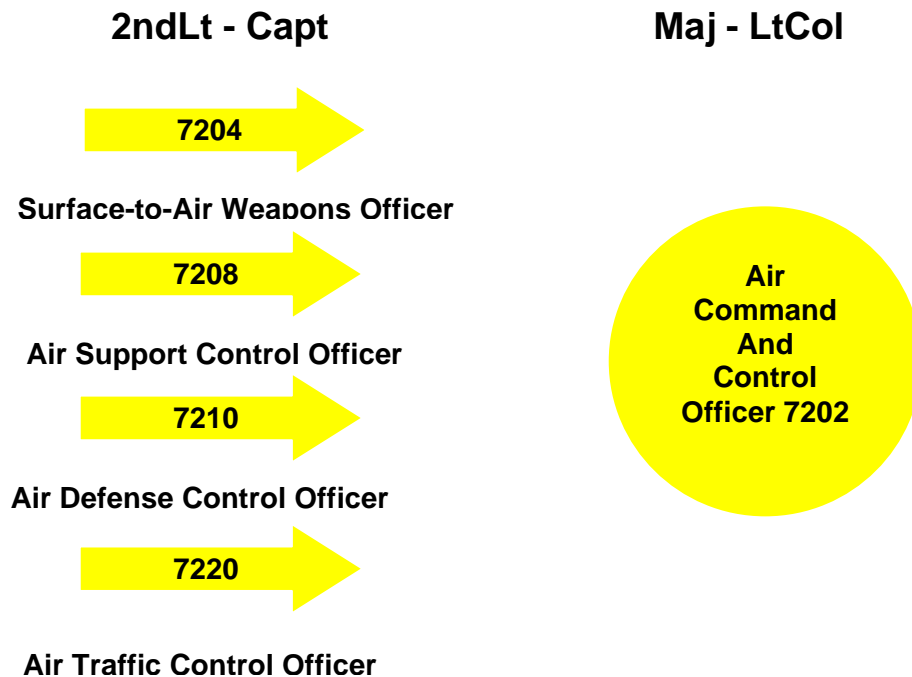


Figure 5.¹⁵

Conclusion:

To make the MACCS more effective, adapting a model similar to the intelligence field is necessary to establishing credibility for the 7202 MOS by formalizing the training and career progression of 72XX Officers. It is essential to formally establish a foundation of training, knowledge and education to enable all Officers of the 72XX community to become more effective. While successful completion of WTI for all Air Command and Control Officers may not be feasible, enacting a required PME coupled with a T&R syllabus is a practical

¹⁵ Draft, *The Marine Air Command and Control System and Expeditionary Maneuver Warfare, Part Three: People, Organization, and Training* (Washington, DC: Headquarters, U.S. Marine Corps, Aviation Department). 7.

solution. Performance as an Air Command and Control Officer will be enhanced by investing in the professional growth of the personnel and their MOS will be based upon the merit of their skills, training and experience not merely promotion.

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Bibliography:

- Arms, Linda C., Major, USMC. *Marine Officership: Preserving the Tradition Through Change*. Quantico, VA: Marine Corps Command and Staff College, 1991.
- Cepeda, Salvador E., Major, USMC. *Developing the Air Command and Control Generalist*. Quantico, VA: Marine Corps Command and Staff College, 2002.
- Estes, Kenneth. *The Marine Officer's Guide, Sixth Edition*, Naval Institute Press, Annapolis, Md., 1996.
- Fagan, Fred, Colonel. "A Meld of Leadership and Management." *Marine Corps Gazette*, Jul 85, pp. 34-37.
- Fennell, Daniel E., Major, USMC. *Information Primacy: Critical Considerations For Emerging Command, Control and Communications (C3) Systems*. Quantico, VA: Marine Corps Command and Staff College, 2003.
- Hammes, Thomas X., Major. "Amateurs By Profession." *Marine Corps Gazette*, Jun 86, pp. 42-44.
- Kirchner, P.S., Captain, USMC. *Air Defense Control Leadership and Credibility*. Quantico, VA: Amphibious Warfare School. 2002.
- Marine Corps Order (MCO) 1200.17. *Military Occupational Specialties (MOS) Marine Corps Manual*. Washington, DC: Headquarters, U.S. Marine Corps, 2008.
- Marine Corps Order (MCO) P1553.4. *Professional Military Education*. Washington, DC: Headquarters, U.S. Marine Corps, 2000.
- Marine Corps Order (MCO) P3500.19B. *Aviation Training and Readiness (T&R) Manual, Volume 5 , The Marine Air Command and Control System (MACCS)*. Washington, DC: Headquarters, U.S. Marine Corps, 2004.
- Marine Corps Order (MCO) P3500.32. *Intelligence Training and Readiness (T&R) Manual*. Washington, DC: Headquarters, U.S. Marine Corps, 2004.
- Marine Corps Order (MCO) P3500.55. *Aviation Training*

- and Readiness (T&R) Manual, Air Traffic Control.*
Washington, DC: Headquarters, U.S. Marine Corps,
2003.
- Marine Corps Order (MCO) P3500.57. *Aviation Training
and Readiness (T&R) Manual, Low Altitude Air Defense.*
Washington, DC: Headquarters, U.S. Marine Corps,
2002.
- Marine Corps Order (MCO) P3500.81. *Aviation Training
and Readiness (T&R) Manual, Tactical Air Command
Center.* Washington, DC: Headquarters, U.S. Marine
Corps, 2005.
- NAVMC DIRECTIVE (NAVMC DIR) 3500.97. *Aviation Training and
Readiness (T&R) Directive, Direct Air Support Center.*
Washington, DC: Headquarters, U.S. Marine Corps, 2006.
- Ripley, John W., Colonel. "Leadership vs. Management."
Marine Corps Gazette, Sep 84, pp. 30-31.
- Tobin, Mark D., Major USMC. *A Case Study of Transforming
the Marine Air Control Group.* Maxwell Air Force\
Base, AL, 2006.
- U.S Marine Corps Doctrinal Publication (MCDP) 6: *Command
and Control.* Washington, DC: Department of the Navy,
1996.
- U.S. Marine Corps Warfighting Publication (MCWP) 3-25.3.
Marine Air Command and Control System Handbook.
Washington, DC: Department of the Navy, December
1997.
- Wilkerson, John R., Major, USMC. *Restructuring the
Marine Air Control Group for the 21st Century.*
Quantico, VA: Marine Corps Command and Staff
College, 1996.