



2011-12

Analysis of promotion rates to lieutenant colonel and
selection for command for USMC Aviation Supply
and Maintenance Officers

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THESIS

**ANALYSIS OF PROMOTION RATES TO
LIEUTENANT COLONEL AND SELECTION FOR
COMMAND FOR USMC AVIATION SUPPLY AND
MAINTENANCE OFFICERS**

by

Michael D. Gonzalez

December 2011

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REPORT DOCUMENTATION PAGE			<i>Form Approved OMB No. 0704-0188</i>
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.			
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE December 2011	3. REPORT TYPE AND DATES COVERED Master's Thesis	
4. TITLE AND SUBTITLE Analysis of Promotion Rates to Lieutenant Colonel and Selection for Command for USMC Aviation Supply and Maintenance Officers		5. FUNDING NUMBERS	
6. AUTHOR(S) Michael D. Gonzalez		8. PERFORMING ORGANIZATION REPORT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000		10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A		11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government. IRB Protocol number NPS.2011.0106-IR-EP5-A.	
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited		12b. DISTRIBUTION CODE A	
13. ABSTRACT (maximum 200 words) The purpose of this thesis was to identify those statistically significant variables associated with promotion to lieutenant colonel and selection for command of a Marine Aviation Logistics Squadron (MALS) or Center for Naval Aviation Technical Training Marine Unit for Aviation Maintenance Officers (AMOs) and Aviation Supply Officers (AVNSUPOs). A data set was constructed for the 102 in-zone AMOs and AVNSUPOs competing for promotion, consisting of demographic and Fitness Report (FITREP) data for each officer covering Fiscal Years 2004-2012. Utilizing logistic regression, the findings concluded that serving as a MALS Executive Officer (XO), receiving a Meritorious Service Medal, and scoring above the Reviewing Officers' (RO) average scores improve one's probability for selection. Serving in combat was not a significant factor for promotion. Because information on command selection was not available from Marine Corps Officer Assignments Plans and Programs, it was not possible to model for command selection. Instead, the following descriptive statistics provide insight on the type of officer selected to command. Forty percent have served as Operations Officers. Forty-three percent served as XOs. Fifty-one percent of the officers scored above their ROs' average markings. Only 37% have at least one combat FITREP as a major.			
14. SUBJECT TERMS USMC, officer, promotions, lieutenant colonel, MOS 6602, MOS 6002, AVNSUPO, AMO, Command Screening Program, logistic regression		15. NUMBER OF PAGES 149	
		16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UU

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SELECTION FOR COMMAND FOR USMC AVIATION SUPPLY AND
MAINTENANCE OFFICERS**

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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN OPERATIONS RESEARCH

from the

**NAVAL POSTGRADUATE SCHOOL
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ABSTRACT

The purpose of this thesis is to identify those statistically significant variables associated with promotion to lieutenant colonel and selection for command of a Marine Aviation Logistics Squadron (MALS) or Center for Naval Aviation Technical Training Marine Unit for Aviation Maintenance Officers (AMOs) and Aviation Supply Officers (AVNSUPOs).

A data set is constructed for the 102 in-zone AMOs and AVNSUPOs competing for promotion, consisting of demographic and Fitness Report (FITREP) data for each officer covering Fiscal Years 2004-2012.

Utilizing logistic regression, the findings conclude that serving as a MALS Executive Officer (XO), receiving a Meritorious Service Medal, and scoring above the Reviewing Officers' (RO) average scores improve one's probability for selection. Serving in combat is not a significant factor for promotion.

Because information on command selection is not available from Marine Corps Officer Assignments Plans and Programs Section, it is not possible to model for command selection. Instead, the following descriptive statistics provide insight on the type of officer selected to command. Forty percent served as Operations Officers. Forty-three percent served as XOs. Fifty-one percent of the officers scored above their ROs' average markings. Only 37% have completed at least one combat FITREP as a major.

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LIST OF ACRONYMS AND ABBREVIATIONS

AASO	Assistant Aviation Supply Officer
AAMO	Assistant Aircraft Maintenance Officer
ACE	Aviation Combat Element
ADP	Advance Degree Program
AFB	Air Force Base
AFPAK	Afghanistan Pakistan
AIS	Aviation Information System
AMO	Aviation Maintenance Officer
APML	Assistant Program Manager for Logistics
ASD	Aviation Supply Department
ASL	Aviation Logistics Support
ASO	Aviation Supply Officer (billet)
AVNSUPO	Aviation Supply Officer
CCLEB	Commandant's Career Level Education Board
CFT	Combat Fitness Test
CLS	Career Level School
CMC	Commandant of the Marine Corps
CNA	Center for Naval Analysis
CNAF	Commander Naval Air Forces
CNATT	Center for Naval Aviation Technical Training
CO	Commanding Officer
CPIB	Commandant's Professional Intermediate Level Education Board
CSC	Command and Staff College
CSP	Command Screening Program
DCA	Deputy Commandant for Aviation
EAMTU	Enlisted Aviation Maintenance Trainee Management Unit
EPROG	Enlisted Programs
FITREP	Fitness Report

FMF	Fleet Marine Force
FRC	Fleet Readiness Center
FW	Fixed Wing
FY	Fiscal Year
GCE	Ground Combat Element
GWOT	Global War on Terrorism
H&HS	Headquarters and Headquarters Squadron
HMLA	Marine Light Attack Helicopter Squadron
HMH	Marine Heavy Helicopter Squadron
HQ	Headquarters
HQMC	Headquarters Marine Corps
IA	Individual Augmentee
IAOP	International Affairs Officer Program
ILS	Intermediate Level School
IMRL	Individual Material Readiness List
IWST	Integrated Weapon Support Team
JAG	Judge Advocate General
LCE	Logistics Combat Element
LHD	Amphibious Assault Ship
LNO	Liaison Officer
MACG	Marine Aircraft Control Group
MACS	Marine Air Control Squadrons
MAG	Marine Aircraft Group
MAGTF	Marine Air Ground Task Force
MALS	Marine Aviation Logistics Squadron
MARADMIN	Marine Administrative Message
MARUNIT	Marine Unit
MATSG	Marine Aviation Training Support Group
MATSS	Marine Aviation Training Support Squadron
MAW	Marine Aircraft Wing

MAWTS	Marine Aviation Weapons and Tactics Squadron
MBS	Master Brief Sheet
MCAS	Marine Corps Air Station
MCC	Monitored Command Code
MCCDC	Marine Corps Combat Development Center
MCCOAC	Marine Corps Commissioned Officer Accession Career
MCO	Marine Corps Order
MCMAP	Marine Corps Martial Arts Program
MMCO	Maintenance Material Control Officer
MMOA	Marine Corps Officer Assignments
MMOA-2	Marine Corps Officer Assignments Aviation Monitor
MMOA-3	Marine Corps Officer Assignments Plans and Program Section
MMOA-5	Marine Corps Officer Assignments Officer Counseling Section
MMPR	Manpower Management Promotion Branch
MMPR-1	Manpower Management Promotion Branch Officer Promotions Branch
MMSB	Manpower Management Support Branch
MOS	Military Occupational Specialty
MRO	Marine Reported On
MWSG	Marine Wing Support Group
MWSS	Marine Wing Support Squadrons
NAESU	Naval Aviation Engineering Services Unit
NAS	Naval Air Station
NAVSUP	Naval Supply Systems Command
NPS	Naval Postgraduate School
NROTC	Naval Reserve Officers Training Corps
OCC	Officer Candidate Course
OEF	Operation Enduring Freedom
OIC	Officer-In-Charge
OIF	Operation Iraqi Freedom

OMPF	Official Military Performance File
OPSO	Operations Officer
PES	Performance Evaluation System
PFT	Physical Fitness Test
PII	Personally Identifiable Information
PLC	Platoon Leaders Course
PME	Professional Military Education
RO	Reviewing Officer
RS	Reporting Senior
RV	Relative Value
RW	Rotary Wing
S-3A	Assistant Operations Officers
SECNAV	Secretary of the Navy
SEP	Special Education Program
SQDN	Squadron
RMSE	Root Mean Square Error
TBS	The Basic School
TFDW	Total Force Data Warehouse
TIG	Time In Grade
T/O	Table of Organization
USC	United States Code
USMC	United States Marine Corps
USNA	United States Naval Academy
VMFAT	Marine Fighter Attack Training
VMM	Marine Medium Tilt-Rotor Squadron
WSS	Weapons System Support
XO	Executive Officer

EXECUTIVE SUMMARY

The perception exists in the aviation logistics community that an Aviation Maintenance Officer (AMO), Military Occupational Specialty (MOS) 6002, and Aviation Supply Officer (AVNSUPO), MOS 6602, must serve as either an operations officer (OPSO) or executive officer (XO) in a Marine Aviation Logistics Squadron (MALS) and complete a combat deployment in order to improve their chances for selection to lieutenant colonel. Also, various beliefs exist about which factors determine which AMOs and AVNSUPOs are selected for command of a MALS or Center for Naval Aviation Technical Training (CNATT) Marine Unit (MARUNIT).

Before answering these questions, this thesis first provides detailed information on the structure of a MALS and CNATT MARUNIT along with the career progression of an AMO and AVNSUPO, from training at The Basic School as a second lieutenant through the completion of a department head tour in the MALS as a senior major or newly promoted lieutenant colonel. Detailed information is provided on the various billets that an AMO and AVNSUPO may serve in a MALS as well as non-Fleet Marine Force billets in the aviation logistics community.

Also, this thesis provides an overview of the Marine Corps Performance Evaluation System, specifically the purpose of the Fitness Report (FITREP), its structure, and the creation of a FITREP average, along with the Reporting Senior (RS) Relative Value and Reviewing Officer's (RO) profile. With an understanding of the FITREP and creation of RS and RO profiles, this thesis discusses the promotion process and the role of FITREPS in this process.

Following this and using demographic, training, educational, personal awards, and FITREP data for each in-zone AMO and AVNSUPO, models are fit to determine which factors are associated with selection to lieutenant colonel and for command. The data set contains only information for AMOs and AVNSUPOs competing for lieutenant colonel and command from Fiscal Year (FY) 2004 through FY-12. Manpower Management Support Branch (MMSB) provided all FITREP data for this thesis while all other data were sourced from the Marine Corps' Total Force Data Warehouse (TFDW).

Critical to the construction of each record was the capturing of data for each officer from MMSB and TFDW before the respective promotion board convened. This ensures the analysis of data utilized for this thesis mirrors as closely as possible the same data utilized by the promotion boards. Finally, the data set consists of 102 observations, of which 55 are AMOs and 47 are AVNSUPOs.

Utilizing logistic regression as the primary statistical tool to conduct the analysis, the models reveal that for in-zone officers serving as an XO, having a Meritorious Service Medal, and scoring above their ROs' average markings improve an AMO's and AVNSUPO's chances for promotion to lieutenant colonel. Not completing Intermediate Level School Professional Military Education and scoring below a first class Physical Fitness Test reduces an in-zone officer's chances for promotion to lieutenant colonel.

In terms of identifying significant factors associated with selection for command, modeling was not possible because of the Marine Corps Officer Assignments Plans and Programs Section's reluctance to release the names of the AMOs and AVNSUPOs and the respective fiscal years they submitted their name for consideration for command. Instead, the following descriptive statistics provide insight on the type of AMO and AVNSUPO selected for command.

- Fifty-three percent are AVNSUPOs and 47% are AMOs.
- Forty percent served as OPSOs and 43% served as XOs.
- For FITREP RV, 33% fell out in the top tier, 93.34%-100%, while 58% fell out in the middle tier, 88.67%-93.3%.
- For FITREP RO, 51% of the officers scored above their ROs' average markings.
- For awards, 50% have a Meritorious Service Medal, while 75% and 39% have two or more Navy and Marine Corps Commendation and Achievement Medals, respectively.
- Only 37% of the officers selected to command have at least one combat fitness report as a major.

ACKNOWLEDGMENTS

My Marine Corps mentor once told me “Surround yourself with good people and you’re guaranteed to succeed.” This statement could not be more true than in my endeavors to complete this thesis.

I would like to thank several people here at the Naval Postgraduate School (NPS) for their efforts. First, to my primary thesis advisor, Major Chad Seagren, your guidance and patience made writing this thesis a positive and enlightening experience. To my second reader, Professor Fricker, thank you for your statistical expertise and attention to detail. Rikki Panis, thank you for your help in navigating the maze called the Institutional Review Board process. Paul Roeder, your JMP[®] tutorials paid huge dividends. Janice Rivera and Richard Mastowski, thank you for your methodical editing. To Captains Rix and Enoka and Major Groves, thank you for your tutelage throughout the operations research curriculum.

Major Jake Reynolds, your thesis on officer promotion rates provided an excellent roadmap to follow; providing me with your dataset saved countless man-hours of programming and data manipulation.

Next, I would like to thank several people in Northern Virginia and in the Fleet who each made significant contributions. Josh Gumina at the Total Force Data Warehouse (TFDW) Help Desk, thank you for your assistance in providing the required TFDW snapshots. This thesis would have never gotten off the ground without your help. Major Featherstone, thank you for allowing access to the Manpower and Reserve Affairs manpower collaboration website, thus allowing for the easy transfer and storage of sensitive files between Quantico and NPS. Doreen Marucci, thank you for your assistance in rapidly providing additional required fitness report data. Major Aldridge, thank you for enlightening me on the intricacies of the command screening program. Lieutenant Colonel Sebeck, thank you for providing insightful information on the command selection rates for aviation supply and maintenance officers. To my fellow aviation supply officers, Lieutenant Colonels Bolduc, Sherwood, and Yasaki, thank you for answering my numerous emails and data calls despite your busy work schedules.

Lastly, I would like to thank my wife, Lidia, for all your support and patience while completing this degree. Because of all your hard work at home, I was able to focus all my efforts on school. Thank you to my tumultuous toddler, Sophia, who missed many a weekend and play dates due to my study sessions at Chamberlain and Dudley Knox Libraries. I look forward to making it up to you. Luke, your arrival into this world two days before my Linear Programming and Stochastic finals made those classes and my last year here at NPS all the more memorable. Coming home to each of you every day meant the world to me. I could not have completed this program without your endless love and support.

I. INTRODUCTION

The perception exists in the aviation logistics community that an Aviation Maintenance Officer (AMO), Military Occupational Specialty (MOS) 6002, and Aviation Supply Officer (AVNSUPO), MOS 6602, must serve as either an operations officer (OPSO) or executive officer (XO) in a Marine Aviation Logistics Squadron (MALS) and complete a combat deployment in order to improve their chances for selection to lieutenant colonel. Also, various beliefs exist about which factors determine which AMOs and AVNSUPOs are selected for command of a MALS or Center for Naval Aviation Technical Training (CNATT) Marine Unit (MARUNIT).

A. BACKGROUND

For the Fiscal Year (FY) 2012 United States Marine Corps (USMC) lieutenant colonel promotion board, 450 regular, active-duty, in-zone Marine Corps officers from 18 MOSs were screened for promotion. Of those, 308 were selected, for a 68.4% selection rate.

For AMOs and AVNSUPOs, the selection rates were 70% and 0%, respectively. Table 1 lists the selection rate to lieutenant colonel for MOSs 6002 and 6602, as well as the overall selection rate for all MOSs from FY-04 through FY-12.

Table 1. Lieutenant Colonel Selection Rate from FY-04 through FY-12 for MOSs 6002 and 6602

FY	MOS	Eligible	Selected	Percent Selected	In-Zone Selection Rate for All MOSs
12 ¹	6002	10	7	70.0%	68.4%
	6602	3	0	0.0%	
11 ²	6002	4	2	50.0%	65.6%
	6602	5	4	80.0%	
10 ³	6002	8	6	75.0%	71.8%
	6602	8	3	37.5%	
09 ⁴	6002	5	3	60.0%	70.6%
	6602	4	4	100%	
08 ⁵	6002	8	2	25.0%	65.0%
	6602	5	4	80.0%	
07 ⁶	6002	6	4	66.7%	62.4%
	6602	8	6	75.0%	
06 ⁷	6002	6	5	83.3%	67.2%
	6602	8	6	75.0%	
05 ⁸	6002	5	3	60.0%	61.8%
	6602	5	2	40.0%	
04 ⁹	6002	7	4	57.1%	64.7%
	6602	7	4	57.1%	
¹ Headquarters Marine Corps (HQMC), 2010a					
² HQMC, 2009					
³ HQMC, 2008a					
⁴ HQMC, 2007a					
⁵ HQMC, 2006a					
⁶ HQMC, 2005					
⁷ HQMC, 2004a					
⁸ HQMC, 2003					
⁹ HQMC, 2002					

The percentage of officers selected for lieutenant colonel in MOSs 6002 and 6602 falls below the in-zone selection rate for both MOSs in FY-04 and FY-05. For subsequent years, with the exception of FY-06 and FY-07 when both MOSs exceeded the in-zone selection rate for all MOSs, the pattern appears that only one MOS exceeds the overall selection rate while the other falls below.

If selected for lieutenant colonel, an AMO and AVNSUPO have the opportunity to compete for command of a MALS or CNATT MARUNIT. Table 2 shows the AMO and AVNSUPO selection rate for Commanding Officer (CO) from FY-10 to FY-12,

compared to the cumulative selection rate for all MOSs. Headquarters (HQ) Marine Corps Officer Assignments Officer Counseling Section (MMOA-5) only began tracking this data per MOS in FY-11.

Table 2. Selection Rate for MALS and CNATT MARUNIT CO Compared to Cumulative Selection Rate for All MOSs from FY-11 to FY-12 (After Lieutenant Colonel D. J. Sebuck, personal communication, September 27, 2011)

FY	MOS	Total Eligible	Selected	Percent Selected	Cumulative Selection Rate for All MOSs
12	6002	11	2	54.5%	18.8%
	6602		4		
11	6002	12	4	50.0%	18.1%
	6602		2		

B. PURPOSE

The purpose of this thesis is to identify those statistically significant variables that contribute to an AVNSUPO's and AMO's selection for lieutenant colonel and MALS or CNATT MARUNIT CO.

C. RESEARCH QUESTIONS

1. Primary Research Question

For both MOSs, identify whether there are any statistically significant variables that are associated with promotion to lieutenant colonel, including whether holding one or more HQ billets hinders or improves an officer's chance for promotion to lieutenant colonel.

2. Secondary Research Question

Of the 11 active duty MALSs, only four have participated in Operations Iraqi Freedom (OIF) and/or Enduring Freedom (OEF). Some, but not all, MOS 6002 and 6602 officers have had the opportunity to deploy to OEF or OIF as Individual Augmentees

(IAs). For both MOSs, determine if there is any quantitative evidence that having served in OIF or OEF as a major improves an officer's chances for promotion to lieutenant colonel.

3. Tertiary Research Question

For both MOSs, identify whether there are any statistically significant variables that are associated with selection for command of a MALS or CNATT MARUNIT.

D. SCOPE AND LIMITATIONS

The scope of this thesis consists of a discussion of the MALS mission within a Marine Air Ground Task Force (MAGTF) and CNATT MARUNIT in the supporting establishment; discussion of the USMC command selection and promotion process; discussion on past studies analyzing officer promotions; description of the data analysis model; analysis of the dataset created from the merging of demographic data found in the Total Force Data Warehouse (TFDW), and performance evaluations for all AMOs and AVNSUPOs with the rank of major competing for promotion to lieutenant colonel from FY-04 to FY-12; and summarization of the results.

The primary methodology for this thesis is the use of statistical data analysis techniques on the dataset previously described to answer the identified research questions.

For limitations in regard to the USMC command selection process, HQ Marine Corps Officer Assignments Plans and Program Section (MMOA-3) has declined all requests to provide a by-name list of AVNSUPOs and AMOs for each FY who have submitted their name for consideration for command of a MALS or CNATT MARUNIT. Without knowing the names of the officers competing for command for each specific command board, one has to assume that those officers not selected for command or as an alternate were not selected due to keen competition. This is a broad and incorrect assumption to make since eligible officers—lieutenant colonel and lieutenant colonel selects—may withhold their name for consideration for numerous reasons without penalty when competing on future command boards. As a result, this thesis provides an

overview of the command process and general descriptive statistics for those officers selected to command a MALS or CNATT MARUNIT.

E. ORGANIZATION OF STUDY

This thesis is broken up into seven chapters. Chapter II defines the MALS's role in the MAGTF and CNATT MARUNIT in the supporting establishment, career progression for an AMO and AVNSUPO, and selection process for MALS or CNATT MARUNIT CO. Chapter III describes the Performance Evaluation System (PES) and USMC officer promotion process. Chapter IV discusses past studies done on identifying statistical significant variables for promotion to various ranks and how they provide insight to this thesis. Chapter V describes how the dataset was created along with variable selection for the logistic regression models. Chapter VI discusses the regression model and findings. Finally, Chapter VII presents conclusions and recommendation for future study.

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II. THE MARINE AVIATION LOGISTICS SQUADRON AND CAREER PATH FOR AVIATION SUPPLY AND MAINTENANCE OFFICERS

This chapter provides a brief overview of the MAGTF as it relates to Marine aviation, with emphasis on the MALS. With an understanding of the MALS organization, this chapter also provides information on the career progression for AVNSUPOs (MOS 6602) and AMOs (MOS 6002). Both topics are discussed to give the reader essential background information so as to understand the questions this thesis attempts to answer.

A. ORGANIZATION

The basic structure for a deployable Marine Corps unit, the MAGTF, consists of a Ground Combat Element (GCE), Command Element, Logistics Combat Element (LCE), and an Aviation Combat Element (ACE). Each element has a unique capability to operate independently or with another element to accomplish a specific mission.

The ACE provides rotary-wing, tilt-rotor, and fixed-wing aircraft, in addition to all required aviation logistic support in the form of personnel and equipment, as well command and control assets to the MAGTF commander. Depending on the mission, “the ACE can vary in size and composition from an aviation detachment with specific capabilities to one or more MAWs [Marine Aircraft Wings]” (HQMC, 1998, p. 2-2). Figure 1 depicts an MAW organization consisting of a fixed-wing Marine Aircraft Group (MAG FW), rotary-wing MAG (MAG RW), Marine Aircraft Control Group (MACG), and a Marine Wing Support Group (MWSG).

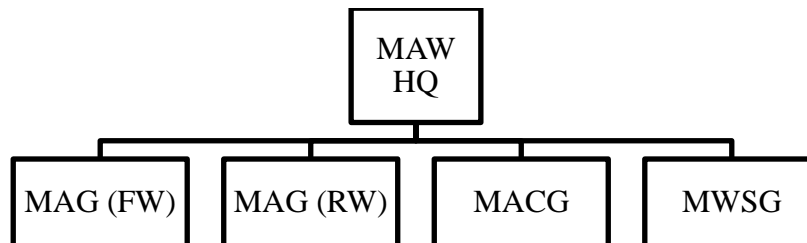


Figure 1. Notional MAW Organization

A typical MAG (RW) consists of a MALS, a Marine Medium Tilt-Rotor Squadron (VMM), a Marine Light Attack Helicopter Squadron (HMLA), and a Marine Heavy Helicopter Squadron (HMH) as depicted in Figure 2. One of the MAG's primary missions is to "plan and coordinate the deployment and employment of the MAG and its separately deployable squadrons" (HQMC, 1998, p. 3-20).

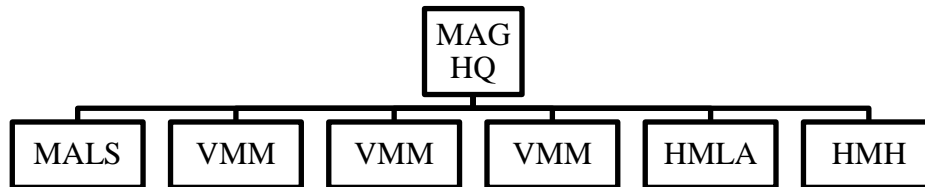


Figure 2. Rotary-Wing MAG Organization

Within the MAG, the MALS "provides aviation-logistic support, guidance, and direction to MAG squadrons on behalf of the CO as well as logistic support for Navy-funded equipment in the support of Marine Wing Support Squadrons (MWSSs), Marine Air Control Squadrons (MACSs), and Marine wing mobile calibration complexes" (HQMC, 1998, p. 3-22).

Currently, there are 11 active duty MALS and 2 CNATT MARUNITs. Table 3 lists each command, its geographic location, and the type of aircraft supported, if applicable.

Table 3. Active Duty MALS and CNATT MARUNITs in the Marine Corps, by Location

MALS	Location	Type of Aircraft Supported
MALS-11	Miramar, CA	FW
MALS-12	Iwakuni, Japan	FW
MALS-13	Yuma, AZ	FW
MALS-14	Cherry Point, NC	FW
MALS-16	Miramar, CA	RW
MALS-24	Kaneohe Bay, HI	RW
MALS-26	New River, NC	RW
MALS-29	New River, NC	RW
MALS-31	Beaufort, SC	FW
MALS-36	Okinawa, Japan	RW
MALS-39	Camp Pendleton, CA	RW
CNATT MARUNIT	Cherry Point, NC	None*
CNATT MARUNIT	New River, NC	None*

* CNATT MARUNITs do not provide any aviation logistic support to aircraft assigned to a flying squadron in a MAG.

A lieutenant colonel with MOS 6002 or 6602 leads a MALS consisting of five departments, as illustrated in Figure 3.

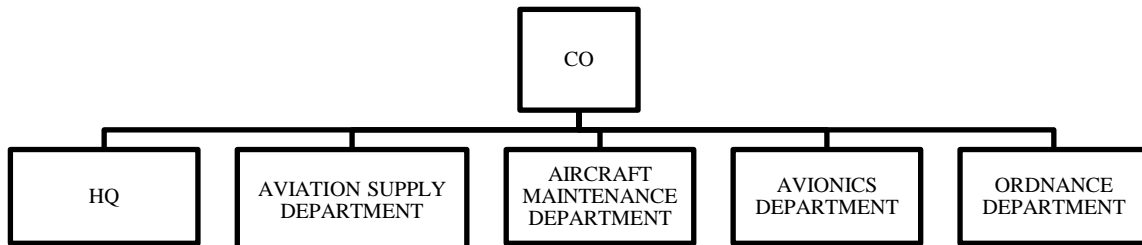


Figure 3. MALS Organization

B. CNATT MARUNIT

Commanded by a Marine Corps lieutenant colonel with MOS 6002 or 6602, the CNATT MARUNITs’ mission is:

- To coordinate and conduct training leading to qualification in [an] aviation MOS.

- To provide enlisted Marines returning from category B-billets to their [Fleet Marine Force] FMF stations/units with refresher training.
- Acquaint aviation technicians with associated hazards encountered in aviation maintenance and those preventative measures that must be followed to ensure optimum safety and efficiency.
- To provide required transition/conversion training as directed by Headquarters Marine Corps [Aviation Logistics Support] ASL and coordinated by the [Enlisted Aviation Maintenance Trainee Management Unit] EAMTU, Pensacola, Florida. (HQMC, 2001, p. 2)

Figure 4 illustrates the chain of command for the CNATT CO with higher HQ.

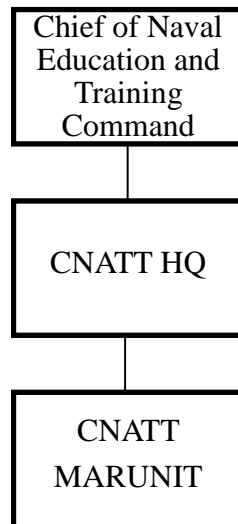


Figure 4. Chain of Command for CNATT MARUNIT CO
 (After Lieutenant Colonel V.J. Yasaki, personal communication, October 3, 2011)

Figure 5 illustrates the organizational structure within a CNATT MARUNIT New River, which focuses on training RW mechanics. CNATT MARUNIT Cherry Point focuses on training FW mechanics for aircraft such as the AV-8B and KC-130. On average, a CNATT MARUNIT consists of 228 Marine students led by 166 officers and instructors.

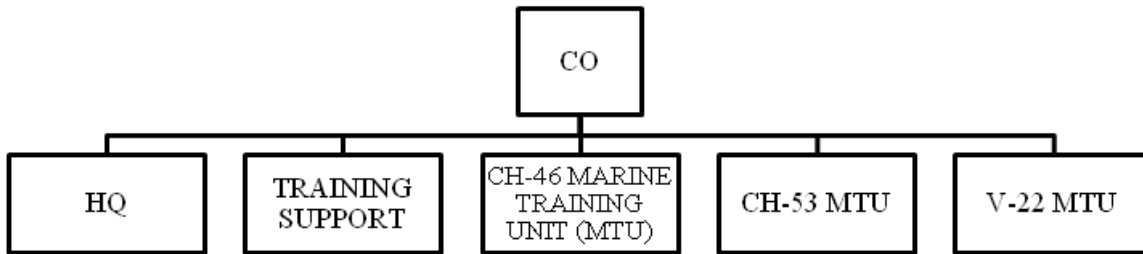


Figure 5. CNATT MARUNIT New River Organizational Structure
 (After Lieutenant Colonel V.J. Yasaki, personal communication, October 3, 2011)

With a foundation for a MALS and a CNATT MARUNIT established, Sections C through E discuss the career pattern for an AVNSUPO and AMO within each of these organizations.

C. CAREER STRUCTURE FOR AVNSUPO, MOS 6602

A typical career path for an AVNSUPO is explained in the following paragraphs from commissioning through point of eligibility for promotion to lieutenant colonel. For brevity, not every possible career path for the MOS is discussed.

1. The Basic School (TBS)

All Marine officers, regardless of their commissioning source, attend TBS in Quantico, Virginia, to learn how to lead an infantry platoon. During this 24-week course, officers are taught and evaluated in leadership and numerous other military applications. Officers are also assigned their MOS during this period. Upon graduation from TBS, an AVNSUPO reports to Newport, Rhode Island, for MOS school.

2. MOS School

Upon graduation from TBS as a second lieutenant, AVNSUPOs attend the Navy Supply Corps School:

Marine officers attend a 15 week Aviation Supply Officer Basic Qualification Course to train officers in the skills necessary to lead, manage, plan, direct, and analyze the execution of aviation supply

functions within the MALS, MAWs, Marine Corps Air Stations [(MCAS)], deployed carriers and amphibious assault ships [(LHDs)], and various Type Commander and System Commander staffs. Students learn Navy developed and sponsored aviation automated management systems, repairable and financial management programs, budgeting and accounting, inventory management and warehousing operations. (United States Navy, n.d)

Upon completion of school, AVNSUPOs report to one of 11 active-duty MALSs for a three-year tour within an Aviation Supply Department (ASD) or the MAG staff. Figure 6 provides an illustration of a MALS ASD organization as well as the rank of the Officer-in-Charge (OIC) of the respective division per HQMC MALS-26 Table of Organization (T/O), dated January 2011.

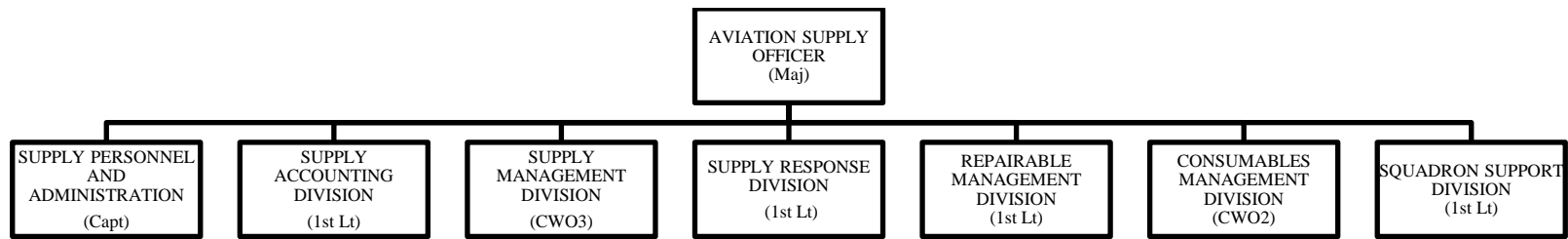


Figure 6. ASD Organization and Rank of OICs

3. Initial Squadron Assignment

An AVNSUPO serves as an OIC for one or more of the divisions listed below within the ASD during their tour:

- Repairable Management Division
- Consumables Management Division
- Supply Response Division
- Supply Support Division
- Supply Accounting Division

As the OIC, this officer is responsible for leading their Marines in the completion of all required tasks as directed by Marine Corps Order (MCO) P4400.177F, the Aviation Supply Desktop Procedures. Due to officer shortages for various reasons, an AVNSUPO may serve as the OIC for two or more divisions.

Depending on the MALS, an officer may have the opportunity to serve as a MALS detachment OIC aboard an LHD, carrier, or for a land-based exercise such as the Weapons and Tactics Instructor Course in Yuma, Arizona. An AVNSUPO may also serve as the MAG Fiscal Officer responsible to the MAG CO for all monetary related matters.

Finally, early on in this initial tour, an AVNSUPO is promoted to the rank of first lieutenant and some reach the rank of captain prior to completion of their first tour.

4. Career Level School (CLS)/B-Billet Assignment

Upon completion of the initial tour, an AVNSUPO has the option to serve in a non-FMF, aviation supply billet or non-MOS billet formally known as a B-billet. Examples of B-billets are recruiting duty or series commander at one of the recruit depots. Appendix A only lists non-FMF, aviation supply and maintenance-related billets for the ranks of first lieutenant to major.

MMOA-3 screens AVNSUPOs for Professional Military Education (PME) CLS; graduate-level education; and special duty assignments via the Commandant's Career Level Education Board (CCLEB). Below is a list of programs that MMOA screens officers to participate in:

- CLS such as Expeditionary Warfare School
- Special Education Program (SEP) and Advance Degree Program (ADP)
- SEP Law and Advance Degree Law Program
- Congressional Fellowship Program
- International Affairs Officer Program (IAOP)
- Olmsted Scholar Program Nomination Board

Normally, all officers assume the rank of captain during this non-FMF tour.

5. Second Squadron Assignment

Returning to an active duty MALS, an officer serves in one of three billets within an ASD or MALS:

- Assistant Aviation Supply Officer (AASO)
- Assistant Operations Officer (S-3A)
- AIRSpeed Officer

The AASO assists the ASD's department head, who is referred to as the Aviation Supply Officer (ASO), in supervising the ASD's day-to-day operations involving, on average, 110 Marines and a multimillion dollar budget and material inventory. Due to the Global War on Terrorism (GWOT) and the requirement to source IAs from the MALS for deployments to Iraq and Afghanistan, captains have also served as ASOs.

An ASO is responsible for the aviation material and financial support of all flying squadrons in the MAG as well as the MACS and MWSS:

This requires in-depth familiarity and working knowledge sufficient to supervise and control Navy-developed and sponsored aviation logistics information management systems; repairable material management programs; financial management programs; budgeting and accounting functions; aviation inventory management functions; and warehousing operations. An AVNSUPO ensures that aviation supply operations sustain the unit's combat readiness and enhance its ability to perform its mission. (HQMC, 2008b, p 1-160)

An AVNSUPO may serve as S-3A officer who is responsible for monitoring the MALS' ground-side training requirements, which includes marksmanship, the Physical Fitness Test (PFT), the Combat Fitness Test (CFT), and the Marine Corps Martial Arts

Program (MCMAP), as well as any other program mandated by the OPSO. An AVNSUPO serving in the S-3 falls under the HQ department vice the ASD.

An AVNSUPO may serve as the MALS AIRSpeed officer who is responsible for “the planning, training, integration, sustainment, and monitoring of best business practices [utilizing] Theory of Constraints, LEAN, and Six Sigma within . . . [a MALS]” (HQMC, 2008b, p. 1-162).

At the completion of this tour, an AVNSUPO has screened for the rank of major.

6. Intermediate Level School (ILS)/B-Billet Assignment

Upon completion of the second squadron assignment, an AVNSUPO again has the option to serve in a non-FMF aviation supply billet or B-billet.

As a major, AVNSUPOs are again screened by MMOA-3 via the Commandant’s Professional Intermediate Level Education Board (CPIB) for assignment to one of the following programs:

- ILS to include Command and Staff College (CSC), fellowships and foreign professional education programs
- Congressional Fellowship Program
- IAOP
- SEP and ADP
- SEP Law and ADP Law

Upon completion of this tour, an AVNSUPO returns to an active-duty MALS as a midgrade major.

7. Squadron Department Head

Upon completion of their second non-FMF tour, an AVNSUPO returns to a MALS to serve as a department head.

Department heads report directly to the MALS CO. As discussed in the MALS Commander’s Guidebook, department heads “are the senior leaders and subject matter experts in their functional areas and provide the MALS CO with advice and recommendations related to those areas” (Callan, 2009, p. 12). The guidebook goes on to state that department heads “are responsible for the effective, safe, and reliable leadership

and management of their departments” (Callan, 2009, p. 12). An AVNSUPO may serve in one of three department head billets: ASO, OPSO, or XO.

Again, the ASO is responsible for leading the ASD to satisfy the MAG’s aviation material and financial requirements for approximately 60 to 80 aircraft.

An AVNSUPO may serve as the OPSO. The OPSO is responsible for coordinating and sourcing all intermediate level aviation logistics and personnel from the MALS’ Aviation Supply, Maintenance, Ordnance, Avionics, and Aviation Information Systems Departments for supported fixed- or rotary-wing squadrons in the MAG, specifically prior to overseas deployments or state-side detachments. The OPSO is also responsible for leading a team of, on average, six Marines in coordinating all required ground training requirements and accurate data entry of same training events into applicable Marine Corps databases for all squadron personnel.

An AVNSUPO may also serve as the XO. “The XO’s principle role is to lead and manage the day-to-day operations of the HQ staff” (Callan, 2009, p. 8). The XO accomplishes this responsibility by leading the HQ staff of approximately 40 Marines. Callan also emphasized that “The XO executes the CO’s guidance and intent via the HQ staff ensuring the disciplined prosecution of the unit’s mission, administration, and retention of good order and discipline” (2009, p. 8).

During this time frame, an AVNSUPO will screen for lieutenant colonel. If selected to lieutenant colonel, an AVNSUPO must decide whether or not they will compete for command of a MALS.

D. CAREER STRUCTURE FOR AMO, MOS 6002

A typical career path for an AMO is explained in the following paragraphs from commissioning through point of eligibility for promotion to lieutenant colonel. For brevity, not every possible career path for the MOS is discussed.

1. TBS

As previously discussed, officers are assigned their MOS during TBS. Upon graduation from TBS, an AMO reports to Pensacola, Florida, for MOS school.

2. MOS School

Upon graduation from TBS, an AMO reports to the Marine Aviation Training Support Group for formal training. During this 10-week course, an AMO acquires the skills necessary to direct aircraft maintenance, manage technical training programs, and administer safety programs for all Type Model Series aircraft in the Marine Corps.

Upon completion of school, an AMO reports to one of 11 active-duty MALS for a three-year tour within the Maintenance Department or assigned to a flying squadron within the MAG. Figure 7 provides an illustration of a MALS' Maintenance Department's organization per United States Marine Corps MALS-26 T/O, January 2011. Note that Figure 7 only lists those divisions that are commonly led by an unrestricted officer on their first or second FMF tour. Divisions not listed are Production Control, which is normally led by a restricted officer with MOS 6004, Aircraft Maintenance Engineer Officer, and Individual Material Readiness List (IMRL), led by a Gunnery Sergeant with MOS 6042, IMRL Asset Manager.

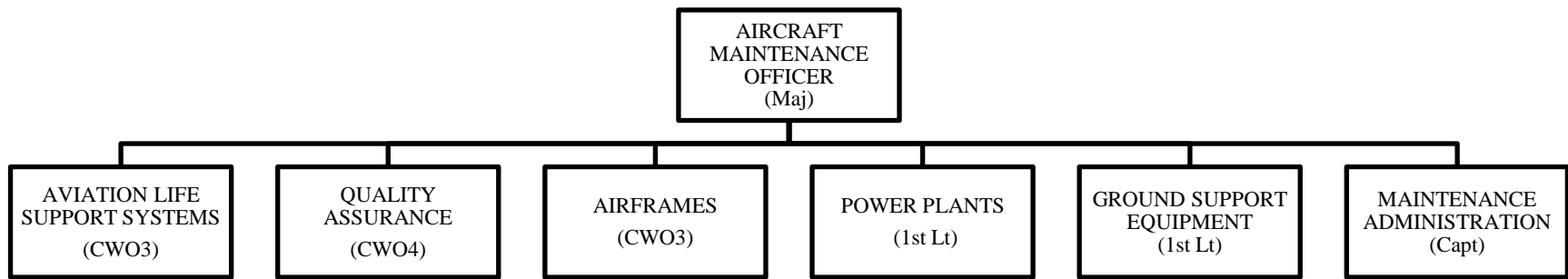


Figure 7. Maintenance Department Organization and Rank of OICs

3. Initial Squadron Assignment

An AMO may report immediately to a flying squadron within the MAG to serve as the squadron's Maintenance Material Control Officer (MMCO). As an MMCO, this officer is responsible for working with the MALS ASD to obtain all required aviation material to support the flying squadron's maintenance production and training, and maintain all applicable aircraft records. Depending on the squadron, they may have the opportunity to complete at least one deployment aboard an LHD, carrier, or a MALS forward based in Afghanistan. Normally, an AMO will then return to a MALS for a division tour to complete their first three-year tour in the FMF.

If an AMO does not report directly to a flying squadron, they will report to a MALS and serve as an OIC for one or more of the divisions listed below:

- Power Plants Division
- Ground Support Equipment Division

When required due to manpower shortages in the MOS 6004, an AMO may also serve as the OIC for the following:

- Aviation Life Support Systems Division
- Airframes Division
- Quality Assurance Division

As the OIC, this officer is responsible for leading their Marines in the completion of all required tasks as directed by the COMNAVAIRFORINST 4790.2A, Naval Aviation Maintenance Program, and other applicable Wing and Group orders. Depending on officer manpower in the Maintenance Department, an AMO may serve as the OIC for two or three divisions.

Depending on the MALS, an AMO may have the opportunity to serve as a MALS detachment OIC deploying with a complement of MALS Marines in support of a flying squadron as well.

After normally serving one year in the MALS, an AMO may detach and check into a flying squadron. Here, this AMO will serve as the flying squadron's MMCO, whose roles and responsibilities were previously discussed.

Finally, an AMO is promoted to the rank of first lieutenant early on in their tour in the MALS or flying squadron and some may reach the rank of captain prior to departing for their first non-FMF tour.

4. CLS/B-Billet Assignment

Upon completion of the initial tour, an AMO has the option to serve in a non-FMF, aviation maintenance billet or B-billet. AMOs serve in similar B-billets as AVNSUPOs. Appendix A only lists non-FMF, aviation supply and maintenance-related billets for the ranks of first lieutenant to major.

MMOA-3 also screens AMOs via the CCLEB for assignment to CLS PME, graduate-level education, and special duty assignments.

5. Second Squadron Assignment

Returning to an active-duty MALS, an AMO serves in one of three billets within a MALS Maintenance Department:

- Assistant Aircraft Maintenance Officer (AAMO)
- S-3A
- AIRSpeed Officer

Below is a sample of duties the AAMO performs to assist the AMO:

- Assist the AMO in the management of the MALS Maintenance Department in accordance with COMNAVAIRFORINST 4790.2 and other directives.
- Perform all duties as the program manager for maintenance training within the MALS and act as the maintenance training coordinator for MAG.
- Screen the Aviation Management Supply and Readiness Report on a daily basis to ensure the MAG squadrons are at their maximum level of readiness.
- Perform all duties as the Maintenance Administration Division OIC.
- Ensure internal compliance with maintenance, safety, and security procedures to ensure optimum performance is achieved.
- Conduct liaison with [civilian maintenance] contractors to ensure they are aware of the MAG priorities.

- Initiate and/or review Maintenance Department correspondence for accuracy and validity. (Major J. Fallon, personal communication, September 1, 2011)

If not serving as an AAMO, this officer may serve as an S-3A or AIRSpeed Officer, whose roles and responsibilities were previously discussed.

At the completion of this tour, an AMO has reached the rank of major.

6. ILS/B-Billet Assignment

After completion of a second squadron tour, an AMO again has the option to serve in a non-FMF, aviation maintenance billet or B-billet.

MMOA-3 also screens AMOs for participation in the CPIB, as previously discussed.

Upon completion of this tour, an AMO returns to an active duty MALS as a midgrade major.

7. Squadron Department Head

Upon completion of the second non-FMF tour, an AMO returns to a MALS to serve as a department head in one of two billets: OPSO or XO.

The roles and responsibilities previously discussed for each of these billets remains the same for an AMO.

During this department head tour, an AMO will screen for lieutenant colonel. If selected to lieutenant colonel, an AMO must decide whether or not they will compete for command of a MALS.

E. ACQUISITION COMMUNITY

Both AMOs and AVNSUPOs may apply to the Marine Corps Military Acquisition Workforce via an annual board chaired by Marine Corps Systems Command as early as a first lieutenant. Officers must meet various requirements for each of the three acquisition-related MOSs. For example, in order for an officer to qualify as an Acquisition Professional Candidate, MOS 8057, an officer must meet the following requirements:

- Level II certified in MOS
- Two years of acquisition experience
- Identified by officer's chain of command as potential future acquisition professional
- MOS 8057 assigned by MMOA upon notification from Marine Corps Systems Command

Appendices B and C provides illustrations of an acquisition career roadmap for an AMO and AVNSUPO, respectively. Note that AMOs and AVNSUPOs who choose the acquisition career path compete for command of acquisition activities and are no longer eligible to compete for command of a MALS.

F. COMMAND SCREENING PROGRAM

MMOA-3 is responsible for administering the Command Screening Program (CSP) and its various roles and responsibilities.

The . . . [CSP] was implemented to ensure that Marines receive the best possible leadership and to provide all eligible officers with a fair and equitable opportunity to command. (HQMC, 2004b, p. 1)

The CSP identifies which commands are available for screening each year by querying the component commanders, i.e., Marine Forces Pacific, Marine Forces Command, etc. The CSP also identifies which officers will sit on the board approximately 75 days before the board convenes. Usually, 3 general officers and 14 colonels are selected; however, the numbers may vary due to officer availability. For example, the FY-12 Command Screening Board consisted of 1 general officer and 16 colonels. Each of these officers has served in various MOSs in the MAGTF whether it is the ACE, GCE, or LCE, as evidenced by the various MOSs. Each officer has a distinct career path that brings diversity to the board's composition. Each officer on the board has held command at the battalion or squadron level as a lieutenant colonel. For example, a colonel with an aviation logistics background, either MOS 6002 or 6602, who has served as a MALS or CNATT MARUNIT CO may sit on the board. Board members are also selected based on their current geographic location. Finally, at least one of the board members is a female and another a minority. Appendix D illustrates the board

membership composition and criteria for the FY-12 Command Screening Board. MMOA-3 also assigns a board recorder for administrative purposes. Notice that the document does not state how many general officers are required for this board, nor does it state any required criteria for the general officers. Finally, MMOA-3 provides detailed rules for board members to conduct the selection process.

Once the commands are identified, MMOA-3 releases a Marine Administrative Message (MARADMIN) announcing the convening of the command screening board as illustrated in Figure 8.

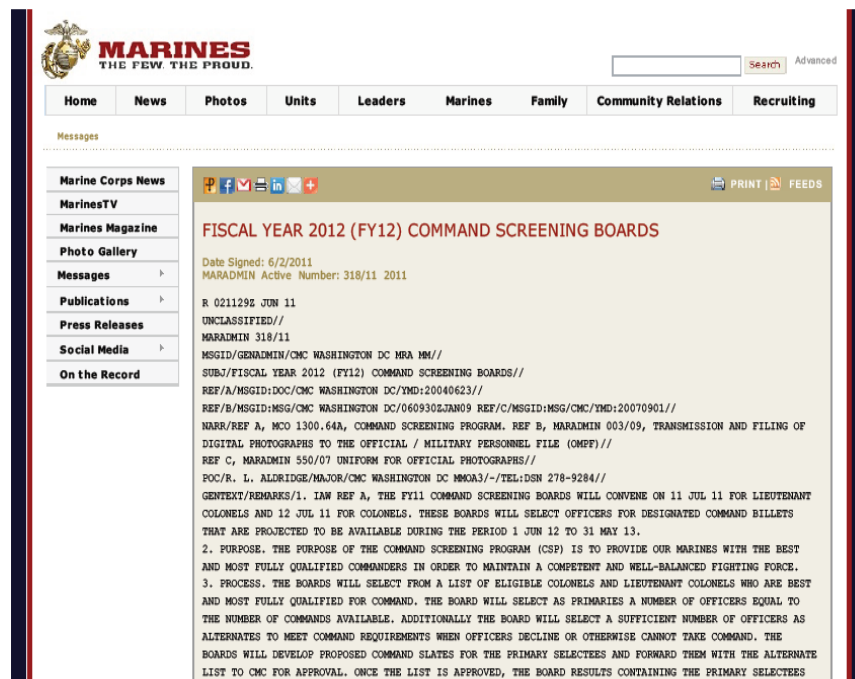


Figure 8. Command Screening Board MARADMIN (From HQMC, 2011d)

The MARADMIN explains the process of how officers are selected for command via a nonstatutory board process. The MARADMIN also provides the following information:

- Eligibility criteria for competing officers.
- Guidance on how an officer competing for command may communicate with the command screening board.
- The process of how officers selected may decline command.

- The process for selection of alternates to fill commands if a primary officer declines a command.

Arguably, the most important item the MARADMIN discusses is communication with the board primarily through the online questionnaire published by MMOA-3. Via the questionnaire, an officer informs the board which FMF commands in their MOS and non-FMF commands they wish to compete for. Note that the non-FMF commands are filled by MOS 8006, which means any unrestricted officer may fill the required billet. Each officer is only allowed to select three choices per FMF and non-FMF category. Although allowed to choose three non-FMF billets on the questionnaire, the only non-FMF billet AMOs and AVNSUPOs are allowed to compete for is the CNATT MARUNIT commands, due to the high MALS CO selection rate (Major R. L. Aldridge, personal communication, August 19, 2011). Other MOSs with low selection rates, such as MOS 0302 (Infantry) or MOSs with limited CO opportunities such as MOS 0180 (Adjutant), compete for these non-FMF billets. Examples of non-FMF, MOS 8006-billeted commands are Second Recruit Training Battalion, Marine Corps Recruit Depot; Instructor Battalion, TBS; and Marine Corps Embassy Security Group, Region 1 Frankfurt.

After choosing their desired commands, an officer may add any additional information they feel will aid the board in their selection. For example, an officer may have personal reasons for wishing to remain in a certain geographic location. Also, an officer may want to expound on their career path by highlighting their strengths, which make them more qualified than other officers to lead a squadron or battalion. Appendix E provides an example of a questionnaire completed with fictitious information.

With all questionnaires submitted by a mandated date in the MARADMIN, the board normally convenes in July of each year for a four-week session. Although not governed by law, the president of the command screening board conducts the board in the same process as an officer promotion board.

Only officers with MOSs 6002 or 6602 are eligible to command a MALS or CNATT MARUNIT. For the FY-12 Command Slate Board, 20 lieutenant colonels and lieutenant colonel selects from both MOSs combined were eligible to compete for

command of five MALS and one CNATT MARUNIT. An officer is not required to submit their name to CSP for selection; however, that officer's chances for selection to colonel are drastically reduced if they have never commanded a MALS or CNATT MARUNIT.

The board results are released via MARADMIN no later than mid-August.

G. OFFICER ASSIGNMENT

The Marine Corps Officer Assignments Aviation Monitor (MMOA-2) is responsible for assigning field grade officers with MOSs 6002 and 6602 to a specific MALS to fill the XO, OPSO, or ASO billets based upon the following priorities, listed in order of precedence:

- Needs of the Marine Corps
- MOS/billet variety - command versus staff tour
- Availability of the individual
- Overseas Control Date
- Seniority
- Individual preference (HQMC, 1994, p. 1-10)

Although not required by MCO, the monitor also receives input from outside commands, but is not required to act upon it. First, the respective Occupational Field Sponsors for MOSs 6002 and 6602 from the HQMC ASL, who are responsible for training, education, promotion, retention, and structure for respective MOSs, will make suggestions on what officer should fill what billet in order to improve their chances for promotion and career development. MALS COs who have just assumed command, as well as officers who are about to assume command of a MALS, will contact the monitor to lobby for specific officer(s) with whom they have worked successfully in the past. Ultimately, the monitor makes the final decision on what officer is sent to what MALS, based upon the aforementioned criteria and manpower availability.

Once a field grade officer reports to their respective command, the MALS CO has the final say on what billet the officer will hold. Although the MALS-26 and MALS-11 T/O state a specific MOS for the XO and OPSO billets, as shown in Tables 4 and 5, the CO normally assigns the most senior field grade officer to the XO billet and the next most senior officer to the OPSO billet, despite their MOS.

Table 4. Billets Held by MOSs 6002/6602 in a Rotary-Wing MALS per T/O (After HQMC, 2011a, p. 8)

MOS	Billet
6002 - AMO	XO
6002 - AMO	OPSO
6602 - AVNSUPO	AVNSUPO

Table 5. Billets Held by MOSs 6002/6602 in a Fixed-Wing MALS per T/O (After HQMC, 2011b, p. 8)

MOS	Billet
6602 - AVNSUPO	XO
6602 - AVNSUPO	OPSO
6602 - AVNSUPO	AVNSUPO

The MALS CO is locked into assigning a field grade officer MOS 6602 to the AVNSUPO billet, since a MOS 6002 officer does not have the required training to fill the billet. These officers may remain in their respective billets for their three-year tour.

The MALS CO serves as the immediate supervisor for each of the billets listed in Tables 4 and 5. Therefore, the MALS CO serves as the Reporting Senior (RS) with the MAG CO who is a colonel serving as the Reviewing Officer (RO) in the Marine Corps' PES, which is discussed in detail in Chapter III.

H. SUMMARY

The MALS serves as integral element of the MAGTF. In order to operate efficiently and effectively, the MALS is led by a CO and his staff who are principally AVNSUPOs and AMOs. Each type of officer follows distinct career paths, but both vie for the same key department head billets as majors, for promotion to lieutenant colonel, and eventually compete against one another for command of a MALS or CNATT MARUNIT.

The next chapter discusses how a CO evaluates a Marine, whether serving in a key department head billet or any position in their command, via the PES and how an officer competes for promotion.

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III. THE PERFORMANCE EVALUATION SYSTEM AND PROMOTION PROCESS

A. INTRODUCTION

This chapter provides an overview of the USMC PES, specifically the purpose of the Fitness Report (FITREP), its structure, and the creation of a FITREP average, along with the RS Relative Value (RV) and RO's profile. This chapter also provides an overview of the USMC promotion process from the assembling of a promotion board to the announcement of a board's results.

B. THE FITNESS REPORT

The sole method for an officer to officially document a Marine's performance in their charge is through a FITREP. The PES defines those officers or civilians (GS-9 equivalent or above) that are required to submit FITREPs for their Marines as an RS. The PES also defines Marines receiving a FITREP as a Marine Reported On (MRO). An RS is required to write a FITREP for each MRO with the rank of sergeant (E-5) and above based on the report schedule detailed in MCO P1610.7F W/CH1, PES, and shown in Appendix F. For example, for an MRO with the rank of major, an RS is required to submit an annual FITREP covering this officer's performance from the ending date of their last FITREP to the last day in May. Junior officers—second and first lieutenants—receive two FITREPs per year. All other officers through the rank of brigadier general receive one annual FITREP, barring any other occasion, for example, grade change that has occurred during the reporting period. Once the RS completes all required markings, which are described in detail in the following sections, the report is submitted to the RO for their required actions. "The RO is the first commissioned or warrant officer (or civilian GS-10/equivalent or above) senior in grade to the RS . . ." (HQMC, 2006b, p. 2-4).

Once the RO has completed their required actions, the RO electronically transmits the FITREP to Manpower Management Support Branch (MMSB) for processing into an

officer’s Official Military Performance File (OMPF). An officer’s performance folder within their OMPF contains all FITREPs written on them from their entrance into the USMC until resignation or retirement.

1. FITREP Sections and FITREP Average

A FITREP consists of 12 sections. Two of the sections—Section J (certification) and Section L (addendum page)—are strictly administrative. Table 6 lists those sections that provide either quantitative and/or qualitative data and excludes those administrative sections. Appendix G provides an example of a blank FITREP.

Table 6. FITREP Sections

Section	Title	Quantitative Value	Qualitative Value
A	Administrative Information	X	X
B	Billet Description		X
C	Billet Accomplishments		X
D	Mission Accomplishment	X	
E	Individual Character	X	
F	Leadership	X	
G	Intellect and Wisdom	X	
H	Fulfillment of Evaluation Responsibilities	X	
I	Directed and Additional Comments		X
K	Reviewing Officer Comments		X

Section A consists mainly of Personally Identifiable Information (PII) that enables HQMC to differentiate between officers’ records. More importantly, Section A requires the MRO to report their height, weight, PFT, and CFT scores. An MRO also states what type of duty they fulfill during the reporting period. For example, the letter “C” in Section A.3.c of a FITREP denotes an officer who served in combat while executing their primary duties.

Section B details an MRO’s responsibilities for the billet the officer holds, while Section C details the officer’s accomplishments while in the billet. None of the

information entered in these sections contribute to the FITREP’s overall average; however, the markings in Sections D through G do.

“Sections D, E, F, and G comprise 13 attributes that give the RS a broad cross section of areas to evaluate the MRO that the Marine Corps deems most important” (HQMC, 2006b, p. 4-22). For example, Section D, Mission Accomplishment, contains two attributes, performance and proficiency, as shown in Figure 9.

D. MISSION ACCOMPLISHMENT										
1. PERFORMANCE. Results achieved during the reporting period. How well those duties inherent to a Marine's billet, plus all additional duties, formally and informally assigned, were carried out. Reflects a Marine's aptitude, competence, and commitment to the unit's success above personal reward. Indicators are time and resource management, task prioritization, and tenacity to achieve positive ends consistently.										
ADV	Meets requirements of billet and additional duties. Aptitude, commitment, and competence meet expectations. Results maintain status quo.	Consistently produces quality results while measurably improving unit performance. Habitually makes effective use of time and resources; improves billet procedures and products. Positive impact extends beyond billet expectations.				Results far surpass expectations. Recognizes and exploits new resources; creates opportunities. Emulated; sought after as an expert with influence beyond unit. Impact significant; innovative approaches to problems produce significant gains in quality and efficiency.				N/O
A	B	C	D	E	F	G	H			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. PROFICIENCY. Demonstrates technical knowledge and practical skill in the execution of the Marine's overall duties. Combines training, education and experience. Translates skills into actions which contribute to accomplishing tasks and missions. Imparts knowledge to others. Grade dependent.										
ADV	Competent. Possesses the requisite range of skills and knowledge commensurate with grade and experience. Understands and articulates basic functions related to mission accomplishment.	Demonstrates mastery of all required skills. Expertise, education and experience consistently enhance mission accomplishment. Innovative troubleshooter and problem solver. Effectively imparts skills to subordinates.				True expert in field. Knowledge and skills impact far beyond those of peers. Translates broad-based education and experience into forward thinking, innovative actions. Makes immeasurable impact on mission accomplishment. Peerless teacher, selflessly imparts expertise to subordinates, peers, and seniors.				N/O
A	B	C	D	E	F	G	H			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Figure 9. Section D with Performance and Proficiency Attributes (After HQMC, 2006b, p. B-2)

Section H, Fulfillment of Evaluation Responsibilities, also contains one attribute, bringing the total number of gradable attributes in a FITREP to 14.

Based on the MRO’s performance, the RS marks the corresponding letter block. The values for each letter are scaled in what the PES terms the Performance Anchored Rating Scale. The letter “A” has a value of 1, while the letter “G” has a value of 7. The letter “H” has no value and does not enter into the calculation of the FITREP average. An RS marks the letter “H” when they feel they have not had enough time to make an accurate assessment of the MRO for that specific attribute. Therefore, a FITREP’s average is computed by summing the values of the observed attributes and dividing by

the number of observed attributes. For example, a FITREP with all “C” markings for every attribute results in a FITREP average of 3.0.

Section I enables the RS to describe the MRO’s professional character and potential for greater responsibility. This description provides the promotion board with qualitative data not fully covered by the attribute markings. Although not specified in the PES, an RS may comment on the MRO’s potential for promotion to the next rank, ability to serve as a CO, or recommendation for future assignment. Figure 10 provides an example of a completed Section I.

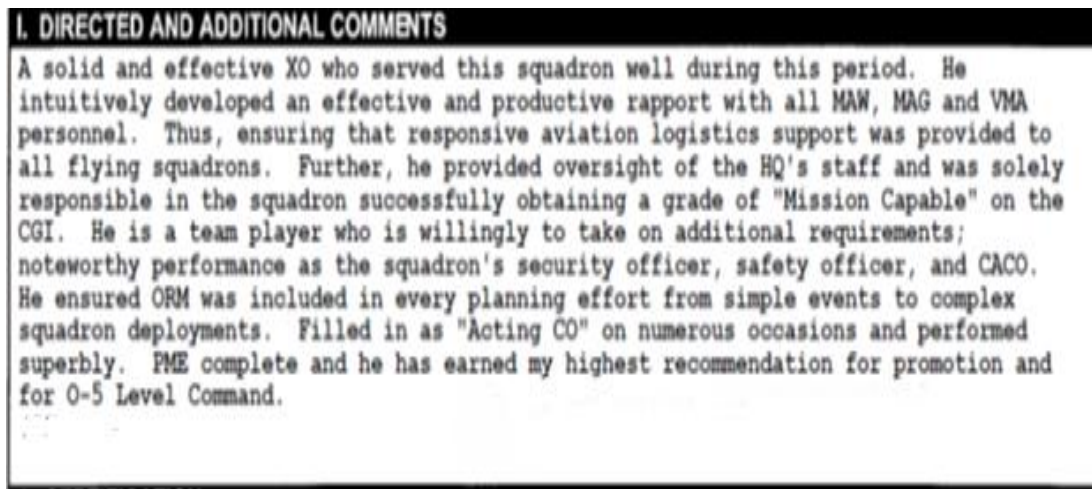


Figure 10. Example of Completed Section I (After HQMC, 2006b, p. B-5)

With the completion of Section I, the RS forwards the FITREP to the RO for the completion of Section K.

In Section K, the RO has multiple responsibilities. The three most important are: ensuring accuracy of the FITREP; providing a comparative assessment of the MRO; and providing a description of the MRO. For accuracy, the RO ensures the RS has correctly completed the FITREP in accordance with all guidelines specified in the PES. For the comparative assessment, the RO must rank the MRO against all Marines of similar rank that the RO has observed in their career by marking the box next to the description and figure that corresponds to the MRO’s ranking. This section is commonly referred to as the RO Christmas Tree. Each description for comparative assessment corresponds to a numerical value ranging from 1 for “unsatisfactory” to 8 for “the eminently qualified

Marine.” Unlike the RS, the PES directs the RO to comment on the MRO’s potential for promotion, assignment to a formal PME school, ability to serve as a CO, and retention. The RO’s comments are to reinforce their comparative assessment marking of the MRO. Figure 11 provides an example of a completed Section K.

K. REVIEWING OFFICER COMMENTS		
1. OBSERVATION: <input checked="" type="checkbox"/> Sufficient <input type="checkbox"/> Insufficient	2. EVALUATION: <input checked="" type="checkbox"/> Concur <input type="checkbox"/> Do Not Concur	
3. COMPARATIVE ASSESSMENT: Provide a comparative assessment of potential by placing an "X" in the appropriate box. In marking the comparison, consider all Marines of this grade whose professional abilities are known to you personally.	DESCRIPTION	COMPARATIVE ASSESSMENT
	THE EMINENTLY QUALIFIED MARINE	<input type="checkbox"/>
	ONE OF THE FEW	<input checked="" type="checkbox"/>
	EXCEPTIONALLY QUALIFIED MARINES	<input type="checkbox"/>
	ONE OF THE MANY HIGHLY QUALIFIED PROFESSIONALS WHO FORM THE MAJORITY OF THIS GRADE	<input type="checkbox"/>
	A QUALIFIED MARINE	<input type="checkbox"/>
	UNSATISFACTORY	<input type="checkbox"/>
4. REVIEWING OFFICER COMMENTS: Amplify your comparative assessment mark; evaluate potential for continued professional development to include: promotion, command, assignment, resident PME, and retention; and put Reporting Senior marks and comments in perspective.		
<ul style="list-style-type: none"> - Exemplary Officer. Unlimited potential. - Ranked among the top five Majors in this Marine Aircraft Group. - True expert in his field; ready to command now; has my one and only recommendation for command of a MALS. - Enthusiastically recommended for ILS and promotion. 		

Figure 11. Example of Completed Section K (After HQMC, 2006b, p. B-5)

2. RS RV

An RS only establishes an RV after writing three FITREPS. An RS’s average ranges from 80% to 100%, with 90% being the average computed from summing all FITREP scores and dividing by the total number of reports. Figure 12 illustrates an RS’s FITREP average of 3.5 or 90% after writing seven FITREPS.

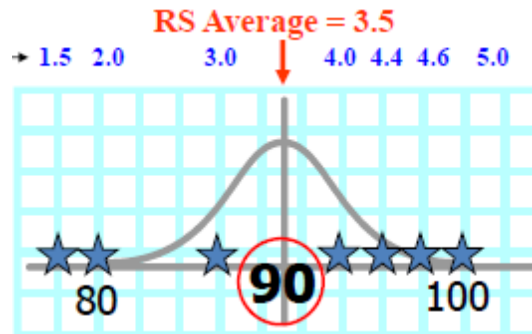


Figure 12. Hypothetical Distribution of Seven FITREPs on a Normal Curve (From HQMC, n.d, p. 58)

An MRO can view how their FITREP average compared to past FITREPs written by the RS for MROs of the same rank by viewing the FITREP listing of their Master Brief Sheet (MBS). The MBS serves as a primary tool used by promotion board members. The MBS contains the MRO's PII, along with military training, civilian and military education, personal awards, MOS, current duty station and billet description, PME completed, and FITREP listing. Figure 13 provides an example of a full MBS.

NAME	SSN	GRADE	RANK	LCN	DOR	TIG	CURRENT DUTY ASSIGNMENT	BILLET DESCRIPTION	DCBT																				
MARINE, J.S.	123456789	O4	MAJ	12345678	19990501	4yr 10mo	US Central Command	J-3 Future Ops Officer	20030717																				
KEY DATE SUMMARY		AWARDS			MILITARY OCCUPATIONAL SPECIALTIES				TRAINING SUMMARY		LANGUAGES																		
DEAF	19890702	MM	1		PMOS	0302	Infantry Officer	AMOS4		RIFLE	E/340	199809	1994	French															
TIS	14yr 11mo	NC	2		AMOS1	0602	Communications Officer	AMOS5		PISTOL	M/340	199809	1990	Spanish															
PEBD	19890520	NA	1		AMOS2			JOINT		PFT	1/289	200309																	
AFADB	19890520				AMOS3			B MOS	9910	MCMAP	TAN	200308																	
OSCD	19950115																												
ACC COMM	19890520	CIVILIAN				MILITARY				PME																			
DOR COMM	19890531	1990	BA, Biology	1993	Winter Mountain Leader					2002	Command & Staff Non-Res																		
DOR LDO		1986	Associates Deg	1993	Summer Mountain Leader					1997	AWS Ph II																		
DSG PILOT		1962	HS	1987	Alpsome					1995	AWS Ph I																		
DCADB	19890520			1990	Assault Climbers					1994	Warfighting Skills Prog																		
EAS	INDEF			1989	Infantry Officer (TBS)																								
				1989	Basic School																								
ADMINISTRATIVE SUMMARY					REPORTING SENIOR MARKINGS										REVIEWING OFFICER MARKINGS														
Grade	Occ	From	Months	Billet Description	Reporting Senior	Par	Pro	Co	ER	Ini	Lea	Dev	Set	Ens	Co	PME	Dec	Jud	Eval	Reviewing Officer	RO marks - same grade at processing								
B MOS	Type	To	Co	Adv	Command	Promote	Reports	Rpt Avg	RS Avg	RS High	Rpt at High	RV at Proc	Cum RV	Obser	Concur	RO marks - same grade cumulative													
Capt	GC	19980801	9	Company Commander	LtCol B		F	F	D	E	D	E	D	D	C	E	E	C		Col T	0/1	0/2	1/3	3/4	2/5	1/6	0/7	0/8	
0302	N	19990503		1st Battalion 2d Marines	Yes		13 of 16	4.57	3.62	4.57		1	100.00	100.00						Suff	Yes	0/1	0/2	3/3	12/4	23/5	11/6	3/7	0/8
Maj	AN	19990504	3	Operations Officer	LtCol B		E	E	C	E	D	E	D	E	C	E	D	D		Col R	0/1	0/2	1/3	2/4	2/5	2/6	0/7	0/8	
0302	N	19990801		1st Battalion 2d Marines	Yes		4 of 7	4.36	4.13	4.50		1	96.11	96.11						Suff	Yes	0/1	1/2	2/3	7/4	7/5	5/6	0/7	0/8
Maj	CH	19990801	6	Operations Officer	LtCol B		E	E	D	E	D	E	D	E	C	E	E	D		Col A	0/1	0/2	1/3	3/4	2/5	1/6	0/7	0/8	
0302	N	20000119		1st Battalion 2d Marines	Yes		7 of 7	4.50	4.13	4.50		2	100.00	100.00						Suff	Yes	1/1	0/2	2/3	4/4	17/5	12/6	7/7	1/8
Maj	TR	20000119	3	BN Executive Officer	LtCol S		F	F	D	D	G	F	E	F	D	D	D	D	E	Col A	0/1	0/2	1/3	3/4	2/5	2/6	0/7	0/8	
0302	N	20000414		1st Battalion 2d Marines	Yes		6 of 14	4.93	4.46	4.93		1	100.00	100.00						Suff	Yes	1/1	0/2	2/3	4/4	17/5	12/6	7/7	1/8

Figure 13. Example of a Full MBS (From HQMC, 2006b, p. J-1, K-1).

For the FITREP listing shown in Figure 14, the last two rows list the RS's name as well as the letter markings given to the MRO for each attribute. In the second row, the RS has recommended the MRO for promotion. The values in the "Reports" column, 14 of 17, indicate that this is the 14th of 17 reports written by the RS. The MRO earned a FITREP average of 2.53, which is above the RS's FITREP average of 2.25, but below the highest value of 2.82 given by the RS to all Marines of similar rank. The RS has given only one Marine a score of 2.82, shown by the number 1 in the Report at High column abbreviated "RPT at High." Based on the RS's FITREP averages and the time this FITREP is processed, this report converts to an RV at Processing or "RV Proc" of 94.60 percentile. The cumulative RV shown as "Cum RV" represents the RS's RV for all 17

reports. This example serves two purposes: To illustrate how an RS's FITREP average is created and the comparison of an MRO's FITREP average to the RS's FITREP average.

REPORTING SENIOR MARKINGS															
Reporting Senior	Per	Pro	Cou	Eff	Ini	Lea	Dev	Set	Ens	Co	PME	Dec	Jud	Eval	
Promote	Reports	RPT Avg		RS Avg		RS High		RPT at High		RV at Proc		Cum RV			
LtCol Stickler	C	C	B	B	C	C	B	C	C	B	B	B	C	H	
Yes	14 of 17	2.53		2.25		2.82		1		94.60		96.00			

Figure 14. Example of FITREP Listing the Portion from an MBS (After HQMC, n.d, p. 61)

In order to ensure fairness for all MROs that an RS observes and grades, it is imperative that the RS maintain cognizance of their RS average. This is easily done by requesting their RS profile from MMSB. Appendix H provides an example of an RS FITREP list profile from the PES.

3. RO Profile

Unlike an RS, an RO creates their profile immediately, beginning with the first FITREP they review. Figure 15 provides an example of an RO profile found in the FITREP listing of a MRO's MBS. In this example, Col Spreadlode, the MRO's RO, has had sufficient time to observe the MRO and concurs with the RS's markings of the MRO. The numerator in the first row of numbers indicates the total number of Marines who have received this marking denoted in the denominator by the RO for all Marines of the same rank at the time the MRO's FITREP is processed. The rectangular box beneath this first row of numbers indicates where the RO ranked the MRO. The second row of numbers lists the cumulative number of Marines that the RO has rated similar in rank to the MRO.

Reviewing Officer		RO marks - same grade at processing							
Obser	Concur	RO marks - same grade cumulative							
Col Spreadlode		0/1	0/2	1/3	3/4	2/5	1/6	0/7	0/8
Suff	Yes	0/1	1/2	9/3	12/4	23/5	11/6	1/7	0/8

Figure 15. Sample RO Profile (After HQMC, n.d, p. 68)

For this example, the RO has marked the MRO in block 5, with only one other Marine marked higher in block 6 and four other Marines marked lower. Since this FITREP, the RO has gone on to rank 21 other Marines in block 5, with 12 Marines ranked higher and 22 Marines ranked lower. For fairness in reporting, ROs maintain track of their markings by periodically reviewing their RO profile, as shown in Appendices I and J.

With a better understanding of the FITREP and creation of RS and RO profiles, the remaining portion of this chapter focuses on the promotion process and the role of FITREPS in this process.

C. THE PROMOTION PROCESS

The Manpower Management Promotion Branch (MMPR) within HQMC, specifically MMPR-1, Officer Promotions Branch, is responsible for conducting all officer promotion boards in accordance with all governing United States laws along with Department of Defense and Department of the Navy regulations. Because promotion boards adhere to specific laws, they are termed statutory boards. For brevity, this chapter does not discuss the legal background involved with the statutory promotion process. For a detailed summary, please refer to Appendix A of the 2006 Center for Naval Analysis (CNA) study titled *Analyses of the Marine Corps Officer Manpower System Final Report*.

This chapter gives a broad overview of the promotion process, focusing only on active duty, unrestricted, Marines competing for lieutenant colonel.

1. Convening of a Board

In accordance with Title 10 of United States Code (USC), Section 614, the Commandant of the Marine Corps (CMC), via MMPR-1 announces the convening of an officer promotion board at least 30 days before the date that the board convenes. MMPR-1 accomplishes this task through the release of a MARADMIN. As required by Title 10 USC, the MARADMIN must state the following:

- Identify which officers are eligible for promotion by listing the names and dates of rank for the senior and junior Marine in the promotion zone.
- The convening date of the promotion board.
- Guidance on how an eligible officer can communicate with the promotion board.

The MARADMIN goes on to provide additional administrative guidance on how an eligible officer can update their OMPF, MBS, and official photograph.

With the promotion zone now identified by MMPR-1, the next step in the promotion process is the selection of the board members.

2. Selection of Board Members

Title 10 USC, Sections 573, 612, and 14102, along with Secretary of the Navy Instruction (SECNAV) 1401.3A, dictate the composition of the selection board. With those guidelines, Marine Corps Bulletin 5240 details the rank, MOS, special requirements, and the commands to source these officers at least 90 days before the promotion board convenes. Appendix K illustrates the composition of the FY-13 lieutenant colonel promotion board. The director of HQMC Manpower Management screens each nominee to ensure they meet specified requirements to serve as promotion board members. Once certified, MMOA-3 informs the sourcing commands whether or not their nominees have met required specifications. Sourcing commands are directed not to divulge the names of board members so as to avoid undue influence prior to the board convening. With the board members assigned and the promotion zone identified, the promotion process begins on a specified convening date in Quantico, Virginia.

3. The Precept

The promotion board officially begins when the SECNAV releases the promotion board precept to the promotion board president who, for lieutenant colonel promotion boards, is normally a major general. The precept is a legal document that gives the promotion board president and members the authority to select a specific percentage of eligible officers for promotion. Along with listing the names of board members, recorders, and administrative support personnel, the precept provides specific rules on how the president governs the board and describes the board members' roles and responsibilities. Most importantly, the precept instructs board members to give due consideration to officers falling into the following categories:

- Those serving in a critically short MOS identified in the precept.
- Those serving in joint billets.
- Those serving in acquisition billets.

Quotas are not established for officers falling into any of these categories. The board only selects those officers who are best and fully qualified for promotion. The precept also emphasizes that board members are not to consider an officer's race, religion, color, gender, national origin, or marital status when determining selection. Finally, the precept directs the president, board members, recorders, and administrative support personnel to maintain the strictest confidentiality concerning board proceedings and deliberations. With the guidelines established, the board president and members begin the case preparation and briefing.

4. Briefing Process

The briefing process consists of four phases to ensure due diligence for each eligible officer. The four phases consist of case preparation; in-out session for above- and below-zone officers; full case preparation; and full briefing and voting. MCO P1400.31C, *Marine Corps Promotion Manual*, Volume 1, Officer Promotions, provides great detail on each phase. The following paragraphs discuss the most important aspects of each phase.

For case preparation, each board is randomly assigned an equal number of officer packages to review, prepare, and brief. An officer package consists of an eligible officer's OMPF, MBS, written communication submitted by the eligible officer, and their photograph. The president receives half the number of packages assigned to a board member.

For the in-out session for above- and below-zone officers, above and below-zone officers are afforded the opportunity to compete for promotion with in-zone officers only if they receive a vote from any board member. If a vote is cast, these officers' packages are identified as premier officer cases.

For the full case preparation, board members are given additional time to review and prepare premier officer packages prior to the full briefing and voting phase, in which each in-zone and premier officer receives a full briefing. When each package is briefed, a picture of the officer is shown to all board members. The briefer discusses the following:

- Summarizes the officer's career, highlighting key billets held.
- Personal awards received.
- Physical fitness scores.
- Marksmanship and swimming qualifications.
- MCMAP belt level.
- PME completion.
- Letters submitted to the board by the officer.
- Performance as measured by FITREPs.

Figure 16 provides an example of what board members see when comparing an officer's FITREP averages and RO markings against all other officers of similar rank evaluated by the RS and RO. For the RV summary, the number 6 represents that this officer has received six FITREPs between 93% and 100%; one FITREP between the 86% and 93%; two FITREPs between the 80% and 86%; and one nonobserved FITREP. For Comparative Assessment, represented by the words "COMP ASSESSMT," the number 69 represents the number of Marines of the same rank the respective ROs ranked above

this officer. The number 81 represents the number of Marines ranked the same as this officer. The number 143 represents the number of Marines ranked below this officer.

RV SUMMARY		
	At	Cu
UPPER	6	8
MIDDLE	1	1
LOWER	2	1
N/A	1	0
COMP ASSESSMT		
	At	Cu
ABOVE	69	120
WITH	81	148
BELOW	143	195

Figure 16. RV and Comparative Assessment Summary as Viewed by Promotion Board Members (From HQMC, n.d, p. 71).

After all packages are briefed, each board member casts their vote. “The number of ‘yes’ votes a board member can cast is based on the number of officers authorized to select” (HQMC, 2006c, p. 3-8). The board is not required to meet the selection percentage mandated in the precept. Again, board members are not allowed to discuss board proceedings or deliberations even after results are published.

5. Announcement of Board Results

After completion of the full briefing and voting phase, MMPR prepares a selection board report in accordance with Department of Defense Instruction 1320.14. The selection board report contains the following information:

- Board precept.
- List of officers eligible for promotion.
- List of officers selected for promotion.
- Notice of convening.
- Promotion plan.
- Sampling of records.
- Statistical analysis by age, time in grade, time in service, race, gender, civilian education, and MOS.

All board members sign the report, which is routed to the CMC for endorsement before forwarding to the Office of the Judge Advocate General (JAG) of the Navy. After review by the Navy's JAG Office, the report is then sent to the President of the United States via the SECNAV, Secretary of Defense, and US Senate. After approval from the President, board results are released via an All Navy administrative message. MMPR also posts the statistical analysis portion of the report on the USMC website under the MMPR-1 section.

D. SUMMARY

The FITREP serves as the primary tool to evaluate officer performance. An RS's marking of the respective attribute blocks determines an MRO's FITREP average. The RS's and RO's reporting profile determines whether an MRO's FITREP is ranked above, below, or in line with Marines of similar rank observed by the RS and RO, respectively. The FITREP, along with other documentation found in an officer's OMPF, is utilized by promotion board members to determine whether an officer is selected for promotion to lieutenant colonel.

With a better understanding of FITREPs, the promotion process, the MALS' mission, and career progression for an AVNSUPO and AMO, Chapter IV discusses past research done on the USMC promotion process for officers and the identification of statistically significant variables that are associated with promotion.

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IV. LITERATURE REVIEW

A. OVERVIEW

Numerous graduate students from the Naval Postgraduate School (NPS) have analyzed what variables affect a Marine Corps officer's probability for promotion. The CNA has also conducted similar studies.

A majority of the studies are similar in methodology and the data utilized. The studies differ significantly in the number of variables and the exact logistic regression model used, dependent on the author's primary research question.

These past studies provide broad analysis for officers from all MOSs competing for promotion to various ranks and provide a solid foundation from which to build upon, but fall short of answering this thesis's narrowly scoped, primary research questions.

B. PROMOTION STUDIES THAT INCLUDE QUANTATIVE ANALYSIS OF MOS AND OTHER EFFECTS

1. Effect of Being an Aviator on Promotion to Lieutenant Colonel in the USMC

Reynolds' (2011) computes the probability of promotion to lieutenant colonel for Marine Corps aviators (MOS 75XX) compared to officers in other MOSs. Combining panel data from TFDW and performance data from MMSB for majors eligible for promotion to lieutenant colonel, Reynolds' data set consists of 8,271 observations covering FY-04 through FY-12. Observations include in- and above-zone officers only. He further breaks his data set into three separate samples. The first sample includes all officers in the above- and in-zone promotion blocks, totaling 8,271. The second sample consists solely of in-zone officers, reducing the sample size to 4,208. The third sample consists solely of in-zone aviators, totaling 1,619 observations.

Reynolds identifies his dependent variable as promotion to lieutenant colonel. For his independent variables, Reynolds groups 67 variables into six categories: demographics, MOS, training and education, performance, experience, and promotion boards and zones.

Reynolds creates five multivariate probit models varying the number of independent variables based on the research question he attempts to answer. Using probit regression, Reynolds concludes the following for all officers:

- Higher fitness report performance, PME completion, and high PFT scores are strong indicators for promotion to lieutenant colonel.
- Participation in a fully funded education program and poor military appearance, measured by height and weight standards, reduce promotion chances to lieutenant colonel.
- Officers serving in MOSs designated as critically short have a higher selection rate than those in non-critically short MOSs, contrary to McHugh's 2006 CNA study.

For aviation officers only, Reynolds concludes:

- Aviators have a 59.7% selection rate, compared to an overall selection rate of 67.3%.
- Serving in a critical squadron billet, such as Operations or Maintenance Officer, was not statistically significant.
- Being within height/weight standards, being a qualified Weapons and Tactics Instructor, having two or more combat deployments, above average fitness report performance, and more time in an FMF squadron as a major were all statistically significant factors for selection to lieutenant colonel.

Reynolds' detailed data-set, thesis organization, methodology, and specifically his model formulation with regard to billet assignment and combat tours, provides an excellent framework to follow in answering promotion probability questions for other specific MOSs.

2. Significant Factors in Predicting Promotion to Major, Lieutenant Colonel, and Colonel in the USMC

Hoffman (2008) identifies statistically significant variables in predicting promotion to major, lieutenant colonel, and colonel. Merging cross-sectional and panel data, Hoffman also creates three sample sizes from TFDW and MMSB for data analysis

on promotion to major, lieutenant colonel, and colonel. Hoffman defines selection to the next rank as the dependent variable. For the independent variables that total 56, he uses demographics, performance (PFT, water qualification, awards), MOS categories, combat service, commissioning sources, and assignments. For his data analysis, Hoffman uses a probit model to examine the effects of the independent variables described above on the dependent variable of promotion selection.

Hoffman concludes that for selection to lieutenant colonel—utilizing a pool of 519 total observations—billet assignment is not statistically significant for his full model consisting of 40 independent variables. Hoffman also concludes the following variables as significant: performance, attending ILS, and having one combat tour. The aviation support MOS variable, which includes MOSs 6002, 6602, 7204, 7208, 7210, 7220, is significant, but with a negative coefficient. This last finding is contrary to several NPS theses such as Perry (2006) and Ergun (2003).

Despite Hoffman's findings that billet assignments for all MOSs is not a statistically significant variable for promotion to lieutenant colonel, this thesis investigates whether billet assignment is critical to promotion for MOSs 6002 and 6602 only. Hoffman also demonstrates that at least one combat tour is significant for all MOSs, which is a key question that this thesis attempts to answer for MOSs 6002 and 6602.

3. An Analysis of Primary Military Occupational Specialties on Retention and Promotion of Midgrade Officers in the USMC

Perry (2006) identifies and analyzes factors that affect retention and promotion for midgrade Marine Corps officers. Perry also examines the impact that an officer's MOS has on retention and promotion.

Using 27,659 observations from the Marine Corps Commissioned Officer Accession Career (MCCOAC) file spanning FY-80 through FY-99, Perry concludes from the results of a probit regression model that an officer's MOS is significantly associated with their chances for promotion to lieutenant colonel. Officers in the aviation support occupational group—MOSs 6002, 6602, 7202, 7204, 7208, 7210, 7220—had the highest

promotion rates at 68.0%, compared to the sample promotion rate of 65.5%. Specifically, Perry reports promotion rates of 68.7% and 72.5% for MOSs 6002 and 6602, respectively.

When compared to Hoffman's 40-variable promotion model, Perry constructs two logistic models composed of only nine independent variables. For model one, Perry identifies selection to lieutenant colonel as the dependent variable. For the independent variables, he uses: gender, marital status, ethnic group, commissioning age, commissioning source, commissioning FY, prior enlisted, ranking at TBS by thirds, and MOS. For model two, the dependent variable remains the same. The independent variables also all remain the same, but MOS is replaced by MOS occupational group.

Perry concludes that only 6 of 29 MOSs were significant in determining whether an officer is promoted to lieutenant colonel, when compared to the base case (infantry officer)—none of which were MOSs 6002 or 6602. Finally, Perry also concludes that the following variables were significant: age, sex, TBS third, accession through the Naval Reserve Officer Training Course (NROTC) or Officer Candidate Course (OCC), Marine Corps Enlisted Commissioning Program, FY-88, and FY-89.

Due to Perry's finding, this thesis considers sex and FY as significant variables for analysis.

4. A Study of Promotion and Attrition of Midgrade Officers in the United States Marine Corps: Are Assignments a Key Factor?

Morgan (2005) analyzes the relationship between promotion to major and duty assignment, whether in one's MOS in the FMF. Morgan also studies whether attrition is associated with an officer serving in their MOS or B-billets such as recruiting, security forces, joint duty, or drill field. Morgan also measures what effect having served in combat has on retention.

For the data set, Morgan merges demographic data from the MCCOAC file with fitness report data from FY-80 through FY-98. Morgan categorizes 32 independent variables into the following six groups: assignment, performance, occupation,

commissioning, demographics, and FY. For occupation, Morgan defines the air support group as MOSs 60XX, 66XX, and 72XX. Morgan's dependent variable is promotion to major.

Using probit regression, Morgan concludes the following. First, an officer's chances for promotion to major are reduced by 2.5% when an officer's MOS or FMF ratio—time an officer spends in their MOS or in the FMF compared to their total career time—rises above 60%. Morgan states that Marines with greater career diversity, a balance of time between FMF and B-billet, have a higher probability for promotion. Second, an officer is more likely to serve at least 10 years and compete for promotion to major if they have served in a B-billet or in combat. Finally, officers serving in the air support group have the greatest attrition when compared to other MOS groups.

Morgan's study is significant in that he statistically demonstrates that a diverse career track is critical to promotion. This thesis must consider this in its findings so as not to conclude that an officer simply was not promoted to lieutenant colonel solely because he did not hold one or more department head billets.

5. An Analysis of Officer Accession Programs and the Career Development of USMC Officers

Ergun (2003) analyzes the significance of an officer's commissioning source with their probability of promotion to major and lieutenant colonel. Ergun also considers other factors such as minority status, marital status, prior enlisted, gender, TBS class rank percentile, MOS group, and FY.

For the data set, Ergun merges demographic data from the MCCOAC file with FITREP data from FY-80 through FY-99.

Using probit regression for 5,954 observations from FY-80 through FY-83, Ergun's model for promotion to lieutenant colonel states five variables are significant: marital status, TBS class rank percentile, prior enlisted, Enlisted Commissioning Program, and aviation support MOS group consisting of MOSs 59XX, 60XX, 63XX, 66XX, 72XX, and 73XX. For the aviation support MOS group, Ergun reports an 11.03

marginal effect—probability of promotion between a Marine officer in a specific MOS and the average Marine—for promotion to lieutenant colonel.

Due to Ergun’s finding, this thesis considers marital status as a significant variable for analysis.

C. SUMMARY

Each study identifies different statistically significant variables impacting promotion. Interestingly, some of the theses conclude that serving in an aviation support MOS, which includes MOSs 6002 and 6602, positively affect an officer’s chances for promotion while other theses conclude serving in an aviation support MOS negatively affect an officer’s chances for promotion when compared to the base case.

In regard to combat, Reynolds (2011) and Hoffman (2008) state that it is a statistically significant variable in predicting promotion to lieutenant colonel. Other NPS theses such as Long (1992) and Branigan (2001) state combat experience has no effect on promotion.

For billet assignment, Hoffman (2008) states only assignment to ILS positively impacts promotion to lieutenant colonel. For aviators only, Reynolds (2011) states that having a department head billet has no significant impact on promotion; however, the number of months observed in an active duty squadron does positively impact an officer’s promotion chances.

Surprisingly, none of the above theses discuss identifying what variables impact an officer’s chances for command selection after promotion to lieutenant colonel, nor was any additional literature available on the subject.

With a review of past studies complete, Chapter V discusses the data and variables—dependent and independent—this thesis uses in attempting to answer the main research questions.

V. DATA AND VARIABLE DESCRIPTION

A. DATA

This thesis utilizes the data set constructed by Reynolds (2011) for use in his NPS thesis, which was discussed in the previous chapter. With approval from the NPS Institutional Review Board to handle PII and sensitive, personal evaluation data, all records and data were stored on the USMC Manpower and Reserve Affairs Manpower Collaboration website.

Reynolds merges demographic data, such as race and marital status, from the USMC's TFDW and FITREP data, such as RS attribute markings and scores, as well as RO markings. MMSB provided all FITREP data for all unrestricted officers with the rank of major eligible for promotion from FY-04 to FY-12. All data is collapsed into one row of information per officer.

Critical to the construction of each observation was the capturing of data for each officer from each source before the respective promotion board convened. This ensures the analysis of data utilized for this thesis mirrors as closely as possible the same data utilized by the promotion boards. Table 7 lists the dates of each snapshot for each respective promotion board by FY.

Table 7. TFDW Data "Snapshots" and Promotion Board Convene Dates
(After Reynolds, 2011, p. 38)

Promotion Board	TFDW & MMSB "Snapshot" Date	Promotion Board Convening Date
FY-12	31 Jul 10	17 Aug 10
FY-11	31 Aug 09	25 Aug 09
FY-10	30 Sep 08	03 Sep 08
FY-09	30 Sep 07	05 Sep 07
FY-08	30 Sep 06	06 Sep 06
FY-07	31 Aug 05	31 Aug 05
FY-06	30 Sep 04	08 Sep 04
FY-05	30 Sep 03	04 Sep 03
FY-04	31 Oct 02	09 Oct 02

For additional information on the construction of the data set, please refer to Major Reynolds’ 2011 NPS thesis titled *Effect of Being an Aviator on Promotion to Lieutenant Colonel in the USMC*, specifically Chapter IV.

Although Reynolds removed all PII, such as names or social security numbers, from the data set, identification of each officer was made by cross referencing date of rank, ethnicity, and PFT score from his dataset with TFDW information. With the observations now identified by name, additional manipulation of each observation was possible.

In order to answer this thesis’s primary question about whether holding a specific billet in a MALS affects promotion to lieutenant colonel, the screening of FITREPs from October 2002 to July 2010 for all AMOs and AVNSUPOs holding the rank of major was required to determine if they had served in a MALS ASO, OPSO, or XO billet. In addition, detailed scrubbing of each officer’s data was required to ensure accuracy for combat deployments and time spent in a MALS as a major. After all modifications to the data set were completed, all PII was removed to ensure anonymity for each observation.

Table 8 categorizes the observations by promotion zone category for all officer MOSs in Major Reynolds’ data set for above- and in-zone officers from FY-04 through FY-12.

Table 8. Number of Officers per Promotion Zone Category from FY-04 to FY-12

Promotion Zone	Number of Officers
Above Zone	4,063
In Zone	4,208
Total	8,271

Of these 8,271 observations covering all officer MOSs in the USMC, 221 observations reflect only officers serving as AMOs and AVNSUPOs. Of these 221 observations, 118 are for MOS 6002 and 103 are for MOS 6602. These 221 observations reflect only 112 individual officers since 41 officers were considered for promotion two or more times. Of these 41 officers, only five—three AMOs and two AVNSUPOs—were selected from the above-zone. Additionally, six officers were considered for

promotion from the below-zone with five—two AMOs and three AVNSUPOs—selected for promotion to lieutenant colonel. Table 9 lists by MOS the number of officers considered for promotion per FY and their respective zone categories.

Table 9. Number of MOS 6002 and 6602 Officers Considered for Promotion per FY

FY	MOS	Total Number of Officers In and Above Zone	In Zone	Above Zone
12 ¹	6002	26	9	8
	6602		3	6
11 ²	6002	25	4	7
	6602		4	10
10 ³	6002	28	7	7
	6602		8	6
09 ⁴	6002	24	5	9
	6602		3	7
08 ⁵	6002	27	8	6
	6602		5	8
07 ⁶	6002	26	6	6
	6602		8	6
06 ⁷	6002	25	6	7
	6602		6	6
05 ⁸	6002	20	5	6
	6602		4	5
04 ⁹	6002	20	5	7
	6602		6	2
¹ HQMC, 2010a				
² HQMC, 2009				
³ HQMC, 2008a				
⁴ HQMC, 2007a				
⁵ HQMC, 2006a				
⁶ HQMC, 2005				
⁷ HQMC, 2004a				
⁸ HQMC, 2003				
⁹ HQMC, 2002				

Because over 46% of the population for the above- and in-zone data set for AMOs and AVNSUPOs consists of above-zone officers, an additional data set was created for strictly in-zone officers. Because of the high percentage of above-zone officers in the above- and in-zone data set, which may negatively impact the results, only the in-zone data set is utilized for analysis. For the in-zone data set, 55 officers are in MOS 6002 and 47 officers are in MOS 6602.

B. VARIABLE DISCUSSION

The below variables were chosen based on past NPS and CNA USMC officer promotion theses and the author’s personal experience in an attempt to answer this thesis’ primary and secondary research questions. Due to Major Reynolds’ excellent organization in the discussion of his variable selection in Chapter V of his 2011 NPS thesis, this portion of the chapter mirrors his format, but not content.

1. The Dependent Variable

The dependent variable for this thesis is the selection to lieutenant colonel. Table 10 explains coding for this variable.

Table 10. Promotion Select to Lieutenant Colonel Category

Variable Label	Range
promo_select_O5	= 1 if selected; 0 otherwise

2. Explanatory Variables

From the data merged from TFDW and MMSB, the explanatory variables are broken into the following categories:

- Demographics
- MOS
- Training
- Appearance
- Education
- Performance

- Awards
- Department Head Experience
- Combat
- Promotion Board FY

All independent variables in the data set were coded against a base officer defined as the following:

- White, married, and with no dependents
- AMO
- First class PFT as well as nonexpert in pistol and rifle marksmanship
- Within height and weight standards
- Bachelor’s degree and ILS PME complete
- Lower strata in FITREP RV measured as (80.0 – 86.66)
- No personal awards
- No department head experience
- No combat deployments as a major
- FY-04

3. Demographics

All demographic data was sourced from TFDW. Due to the limited variability in the number of observations for race, as shown in Table 11, all nonwhite officers were categorized under the variable “non_white.” Limited variability in the number of observations for gender—99 males and 3 females—resulted in its exclusion as a variable. Table 12 illustrates the coding for the two demographic variables used in the analysis.

Table 11. Ethnicity for the In-Zone Data Set

Ethnicity	Number of Officers
Asian	6
Black	11
Hispanic	7
Native American	1
White	74
Refused to Respond	3
Total	102

Table 12. Coding for Demographics Category

Variable Label	Range
non_white	=1 if non_white; 0 otherwise
married	= 1 if married; 0 otherwise
dependents	= 1 if officer has at least 1 child or spouse; 0 otherwise

4. MOS

Because of the focused scope of this thesis, only two MOSs are analyzed, resulting in only one variable for this category and shown in Table 13.

Table 13. Coding for MOS Category

Variable Label	Range
mos_6602	= 1 if AVNSUPO; 0 otherwise

5. Training

No matter what their MOS or age, Marines are required to complete annual marksmanship and physical fitness tests. This training ensures Marines are proficient in the basics of marksmanship and maintain the required standards of physical fitness.

In accordance with MCO 3574.2K, Marine Corps Combat Marksmanship Program, all majors are required to qualify annually with their T/O weapon. Although all MALS T/O's state the M4 carbine is the T/O weapon for majors, all still qualify with the M9 service pistol unless they meet required exemptions specified in the order. Officers are not required to qualify with the M-16A2 service rifle after they reach the rank of major. "Marines who are not required to fire for re-qualification will wear their last qualification/re-qualification badge" (HQMC, 2007b, p. 1-5). Therefore, majors retain the last rifle qualification they earned as a captain unless they request to requalify on a rifle marksmanship course.

All Marines are required to maintain a certain level of fitness in order to perform their primary duties and be able to perform the duties required of an infantryman when needed. Hence the Marine Corps motto, "every Marine is a rifleman." This same principle applies to Marine Corps officers. To measure an officer's level of physical

fitness, each must complete two physical fitness tests. The first test, the PFT, consists of pull-ups, sit-ups, and a three-mile run. This test is only administered from January through June of each year. The cumulative score for all three categories, which takes into account age and gender, is classified into classes—first, second, and third. A first class score reflects a higher level of physical fitness when compared to a second or third class score. See MCO 6100.13 W/CH1, Marine Corps Physical Fitness Program, for additional information on scoring. The second test, the CFT, was implemented by HQMC in 2008 and therefore was not included as a variable due to limited number of observations in the data set. Table 14 illustrates the coding for the training variables utilized in the analysis.

Table 14. Coding for Training Category

Variable Label	Range
rifle_expert	= 1 if qualified as an expert; 0 otherwise
pistol_expert	= 1 if qualified as an expert; 0 otherwise
pft_2	= 1 if earned a 2 nd or 3 rd class PFT score; 0 otherwise

Although the MCMAP is an essential part of USMC physical training, inconsistent data contained in TFDW prevented using this variable in any statistical analysis. Similar problems have prevented the USMC Martial Arts Center of Excellence from providing accurate numbers of trained Marines (J. Shusko, personal communication, November 4, 2011).

6. Appearance

As detailed in MCO 6110.3, Marine Corps Body Composition and Military Appearance Program, the Marine Corps places heavy emphasis on military appearance. To ensure Marines meet required height, weight, and body fat guidelines, each Marine must weigh-in semiannually. A Marine's height determines the maximum and minimum allowable weight by gender. If a Marine exceeds their respective maximum weight limit, they must fall within prescribed body fat percentages for their age. For example, a 38-year old, five-foot eleven-inch, male Marine's weight shall not exceed a maximum of

197 pounds. If a Marine’s weight does exceed 197 pounds, the Marine’s body fat shall not exceed 19%, which is calculated by various measurements of the neck and abdomen.

For the data set, nine observations existed for officers exceeding their height and weight requirement; however, each of these officers also met their body fat standards. Therefore, a body fat indicator was not required for the data set. Table 15 illustrates the coding for the appearance variable utilized in the analysis.

Table 15. Coding for Appearance Category

Variable Label	Range
not_ht_wt	= 1 if outside the height and weight limit; 0 otherwise

7. Education

The Marine Corps emphasizes military education in the art of war by using a three-tier building block approach. In order to remain competitive for promotion to major, a captain must complete CLS at the Expeditionary Warfare School in Quantico, Virginia, or via seminar. To remain competitive for promotion to lieutenant colonel, a major must complete ILS at the CSC in Quantico, Virginia, or via seminar. An officer may earn a master’s degree in military studies while attending the CSC by completing additional educational requirements. To remain competitive for promotion to colonel, a lieutenant colonel must complete Top Level School at the Marine Corps War College in Quantico, Virginia. Officers at each tier are given opportunities to attend equivalent PME schools offered by the other services.

Marines may pursue advanced degrees outside of the military PME construct. Prior to the implementation of the CPIB, Marine officers competed for selection to attend graduate school via the SEP board. If selected, officers either attended the NPS, Air Force Institute for Technology, or a civilian college to pursue a master’s degree in the discipline selected by the SEP board. While assigned to any billet, Marines may also earn a master’s degree during nonworking hours by utilizing the tuition assistance program, which subsidizes tuition expenses. Table 16 illustrates the coding for the ILS PME education variable as well as the master’s degree variable utilized in the analysis.

In regard to civilian education, only one officer possessed a doctorate, but was not selected for promotion. This officer’s record is coded as possessing a master’s degree.

Table 16. Coding for Education Category

Variable Label	Range
non-ils-compl	= 1 if ILS complete; 0 otherwise
educ_md	= 1 if attained master’s degree; 0 otherwise

8. Performance

As discussed in detail in Chapter III, an RS and RO evaluate a Marine’s performance in their duties via a FITREP, resulting in a RS RV score between 80% and 100% and an RO marking ranging in value from 1 to 8.

The performance RV variable shown in Table 17 as “perf_RV” represents the average of all normalized scores for the FITREPs received as a major. The performance RV upper, middle, and lower variables indicate where the officer’s perf_RV fell out. As defined by the MMSB, the performance RV upper score ranges from 93.34 to 100. The performance RV middle score ranges from 86.67 to 93.33, while the performance RV lower score ranges from 80.00 to 86.66.

The performance RO cumulative value variable, shown in Table 17 as “perf_ROCV,” represents an officer’s RO marking in comparison to the ROs’ average markings.

Table 17. Coding for Performance Category

Variable Label	Range
perf_RV	80 – 98.26
perf_ROCV	-1.58 – 1.47
perf_rv_upper	= 1 if perf_RV fell between 93.34 – 100; 0 otherwise
perf_rv_middle	= 1 if perf_RV fell between 86.67 – 93.3; 0 otherwise
perf_rv_lower	= 1 if perf_RV fell between 80.00 – 86.66; 0 otherwise

For example, an officer with a perf_ROCV of +2.0 means this officer scored two levels above the ROs’ average scores. See Reynolds (2011) for additional information on the formulation of this metric.

9. Awards

Marines are given personal awards for meritorious performance in peacetime and meritorious performance and or bravery in combat, while in the performance of their duties. SECNAVISNT 1650.1H, Navy and Marine Corps Awards Manual, provides guidelines for the awarding of each personal award. Although the guidelines are specific, commands across the Marine Corps have various award philosophies in the number given to their officers and the level of award. Some commands give awards to officers only upon the successful completion of a three-year tour. Others only give awards for specific achievements during that tour. Still other commands limit the number of awards that an officer can receive to one during a tour, while other commands allow multiple awards during a tour. As far as the level of award, some commands are more liberal than others in the type of award given to an officer for similar accomplishments. Despite the disparities in philosophies and, more importantly, since the number of awards an officer has is part of their briefing package during a promotion and command selection board, this thesis includes the number of awards an officer has as a variable. Only the four personal awards shown in Table 18 were chosen as variables since these represented a preponderance of all personal awards given to officers in the data set. The variable “pa_MM” represents the Meritorious Service Medal. The variable “pa_JC” represents the Joint Commendation Medal. The variable “pa_NC” represents the Navy and Marine Corps Commendation Medal. The variable “pa_NA” represents the Navy and Marine Corps Achievement Medal.

Table 18. Coding for Awards Category

Variable Label	Range
pa_MM	0 - 3
pa_JC	0 - 2
pa_NC	0 - 5
pa_NA	0 - 5

10. Department Head Experience

Central to answering this thesis’ primary research question, is the identification of officers in the data set who served as an ASO, OPSO, or XO in a MALS. As discussed in the FY-12 MMOA Roadshow Brief, specifically the career time line slide shown in Appendix L, serving in a key billet—OPSO or XO—within a squadron or battalion, along with completion of ILS, is believed to improve an officer’s chances for promotion to lieutenant colonel. Table 19 illustrates the coding for the department head variables. Because MMOA stresses that serving in the FMF at each rank is critical to promotion, the squadron (SQDN) time-in-grade (TIG) variable was created to measure the time served in the MALS by an observed FITREP measured in days, versus the time in grade as a major also measured in days. For example, an officer’s SQDN TIG ratio for serving 1,209 observable days in a MALS while having served 2,404 days as a major is 0.5029. Table 20 illustrates the coding for the “sqdn_TIG” variable.

Table 19. Coding for Department Head Category

Variable Label	Range
depthd_ASO	= 1 if served as an ASO and received an observed FITREP; 0 otherwise
depthd_OPPO	= 1 if served as an OPSO and received an observed FITREP; 0 otherwise
depthd_XO	=1 if served as an XO and received an observed FITREP; 0 otherwise

Table 20. Coding for Time in Squadron

Variable Label	Range
sqdn_TIG	0.0 - 0.9303

11. Combat

Central to answering this thesis’ secondary research question, is the identification of officers in the data set who made a combat deployment in support of the GWOT as a major. For the data set, 39 out of 102 officers had made one combat deployment. Table 21 illustrates the coding for the “combat_report” variable.

Table 21. Coding for Deployment Category

Variable Label	Range
combat_report	= 1 if received a combat FITREP; 0 otherwise

12. Promotion Board FY

In order to block on each FY to differentiate between promotion boards, a variable is created for each FY. For example, all officers considered for promotion on the FY-05 promotion board are marked with a value of “1” for the “fy05” indicator variable, while all other officers are marked with a value of zero. Table 22 illustrates the coding for the category FY.

Table 22. Coding for FY

Variable Label	Range
fyxx	= 1 if observation was considered for promotion during that FY; 0 otherwise

C. SUMMARY

Due to the large number of passed-over officers in the above- and in-zone data set, this thesis analyzes only the in-zone data set, which contains detailed demographic, military performance, and training data. This data set contains 102 observations for the same number of officers. With the data set and 32 variables defined, Chapter VI discusses methodology, multivariate logistic regression models utilized, and the results.

VI. METHODOLOGY, MODELS, AND RESULTS

A. METHODOLOGY

In order to measure the statistical influence that the independent variables described in Chapter IV have on the dependent variable, selection to lieutenant colonel, regression analysis is required. Because the dependent variable is dichotomous for this thesis, selection to lieutenant colonel or not selected to lieutenant colonel, an appropriate regression modeling technique is the logistic model defined as (Hosmer & Lemeshow, 2000, p. 6):

$$g(x) = \frac{\pi(x)}{1 - \pi(x)} = B_0 + B_1x_1 + B_kx_k + \varepsilon,$$

where $\pi(x) = E(Y|X)$. Hosmer and Lemeshow (2000) stated “The importance of this transformation is that $g(x)$ has many of the desirable properties of a linear regression model. The logit, $g(x)$, is linear in its parameters, may be continuous, and may range from $-\infty$ to ∞ , depending on the range of x ” (p. 6). The parameter estimates for the independent variables are calculated by using the method of maximum likelihood. An independent variable is significant if the chi-square test statistic’s p-value is less than 0.05.

For a complete description of logistic regression, see Hosmer and Lemeshow’s *Applied Logistic Regression*, second edition (2000). With background information provided on the model, the next critical step is the selection of independent variables.

1. Variable Selection

This section discusses two methods to identify variables—univariable analysis and step-wise selection. As recommended by Hosmer and Lemeshow (2000), the selection process for independent variables may begin with a univariable analysis of each possible independent variable using the logit of the logistic regression model, where B_1 represents the coefficient for the independent variable x :

$$g(x) = B_0 + B_1x_1 .$$

Table 23 provides an example of univariable analysis with x_1 , an indicator variable for “non_white,” and selection to lieutenant colonel as the dependent variable for the in-zone data set.

Table 23. Univariable Analysis for Selection to Lieutenant Colonel versus Non-White Variable

Term	Estimate	Std Error	Chi-Square	P-Value
non_white	0.32217845	0.2398226	1.80	0.1791

Alone, this variable is potentially associated with selection to lieutenant colonel since the p-value is less than 0.25, where Hosmer and Lemeshow (2000) recommend using a p-value of 0.25 for screening. This method of selecting variables may be applied to the in-zone data set until a preliminary model is built and model diagnostics analyzed. However, for this thesis, use of the step-wise method to select the most significant independent variables is preferred.

Three approaches to step-wise regression exist: (1) forward selection, (2) backward elimination, and (3) mixed. See Montgomery, Peck, and Vining’s *Introduction to Linear Regression Analysis*, fourth edition (2006) for a detailed explanation of the three methods. In short, each method differs by when an independent variable is selected to enter or exit the model, based on a predetermined p-value entrance or exit criteria. For this thesis, the forward selection method is utilized within the JMP[®] statistical software package.

2. Model Diagnostics

To determine a model’s fit, accuracy, and goodness of fit, diagnostics are required. To determine model fit, the whole model test is utilized.

The whole model test compares the fitted model versus a model fitted only with the intercepts (SAS Institute, Inc., 2010). The chi-square test is utilized to determine if the fitted model is better than the intercept-only model. If the p-value is significant (i.e., less than 0.05), then the fitted model is better.

A model's accuracy can be measured by the R^2 value "which is the ratio of the difference to the reduced negative log-likelihood values . . . R^2 ranges from zero for no improvement to 1 for a perfect fit" (SAS Institute, Inc., 2010, p. 172). In addition to R^2 , JMP[®] provides other measures to access model accuracy such as the Root Mean Square Error (RMSE) and misclassification rate. RMSE is "where the differences are between the response and p (the fitted probability for the event that actually occurred)" (SAS Institute, Inc., 2010, p. 172) or more simply stated as the standard deviation of the unexplained variability. The misclassification rate "is the rate for which the response category with the highest fitted probability is not the observed category" (SAS Institute, Inc., 2010, p. 172). Lower values for each measure signify an accurate model.

A model's goodness of fit determines whether more independent variables need to be added to the fitted model. The chi-square goodness of fit statistic determines whether the fitted model is better than the saturated model, which includes all independent variables. If the chi-square statistic is not significant (i.e., the p-value greater than 0.05), the addition of variables to the fitted model is not required. With the test and measurements defined to measure model adequacy, Section 3 discusses the interpretation of the data results.

3. Interpreting the Results

For logistic regression, use of the odds ratio serves as the best method to interpret the results. Montgomery, Peck, and Vining (2006) stated, "The odds ratio can be interpreted as the estimated increases in the probability of success associated with one-unit change in value of the predictor variable" (p. 434). The odds ratio is:

$$O_R = \frac{odds_{x_i+1}}{odds_{x_i}} = e^{B_1} .$$

With discussion on methodology complete, Section B discusses the models that were analyzed using logistic regression.

B. THE MODELS AND RESULTS

Three models are built to answer this thesis's primary and secondary research questions using the in-zone data set.

1. MOS Model

Utilizing our base officer, as defined in Chapter V, this model attempts to determine if serving in one particular MOS—6002 or 6602—provides an advantage for selection to lieutenant colonel. Note that, for brevity, the variables in the models (see Figure 17) are grouped into the categories defined in Chapter V. For example, the variable $B_{demographics}$ includes the variables “married,” “dependents,” and “non_white.” Figure 17 shows the category of variables for the MOS Model.

$$\begin{aligned} \textit{logit selection to lieutenant colonel} \\ &= B_0 + B_1x_{mos} + B_2x_{demographics} + B_3x_{education} + B_4x_{training} \\ &+ B_5x_{appearance} + B_6x_{awards} + B_7x_{performance} \\ &+ B_8x_{squadron\ time\ in\ grade} + B_9x_{fyXX} \end{aligned}$$

Figure 17. MOS Model

a. Variable Selection

The first step in the variable selection process is to complete forward step-wise selection in JMP[®] by using a p-value to enter of 0.05 for the variables in the MOS Model. In order to test whether an AVNSUPO has a higher probability for selection to lieutenant colonel compared to an AMO, “mos_6602” is entered into the model, although it is not selected during the step-wise selection process. Each “fyXX” variable is also entered into the model to differentiate between the selection boards, although not selected during the step-wise selection process. Nominal logistic regression is completed for the selected variables. Table 24 lists the parameter estimates from the fitted logistic regression for the MOS Model.

Table 24. Parameter Estimates for MOS Model for the In-Zone Data Set

Parameter Estimates				
Term	Estimate	Std Error	ChiSquare	Prob>ChiSq
Intercept	-5.7266218	4.3458919	1.74	0.1876
MOS_6602[1]	-0.0013169	0.3386526	0.00	0.9969
non_ILS_compl[1]	-3.2502125	1.0500191	9.58	0.0020*
pft_2[1]	-2.3886004	0.9423544	6.42	0.0113*
pa_MM	1.86941046	0.7414532	6.36	0.0117*
perf_rv_middle[M]	0.45993254	0.3718487	1.53	0.2161
perf_rocv	3.6187196	0.9853385	13.49	0.0002*
squadron_TIG	3.09298373	1.8060704	2.93	0.0868 **
fy05[1]	-0.1586872	0.7278587	0.05	0.8274
fy06[1]	0.90980211	0.7762468	1.37	0.2412
fy07[1]	0.3619334	0.7539087	0.23	0.6312
fy08[1]	-0.3428339	0.6232153	0.30	0.5822
fy09[1]	0.14927049	0.792127	0.04	0.8505
fy10[1]	-0.7011793	0.6888087	1.04	0.3087
fy11[1]	0.70551243	0.9328495	0.57	0.4495
fy12[1]	-0.4395863	0.6642348	0.44	0.5081
For log odds of 1/0				

*Significant at p-value < 0.05

** Significant at p-value < 0.10

b. Model Diagnostics

As shown in Figure 18, under the Whole Model Test section, the fitted model is better than the model fitted only with intercepts since the Prob>ChiSq is significant, with a p-value less than 0.05. R^2 is 0.5121. The RMSE of 0.3254 translates to 32% of the variability is unexplained. The misclassification rate of 0.1373 means the model accurately classified officers 86% of the time as either selected or not selected to lieutenant colonel. For goodness of fit, shown under the Lack of Fit section, additional terms are not required for the model since the p-value of 0.9396 is greater than 0.05 and therefore not significant.

Whole Model Test					Lack Of Fit			
Model	-LogLikelihood	DF	ChiSquare	Prob>ChiSq	Source	DF	-LogLikelihood	ChiSquare
Difference	34.984522	15	69.96904	<.0001*	LackOfFit	86	33.325195	66.65039
Full	33.325195				Saturated	101	0.000000	Prob>ChiSq
Reduced	68.309717				Fitted	15	33.325195	0.9396
RSquare (U)		0.5121						
AICc		105.05						
BIC		140.65						
Observations (or Sum Wgts)		102						
Measure	Training	Definition						
Entropy RSquare	0.5121	$1 - \text{Loglike}(\text{model}) / \text{Loglike}(0)$						
Generalized R-Square	0.6726	$(1 - (L(0)/L(\text{model}))^{2/n}) / (1 - L(0)^{2/n})$						
Mean -Log p	0.3267	$\sum -\text{Log}(p_{ij})/n$						
RMSE	0.3254	$\sqrt{\sum (y_{ij} - p_{ij})^2/n}$						
Mean Abs Dev	0.2093	$\sum y_{ij} - p_{ij} /n$						
Misclassification Rate	0.1373	$\sum (p_{ij} \neq p_{\text{Max}})/n$						
N		102	n					

Figure 18. MOS Model Diagnostics for In-Zone Data

c. Interpreting the Results

The most important finding from this model is that AVNSUPOs do not have a higher probability for selection to lieutenant colonel compared to AMOs, as indicated by the lack of significance for the “mos_6602” variable shown in Table 24, with the p-value $0.9969 > 0.05$. Using the odds-ratio, Table 25 provides the interpretation of the results for the significant variables.

Table 25. Significant Factors for the MOS Model for the In-Zone Data Set

Term	Estimate	Odds Ratio	Interpretation
non_ILS_compl	-3.2502125	0.038766	An officer not completing ILS is associated with lower odds for selection to lieutenant colonel.
pft_2	-2.3886004	0.091758	An officer scoring below a first class PFT is associated with lower odds for selection to lieutenant colonel.
pa_MM	1.86941046	6.48447	An officer having a Meritorious Service Medal is associated with higher odds for selection to lieutenant colonel for each Meritorious Service Medal received.
perf_rocv	3.6187196	37.2898	An officer with above average RO markings is associated with higher odds for selection to lieutenant colonel with each level increase on the RO grading scale.
squadron_TIG	3.09298373	22.0427	An officer with higher SQDN TIG is associated with higher odds for selection to lieutenant colonel for each additional month spent in a MALS.

2. MOS and Combat Model

For this model, the goal is to determine whether serving on at least one combat deployment improves an AVNSUPO's or an AMO's chances for promotion. Figure 19 shows the category of variables for the MOS and combat model:

$ \begin{aligned} & \textit{logit selection to lieutenant colonel} \\ & = B_0 + B_1x_{mos} + B_2x_{combat} + B_3x_{demographics} + B_4x_{education} \\ & + B_5x_{training} + B_6x_{appearance} + B_7x_{awards} + B_8x_{performance} \\ & + B_9x_{squadron\ time\ in\ grade} + B_{10}x_{fyxx} \end{aligned} $

Figure 19. MOS and Combat Model for In-Zone Data

a. Variable Selection

The first step in the variable selection process is to complete forward step-wise selection in JMP[®] using a p-value to enter of 0.05 for the variables in the MOS and combat model. As with the MOS model, the variable “combat_report” is entered into

the MOS and combat model although not selected in the step-wise selection process to determine if officers who have served in combat have a higher probability of selection to lieutenant colonel. The variables “mos_6602” and “fyXX” are again entered into the model for reasons explained in Section 1.a. Table 26 lists the parameter estimates from the fitted logistic regression for the MOS and combat model.

Table 26. Parameter Estimates for the MOS and Combat Model for the In-Zone Data Set

Parameter Estimates				
Term	Estimate	Std Error	ChiSquare	Prob>ChiSq
Intercept[1]	-4.2605522	4.1480864	1.05	0.3044
MOS_6602[1]	0.05762343	0.3440936	0.03	0.8670
combat_report[1]	0.54347741	0.3744756	2.11	0.1467
non_ILS_compl[1]	-3.2018617	1.1633927	7.57	0.0059*
pft_2[1]	-1.9640104	0.866087	5.14	0.0233*
pa_MM	1.90278794	0.7510403	6.42	0.0113*
perf_rv_middle[M]	0.71409507	0.3868413	3.41	0.0649**
perf_rocv	3.68255356	0.985669	13.96	0.0002*
fy05[1]	-0.0909638	0.7116428	0.02	0.8983
fy06[1]	1.17488827	0.7674893	2.34	0.1258
fy07[1]	0.01029674	0.7834958	0.00	0.9895
fy08[1]	-0.6394564	0.6558401	0.95	0.3296
fy09[1]	-0.0916409	0.8482388	0.01	0.9140
fy10[1]	-0.4099088	0.6384781	0.41	0.5209
fy11[1]	0.71715038	0.9370707	0.59	0.4441
fy12[1]	-0.3613752	0.6679337	0.29	0.5885

*Significant at p-value < 0.05

** Significant at p-value < 0.10

b. Model Diagnostics

As shown in Figure 20, under the Whole Model Test section, the fitted model is better than the model fitted only with intercepts, since the Prob>ChiSq is significant and the p-value is less than 0.05. The R^2 value has decreased from 0.5121 to 0.5045 with the introduction of the combat variable. The RMSE of 0.3272 translates to 32% of the variability is unexplained. The misclassification rate of 0.1471 means the model accurately classified officers 85% of the time as either selected or not selected to

lieutenant colonel. For goodness of fit, shown under the Lack of Fit section, additional terms are not required for the model since the p-value of 0.9274 is greater than 0.05 and therefore not significant.

Whole Model Test					Lack Of Fit			
Model	-LogLikelihood	DF	ChiSquare	Prob>ChiSq	Source	DF	-LogLikelihood	ChiSquare
Difference	34.459146	15	68.91829	<.0001*	Lack Of Fit	86	33.850571	67.70114
Full	33.850571				Saturated	101	0.000000	Prob>ChiSq
Reduced	68.309717				Fitted	15	33.850571	0.9274
RSquare (U)		0.5045						
AICc		106.101						
BIC		141.701						
Observations (or Sum Wgts)		102						
Measure	Training	Definition						
Entropy RSquare	0.5045	1-Loglike(model)/Loglike(0)						
Generalized R-Square	0.6656	$(1-(L(0)/L(model))^{(2/n)})/(1-L(0)^{(2/n)})$						
Mean -Log p	0.3319	$\sum -\text{Log}(p_{ij})/n$						
RMSE	0.3272	$\sqrt{\sum (y_{ij}-p_{ij})^2/n}$						
Mean Abs Dev	0.2127	$\sum y_{ij}-p_{ij} /n$						
Misclassification Rate	0.1471	$\sum (p_{ij} \neq p_{Max})/n$						
N	102	n						

Figure 20. MOS and Combat Model Diagnostics for In-Zone Data

c. Interpreting the Results

When considering MOS, the most important finding from this model is that having a combat deployment to OEF or OIF does not significantly improve an AVNSUPO’s or AMO’s probability for promotion to lieutenant colonel, as indicated by the lack of significance for the “combat_report” variable shown in Table 26, with a p-value $0.1467 > 0.05$. With the introduction of the “combat_report” variable in the MOS and combat model, the “mos_6602” variable still remains insignificant, with a p-value $0.8670 > 0.05$. Utilizing the odds-ratio, Table 27 provides the interpretation of the results for the significant variables.

Table 27. Significant Factors for the MOS and Combat Model for the In-Zone Data Set

Term	Estimate	Odds Ratio	Interpretation
non_ILS_compl	-3.2018617	0.040686	An officer not completing ILS is associated with lower odds for selection to lieutenant colonel.
pft_2	-1.9640104	0.140295	An officer scoring below a first class PFT is associated with lower odds for selection to lieutenant colonel.
pa_MM	1.90278794	6.70456	An officer having a Meritorious Service Medal is associated with higher odds for selection to lieutenant colonel for each Meritorious Service Medal received.
perf_rv_mid	0.71409507	2.04234	An officer whose FITREP RV average falls into the middle RV strata is associated with higher odds for selection to lieutenant colonel.
perf_rocv	3.68255356	39.7478	An officer with above average RO markings is associated with higher odds for selection to lieutenant colonel with each level increase on the RO grading scale.

3. MOS, Combat, and Deployment Model

For this model, the goal is to determine whether serving in one or more department head billets improves an AVNSUPO’s or an AMO’s chances for promotion, in addition to having completed one combat deployment as a major. The MOS, combat, and department head model is the most robust since it includes all variables which are essential to answering this thesis’s primary and secondary research questions. Note that for this model, due to the limited number of observations in the sample, the married and dependent variables are removed, but the “non_white” variable remains, while adding the department head variables—“depthd_xo, depthd_opso,” and “depthd_aso.” Figure 21 shows the category of variables for the MOS, combat, and department head model.

$ \begin{aligned} & \textit{logit selection to lieutenant colonel} \\ & = B_0 + B_1x_{mos} + B_2x_{combat} + B_3x_{department head} + B_4x_{demographics} \\ & + B_5x_{education} + B_6x_{training} + B_7x_{appearance} + B_8x_{awards} \\ & + B_9x_{performance} + B_{10}x_{squadron time in grade} + B_{11}x_{fyXX} \end{aligned} $

Figure 21. MOS, Combat, and Department Head Model for In-Zone Data

a. Variable Selection

The first step in the variable selection process is to complete forward step-wise selection in JMP[®] using a p-value to enter of 0.05 for the variables in the MOS, combat, and department head model. As with the previous models, the department head variables—“depthd_aso,” depthd_opso,” and depthd_xo”—are entered into this model, as well as “mos_6602” and “fyXX,” in order to determine billet impact on promotion probability. Table 28 lists the parameter estimates from the fitted logistic regression for Model 3.

Table 28. Parameter Estimates for the MOS, Combat, and Department Head Model for the In-Zone Data Set

Parameter Estimates				
Term	Estimate	Std Error	ChiSquare	Prob>ChiSq
Intercept[1]	-4.1502934	4.2854068	0.94	0.3328
MOS_6602[1]	-0.4577361	0.6715516	0.46	0.4955
combat_report[1]	0.55138033	0.4515998	1.49	0.2221
depthd_aso[1]	0.47381037	0.6616966	0.51	0.4740
depthd_opso[1]	-0.6828236	0.4842637	1.99	0.1585
depthd_xo[1]	1.45575086	0.5955849	5.97	0.0145*
non_ILS_comp[1]	-3.4767667	1.1629602	8.94	0.0028*
pft_2[1]	-2.1858959	0.9399471	5.41	0.0200*
pa_MM	2.15793238	0.9196839	5.51	0.0190*
perf_rv_middle[M]	0.37683289	0.429093	0.77	0.3798
perf_rocv	3.07891459	1.0698746	8.28	0.0040*
fy05[1]	0.1537909	0.7740096	0.04	0.8425
fy06[1]	1.14005138	0.7926372	2.07	0.1503
fy07[1]	0.33043185	0.944871	0.12	0.7266
fy08[1]	-0.7798809	0.7043125	1.23	0.2682
fy09[1]	0.21372979	1.0147568	0.04	0.8332
fy10[1]	-0.7632188	0.7726837	0.98	0.3233
fy11[1]	0.28660979	1.2123957	0.06	0.8131
fy12[1]	-0.6533585	0.7460455	0.77	0.3812

*Significant at p-value < 0.05

b. Model Diagnostics

As shown in Figure 22, under the Whole Model Test section, the fitted model is better than the model fitted only with intercepts since the Prob>ChiSq is significant, with p-value less than 0.05. The R^2 value has increased from 0.5045 to 0.5897. The RMSE of 0.2969 translates to only 29% of the variability and is unexplained compared to 32% for the MOS and MOS and combat models. The misclassification rate of 0.1373 means the model accurately classified officers 87% of the time as either selected or not selected to lieutenant colonel. For goodness of fit, shown under the Lack of Fit section, additional terms are not required for the model since the p-value of 0.9898 is greater than 0.05 and therefore not significant.

Whole Model Test					Lack Of Fit			
Model	-LogLikelihood	DF	ChiSquare	Prob>ChiSq	Source	DF	-LogLikelihood	ChiSquare
Difference	40.283067	18	80.56613	<.0001*	Lack Of Fit	83	28.026650	56.0533
Full	28.026650				Saturated	101	0.000000	Prob>ChiSq
Reduced	68.309717				Fitted	18	28.026650	0.9898
RSquare (U)		0.5897						
AICc		103.322						
BIC		143.928						
Observations (or Sum Wgts)		102						
Measure	Training	Definition						
Entropy RSquare	0.5897	$1 - \text{Loglike}(\text{model}) / \text{Loglike}(0)$						
Generalized R-Square	0.7400	$(1 - L(0) / L(\text{model}))^{(2/n)} / (1 - L(0))^{(2/n)}$						
Mean -Log p	0.2748	$\sum -\text{Log}(\rho_{ij}) / n$						
RMSE	0.2969	$\sqrt{\sum (y_{ij} - \rho_{ij})^2 / n}$						
Mean Abs Dev	0.1751	$\sum y_{ij} - \rho_{ij} / n$						
Misclassification Rate	0.1373	$\sum (\rho_{ij} \neq \rho_{\text{Max}}) / n$						
N		102						
		n						

Figure 22. MOS, Combat, and Department Head Model Diagnostics for In-Zone Data

c. Interpreting the Results

As illustrated in Table 29, an AMO or AVNSUPO who serves as an XO in a MALS, has at least one Meritorious Service Medal, and with above average RO marks has an increased probability of selection to lieutenant colonel. An AMO’s and AVNSUPO’s probability for selection is drastically reduced if the officer has not completed ILS and does not complete a first class PFT. Note that having a combat FITREP was not a significant factor for promotion. In addition, the “mos_6602” variable was not significant, thus illustrating that neither MOS 6002 nor 6602 has an advantage over the other in promotion. Using the odds-ratio, Table 29 provides the interpretation of the results for the significant variables.

Table 29. Significant Factors for the MOS, Combat, and Department Head Model for the In-Zone Data Set

Term	Estimate	Odds Ratio	Interpretation
depthd_xo[1]	1.45575086	4.2877	An officer who serves as an XO is associated with higher odds of being promoted to lieutenant colonel.
non_ILS_compl[1]	-3.4767667	0.03907	An officer not completing ILS is associated with lower odds for selection to lieutenant colonel.
pft_2[1]	-2.1858959	0.112377	An officer scoring below a first class PFT is associated with lower odds for selection to lieutenant colonel.
pa_MM	2.15793238	8.65323	An officer having a Meritorious Service Medal is associated with higher odds for selection to lieutenant colonel for each Meritorious Service Medal received.
perf_rocv	3.07891459	21.7348	An officer with above average RO markings is associated with higher odds for selection to lieutenant colonel with each level increase on the RO grading scale.

With the statistically significant variables for promotion to lieutenant colonel identified for MOSs 6002 and 6602, Section C discusses selection of significant variables for command selection.

C. COMMAND SELECTION

This thesis’s tertiary question is to identify the statistically significant variables for selection of a MALS or CNATT MARUNIT CO utilizing the same methodology that was used to identify statistically significant variables for promotion to lieutenant colonel. MMOA-3—responsible for administrating the CSP and the repository of all data pertinent to the CSP—declined to release any data, specifically the names of the AMOs and AVNSUPOs by FY who had submitted their names for command consideration.

Without knowing the names of the officers competing for command for each specific command board, one has to assume that those officers not selected for command or as an alternate were not selected due to keen competition. This is a broad and incorrect assumption to make since eligible officers—lieutenant colonel and lieutenant colonel selects—may withhold their name for consideration for numerous reasons without penalty when competing on future command boards.

Lacking this information, this section provides only descriptive statistics for those AMOs and AVNSUPOs selected to command a MALS or CNATT MARUNIT from June 2004 through May 2013.

1. The Data Set

By screening the lieutenant colonel command selection results published via MARADMIN from FY-04 through FY-12, an additional variable was created in the in-zone data set as shown in Table 30.

Table 30. Selection for Command of a MALS or CNATT MARUNIT Category

Variable Label	Range
cmnd_sel	= 1 if selected; 0 otherwise

With the creation of this variable, a subset of the in-zone data set is created consisting only of those 53 officers selected for command of a MALS or CNATT MARUNIT. Of the 53 officers selected for command, 25 were AMOs and 28 were AVNSUPOs. Note that the records of 12 officers selected for command between FY-04 and FY-12 are not included in this count, nor are any of the following descriptive statistics since they were either selected for lieutenant colonel before the FY-04 lieutenant colonel board or they converted from a restricted to unrestricted officer before the convening of their respective command boards. Either case prevented the inclusion of their TFDW and MMSB information into the data set. Of these 12 officers, 4 were AMOs and 8 were AVNSUPOs.

With the data set identified, the following section provides descriptive statistics for those officers selected to command. Descriptive statistics are not provided for every variable, but only for those variables that proved significant for selection to lieutenant colonel and those believed to be of interest to the aviation logistics community. Note that the data provided in the descriptive statistics reflects all TFDW and MMSB data from when the officer assumed the rank of major to when each respective officer was in-zone for lieutenant colonel. Ideally, the data set would include all TFDW and MMSB until command selection. Without knowing when an officer submitted their name for command consideration, this is not possible.

2. Demographics

For marital status, 90% of the officers were married. For gender, all officers selected to command were male. The last female officer to command a MALS or CNATT MARUNIT was in the early 2000s. Figure 23 provides a race summary for those officers selected for command.

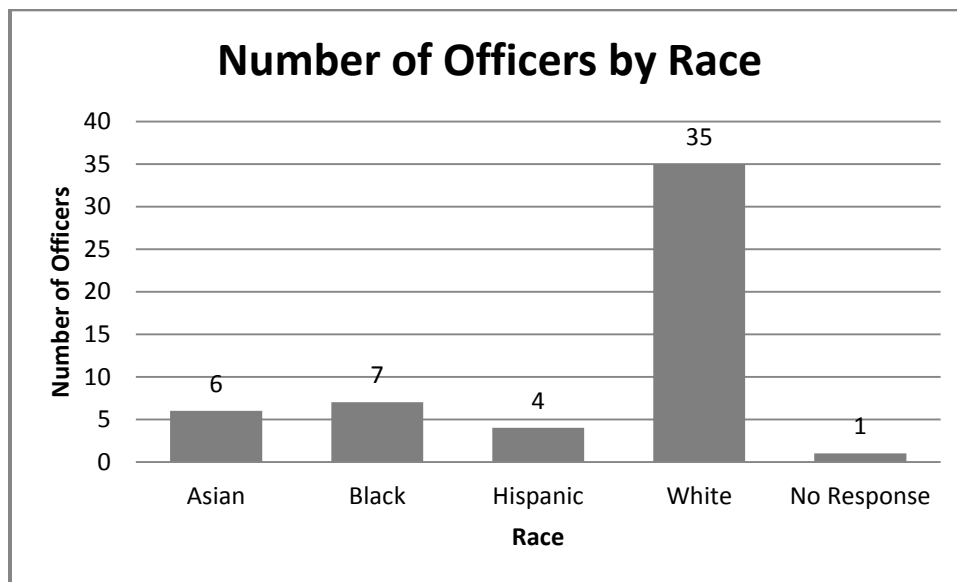


Figure 23. Race of Officers Selected for Command from June 2004 through May 2013

3. Commissioning Source

Figure 24 provides commissioning source information for those officers selected for command. The largest percentage of officers, 36%, selected for command was commissioned through the Platoon Leaders Class (PLC).

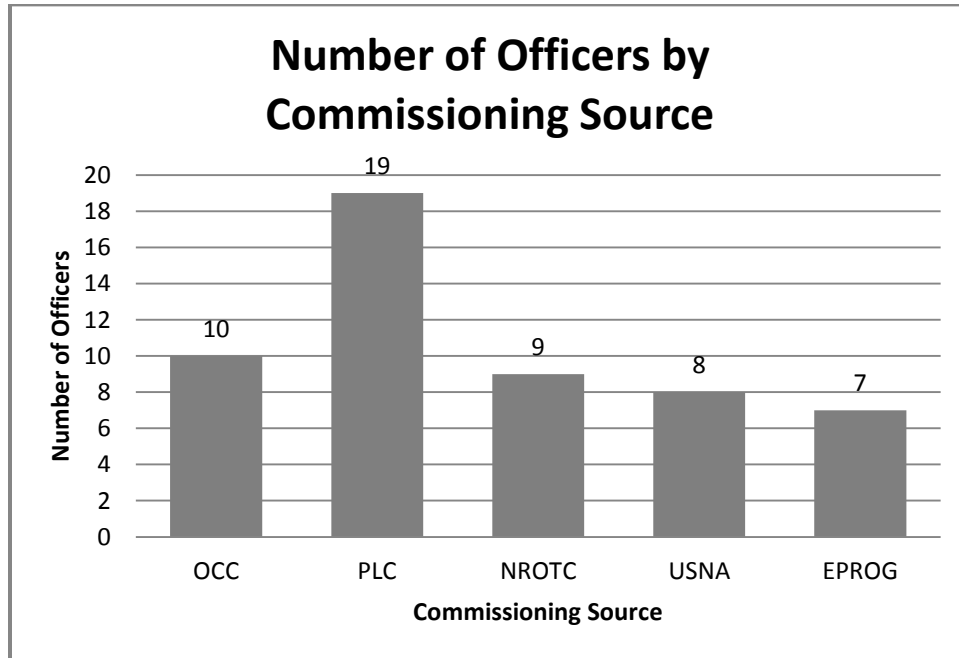


Figure 24. Commissioning Source for Officers Selected for Command from June 2004 through May 2013

4. Training

Figure 25 provides information on marksmanship qualifications. Ninety-four percent of the officers have earned an expert rifle marksmanship badge.

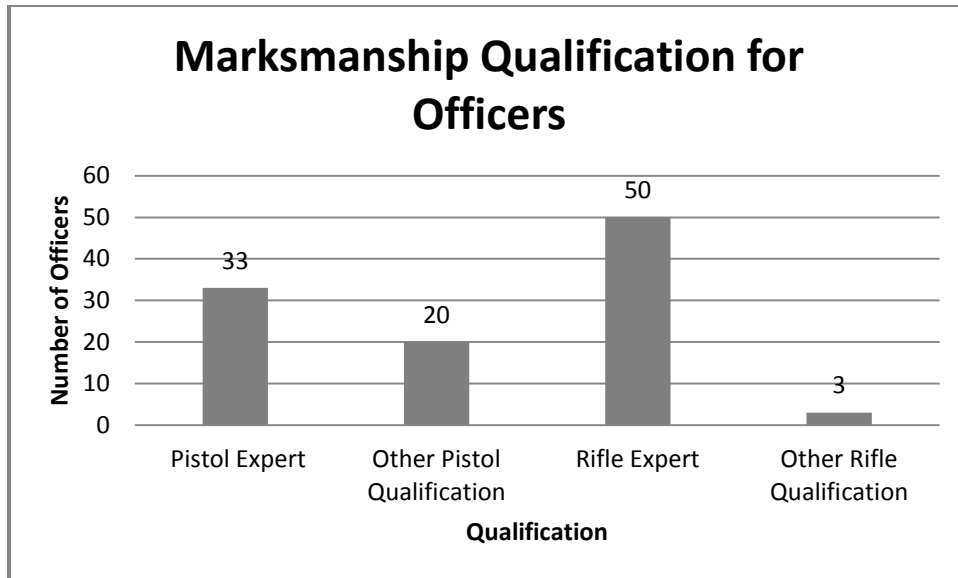


Figure 25. Marksmanship Data for Officers Selected for Command from June 2004 through May 2013

Figure 26 provides average PFT scores for all officers while serving as a major. The average PFT score for the 53 officers selected to command was 251.

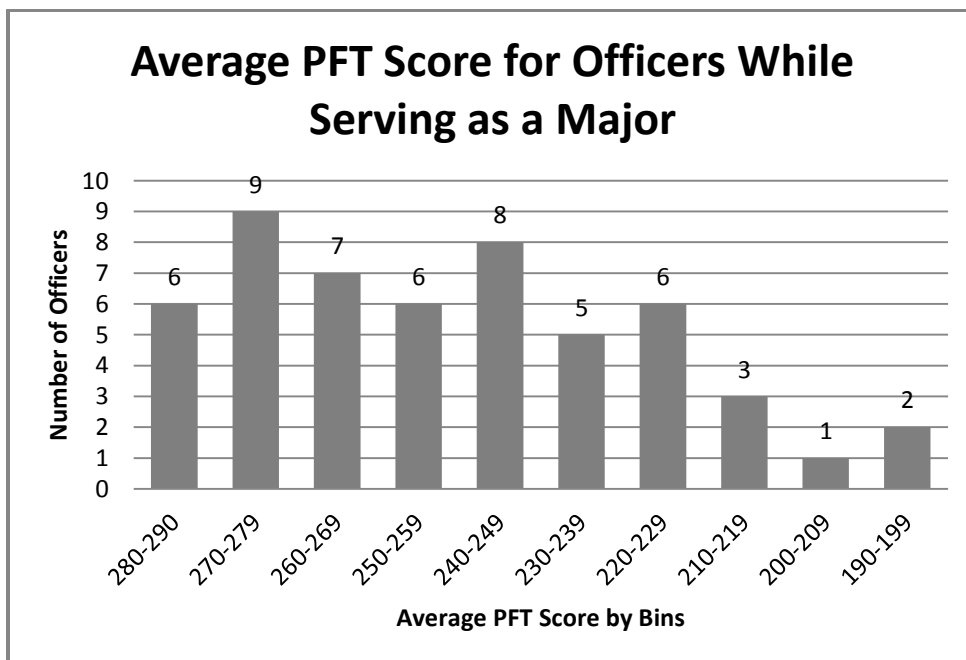


Figure 26. Average PFT Score for Officers Selected for Command from June 2004 through May 2013

5. Education

Figure 27 provides ILS summary information for those officers selected for command. Seventy-nine percent of the officers completed ILS via the nonresident course compared to 9% for the resident ILS. Six percent attended a sister service ILS resident school such as the Naval Command and Staff College.

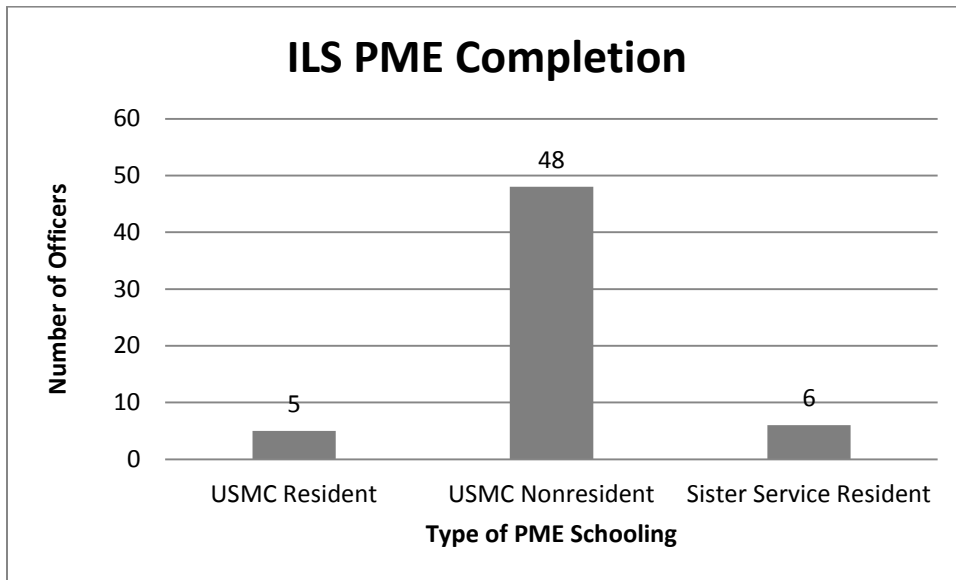


Figure 27. ILS Information for Officers Selected for Command from June 2004 through May 2013

For level of education completed, 62% of the officers selected to command have a master's degree.

6. Performance and Awards

Figure 28 provides FITREP performance RV summary information. As discussed in Chapter V, performance RV represents the average of all normalized scores for the FITREPs received as a major. Fifty-eight percent of the officers selected for command received FITREPS in the middle RV strata.

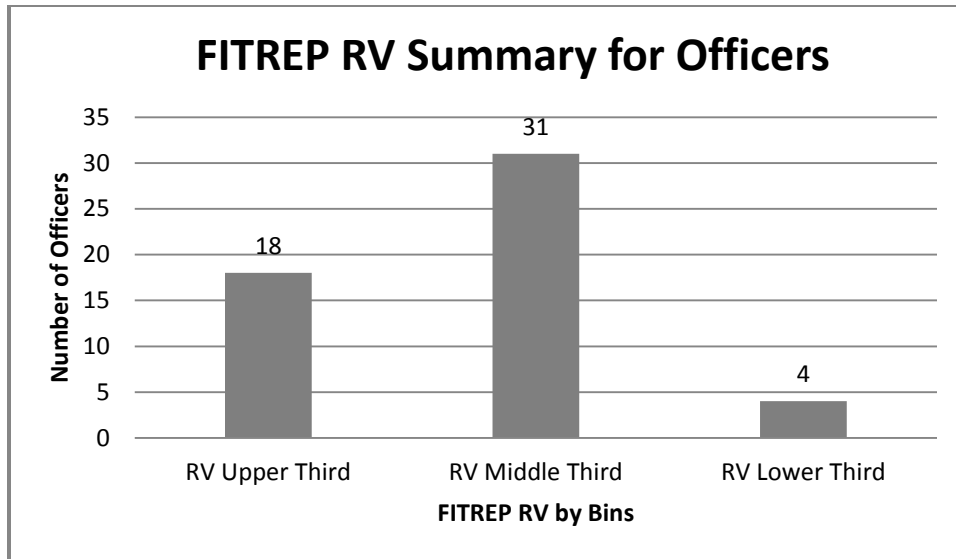


Figure 28. RV Categorization for Officers Selected for Command from June 2004 through May 2013

Figure 29 provides RO cumulative value summary information. Fifty-one percent of the officers scored above their ROs' average markings.

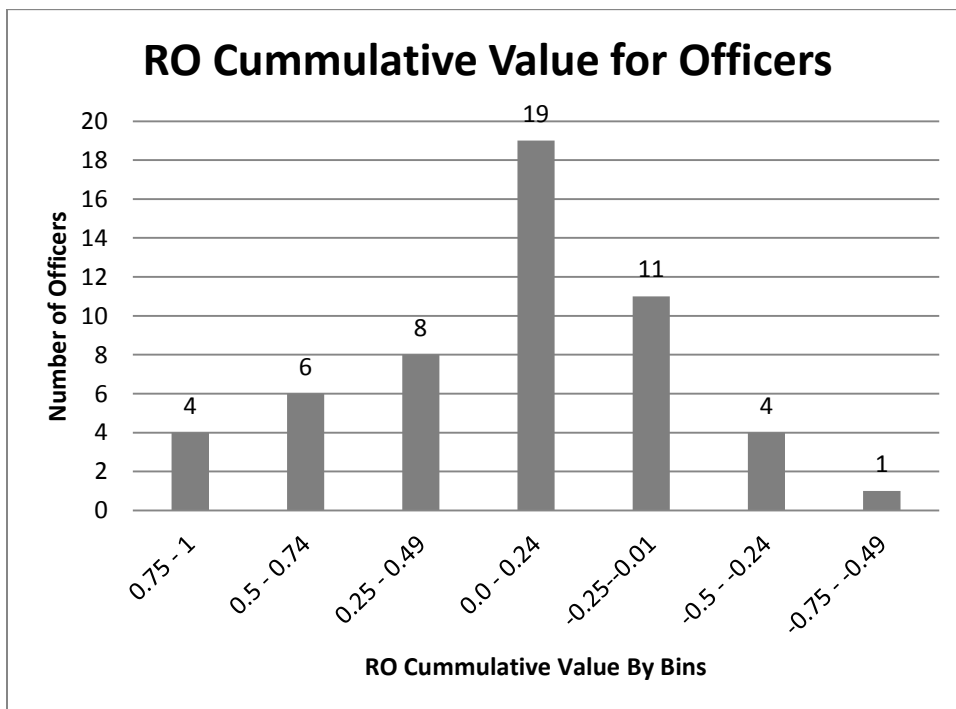


Figure 29. RO Cumulative Value for Officers Selected for Command from June 2004 through May 2013

Figure 30 provides an award summary for the three most common personal awards given to officers who were selected to command. The three medals are the Meritorious Service Medal, Navy and Marine Corps Commendation Medal, and Achievement Medal. Fifty percent of the officers have a Meritorious Service Medal, while 75% and 39% have two or more Navy and Marine Corps Commendation and Achievement Medals, respectively.

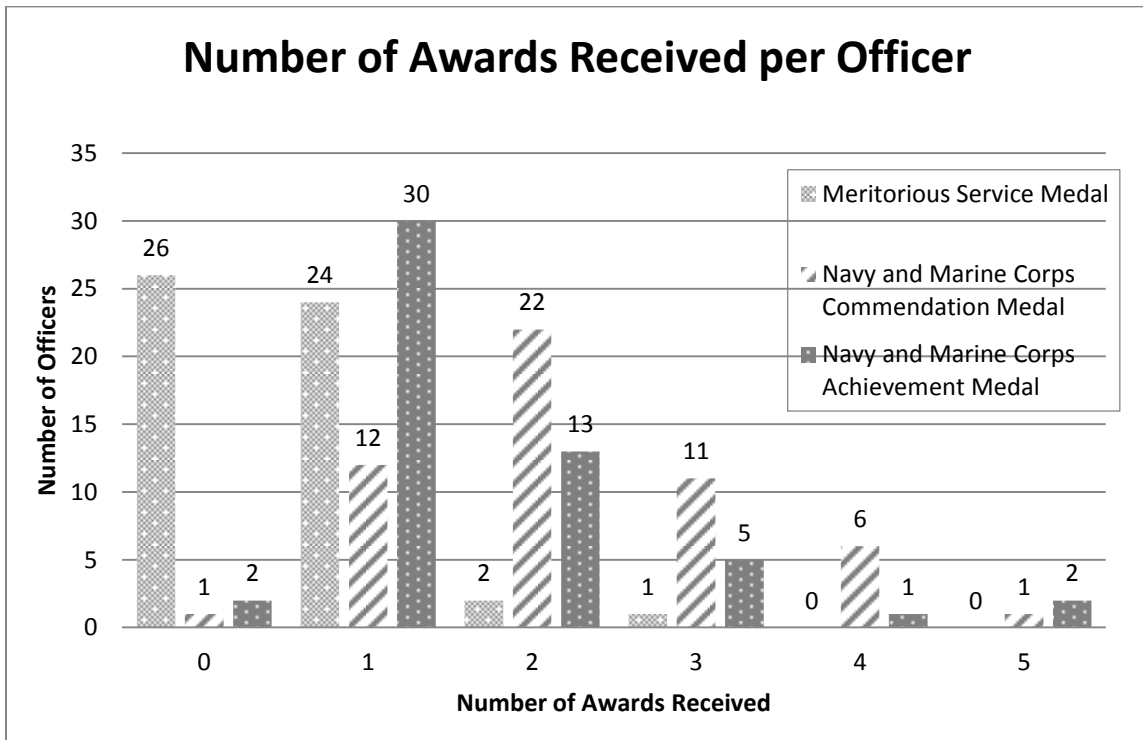


Figure 30. Award Summary for Most Common Awards Given to Officers Selected for Command from June 2004 through May 2013

7. MALS Experience and Combat

Figure 31 provides a summary of the MALS department head billets held by officers selected to command.

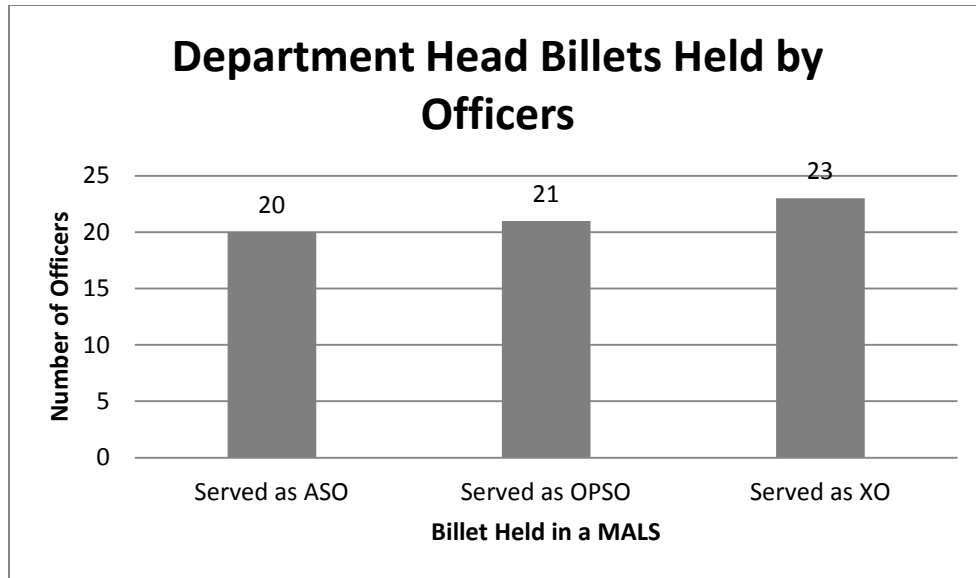


Figure 31. MALS Department Head Summary for Officers Selected for Command from June 2004 through May 2013

Table 31 provides a summary of the different number of billets an officer has served in a MALS. For example, a row with all “1s” indicates an officer has served as the ASO, OPSO, and XO prior to the lieutenant colonel command board. Interestingly, seven officers were neither ASO, OPSO, or XO prior to selection for command as illustrated by the last row of all “0s” in Figure 32; however, each of these officers served either at higher HQ commands such as HQMC ASL and Programs and Resources, Defense Logistics Agency, or other high visibility USMC commands such as Marine Aviation Weapons and Tactics Squadron 1 (MAWTS-1). Eventually, four of these seven officers would serve as an OPSO and or an XO before assuming command of a MALS or CNATT MARUNIT.

Table 31. Summary of Combination of Billets Held by Officers Selected for Command from June 2004 through May 2013

Number of Officers Who Served as an ASO	Number of Officers Who Served as an OPSO	Number of Officers Who Served as an XO	Total Number of Officers
1	1	1	1
1	1	0	2
1	0	1	6
1	0	0	11
0	1	1	8
0	1	0	10
0	0	1	8
0	0	0	7
Total			53

For combat, only 37% of the officers selected to command have at least one combat fitness report as a major.

Although these descriptive statistics provide some insight into the records of officers selected to command, studying the interaction of these variables using logistic regression to identify those significant variables that predict selection to command is more beneficial. This is only possible if MMOA-3 provides the names of officers per FY who request that they be considered for command.

D. SUMMARY

Utilizing logistic regression, the data show that for the 102 AMOs and AVNSUPOs who competed for promotion to lieutenant colonel from FY-04 through FY-12, serving as an XO in a MALS, having a Meritorious Service Medal, and scoring above one's ROs' average markings improves an officer's chances for promotion, while scoring below a first class PFT and not completing ILS drastically reduces an officer's chances. No statistical data in any of the logistic regression models indicates that serving in one MOS vice the other increases the probability for promotion to lieutenant colonel. Additionally, serving in combat does not increase an AVNSUPO's or AMO's probability for selection since this variable was not a significant factor. Finally, reviewing the

descriptive statistics of those officers selected to command provides some insight into what the respective lieutenant colonel command selection boards may deem important, but studying the interaction of these variables using logistic regression to identify those significant variables that predict selection to command would be more beneficial.

VII. CONCLUSIONS

The purpose of this thesis is to answer three questions. First, identify whether there are any statistically significant variables associated with promotion to lieutenant colonel for AMOs and AVNSUPOs. Second, determine whether serving in combat improves an AMO's or AVNSUPO's probability for selection to lieutenant colonel. Finally, identify whether there are any statistically significant variables associated with selection for command of a MALS or CNATT MARUNIT. Data analysis is conducted on a data set consisting of demographic, training, and educational data, along with performance records for all in-zone AMOs and AVNSUPOs competing for promotion to lieutenant colonel from FY-04 through FY-12.

The findings are:

- Serving as an XO in a MALS, having a Meritorious Service Medal, and scoring above an officer's ROs' average markings are positive indicators for promotion to lieutenant colonel.
- Serving in combat is not statistically significant for selection to lieutenant colonel.
- Not completing ILS and scoring below a first class PFT reduce promotion chances to lieutenant colonel.

In regard to filling a specific billet to improve an officer's chances for promotion, these findings disagree with Hoffman (2008), who conducted similar analysis, but for all USMC officer MOSs. In addition, these findings disagree with Reynolds (2011), who tested the same billet hypothesis based solely on aviator MOSs. For combat deployments, these findings disagree with Hoffman and Reynolds, but concur with Long (1992) and Branigan (2001), who also state that combat experience has no effect on promotion to lieutenant colonel. For personal awards, in respect to having a Meritorious Service Medal, these findings match Reynolds' aviator sample results. In regard to FITREP RO cumulative average, these findings also match Reynolds' and Hoffman's in that above average RO markings increases promotion probability. For PFT, these findings also agree with Reynolds and Hoffman that not scoring a first class PFT

decreases chances for promotion. For PME, these findings also match Reynolds; completing ILS improves promotion probability to lieutenant colonel.

For the thesis's tertiary question, due to MMOA-3 not releasing critical information on when each officer competed for command, data analysis is not performed; however, the following descriptive statistics do provide some insight on the type of AMO or AVNSUPO selected to command:

- Forty percent have served as OPSOs. Forty-three percent served as XOs.
- For FITREP RV, 33% fell out in the top tier, 93.34%-100%, while 58% fell out in the middle tier, 88.67%-93.3%.
- For FITREP RO, 51% of the officers scored above their ROs' average markings.
- For awards, 50% have a Meritorious Service Medal, while 75% and 39% have two or more Navy and Marine Corps Commendation and Achievement Medals, respectively.
- Only 37% of the officers selected to command have at least one combat fitness report as a major.

Because no one has conducted statistical analysis on command selection for Marine Corps officers at the lieutenant colonel or colonel rank, this area shows the greatest promise for additional research. Acquiring required data from MMOA-3 may prove difficult, but not impossible. As Clifton (2011) states, the Marine Corps CSP needs to be transparent in how it selects its leaders. Because the CMC governs the CSP, and due to the type of feedback received by officers like Lieutenant Colonel Clifton, one can anticipate a greater flow of information between the board and the officer corps in the near future. With this anticipated CMC CSP transparency mandate, MMOA-3 is more likely to release required command selection information to conduct statistical analysis similar to what has been done in the past for the USMC promotion process. This analysis would give aspiring COs a clearer picture of what factors were considered significant for selection by command boards.

APPENDIX A. NON-FMF AND B-BILLETS FOR MOS 6002 AND MOS 6602

Table 32. Non-FMF Billets for MOS 6002 for Captain and Below (After Major B. D. McLean, personal communication, August 12, 2011)

Monitored Command Code (MCC)	Organization Name	Billet Description
036	HMX-1 Executive Support, Quantico, VA	MMCO
048	Fleet Readiness Center (FRC) East, MCAS Cherry Point, NC	Engine Program Manger
080	HQMC Personnel Management Division	Aviation OIC
1A5	MAWTS-1, Yuma, AZ	AMO
1LX	Marine Tiltrotor Test and Evaluation Squadron 22, MCAS New River, NC	AAMO
1T2	Marine Attack Training Squadron 203, MAG-14, 2nd Marine Aircraft Wing (MAW)	AAMO
1T3	Marine Medium Tiltrotor Training Squadron 204, MAG-26, 2nd MAW	AAMO
1T5	Marine Light Attack Training Squadron 303, MAG-39, 3rd MAW	AAMO
1T6	Marine Fighter Attack Training Squadron (VMFAT) 101, MAG-11, 3rd MAW	AAMO
1T9	Marine Heavy Helicopter Training Squadron 302, MAG-29 2nd MAW	AAMO
1TA	Marine Medium Helicopter Training Squadron 164, MAG-39, 3rd MAW	AAMO
1TV	VMFAT-501, MAG-31, 2nd MAW	AAMO
G95	Navy Fighter Attack 125, Naval Air Station (NAS) Lemoore, CA	F/A-18 Marine Training Unit Officer
451	Commander Fleet Air Western Pacific Naval Air Pacific Repair	Aircraft Maintenance Liaison Officer (LNO)

	Facility, Atsugi, Japan	
M60	Royal Air Force Europe	Exchange AMO
M9E	Naval Aviation Engineering Services Unit (NAESU) Detachment MCAS Cherry Point, NC	Marine LNO
M9G	NAESU Detachment MCAS Miramar, CA	Marine LNO
MC8	Detachment CNATT MCAS Camp Pendleton, CA	OPSO
T9B	Detachment Marine Aviation, NAS Patuxent River, MD	AIRSpeed Assistant Coordinator
T9B	Detachment Marine Aviation, NAS Patuxent River, MD	AIRSpeed Integration
T9B	Detachment Marine Aviation, NAS Patuxent River, MD	AMO LNO
T9B	Detachment Marine Aviation, NAS Patuxent River, MD	Unmanned Air Vehicle Assistant Program Manager Logistics (APML)
UCB	Marine Corps Assigned Allied/United Nations Command	Exchange AMO

Table 33. Non-FMF Billets for MOS 6602 for Captain and Below (After Major B. D. McLean, personal communication, August 12, 2011)

MCC	Organization Name	Billet Description
007	Marine Corps Combat Development Center (MCCDC)	Afghanistan Pakistan (AFPAK) Hands
036	HMX-1 Executive Support, Quantico, VA	Fiscal Officer
036	HMX-1 Executive Support Quantico, VA	AAMO
048	FRC East, MCAS Cherry Point, NC	Component Program Officer
080	HQMC Personnel Management Division	Aviation/Ground Company Grade Monitor
1CZ	Fleet Assistance Group Pacific, San Diego, CA	OIC Aviation Information System (AIS) Department
444	Commander Atlantic Fleet	OIC AIS Department
460	Commander Naval Air Forces (CNAF) Atlantic, Norfolk, VA	Expeditor Officer
451	Commander Fleet Air Western Pacific Naval Air Pacific Repair Facility, Atsugi, Japan	Aviation Supply LNO
460	CNAF Atlantic, Norfolk, VA	Expeditor Officer
462	CNAF Pacific, North Island, CA	Flight Hour Officer
462	CNAF Pacific, North Island, CA	Platforms OIC
G02	CNAF Atlantic, Norfolk, VA	Aviation Supply/Support Coordinator
G10	Site Support Warner Robbins Air Force Base (AFB), MAG-49, 4th MAW	ASO
G30	Site Support Belle Chase, MAG-49, 4th MAW	ASO
G32	Site Support Norfolk, MAG-49, 4th MAW	ASO
G34	Site Support Edwards AFB, MAG-41, 4th MAW	ASO
G81	Marine Aviation Training Support Squadron (MATSS)-1 NAS Meridian, MS	XO
G9J	Headquarters and Headquarters Squadron (H&HS) MCAS Beaufort, SC	ASO
J34	Marine Corps Detachment Training Command, Newport, RI	Instructor
QAP	HQMC Program and Resources	Program Analyst
S3B	MALS 41, MAG-41, 4th MAW	AASO

T9C	Space and Naval Warfare Systems Command	Shipboard Non-Tactical Automated Data Program Project Officer
THN	Navy Supply Depot Yokosuka, Japan	Aviation Supply LNO
TM3	United States Military Training Mission Saudi Arabia	Battalion Advisor
U12	Naval Supply Systems Command (NAVSUP) Weapons System Support (WSS), Philadelphia, PA	KC-130 Integrated Weapon Support Team (IWST)
UC4	Fleet Introduction Team Detachment East	ASO

Table 34. Non-FMF Billets for MOS 6002 for Major (After Major B. D. McLean, personal communication, August 12, 2011)

MCC	Organization Name	Billet Description
036	HMX-1 Executive Support, Quantico, VA	AMO
048	FRC East, MCAS Cherry Point, NC	AMO
068	Marine Corps University, Quantico, VA	Deputy Director
086	Training and Education Command, Quantico, VA	Maintenance Analyst
1A5	MAWTS-1 Yuma, AZ	AMO
1GA	Blount Island Command	Branch Head
1T6	VMFAT-101, MAG-11, 3 rd MAW	AMO
1TV	VMFAT-501, MAG-31, 2 nd MAW	AMO
451	Commander Fleet Air Western Pacific Naval Air Pacific Repair Facility, Atsugi, Japan	Aviation Maintenance LNO
462	CNAF Pacific, North Island, CA	AIRSpeed Officer
462	CNAF Pacific, North Island, CA	AMO
G02	CNAF Atlantic, Norfolk, VA	Aviation Logistics Coordinator
G78	Marine Aviation Training Support Group (MATSG) 21, NAS Pensacola, FL	Marine Aviation Maintenance LNO
G78	MATSG-21, NAS Pensacola, FL	CO
G9K	F-35 Joint Integrated Training Center	AMO
M32	Naval Safety Center	Assistant Aviation Maintenance/Material Division Head
MC8	Detachment CNATT, MCAS Camp Pendleton, CA	OIC
MC9	Detachment CNATT, MCAS Cherry Point, NC	XO
MD3	MV-22 Resident Integrated Logistics Support Detachment	Director
MDT	Detachment CNATT, MCAS New River, NC	XO
MDT	Detachment CNATT, MCAS New River, NC	Training Support Officer
QAS	HQMC Deputy Commandant for Aviation (DCA)	AMO
T9B	Detachment Marine Aviation, NAS Patuxent River, MD	Assistant APML V-22
T9B	Detachment Marine Aviation, NAS Patuxent River, MD	Assistant APML F/A-18
T9B	Detachment Marine Aviation, NAS	Program Officer Marine Aviation Logistics

	Patuxent River, MD	Program
T9B	Detachment Marine Aviation, NAS Patuxent River, MD	APML VH-3/VH-60
U12	NAVSUP WSS, Philadelphia, PA	Engine Branch Officer
G77	CNATT, NAS Pensacola, FL	Directorate N9 Logistics Management

Table 35. Non-FMF Billets for MOS 6602 for Major (After Major B. D. McLean, personal communication, August 12, 2011)

MCC	Organization Name	Billet Description
007	MCCDC	AFPAK Hands
023	H&HS, MCAS Miramar, CA	Assistant Director of Logistics
036	HMX-1 Executive Support, Quantico, VA	ASO
1A5	MAWTS-1 Yuma, AZ	AVNSUPO/Logistics Officer
452	Commander Naval Surface Forces Atlantic	ASO
454	Commander Naval Surface Forces Pacific	ASO
460	CNAF Atlantic, Norfolk, VA	Amphibious/Helicopter Aviation Logistics Officer
462	CNAF Pacific, North Island, CA	Outfitting/Grooming OIC
G81	MATSS-1, NAS Meridian, MS	CO
NC6	Defense Logistics Agency	Chief USMC Aviation Cell
QAS	HQMC DCA	Flight Hour Program Officer
QAS	HQMC DCA	AASO
S7B	MALS-49, 4 th MAW	ASO
T9B	Detachment Marine Aviation, NAS Patuxent River, MD	Assistant OIC
U12	NAVSUP WSS, Philadelphia, PA	F/A-18 IWST
U12	NAVSUP WSS, Philadelphia, PA	AV-8B IWST
U12	NAVSUP WSS, Philadelphia, PA	H-46/H-1 IWST
U12	NAVSUP WSS, Philadelphia, PA	H-53/H-3 IWST
U12	NAVSUP WSS, Philadelphia, PA	V-22 IWST
U27	NAVSUP WSS, Mechanicsburg, PA	IWST Lead
U27	NAVSUP WSS, Mechanicsburg, PA	ASO

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APPENDIX B. ACQUISITION CAREER ROADMAP FOR MOS 6602

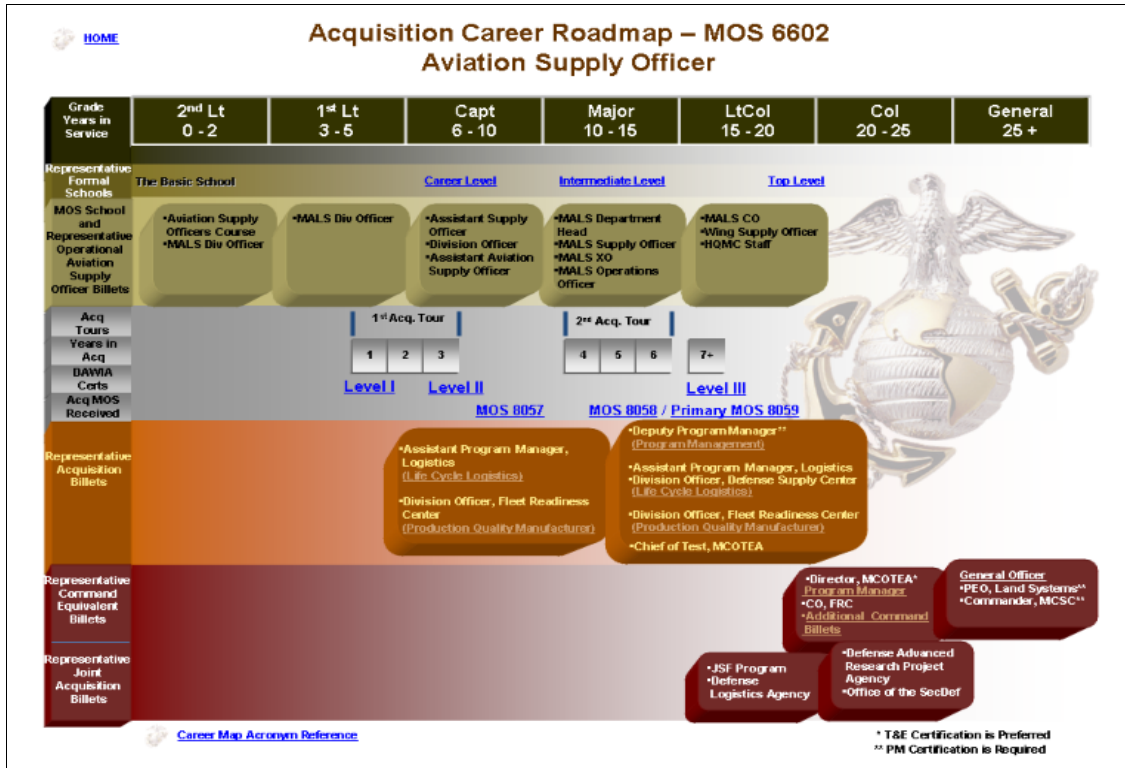


Figure 32. Acquisition Career Roadmap for MOS 6602 (From Marine Corps System Command, n.d)

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APPENDIX C. ACQUISITION CAREER ROADMAPS FOR MOS 6002

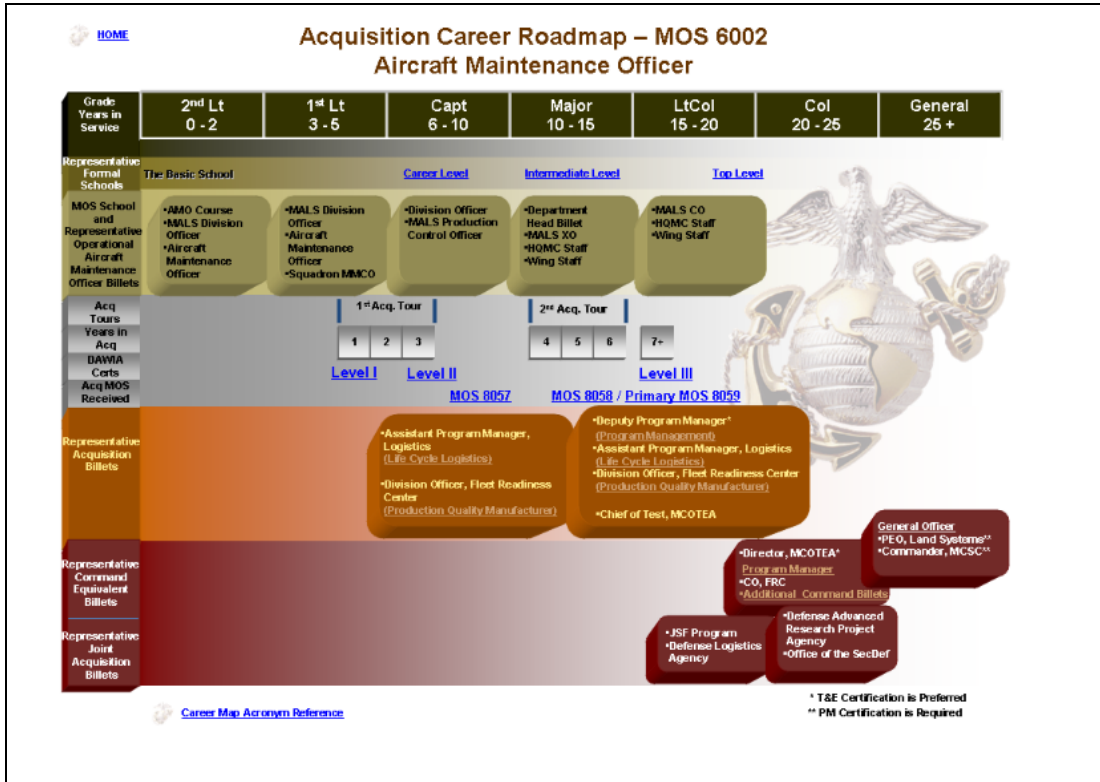


Figure 33. Acquisition Career Roadmap for MOS 6002 (From Marine Corps System Command, n.d)

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APPENDIX D. FY-12 LIEUTEANT COLONEL COMMAND SCREENING BOARD OFFICER COMPOSITION

Table 36. FY-12 Lieutenant Colonel Command Screening Board Officer Composition (From HQMC, 2010b, p.3-29)

	Rank	MOS / Requirement	Special Requirements	Reg/Res	Unit	Notes	Geo codes
1	Col	8040	CSS	Reg	HQMC (I&L)	Note 1, 3	E
2	Col	8041	0302	Reg	HQMC (PP&O)	Note 3	N
3	Col	8042	FW	Reg	HQMC (AVN)	Note 2, 3	N
4	Col	8041		Reg	HQMC (C4)	Note 2, 3	E
5	Col	8042		Reg	MARFORPAC	Note 2, 3	W
6	Col	8042	RW	Reg	MARFORCOM	Note 2, 3	E
7	Col	8040	F	Reg	MARFORCOM	Note 3	E
8	Col	8041	M	Reg	MARFORPAC	Note 3	W
9	Col	8041		Reg	TECOM	Note 3	W
10	Col	8041		Reg	HQMC (I)	Note 3	N
11	Col	4402		Reg	HQMC (JA)	Note 3	N
12	Col	8040/41		Reg	MCCDC	Note 2, 3	E
13	Col	8041	0302	Reg	MARSOC	Note 3	E
14	Col	8041		Reg	MCRC	Note 3	W

Legend	Summary	
CSS = Cmbt Srvc Sppt	1	
M = Minority	1	
F = Female	1	
JT = Joint	0	
AR = Active Reserve	0	
Sr = Senior Member	0	
FW = Fixed Wing	1	Note 1: General Officer is Board President.
RW = Rotary Wing	1	Note 2: Board must have minimum (1) FW and (1) RW member
GCBT = Gnd Combat	2	Note 3: All members must have completed a tour in a LtCol command screened billet.

Geo Codes	
N = Northern VA	6
E = East Coast	6
W = West Coast	4
R = Reserve	0
Total 16	

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APPENDIX E. COMMAND SCREENING PROGRAM QUESTIONNAIRE

The primary method for an officer competing for command to communicate with the command selection board is through MMOA-3's online command selection questionnaire.

Manpower & Reserve Affairs Command Screening

Screening Submitted	
CASE_ID	1234
LAST_NAME	MARINE
FIRST_NAME	MOTTO
MI	D
SSN	12345
PMOS	0302
DOR	JUL-01-2005
PRESENT_GRADE	O4
SELECT_GRADE	O5
CURRENT_MCC	V35
FUTURE_ASSIGNMENT	
CURRENT_TOUR_BEGIN_DATE	JUN-22-2009
GEO_AREA_LOC_BEGIN_DATE	
OVERSEAS_CONTROL_DATE	SEP-20-1991
MOS1	0302
MOS2	00000
MOS3	0302
DOB	JAN-04-1973
SCREEN_FOR_COMMAND	Accept
CURRENT_BILLET_AND_COMMAND	Battalion Executive Officer
JOINT_ASSIGNMENT	No
WORK_PHONE	760-763-0396
CURRENT_EMAIL	motto.marine@usmc.mil
CRITICAL_AQUISITION_BILLET	No
ENROLLED_IN_EFMP	Do not have an exceptional family member
AMP COMMENTS FOR EFMP	-

PERSONAL_OR_FAMILY_ISSUES	No
AMP_COMMENTS_FOR_FAMILY	-
SPECIFIC_AREAS_OF_EXPERTISE	-
AMP_COMMENTS_FOR_EXPERTISE	-
First_OFC_Unit	INFANTRY
1st_OCF_Choice	2D BN, 5TH MAR
Second_OFC_Unit	BATTALION
2nd_OCF_Choice	1ST BN, 7TH MAR
Third_OFC_Unit	BATTALION
3rd_OCF_Choice	1ST BN, 2D MAR
First_SEC_Unit	TRAINING
1st_SEC_Choice	INSTRUCTOR BN, TBS MCCDC
Second_SEC_Unit	MCESC_MCSF
2nd_SEC_Choice	REGION 8 FRANKFURT
Third_SEC_Unit	RECRUIT_TRAINING
3rd_SEC_Choice	SPT BN RTR MCRD SDIEGO
1st_GEO_Choice	OVERSEAS
2nd_GEO_Choice	EAST
3rd_GEO_Choice	WEST
ADDITIONAL_INFORMATION	None
E_MAIL_1	
DATE_SUBMITTED	JUN-26-2011 0316

Figure 34. Lieutenant Colonel Command Screening Questionnaire
(After HQMC, 2011e)

APPENDIX F. ANNUAL FITREP SCHEDULE FOR ACTIVE DUTY MARINES

Table 37. Annual FITREP Schedule for Active Duty Marines (After HQMC, 2006b, p. A-1)

GRADE OF	REPORTING PERIOD ENDS LAST DAY OF ACTIVE COMPONENT
SGT	MAR
SSGT	DEC
GYSGT	JUN
1STSGT/MSGT	JUN
SGTMAJ/MGYSGT	SEP
WO/CWO	APR
2NDLT	JAN/JUL
1STLT	OCT/APR
CAPT	MAY
MAJ	MAY
LTCOL	MAY
COL	MAY
BGEN	JUN

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APPENDIX G. BLANK USMC FITREP

USMC FITNESS REPORT (1610) NAVMC 10835A (Rev. 1-01)(P) PREVIOUS EDITIONS WILL NOT BE USED		COMMANDANT'S GUIDANCE		DO NOT STAPLE THIS FORM	
<p>The completed fitness report is the most important information component in manpower management. It is the primary means of evaluating a Marine's performance and is the Commandant's primary tool for the selection of personnel for promotion, augmentation, resident schooling, command, and duty assignments. Therefore, the completion of this report is one of an officer's most critical responsibilities. Inherent in this duty is the commitment of each Reporting Senior and Reviewing Officer to ensure the integrity of the system by giving close attention to accurate marking and timely reporting. Every officer serves a role in the scrupulous maintenance of this evaluation system, ultimately important to both the individual and the Marine Corps. Inflationary markings only serve to dilute the actual value of each report. Reviewing Officers will not concur with inflated reports.</p>					
A. ADMINISTRATIVE INFORMATION					
1. Marine Reported On: a. Last Name b. First Name c. MI d. SSN e. Grade f. DOR g. PMOS h. BILMOS					
2. Organization: a. MCC b. RUC c. Unit Description					
3. Occasion and Period Covered: a. OCC b. From To c. Type			4. Duty Assignment (descriptive title):		
5. Special Case: a. Adverse <input type="checkbox"/> b. Not Observed <input type="checkbox"/> c. Extended <input type="checkbox"/>		6. Marine Subject Of: a. Commendatory Material <input type="checkbox"/> b. Derogatory Material <input type="checkbox"/> c. Disciplinary Action <input type="checkbox"/>		7. Recommended For Promotion: a. Yes <input type="checkbox"/> b. No <input type="checkbox"/> c. N/A <input type="checkbox"/>	
8. Special Information:				9. Duty Preference: a. Code b. Descriptive Title	
a. QUAL	<input type="text"/>	d. HT(in.)	<input type="text"/>	g. Reserve Component	<input type="text"/>
b. PFT	<input type="text"/>	e. WT	<input type="text"/>	h. Future Use	<input type="text"/>
c. Status	<input type="text"/>	f. Body Fat	<input type="text"/>	i. Future Use	<input type="text"/>
10. Reporting Senior: a. Last Name b. Init c. Service d. SSN e. Grade f. Duty Assignment					
11. Reviewing Officer: a. Last Name b. Init c. Service d. SSN e. Grade f. Duty Assignment					
B. BILLET DESCRIPTION					
C. BILLET ACCOMPLISHMENTS					

1. Marine Reported On:				2. Occasion and Period Covered:					
a. Last Name		b. First Name		c. MI	d. SSN	a. OCC		b. From	To

D. MISSION ACCOMPLISHMENT

1. PERFORMANCE. Results achieved during the reporting period. How well those duties inherent to a Marine's billet, plus all additional duties, formally and informally assigned, were carried out. Reflects a Marine's aptitude, competence, and commitment to the unit's success above personal reward. Indicators are time and resource management, task prioritization, and tenacity to achieve positive ends consistently.

ADV	Meets requirements of billet and additional duties. Aptitude, commitment, and competence meet expectations. Results maintain status quo.	Consistently produces quality results while measurably improving unit performance. Habitually makes effective use of time and resources; improves billet procedures and products. Positive impact extends beyond billet expectations.	Results far surpass expectations. Recognizes and exploits new resources; creates opportunities. Emulated; sought after as an expert with influence beyond unit. Impact significant; innovative approaches to problems produce significant gains in quality and efficiency.	N/O
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A <input type="checkbox"/>	B <input type="checkbox"/>	C <input type="checkbox"/>	D <input type="checkbox"/>	E <input type="checkbox"/>	F <input type="checkbox"/>	G <input type="checkbox"/>	H <input type="checkbox"/>
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2. PROFICIENCY. Demonstrates technical knowledge and practical skill in the execution of the Marine's overall duties. Combines training, education and experience. Translates skills into actions which contribute to accomplishing tasks and missions. Imparts knowledge to others. Grade dependent.

ADV	Competent. Possesses the requisite range of skills and knowledge commensurate with grade and experience. Understands and articulates basic functions related to mission accomplishment.	Demonstrates mastery of all required skills. Expertise, education and experience consistently enhance mission accomplishment. Innovative troubleshooter and problem solver. Effectively imparts skills to subordinates.	True expert in field. Knowledge and skills impact far beyond those of peers. Translates broad-based education and experience into forward thinking, innovative actions. Makes immeasurable impact on mission accomplishment. Peerless teacher, selflessly imparts expertise to subordinates, peers, and seniors.	N/O
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A <input type="checkbox"/>	B <input type="checkbox"/>	C <input type="checkbox"/>	D <input type="checkbox"/>	E <input type="checkbox"/>	F <input type="checkbox"/>	G <input type="checkbox"/>	H <input type="checkbox"/>
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JUSTIFICATION:

E. INDIVIDUAL CHARACTER

1. COURAGE. Moral or physical strength to overcome danger, fear, difficulty or anxiety. Personal acceptance of responsibility and accountability, placing conscience over competing interests regardless of consequences. Conscious, overriding decision to risk bodily harm or death to accomplish the mission or save others. The will to persevere despite uncertainty.

ADV	Demonstrates inner strength and acceptance of responsibility commensurate with scope of duties and experience. Willing to face moral or physical challenges in pursuit of mission accomplishment.	Guided by conscience in all actions. Proven ability to overcome danger, fear, difficulty or anxiety. Exhibits bravery in the face of adversity and uncertainty. Not deterred by morally difficult situations or hazardous responsibilities.	Uncommon bravery and capacity to overcome obstacles and inspire others in the face of moral dilemma or life-threatening danger. Demonstrated under the most adverse conditions. Selfless. Always places conscience over competing interests regardless of physical or personal consequences.	N/O
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A <input type="checkbox"/>	B <input type="checkbox"/>	C <input type="checkbox"/>	D <input type="checkbox"/>	E <input type="checkbox"/>	F <input type="checkbox"/>	G <input type="checkbox"/>	H <input type="checkbox"/>
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2. EFFECTIVENESS UNDER STRESS. Thinking, functioning and leading effectively under conditions of physical and/or mental pressure. Maintaining composure appropriate for the situation, while displaying steady purpose of action, enabling one to inspire others while continuing to lead under adverse conditions. Physical and emotional strength, resilience and endurance are elements.

ADV	Exhibits discipline and stability under pressure. Judgment and effective problem-solving skills are evident.	Consistently demonstrates maturity, mental agility and willpower during periods of adversity. Provides order to chaos through the application of intuition, problem-solving skills, and leadership. Composure reassures others.	Demonstrates seldom-matched presence of mind under the most demanding circumstances. Stabilizes any situation through the resolute and timely application of direction, focus and personal presence.	N/O
------------	--	---	--	-----

A <input type="checkbox"/>	B <input type="checkbox"/>	C <input type="checkbox"/>	D <input type="checkbox"/>	E <input type="checkbox"/>	F <input type="checkbox"/>	G <input type="checkbox"/>	H <input type="checkbox"/>
-------------------------------	-------------------------------	-------------------------------	-------------------------------	-------------------------------	-------------------------------	-------------------------------	-------------------------------

3. INITIATIVE. Action in the absence of specific direction. Seeing what needs to be done and acting without prompting. The instinct to begin a task and follow through energetically on one's own accord. Being creative, proactive and decisive. Transforming opportunity into action.

ADV	Demonstrates willingness to take action in the absence of specific direction. Acts commensurate with grade, training and experience.	Self-motivated and action-oriented. Foresight and energy consistently transform opportunity into action. Develops and pursues creative, innovative solutions. Acts without prompting. Self-starter.	Highly motivated and proactive. Displays exceptional awareness of surroundings and environment. Uncanny ability to anticipate mission requirements and quickly formulate original, far-reaching solutions. Always takes decisive, effective action.	N/O
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A <input type="checkbox"/>	B <input type="checkbox"/>	C <input type="checkbox"/>	D <input type="checkbox"/>	E <input type="checkbox"/>	F <input type="checkbox"/>	G <input type="checkbox"/>	H <input type="checkbox"/>
-------------------------------	-------------------------------	-------------------------------	-------------------------------	-------------------------------	-------------------------------	-------------------------------	-------------------------------

JUSTIFICATION:

1. Marine Reported On:				2. Occasion and Period Covered:			
a. Last Name		b. First Name		c. MI	d. SSN	a. OCC	b. From To
F. LEADERSHIP							
1. LEADING SUBORDINATES. The inseparable relationship between leader and led. The application of leadership principles to provide direction and motivate subordinates. Using authority, persuasion and personality to influence subordinates to accomplish assigned tasks. Sustaining motivation and morale while maximizing subordinates' performance.							
ADV	Engaged: provides instructions and directs execution. Seeks to accomplish mission in ways that sustain motivation and morale. Actions contribute to unit effectiveness.	Achieves a highly effective balance between direction and delegation. Effectively tasks subordinates and clearly delineates standards expected. Enhances performance through constructive supervision. Fosters motivation and enhances morale. Builds and sustains teams that successfully meet mission requirements. Encourages initiative and candor among subordinates.	Promotes creativity and energy among subordinates by striking the ideal balance of direction and delegation. Achieves highest levels of performance from subordinates by encouraging individual initiative. Engenders willing subordination, loyalty, and trust that allow subordinates to overcome their perceived limitations. Personal leadership fosters highest levels of motivation and morale, ensuring mission accomplishment even in the most difficult circumstances.				N/O
A	B	C	D	E	F	G	H
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. DEVELOPING SUBORDINATES. Commitment to train, educate, and challenge all Marines regardless of race, religion, ethnic background, or gender. Mentorship. Cultivating professional and personal development of subordinates. Developing team players and esprit de corps. Ability to combine teaching and coaching. Creating an atmosphere tolerant of mistakes in the course of learning.							
ADV	Maintains an environment that allows personal and professional development. Ensures subordinates participate in all mandated development programs.	Develops and institutes innovative programs, to include PME, that emphasize personal and professional development of subordinates. Challenges subordinates to exceed their perceived potential thereby enhancing unit morale and effectiveness. Creates an environment where all Marines are confident to learn through trial and error. As a mentor, prepares subordinates for increased responsibilities and duties.	Widely recognized and emulated as a teacher, coach and leader. Any Marine would desire to serve with this Marine because they know they will grow personally and professionally. Subordinate and unit performance far surpassed expected results due to MRO's mentorship and team building talents. Attitude toward subordinate development is infectious, extending beyond the unit.				N/O
A	B	C	D	E	F	G	H
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. SETTING THE EXAMPLE. The most visible facet of leadership: how well a Marine serves as a role model for all others. Personal action demonstrates the highest standards of conduct, ethical behavior, fitness, and appearance. Bearing, demeanor, and self-discipline are elements.							
ADV	Maintains Marine Corps standards for appearance, weight, and uniform wear. Sustains required level of physical fitness. Adheres to the tenets of the Marine Corps core values.	Personal conduct on and off duty reflects highest Marine Corps standards of integrity, bearing and appearance. Character is exceptional. Actively seeks self-improvement in wide-ranging areas. Dedication to duty and professional example encourage others' self-improvement efforts.	Model Marine, frequently emulated. Exemplary conduct, behavior, and actions are tone-setting. An inspiration to subordinates, peers, and seniors. Remarkable dedication to improving self and others.				N/O
A	B	C	D	E	F	G	H
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. ENSURING WELL-BEING OF SUBORDINATES. Genuine interest in the well-being of Marines. Efforts enhance subordinates' ability to concentrate/focus on unit mission accomplishment. Concern for family readiness is inherent. The importance placed on welfare of subordinates is based on the belief that Marines take care of their own.							
ADV	Deals confidently with issues pertinent to subordinate welfare and recognizes suitable courses of action that support subordinates' well-being. Applies available resources, allowing subordinates to effectively concentrate on the mission.	Instills and/or reinforces a sense of responsibility among junior Marines for themselves and their subordinates. Actively fosters the development of and uses support systems for subordinates which improve their ability to contribute to unit mission accomplishment. Efforts to enhance subordinate welfare improve the unit's ability to accomplish its mission.	Noticeably enhances subordinates well-being, resulting in a measurable increase in unit effectiveness. Maximizes unit and base resources to provide subordinates with the best support available. Proactive approach serves to energize unit members to "take care of their own," thereby correcting potential problems before they can hinder subordinates' effectiveness. Widely recognized for techniques and policies that produce results and build morale. Builds strong family atmosphere. Puts motto <i>Mission first, Marines always</i> , into action.				N/O
A	B	C	D	E	F	G	H
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. COMMUNICATION SKILLS. The efficient transmission and receipt of thoughts and ideas that enable and enhance leadership. Equal importance given to listening, speaking, writing, and critical reading skills. Interactive, allowing one to perceive problems and situations, provide concise guidance, and express complex ideas in a form easily understood by everyone. Allows subordinates to ask questions, raise issues and concerns and venture opinions. Contributes to a leader's ability to motivate as well as counsel.							
ADV	Skilled in receiving and conveying information. Communicates effectively in performance of duties.	Clearly articulates thoughts and ideas, verbally and in writing. Communication in all forms is accurate, intelligent, concise, and timely. Communicates with clarity and verve, ensuring understanding of intent or purpose. Encourages and considers the contributions of others.	Highly developed facility in verbal communication. Adept in composing written documents of the highest quality. Combines presence and verbal skills which engender confidence and achieve understanding irrespective of the setting, situation, or size of the group addressed. Displays an intuitive sense of when and how to listen.				N/O
A	B	C	D	E	F	G	H
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
JUSTIFICATION:							
NAVMC 10835C (Rev.4-03) (P A-PES 16)				PAGE 3 OF 5			

1. Marine Reported On:				2. Occasion and Period Covered:				
a. Last Name		b. First Name		c. MI	d. SSN	a. OCC	b. From To	
G. INTELLECT AND WISDOM								
1. PROFESSIONAL MILITARY EDUCATION (PME). Commitment to intellectual growth in ways beneficial to the Marine Corps. Increases the breadth and depth of warfighting and leadership aptitude. Resources include resident schools; professional qualifications and certification processes; nonresident and other extension courses; civilian educational institution coursework; a personal reading program that includes (but is not limited to) selections from the <u>Commandant's Reading List</u> ; participation in discussion groups and military societies; and involvement in learning through new technologies.								
ADV	Maintains currency in required military skills and related developments. Has completed or is enrolled in appropriate level of PME for grade and level of experience. Recognizes and understands new and creative approaches to service issues. Remains abreast of contemporary concepts and issues.	PME outlook extends beyond MOS and required education. Develops and follows a comprehensive personal program which includes broadened professional reading and/or academic course work; advances new concepts and ideas.	Dedicated to life-long learning. As a result of active and continuous efforts, widely recognized as an intellectual leader in professionally related topics. Makes time for study and takes advantage of all resources and programs. Introduces new and creative approaches to services issues. Engages in a broad spectrum of forums and dialogues.					N/O
A	B	C	D	E	F	G	H	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. DECISION MAKING ABILITY. Viable and timely problem solution. Contributing elements are judgment and decisiveness. Decisions reflect the balance between an optimal solution and a satisfactory, workable solution that generates tempo. Decisions are made within the context of the commander's established intent and the goal of mission accomplishment. <u>Anticipation, mental agility, intuition, and success are inherent.</u>								
ADV	Makes sound decisions leading to mission accomplishment. Actively collects and evaluates information and weighs alternatives to achieve timely results. Confidently approaches problems; accepts responsibility for outcomes.	Demonstrates mental agility; effectively prioritizes and solves multiple complex problems. Analytical abilities enhanced by experience, education, and intuition. Anticipates problems and implements viable, long-term solutions. Steadfast, willing to make difficult decisions.	Widely recognized and sought after to resolve the most critical, complex problems. Seldom matched analytical and intuitive abilities; accurately foresees unexpected problems and arrives at well-timed decisions despite fog and friction. Completely confident approach to all problems. Masterfully strikes a balance between the desire for perfect knowledge and greater tempo.					N/O
A	B	C	D	E	F	G	H	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. JUDGMENT. The discretionary aspect of decision making. Draws on core values, knowledge, and personal experience to make wise choices. Comprehends the consequences of contemplated courses of action.								
ADV	Majority of judgments are measured, circumspect, relevant and correct.	Decisions are consistent and uniformly correct, tempered by consideration of their consequences. Able to identify, isolate and assess relevant factors in the decision making process. Opinions sought by others. Subordinates personal interest in favor of impartiality.	Decisions reflect exceptional insight and wisdom beyond this Marine's experience. Counsel sought by all; often an arbiter. Consistent, superior judgment inspires the confidence of seniors.					N/O
A	B	C	D	E	F	G	H	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
JUSTIFICATION:								
H. FULFILLMENT OF EVALUATION RESPONSIBILITIES								
1. EVALUATIONS. The extent to which this officer serving as a reporting official conducted, or required others to conduct, accurate, uninflated, and timely evaluations.								
ADV	Occasionally submitted untimely or administratively incorrect evaluations. As RS, submitted one or more reports that contained inflated markings. As RO, concurred with one or more reports from subordinates that were returned by HQMC for inflated marking.	Prepared uninflated evaluations which were consistently submitted on time. Evaluations accurately described performance and character. Evaluations contained no inflated markings. No reports returned by RO or HQMC for inflated marking. No subordinates' reports returned by HQMC for inflated marking. Few, if any, reports were returned by RO or HQMC for administrative errors. Section Cs were void of superlatives. Justifications were specific, verifiable, substantive, and where possible, quantifiable and supported the markings given.	No reports submitted late. No reports returned by either RO or HQMC for administrative correction or inflated markings. No subordinates' reports returned by HQMC for administrative correction or inflated markings. Returned procedurally or administratively incorrect reports to subordinates for correction. As RO nonconcurred with all inflated reports.					N/O
A	B	C	D	E	F	G	H	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
JUSTIFICATION:								
NAVMC 10835D (Rev. 4-03) (P)				PAGE 4 OF 5				






1. Marine Reported On:				2. Occasion and Period Covered:		
a. Last Name	b. First Name	c. MI	d. SSN	a. OCC	b. From	To
I. DIRECTED AND ADDITIONAL COMMENTS						
J. CERTIFICATION						
1. I CERTIFY that to the best of my knowledge and belief all entries made hereon are true and without prejudice or partiality and that I have provided a signed copy of this report to the Marine Reported on.				_____		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> (Date in YYYYMMDD format)
				(Signature of Reporting Senior)		
2. I ACKNOWLEDGE the adverse nature of this report and						
<input type="checkbox"/> I have no statement to make <input type="checkbox"/> I have attached a statement				_____		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> (Date in YYYYMMDD format)
				(Signature of Marine Reported On)		
K. REVIEWING OFFICER COMMENTS						
1. OBSERVATION: <input type="checkbox"/> Sufficient <input type="checkbox"/> Insufficient			2. EVALUATION: <input type="checkbox"/> Concur <input type="checkbox"/> Do Not Concur			
3. COMPARATIVE ASSESSMENT: Provide a comparative assessment of potential by placing an "X" in the appropriate box. In making the comparison, consider all Marines of this grade whose professional abilities are known to you personally.	DESCRIPTION		COMPARATIVE ASSESSMENT			
	THE EMINENTLY QUALIFIED MARINE		<input type="checkbox"/> 			
	ONE OF THE FEW EXCEPTIONALLY QUALIFIED MARINES		<input type="checkbox"/> 			
	ONE OF THE MANY HIGHLY QUALIFIED PROFESSIONALS WHO FORM THE MAJORITY OF THIS GRADE		<input type="checkbox"/> 			
	A QUALIFIED MARINE		<input type="checkbox"/> 			
	UNSATISFACTORY		<input type="checkbox"/> 			
4. REVIEWING OFFICER COMMENTS: Amplify your comparative assessment mark; evaluate potential for continued professional development to include: promotion, command, assignment, resident PME, and retention; and put Reporting Senior marks and comments in perspective.						
5. I CERTIFY that to the best of my knowledge and belief all entries made hereon are true and without prejudice or partiality.				_____		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> (Date in YYYYMMDD format)
				(Signature of Reviewing Officer)		
6. I ACKNOWLEDGE the adverse nature of this report and						
<input type="checkbox"/> I have no statement to make <input type="checkbox"/> I have attached a statement				_____		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> (Date in YYYYMMDD format)
				(Signature of Marine Reported On)		
L. ADDENDUM PAGE						
ADDENDUM PAGE ATTACHED: <input type="checkbox"/> YES						
NAVMC 10835E (Rev. 4-03) (P A-PES 16)						PAGE 5 OF 5

Figure 35. Blank USMC FITREP (From HQMC, 2006b, pp. B-1 through B-5)

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APPENDIX H. SAMPLE RS FITREP LIST

Reporting Senior Fitness Report List					
SSN: ____-__-____					
As of: 20050826					
MRO SSN (Last Four)	Last Name	From Date	To Date	Occ	FitRep Avg
CAPT					
1234	DAVIS	01-Aug-98	31-May-99	AN	3.46
Average by MRO Grade: 3.46					
CWO3					
3456	WILSON	01-Oct-02	31-May-03	AN	4.07
Average by MRO Grade: 4.07					
MSGT					
4567	THOMAS	01-Oct-01	30-Apr-02	AN	4.92
7654	HARRIS	01-Feb-99	31-Mar-99	GC	N/A
Average by MRO Grade: 4.92					
GYSGT					
5678	JACKSON	21-Oct-03	30-Jun-04	AN	5.38
6789	TAYLOR	01-Oct-03	30-Jun-04	AN	3.61
7890	MARTIN	09-Jul-03	30-Jun-04	AN	3.07
Average by MRO Grade: 4.02					
SGT					
0123	MORRIS	07-Aug-02	31-Mar-03	AN	5.07
0123	MORRIS	01-Jul-03	02-Dec-02	TR	4.38
9876	LEWIS	01-Oct-00	20-Oct-01	TD	4.07
8765	JONES	30-Jun-02	16-Jun-04	TR	N/A
Average by MRO Grade: 4.51					

Figure 36. Sample RS FITREP List (From HQMC, 2006b, p. G-5)

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APPENDIX I. SAMPLE RO COMPARATIVE ASSESSMENT PROFILE

Reviewing Officer Comparative Assessment Profile								
SSN: ____-____-____								
As of: 20050228								
<u>Assessment Mark</u>	<u>Description</u>							
8	The eminently qualified Marine							
7, 6	One of the few exceptionally qualified Marines							
5, 4, 3	One of the many highly qualified professionals who form the majority of this grade							
2	A qualified Marine							
1	Unsatisfactory							
<u>MRO Rank</u>	<u># of Reports / Assessment Mark</u>							
COL	0 / 1	0 / 2	0 / 3	0 / 4	2 / 5	9 / 6	4 / 7	0 / 8
Total # of Reports: 15								
LTCOL	0 / 1	0 / 2	1 / 3	1 / 4	28 / 5	23 / 6	14 / 7	6 / 8
Total # of Reports: 73								
MAJ	0 / 1	0 / 2	0 / 3	1 / 4	7 / 5	12 / 6	8 / 7	0 / 8
Total # of Reports: 28								
SGTMAJ	0 / 1	0 / 2	0 / 3	0 / 4	0 / 5	2 / 6	4 / 7	2 / 8
Total # of Reports: 8								
SSGT	1 / 1	0 / 2	1 / 3	5 / 4	13 / 5	8 / 6	2 / 7	0 / 8
Total # of Reports: 30								
SGT	0 / 1	0 / 2	4 / 3	11 / 4	25 / 5	12 / 6	6 / 7	2 / 8
Total # of Reports: 60								
Total # of Observed Reviews: 218								
Total # Reports Over 60 Days Old: 12								

Figure 37. Sample RO Comparative Assessment Profile (From HQMC, 2006b, G-6)

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APPENDIX J. SAMPLE RO FITREP LISTING

Reviewing Officer Fitness Report List					
SSN: ___-__-____					
As of: 20050826					
MRO SSN (Last Four)	Last Name	From Date	To Date	Occ	RO Assessment Mark
MAJ					
1234	MARTIN	01-Aug-98	31-May-99	AN	7
2345	WILLIAMS	01-Aug-00	06-Jun-01	CH	5
CAPT					
3456	SMITH	01-Oct-02	31-May-03	AN	6
CWO2					
4567	THOMAS	01-Oct-01	30-Apr-02	AN	5
MGYSGT					
5678	JACKSON	21-Oct-03	30-Sep-04	AN	5
6789	TAYLOR	01-Oct-03	30-Sep-04	AN	4
7890	JONES	09-Jul-04	30-Sep-04	AN	Insufficient
MSGT					
8901	GARCIA	02-Jul-01	31-Jul-02	TR	6
9012	MARSHALL	01-May-00	26-Jun-00	TR	Insufficient
SGT					
0123	CAMPBELL	07-Aug-02	31-Mar-03	AN	7
0123	CAMPBELL	01-Jul-02	02-Dec-02	TR	6
9876	MILLER	01-Oct-00	20-Oct-01	TD	6
9876	MILLER	02-Aug-00	31-Mar-01	AN	5
8765	BROWN	30-Aug-03	16-Jun-04	TR	3
7654	HARRIS	01-Oct-98	31-Mar-99	GC	3

Figure 38. Sample RO FITREP List (From HQMC, 2006b, G-7)

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APPENDIX K. FY-13 LIEUTENANT COLONEL PROMOTION BOARD COMPOSITION

	Rank	MOS / Requirement	Special Requirements	Reg/Res	Unit	Notes	Geo codes
1	Col	8041	GCBT	Reg	TECOM	Note 1, Note 2	N
2	Col	8040		Reg	HQMC (I)	Note 2	N
3	Col	8040		Reg	MCCDC	Note 2	N
4	Col	8040	F	Reg	MARFORPAC	Note 2	W
5	Col	8041	GCBT	Reg	MCRRC	Note 2	N
6	Col	8041	M/GCBT	Reg	MARFORCOM	Note 2	E
7	Col	8041	GCBT	Reg	MARFORPAC	Note 2	W
8	Col	8040	CSS	Reg	LOGCOM	Note 2	E
9	Col	8041	GCBT	Reg	MARSOC	Note 2	E
10	Col	8041	CSS	Reg	HQMC (C4)	Note 2	N
11	Col	8041	GCBT	Reg	HQMC (M&RA)	Note 2	N
12	Col	8041	ACQ/CSS	Reg	SYSCOM	Note 2	N
13	Col	8041	GCBT	Reg	HQMC (PP&O)	Note 2	R
14	Col	8042	RW	Reg	HQMC (AVN)	Note 2	N
15	Col	8042		Reg	MARFORCOM	Note 2	E
16	Col	8042	9702	Reg	MARFORCOM	Note 2,3	N
17	Col	8042	RW	Reg	MARFORPAC	Note 2	W
18	Col	8042	FW	Reg	MAD PAX RVR	Note 2	N
19	Col	8042		Reg	HQMC (M&RA)	Note 2	N
20	Col	8042	FW	Reg	MARFORCOM	Note 2	E
Rec	MaJ	8006		Reg	HQMC (M&RA)	Must not be in zone	N
ARec	Capt	8006		Reg	TECOM		N

Legend	Summary
ACQ = Acquisition	1
H = Minority	1
F = Female	1
JT = Joint	1
AVN = Aviation	7
SR = Senior Member	0
FW = Fixed Wing	2
RW = Rotary Wing	2
CDD = Cmbt Srvc Sppt	6
GCBT = Ground Combat	7

	Geo Codes
	N = Northern VA 13
	E = East Coast 5
	W = West Coast 3
	R = Reserve 1
	Total 22

Note 1: General Officer is Board President.
 Note 2: Membership must be split 1/3 between GCBT, Aviation, and Support.
 Note 3: Any of the nominations may fill the 9702 special requirement.

Figure 39. FY-13 Lieutenant Colonel Promotion Board Composition (From HQMC, 2011c, p. 3-2)

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APPENDIX L. FY-12 MMOA ROADSHOW PRESENTATION – OFFICER CAREER TIMELINE

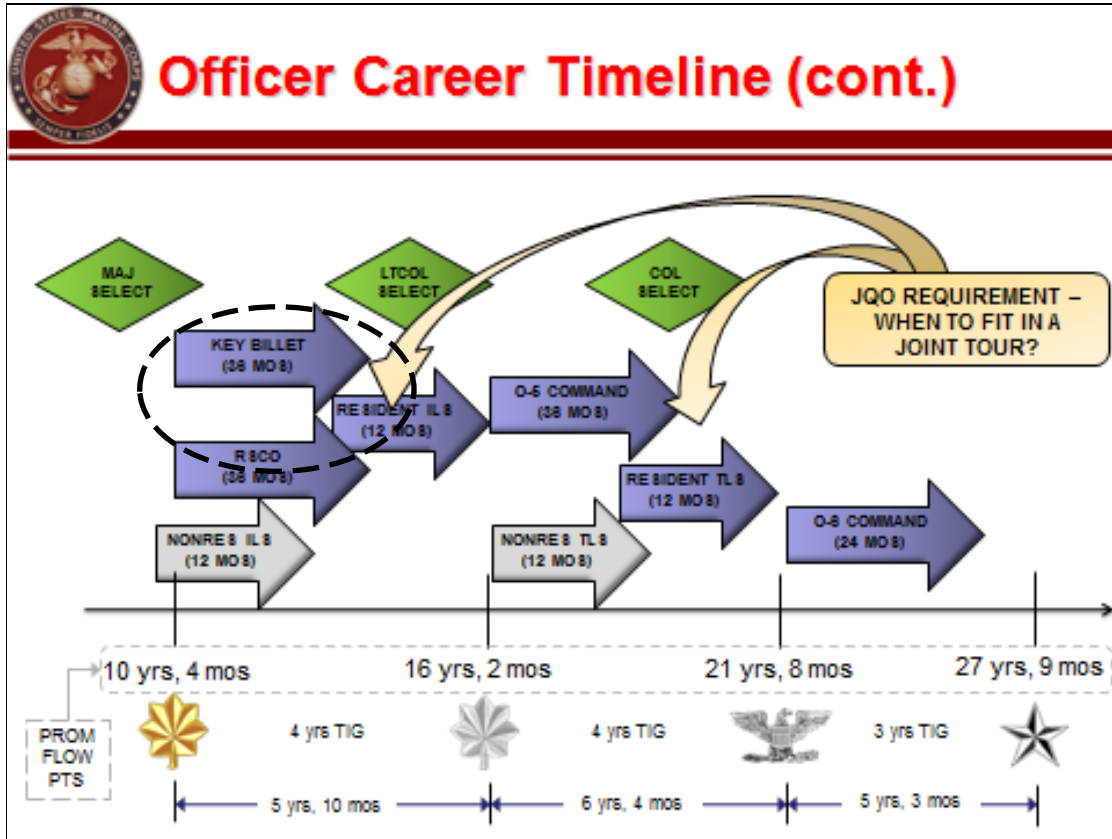


Figure 40. FY-12 Officer Career Timeline (From HQMC, n.d, p. 18)

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