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THESIS

A QUALITATIVE ANALYSIS OF NAVY FUNDED GRADUATE EDUCATION IN MEETING HR SUBSPECIALTY BILLET KNOWLEDGE REQUIREMENTS

by

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March 2012

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This research examines how effectively the Navy is meeting its goal of preparing HR officers with the necessary education to meet the demands of subspecialty (SSP) coded billets through its resident funded graduate education programs at Naval Postgraduate School (NPS). A comparative mapping analysis is used to determine the degree of likeness between billet knowledge requirements, represented by Navy Officer Billet Classifications (NOBCs), and Education Skill Requirements (ESRs) that form the basis of these graduate curricula. A December 2011 data set was used to examine all 3111, 3130, 3211, 4600, and 6201-coded HR billets that are sourced by resident funded graduate education (Financial Management, Manpower Systems Analysis, Operations Analysis, Human Systems Integration, and Information Systems and Technology respectively). The research concludes that the Navy is effectively achieving its educational goal for HR officers attending NPS. Recommendations include continued billet management and an in-depth needs analysis by activity in lieu of NOBC mapping, to maintain and address emerging requirements in the fleet.

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This research examines how effectively the Navy is meeting its goal of preparing HR officers with the necessary education to meet the demands of subspecialty (SSP) coded billets through its resident funded graduate education programs at Naval Postgraduate School (NPS). A comparative mapping analysis is used to determine the degree of likeness between billet knowledge requirements, represented by Navy Officer Billet Classifications (NOBCs), and Education Skill Requirements (ESRs) that form the basis of these graduate curricula. A December 2011 data set was used to examine all 3111, 3130, 3211, 4600, and 6201-coded HR billets that are sourced by resident funded graduate education (Financial Management, Manpower Systems Analysis, Operations Analysis, Human Systems Integration, and Information Systems and Technology respectively). The research concludes that the Navy is effectively achieving its educational goal for HR officers attending NPS. Recommendations include continued billet management and an in-depth needs analysis by activity in lieu of NOBC mapping, to maintain and address emerging requirements in the fleet.

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LIST OF ACRONYMS AND ABBREVIATIONS

AC	Active Component
AMD	Activity Manpower Documents
APC	Academic Profile Code
CNO	Chief of Naval Operations
CNPC	Commander, Navy Personnel Command
DCNP	Deputy Commander Naval Personnel
DoD	Department of Defense
DON	Department of the Navy
ESR	Educational Skill Requirements
FGE	Funded Graduate Education
FM	Financial Management
FSO	Fleet Support Officer
FTS	Full-Time Support
GenURL	General Unrestricted Line
HR	Human Resources
HRCOE	Human Resource Center of Excellence
HRD	Human Resources Development
HSI	Human Systems Integration
IST	Information Systems and Technology
KSA	Knowledge, Skills and Abilities
MBA	Master of Business Administration
MPT	Manpower, Personnel and Training
MPTE	Manpower, Personnel, Training and Education

MSA	Manpower Systems Analysis
MSM	Master of Science in Management
NAVMAC	Navy Manpower Analysis Center
NOBC	Navy Officer Billet Classification
NPS	Naval Postgraduate School
NSS	Navy Subspecialty System
OA	Operations Analysis
PPBES	Planning, Programming, Budgeting and Execution System
QPR	Quality Point Rating
SECNAV	Secretary of the Navy
SELRES	Selected Reserve
SME	Subject Matter Expert
SSP	Subspecialty Code
URL	Unrestricted Line

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I. INTRODUCTION

A. DISCUSSION

The Navy's Human Resources (HR) officer community consists primarily of officers who have laterally transferred from other officer communities, most commonly between the ranks of O-3 and O-4. There is no initial formal training pipeline as in other officer communities. Rather, HR officers are sent to the Naval Postgraduate School (NPS) through the detailing process, generally within their first or second assignment after lateral accession into the community. Additional specific training is accomplished through the HR Introductory Course and the HR Advanced Course offered through the Human Resource Center of Excellence (HRCOE) located at NPS. HR officers earn a master's degree from among five curriculum disciplines while at NPS. Those disciplines include Manpower Systems Analysis (MSA), Financial Management (FM), Information Systems and Technology (IST), Operations Analysis (OA), and Human Systems Integration (HSI).

Upon completion of their Master’s degree, HR officers earn a subspecialty (SSP) code, or numerical depiction of the education and training discipline learned at NPS, with the suffix letter "P" (unproven specialist) to indicate that the officer has yet to be proven subspecialist in the discipline. Upon successful completion of their first assignment directly relying on these discipline skills obtained at NPS, commonly referred to as a payback tour, the "P" is replaced with a "Q" (proven specialist) to represent successful qualification within the discipline.

As described in the NPS course catalog the p-code courses have been carefully chosen to increase the direct military relevance of the coursework thus satisfying the Education Skill Requirements (ESRs) approved by the curriculum sponsor. The coursework is reviewed by NPS departmental academic associates biennially through the means of a curriculum review with the sponsor.

B. RESEARCH QUESTION

1. Primary Question

Do the HR job skills required by subspecialty-coded billets and their corresponding Navy Officer Billet Classification (NOBC) appropriately represented in the Naval Postgraduate School core curriculum for programs leading to obtainment of these subspecialty codes?

2. Secondary Question

This thesis will conduct a comparative analysis by mapping NOBCs (representing knowledge requirements) contained in all p-coded billets to the learning concepts embodied in the respective curriculum ESRs acting as the foundations for the subspecialty code. A secondary question that will be addressed is: How relevant is the NPS educational experience to an HR officer's follow on assignments in support of the Navy's HR mission?

C. BENEFITS OF STUDY

The study aims to deliver a general assessment to leadership, program sponsors, and NPS professors involved in biennial curriculum reviews in determining educational requirements to align curriculum with the current knowledge skills required by Navy HR officers to execute the work of the fleet.

D. SCOPE

The scope of this thesis is limited to HR officer billets within the Navy. These NPS programs serve officers from various U.S. military services and the international community. By limiting the scope to Navy HR billets this thesis aims to identify skill set gaps in the HR community of interest by encompassing the full array of graduate programs offered to this community of interest while obtaining a SSP code obtainment. Through active curriculum analysis and management, all stakeholder groups within the Department of Defense (DoD) should be able to tailor NPS curriculum to meet the needs of competing interests. This would require not only active communication and involvement during biennial

curriculum reviews but three hundred and sixty degree analysis and collaboration throughout the program implementation, learning, feedback, and change process.

E. METHODOLOGY

This research was compiled using the following methodology:

- A literature review of theses related to the SSP Code system, applicable Navy doctrine, directives and instructions, and related literature in the field of learning theory.
- Face-to-face and telephone interviews, as well as email correspondence, were conducted with both HR personnel and others knowledgeable in the realm of SSP coding, HR billet designation and applicable HR business rules and information.
- A review of the current SSP code assignment process was conducted.
- All current NPS curriculum ESRs related to the HR community was examined and key words and phrase withdrawn to conduct a matching exercise with current knowledge requirements encompassed within the full inventory of HR billet assignments.
- Learning theory was discussed in relation to designing an education and training system focused on delivering the right job skills through an interactive process aimed at continual improvement.
- Conclusions were drawn and recommendations and follow-up research were offered based on a qualitative review of findings.

F. ORGANIZATION

This thesis is organized into five chapters. Chapter II describes the establishment and evolution of the HR Community to where it is today, to include HR strategic guidance and objectives. An introduction to the five NPS programs

attended by HR officer students follows, leading into a discussion on the SSP code system and placement of officers in funded billets characterized by the NOBC system. Chapter III opens with a discussion on the importance of designing training and educational programs of organizations to offer the greatest return on investment by aligning them as closely as possible with the knowledge, and skills necessary to achieve desire results on the job. This leads into a description of the method used by the author to match and educational curriculum to job knowledge required by the Navy through a billet list of NOBCs and curriculum ESR Keyword/Phrase mapping. Chapter IV offers data and results obtained in the research to include recognition of knowledge gaps, and patterns observed. Next, data assumptions and research limitations are identified.

Finally, Chapter V summarizes the research findings, answers primary and secondary questions posed, and concludes with recommendations and suggestions for follow-on research.

II. LITERATURE REVIEW

A. HISTORY AND OVERVIEW OF NAVY HUMAN RESOURCES

The Navy HR officer community was formally established in October 2001 with the issuance of the 1200 Active Component designator after a series of marked restructuring changes had swept through the Navy. In response to the 1972 Combat Exclusion Law, barring females from serving in traditional combat roles aboard ships, submarines, and aircraft, the Unrestricted Line (URL) designator was created (FitzPatrick, 1998). Those officers unable to fill the URL combat designators were grouped under the General Unrestricted Line (GenURL) community. They primarily consisted of women, with a small number of men who were URL attrition losses due to either training or medical reasons (FitzPatrick, 1998). The predecessor to our modern day HR officers were the fleet support officers who fell under the GenURL designator, 1100. These officers were tasked with important Human Resources related functions among other roles. Even so, the community was viewed in a negative light by many in the Navy at the time, likely due to a poor public relations effort and a general prevailing lack of understanding of HR work (Barber, 2003).

The Fleet Support Officer (FSO) community was established in 1994, yet again reshaping the force. FSO's held the designator of 1700, and specialized in the three-competency set of Space and Electronic Warfare, Logistics Support, and Manpower, Personnel and Training (MPT) (Barber, 2003). In 1999, after just a handful of years and for much the same reason as before, the community was reverted back to GenURL (1100) officers (Barber, 2003).

Today, the Navy HR officer community serves a well-defined and increasingly importantly role as stated by the Navy's senior HR officer, Rear Admiral Cynthia Covell (DCNP/CNPC), in the May 2010 Navy Human Resources Community Strategic Plan 2010–2015:

> As DoD continuously balances warfighting requirements in a constrained fiscal environment, HR officers must be at the forefront helping to grow and shape the force at the best value to our Nation. Our community mission to deliver HR expertise to define, recruit, develop, assign and retain a highly skilled workforce requires each one of us be get involved in executing this Strategic Plan (Covell et al., 2010).

This Strategic Plan is in line with other top-level strategic plans and priorities including the Secretary of the Navy's (SECNAV) Human Capital Strategy, Cooperative Strategy for 21st Century Seapower, Commander Naval CNO MPTE Navy Total Force Vision for the 21st Century and NPC 2020 Vision. (Covell, 2010). It further clarifies the pivotal role and responsibility placed on the HR community within the Navy, pointing to the challenges of maximizing scarce available resources, while ensuring optimal readiness and improved capabilities to meet objectives. This will be achieved by "placing the right people with the right skills, at the right time and place, and at the best value, to execute global missions" (Covell, 2010).

In February 2007, Full-Time Support (FTS) and Selected Reserve (SELRES) joined the HR cadre with the establishment of the 1207 and 1205 designators. Today the Navy HR community has fully achieved Total Force integration with active, reserve, civilian, and contractors all working toward a common cause. The Navy continually relies on this team of HR professionals to combine their specialized skills to achieve the Navy's short term and strategic goals.

Unlike most other communities within the Navy, the HR officer community rarely accepts direct accessions. HR officers access to both Active Component (AC) and FTS by way of a lateral transfer process usually after successful completion of leadership tours in other officer designator communities. Both the AC and FTS Boards meet twice yearly to select only a handful of highly competitive officers, the majority of these officers generally fall in the grades of Lieutenant and Lieutenant Commander. Sustained superior performance, previous HR experience, and warfare qualification are common characteristics of

an officer selected to laterally transfer HR. With this said, inventory status of year groups from the community the officer is seeking redesignation from, and current inventory of the HR community, always act as over-riding factors of a boards ability to access new HR officers.

Those officers selected by the board and who successfully enter the HR community can be initially assigned by the HR detailer to one of two duties, either filling a traditional HR role within the fleet or assignment to Naval Postgraduate School in Monterey, California. Selection for the Navy's fully funded graduate education program is based on these three main qualities: outstanding professional performance, promotion potential and strong academic background (NPS, 2011). Obtainment of a master's degree from NPS in one of five unique fields of study acts as the initial specialized HR training pipeline of the HR community; in-lieu of formal brick and mortar school house training traditionally used by other Navy designator communities. These five graduate programs include Financial Management, Manpower Systems Analysis, Operations Analysis, Information Systems and Technology, and Human Systems Integrations.

B. ACADEMIC PROFILE CODE

One important element of the NPS admission criteria for which students will be evaluated is their Academic Profile Code (APC). The APC consists of three digits, representing three different qualities of a student's regionally accredited baccalaureate degree as depicted in Figure 1. The first digit reflects the individual's cumulative grade-point average or, as NPS describes, "Quality Point Rating" (QPR). The second digit reflects exposure to and performance in calculus based mathematics courses. The third digit reflects exposure to and performance selected technical science courses (NPS, 2011).

First Digit

The first digit indicates overall academic performance based on a recalculated GPA (all failures and repeated courses included) from previous college transcripts. It is derived from the following:

Code	QPR Range
0	3.60-4.00
1	3.20-3.59
2	2.60-3.19
3	2.20-2.59
4	1.90-2.19
5	0.00 -1.89

Second Digit

The second digit represents mathematical background according to the following criteria:

Code	Meaning
0	Math Major/Minor, Quantitative Economics Degree with B or better average; math taken less than or equal to 7 years ago. (Math Major or strong Math Minor)
1	Lower Level, Upper Level, Linear Algebra with a GPA of at least a 3.5; math taken less than or equal to 5 years ago.
2	Lower Level, Upper Level with average between C+ and B+; math taken less than or equal to 5 years ago. No Linear Algebra.
3	Lower Level Calculus Sequence with a C or better; or if math taken greater than 5 years ago.
4	Calculus for Business/Social Sciences with a C or better. 1 Lower Level Calculus Course with at least a C-. 2 pre-Calculus Courses with a B+ or better.
5	At least one pre-Calculus with C- or better grade.
6	No pertinent college-level math with a grade of C- or better.

Third Digit

The third digit represents science and technical fields according to the following criteria:

Code	Meaning
0	Significant pertinent upper-division technical courses with B+ or better average.
1	Significant pertinent upper-division technical courses average between C+ and B.
2	Complete calculus-based physics sequence with B+ or better average.
3	Complete calculus-based physics sequence with average between C+ and B.
4	At least one calculus-based physics course with C or better grade.
5	No pertinent technical courses.

Figure 1. Academic Profile Code Description (After NPS, 2011)

Additionally, applicants must have transcripts totaling at least 100 semester-hours or equivalent quarter-hours of graded classroom instruction to be assigned a first digit codes of 0, 1, 2, or 3. Pass/Fail and Credit/No Credit classes do not count toward the requirement (NPS, 2011).

C. NPS CURRICULUM

1. Manpower Systems Analysis - 3130

The Manpower Systems Analysis curriculum leads to a Master of Science in Management (MSM) degree and a Naval Officer earning the 3130P subspecialty code (discussed later in this chapter). A minimum APC of 325 is required for student admission (NPS, 2011). Both U.S. DoD and international officers and civilians attend this program. MSA students are challenged by an academic program aimed at preparing its graduates to fill leadership and analytical roles in MPTE management. As such, MSA subspecialists are responsible for developing and analyzing policies to ensure that the Navy and DoD are recruiting, training, utilizing and retaining personnel in the most efficient and effective ways possible. As such, the curriculum emphasizes mathematical, statistical, and other quantitative and qualitative analysis methods. Areas covered in the MSA curriculum include an understanding of MPTE policy development, manpower training models, manpower requirements determination processes, compensation systems, enlistment supply and retention models, enlistment and reenlistment incentives, career mix, training effectiveness measures, managing diversity, and hardware/manpower trade-offs. Students gain familiarity with current models and methods of manpower analysis and economics as well as military manpower organizations, information systems and issues. The curriculum directly supports the Navy HR Community of Interest (NPS, 2011).

2. Financial Management - 3111

The Financial Management curriculum leads to a Master of Business Administration (MBA) degree and 3111P subspecialty code. A minimum APC of 325 is required for student admission (NPS, 2011). The program is designed to prepare officers for DoD business and financial analysis positions assisting in the decision-making processes at all levels by providing accurate, timely and relevant information and analysis. FM subspecialists are responsible for the

optimal allocation of human, physical and financial resources within DoD, while assuring efficient and effective expenditure of public funds. FM graduates can expect follow-on assignments in positions such as strategic planning, business and financial analysis, business and financial management, internal control systems and auditing, budgeting, and accounting. Areas covered in the FM curriculum include financial reporting standards, cost standards, cost analysis, budgeting and financial management, internal control, auditing, management planning and control systems, strategic resource management, quantitative techniques used in planning and control, system acquisition and program management, and the DoD Planning, Programming, Budgeting and Execution System (PPBES) (NPS, 2011).

3. Operations Analysis - 3211

Successful completion of the Operations Analysis (OA) curriculum leads to obtainment of a MS degree in Operations Research and 3211P subspecialty code. A minimum APC of 325 is required for student admission (NPS, 2011). OA is a field that was originally developed by the Navy in the decade following World War II after recognition by leadership of the need to devise an area of study focused analyzing, understanding, and reapplying operational methods successfully used to win the war. OA involves development and application of mathematical models, statistical analyses, analytical reasoning, common sense and simulations to gain an edge in modern day military operations. OA subspecialists will go on to fill important roles within are military acting as advisers to military and civilian decision makers concerning allocation of scarce resources, selection of equipment and processes, and the optimal deployment these assets to achieve mission objectives. Economics, probability, statistics, mathematics, human factors, and optimization all supply the theoretical background for analyzing all possible courses of action in all levels of warfare, and in planning, budgeting, and procurement of systems and forces. The student learns computational methods and develops skills to identify relevant information, formulate decision criteria, and select alternatives. The knowledge and skills

learned in this program enhance an officer's performance of duties throughout his/her career in operational billets, technical management assignments, and policy-making positions (NPS, 2011).

4. Human Systems Integration - 4600

The Human Systems Integration (HSI) curriculum leads to a MS degree in Human Systems Integration and 4600P subspecialty code. A minimum APC of 335 is required for student admission (NPS, 2011). HSI is an interdisciplinary program emphasizing human considerations as a priority in systems design and acquisition in order to reduce life cycle costs, and improve total system safety and performance. HSI has been divided into several distinct domains that include human factors engineering, manpower, personnel, training, human survivability, health hazards, system safety, and habitability. The HSI discipline is founded on the understanding that operators, maintainers, and support personnel, and other human elements, are the critical central components of any system. Successful HSI graduates will leave NPS with the knowledge, skills, and abilities to be effective leaders in the assessment, design, testing, and management of a total human machine system throughout its life cycle (NPS, 2011).

5. Information Systems and Technology - 6201

The Information Systems and Technology curriculum leads to a MS degree in Information Technology Management and 6201P subspecialty code. A minimum APC of 325 is required for student admission (NPS, 2011). This curriculum provides officers with knowledge of information systems technology to include computer and telecommunications systems, software engineering, networked and distributed applications, database management systems, and decision support systems in the military services. Students will also gain proficiency in information systems, economics, and management necessary for the critical management decisions needed in the development and utilization of complex and evolving computer-based military systems. IST is an

interdisciplinary degree integrating mathematics, accounting, economics, statistics, computer science, information systems, communications engineering, networks, and management disciplines (NPS, 2011).

D. EDUCATIONAL SKILL REQUIREMENTS

Education Skill Requirements (ESR) form the basis of the NPS masters programs curricula previously described. ESRs can be thought of as those fundamental ideas or concepts which form the foundation for knowledge, skills, and abilities (KSAs) which are required by each graduate to be successful in follow-on assignments in that given specialty field (NPS, 2011). The curriculum sponsor provides approval authority for curriculum ESRs with special assistance from the assigned Subject Matter Expert (SME). For example, the curriculum sponsors for the MSA program is OPNAV (N-1) Chief of Naval Personnel and Military Personnel Plans and Policy and Headquarters - United States Marine Corps (Manpower & Reserve Affairs). The SME is OPNAV (N14) Director of Strategic Planning and Analysis (NPS, 2011).

Curriculum review is a biennial process of updating and validating of all program material to ensure it remains up-to-date and relevant for use within DoD. As designed, curriculum review is the capstone event following continuous communication and dialogue taking place over the preceding 24 months in the form of guest speakers, sharing of organizational material, forwarding of thesis topics of interest, and sponsored travel to gain field experience (NPS, 2011). NPS Program Officers and academic staff within the given department chair these curriculum reviews. Ideally, curriculum content should align with ESRs, which should in turn align with the changing needs of the Navy; as deemed by the curriculum sponsor (NPS, 2011). This system's design ensures continual institutional flexibility and change so that students graduate from these masters programs with the KSAs that are in highest demand by the commands that they will be reporting to within their respective military subspecialty field.

This design is lockstep with the HR community's mantra of continually improving force structure, value and relevance for the Navy.

See Appendix A-E for ESR long version descriptions. Below are snapshots of ESRs summary titles for each program curriculum.

MSA - 3130 Educational Skill Requirements	
1	Organization and Management Fundamentals
2	Budgeting and Financial Controls
3	Automated Data Analysis
4	Management Fundamental Analytical Techniques
5	Advanced Quantitative and Qualitative Analysis
6	MSA Fundamental Concepts
7	Manpower Systems Policy Analysis
8	Joint Military Strategic Planning
9	Evaluation, Innovation and Creativity

Table 1. Manpower Systems Analysis ESRs (After NPS, 2011)

FM - 3111 Educational Skill Requirements	
1	Management Fundamentals
2	Strategic Vision and Defense Budgeting
3	Funds Management
4	Accountability, Control and Auditing
5	Acquisition and Program Management
6	Economy Efficiency and Effectiveness
7	Cost Management and Analysis
8	Strategic Resource Management
9	Innovation and Creativity
10	Strategy and Policy

Table 2. Financial Management ESRs (After NPS, 2011)

OA – 3211 Educational Skill Requirements	
1	OA Basics
2	Probability, Statistics and Data Analysis
3	Optimization
4	Stochastic Modeling
5	Simulation
6	Analysis of Military Operations
7	Systems Analysis
8	OA Practical
9	Innovation and Creativity
10	Strategy and Policy

Table 3. Operations Analysis ESRs (After NPS, 2011)

HSI - 4600 Educational Skill Requirements	
1	HIS Analytical Techniques
2	Modeling and Simulation
3	Human Performance
4	Systems Approach
5	Implementing HSI Tradeoffs
6	Joint Professional Military Education

Table 4. Human Systems Integration ESRs (After NPS, 2011)

IST - 6201 Educational Skill Requirements	
1	Strategy and Policy
2	Space, Information Warfare and C2 Practices
3	Software Development
4	Information Systems Technology
5	Information Systems Analysis and Management
6	Military Applications
7	Independent Research

Table 5. Information Systems and Technology ESRs (After NPS, 2011)

E. NAVY SUBSPECIALTY SYSTEM

The Navy Subspecialty System (NSS) is a classification system used to identify special skills obtained by officers through either education or experience from previous specialized tours beyond general designator duties. The primary role of the subspecialty system is to "define the graduate education requirements for the Navy" (Officer Subspecialty System Handbook). The system also acts as a tool to manage billet assignment of officers who have obtained Funded Graduate Education (FGE) through the Navy. DOD policy mandates tracking utilization rates of officers possessing these codes through FGE in order to maximize returns on budgetary investments spent on officer graduate education programs (DoD, 2008).

Subspecialty codes are the alphanumeric coding used in the NSS. SSPs include five characters; four numerals and an alphabetic suffix. The first digit indicates the subspecialty Major Area. The second digit indicates Concentration Area. The third and fourth digits provide specificity (further specialization as required).The fifth character, or suffix, indicates the level of education, training, or experience in the subspecialty (DON, 2010). An example of this would be the 3130P SSP obtained through the Manpower Systems Analysis program. 3XXXP, describes the major area of Resource Management and Analysis. 31XXP, describes the concentration area that includes management of Finance, Logistics, Manpower, and Education & Training. 3130P, specifies Manpower Systems Analysis. 3130P, indicates initial obtainment of this SSP code as shown in Figure 2.

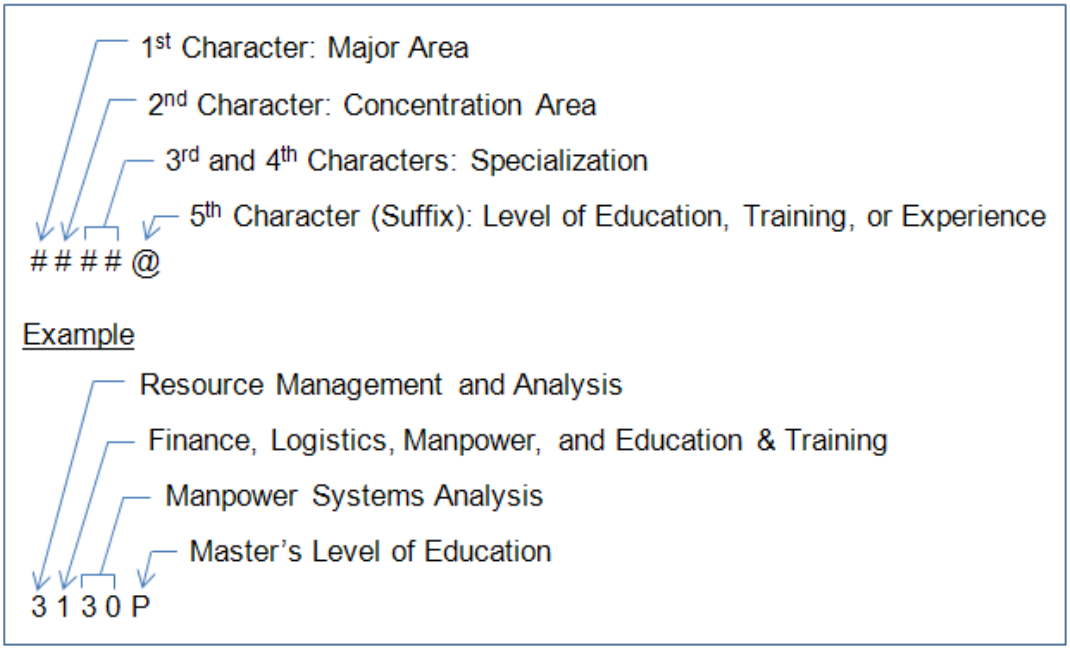

Figure 2. Subspecialty Code Explanation and Example (After Department of the Navy, 2010)

Students attending master's programs at NPS hold the SSP code suffix of "T", indicating that they are in a training status. Upon graduation, and successful completion of all curriculum requirements, a "P" suffix replaces the "T". The officer at this point is required to fulfill his/her "payback" tour within two-shore duty tours following graduation. The HR community detailer will generally make finding a follow-on "P"-suffixed billet assignment a priority for newly graduating HR officers. Once an officer completes the minimum requirement of 18 months in a "P"-suffixed billet, that officer earns the "Q"-suffix indicating that they are now a proven subspecialist, with at least one tour of experience in that field.

The Navy Subspecialty System is comprised of many SSP codes, as seen in Table 6. These codes include non-educational, experience related SSPs in addition to other miscellaneous ones. For the purposes of this research, focus will remain only on SSPs that associated with NPS attendance.

P	Master's level of education
Q	Master's level of education – proven subspecialist
R	Significant experience – proven subspecialist
S	Significant experience
B	Validated requirements for master's or higher level of education but second priority to P, Q, M, N, C, or D-coded billets; used when subspecialty code compensation has not been identified. Applies only to billets.
C	PhD level of education – proven subspecialist
D	PhD level of education
E	Baccalaureate level of education in a field applicable to subspecialty
F	Master's degree not fully meeting Navy criteria in a degree program – proven subspecialist
I	Master's degree completed by Immediate Graduate Education Program graduates not fully meeting criteria in a degree program
M	Post-master's graduate degree
N	Post-master's graduate degree

Figure 3. Subspecialty Code Suffixes (From Department of the Navy, 2007)

F. NAVY OFFICER BILLET CLASSIFICATION

Navy Officer Billet Classifications (NOBCs) summarize the general duties and responsibilities of a billet, and reflect an individual officer's occupational experience gathered from education and assignment history. Thus, NOBCs serve two important functions: 1) Outlining the general job requirements of a given billet and 2) Personal job experience permanently attached to an officer's record. NOBCs are often referred to as primary and secondary when attached to a billet. This is due to the fact that an additional NOBC may be attached to a billet in order to more fully describe the duties entailed by that billet. The duties in the NOBC are not all-inclusive of the billet requirements nor are applicable to all billets (NAVPERS 15839I, 2011). This is reflective of NOBC use to summary a job, not offer a detailed description of all duties. Likewise, billet functions change year to year with the nature of our ever-changing force and rearranging

and blending of job functions. Much like ESRs in relation to NPS curriculum, they only remain relevant and respective of billets if they are maintained current.

A Navy Officer Billet Classification consist of four digits: the first digit indicates the field; the second digit identifies the group within the field; and the third and fourth digits show the specific classification within a group as shown in Table 6.

NOBC Digit	Description	3970 Example	Description Example
1st	Field	3	Personnel Field
2nd	Group	9	General Group
3rd and 4th	Specific Classification	70	Personnel Planning Officer

Table 6. NOBC Description and Example (After DON, 2010)

The example above gives a visual depiction of the characterization of the Personnel Planning Officer, NOBC 3970. This NOBC happens to be shared by a current total of nine 3130P-coded billets. 3000-3999 is the Personnel Field and consists of eight major groups. The billet duties in the Personnel Field involve ten-thousand foot view job characterizations.

> Planning, research, and administration of the procurement, selection, classification, distribution, training, performance, separation, welfare, and records of naval and civilian personnel of the Naval Establishment (NAVPERS, 2010).

A 39XX NOBC is in the General Group, which includes billet duties related to personnel planning, direction and control that are not included in other groups. (NAVPERS 15839I, 2007). NOBC 3970 is the Personnel Planning Officer and includes a detailed breakdown of the duties involved by the NOBC.

> Performs or directs research in utilization of naval personnel. Conducts studies on qualification standards and billet requirements. Obtains, analyzes and evaluates information. Develops and maintains organizational structures, requirements and command management practices. Develops coding and classification structures. Prepares billet descriptions, reports and manuals for publication. Reports on relationship of naval billets with those of

other armed services and civilian agencies. Maintains information on current personnel research practices (NAVPERS, 2010).

G. PREVIOUS NPS RESEARCH

Extensive research has been conducted at NPS related to the Navy subspecialty code system. Lieutenant Terrence Jones examined placement of HR officers who had earned subspecialty codes from NPS and how effectively they were detailed to associated follow-on assignments. He concluded that there was both an inadequate inventory of subspecialty HR officers and that the current pull-driven system was magnifying undue demands from end-user gaining commands on placement officers. This often results in assignment of officers not possess the requisite knowledge represented by SSP codes to those respective billets. Jones recommended a push-driven demand process to provide more consistent compliance with Navy policy guidance.

Lieutenant Steven Blaisdell's related research focused on financial management officers and their placement following NPS. He found that the Staff Corps placed a high degree of emphasis on proper management in the placement and utilization of SSP coded officers. He contrasted the Staff Corps with the URL community and found that the limited availability of knowledge and experience opportunities within the surface community prevented proper succession management of FM officers at more senior levels.

Commander David Cutter's researched examined the feasibility of using a robust succession control plan for the financial management community by means of cybernetic feedback theory. His unique application of control systems theory and its various inputs, processes and outputs on a human resource succession management plan provided an interesting model for future policy consideration.

Lieutenant Paul Borkowski's research consisted of a cost-benefit analysis of financial management education at NPS and compared it to similar education offered at civilian institutions. He found that NPS offered the only unique defense

oriented financial management program required by the FM communities succession management plan, underscoring NPS's important role in providing knowledge workers with the correct knowledge, skills, and abilities to end users in the Department of Defense. He concluded that NPS offered a far better value than civilian counterparts did after weighing all costs.

Lieutenant Lindsay O'Sullivan conducted research that examined the measures of effectiveness provided by Manpower Systems Analysis graduates from a human capital, value added approach, as opposed to a return on investment through retention and promotion (as well as other benefits) as argued by Bowman and Mehay in 2004. O'Sullivan's work resulted in the creation of two surveys to be used by MSA graduates and their supervisors identifying specific measures to evaluate education and training.

Probably the most similar research to this thesis was that pursued by Lieutenant Elizabeth Kratz in 2008. That research examined the Human Systems Integration subspecialty coded billet structure and found that not all HSI work conducted in the Navy was represented by these billets. Furthermore, her examination of the 4600 subspecialty coded billets found no reflection of the ESRs resenting HSI competencies taught at NPS. Her work recommended an in depth needs analysis to better identify HSI work within the Navy, restructuring of relevant HSI subspecialty coded billets, and better fit within that specific subspecialty.

H. EVALUATING AND IMPROVING THE LEARNING PROCESS

Arguably, the most widely known evaluation technique for evaluating learning processes comes from Donald Kirkpatrick's Four Level Evaluation Model. Kirkpatrick used four criteria for evaluating learning that he referred to as steps.

These four steps were 1) Reaction – How well learners enjoyed the learning process 2) Learning – Knowledge or skills learned and to what extent 3) Behavior – Changes in job performance from newly acquired knowledge or skills and 4) Results – Measurable results of learning process in terms of cost, quality, efficiency, etc. (Kirkpatrick, 1994).

Leonard Nadler is one of the founders of the Human Resource Development (HRD) profession. Nadler rebukes the common misperception that Kirkpatrick's four levels are only for evaluating training processes by using it in HRD's handbook. Professional organizations use the HRD handbook to assist in not only developing training, but also other formal learning such as development and education (Nadler, 1984).

Many researchers in the forefront of the HRD and general learning industry have credited Kirkpatrick's model in their work. Additionally, some have tailored it to fit specific applications or to amplify important themes. Seung Chyung, Professor of Instructional & Performance Technology at Boise State University, inverted Kirkpatrick's model in order to place the two most important items last. This accomplished two goals. First, it imprints the importance of the two in people's mind through recency effect. Second, it aids in troubleshooting workplace application of the intended learned skills or knowledge (Chyung, 2008).

As depicted in Figure 4, if skills/knowledge are not present as anticipated then either the work environment constrains use of those skills/knowledge or the initial premise that the new knowledge would bring about change is flawed (Chyung, 2008). Chyung replaces Kirkpatrick's *Behavior* with *Performance* because the consequences of undesired behavior are what employers are most concerned with, and performance is a more apparent and measureable objective (Chyung, 2008).

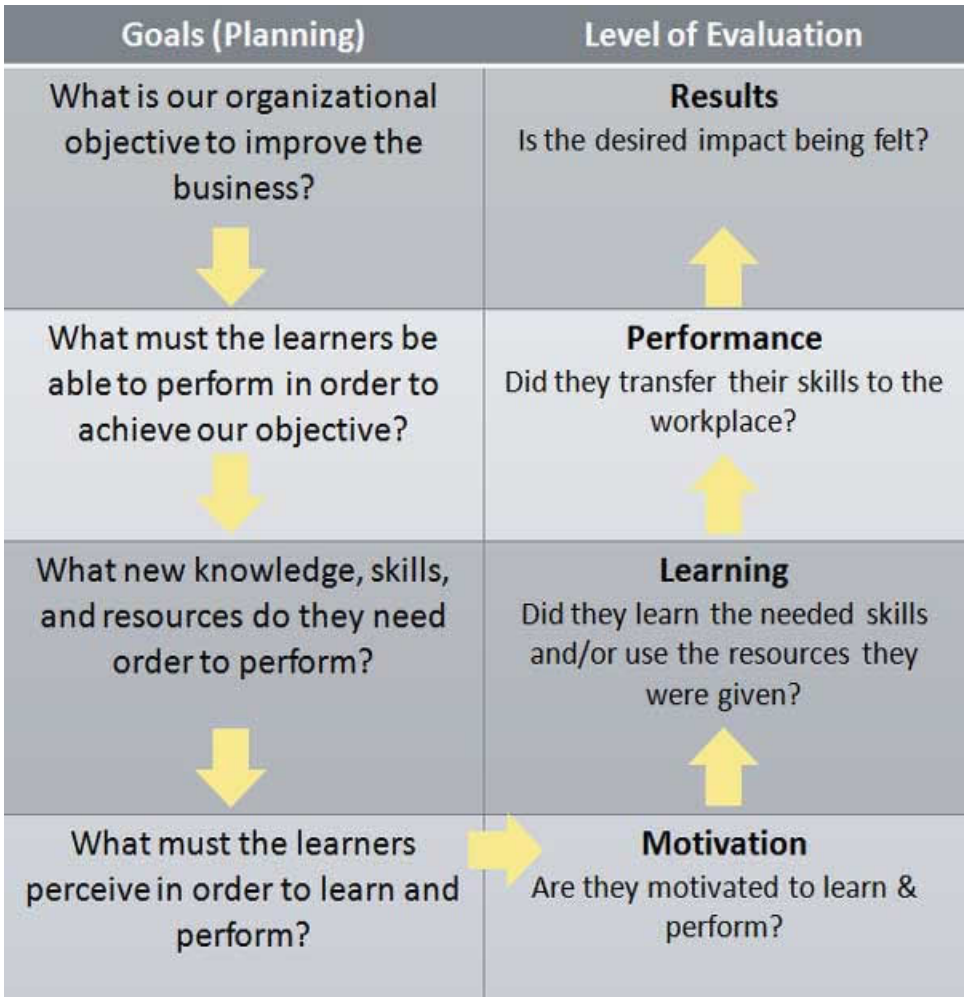

Figure 4. Learning Evaluation Model (From Chyung, 2008)

A practice that is becoming ever more popular among leading industry and academic organizations is that of formal learning collaborations. As described in an article from "The Journal of Systems and Software", these collaborations are formed in order to meet the education and training needs of adult learners (Mead et al., 1999). Surveys conducted by the researches in this article revealed that when respondents were asked what benefits come from these collaborations an overwhelming number of answers were along the lines of “Top quality training” and “Best use of our company’s training resources” (Mead et al., 1999).

Staying at the forefront of industry and research is important for both of the organizations involved in this stakeholder relationship, from a profit

standpoint for businesses and a relevance standpoint from academia. A visual representation of this collaborative process between academia and industry is offered in Figure 5. This innovative concept has proven successful in the civilian sector, and should be considered for adaptation by the Navy in their funded graduate education programs. It is in line with guidance from top leadership:

> Test new, innovative ideas for policies, programs, and management systems affecting all or portions of the Total Naval Force;
>
> Be responsive to shifting requirements and changes, and creating an environment in which change can flourish; and
>
> Understand the unsurpassed value of people and their roles in mission accomplishment and in sharing knowledge with others (Winter, 2007).

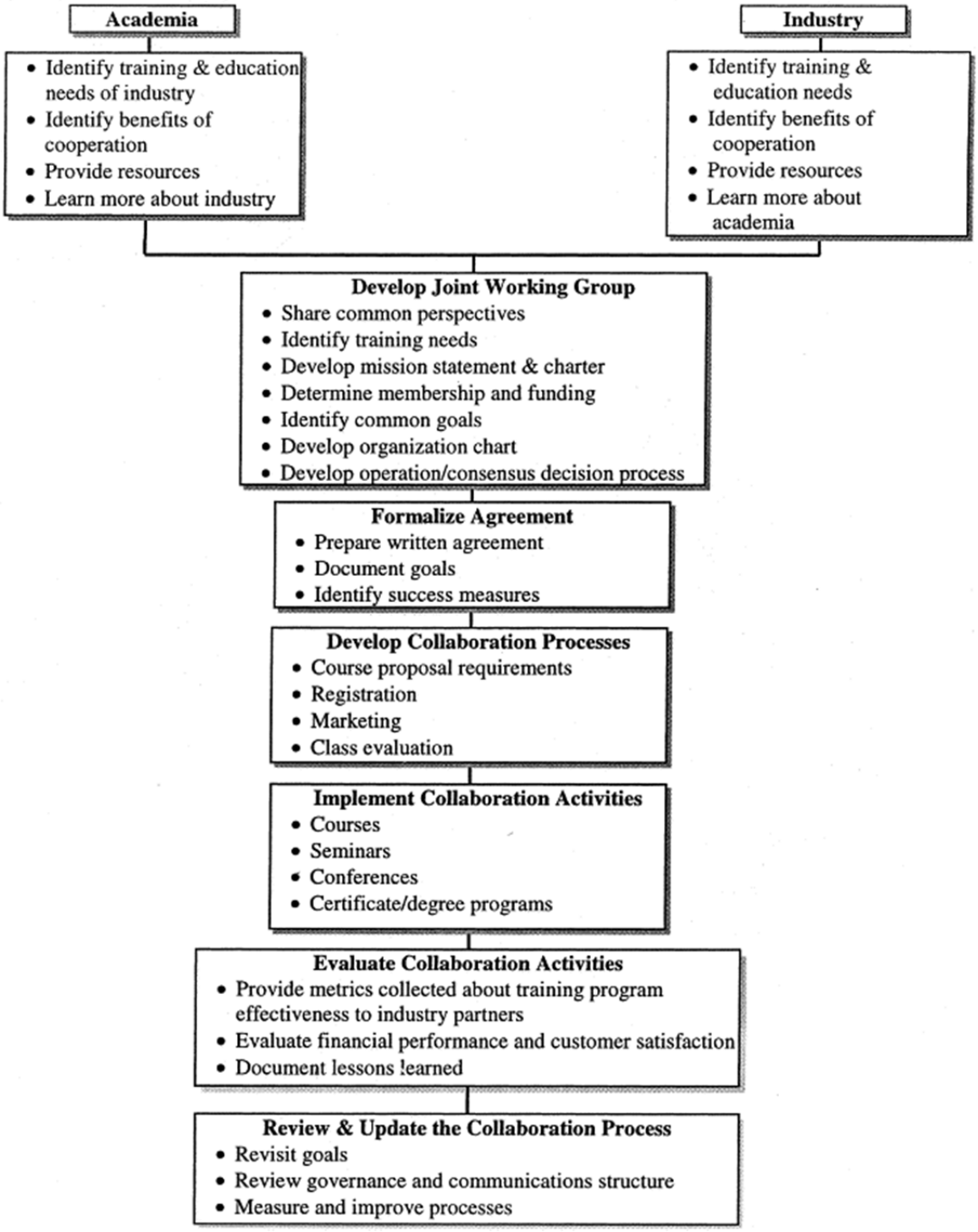

Figure 5. Academia and Industry Collaboration Process (From Mead et al., 1999)

III. METHOD

A. NEEDS ASSESSMENT

The purpose of a needs analysis in an education and training setting is to determine if work requirements have been met through the development of KSAs. Large organizations invest an enormous amount of their annual budget into these training and development programs in pursuit of sustaining and growing corporate knowledge that creates an environment where working professional are equipped with the tools needed to ensure company success. The Navy is a bit different in the sense that it is not a profit driven organization. While not motivated by profit, the Navy does share the same desire for increasing organizational effectiveness and efficiencies.

B. DETERMINING KNOWLEDGE REQUIREMENTS

The hypothesis that a comparative mapping system would assist in identifying the degree of alignment between graduate level educational curriculum and subspecialty work requirement, offered by the 2011 HR billet list, guided the research conducted in this thesis. One particular question posed in Chyung's model formed the basis of this hypothesis—What new knowledge do they (*HR subspecialty officers)* need in order to perform?

Data from the 2011 HR billet list was first sorted by NPS related SSP codes, and NOBC primary and secondary skills. The description provided by the primary NOBC attached to each Navy HR related subspecialty billets identifies the knowledge skills required for each officer assignment in lieu of an in-depth needs analysis. Table 7 is a snapshot of the filtered billet list representing only NPS curriculum based HR subspecialty codes found in Appendix K.

SNAME	RANK	NOBC	NOBC2	SUBSPEC A	SUBSPEC B
OPNAV	CDR	3943		3211Q	3111S
OPNAV	LCDR	1050		3211Q	3111S
OPNAV	LCDR	1025		3211P	
OPNAV	LT	3943		3130P	3111S
OPNAV	LCDR	3981		3211B	3130S
OPNAV	CAPT	3943	9059	3130S	
OPNAV	CDR	3943	9059	3130S	
OPNAV	CAPT	3950		3211Q	3130R
OPNAV	CDR	3215		3211P	
OPNAV	CDR	9085		3130P	
CNR ARLINGTON VA	CDR	2163	2190	3130S	
BUPERS MILL TN	LCDR	2612		6201P	
OSD	CAPT	9930	1025	3111P	
COMSC W DC WCF	LCDR	3943		4600P	

Table 7. Snapshot of 2011 HR Billet List (After BUPERS, 2011)

C. IDENTIFYING KNOWLEDGE GAPS

Now that knowledge requirements have been identified by means of NOBCs, a method for assessing gaps between concepts/knowledge taught and those knowledge skills required by job assignment. This approach was modeled after similar NPS unpublished research that specifically reviewed the Manpower System Analysis (MSA) program and the relationship of its ESRs to the MSA billet structure for all officer designators (Hatch, 2004).

First a list of key competencies, by way of keywords and phrases, were extracted from the current NPS residency curricula ESRs attended by HR officers in pursuit of subspecialty obtainment. The list of competencies provided a summary of knowledge skills deduced from each NPS curriculum ESR (Appendix A through E). These competency lists, representing subspecialty knowledge, were then compared to respective subspecialty billet NOBCs (Appendix F through I). Like keywords and phrases from the two groups were then matched and a closeness of the relationship between the two was as curtained by the percentage, or degree, to which each NOBC description matched respective ESR competencies.

This qualitative exercise is referred to as “mapping” (Hatch, 2004). See Figure 6. Resulting occurrences are presented in table format in Chapter IV.

Educational Skill Requirements (MSA Curriculum –3130)

1. **Management Fundamentals - Organization and Management**:
The graduate will have the ability to apply contemporary **management principles, organizational theory**, and **social science methodology** to the development, implementation, and management of effective **MPT&E policies and programs** throughout DoN/DoD. The graduate will have the ability to use and understand computer systems in problem solving and will have a basic understanding of **management information systems** and **E-Business**.

2. **Budgeting and Financial Controls**:
The graduate will have an understanding of basic **financial management** practices of DoN/DoD and will be able to conduct **cost benefit analyses** and participate in the **budgetary planning**…..

ESR Competencies (MSA-3130)

Manpower Systems Analysis, Manpower Management Principles, Organizational Theory, Social Science Methodology, MPT&E Policies and Programs, Management Information Systems, E-Business, Financial Management, Cost Benefit Analyses, Budgetary Planning….

NOBC Knowledge Requirements (3130P/Q Billet Specific)

2610 **MANAGEMENT ANALYSIS** AND **CONTROL** OFFICER [MGT ANAL CTL]
Directs and develops **methods** and procedures for improving operational **efficiency** and **manpower utilization** in naval activities, including ships and fleet staffs. Reviews activity **objectives**. Establishes job standards through **time studies, analytical estimating, and synthesis**. Studies **personnel** and material **utilization**….

3943 **MANPOWER PLANNING** OFFICER [MPWR PLN]
Directs preparation of plans and procedures pertaining to Navy **manpower requirements**. Coordinates and reviews adjustments of **manpower end-strengths**. Ensures observance of **authorized manpower** ceiling. Assists in the determination of minimum **quantitative** and **qualitative manpower requirements**. Maintains liaison with commands, bureaus, offices, or activities engaged in **programs** or projects having **manpower** implications. **Develops staffing** criteria, guides and **manning documents**…

Figure 6. Mapping ESRs to NOBC Knowledge Requirements (After Hatch, 2004).

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IV. DATA AND RESULTS

> We have the most highly educated workforce in Navy history. To preserve this advantage, we will invest in continuing education opportunities for Sailors, officers, and civilians, focusing graduate and professional military education investments on the development of critical skills aligned with Navy missions and joint warfighters to lead in our nation's defense.
>
> …This requires innovative approaches to identify the competencies possessed by our workforce, align those competencies to the work, and shape our talent with the right mix of skills, experience, and seniority to deliver Fit to the Fleet a the best value (Roughead et al., 2010).

A. SSP OBSERVATION SUMMARY

The December 2011 HR billet list was comprised of 657 AC and FTS Ensign through Captain billets. The data identified 174 billets with subspecialty codes assigned. These 174 SSP specific billets included SSPs derived from both NPS resident and distance learning curricula, civilian graduate institutions, and non-graduate prior tour direct work experience. 90 billets, or 13.7% of the total HR billet list, consisted of SSPs earned directly through NPS resident courses. Those P and Q coded billets on Table 8 were the focus of this research.

The 3130P and 3211P billets include three B suffixed billets. These billets can be filled by respective officers holding a P suffix. After completion of a successful eighteen months, that officer obtains the Q suffix in the same manner as any P suffixed billet assignment. The 3211P and 3210P billet assignments are interchangeable. 3210P is earned through NPS's Master of Systems Analysis distance learning curriculum.

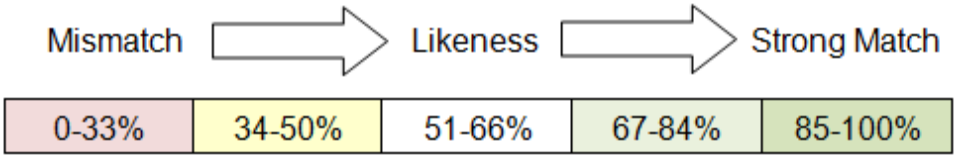
SSP	ENS	LTJG	LT	LCDR	CDR	CAPT
3111P	-	-	-	2	3	1
3111Q	-	-	-	1	-	-
3111Other	-	-	-	2	-	-
3130P	-	-	9	9	9	4
3130Q	-	-	-	-	8	4
3130Other	-	-	6	11	17	14
3210/3211P	-	-	1	12	5	-
3210/3211Q	-	-	-	1	5	2
3210/3211Other	-	-	1	1	1	-
4600P	-	-	-	3	-	1
4600Q	-	-	-	-	-	-
4600Other	-	-	-	-	-	-
6201P	-	-	-	3	5	-
6201Q	-	-	-	-	-	2
6201Other	-	-	2	4	1	-
Different SSP	-	-	8	5	10	2
No SSP	10	22	138	183	96	33
Totals	10	22	165	237	160	63

Table 8. HR Billet List Summary (After BUPERS, 2011)

B. KNOWLEDGE GAP RESULTS

The majority of HR subspecialty billets showed a very strong relationship between their respective ESR competencies and billet knowledge requirements as described from the primary NOBCs attached to these billets. Alternatively, a significant number of billets appeared to be clear mismatches. A few billets fell in the middle, containing just a marginal number of matching keywords and phrases.

38 out of 43 Manpower Systems Analysis billets showed a striking degree of matching. Likewise, 19 out of 26 Operations Analysis billets had extremely strong matching keywords and phrases. All of the Information Systems and Technology billets showed strongly matched keywords and phrases. The Financial Management billets also matched well, with only one billet showing marginal likeness from a total of seven. The results of this mapping exercise can be found in Table 9.



MANPOWER SYSTEMS ANALYSIS – 3130P/Q PRIMARY NOBC #				
9085	9436, 9422	9960	3020	3254, 3265 3320, 3943 3970, 3980 3981, 3985 3950, 3965
1 billet	*2 billets*	*1 billet*	*1 billet*	*38 billets*
OPERATIONS ANALYSIS – 3210P/Q & 3211P/Q				
1025, 1050 3215, 3943 3965				2165, 2610 2612, 3950 3970, 3980 3981, 9930
7 billets				*19 billets*
HUMAN SYSTEMS INTEGRATION – 4600P/Q				
3943, 3950 3965				
4 billets				
FINANCIAL MANAGEMENT – 3111P/Q				
		9930		1025, 1050
		1 billet		*6 billets*
INFORMATION SYSTEMS & TECHNOLOGY – 6201P/Q				
				2163, 2612 9745
				10 billets

Table 9. ESR to NOBC Knowledge Mapping Results

Verifying the lack of fit found in the research conducted by Kratz, none of the four HSI subspecialty coded billets reflected even a marginal degree of the knowledge competencies taught at NPS. The HSI billet mismatches all appeared to be direct fits with MSA ESRs and the titles of these billets were clear indications that these billets would be better fitted as MSA subspecialty billets.

Those billets were comprised of Manpower Planning Officer, Personnel Research Officer, and Personnel/Manpower Management Officer (NOBCs 3943, 3950 and 3965).

Clear mismatches for the OA and MSA billets also appeared to be directly aligned with other subspecialty areas. Two OA billets that appeared to be better suited as FM billets were included Budget Officer, and Comptroller (NOBCs 1025 and 1050). Another two OA billets, Manpower Planning Officer and Personnel/Manpower Management Officer (NOBCs 3943 and 3965) seemed to be traditional MSA billets. The single MSA billet that seemed to be a direct fit under a sister subspecialty was Operations Analyst (NOBC 9085).

One phenomenon observed in this research was inferred alignment based on which activity owned the billet. For instance, one OA billet: Education/Training Planning and Program Officer (NOBC 3215), contained many keywords and phrases found in the MSA ESR competencies. The title of this billet alone seems more in line with MSA core competencies, but this billet's command activity was NPS. Thus the assignment of an OA subspecialty officer within the OA department at NPS, developing OA specific training curriculum and educational material, makes perfect sense. Two MSA billets seemed to be general leadership roles not specifically pertinent to subspecialty type. These were Commanding Officer and Executive Officer Naval Shore Activity (NOBCs 9422 and 9436). Both of these were Navy Manpower Analysis Center (NAVMAC) billets, making them ideally suited for the MSA subspecialty. With the above observations taken into consideration 11 out of 90, or 12%, of the total HR funded graduate education based subspecialty billets remained as showing a strong misalignment with ESR competencies.

C. DATA ASSUMPTIONS AND LIMITATIONS

The research conducted in this thesis relies heavily on qualitative methods. Those methods are based on the assumption that NOBC descriptions match current job functions carried out at a given organization. The author realizes that this is not always the case due to constant reorganization efforts

and a lag in subsequent billet information updates from related administrative procedures placed at a lower priority. Additionally, as noted in the Navy Officer Classification Manual, the duties in the NOBC are not all-inclusive of the billet requirements nor are applicable to all billets (NAVPERS 15839I, 2011). Limitations are also placed on data result accuracy from an assumption that Naval Postgraduate School ESRs are thoroughly updated at each biennial Curriculum Review. NOBCs were used because conducting an actual needs assessment by traveling to each command in the billet list was deemed impractical. This limitation is noted.

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V. SUMMARY, CONCLUSION AND RECOMMENDATIONS

A. SUMMARY

The Navy's resident funded graduate education program at Naval Postgraduate School Monterey is achieving its goal of preparing HR officers with the necessary education to effectively meet the demands of subspecialty billet assignment NOBC knowledge requirements. The data shows that all four HSI (4600) subspecialty billet NOBCs (knowledge requirements) not aligned with Education Skill Requirements of the NPS HSI curriculum. As discussed in earlier research by Elizabeth Kratz this is likely due to a lack of properly identified HSI billets in general for the HR community within the Navy. The Operations Analysis (3210/3211) and the Manpower Systems Analysis (3130) subspecialty billet NOBCs' (knowledge requirements) misalignment with ESRs was found to be minimal. A few billets highlighted by the mapping model examined in the research as not being significantly aligned turned out to be rather close matches when the mission of the command activity was taken into consideration. A noteworthy limitation to this research was the use of NOBC descriptions to identify job functions and knowledge requirements in lieu of conducting an actual needs assessment at activities where each billet exists.

B. CONCLUSION AND RECOMMENDATIONS

1. Primary Question

Are HR job skills required by subspecialty-coded billets and their corresponding Navy Officer Billet Classification (NOBC) appropriately represented in the Naval Postgraduate School core curriculum for programs leading to obtainment of these subspecialty codes?

a. Conclusion

Collectively, yes, but some billets lack ESR competencies to a moderate to significant degree. The numbers of billets strongly lacking alignment

of knowledge competencies were 11 out of 90, or 12%, of the funded graduate education subspecialty billet base. The misalignment of knowledge skills among a few select billets appears to be more of a case of billet structuring problems among major resource sponsors.

b. Recommendation

The Chief of Naval Personnel, as the HR community resource sponsor, should review the current inventory of HR billets and alignment of all funded resident education subspecialty billets with NPS Educational Skill Requirements. An in-depth needs analysis should be conducted at each activity owning these subspecialty billets. NOBC descriptions should be updated to reflect current job functions and knowledge requirements of those billets. This would better support the biennial curriculum review process.

2. Secondary Question

How effectively is the Navy targeting the education at NPS to be relevant to its HR officers in executing their follow-on assignments, which support the Navy's mission?

a. Conclusion

The Navy appears to be targeting relevant education at Naval Postgraduate School quite effectively. NPS’s use of a biennial curriculum reviews ensures a regularly scheduled periodic review of course content and Education Skill Requirement updates when deemed necessary by curriculum sponsor’s and subject matter experts.

b. Recommendation

The Navy's curriculum review process could be improved by adopting a more comprehensive process based on the industry/academia model (Mead et al., 1999).

This would offer a continuum of learning, providing a method to tailor learning with current policy guidance and subspecialty related work priorities and emerging needs experienced in the fleet.

C. AREAS FOR FURTHER RESEARCH AND STUDY

1. Billet Review

Conduct an in-depth review of SSP coded billets funded by Resource Sponsor and activity, as identified in Activity Manpower Documents (AMDs). This could be accomplished through educational program evaluation techniques discussed in this research, along with other evaluation methods currently used by DoD and leading civilian industry organizations.

2. Program Analysis

Proven process improvement techniques could then be reviewed and analyzed to offer the Navy's funded graduate education program alternatives. This would ensure continual improvement toward the mission goal of providing the fleet with the right officers, with the right skills, at the right time. It would also raise the level of awareness to resource sponsors who fund graduate education billets, and bring resident subspecialty education in alignment with shore and fleet manpower requirements.

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APPENDIX A: NAVAL POSTGRADUATE SCHOOL MANPOWER SYSTEMS ANALYSIS – 3130P EDUCATIONAL SKILL REQUIRMENTS (OCTOBER 2011) (NPS ACADEMIC CATALOG, 2011)

1. FUNDAMENTALS – ORGANIZATION AND MANAGEMENT: The graduate will have the ability to apply contemporary management principles, organizational theory, and social science methodology to the development, implementation, and management of effective MPT&E policies and programs throughout DoN/DoD. The graduate will have the ability to use and understand computer systems in problem solving and will have a basic understanding of management information systems and E-Business.

2. BUDGETING AND FINANCIAL CONTROLS: The graduate will have an understanding of basic financial management practices of DoN/DoD and will be able to conduct cost benefit analyses and participate in the budgetary planning of commands and/or DoN programs. The graduate will have an understanding of the Planning, Programming, Budgeting Execution System (PPBES) and the ability to analyze the impact of budgetary changes on DoN/DoD manpower and personnel programs and policies.

3. AUTOMATED DATA ANALYSIS: The graduate will possess the skills in data manipulation, statistics, and exploratory data analysis to be able to formulate and execute analyses of a wide variety of manpower, personnel, and training issues. The graduate will have proficiency in computing and interactively apply a variety of methods to large-scale DoN and DoD databases. The graduate will have a working understanding of the manpower information systems.

4. MANAGEMENT FUNDAMENTALS – ANALYTICAL TECHNIQUES: The graduate will be able to apply mathematical, statistical, accounting, economic and other analytical techniques and concepts to day-to-day military management issues. The graduate will be able to gather and analyze qualitative

data. The graduate will also be able to use these techniques and concepts as a participant in the long-range strategic planning efforts of the Navy and DoD.

5. ADVANCED QUANTITATIVE AND QUALITATIVE ANALYSIS: The graduate will have the ability to apply a wide range of advanced organizational, economics, statistical, and mathematical techniques and concepts to manpower and personnel policies and issues. These include the use of econometric techniques in the quantitative analysis of large-scale DoN/DoD manpower and personnel databases, of qualitative techniques in the analysis of survey and personnel data, of manpower decision support systems, and of Markov models in the analysis of force structure and manpower planning, forecasting, and flow models.

6. MANPOWER SYSTEMS ANALYSIS FUNDAMENTAL CONCEPTS: The graduate will have an understanding of the fundamental concepts and basic functional areas of manpower, personnel, training, and education (MPT&E) within DoN/DoD as listed below, as well as an understanding of the MPT&E systems and their interrelationships.

Manpower: Requirements determination; billet authorizations; billet costs; end strength planning; and total force planning and programming.

Personnel: Recruiting; accession plans and policies; officer and enlisted community management; attrition; retention; compensation; and readiness.

Training: Applications of theories of learning; instructional technologies; the systems approach to training; evaluation of training effectiveness and cost; and the relationship between training and fleet readiness.

7. MANPOWER SYSTEMS POLICY ANALYSIS: The graduate will have the ability to analyze critically the strengths and weaknesses of proposed manpower, personnel, and training policies and to suggest alternatives that recognize the potential impact on DoN/DoD program planning, resources, and objectives.

8. JOINT MILITARY STRATEGIC PLANNING: The graduate will have an understanding of the development and execution of military strategy, the effects of technical developments on warfare, and the processes for formulating U.S. policy, the roles of military forces, joint planning, and current issues in the defense organization. This understanding will include expertise on the combined use of active and reserve forces in joint warfare.

9. EVALUATION, INNOVATION, AND CREATIVITY: The graduate will demonstrate individual initiative and creativity in the application of the skills and knowledge gained from the Manpower Systems Analysis program. The graduate will select a manpower, personnel, training, or education policy or management issue of importance to DoN/DoD, develop a plan to investigate the issue, analyze all of its aspects, suggest a solution as appropriate, and report the significant findings and recommendations in writing by means of a thesis.

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APPENDIX B: NAVAL POSTGRADUATE SCHOOL OPERATIONS ANALYSIS – 3211P EDUCATIONAL SKILL REQUIRMENTS (OCTOBER 2011) (NPS ACADEMIC CATALOG, 2011)

1. BASICS: The graduate will possess the mathematical and computer programming skills required to support graduate study in operations research and have the ability to use computers as a tool to aid in analysis.

2. PROBABILITY, STATISTICS, AND DATA ANALYSIS: The graduate will be well-versed in the fundamentals of probability, statistics and data analysis for application to modeling, simulation, and analysis of military decision problems.

3. OPTIMIZATION: The graduate will be able to formulate and solve a wide variety of optimization problems and also be conversant with the major uses of such models in DoD and the private sector.

4. STOCHASTIC MODELING: The graduate will be able to formulate and solve problems involving stochastic processes (processes with uncertainty over time) and also be familiar with the major applications of such models.

5. SIMULATION: The graduate will be able to construct and utilize simulations of combat and other processes that evolve in time, and will be able to deal with statistical issues associated with the need for replication.

6. ANALYSIS OF MILITARY OPERATIONS: The graduate will be familiar with U.S./allied and potential enemy capabilities, doctrine, tactical and logistical support concepts. The graduate will be able to model and analyze military operations using operations analysis techniques, and be able to develop new tactical concepts based on theory and exercise reconstruction and analysis.

7. SYSTEMS ANALYSIS: The graduate will understand the basic principles of systems analysis as a basis for making key decisions on force requirements, weapon systems, and other defense problems.

8. PRACTICE: The graduate will have gained experience working on all aspects of an analytical study, and will demonstrate the ability to conduct independent analytical studies and proficiency in presenting the results both orally and in writing.

APPENDIX C: NAVAL POSTGRADUATE SCHOOL HUMAN SYSTEMS INTEGRATION – 4600P EDUCATIONAL SKILL REQUIRMENTS (OCTOBER 2011) (NPS ACADEMIC CATALOG, 2011)

1. ANALYTICAL TECHNIQUES: Graduates will be able to perform tradeoff analysis across domains and other engineering disciplines, logistics, acquisition, and T&E, and to conduct empirical analysis within the domains of human systems integration. They will be able to apply, at the right place and at the right time, these analytical methods and tools in both field and laboratory settings within the context of the defense acquisition process.

2. MODELING and SIMULATION: Graduates will be able to apply Modeling and Simulation (M&S) techniques to explore HSI domain tradeoffs and tradeoffs within other engineering disciplines, logistics, acquisition, and T&E. They will demonstrate the ability to apply M&S techniques within and across the HSI domains to facilitate the development, T&E, operations, and sustainment of military systems.

3. HUMAN PERFORMANCE: HSI maintains that the human is a critical component in any complex system. Graduates will understand the basis of both individual and team performance in military settings including human information processing, perception, cognition, decision making, and motor control. Graduates will understand current theory and practice in assessing cognitive factors that affect human performance such as attention, memory, situation awareness, stress, fatigue, and motivation. Graduates will understand current scientific knowledge of factors affecting human performance and human error.

4. SYSTEMS APPROACH: Graduates will comprehend the principles and practices of the fields of PM, SE, and logistics, and T&E as related to the DoD Acquisition Lifecycle. Knowledge of HSI influences on PM, SE, and logistics, and T&E will enable graduates to positively influence the DoD Acquisition Lifecycle at appropriate times and in the right manner.

5. IMPLEMENTING HSI TRADEOFFS: Graduates will learn techniques to develop domain level trades, trades within other engineering disciplines, logistics, acquisition, and T&E, impacts, and risk assessments, and the ability to negotiate and communicate to both technical and non-technical audiences. Graduates will understand the political, organizational, social, and economic issues associated with integrating human-machine systems into organizational cultures and environments.

6. JOINT PROFESSIONAL MILITARY EDUCATION: Students will be encouraged to complete the Joint Professional Military Education (JPME) program. This sequence of courses develops an understanding of war fighting within the context of operational art. Topics include: national military capabilities and command structure, joint and service doctrine, joint planning and execution, and joint multinational forces and integration at the operational level of war. JPME includes coursework in war-gaming designed to develop an appreciation of the art of war.

APPENDIX D: NAVAL POSTGRADUATE SCHOOL FINANCIAL MANAGEMENT – 3111P EDUCATIONAL SKILL REQUIRMENTS (OCTOBER 2011) (NPS ACADEMIC CATALOG, 2011)

1. MANAGEMENT FUNDAMENTALS: The graduate will have the ability to apply quantitative techniques, accounting, economics, finance, organization theory, information technology, and other state-of-the-art management techniques and concepts to military management problems. Also, the graduate will know basic management theory and practice, embracing leadership, ethics, written and oral communication, organization design, team building, human resource management, conflict resolution, quality assurance, cost-benefit analysis, risk analysis, stakeholder analysis, and planning within military organizations, as well as military sub-units and activities. This ensures internal and external constituencies are considered in resource management.

2. STRATEGIC VISION AND DEFENSE BUDGETING: The graduate will understand the roles of the executive and legislative branches in strategic planning, setting federal fiscal policy, allocating resources to national defense, budget formulation, budget negotiation, budget justification, and budget execution strategies, including the principles of Federal Appropriations Law. In addition, the graduate will have knowledge of all aspects of the federal, Defense, and Navy budget cycles including the Planning, Programming, Budgeting, and Execution System with emphasis on budget formulation and execution.

3. FUNDS MANAGEMENT: In support of approved programs, the graduate will be able to manage appropriated, revolving, and non-appropriated funds in compliance with regulations of the Comptroller of the Navy and the federal government. Also, the graduate will be able to develop and review financial reports, analyze budget execution against operating and financial plans, develop alternate plans based on analyses of an activity's financial performance, and prepare recommendations or make decisions regarding the reallocation or

reprogramming of funds. The guidelines of the Defense Finance and Accounting System and the Federal Accounting Standards Advisory Board are relevant.

4. ACCOUNTABILITY, CONTROL, AND AUDITING: The graduate will be able to acquire and analyze financial data and communicate the results to a diverse audience, including maintaining an integrated financial information system and appropriate internal controls to ensure timely, accurate, and consistent financial information. In accordance with the auditing standards of the U.S. Government Accountability Office, the Defense and Navy audit organizations, and the professional standards of the American Institute of Certified Public Accountants, the graduate will learn to apply audit techniques that enforce sound internal accounting and administrative controls, safeguard defense assets, and assure the completeness and integrity of financial reports.

5. ACQUISITION AND PROGRAM MANAGEMENT: The graduate will understand the purpose and concepts, fundamentals and philosophies of the defense systems acquisition process, and the practical application of program management methods within this process. This includes systems acquisition management; the systems acquisition life cycle; user-producer acquisition management disciplines and activities; and program planning, organizing, staffing, directing, and controlling. This satisfies the Defense Acquisition University education equivalency requirements for defense acquisition professionals as specified in Congress' Defense Acquisition Workforce Improvement Act (DAWIA)

6. ECONOMY, EFFICIENCY, AND EFFECTIVENESS: The graduate will have the skills for solving complex and unstructured management problems in which alternatives must be identified, evaluated, and selected in accordance with economical procurement of resources, efficient utilization of resources, and effective accomplishment of overall Defense and Navy goals and objectives. This includes cost/benefit analysis, systems analysis, cost estimation, value engineering, business process reengineering, and application of relevant OMB and Defense regulations.

7. COST MANAGEMENT AND ANALYSIS: The graduate will be able to design, implement, and evaluate different costing systems encountered within Defense and Navy organizations and activities, as well as those found in private sector organizations conducting business with the federal government. In addition to private sector cost management policies and practices, the graduate will understand the application of Defense unit costing guidelines to functional business areas, and the Office of Management and Budget's Cost Accounting Standards for major suppliers of goods and services to the federal government.

8. STRATEGIC RESOURCE MANAGEMENT: The graduate will have knowledge of strategic vision and strategic core competency concepts for setting long-range goals and objectives; designing programs to achieve objectives; assigning individual responsibility for resource management, actions, and decision making; measuring performance; reporting results; and evaluating and rewarding performance. This includes assessing customer needs and customer satisfaction, making recommendations, and implementing improvements in the effective delivery of goods and services to customers or users.

9. INNOVATION AND CREATIVITY: The graduate will demonstrate innovation and creativity in developing solutions to complex financial, budget, and program management issues that increase program effectiveness and customer satisfaction, while controlling the efficient utilization of financial, physical, and human resources. This involves the ability to identify problems and potential concerns, providing leadership, and teaming with others in the decision making process, and obtaining support for recommended decisions or courses of action.

10. STRATEGY AND POLICY: Officers develop a graduate-level ability to think strategically, critically analyze past military campaigns, and apply historical lessons to future joint and combined operations, in order to discern the relationship between a nation's policies and goals and the ways military power may be used to achieve them.

Fulfilled by completing the first of the Naval War College series leading to Service Intermediate-level Professional Military Education (PME) and Phase I Joint PME credit.

APPENDIX E: NAVAL POSTGRADUATE SCHOOL INFORMATION SYSTEMS AND TECHNOLOGY – 6201P EDUCATIONAL SKILL REQUIRMENTS (OCTOBER 2011) (NPS ACADEMIC CATALOG, 2011)

1. STRATEGY AND POLICY: Graduates will develop an ability to think strategically, analyze past operations, and apply historical lessons to future joint and combined operations, in order to discern the relationship between a nation's political interests and goals and the ways military power may be used to achieve them. This requirement is fulfilled by completing the first of three Naval War College courses leading to Service Intermediate-level Professional Military Education (PME) and Phase I Joint PME credit. (Required only for USN and USMC students.)

2. SPACE, INFORMATION WARFARE AND COMMAND AND CONTROL PROFESSIONAL PRACTICES: The officer shall possess skills in the ISSO core subject areas of Science and Technology (Information Technology, Communications, Space, and Sensors), Analysis and Evaluation (Statistics, Operations Analysis, and System Evaluation), Operations Information Management and Systems (C2, C4ISR, Information Operations, and Acquisition Management).

3. SOFTWARE DEVELOPMENT: The officer must have a thorough knowledge of modern software development to include: an understanding of the software development process; the ability to plan and implement a major programming project and develop the appropriate documentation; the ability to utilize object-oriented techniques in system design; and the ability to use modern software development tools in the construction of modeling, virtual environment, and simulation systems.

4. INFORMATION SYSTEMS TECHNOLOGY: The officer must have a thorough knowledge of information systems technology to include: computer system components, computer networks, communication systems and networks, software engineering, database management systems, decision support and expert systems.

5. INFORMATION SYSTEMS ANALYSIS AND MANAGEMENT: The officer must master the following concepts to effectively manage information system assets: managerial concepts, evaluation of information systems, systems analysis and design, management of information systems, adapting to technological, organizational, and economic changes, and military use of commercial telecommunications systems.

6. MILITARY APPLICATIONS: The officer must be able to combine analytical methods and technical expertise with operational experience for effective military applications to include: DoD decision-making process on information systems, information technology acquisition management, DoD computer and telecommunications, C4ISR, and C2W.

7. INDEPENDENT RESEARCH: The graduate will demonstrate the ability to conduct independent research analysis, and proficiency in communicating the results in writing and orally by means of a thesis and a command-oriented briefing. The research in information technology and its management will include problem formulation, decision criteria specification, decision modeling, data collection and experimentation, analysis, and evaluation.

APPENDIX F: NAVY OFFICER BILLET CLASSIFICATIONS (NOBCS) REQUIRED BY MANPOWER SYSTEMS ANALYSIS - 3130P/Q BILLETS (NAVPERS 15839I, 2007)

3020 PROCUREMENT AND RECRUITING OFFICER [PRCM&RECRUIT]
Conducts procurement of civilian personnel for appointment to officer candidate or commissioned rank or enlistment into the naval service. Plans promotional programs to obtain required personnel. Applies procedures for enlistment and reenlistment, dependency benefits, travel allowances, and transportation of household effects. Provides tests and interviews. Arranges for investigation of officer candidate applicants. Recommends acceptance or rejection of officer candidate applicants and applicants for enlisted programs. As required, participates in casualty assistance call and decedent affairs programs.

3254 INSTRUCTOR, ACADEMIC (SOCIAL SCIENCE) [INST SOC SCI]
Develops, coordinates and instructs academic/professional education programs. Evaluates trainees' performance, maintains documentation and provides certification. Recommends improvement in curriculum.

3265 ADVANCED COMMAND AND STAFF SCHOOL INSTRUCTOR [ADV C&S INST]
Organizes courses and guides study of senior military and civilian personnel in advanced academic program. Plans and supervises individual student research and such group activities as committee studies, seminars, field trips and discussion groups. Evaluates curriculum content, recommending and supervising changes. Coordinates or conducts instruction in such areas of study as military-industrial planning and potential, national strategy and international relations, geo-political area studies and high-level strategic planning.

3320 HUMAN RESOURCE MANAGEMENT OFFICER [HRM]
Provides staff assistance to commanding officers and commanders in the coordination of people programs that are included in the Human Resource Management Program such as: drug and alcohol abuse and control, equal opportunity, overseas duty support, family support, recreation and physical fitness.

3943 MANPOWER PLANNING OFFICER [MPWR PLN]
Directs preparation of plans and procedures pertaining to Navy manpower requirements. Coordinates and reviews adjustments of manpower end-strengths. Ensures observance of authorized manpower ceiling. Assists in the determination of minimum quantitative and qualitative manpower requirements. Maintains liaison with commands, bureaus, offices, or activities engaged in programs or projects having manpower implications. Develops staffing criteria, guides and manning documents.

3950 PERSONNEL RESEARCH OFFICER [PERS RSCH
Performs or directs research in utilization of naval personnel. Conducts studies on qualification standards and billet requirements. Obtains, analyzes and evaluates information. Develops and maintains organizational structures, requirements and command management practices. Develops coding and classification structures. Prepares billet descriptions, reports and manuals for publication. Reports on relationship of naval billets with those of other armed services and civilian agencies. Maintains information on current personnel research practices.

3965 PERSONNEL/MANPOWER MANAGEMENT OFFICER [PERS/MPWR MGT
Conducts or directs personnel administration and/or manpower management of a naval activity. Reviews and evaluates the activity's Manpower Authorization, ensuring that manpower requirements are accurately stated and identified by current classification codes. As directed, prepares change requests. Supervises interview and assignment of personnel. Directs preparation of personnel rosters and strength reports. Effects personnel transfers and changes in assignment and initiates requests for replacements. Provides for discharges and reenlistments. Supervises maintenance of service records. Reconciles promotion actions with authorization.

3970 PERSONNEL PLANNING OFFICER [PERS PLN]
Participates in formulating plans for utilization of naval personnel. Initiates and develops plans to coordinate and control procurement, education and training, career motivation, promotion and release of all naval personnel. Monitors implementation of plans. Provides for distribution and support of augmenting forces during partial and full mobilization. Reviews proposed legislation affecting naval personnel and coordinates implementation of enacted legislation. Maintains liaison with other Department of Defense agencies in development of joint personnel plans.

3980 PERSONNEL PLANS AND POLICY CHIEF [PERS P&P CHIEF
Exercises overall and coordinating direction in formulation of policies, plans and procedures governing administration of offices of the Navy Department and assigned activities or other offices within the Department of Defense or international activities concerned with personnel functions such as procurement, education, training, discipline, promotion, distribution and separation of military and civilian personnel. Or immediately assists, as deputy chief, assistant chief, or special assistant, in such direction.

3981 PERSONNEL PLANS AND POLICY DIRECTOR [PERS P&P DIR]
Exercises planning and/or policy direction and control over particular phases of officer and enlisted personnel administration such as research, promotion,

distribution, recruiting, training, retention and career motivation. Or immediately assists, as assistant director or special assistant, in such direction and control.

3985 STAFF PERSONNEL OFFICER [STF PERS
Assists district commandant or fleet commander by directing naval and civilian personnel activities of command. Develops, evaluates and implements policies and plans relating to personnel activities. Directs preparation of command endorsements on personnel proposals. Coordinates work of distribution, discipline, training, welfare and other personnel divisions. Serves as Bureau of Naval Personnel representative in command. Inspects personnel activities to ensure compliance with policies. Organizes and participates in staff conferences on personnel matters.

9085 OPERATIONS ANALYST [OPS ANAL]
Conducts theoretical, statistical and simulator analyses of complex systems. Assists in determining basis for decisions regarding selection, employment and control of operations systems. Interprets results of fundamental operations research studies. Assists in design of fleet and operational evaluations of new equipment, weapons systems and tactics and in interpretation of results of evaluations. Assists in design, analysis and interpretation of results of fleet exercises.

9422COMMANDING OFFICER, NAVAL SHORE ACTIVITY (SELECTED) [CO SHR ACT SEL]
Commands, as a Commander, Commanding Officer, or other appropriate title, a shore activity or major component thereof in accordance with law, regulations and customs of the service. Develops organizational plan to fulfill assigned mission. Establishes policies and procedures for operation and functioning of activity. Inspects to ensure efficient operation and initiates corrective action. Exercises military control and provides technical guidance for command.

9436 EXECUTIVE OFFICER, SHORE ACTIVITY [XO SHR ACT]
Represents the commanding officer in maintaining military, professional, and general efficiency of a shore activity. Enforces activity's rules, regulations and policies as determined by commanding officer. Coordinates activities of department heads. Plans procedures for training and discipline. Directs emergency and routine fire, battle, air-raid and other drills. Establishes security, safety and police regulations. Supervises assignment of personnel.

9960 INSPECTOR GENERAL [IG]
Inspects, investigates, or inquiries into any and all matters of importance to the Department of Defense, Department of the Navy or major component thereof. Conducts inspections with particular emphasis on readiness, including but not limited to the effectiveness, efficiency and economy of afloat and shore-based commands. Makes appropriate reports and recommendations. Establishes

objectives for, and coordinates and monitors, inspection programs through appropriate commanders and supervisory authorities. Reviews and takes action on, as appropriate, reports from other inspection agencies.

APPENDIX G: NAVY OFFICER BILLET CLASSIFICATIONS (NOBCS) REQUIRED BY OPERATIONS ANALYSIS - 3210P/Q AND 3211P/Q BILLETS (NAVPERS 15839I, 2007)

1025 BUDGET OFFICER [BUDGET]
Plans and administers budget of naval activity. Secures budget requirements from operating units, analyzes estimates in accordance with prescribed policies, prepares activity budget estimates and justifications, and evaluates programs in terms of requests for appropriations. Establishes apportionments by projects or organization units. Conducts studies incident to obligation of appropriated funds. Interprets and prepares budgetary and fiscal legislation proposals. Controls obligations and expenditure of funds.

1050 COMPTROLLER [COMPTROLLER]
Directs formulation, justification and administration of fiscal and budgetary management policies, plans and procedures. Determines budget and fiscal control policies. Coordinates and approves allocation of funds to programs and organizational units. Develops reports on status of appropriations. Provides required data on utilization of labor, material and commercial services. Prescribes required methods for budget estimation, fiscal administration, and accounting. Exercises internal control over these systems through administrative and internal activities.

2163 MANAGER, DESIGNATED PROJECT FUNCTIONAL ELEMENT [MGR DPJ FE]
Serving as a key subordinate of, and responsible to, the designated project manager. Manages or contracts for a functional element of the project such as a major component of the project system or a major phase of the development, production and support cycle. May perform major on-site duties. Related Codes: NOBC - 1476; DOD Group - 1B Executives, N.E.C. NOTE - Restriction on use: In the identification of billets, this NOBC shall be applied only to billets in which the incumbent reports directly, or through the principal deputy, to the designated project manager.

2610 MANAGEMENT ANALYSIS AND CONTROL OFFICER [MGT ANAL CTL]
Directs and develops methods and procedures for improving operational efficiency and manpower utilization in naval activities, including ships and fleet staffs. Reviews activity objectives. Establishes job standards through time studies, analytical estimating, and synthesis. Studies personnel and material utilization. Develops improved work procedures. Prepares technical and administrative manuals, instructions and reports.

2612 MANAGEMENT INFORMATION SYSTEMS OFFICER [MGT INFO SYS]
Directs or assists in development and operation of Management Information and Control Systems of naval activity. Develops, evaluates, and implements programs to achieve optimum use of management sciences, ADP technology, and resources. Assists management in determination of information requirements. Serves as focal point and source of expert technical information pertaining to information systems planning, development, operation, and standardization. Ensures effective lateral transfer of information within activity.

3215 EDUCATION/TRAINING PLANNING AND PROGRAM OFFICER (GENERAL) [ED TRA PLN GEN]
Reviews naval plans and policies and prepares training and continuing education programs to meet requirements. Directs development of training curriculum, standards, methods, and educational materials. Formulates instructional procedures and maintains documentation. Prepares training program budget estimates and controls allocation of funds. Establishes standards for selection of students. Establishes school quotas. Coordinates programs with other facilities and agencies. Directs operation of educational or correspondence course center.

3943 MANPOWER PLANNING OFFICER [MPWR PLN]
Directs preparation of plans and procedures pertaining to Navy manpower requirements. Coordinates and reviews adjustments of manpower end-strengths. Ensures observance of authorized manpower ceiling. Assists in the determination of minimum quantitative and qualitative manpower requirements. Maintains liaison with commands, bureaus, offices, or activities engaged in programs or projects having manpower implications. Develops staffing criteria, guides and manning documents.

3950 PERSONNEL RESEARCH OFFICER [PERS RSCH]
Performs or directs research in utilization of naval personnel. Conducts studies on qualification standards and billet requirements. Obtains, analyzes and evaluates information. Develops and maintains organizational structures, requirements and command management practices. Develops coding and classification structures. Prepares billet descriptions, reports and manuals for publication. Reports on relationship of naval billets with those of other armed services and civilian agencies. Maintains information on current personnel research practices.

3965 PERSONNEL/MANPOWER MANAGEMENT OFFICER [PERS/MPWR MGT]
Conducts or directs personnel administration and/or manpower management of a naval activity. Reviews and evaluates the activity's Manpower Authorization, ensuring that manpower requirements are accurately stated and identified by current classification codes. As directed, prepares change requests. Supervises

interview and assignment of personnel. Directs preparation of personnel rosters and strength reports. Effects personnel transfers and changes in assignment and initiates requests for replacements. Provides for discharges and reenlistments. Supervises maintenance of service records. Reconciles promotion actions with authorization.

3970 PERSONNEL PLANNING OFFICER [PERS PLN]
Participates in formulating plans for utilization of naval personnel. Initiates and develops plans to coordinate and control procurement, education and training, career motivation, promotion and release of all naval personnel. Monitors implementation of plans. Provides for distribution and support of augmenting forces during partial and full mobilization. Reviews proposed legislation affecting naval personnel and coordinates implementation of enacted legislation. Maintains liaison with other Department of Defense agencies in development of joint personnel plans.

3980 PERSONNEL PLANS AND POLICY CHIEF [PERS P&P CHIEF]
Exercises overall and coordinating direction in formulation of policies, plans and procedures governing administration of offices of the Navy Department and assigned activities or other offices within the Department of Defense or international activities concerned with personnel functions such as procurement, education, training, discipline, promotion, distribution and separation of military and civilian personnel. Or immediately assists, as deputy chief, assistant chief, or special assistant, in such direction.

3981 PERSONNEL PLANS AND POLICY DIRECTOR [PERS P&P DIR]
Exercises planning and/or policy direction and control over particular phases of officer and enlisted personnel administration such as research, promotion, distribution, recruiting, training, retention and career motivation. Or immediately assists, as assistant director or special assistant, in such direction and control.

9930 EXECUTIVE ASSISTANT [EXEC ASST]
Coordinates activities of staff assistants to a senior civilian (secretarial level) or military official. Organizes, plans and controls administrative matters, ensuring submission of completed staff work to the official. Serves as principal contact point for the official and controls appointments. Advises and assists the superior in consideration of policies and problems. Provides answers to inquiries of policy and non-policy nature when superior's views are known. Performs liaison with other offices.

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APPENDIX H: NAVY OFFICER BILLET CLASSIFICATIONS (NOBCS) REQUIRED BY HUMAN SYSTEMS INTEGRATION - 4600P/Q BILLETS (NAVPERS 15839I, 2007)

3943 MANPOWER PLANNING OFFICER [MPWR PLN]
Directs preparation of plans and procedures pertaining to Navy manpower requirements. Coordinates and reviews adjustments of manpower end-strengths. Ensures observance of authorized manpower ceiling. Assists in the determination of minimum quantitative and qualitative manpower requirements. Maintains liaison with commands, bureaus, offices, or activities engaged in programs or projects having manpower implications. Develops staffing criteria, guides and manning documents.

3950 PERSONNEL RESEARCH OFFICER [PERS RSCH]
Performs or directs research in utilization of naval personnel. Conducts studies on qualification standards and billet requirements. Obtains, analyzes and evaluates information. Develops and maintains organizational structures, requirements and command management practices. Develops coding and classification structures. Prepares billet descriptions, reports and manuals for publication. Reports on relationship of naval billets with those of other armed services and civilian agencies. Maintains information on current personnel research practices.

3965 PERSONNEL/MANPOWER MANAGEMENT OFFICER [PERS/MPWR MGT]
Conducts or directs personnel administration and/or manpower management of a naval activity. Reviews and evaluates the activity's Manpower Authorization, ensuring that manpower requirements are accurately stated and identified by current classification codes. As directed, prepares change requests. Supervises interview and assignment of personnel. Directs preparation of personnel rosters and strength reports. Effects personnel transfers and changes in assignment and initiates requests for replacements. Provides for discharges and reenlistments. Supervises maintenance of service records. Reconciles promotion actions with authorization.

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APPENDIX I: NAVY OFFICER BILLET CLASSIFICATIONS (NOBCS) REQUIRED BY FINANCIAL MANAGEMENT - 3111P/Q BILLETS (NAVPERS 15839I, 2007)

1025 BUDGET OFFICER [BUDGET]
Plans and administers budget of naval activity. Secures budget requirements from operating units, analyzes estimates in accordance with prescribed policies, prepares activity budget estimates and justifications, and evaluates programs in terms of requests for appropriations. Establishes apportionments by projects or organization units. Conducts studies incident to obligation of appropriated funds. Interprets and prepares budgetary and fiscal legislation proposals. Controls obligations and expenditure of funds.

1050 COMPTROLLER [COMPTROLLER]
Directs formulation, justification and administration of fiscal and budgetary management policies, plans and procedures. Determines budget and fiscal control policies. Coordinates and approves allocation of funds to programs and organizational units. Develops reports on status of appropriations. Provides required data on utilization of labor, material and commercial services. Prescribes required methods for budget estimation, fiscal administration, and accounting. Exercises internal control over these systems through administrative and internal activities.

9930 EXECUTIVE ASSISTANT [EXEC ASST]
Coordinates activities of staff assistants to a senior civilian (secretarial level) or military official. Organizes, plans and controls administrative matters, ensuring submission of completed staff work to the official. Serves as principal contact point for the official and controls appointments. Advises and assists the superior in consideration of policies and problems. Provides answers to inquiries of policy and non-policy nature when superior's views are known. Performs liaison with other offices.

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APPENDIX J: NAVY OFFICER BILLET CLASSIFICATIONS (NOBCS) REQUIRED BY INFORMATION SYSTEMS AND TECHNOLOGY - 6201P/Q BILLETS (NAVPERS 15839I, 2007)

2163 MANAGER, DESIGNATED PROJECT FUNCTIONAL ELEMENT [MGR DPJ FE]
Serving as a key subordinate of, and responsible to, the designated project manager. Manages or contracts for a functional element of the project such as a major component of the project system or a major phase of the development, production and support cycle. May perform major on-site duties. Related Codes: NOBC - 1476; DOD Group - 1B Executives, N.E.C. NOTE - Restriction on use: In the identification of billets, this NOBC shall be applied only to billets in which the incumbent reports directly, or through the principal deputy, to the designated project manager.

2612 MANAGEMENT INFORMATION SYSTEMS OFFICER [MGT INFO SYS]
Directs or assists in development and operation of Management Information and Control Systems of naval activity. Develops, evaluates, and implements programs to achieve optimum use of management sciences, ADP technology, and resources. Assists management in determination of information requirements. Serves as focal point and source of expert technical information pertaining to information systems planning, development, operation, and standardization. Ensures effective lateral transfer of information within activity.

9745 ADP SYSTEMS MAINTENANCE OFFICER [ADP SYS MNT]
Directs installation, maintenance and repair of automatic data processing equipment or tactical data systems equipment, including peripheral equipment. Determines maintenance action required. Oversees required maintenance history reports and maintenance program routines. Suggests program changes. Supervises acquisition of ADP equipment. Maintains liaison with systems manufacturer representatives.

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APPENDIX K: HUMAN RESOURCES AC/FTS OFFICER BILLET LIST, ABBREVIATED TO ONLY NPS CURRICULUM BASED SSP CODES (BUPERS, 2011)

SNAME	RANK	DESIG	NOBC	NOBC2	SUBSPEC A	SUBSPEC B
OSD	CAPT	1200	9930	1025	3111P	
CNRF NORVA	CDR	1207	1025		3111P	
CNRF NORVA	LCDR	1200	1025		3111P	
OPNAV/RPN	CDR	1207	1025		3111P	
DNS RPN	CDR	1207	1050	1025	3111P	
DNS RPN	LCDR	1200	1050	1025	3111P	
CNPC RESERVE SUP	LCDR	1207	1025		3111Q	
PEO EIS WASH DC	LT	1200	3970		3130B	
PEO EIS WASH DC	LCDR	1200	3970		3130B	
CHNPERSUP WASHDC	LCDR	1200	3943		3130B	
OPNAV	LT	1200	3943		3130P	3111S
OPNAV	CDR	1207	9085		3130P	
NAVSEASYSCOM	CAPT	1200	3965		3130P	
CNRSW	CDR	1200	3965		3130P	
CNRSW	LT	1200	3965		3130P	
CNRSW	LT	1207	3965		3130P	
COMLCSRON ONE	LT	1200	3320		3130P	
ASN MRA	LCDR	1200	3980		3130P	
ASN MRA	CDR	1200	3943		3130P	
ASN MRA	CDR	1200	3981		3130P	
CHNPERSUP WASHDC	LT	1200	3970		3130P	3211S
CHNPERSUP WASHDC	LCDR	1200	3970		3130P	3211S
CHNPERSUP WASHDC	CDR	1207	3943		3130P	
CHNPERSUP WASHDC	CDR	1200	3943		3130P	
CHNPERSUP WASHDC	CDR	1200	3970	3950	3130P	
CHNPERSUP WASHDC	LCDR	1200	3970		3130P	
CHNPERSUP WASHDC	LCDR	1207	3970		3130P	
SSC SD NON NWCF	LCDR	1207	3965		3130P	
NRL SUP DET WASH	LT	1200	3965	2615	3130P	
PMO MILLINGTON	CDR	1200	3970		3130P	
PMO MILLINGTON	LT	1200	3970		3130P	
CNAVPERSCOM MILL	CAPT	1200	3970		3130P	
CNAVPERSCOM MILL	LCDR	1200	3970		3130P	
NAVMAC MILLINGTN	CAPT	1200	9422		3130P	

SNAME	RANK	DESIG	NOBC	NOBC2	SUBSPEC A	SUBSPEC B
NAVMAC MILLINGTN	CDR	1200	9436		3130P	
NAVMAC MILLINGTN	LCDR	1200	3943		3130P	
NAVMAC MILLINGTN	LT	1207	3943		3130P	
CNRC MILL TN	CAPT	1200	3020		3130P	
OPNAV	CDR	1200	3970		3130Q	3111S
COMPACFLT	CAPT	1200	3985		3130Q	
SOCCENT SEA	CDR	1200	3965		3130Q	
CHNPERSUP WASHDC	CDR	1200	3970		3130Q	3211S
NAVINSGEN WASHDC	CDR	1200	9960		3130Q	
COMNAVSURFPAC	CDR	1200	3943		3130Q	
COMNAVSURFPAC	CDR	1200	3981	3125	3130Q	
PG SCH MONTEREY	CDR	1207	3254		3130Q	
AWCOL CARLISLE	CDR	1200	3265	3270	3130Q	
JCS WASH DC	CAPT	1200	3943		3130Q	
CNRF NORVA RPN	CAPT	1207	3980		3130Q	
NPRST MILL TN	CAPT	1200	3950		3130Q	
NETC HQ NORFOLK	LCDR	1200	2610		3210P	
OPNAV	LCDR	1200	3981		3211B	3130S
MILCOMMGT MILL	CDR	1200	3970	3950	3211B	
OPNAV	LCDR	1200	1025		3211P	
OPNAV	CDR	1200	3215		3211P	
CNRC DET ARL	LCDR	1207	3970		3211P	
CHNPERSUP WASHDC	LCDR	1200	3970		3211P	3130S
CHNPERSUP WASHDC	LCDR	1200	3980		3211P	
CNRF STF DET	CDR	1207	3965		3211P	
CNRF STF DET	LCDR	1207	3965		3211P	
PG SCH MONTEREY	CDR	1200	3215		3211P	
CNAVPERSCOM MILL	LCDR	1200	2612	3127	3211P	
NAVMAC MILLINGTN	LCDR	1200	3943		3211P	
CNRC MILL TN	CDR	1200	3970		3211P	
CNRC MILL TN	LT	1200	3970		3211P	
CNRC MILL TN	LCDR	1207	3970		3211P	
NPRST MILL TN	LCDR	1200	3950		3211P	
NPRST MILL TN	LCDR	1200	3950		3211P	
OPNAV	CDR	1200	3943		3211Q	3111S
OPNAV	LCDR	1207	1050		3211Q	3111S
OPNAV	CAPT	1200	3950		3211Q	3130R
PEO EIS WASH DC	CDR	1200	2163		3211Q	6202S
CHNPERSUP WASHDC	CDR	1207	9930		3211Q	

SNAME	RANK	DESIG	NOBC	NOBC2	SUBSPEC A	SUBSPEC B
CHNPERSUP WASHDC	CAPT	1200	3943		3211Q	3111S
CHNPERSUP WASHDC	CDR	1200	3981	3943	3211Q	3130R
CHNPERSUP WASHDC	CDR	1207	3970		3211Q	3130S
COMSC W DC WCF	LCDR	1200	3943		4600P	
CHNPERSUP WASHDC	LCDR	1207	3950		4600P	
CHNPERSUP WASHDC	LCDR	1200	3950		4600P	
JTREG MARIANAS	CAPT	1200	3965		4600P	
BUPERS MILL TN	LCDR	1200	2612		6201P	
PEO EIS WASH DC	CDR	1207	2163		6201P	
CNPC RESERVE SUP	LCDR	1207	9745		6201P	
CNRFC NORVA	LCDR	1200	2612		6201P	
OSD DET RPN	CDR	1207	2612		6201P	
CNRF STF DET	CDR	1207	2612	9970	6201P	
CNRF STF DET	CDR	1207	2612	9970	6201P	
CNRF STF DET	CDR	1200	2612	9970	6201P	
CNRF STF DET	CAPT	1207	2612	9980	6201Q	
CNRC MILL TN	CAPT	1207	2612		6201Q	

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