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THESIS

AN ASSESSMENT OF THE JUNIOR OFFICER CRYPTOLOGICAL CAREER PROGRAM (JOCCP) IN RELATION TO THE MARINE CORPS SIGNALS INTELLIGENCE COMMUNITY

by

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This thesis assesses the Marine Corps' involvement in the Junior Officer Cryptological Career Program (JOCCP) and the effects that the program is having upon the Marine Corps Signals Intelligence community. The history and details of the JOCCP are presented, along with a review of two previous studies. The thesis analyzes the promotion and retention data of program graduates, the interview data from 14 program graduates, and the interview data from 13 senior officers associated with the program or its graduates. Findings indicate that the JOCCP has met its goals of educating career-oriented cryptologic officers for the Marine Corps and that it has a positive impact upon the Marine Corps Signals Intelligence Community.

Findings also indicate that the Marine Corps' utilization of JOCCP graduates is not optimal and that the program may have a negative impact upon graduates' promotion and retention. Detailed recommendations are offered to extend the positive impact of the program and to rectify shortcomings.

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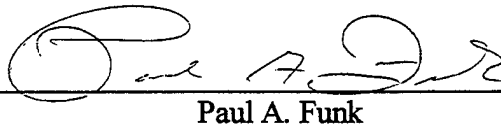
Author: 
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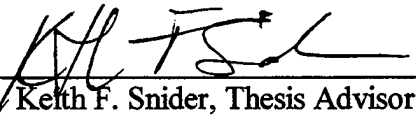
Approved by: 
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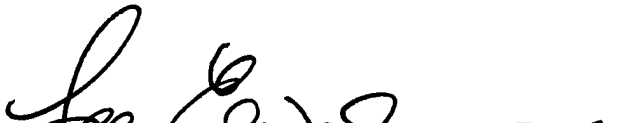
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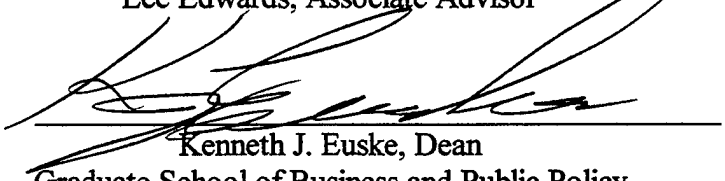
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ABSTRACT

This thesis assesses the Marine Corps' involvement in the Junior Officer Cryptological Career Program (JOCCP) and the effects that the program is having upon the Marine Corps Signals Intelligence community. The history and details of the JOCCP are presented, along with a review of two previous studies. The thesis analyzes the promotion and retention data of program graduates, the interview data from 14 program graduates, and the interview data from 13 senior officers associated with the program or its graduates. Findings indicate that the JOCCP has met its goals of educating career-oriented cryptologic officers for the Marine Corps and that it has a positive impact upon the Marine Corps Signals Intelligence Community.

Findings also indicate that the Marine Corps' utilization of JOCCP graduates is not optimal and that the program may have a negative impact upon graduates' promotion and retention. Detailed recommendations are offered to extend the positive impact of the program and to rectify shortcomings.

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LIST OF ABBREVIATIONS

ASI	Additional Skill Indicator
AWS	Amphibious Warfare School
C4I	Command, Control, Communications, Computers, and Intelligence
CLS	Career Level School
CCSS	Command and Control Systems School
DIRNSA	Director of the NSA
DLI	Defense Language Institute
FMF	Fleet Marine Force
HQMC	Headquarters Marine Corps
IO	Information Operations
JIC	Joint Intelligence Center
JOCCP	Junior Officer Cryptologic Career Program
LNO	Liaison Officer
MCCDC	Marine Corps Combat Development Command
MCSC	Marine Corps Systems Command
MarSpt Bn	Marine Support Battalion
MAGTF	Marine Air Ground Task Forces
MIOC	MAGTF Intelligence Officers Course
MOS	Military Occupational Specialty
MSSI	Master's of Science in Strategic Intelligence
ORB	Officer Records Briefs
PME	Professional Military Education
NCS	National Cryptologic School
NSA	National Security Agency
PGIP	Postgraduate Intelligence Program
SEP	Special Education Program
SIO	Signals Intelligence Officer
USMC	United States Marine Corps
USSS	United States Signals Intelligence System

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I. INTRODUCTION

A. BACKGOUND

In 1971, the Director of the National Security Agency (DIRNSA) recognized the need for a core of career minded, highly trained, military cryptologic officers. He established the Junior Officer Cryptologic Career Program (JOCCP), a highly selective, leadership development, internship program at the National Security Agency (NSA). The JOCCP was intended to provide junior officers from all services a quality education and hands-on training in cryptology while simultaneously allowing the students to become intimately aware of the personnel and operations within the NSA (NSA/CSS, 1999).

The JOCCP is a three-year internship program with a foundation in academics. Members are required to attend over 1500 hours of academic study at the National Cryptologic School (NCS). Additionally there is a requirement for a minimum of four, six-month long work centers at various intelligence departments both inside and outside the NSA (NSA/CSS, 1999).

The United States Marine Corps (USMC), in need of an effective program to produce career-oriented officers with advanced cryptologic skills, began participation in JOCCP in 1976. Although allowed up to three, the Marine participation in the program has been one officer per year. As of May 2001, 19 Marine officers have graduated from the JOCCP and returned to serve the Marine Corps. Positive anecdotal evidence indicated that the returning Marine officers were high quality cryptologic experts with a career orientation. Research studies were conducted into the Army's and the Air Force's participation in the JOCCP with favorable results for those services as well. To date, no

formal study of the Marine JOCCP graduates has been undertaken to support the anecdotal evidence.

B. PURPOSE

The purpose of this study is to assess the Marine Corps' involvement in the JOCCP and to assess the effects that the program is having upon the Marine Corps Signals Intelligence community. This study will determine if JOCCP is meeting its intended goals of producing career oriented cryptologic experts for the Marine Corps. It will examine the effects that the JOCCP graduates of this program have had upon the Marine Corps, and it will examine the effects that this program has had upon its graduates. Furthermore, this study intends to collect and condense the various opinions and recommendations concerning the administration of this program as well as the utilization of this program's Marine graduates.

C. RESEARCH QUESTIONS

1. What effects does the JOCCP have upon the Marine Corps Signals Intelligence community?

This primary research question was intended to quantify the net gain or loss operationally and institutionally to Marine Corps Signals Intelligence because of the JOCCP. Understanding that there is little financial basis to justify a cost/benefit analysis for the JOCCP, there is a need to assess the return-on-investment that the Marine Corps Signals Intelligence community realizes for committing three of its officers to this program at any one time.

2. What effects does the JOCCP have upon the Marine Corps?

This question is intended to view the effects of the Marine involvement in the JOCCP from a macro perspective. Due to the supporting relationship that the Marine

Signals Intelligence community has with its warfighters, this study would be remiss to not attempt to quantify the JOCCP's impact upon the Marine Corps' overall efforts.

3. What effects does the JOCCP have upon its graduates?

One of the stated goals of the JOCCP is to develop its participants as future leaders in the cryptologic community and to provide for their educational and career development (NSA/CSS, 1999). This question attempts to assess how well the program is meeting that goal with its Marine Corps participants.

4. How can the JOCCP graduates be better utilized?

If the JOCCP is meeting its stated goal of developing its members to the highest potential to perform as members of the cryptologic community (NSA/CSS, 1999), the Marine Corps would be best served if it utilized the graduates of the program in a planned and efficient way. This question attempts to assess how past graduates have been utilized, as well as to collect recommendations from various persons involved with the program in order to determine how improvements can be made.

5. How can the JOCCP be better administered?

No formal effort has ever been made to assess and refine this program's administration. This question attempts to capture the current and historical administration of the program, as well as provide recommendations from various persons involved with the program in order to determine how improvements can be made.

D. SCOPE

This study will attempt to examine the JOCCP from a number of aspects in an effort to present a well-rounded and valid assessment. This study does not attempt to assess the current state of the program such as its curriculum or its administration. Instead, it will examine only historical information and testimonials related to the program. Some information referenced is as current as of May 2001, while other data

dates back to over ten years ago. Much of the data analyzed are the testimonials of individuals who have been involved in the program over the last 25 years.

The JOCCP is an internship at NSA that results in its members working on a daily basis with classified information. This study will not contain classified information. This study's utility will be greatly reduced if it were to become classified, and a quality assessment of the program can be performed at the unclassified level.

E. METHODOLOGY

This study examines three areas in its approach to assess the JOCCP. The first sub-focus is a quantitative analysis of promotion and retention data of the graduates. The second sub-focus is an analysis of interview data of the graduates' perceptions of the program's effectiveness, its applicability, and its impact upon their careers. The third sub-focus is an analysis of interview data collected from senior officers associated with the program and senior officers in the Signals Intelligence field to assess the program's impact and to collect their recommendations. Analysis of the themes collected from the interview portions is combined with quantitative analysis to address the research questions.

F. ORGANIZATION

This study is divided into five chapters. Chapter II begins with a detailed description of the JOCCP program and the Marine Corps' involvement. Chapter II then concludes with reviews of two other similar studies conducted into JOCCP concerning the Army's and the Air Force's involvement. Chapter III outlines the research methodology of the study. Chapter IV discusses each of the sub-focuses of the study individually and then analyzes them collectively. Chapter V provides a summary of the

analysis; it draws conclusions in relation to the research questions and then makes recommendations for future actions.

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II. LITERATURE REVIEW

A. CHAPTER OVERVIEW

This chapter provides a review of the literature and information related to the JOCCP. The intent is to initially build a knowledge foundation for the reader about the organization and administration of the JOCCP with a particular focus upon the Marine Corps' involvement. The chapter then reviews the two previous research studies that have been conducted into the JOCCP by Army and Air Force Officers.

B. JUNIOR OFFICER CRYPOTOLOGIC CAREER PROGRAM

The JOCCP is a joint service program at NSA, which is designed to prepare qualified Intelligence officers to meet the ever-increasing demands of leadership in the highly complex cryptologic community. The purpose of the JOCCP is to enable junior officers to perform as future leaders in the Intelligence community by providing the opportunity for them to receive specialized education and career development. The JOCCP also enables participants to make significant contributions to the mission and operations of their parent service while serving the NSA (NSA/CSS, 1999).

The JOCCP began in 1971 by agreement between the Director of the NSA and the various service cryptologic elements in response to a need for a core of highly trained officers to fill key leadership positions throughout the cryptologic community. The original program had twelve members from the Army, Air Force, and the Navy as compared to the 39 members of today. The United States Marine Corps began sending participants to the program in 1976, producing its first Marine graduate in 1979. Since 1971 the program has produced over 300 graduates from the various services with 19 of them being Marines. (Ber, 2000)

The JOCCP offers its members a unique 36-month opportunity to develop broad technical and operational expertise through a combination of academic and work center experience. The JOCCP requires its members to complete over 1500 hours of academic requirements while attending classes taught in the Fort Meade area at the NCS. Courses are generally college level, ranging from lower level undergraduate to graduate level courses. Members must pass all required course with a minimum grade of a "C" while maintaining a cumulative grade of a "B" (NSA/CSS, 1999).

JOCCP members are required to participate in a minimum of four six-month work center assignments in any of the approved areas within the Intelligence community. The work centers throughout NSA provide JOCCP participants with a good understanding of the NSA while the work centers external to NSA broaden the members' appreciation of the Intelligence community. These work centers complement the hearty academic requirements and are intended to provide the officer with a sound academic foundation and a depth of knowledge through "hands-on" experience. Of the minimum four required work centers, three work centers must be within Traffic Analysis and Reporting, Collection Management, and Electronic Intelligence. Within these general areas there are many work centers from which to choose, and additional work centers are frequently approved on a case-by-case basis. (NSA/CSS, 1999; Ber, 2000)

JOCCP members are in high demand throughout NSA, as well as the various other participating intelligence activities. Members are expected to demonstrate superior performance in each of their work center tours while performing as a valued member of that work center. A post work center evaluation is written by the member's work center

supervisor and sent to the program's executive director to become a part of the member's overall performance evaluation. (NSA/CSS, 1999; Ber, 2000)

The JOCCP Executive Panel manages the program for the Director of the NSA. The panel consists of an O-6 from each service as well as four senior level civilian managers. All members of the JOCCP panel have extensive operational Intelligence experience. The four O-6s on the panel serve as mentors and advisors to their respective JOCCP members while the civilian members assist in the civilian/military integration within the program. A civilian Executive Director manages the JOCCP program. He assists participants in meeting program requirements while endeavoring to maximize the members JOCCP experience at NSA. (NSA/CSS, 1999)

Selection of Marines to participate in the JOCCP occurs annually through a stringent selection process. A formal message is released each fall from Headquarters Marine Corps (HQMC) soliciting applications from junior officers in the Signals Intelligence field. Applicants must have at least three years of experience and have their commanding officer's endorsement. Historically, no mandatory service requirement was stipulated for program participation. In 2001, a change was made to the program that stated that an applicant must be willing to commit to one year of service beyond graduation from JOCCP. The applications are then forwarded to HQMC for review and selection for nomination to DIRNSA for final approval. (MarSptBn, 2000) Only high potential officers receive the needed endorsements and are eventually accepted into the program. The majority of successful applicants have had experience in one of the two Radio Battalions in the Marine Corps.

While in the program the member has extreme latitude in selecting the method and timeline that he or she will use to complete the course requirements. The civilian Executive Director in charge of the JOCCP mentors program members and advises them upon course selection, but it is the member's responsibility to plan for course requirements and work center choice. The member then briefs the service O-6 on the JOCCP Executive Panel for final course and work center selection approval. (Ber, 2000) The amount of oversight applied by the members of the JOCCP Executive Panel upon this selection process varies over time. One of the results is that no two JOCCP members experience the same course track, while some vary widely from the norm. (Ber, 2000)

Upon graduation from the JOCCP the course track for Marine officers is not mandated in any one specific direction. If a graduate has not yet completed Career Level School (CLS)[1] he or she may be selected to either the resident Amphibious Warfare School (AWS)[2] or Command and Control Systems Course (CCSC)[3]. Recently graduates

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[1] A Career Level School is a required professional military education (PME) milestone required of all junior officers for advancement. The CLS can be attained either in residence at a school or through correspondence courses.

[2] The Amphibious Warfare School is a nine-month resident CLS which provides an education with an emphasis on combined arms operations, warfighting skills, tactical decision-making and Marine Air Ground Task Forces (MAGTFs) in amphibious and expeditionary operations.

[3] The Command and Control Systems Course is a nine-month resident CLS, which provides an education with an emphasis on planning command and control systems, information technologies, and information/operations interactions.

have also been attending MAGTF Intelligence Officers Course[4] (MIOC) before their next permanent duty station.

Historically, graduates have been sent to a number of different follow-on permanent duty stations that have various relationships to the skills that they learned and practiced in JOCCP. A review of the records indicates that there is no consistency in the career patterns of the program's graduates immediately after graduation. Appendix (A) is a listing of the first four billets that each of the program graduates were assigned to after graduation. The graduate's next permanent duty station after JOCCP is normally in a cryptologic billet, but there are anecdotal cases where this did not occur. Of the cryptologic billets assigned, no specific set of cryptologic billets is mandated. No system is in place to track or place graduates in specific billets after this first post-JOCCP billet.

C. THE QUANTOCK STUDY

In 1993, Captain Mark R. Quantock, USA, conducted a study into the Army's involvement in the JOCCP to ascertain if the program was meeting its stated objectives of:

- Providing a cadre of highly qualified cryptologic officers.
- Expanding their knowledge and skills in cryptology by exposure to relevant cryptologic disciplines.
- Providing them an increased understanding in the rapidly changing Intelligence technology.
- Enhancing their job satisfaction through program participation. (NSA/CSS, 1999)

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[4] The MAGTF Intelligence Officers Course is a required three-month resident PME of all intelligence officers.

Captain Quantock was a recent graduate of the JOCCP program and was conducting the study in pursuit of a graduate degree through Central Michigan University.

The focus of the Quantock study was on goal realization, specialty utilization, promotion and command selection rates, and program curriculum. It focused solely upon the Army portion of this program. His intention was to present his findings and recommendation to the program's Executive Director and senior Army JOCCP panel member to assist in program modification and refinement.

Quantock's pre-research assessment of the program was that the program was in fact meeting its objectives of producing skilled, career minded cryptologic officers that competed favorably within the Army. He also believed that the program had not benefited fully from the field experience of its graduates in terms of incorporating their input into the program's content, structure, and length.

Quantock's data collection and analysis was solely focused upon the graduates of the program. His primary collection method was through survey feedback from 50 of the 77 possible Army graduates. The survey's purpose was to develop a profile of the graduates, solicit a post-program critique, obtain graduates' views of specialty utilization, assess the graduates' perceptions on the impact of the JOCCP upon each officer's career, and to solicit their recommendations for the program. His secondary method of collection and analysis was a review and analysis of 49 of the graduate's Officer Records Briefs (ORB) to study the career patterns of graduates. His intention was to determine how well the graduate's JOCCP specialty was utilized by the Army. His final method of collection

and analysis was a study of promotion and command selection rates of the graduates to determine possible effects of JOCCP experience.

Quantock's finding was that the JOCCP was in fact meeting its program goals as far as Army graduates were concerned. The Army JOCCP graduates were being selected to higher ranks and command at a better rate than their peers. The Army graduates indicated that they had a positive attitude concerning the program and its ability to prepare them for leadership positions within the cryptologic community. The graduates assessed the program's academic load and work center requirement to be near optimal and only recommended minor changes to refine the program's administration. Both the graduates and their ORBS indicated that they were being adequately utilized in cryptology following graduation and throughout their careers.

Of significant interest is an explanation that Quantock provides of the Army Military Occupational Specialty (MOS) coding system. In function and in form, this coding system is distinctly different from the Marine Corps' coding system. This is of exceptional significance when comparing how or if the two services track JOCCP graduates in order to utilize their experience.

The Army codes all duty positions and assigns all soldiers according to the work that is performed at that given position. An Army Signals Intelligence officer is a 35G. The "35" indicates "Military Intelligence" while the "G" indicates "Signals Intelligence." This is quite similar to the Marine Corps' system that codes all Intelligence officers as 02's and all Signals Intelligence officers initially as 0206's. The difference is that the Army also assigns a permanent Additional Skill Indicator (ASI) to designate specific skill

sets. In the case of JOCCP, the graduate becomes a 35G with a 3W ASI; as the 3W ASI is reserved solely for JOCCP graduates. Across the Army, certain billets are designated to be filled by a 35G with a 3W ASI in an effort to optimize the utilization of the Army's JOCCP graduates. (Quantock, 1993) The Marine Corps does not utilize this type of tracking or employment of JOCCP graduates.

One of the weaknesses of the Quantock study is its sole focus upon the graduates' input to evaluate the effectiveness of the program and their own perceived effectiveness as Signals Intelligence officers. Too many factors could sway a graduate's opinion of a program that he or she had been so intimately involved in, and few people can give an honest and unbiased assessment of their own professional performance. Although Quantock used promotion and command selection data in an effort to add validity to his findings, by his own admission, it cannot be said that this data alone can be relied upon as an indicator of a causal effect.

D. THE BRIDGES STUDY

In 1996, Captain Karen Bridges, USAF, conducted a study questioning the goal attainment of the JOCCP to prepare junior officers for future cryptologic leadership positions. Like Captain Quantock, Captain Bridges was also a recent graduate of the JOCCP program and was conducting the study in pursuit of a graduate degree through Central Michigan University.

The primary inquiry focus of the Bridges' study was upon the one program goal of preparing officers for future cryptologic leadership positions. She was interested in studying if there were differences in opinions based upon seniority, gender, and service. Her sole collection method was a short self-administered survey. Her sample group was

significantly different than of the Quantock study because she attempted to sample the graduates across all four participating services. Of 126 graduates contacted she received replies from 83, 4 of which were Marines.

The survey results found that the overwhelming majority of graduates either agreed or strongly agreed that the JOCCP had met its goal of preparing junior officers for future cryptologic leadership positions. Bridges found no significant correlation between seniority and JOCCP assessment. However, she did find that positive program assessments were not evenly distributed across those genders, with women on average assessing the program lower. She also identified that program assessment was not evenly distributed across the services, with the Navy and the Marine Corps rating the program higher than the remaining services.

As with the Quantock study, one of the weaknesses of the Bridges study is the sole focus upon the graduates' input to evaluate the effectiveness of the program. No effort was made to evaluate graduates from a non-graduates perspective in order to obtain a less or non-biased assessment of the program.

E. SUMMARY OF LITERATURE REVIEW

For the size and age of the JOCCP, having two studies focused upon it is an impressive amount of literature. Both studies assessed the JOCCP favorably in its effectiveness while questioning the utilization of its graduates by the parent services. The Quantock and Bridges reports methods and findings act as a foundation from which this study will build. However, these two studies are both unique to the point that a Marine perspective of the JOCCP cannot be extrapolated.

Some specific differences exist between these previous studies and this one. Of the 133 graduates polled between the Quantock and Bridges studies, only four were Marines. This study is Marine specific. Both the Quantock and Bridges studies measured program effectiveness almost completely by graduate assessments. This study will place more emphasis upon Senior Officer reviews and data analysis to corroborate the graduates' program assessments. Both the Quantock and Bridges studies were focused internally to the program itself by questioning if the program was meeting its own goals, whereas, this study will assess the applicability of the graduates by measuring the impact they make upon the Corps after graduation.

III. RESEARCH METHODOLOGY

A. RESEARCH APPROACH

This study focuses on three separate areas for balance, variety, and depth of approach. These three sub-focuses of the study are:

- A quantitative analysis of promotion and retention data for 17 of the 19 graduates of the program to compare the graduate with their non-graduate peers.
- An analysis of interview data for 14 of the 19 graduates of their perceptions of the program's effectiveness, its applicability, and its impact upon their careers.
- An analysis of interview data collected from 13 senior officers associated with the program and senior officers in the Signals Intelligence field to assess the program's impact and to collect their recommendations.

B. SECURITY MEASURES TAKEN

There is no material that was classified or derived from classified sources included in this study. The Office of Security Services at NSA has certified that this document does not contain any classified material. Writing this study as an unclassified document without a classified appendix may have restricted the scope and detail of the discussion, but it is not believed to be to a significant detriment.

C. PROMOTION AND RETENTION DATA

Promotion data were analyzed to directly compare the promotion data of a JOCCP graduate with his or her non-graduate Intelligence officer peer. The data obtained were

the promotion dates of all JOCCP graduates for promotion to Major and Lieutenant Colonel. From these dates, time-in-service for promotion to selected grades was derived. Data were obtained for the average time-in-service for all other Intelligence officers of these same year groups in order for a direct comparison of graduates and non-graduates. Data were also collected concerning the one graduate that had been selected to the rank of Colonel. This data contains the time-in-grade of this Marine as a Lieutenant Colonel, as well as his peers at the time of selection. This was done because this Marine had not yet been promoted.

Retention data were collected for all of the graduates in the form of years of service before separation or retirement. Peer group comparisons were performed on these Marines for the last ten years due to data limitations. Sophisticated data analysis was not feasible due to the small sample size and the limited data. Instead, a descriptive analysis of the retention data was conducted and presented in this study.

The Manpower and Reserve Affairs Department, Headquarters, U.S. Marine Corps supplied all the data for promotion and retention. All promotion and retention data are current as of March 2001.

D. GRADUATE QUESTIONAIRE AND INTERVIEW DATA

Program graduates supplied information for analysis to determine the program's effect upon the member and the community from the member's perspective. Structured interviews were conducted with 14 of the 19 graduates of the program. Of the 14 graduates, 12 are a continuous series of graduates ranging from the most recent in 2000 back to 1988.

The structured interviews were based upon the questionnaire used in the Quantock study of Army JOCCP graduates in 1993. The interviews were conducted either in person or by telephone over a three-month period. The choice of using a questionnaire as the basis for a structured interview was to collect data as well as themes for analysis and presentation. Five of the 14 interviews were personal interviews with the remainder conducted by telephone. It is believed that the quality of the session differed little between the two data collection means. When possible, and acceptable to the subject, the session was tape recorded to facilitate smooth dialog and ensure accuracy.

The format (Appendix B) for the interviews was the same whether if by telephone or in person. The purpose and format of the study were described to the subject with some background information about the researcher. An outline of the session was reviewed and consent to tape record the session was requested. After a subject indicated a response to a question, he or she was asked to expound upon the answer with their own thoughts. At the conclusion of the questions, there was a series of general discussion questions to further the dialog and allow the subject ample opportunity to supply input.

The structured interview was divided into three main subcategories.

- A post program critique of the JOCCP asked the graduate to assess the program's format and effectiveness in attaining its stated goals of being career enhancing and developing the technical and operational expertise of the members.

- An assessment of their professional experience since graduating mainly focused upon how their JOCCP experience related to the requirements of billets they have held.

- An assessment of the professional and personal impact that the JOCCP has had on them as it relates to their career milestones and decisions.

E. SENIOR OFFICER INTERVIEW DATA

Information was collected from senior officers in order to ascertain their views on the program, as well as to verify the information attained from other sources. This sub-focus of the approach served to bring a balance to the study as well as integrate in the macro-aspect that comes with seniority and experience. Since JOCCP is a relatively obscure program to the Intelligence community, the senior officers for this study were selected for either their Signals Intelligence background or their past association with the program. That is, the officers for this study included all of the active duty Colonels with a Signals Intelligence background, all current and post-command Radio Battalion or Support Battalion commanders, two JOCCP oversight panel members, the Marine Liaison Officer at NSA and the JOCCP Executive Director.

A semi-structured interview was used to collect this information. As in the graduate interviews, the format for all of the interviews was the same whether done by telephone or in person. The purpose and format of the study were briefly described to the subject along with some background information about the researcher. An outline of the session was reviewed and consent to tape record the session was requested. This Senior Officer interview (Appendix C) was not strictly adhered to in order to allow the senior officer latitude. The interview format was in four subcategories as follows:

- Assess the program's impact and worth to the Marine Corps both now and in the future.
- Assess the utilization of JOCCP graduates.
- Assess the program's impact upon its graduates in the aspect of promotion, command selection, and retention.
- Provide recommendations for the Marine Corps' future support for the program as well as how the program is to be administered.

F. ASSUMPTIONS OF METHODOLOGY

An assumption was made that the promotion data analyzed for this study may not be representative of the effect of JOCCP alone. A selection bias may be present due to the highly selective nature of the JOCCP application process. This factor may have an effect on the data as well as the likelihood that various selection boards over the years may view JOCCP in differing lights.

G. LIMITATIONS OF METHODOLOGY

The first limitation is the relatively narrow field of officers interviewed for this study. Although 27 interviews were conducted, they were all Marine Corps Intelligence officers. The selection of this exclusive group is due to the inconspicuous nature of the program being assessed.

A second limitation is incurred with the choice of interviews as the means of acquiring information from the graduates and senior officers. It is possible that a "method effect" (Sallant and Dillman, 1994) was incurred, causing the subjects to respond differently to an interview than they would a questionnaire alone. The researcher may have produced a leading bias on the subjects through his tone and line of inquiry.

Mitigating this limitation is the belief that the junior rank of the interviewer in relation to the subjects offset any leading bias. As a group, the interviewer found the subjects to be strongly opinionated and confident officers unlikely to be swayed in opinion by a junior officer.

A third limitation is the effects that events outside of the program may have played upon the data collected. An example of this is that the Marine Corps' continued support for the program came into question during the course of this research. Much debate was generated within the Signals Intelligence field involving many of the officers interviewed. Another example was that the annual Lieutenant Colonel selection board results were published during the course of this research. The selection results were disappointing for the Signals Intelligence field in general. Specifically, two of the graduates were eligible for promotion but were not selected. Although it is unlikely to be significant, these two events may have affected the data collected.

The final limitation to this research is the large amount of classified information that is absent from this report. This limitation did not affect the overall findings of the research but did have an effect on the degree of detail that could be expressed. The magnitude of detail expressed concerning the specific utilization of certain skill sets may be a factor in how the study is perceived.

IV. ANALYSIS

A. CHAPTER OVERVIEW

This chapter is divided into three sections for the analysis of the JOCCP's impact upon its graduates and the Marine Corps Signals Intelligence community.

- A quantitative analysis of JOCCP graduate promotion and retention data comparing the JOCCP graduates with their non-graduate peers.
- An analysis of interview data for 14 of the 19 graduates of their perceptions of the program's effectiveness, its applicability, and its impact upon their careers.
- An analysis of interview data collected from senior officers associated with the program and senior officers in the Signals Intelligence field to assess the program's impact.

The primary research question concerning the effect of the JOCCP upon the Marine Corps Signals Intelligence community was the subject of inquiry from the onset of the research. After conducting several interviews it was determined that the secondary question of "What effect does the JOCCP have upon the Marine Corps?" was of a greater concern to the subjects. Consequently, both questions will be addressed in the analysis, but the program's effect upon the Corps will receive more emphasis.

B. ANALYSIS OF PROMOTION AND RETENTION DATA

This sub-focus of the study analyzes the available promotion and retention data pertinent to the JOCCP graduates as it compares to their non-graduate peers. It is extremely difficult to determine a causal effect due to the large number of factors

involved and a relatively small number of cases. The object of the analysis performed was to provide descriptive statistics to inquire if there were meaningful differences between these two groups that could relate to the JOCCP. The Manpower and Reserve Affairs Department, Headquarters, U.S. Marine Corps supplied all of the data for promotion and retention, and it is current as of March 2001. The promotion data is presented in Appendix D.

1. Promotion Data Analysis

There were no meaningful differences in the promotion statistics of graduates and non-graduates to the ranks of Major (O-4) and Lieutenant Colonel (O-5). Furthermore, no meaningful comparison could be made for promotion to Colonel (O-6) as there was only one graduate to be selected to that rank. Since no meaningful effects were derived for the promotions from O-4 to O-6, it is assumed that the JOCCP does not have a significant effect upon promotions, either positive or negative.

The data obtained were the promotion dates of JOCCP graduates for promotion to O-4 and O-5. From these dates, "time-in-service" for promotion to selected grades was derived. Data were obtained for the average time-in-service for all other Intelligence officers of these same year groups in order that a direct comparison of graduates and non-graduates could be conducted. For the pending promotions of the graduates selected to O-5 and O-6 the amount of time each officer spent in the current grade before being selected was utilized. This method of using "time-in-grade" allows a peer group comparison comparable to the "time-in-service" analysis.

The comparison of times between promotions with peers was favored over comparing selection rates with peers due to the longitudinal nature of the study.

Promotion selection rates vary widely each year due to a number of reasons; overall retention rates, mandated force draw-down, force build-up for conflict, favorable economic factors, etc. To compare selection rates would be to combine each of these factors over the life of the JOCCP, whereas the comparison of times between promotions muted these factors. The comparison of times between promotions encompasses some desirable factors of selection rates. If a Marine is not selected for promotion, his or her time will have simply increased by one year in comparison to selected peers. This produced a standard that was supportable with the available data and was easily measured and explained.

a. Promotion to O-4

Fifteen of the 19 JOCCP graduates were promoted to the rank of Major, of which usable data was available for 13. This group of 13 cases encompassed all of the JOCCP graduates promoted to O-4 since 1991. In each of these cases, time-in-service was compared with the average promotion time-in-service for all Intelligence officers in their same year-group.

There was no meaningful difference between the promotions to O-4 for a JOCCP graduate as compared to his or her peer Intelligence officer. The difference for the average promotion to O-4 between the two groups was calculated to be .0054 of a year. In real terms, the average JOCCP graduate was promoted to O-4 approximately two days later than his or her non-graduate peer. Given this exceptionally small difference no meaningful effects can be derived between the JOCCP and promotion to O-4.

b. Promotion to O-5

Three of the 13 graduates promoted to O-4 went on to be promoted to O-5. One of the 13 is currently selected for promotion to O-5. These four cases were compared to peer groups for time-in-service to promotion or time-in-grade to selection.

For promotion to O-5 the difference between the two groups was slightly larger. The difference for the average selection and promotion to O-5 was calculated to be .0525 of a year. In real terms, the average JOCCP graduate was promoted to O-5 approximately 19 days later than his or her non-graduate peer. Given the small number of cases, the relatively small finding, and the numerous factors that may be involved no reasonable meaningful effects can be derived between the JOCCP and promotion to O-5

c. Promotion to O-6

One of the graduates has been selected for promotion to O-6. At the time of his selection he had 3.92 years in grade, whereas his peers had 4.05 years in grade. In real terms, he had been an O-5 for 47 days less than his non-graduate peer when he was selected for O-6. Given that there is only one case to be studied, no reasonable meaningful effect can be derived between the JOCCP and promotion to O-6.

2. Retention Data Analysis

The finding of the retention statistic analysis was that over the last ten years JOCCP graduates have been retained at a rate similar to their peers throughout the Marine Corps. The analysis is broken down into the two areas of separation from the Marine Corps with less than 20 years and retirement from the Marine Corps with over 20 years. The retention data provided by the Manpower and Reserve Affairs Department is current as of March 2001 and goes back ten years.

a. Separation from the Corps with less than 20 Years

In the history of the program, three graduates have separated from the Corps with less than 20 years of service. Of these three, only two have done so in the last ten years. Both graduates separated as an O-3s with 8.6 and 14.8 years of service. In the Marine Corps over the last ten years O-3s have been separating at a rate of 7% per year. Considering the compounded effect of attrition rates and the small number of cases, these rates seem to indicate that these graduates' separations from the Corps are not abnormal.

A current member of the JOCCP has submitted his resignation after completing 2 1/2 years of the program. After serving one of his work center tours with a department of NSA, this Captain has chosen to resign his commission and pursue a civilian career with that same department. When this Captain entered the JOCCP there was no mandated service obligation associated with the program. Since then, a service obligation of one year has been mandated for program members. Although service obligations such as these are usually associated with formal schools in the Marine Corps, the JOCCP was not then, nor is it now considered a formal school.

b. Retirement from the Corps with Over 20 Years

All five of the graduates who have retired from the Corps have done so in the last ten years. Two retired at the rank of O-5 and three have retired at the rank of O-4. In the Marine Corps over the last ten years, O-5s have retired at the rate of 12.9% per year and O-4s have retired at a rate of 7% per year. Cursory analysis seems to indicate that these JOCCP graduates' retirements from the Corps are not abnormal.

3. Overview of Analysis of Promotion and Retention Data

Analysis of promotion data indicates that JOCCP graduates are selected for promotion similar to their peers. Data indicates that graduates also retire at rates similar

to their peers. This seems to indicate that program participation is statistically neither a hindrance nor benefit to Marines with a career orientation.

The fact that three of the 19 graduates have separated from the Corps before retirement and one current member of the program has submitted resignation papers may be alarming. An attrition rate of 7% of O-3s per year is thought to be expected and since there has been no service obligation attached to this program, such resignations are also to be expected. Two of these four resignations would have been curtailed had there been a three-year service obligation in place.

C. ANALYSIS OF GRADUATE INTERVIEW DATA

1. Data Collection

This sub-focus of the study uses information collected from 14 of the 19 Marine JOCCP graduates to ascertain their views on the program. Eleven of the 14 remain on active duty, one has retired, and two have separated from the service. The active duty graduates range from a Captain at the Amphibious Warfare School to a Colonel (select) at Marine Corps Systems Command. Specific information concerning the JOCCP graduates interviewed can be found in Appendix E.

A semi-structured interview based upon a questionnaire (Appendix B) was used to collect information. The interviewees were read a question and asked to indicate which of the presented answers matched their thoughts best. After subjects indicated a response to a question, they were asked to expound upon their answer with their own thoughts. The question portion of the interview was arranged into three areas: post-program critique, specialty utilization, and career impact of the JOCCP. The graduates interviewed were told that no one person's input would be directly attributed. Instead, the information

and quotes gained would be used in the aggregate and attributed to "a graduate" in order to facilitate a frank and honest discussion.

2. Data Analysis and Theme Development

The data collected were compiled and analyzed for content analysis to identify five recurring themes. The first three themes corresponded with the arrangement of the questionnaire. These themes were an assessment of the JOCCP, the utilization of JOCCP graduates, and the effect of the JOCCP upon the graduates. Each theme will be presented with pertinent questionnaire response data as well as graduate comments. The next recurring theme was a recommendation for increasing the oversight of the JOCCP. The final recurring theme was an assessment of the effects of the JOCCP on the Marine Corps.

3. An Assessment of the JOCCP

In this section of the interview, the graduates were asked to evaluate the JOCCP's utility since graduation. The graduates felt that the JOCCP provided them with an academic and experiential education that adequately prepared them for a career in cryptology. The interview questions are presented with respondent rates in parenthesis. Specific descriptive statistics of question responses can be found in Appendix F.

The JOCCP prepared me for the Signals Intelligence jobs that I have had subsequent to graduation.

a. Strongly Agree (78.6%)

b. Agree (14.3%)

c. Neutral (7.1%)

c. Disagree (0%)

e. Strongly Disagree

One graduate said, "Everything that I did there prepared me for my job today...."

Another graduate said, "After the program, when you go back to the Fort you are more effective because you are a known commodity, you know the people, you know the shops, you know the system."

I am/was a more proficient Signals Intelligence officer because of my JOCCP experience.

a. Strongly Agree (85.7%)
b. Agree (14.3%)
c. Neutral (0%)
d. Disagree (0%)
e. Strongly Disagree (0%)

One graduate explained:

> The JOCCP provided me with such a broad exposure to the national cryptologic system that I do not think that any of my peers come even close to.... For what it costs it is just a great program, the Marine Corps reaps an incredible amount from it.

The JOCCP provided me with a solid foundation in cryptology, which helped me become a more well rounded Intelligence officer.

a. Strongly Agree (42.9%) b. Agree (35.7%)

c. Neutral (21.4%) d. Disagree (0%)

e. Strongly Disagree (0%)

This question received a wider distribution of answers due to it stipulating "Intelligence officer" vice "Signals Intelligence officer." Some graduates felt that the specific cryptologic nature of some work centers, as well as the academic requirements did not translate well into general intelligence work. Most graduates felt that the program's exposure to the entire Intelligence system was beneficial to their future as general Intelligence officers. The variance in opinions of graduates may have been dependant upon their individual work center choices while in the program. Graduates who had chosen detailed cryptologic work centers might have seen little transferability into general intelligence work.

Two graduates said:

"The takeaways of JOCCP are... Exposure to policies and directives... The organization of NSA... Advanced technical knowledge... Points of Contact...." "JOCCP is an exceptional opportunity to see the whole intelligence cycle in action day to day."

The JOCCP expanded my knowledge and skills by exposing me to relevant cryptologic disciplines.

a. Strongly Agree (100%) b. Agree

c. Neutral d. Disagree

e. Strongly Disagree

One graduate emphasized, "There are really no limits to what can be learned or experienced in the program... If anything I felt that I ran out of time."

The JOCCP provided me with an increased understanding of the rapidly changing Signals Intelligence technology field.

a. Strongly Agree (71.4%) b. Agree (21.4%)

c. Neutral (7.1%) d. Disagree (0%)

e. Strongly Disagree (0%)

A graduate explained, "it (JOCCP) is the opportunity to work with the absolute latest in systems.... We have a chance to look at where the future is going...."

I could have received the same amount of technical training in the field had I not attended the JOCCP.

a. Strongly Agree (0%) b. Agree (0%)

c. Neutral (0%) d. Disagree (28.6%)

e. Strongly Disagree (71.4%)

A graduate expounded:

> JOCCP is the only place that a Marine can get this level of education due to time and classification restraints. If you are stationed at NSA, you have access to the classes, but you do not have the time. This program and the DIRNSA Fellowship[5] are the only two opportunities for the Corps to take advantage of this tremendous opportunity.

Overall, the graduates felt that the JOCCP greatly prepared them for a career in cryptology as well as general intelligence. The combined academic and work center requirements were cited as an excellent format to train officers. One graduate said that the JOCCP was, "An incredible breadth of exposure to the field that is backed up by the academic foundation." Another said that, "In JOCCP you are solving real problems in real-time... that is great training for Intelligence officers."

4. The Utilization of the JOCCP Graduates

This section of the interview focused upon graduate perceptions on how well they have been utilized since graduation. The graduates in general felt that the skill set they acquired through JOCCP was not being used to its fullest potential.

Since graduation, I was able to fully utilize the knowledge that JOCCP provided me.

a. Strongly Agree (42.9%)
b. Agree (28.6%)
c. Neutral (14.3%)
d. Disagree (14.3%)
e. Strongly Disagree (0%)

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[5] Director of the National Security Agency Fellowship is a one-year program at the National Security Agency, which has one Marine participant. The selected officer serves one year working directly for the DIRNSA in a variety of educational and professional development positions.

Some of the dispersion of responses to this question may be explained by a graduate's comment of: "I don't think that anyone can 'fully' utilize the knowledge that JOCCP provides...." However, most of the graduates felt that the Marine Corps could take better advantage of the JOCCP by utilizing the graduates better.

I believe that I have been given certain assignments because I am a JOCCP graduate.

a. Strongly Agree (28.6%) b. Agree (7.1%)

c. Neutral (7.1%) d. Disagree (50%)

e. Strongly Disagree (7.1%)

The large distribution in answers can be attributed to the graduates' sentiment that there is no utilization plan in place for the program. Many graduates felt as though they have received assignments subsequent to the program in the same manner as any other Signals Intelligence officer and that no effort has been made to specifically draw upon their experience.

One graduate commented:

> JOCCP should be for the Intelligence community what the School of Advanced Warfighting[6] is for the MEF.... JOCCP should be looked at as a strategic asset, an expert to be called upon. Let's have a place where we can put this guy where we can best use the experience he has gained over the last three years.

[6] The School of Advanced Warfighting is a graduate-level military education in decision-making and complex problem-solving focusing on what warfighters must do to plan for and win campaigns. The School is sponsored by the Marine Corps University's College of Continuing Education

In the past, Commanders have sought me out due to my JOCCP background.

a. Strongly Agree (21.4%) b. Agree (50%)

c. Neutral (21.4%) d. Disagree (7.1%)

e. Strongly Disagree (0%)

Many graduates commented that historically the assignment of billets directly after graduation was not done in a consistent manner and with forethought of how to best utilize the graduates. One case repeatedly cited was that of Major Bailey who graduated the JOCCP and then went on to AWS and MIOC before being assigned to 3rd Marine Air Wing (MAW) G-2. This assignment was perceived by many as a waste of a JOCCP graduate due to the relatively small amount of Signals Intelligence work that the 3rd MAW G-2 section does. In Major Bailey's own words[7]:

> I don't think that I am used well as a JOCCP graduate here... I am currently the G-2A and I have a Signals Intelligence Officer that works for me. I sometimes dabble in SigInt, but it is not my job.

Most graduates thought that a specific set of billets should be designated as "follow-on" tours for the JOCCP. Several of the graduates said that they thought a graduate should go to the MEFs to serve in the Radio Battalions or as the MEF Signals Intelligence Officer (SIO).

One graduate said:

> You should go back and return your services to that tactical unit.... Because the greatest thing about the JOCCP is the know-how to be able to leverage the national assets to support the tactical units.

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[7] Major Bailey allowed himself to be quoted by name.

Another graduate explained, "He (the graduate) has tactical experience, he has national experience, you send him back there (to the Radio Battalion) to mentor the Lieutenants, with a follow-on tour as the operations officer."

Overall, the graduates felt that they use the skills that the JOCCP provided them on a daily basis, but that the potential is not being used to its greatest benefit for the Marine Corps.

5. The Effect of the JOCCP upon the Graduates

This section of the interview focused upon graduate perceptions on how the JOCCP has affected their careers. The researcher acknowledged with the graduates that the selection process for the program is stringent and that most program members would have been highly competitive even without their JOCCP experience. Although all of the graduates interviewed thought that the program was beneficial, most graduates felt that the JOCCP did not have a positive impact upon their careers. Some graduates thought that participation in the program might even have had a detrimental impact upon their careers.

I credit my success as a Signals Intelligence officer to my JOCCP background.

a. Strongly Agree (28.6%)
b. Agree (21.4%)
c. Neutral (35.7%)
d. Disagree (14.3%)
e. Strongly Disagree (0%)

The fact that half of the respondents were neutral or disagreed with this statement may be attributed to the graduates' feeling that they would have succeeded as officers even without the JOCCP. A large portion of this response is also due to the graduates' feeling that there may be negative impacts of the program upon attaining promotions.

One graduate explained, "I think that the program is largely misunderstood throughout the Marine Corps."

Many of the graduates acknowledged that the manner in which promotion and command selection boards are performed[8] places them at a severe competitive disadvantage in regards to the JOCCP. One graduate explained, "In the minds of an 03 or an 08 sitting on a board what does JOCCP mean?[9]" Much of this same sentiment is expressed in the following question.

I am/was more competitive for promotion because of my JOCCP background.

a. Strongly Agree (21.4%) b. Agree (28.6%)

c. Neutral (14.3%) d. Disagree (28.6%)

e. Strongly Disagree (7.1%)

A graduate said:

> If on all of my fitness reports my boss had said that I was doing great in JOCCP everybody who had read that on a board would have said, "What the hell is JOCCP? Who cares? What has this done for the Marine Corps?"

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[8]Marine Corps selection board's voting membership is made up officers from all different occupational fields within the Marine Corps. Each member of the board is responsible to brief a number prospective selectee's records to the remainder of the board for consideration. This briefer is assigned records on a random basis with neither consideration for occupational specialty nor prior knowledge. Since JOCCP is a relatively small and little known program within the Marine Corps, it is possible that a briefer will not have sufficient knowledge of the program to adequately brief a selectee's involvement. Additionally, there may be no other member of the board who has sufficient knowledge of the program.

[9] "03 or 08" refers to the MOSs of an Infantry or Artillery officer respectively.

I am/was more competitive for command because of my JOCCP background.

a. Strongly Agree (21.4%) b. Agree (21.4%)

c. Neutral (7.1%) d. Disagree (42.9%)

e. Strongly Disagree (7.1%)

The exceptional amount who disagreed with this statement (42.9%) can be attributed to the same sentiments the graduates expressed about promotions. The graduates felt that the system used to select for command and promotion places them at a disadvantage due to the JOCCP. One graduate commented, "The officers picking the Battalion Commanders have no clue as to what JOCCP is... It is possible that it is detrimental at the O-5 level."

Many graduates also felt that they may be at a disadvantage for selection by the boards due to perceptions that they had spent too much time away from the FMF in comparison to their competition. [10]

As one graduate said, "The program has an unintentional adverse affect on its graduates. Time out of the fleet... knowledge of the program for the boards." Another one explained, "The drawback is that the graduates are out of the fleet so that they may be perceived as not supporting Marine Corps Operations."

[10]In the Marine Corps, officers compete for promotion against all other officers of the same rank regardless of MOS. Depending upon the make-up and disposition of a board, a group of officers may be at a disadvantage due to the career track of their MOS, station assignments, or participation in programs that remove them from the FMF.

Another graduate explained:

> I believe that participation in JOCCP has hurt me in my career... Three years of assignments with really vague fitness reports that only another cryptologist can understand... because of the selection process produced a select group of three officers being ranked against each other you spent the first year being ranked 3 and then worked your way up...I know that that didn't help when it came to being looked at for promotion.

I am or was more likely to remain in the Marine Corps for having participated in the JOCCP.

a. Strongly Agree (28.6%) b. Agree (21.4%)

c. Neutral (35.7%) d. Disagree (14.3%)

e. Strongly Disagree (0%)

The high neutral response to this question can be attributed to the sentiment that that most graduates expressed that, "I went for this program because I was going to stay in the Marine Corps, not the other way around." The graduates felt that the program was beneficial and enjoyable, but it did not influence their retention decisions.

6. Increasing the Oversight of the JOCCP

A common theme brought up throughout the interviews was that the graduates felt that there needed to be increased oversight into what work centers that JOCCP members were allowed to enter. The graduates felt that too often JOCCP members worked in areas that were not to the benefit of the Corps or the Marine. In some instances, these work centers were not relevant to Marine Corps operations and therefore the experience would not serve the member well.

One graduate said that there should be, "more involvement by the senior member of the program to regularly evaluate the academic and work center curriculum of the

program to determine its relevance." Another graduate said that the "program should be scrutinized about where the work centers are to make sure that they are in the best interests of the Corps."

Some of the graduates felt that the role of the senior Marine on the JOCCP panel was to be a mentor to the members guiding them through their JOCCP experience. They felt that the senior Marine should be directing the members into work centers that are in the best interest of the Corps. One graduate offered, "Advice should be given as to where the Marine Corps is going... so let's get some experience in this area. That wasn't necessarily done while I was there." Another graduate offered "Mentorship... There needs to be appropriate guidance to what areas are suggested for an individual to work."

In some cases graduates felt that the work centers engaged by members were not sufficiently challenging due to an excessive amount of prior knowledge in that area. In these cases, the member was not taking full advantage of the diverse and educational work centers available. One graduate said, "The value of the program is incredible if we hold people to the purpose of the program, cryptologic education... if you spend time deployed to other agencies you don't learn the building."[11]

Another graduate summarized the necessity for increased oversight as:

> One of the drawbacks of the program was that the lack of guidance often allowed officers to gravitate towards their strengths, which is sort of contrary to what the program is all about... the idea is to go and learn something new. And there was also a lot of gravitating towards areas that were considered fun... like work with other agencies which is all very fun and interesting, but in the big scope of things, I'm not sure that they built that firm foundation in cryptology that I thought the program was all about.

[11] "the building" is slang for the National Security Agency.

In general, the graduates felt that the senior Marine on the JOCCP panel should provide specific guidance to the members to ensure that they are participating in work centers that are in their best interest as well as the Marine Corps. Work centers should be allowed only if they are relevant to the Marine Corps while being diverse and challenging to the Marine.

7. The Effects of the JOCCP on the Marine Corps

Overall, an assessment of the effects of the JOCCP on the Marine Corps was derived from the data collected during the interviews with the program's graduates. The graduates felt that the many positive attributes outweighed the few negative attributes.

When asked what the positive benefits for the Marine Corps were from the JOCCP, the graduates offered a myriad of comments. One of positive effects offered was an operational benefit to the Marine Corps by the member in the program and the graduate's ability to marshal national assets for tactical units.

One graduate explained it as:

> My mission statement while I was there (at JOCCP) was; I am the on-ramp for the Fleet Marine Force into the National Security Agency -- the conduit between the haves and the have-nots.

Another graduate offered:

> The biggest take away that I got from the program was how to leverage the national system for our tactical forces. I got all of that through the work center experiences. They don't teach you that at the NSA and they don't teach you that in the Marine Corps.

Many of the graduates offered that the wide variety of agencies, departments, and people that the member interacts with during the work center tours could be of long-term benefit to the Marine Corps. In many ways, these contacts are said to be as important to the potential of the Intelligence officer as the academic skills attained during the program. The knowledge that specific national assets and support exist and where to find them are beneficial to the graduate. As one graduate explained, "Signals Intelligence, being one of the few communities that gets to work at the national agencies, it exposes you to the vast arena of support... and to make contacts with all of the other agencies."

Another graduate said, "One of the largest benefits of the program is the rapport that you develop with the people that you work with.... The contacts that you make are so important when you are networking for support later on...."

Another benefit cited was the array of qualities possessed by the graduates when they returned to the fleet. Graduates mentioned that the continuing professional education for officers in the Signals Intelligence field is incredibly lacking and that the JOCCP not only educates the member but helps to educate the field. One graduate said: "The JOCCP provides a cadre of officers who are able to teach cryptology at the national and tactical level."

Another graduate offered, "We have a real problem with education in our field... graduates should become adjunct faculty members of the NCS for several of the courses taught there."

Many graduates felt that the JOCCP adds a significant element to the leadership of the Signals Intelligence field.

One graduate said:

> With JOCCP we can have SigInt Officers in three flavors: AWS graduates who specialize in operations and orders, CCSS graduates who specialize in Telecommunication and Systems Planning, and JOCCP graduates who specialize in national tactical integration.

Another graduate felt that the JOCCP graduate could be a critical element to the future of the Signals Intelligence field.

> Today this program is more important than ever. With the changes that have been made in the SigInt field officer track, we no longer have 'Career Cryptologists'. A JOCCP graduate is the closest thing that we have to that.... It takes a 'Career Cryptologist' to move a MEF's SigInt effort forward instead of just surviving.

The graduates offered only two possible negative effects of the JOCCP upon the Marine Corps. The first effect offered was the possible negative impact that the program may have on the careers of its participants. As mentioned earlier by the graduates, the program may have a negative impact upon the promotion and command selection for its graduates. The second effect offered was that the program removes one officer a year from the FMF and that officer is gone for at least three years. Almost all graduates acknowledged that the occupational field is in a constant struggle for staffing officers and that any program that removes an officer from the FMF for that long has an effect.

8. Overview of Analysis of Graduate Interview Data

The information collected from the interviews indicates that the graduates have strong feelings about the worth and administration of the JOCCP. They assess the program as an efficient education for a career cryptologist that results in a tangible benefit to the Marine Corps both operationally and institutionally. They feel that the

administration of the program should provide increased oversight to ensure that work center selection is in both the Marine Corps' and the member's best interest. The graduates feel that participation in the program may have a negligible or even detrimental effect on the attainment of career milestones as compared to their peers. They believe that the Marine Corps should make better use of the JOCCP graduates by having a consistent and worthwhile utilization plan.

D. ANALYSIS OF SENIOR OFFICER INTERVIEW DATA

1. Data Collection

This sub-focus of the study uses information collected from Senior Officers to ascertain their views on the program as well as to verify the information attained from the other sources. The thirteen Senior Officers for this study were selected for either their Signals Intelligence background or their past association with the program. These Senior Officers included all of the active duty Colonels with a Signals Intelligence background, all current and post-command Radio Battalion or Support Battalion commanders, two Marine JOCCP oversight panel members, the Marine Liaison Officer at NSA, and the JOCCP program director.

A semi-structured interview was used to collect this information, and the protocol was the same whether by telephone or in person. The Senior Officer interview protocol (Appendix C) used open-ended questions to allow the Senior Officers latitude. The researcher used probing questions to seek clarification and to guide the conversation to key points. All of the Senior Officers interviewed understood that their comments could be quoted. Of the thirteen interviews, seven were in person, five were by telephone, and one was by electronic mail. Seven of the interviews were taped and five were not taped

due to security concerns. The interview that was conducted by e-mail was due to the limited availability of the Senior Officer.

2. Data Analysis and Theme Development

The data collected were compiled and analyzed for content analysis to identify trends and recurring themes. Four broad themes were identified that were relevant to the research questions: the effect of the JOCCP to the Marine Corps, the utilization of the JOCCP graduates, the effect of the JOCCP upon the graduates, and recommendations for the administration of the JOCCP. All of the Senior Officers offered recommendations, which are discussed below.

3. The Effect of the JOCCP to the Marine Corps

Overall, the Senior Officers thought that the JOCCP was of a "great overall value to the Marine Corps"(Robb)[12] with only one dissenting opinion. Generally, the Senior Officers concurred on several positive aspects of the program, as well as a negative effect that the program may have on its graduates.

The Marine with the dissenting opinion initially stated that he did not have a great deal of knowledge of the program. After JOCCP was described to him, he objected to such programs in general as he thought that no officer should remain outside of the Marine Corps for three years. He thought that duty such as JOCCP would be detrimental to a Marine's career and may not serve as a long-term gain for the Marine Corps. (Monreal)

According to the Senior Officers, JOCCP graduates produce three benefits for the Marine Corps: a detailed understanding of the policies, directives, and the organization of

the NSA, an advanced technical knowledge of the Signals Intelligence field, and a wide array of personal points of contact within the Intelligence community.

a. A Detailed Understanding of the Policies, Directives, and the Organization of the NSA

The Senior Officers agreed that a Marine with a detailed understanding of the inner workings of the NSA could be an asset to the Marine Corps' Signals Intelligence effort. They also agreed that JOCCP is the best program currently in place to produce that expert. Some of their comments were:

> (JOCCP is) the best program we have for a company grade officer to really learn and understand the SigInt occupational field, especially from the national perspective. Depending upon the assignments that they pick, they can also get a great insight into the tactical capabilities of the USSS (United States SigInt System). (Donovan)
>
> The program should position the member to be a true expert in national and tactical assets... (Due to our expeditionary nature) the Marines, more than any other service must be able to leverage tactical and national assets. (Williams)
>
> I think that it really enhances the community. It keeps a good interaction amongst all the levels of intelligence and keeps people pretty much enthusiastic about what they are doing. We are growing officers that are capable of operating in a joint or combined environment. (Makuta)

In this age of joint operations and an increasing reliance upon national assets at the tactical level, the Senior Officers agreed that it is vital that a Signals Intelligence officer be able to operate efficiently with all of the other Intelligence communities and assets available. The intimate understanding derived from JOCCP of

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[12] In order to facilitate reading the numerous quotes within this portion of the study, the quotes are referenced by the last name of the interviewee. Appendix E contains the specific information particular to each interview.

the policies, directives and organization of the NSA greatly increases the abilities of an officer to take full advantage of available assets.

In many instances, these abilities can only be acquired through experience. Many JOCCP members gain this experience in their work centers while supporting current Marine operations from the NSA. This has the twofold benefit of educating the Marine in a hands-on environment and it results in an immediate and tangible payback for the Marine Corps' investment in the JOCCP. The ability to have a Marine Signals Intelligence Officer who has tactical experience to assist in directing national assets for deployed Marine forces has proven to be an incredible benefit in past operations. (Williams and Meade) As one Senior Officer put it; "Nobody at NSA will take care of the MEFs (Marine Expeditionary Forces) as well as a Marine." (Kiffer) The Marine Liaison Officer said, "JOCCP provides a pay off to the fleet... JOCCPers are a definite tangible benefit for Marine floaters[13]." (Meade)

b. An Advanced Technical Knowledge of the Signals Intelligence Field

The Senior Officers agreed that the combination of over 1500 hours of academic study and hands-on work center experience provides the JOCCP graduate with an exceptional advantage in technical knowledge above his non-graduate peers. The JOCCP provides "...an education that a Marine Cryptologist cannot learn anywhere else in the world." and is "...an ideal program for taking back current techniques and technologies to the Fleet Marine Force." (Kiffer)

The Signals Intelligence field demands technical relevancy and proficiency in order to keep pace with the changing field of communications technology.

A JOCCP officer can become extremely knowledgeable with the latest advances in communications technologies. When the graduate returns to the fleet, they have "...exceptional Signals Intelligence technical and academic skills." (Tyson) The JOCCP "...has provided a reservoir of technical expertise..." (Davis) in Signals Intelligence to the Corps.

JOCCP graduates being technical experts is beneficial to the Corps in two ways. The first is that it helps to address the lack of adequate technical education for the field's members. LtCol Bruder specifically addressed this issue by saying that there is a real problem with education in the field as compared to other technical fields in the military such as Medicine, Nuclear, Aviation, and Telecommunications. Although there needs to be a better defined and detailed training plan for the Signals Intelligence field the JOCCP can assist in filling a void. "JOCCP provides a cadre of officers who are able to teach cryptology at the national and tactical level."

The second way that technical expertise of the JOCCP graduate can be beneficial to the Corps is that the graduate may be one of the few commissioned technical experts remaining in the Radio Battalions. With the integration of the Intelligence fields within the Marine Corps and the trend to make all Intelligence officers more like "generalists," it is quite feasible that there will be officers assigned to Radio Battalions that have little technical or tactical knowledge in the Signals Intelligence field. The JOCCP graduates in these Battalions will be the commissioned "specialists" that are required to carry out technical operations. "As operations officers these graduates can

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[13] "floaters" refers to deployed Marine Expeditionary Units.

become the Battalion Commanders' vital 'right hand' when it comes to planning and executing operations." (Tyson)

c. A Wide Array of Personal Points of Contact within the Intelligence community.

The most common positive theme repeated by Senior Officers was the enormous benefit that a JOCCP graduate enjoys by having a wide array of personal points of contact within the Intelligence community. As the JOCCP member progresses through the three years, he or she is exposed to numerous organizations and people that are invaluable to fleet operations. Many of the officers interviewed expressed that this may be one of the most important and immediately tangible benefits that a graduate possesses.

> A lot of things change in the Agency, but if you can pick up the phone and talk to someone that you know personally, then it opens a lot of doors to you that someone who has not served inside the Agency would not have. (Davis)
>
> The JOCCP graduate has an understanding of the workings of NSA... but more importantly a network of contacts. (Robb)
>
> The curriculum, the skills that they develop and the contacts that they make are critical because when they do come back into the operational forces they still have all those hooks back into the national level at quite a few of the different directorates that really enhance our relationship and give us some great support. (Makuta)

The remainder of the benefits to the Marine Corps from the JOCCP were derived from the interviews internal to the NSA. Col Williams is the senior Marine at NSA and has direct control over the JOCCP members. He states that the program greatly bolsters the Marine Corps' reputation within the national Signals Intelligence community.

> We (Marines) are known as 'High-Caliber' and 'High-Energy' players. This has a lasting and beneficial effect on the impression that the community has about Marines." (Williams)

This lasting impression may have long-term operational gains for the Corps. Since Col Williams provides significant guidance to the program members, he targets students at "special missions" that are of significance to the Marine Corps' interests. Some of these missions involve current operations and some are "Reconnaissance missions into areas of new capabilities and developments" (Williams)

4. The Utilization of JOCCP Graduates

The most common negative theme spoken of by the Senior Officers concerned the utilization of JOCCP graduates.

> "Subjectively, I would say that I do not believe the program has provided the value that it has the potential to produce. Most of this is the Marine Corps lack of specificity in follow-on assignments and centralized guidance during the program. This program suffers like many others in the Marine Corps." (Poole)

"The impact of the (JOCCP) graduate has been minimalized by the lack of coherent assignment policies coming out of the program." (Donovan) Upon graduation from JOCCP "there is not a payback, historically, their next assignment has just been another set of orders. At Headquarters Marine Corps this program is treated as just another NSA tour." (Davis)

The Senior Officers agreed that the graduate has the greatest potential for benefiting the Marine Corps immediately after graduation while his or her skills and contacts are still fresh. They also felt that this great potential has been squandered in the past.

Overwhelmingly, all of the interviewees' thought that the greatest improvement that the Marine Corps could make to the program was to enforce a beneficial utilization plan for the program graduates. There was disparity among the senior officers concerning what constituted a beneficial utilization tour. In general, all agreed that there definitely needs to be a utilization program and that the initial tour should be with the operating forces. The majority believed that the graduates should be placed at the Radio Battalions to serve in the Operations sections.

> You're going to get the most "bang-for-your-buck" if you send the graduate back to a Radio Battalion where they can really use his skills and contacts. It is the most appropriate place for them to take what they learned going through the program and influence how the MAGTF conducts operations. (Donovan)

Some Senior Officers believed that the graduates would be of a greater benefit working at higher levels.

> We should look for placement (of the graduates) at the Division, MEF, or MarFor level. A graduate could look at some of the training opportunities and collections management from another aspect.... A graduate could optimize the minimal tactical assets that we have against a target.... (He could be) looking at the theatre assets, getting in bed with the theater JIC (Joint Intelligence Command), the ground based units, air units, and sea borne units and then going and tying into the national assets to fill in the gaps... that would be critical. (Makuta)

Whatever the utilization tour is determined to be, Senior Officers agreed that it should be timely, mandatory, and consistent in order to reap the largest benefit possible from the investment made in the program. One of the methods endorsed by several of the Senior Officers was the awarding of an additional MOS to graduates. This "JOCCP graduate" MOS would be paired with specific billets in order to manage the utilization

tours of the graduates. This initiative would be similar in purpose and administration to the program currently in place at the Naval Postgraduate School (NPS). This initiative is also quite similar to a program that is now being used by the Army to track and utilize its JOCCP graduates.

5. The Effect of the JOCCP upon the Graduates

A common agreement among the Senior Officers is that the JOCCP program may not have a positive impact upon the graduate's career and that it may actually be detrimental to selection for promotion and command. The Senior Officers were undecided about what effect that JOCCP may have had upon retention. Since actual data concerning promotions and retention have already been addressed earlier in this chapter the emphasis in this theme is the perceived effect that JOCCP has had upon promotions and retention.

The Senior Officers felt that the length and the timing of the program in a Marine's career may cause harm for competitive promotion. "JOCCP can have an impact on the career of the Marines involved.... three years is a long time." (Williams) Col Monreal also thought that the length of the program may be detrimental to its graduates because it kept the Marine "out-of-pocket" and away from his peers for too long. Col Makuta thought that the timing of the program is critical to the Marines career. "If the member is too senior and misses his opportunity to command then it places him at a disadvantage." (Makuta)

The majority of Senior Officers agreed that the obscure nature[14] of the program could be an exceptional detriment to a graduate when being selected for promotion or command. Since the Marine promotion and selection board memberships are made up of a variety of MOSs, it is quite possible that none of the members are knowledgeable of the JOCCP. Therefore, when the graduate's record is briefed to the board for consideration, a three-year tour at NSA may actually be viewed in a diminished light. As a result, a graduate's record may suffer in comparison to his peers, due to the board's ignorance.

6. Recommendations for the JOCCP

The final theme of the Senior Officer interviews is a collection of recommendations of ways to improve the administration of the JOCCP and to increase its utility to the Marine Corps. These recommendations were collected throughout the Senior Officer interviews in response to almost every inquiry. Since there was a commonality in many of the recommendations, they were determined to constitute a theme. They are collated and discussed below in five groups.

a. Recommendation that more structure and oversight be given to the JOCCP.

This recommendation was common among the vast majority of the Senior Officers. These Senior Officers felt that in the past there had been too much latitude given to program members in the choosing of their own work center assignments. It is thought that this latitude resulted in some members becoming too deeply involved in work centers that were not of any immediate or long-term benefit to the Marine Corps.

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[14] JOCCP is not one of many larger and better-known programs within the Marine Corps. The fact that the program caters solely to the small sub-community of Signals Intelligence officers makes it of little interest to the remainder of the Corps.

"There was a tendency to go off and do fun things with the CIA, things that were neat and interesting but weren't necessary going to pay off for the Marine Corps down the road." (Davis)

"The only downside to the program is when it isn't properly managed by the senior Marine at NSA. You get situations where an officer goes into the program and gets three years of fun and not get the variety of assignments and educational opportunities that we are hoping that he gets." (Donovan)

"JOCCP members need to stay at NSA and learn the building... not working at the CIA or the FBI." (Bruder)

Keeping with this same idea that more structure will increase the utility of the graduate, some Senior Officers expressed specifics about what kind of work centers should be emphasized.

"We need to codify the idea that we are encouraging our Marines to really accelerate this program... somewhere during that tour you will do at least one small det[15] if not more as a part of the curriculum." (Makuta)

Many of the Senior Officers felt that Information Operations (IO) were definitely in the Marine Corps' future and therefore should be emphasized as a work center requirement for JOCCP members.

b. Recommendation that the MAGTF Intelligence Officers Course (MIOC) be mandatory for a graduate.

The majority of the senior officers agreed that MIOC was essential for a graduate's professional and career development. Some Senior Officers recommended that MIOC be included in the academic portion of the JOCCP for Marine officers while others felt that the graduate should attend MIOC directly after graduation from JOCCP before reporting to his or her next command. Attending MIOC would professionalise the

[15] A "det" is a detachment, which is a small group of personnel and equipment that is deployed to fulfill a specific need of the NSA.

graduate as a MAGTF Intelligence Officer and expand his or her utility while accomplishing a vital milestone necessary for career progression.

c. Recommendation that JOCCP be Recognized as a Formal School

Many of the Senior Officers agreed that JOCCP should be recognized as a formal school for Signals Intelligence officers with its own school code. Some Senior Officers had suggested that it be recognized as a CLS equivalent. They felt that recognition as a formal school would solidify the program's standing and assist in the implementation of their other recommendations.

Some Senior Officers felt that it was feasible that JOCCP be incorporated with the Special Education Program (SEP) and that this too would solidify the programs standing and assist implementation of their other recommendations. Some Senior Officers pointed out that JOCCP members have the ability while still accomplishing the JOCCP curriculum to acquire a Master's of Science degree in Strategic Intelligence (MSSI) through the Postgraduate Intelligence Program (PGIP)[16]. Some Senior Officers felt that this opportunity should be capitalized upon, thereby mandating PGIP participation by the JOCCP members. The selection for JOCCP could then be made a portion of the SEP to assist selecting, utilizing, and tracking the graduates.

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[16] PGIP is a nine-month program conducted at the Joint Military Intelligence College, Bolling AFB, Washington, D.C. An additional three-month extension may be granted to allow completion of a MSSI. The curriculum emphasizes the understanding of intelligence and the relationship of intelligence to national security policy, military strategy, and the planning and execution of joint and combined military operations. An NSA specific curriculum of the MSSI is offered and would be exceptionally suited to the JOCCP.

d. Recommendation that similar internship programs be established for the other Intelligence fields in the Marine Corps.

As noted above, the vast majority of officers agreed that the JOCCP was on outstanding opportunity for the participating Marine and the Corps. It was recommended that similar internship programs be established at other national Intelligence activities to benefit the remainder of the Marine Corps Intelligence field. These programs would mirror the JOCCP in administration, except that academic and work center portions would be geared specifically to each Marine's specific Intelligence sub-community.

e. Recommendation that the detrimental effects of program participation be managed.

Many of the Senior Officers mentioned that the detrimental career effects of participation in the JOCCP were manageable in two different ways. First, the fitness reports of JOCCP members need to be clear and informative concerning the nature of the Marines duties and what potential such duties bring to the Marine Corps. The fitness reports need to specifically state that the member is advancing his MOS credibility. Secondly, an effort should be made to provide additional material to the selection boards explaining the specifics of JOCCP whenever a graduate's record is being briefed.

7. Overview of Analysis of Senior Officer Interview Data

The information collected from the Senior Officers indicates that they believe that the program is a "great overall value to the Marine Corps" by producing officers with unique qualities. Graduates are said to have a detailed understanding of the policies, directives, and organization of the NSA, an advanced technical knowledge of the Signals Intelligence field, and a wide array of personal contacts within the Intelligence community.

The Senior Officers do not believe the program has provided the value that it has the potential to produce. They state that program's graduates have not been utilized in a consistent and effective manner. They think that an additional MOS should be awarded to a JOCCP graduate that is specifically paired with worthwhile "pay-back" billets.

The Senior Officers believe that the JOCCP may be detrimental to selection for promotion and command for graduates due to the idiosyncrasies of the selection system and the obscure nature of the program. The Senior Officers felt that this detrimental effect could be nullified if specific attention was paid to the fitness reports written on JOCCP members and adequate information was provided to the selection boards concerning JOCCP.

The Senior Officers also offered several additional recommendations for the improvement of the program. They felt that the oversight provided to program members should be increased and formalized. Program members should be guided to work centers that are beneficial to the future of the Corps while being challenging to the member. Senior officers felt that JOCCP should be recognized as a formal school within the Marine Corps and that similar programs should be established for the other Intelligence sub-communities. Senior officers felt that MIOC should be a mandatory school for the graduates before they return to the fleet.

E. SUMMARY OF ANALYSES

A comparison of the three separate analyses in this study finds that they are almost in agreement with each other. The exception to this agreement is that the analysis of promotion and retention data does not support the Senior Officers' and graduates' premise that participation in JOCCP may be a hindrance to a Marine's career. This is not

to say that the premise is unfounded, as the analysis of promotion and retention data is descriptive and not conclusive. It is possible that the graduates kept pace with their peers in spite of the program, and not because of the program.

Both interview groups agreed on the remainder of issues addressed. They both felt that the program was a benefit to the Marine Corps for similar reasons. They felt that the Marine Corps could increase this benefit by better utilizing the graduates. Both groups felt that the program could be better administered by increasing the oversight of the members as they choose work centers.

V. OVERVIEW, CONCLUSIONS, AND RECOMMENDATIONS

A. OVERVIEW

At the onset of this study the question posed to this researcher was "What does the Marine Corps get out of the JOCCP?" Initial research sought the details of the program's specifics and the history of the Marine Corps' involvement. This initial research revealed that two similar studies into JOCCP were conducted with specific results. Although informative, they were not suitable answering for the Marine Corps' query. Using a format similar to these two, this study set about finding its own conclusions to the Marine Corps' involvement with JOCCP.

This study approached its task with three efforts. First, it analyzed the promotion and retention data of the graduates in an attempt to statistically quantify the JOCCP's effect. This analysis found that statistically JOCCP has no noticeable effects upon its graduates. The study then turned to the graduates themselves and asked them what they thought of the program from an insider's perspective. The graduates provided a wealth of insight into the strengths and weaknesses of the JOCCP. Specifically, the graduates did not support the data analysis, as they felt that the JOCCP may be a detriment to a graduate's career. Additionally they felt that the Marine Corps could better utilize the graduates. Finally, the study asked a group of Senior Officers to comment on the program to corroborate the graduates' input and the data analysis while offering a "macro aspect" to the program's impact on the Marine Corps. The Senior Officers in general, agreed with the graduates' assessment of the program's impact and they too felt that the Corps could take better advantage of the program graduates.

B. CONCLUSIONS

The primary research questions maintained throughout this study were: **What effects does the JOCCP have upon the Marine Corps Signals Intelligence community?** and **What effects does the JOCCP have upon the Marine Corps?** The evidence and analysis presented in this study overwhelmingly concludes that the JOCCP has a net positive effect upon the Signals Intelligence sub-community and the Marine Corps as a whole. The officers that are currently in the program make operational contributions to deployed Marine units around the world. They accomplish this while continuing to enhance the professional reputation of Marines within the national Intelligence community. These JOCCP members hone their skills as cryptologists as they learn the intricacies of the latest communications technologies. While exploring these new technologies, they act as reconnaissance units in the Marine Corps' quest for new areas of technological interest. As they master the art of leveraging national assets to the advantage of tactical units, they are making contacts that will serve the Corps for the remainder of their career. When the members graduate, they assume the role of the Marine Corps' only commissioned "career cryptologists." They have the knowledge, skills, and contacts necessary to move Marine Corps tactical Signals Intelligence forward.

The first secondary question posed was: **What effects does the JOCCP have upon its graduates?** Evidence and analysis indicates that the graduates have become the experts in their field with the potential to become the leaders in their field. Although not statistically proven, it is believed that participation in the JOCCP has the potential to be a career detriment. The statistical study of 19 promotional case histories dating back to 1979 has numerous factors involved that could mask a causal relationship. The current

perception by many of the graduates and Senior Officers is that JOCCP may be a detriment to a Marine's career. Perception may in fact be reality, considering the intricacies of the Marine Corps' promotion system.

This perception may be bolstered by the retention history of program graduates. It was noted that, three of the 19 graduates have left the Corps before completing a 20-year career, while currently another program member has taken steps to resign his commission. Statistically it was shown that these retention figures are to be expected. However, between the retention history, the negative perception, and the fact that the program was not statistically shown to be career enhancing, the net effect of a negative impact upon the graduate may be well founded.

The next question was: **How can the JOCCP graduates be better utilized?** The graduates can be better utilized by recognizing their unique worth and systematically assigning them to jobs that are of the greatest benefit to the Corps. The graduates' worth is not only in their operational abilities, but is also in the ability to pass on their skills and knowledge to other Marines. JOCCP graduates need to be utilized in billets that call upon their abilities while they are still fresh and while offering them the opportunity to mentor other Marines.

The final question was: **How can the JOCCP be better administered?** In 1979, JOCCP was offered as an opportunity for the Marine Corps to send officers to NSA for three years of academic and hands-on training. Since then, the program's Marine specific management has been shuffled between organizations without formally recognizing the program for the school that it is. This study found that the administration of this program

needs to be formalized in its solicitation, selection, management, and utilization of JOCCP members. The specifics of this finding are expressed in greater detail throughout the recommendations that follow.

C. RECOMMENDATIONS

It is highly recommended that the Marine Corps continue its dedicated support for the JOCCP as it has for 20 years. This study has found that for the minor investment that the Marine Corps makes in the JOCCP it is of a great benefit to the Marine Corps operationally and institutionally. As with any program, the JOCCP has its faults that need to be addressed. Hence, the specific recommendations are strongly proposed:

1. Recognition of JOCCP as a Formal School

It is highly recommended that the JOCCP should be recognized as a formal school within the Marine Corps. This step alone would rectify the majority of shortcomings found with the program. The JOCCP is not just another duty station; it is an education program. Recognizing JOCCP as a formal school would serve to stabilize the program and ensure its future support.

The specific benefits of formal recognition as a school are outlined below.

2. Standardizing the JOCCP Selection Process

Historically, the JOCCP selection process has not been consistent. Since the program has been viewed more as a duty station than a school, the process has varied widely and the results have suffered. Formalizing this selection process would bring the JOCCP in line with the numerous other school selection processes within the Corps. Knowledge of the program would become more prevalent, the number of applicants would increase, and the selection process would become more efficient.

3. Instituting a Mandatory Service Obligation

As noted in this study, the JOCCP has lost three officers who have separated before completing 20 years and is about to lose a program member after more than two years under instruction. The stated goal of the program is the production of career-oriented cryptologic experts for the Corps. As a formal school, the JOCCP would institute a three-year service obligation that would significantly dissuade officers from applying for the program if they were not career-oriented with a focus on the intelligence community.

4. Formalizing the Program Oversight

A noted deficiency of the JOCCP is the lack of formal structure within the program. As a formal school, program guidance would be given to the Marine participant concerning his or her program choices. The senior Marine on the JOCCP oversight panel would curtail some of the latitude that is currently given to the participants in choosing their own program plan. Emphasis would be placed on the specific work centers that offer the greatest benefit to the Marine Corps' employment of Signals Intelligence while academically and professionally challenging and educating the member.

5. The Integration of PGIP MSSI NSA Specific Curriculum into the JOCCP Curriculum

As a formal Marine Corps school, JOCCP could adjust course requirements and specifics to tailor the program to the Marine Corps' needs. As an optional addition to the JOCCP course curriculum, a member wishing to attain an advanced degree in Signals Intelligence could attend the PGIP MSSI NSA specific curriculum. In the past, by their own initiative, JOCCP members have attained graduate level educations through PGIP while simultaneously completing the JOCCP curriculum. Completion of this option

would be career enhancing for the member while increasing the knowledge base of the Signals Intelligence sub-community.

6. Increasing the Awareness of the JOCCP

Formalizing the JOCCP as a school would increase the awareness of selection board members about the benefits of the program. Participation in the JOCCP would be briefed as being not only educational and career enhancing, but it would be briefed that members are providing a vital link between the operational forces and the National Intelligence community. JOCCP members would be recognized as career-oriented intelligence officers that have made a commitment to increase their professional abilities and to serve the Corps. This would greatly reduce the possibility that a graduate's career would suffer from participation in the program.

7. Award an Additional MOS to JOCCP Graduates

As a formal school, JOCCP would be able to award an additional MOS to its graduates. This additional MOS would be tangible evidence to selection board members that the graduate had attained a higher level of MOS credibility. The additional MOS would also greatly assist in formalizing a utilization program for graduates similar to the program in place for the SEP graduates.

8. JOCCP Graduate Utilization at the Radio Battalions.

As a formal school, JOCCP would be able to formalize a utilization plan that would take full advantage of the graduates' skills and contacts. This plan would place graduates into specific billets that would be coded to match their additional MOSs. The proposed utilization plan was discussed with each of the current Radio Battalion Commanders as well as the Support Battalion Commander. These commanders have endorsed the following proposal.

Currently, a plan is underway to activate a third Radio Battalion within the Marine Corps. It is proposed that the S-3A[17] billet at each of the three Radio Battalions be designated for the JOCCP graduates. This billet would be filled in a rotating pattern staggered over three years to coincide with the program's graduation timeline. Coincidentally, the program applicants would know in advance, that if accepted for the program which Radio Battalion S-3A they were destined to become. This foreknowledge would allow the program members to focus their studies and work centers into specific world regions and technologies, thus producing an area expert before arrival.

9. Expansion of Marine Participation in JOCCP

Marine participation in JOCCP has been limited to one officer per year by the mandated by the Marine Corps. This limit historically has been based upon stringent manpower requirements within the Signals Intelligence community. The NSA would allot up to three JOCCP billets to the Marine Corps if requested. The Marine Corps should consider expanding its participation in the JOCCP as manpower requirements allow. This expansion could include officers of the other Intelligence sub-communities, as there is no NSA mandated requirement that the applicant have a cryptologic background.

10. Recommendations for Further Research

Program assessment research can be extremely beneficial to the Marine Corps in its effort to maximize the utility of its training dollars. Assessments similar to this study could be conducted into any number of training programs that the Marine Corps currently support. Other cryptologic programs include the Middle Enlisted Cryptologic Career

---

[17] Assistant Operations Officer.

Advancement Program (MECCAP) and the Marine participation in the NSA Director's Fellowship.

APPENDIX A. POST-JOCCP ASSIGNMENTS

Graduate	Present Location	First Post-JOCCP Duty Station	Second Post-JOCCP Duty Station	Third Post-JOCCP Duty Station	Forth Post-JOCCP Duty Station
Capt Naughton	AWS	AWS	MIOC	2d Radio Bn	
Maj McBride	2d Radio Bn	MIOC	2d Radio Bn		
Maj Eckles	Co H, MarSpt Bn	CCSS	Co H, MarSpt Bn[1]		
Maj Bailey	G-2, 3rd MAW	AWS	MIOC	G-2, 3rd MAW	
Maj Czaja	DLI Student	CCSS	Co G, MarSpt Bn	DLI[2]	
Capt Henry	Separated	C4I[3], HQMC			
Maj Hirsch	MCIA	Co G, MarSpt Bn	MIC, MCCDC[4]		
Maj Bushta	ROK[5] C&S	SIO, II MEF	Co H, MarSpt Bn	DLI	ROK, CSC[6]
Maj Dolley	2d Mar Div	SIO, I MEF	S-2, 1st Marines	LNO[7], NSA	
Maj Howard	Retired	Vint Hill Farms	SIO III MEF	CINCPAC G-2	NSA
LtCol Tubridy	Co B, MarSpt Bn	AWS	C4I, HQMC	CSC	1st Radio Bn
LtCol Bruder	MCSC	SIO, 6th MEB	G-2, II MEF	2d Radio Bn	CSC
Maj Jones	Retired				
Maj Boyd	Retired				
Capt Harris	Separated	C4I, HQMC			
LtCol Royston	MCSC	MCSC[8]	Co H, MarSpt Bn	1st Radio Bn	SIO, FMFPAC[9]
Capt Mascarenas	Separated				
LtCol Spears	Retired				
LtCol Edwards	Retired				

[1] Marine Support Battalion
[2] Defense Language Institute Student
[3] Command, Control, Communications, Computers, and Intelligence
[4] Marine Intelligence Center, Marine Corps Combat Development Command
[5] Republic of Korea
[6] Command and Staff College
[7] Liaison Officer
[8] Marine Corps Systems Command
[9] Fleet Marine Force Pacific

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APPENDIX B. GRADUATE INTERVIEW FORMAT

Name: _____
Date: _____
Time: _____
Location: _____

Section I. Administrative Information

1. I am:
a. Active Duty
b. Retired
c. A DoD civilian (not retired)
d. A NonDoD Civilian

2. My current rank or highest rank held while on active duty was:_____

Section II. Post Graduation Program Critique

3. The JOCCP prepared me for the Signals Intelligence jobs that I have had subsequent to graduation.
a. Strongly Agree
b. Agree
c. Neutral
d. Disagree
e. Strongly Disagree

4. The JOCCP expanded my knowledge and skills by exposing me to relevant cryptologic disciplines.
a. Strongly Agree
b. Agree
c. Neutral
d. Disagree
e. Strongly Disagree

5. The JOCCP provided me with an increased understanding of the rapidly changing Signals Intelligence technology field.
a. Strongly Agree
b. Agree
c. Neutral
d. Disagree
e. Strongly Disagree

6. I could have received the same amount of technical training in the field had I not attended the JOCCP.
a. Strongly Agree
b. Agree
c. Neutral
d. Disagree
e. Strongly Disagree

Section III. Specialty Utilization

7. Since graduation, I was able to fully utilize the knowledge that JOCCP provided me.

a. Strongly Agree
b. Agree
c. Neutral
d. Disagree
e. Strongly Disagree

8. I believe that I have been given certain assignments because I am a JOCCP graduate.

a. Strongly Agree
b. Agree
c. Neutral
d. Disagree
e. Strongly Disagree

9. In the past, Commanders have sought me out due to my JOCCP background.

a. Strongly Agree
b. Agree
c. Neutral
d. Disagree
e. Strongly Disagree

Section IV. Career Impact of JOCCP

10. The JOCCP provided me with a solid foundation in cryptology, which helped me become a more well rounded Intelligence officer.

a. Strongly Agree
b. Agree
c. Neutral
d. Disagree
e. Strongly Disagree

11. I am/was a more proficient Signals Intelligence officer because of my JOCCP experience.

a. Strongly Agree
b. Agree
c. Neutral
d. Disagree
e. Strongly Disagree

12. I credit my success as a Signals Intelligence officer to my JOCCP background.

a. Strongly Agree
b. Agree
c. Neutral
d. Disagree
e. Strongly Disagree

13. I am/was more competitive for command because of my JOCCP background.

a. Strongly Agree
b. Agree
c. Neutral
d. Disagree
e. Strongly Disagree

14. I am/was more competitive for promotion because of my JOCCP background.

a. Strongly Agree b. Agree
c. Neutral d. Disagree
e. Strongly Disagree

15. I am or was more likely to remain in the Marine Corps for having participated in the JOCCP.

a. Strongly Agree b. Agree
c. Neutral d. Disagree
e. Strongly Disagree

Section V Discussion Questions

16. What do you think are the biggest advantages of the JOCCP?

17. What do you think are the biggest drawbacks of the JOCCP?

18. How would you describe the impact of the JOCCP on the Marine Corps Signals Intelligence community?

19. How would you describe the impact of the JOCCP on the professional development of a Signal's Intelligence officer as an 0202?

20. Considering the three-year investment in the JOCCP do you believe that the program is still beneficial to the overall welfare of the Marine Corps Intelligence community?

21. What would your recommendations be for the Marine Corps' future support of the JOCCP?

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APPENDIX C. SENIOR OFFICER INTERVIEW FORMAT

In your own words, could you please describe the JOCCP?

What is your opinion about the JOCCP?

What do you believe is the largest benefit derived by the Marine Corps by this program?

How do you think that the JOCCP has effected the Marine Corps Signals Intelligence sub-community?

How do you think that the JOCCP has effected the Intelligence community as a whole?

Do you understand how past graduates of the program were assigned subsequent duty stations?

Do you think that the programs graduates could have been better utilized?

Do you have any recommendations concerning graduate utilization?

What do you believe that the program's impact is upon its graduates in the aspects of promotion and command selection?

Overall, how do you think that JOCCP has affected the careers of its graduates?

In your mind what is the largest benefit that JOCCP graduates have attained from the program?

In your mind what is the largest drawback that JOCCP graduates are hampered with from the program?

What are some of your recommendation for the Marine Corps' further support for the program?

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APPENDIX D. GRADUATE PROMOTION DATA

Case	Time in Service for JOCCP to O-4	Time in Service for Peers to O-4	Time in Service for JOCCP to O-5	Time in Service for Peers to O-5	Time in Grade for JOCCP to O-6	Time in Grade for Peers to O-6
1	9.56	9.60				
2	9.51	9.71				
3	9.92	9.70				
4	10.00	9.70				
5	9.92	9.70				
6	10.86	10.98				
7	10.86	10.98				
8	10.59	10.98	4.94[1,2]	4.48[1]		
9	11.67	11.63				
10	11.33	11.63	16.41	16.65		
11	12.25	12.15	17.33	17.38	3.92 [1,2]	4.05[1]
12	12.33	12.15				
13	12.33	12.15	17.42	17.38		
Sum	141.13	141.06	56.1	55.89		
Average	10.8562	10.8508	14.025	13.9725		
Difference	.0054 or 1.97 days		.0525 or 19.18 days		.13 or 47.48 days	

All measurements are in years.
[1] Signifies time-in-grade.
[2] Marine is selected but not promoted.

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APPENDIX E. INTERVIEWS CONDUCTED

Graduate	Date Interviewed	Format	Current Location
Capt Naughton	18 Jan 01	In Person	AWS
Maj McBride	17 Jan 01	By Telephone	2d Radio Bn
Maj Eckles II	09 Feb 01	By Telephone	Co H, MarSpt Bn
Maj Bailey III	20 Feb 01	By Telephone	G-2, 3rd MAW
Maj Czaja	26 Feb 01	By Telephone	DLI Student
Capt Henry	13 Feb 01	By Telephone	Separated
Maj Hirsch	18 Jan 01	In Person	MCIA
Maj Bushta	30 Mar 01	By Telephone	ROK C&S
Maj Dolley	12 Feb 01	By Telephone	2d Mar Div
Maj Howard	20 Feb 01	By Telephone	Retired
LtCol Tubridy	07 Feb 01	In Person	Co B, MarSpt Bn
LtCol Bruder	16 Feb 01	In Person	MCSC
Maj Jones	N/A		Retired
Maj Boyd	N/A		Retired
Capt Harris	07 Feb 01	By Telephone	Separated
LtCol Royston	18 Feb 01	In Person	MCSC
Capt Mascarenas	N/A		Separated
LtCol Spears	N/A		Retired
LtCol Edwards	N/A		Retired
Senior Officers	**Date Interviewed**	**Format**	**Current Location**
Col Kiffer	13 Feb 01	In Person	HQ Navy
Col Makuta	12 Mar 01	By Telephone	HQ Bn, 3rd Mar Div
Col Monreal	12 Mar 01	By Telephone	Camp Hansen
Col Poole	12 Feb 01	By E-Mail	G-2, III MEF
Col Robb	14 Mar 01	By Telephone	Central Command
Col Williams	14 Feb 01	In Person	NSA
LtCol Davis	20 Nov 00	In Person	MarSpt Bn
LtCol Donovan	20 Feb 01	By Telephone	1st Radio Bn
LtCol Litaker	30 Mar 01	By Telephone	Joint Intel Center
LtCol Park	16 Feb 01	In Person	IPS, HQMC
LtCol Tyson	21 Nov 00	In Person	2d Radio Bn
Mr. Stan Ber	20 Nov 00	In Person	NSA
Mr. Russ Meade	20 Nov 00	In Person	NSA

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APPENDIX F. RESPONSE DATA

Question	Mean	Median	Mode	Standard Deviation	Variance	Range	Minimum	Maximum
Q3	1.29	1.00	1	.61	.37	2	1	3
Q4	1.00	1.00	1	.00	.00	0	1	1
Q5	1.36	1.00	1	.63	.40	2	1	3
Q6	4.71	5.00	5	.47	.22	1	4	5
Q7	2.00	2.00	1	1.11	1.23	3	1	4
Q8	3.00	4.00	4	1.47	2.15	4	1	5
Q9	2.14	2.00	2	.86	.75	3	1	4
Q10	1.79	2.00	1	.80	.64	2	1	3
Q11	1.14	1.00	1	.36	.13	1	1	2
Q12	2.36	2.50	3	1.08	1.17	3	1	4
Q13	2.93	3.50	4	1.38	1.92	4	1	5
Q14	2.71	2.50	2	1.33	1.76	4	1	5
Q15	2.36	2.50	3	1.08	1.17	3	1	4

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