

Navy Space Cadre Human Capital Strategy



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To ensure the needed talent and experience, the Department of Defense, the Intelligence Community and the nation as a whole must place high priority on intensifying investments in career development, education, and training to develop and sustain a cadre of highly competent and motivated military and civilian space professionals.

Space Commission Report, 2001

Introduction

In the face of new and evolving threats to National Security, Navy's executive leaders and commanders at all levels need to understand the use of and exploitation derived from the full potential of space capabilities. Naval Power 21's FORCEnet concept will deliver the full promise of network-centric warfare with full integration of technical capabilities derived from new communications links, computer-processing techniques, and miniaturized electronics that provide the Navy global connectivity, powerful sensors, and weapons with precision and lethality. The Naval War College's Strategic Studies Group defined FORCEnet as "the operational construct and architectural framework for naval warfare in the information age that integrates warriors, sensors, networks, command and control, platforms, and weapons into a networked, distributed combat force that is scalable across all levels of conflict from seabed to space and sea to land." Space is an integral piece of Naval Power 21 and FORCEnet that requires a highly integrated force capable of working in a joint and coalition environment, and going it alone when necessary. The Navy is so dependant on space as a medium which all information flows across that commander's must fully understand how to utilize it for strategic, operational, and tactical advantage, as well as how it can be exploited by adversaries. Space savvy warriors must be fully integrated into all operations to optimize space assets today and in the future.

Since space plays such a pivotal role in the transformation of modern warfare, the Navy needs to position itself in order to drive its maritime requirements into space capability and procurement decisions. Integration of space into the fleet is not a single threaded process. It requires full participation in all facets of space including concepts and requirements, research, development, acquisition, and operations. It means engaging and participating in those forums that influence policy, planning next generation space systems, and exploiting our current systems. It means the teams that build next generation aircraft carriers must have space expertise so that intelligent use of space is built in from the start. It means that Sailors must be space savvy, so that they can make the most of space capabilities, and help guide new means of exploiting space. Successful application of space in the Navy translates to a healthy and robust Navy Space Cadre.

Proper management and placement of Navy Space Cadre personnel will allow the Navy to gain a huge return on investment and leverage more than \$12B per year spent on unclassified space systems by the Air Force and other services. The Navy's Space Cadre cross-designator community offers critical contributions to this task by providing leadership and technical expertise in Assessment, Requirements, Science & Technology (S&T)/ Research & Development (R&D), Acquisition, and Operations of Space Systems to enable warfighters to achieve combat victory. By grooming talented, educated, and operationally

proven people to assume key decision making positions in space, the Space Cadre cross-designator community enables warfighters to succeed across the spectrum of conflict.

“Our goal remains attracting, developing, and retaining the more highly skilled and educated workforce of warriors that will lead the 21st Century Navy.”

Admiral Vern Clark, CNO Guidance for 2004

Navy Space Cadre – Essential to Deployed Operations

The U.S. Navy needs a Space Cadre to understand and exploit space technologies, to know the “art of the possible,” and to enable Navy to influence the design of future space systems to solve critical warfighting gaps.

The capabilities that space-based systems deliver are the foundation for the full spectrum of Navy operations – from basic activities like communications, navigation and timing to complicated strike planning, weapons delivery and battle damage assessment. As the technology involved in space based systems becomes more complicated, it is imperative that the Navy have operationally proven personnel assessing, planning, developing, acquiring, operating, and utilizing space systems to ensure that these systems are tactically relevant and solve naval warfighting gaps.

Additionally, the DoN Policy on Space (SECNAVINST 5400.39C) directs that “the Navy must maintain the ability to tactically exploit the capabilities provided by space systems, participate in all appropriate aspects of the NSS environment and invest resources to ensure that naval forces receive the maximum benefit of space-based capabilities. To achieve its space goals, the DoN must recruit, educate, qualify, and retain a professional Space Cadre.”

Purpose, Mission, and Goals

“The purpose of a Human Capital Strategy is to support and complement larger corporate objectives, provide enterprise wide direction and informed oversight which will result in desired outcomes while avoiding unintended consequences.”

Space Cadre HCS Purpose

This HCS supports and complements the NSS’s Human Capital Resource Strategy (HCRS) dated February 2004 and the DoN HCS dated June 2004. The objective of the Space Cadre HCS is to groom and shape the workforce to fill major decision-making positions across the Navy, Joint, and National Security Space assessment, requirements, science & technology/research & development, acquisition, and operational arena in order to maximize return on investment in meeting evolving Naval requirements.

Space Cadre Mission

The mission of the Navy’s Space Cadre is to provide leadership and technical expertise in assessments, requirements, science & technology (S&T)/ research & development (R&D); acquisition; and operations of space systems to influence the design of future systems to

solve Naval warfighting gaps, and to maximize the capabilities of today's space systems in order to achieve decisive combat operations. In its chartering foundations, the need for a Navy Space Cadre was described as follows:

"The DoN's success in obtaining force enhancement from space depends on the skill and dedication of the military and civilian personnel who form its Space Cadre."

Smith Panel Report, March 2002

In the acquisition of new space systems and leveraging existing technologies, the Space Cadre brings operational experience to provide professional management and technical direction in the entire space system acquisition process. Members of the Space Cadre leverage their operational experience and formal education to ensure space systems are tactically relevant to maritime missions.

Space Cadre Membership

Space Cadre members are URL and RL Officers including Aerospace Engineering Duty (AED), Engineering Duty (ED), Information Professional (IP), Intelligence (Intel), Cryptologic (Cryp), and Meteorology (METOC) Officers (active duty and reserve), space experienced Enlisted personnel (active duty and Reserve), and space experienced/educated civilians. Space Cadre members are horizontally integrated across many designators, Navy Enlisted Classification (NEC) and Navy Officer Billet Classification (NOBC) codes, and civilian series codes in the Navy. The Space Cadre is NOT a new designator or a new career path. Members flow into and out of their primary career path and space oriented billets, as appropriate, in order to ensure that they remain competitive for promotion in their primary career field. As a result, the members bring their Fleet experience to bear when developing assessments, requirements, planning, operations, and acquisition of space systems. Conversely, they also bring their space experience/knowledge back to Fleet operations to assist warfighters' use of space to achieve warfighting effects and to leverage the capabilities of today's space systems in order to achieve decisive combat operations.

Objectives

The following are objectives for Space Cadre leaders, necessary to achieve the specific goals listed below:

- Provide committed **leadership**
- Establish and maintain sound **policy**
- Create and maintain a solid **education and training** framework
- Collect the **data** necessary to manage the Space Cadre cross-designator community
- Determine the human capital (manpower) **requirements** necessary to meet the Space Cadre's missions and objectives
- Maintain quality teams and improve processes to **manage** the Space Cadre cross-designator community
- Apply **best practices**

Current Status of the Navy Space Cadre Inventory

Currently, the Space Cadre cross-designator community is made up of 547 Navy officers across several manpower claimants and comprises less than 1% of the Navy's officer community strength of 54,732 officers. It is integrated throughout the fleet, several joint units, and several combined agency units. A mechanism to accurately identify and track active duty enlisted, all reserves, and civilian employees with space experience and qualifications is under development. A detailed breakdown of all officer ranks and designators can be found in Appendix A.

Active Duty Officers

The existing Navy Space Cadre billets must be validated to ensure that they meet Space Cadre requirements. This validation will help define an effective and efficient Space Cadre workforce shape in order to meet the Navy's Sea Power 21 objectives. Members are tracked via the Additional Qualification Designators (AQD) VS1, VS2, VS3, and VS4. The definition of these AQDs is as follows:

VS1 (Recruit) = Officer who has received a Space Certificate from the Naval Postgraduate School or an equivalent institution.

VS2 (Apprentice) = Officer who has a space-related bachelors degree from an accredited institution or has 18 or more months of experience in a space-related billet.

VS3 (Journeyman) = Officer who has a space-related masters degree from an accredited institution, has proven experience (more than one tour of 18 or more months of experience) in a space related billet; or a space-related bachelors degree from an accredited institute plus 18 or more months of experience in a space-related billet.

VS4 (Expert) = Officer who has a space-related masters or doctorate degree from an accredited institution and has proven experience of at least 18 months in a space-related billet.

Reserve Officers

Although the Navy has identified 54 potential Reserve Officer Space Cadre members based on 4 NOBCs, there has not yet been a formal process put into place to identify, track, access, and utilize these individuals. Commander Reserve Space and Network Warfare Program (SNWP – Program 18) is responsible for sponsoring the reserve officer and enlisted component of the Navy Space Cadre, managing space-related NOBCs, and supporting the Navy Space Team in accordance with Commander Reserve Forces Command Instruction 5450.2 dated 20 May 2003. An Integrated Project Team (IPT) has been formed to develop and refine the processes to identify, track, access, and integrate the reserve component with the active Space Cadre by September 2005.

Active Duty Enlisted

Although the Navy has identified 1,687 potential active duty Enlisted Space Cadre members based on 17 space related NECs, there has not yet been a formal process put in place to identify, track, access, and reutilize these individuals. An IPT has been formed to develop these processes with completion and formalization of these processes by September 2005.

Reserve Enlisted

The Navy has not yet been able to identify its Reserve Enlisted Space Cadre members. However, an IPT has been formed to develop these processes with completion and formalization of these processes by September 2005.

Navy Civilians

Although the Navy has identified potentially 123 Navy Civilian Space Cadre members, there has not yet been a formal process put into place to identify, track, access, and promote these individuals. An IPT has been formed to develop these processes with completion and formalization of these processes by September 2005.

Promotions

Steps have been taken to ensure that the expertise of today's Space Cadre members can be recaptured in future job assignments. The need to retain a healthy and robust Navy Space Cadre required space specific language and information be provided to statutory boards because Space Cadre members may take jobs that are different from their community's traditional career paths. In addition, AQD's have been added to all Space Cadre members' records to help boards identify Space Cadre members.

Since the Space Cadre crosses multiple designators, there is no Officer Program Authorization (OPA) or Enlisted Program Authorization (EPA) associated with this community. Therefore, promotion flow points cannot be managed from N1 through the use of DoD Flow Point Guidelines. These promotion flow points must be managed by each of the Space Cadre member's parent communities.

Compensation

As this HCS is implemented, the full spectrum of Space Cadre members, including skill set development, will be evaluated for use of N1 force shaping tools to assess the need for special compensation in order to provide a qualified workforce able to meet the needs of the Navy, National Security Space, and Joint Program Offices.

Navy Space Cadre Billets "As Is"

The Navy Space Cadre is a distinct body of expertise horizontally and vertically integrated within the Navy's active duty, reserve, and civilian employee communities organized to "operationalize" space.

Core Competencies

The Space Cadre community analyzes, designs, develops, acquires, and operates space systems, develops associated plans and policy and utilizes these products to ensure combat effectiveness of Naval forces. The community supports the entire life cycle of the Navy's and NSS space systems. Therefore, the Space Cadre cross-designator community has focused its expertise in five core competency areas: Assessment, Requirements, S&T/R&D, Acquisition, and Operations. They also help commanders understand space capabilities and optimize the use of space in all aspects of Naval warfare.

Critical Billets

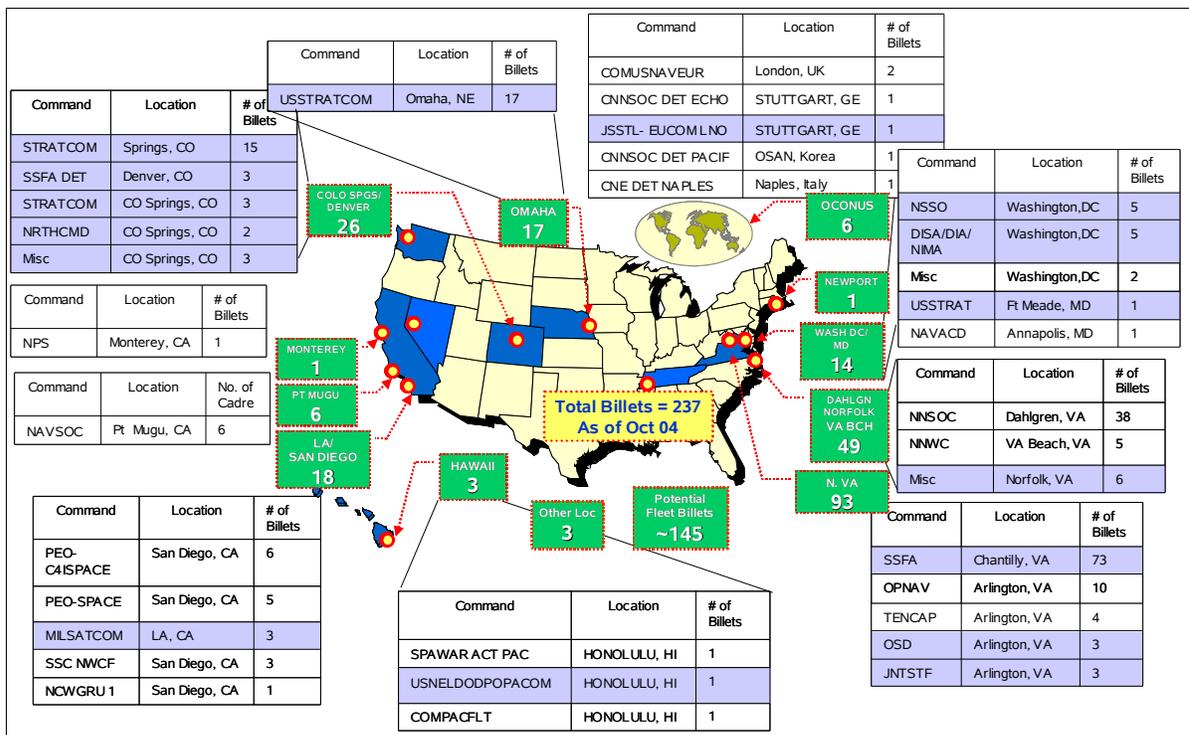
To date, critical space billets have not been identified. These billets will be identified in the near future.

Current Billets

To date, there are 250 space-funded billets across many resource sponsors within various Navy, DoD, and Agency manpower claimants. These billets are coded by designator [Unrestricted Line (URL) or Restricted Line (RL)], and then by space AQD (VS1, VS2, VS3, or VS4) or space subspecialty (5500 or 6206). The AQD's will be tied to a future Sea Warrior's Space Cadre 5VM. Each designator community manages its Space Cadre billets with input from the Space Cadre Advisor. Billets are based on current information extracted from the Total Force Manpower Management System (TFMMS) and the Officer Master File (OMF). Individual activities are responsible for keeping the information accurate. The bulk of Space Cadre billets are shore based and are located at SPAWARSYSCOM, SPAWAR Space Field Activity, USSTRATCOM, OPNAV and NAVNETSPACOPSCOM. The Space Cadre Advisor and Fleet Forces Command are working towards assigning an additional 145 afloat billets with a space subspecialty code. Additionally, the current billet structure could change in the near future as the Deputy Chief of Naval Operations (DCNO) for Manpower and Personnel (N1) is revalidating all subspecialty codes via a Zero Baseline Review (ZBR), due to be completed in December 2004.

Current Billet Locations

The Space Cadre billets are depicted in Figure 1.



Space Cadre Goals

The Navy's Space Policy as set forth in SECNAVINST 5400.39C, directs (1) integration of the essential capabilities provided by space systems at every appropriate level throughout the naval force and, (2) shaping the outcome of Joint deliberations on future space system capabilities to ensure the combat effectiveness of naval forces. In order to accomplish this, the Space Cadre has set the following goals:

- Optimize the force structure in order to meet Fleet acquisition and operational requirements
- Align the Space Cadre with CNO Goals, the Navy's overall HCS, Sea Power 21, and Joint Vision 2020
- Craft the training and education of the Space Cadre to ensure that the labor force contains the right skill sets to meet future manning needs
- Provide incentives, advancement opportunities, meaningful mission-relevant work, opportunity to compete for key jobs, and
- Gain senior leadership support throughout the Navy

End State

The desired end state is a Navy community of space professionals with the depth and breadth of training, education, experience, and vision required to lead, manage, and direct the Navy's space programs. This community of space professionals includes Reserve and Active Duty Officer and Enlisted personnel as well as Navy Civilian members. The community will be shaped to maximize return on investment and leverage other Services' centers of gravity to provide the most effective workforce, which will meet the Navy's needs

and requirements for space systems and their products. The Space Cadre will strive to maintain an inventory of personnel with the proper skill sets, education, and experience to fill all required billets. This mix will be determined after further assessment of Navy requirements and shortfalls.

Figure 2 below describes the link between each of the functional areas in which the Navy Space Cadre has inventory/billets and the services each area delivers. This end-to-end process ensures that needed capability is delivered to the warfighter.

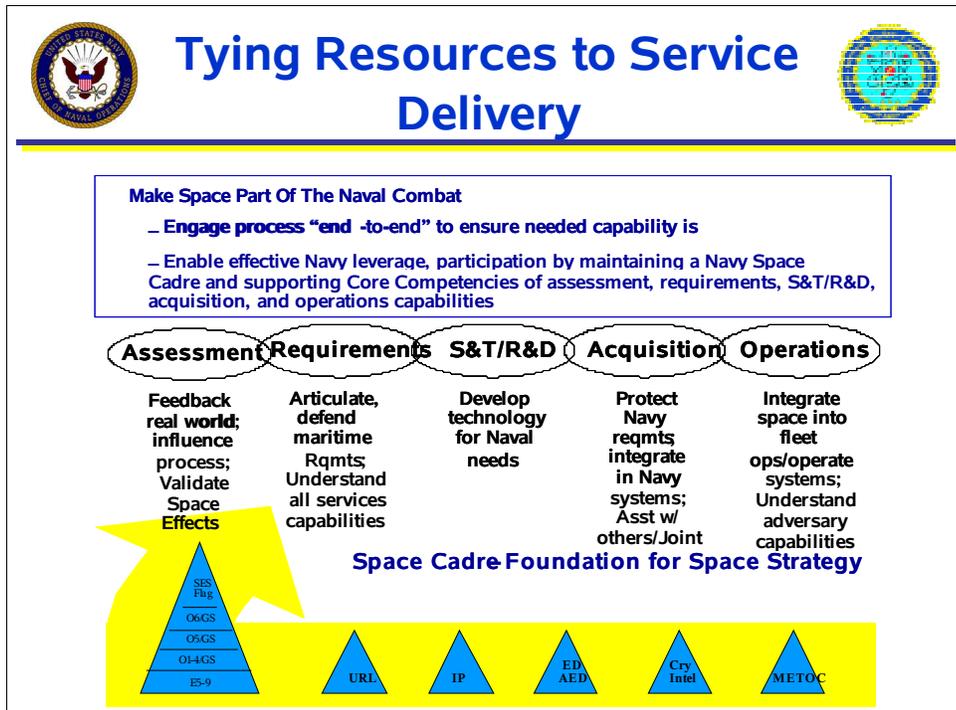
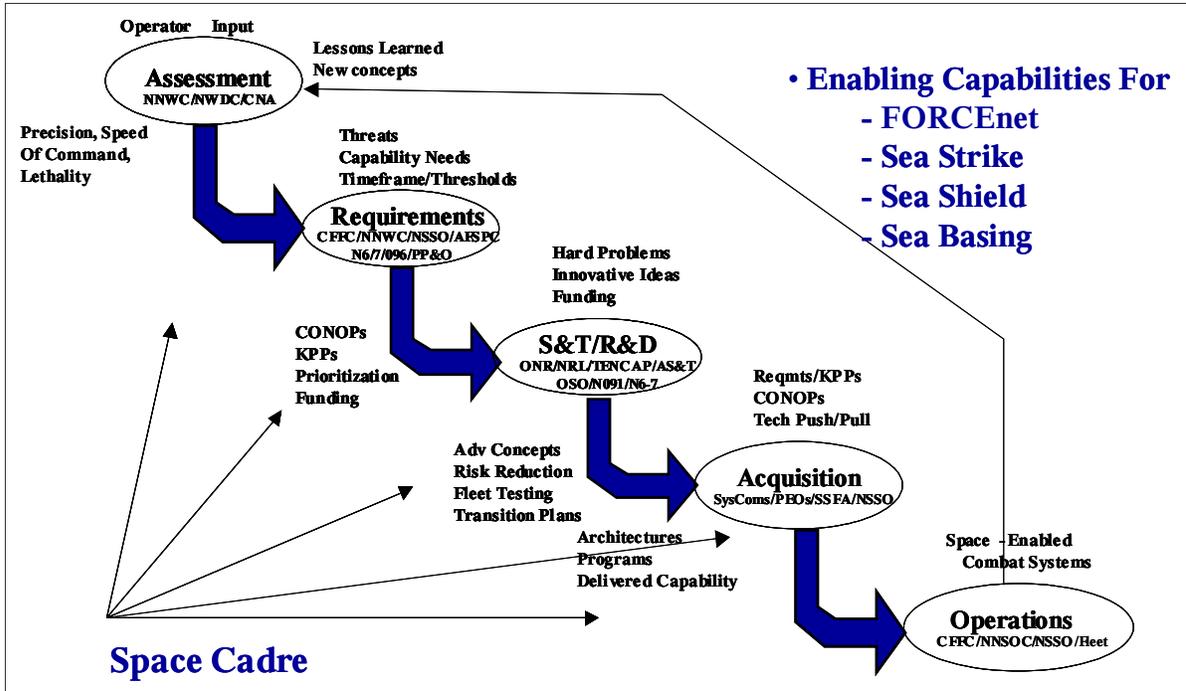


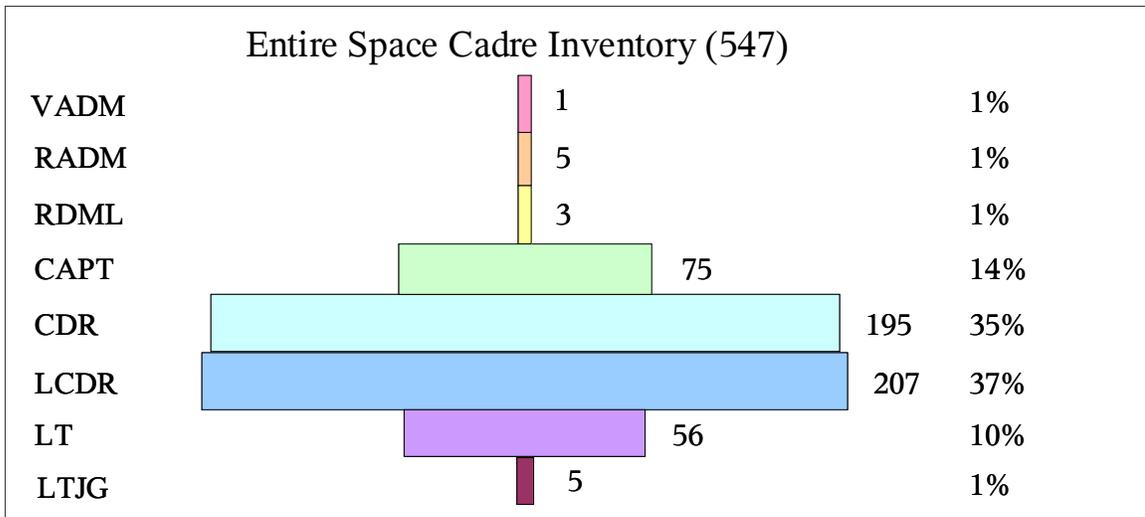
Figure 2. Space System’s Core Competencies Which Ties Resources to Service Delivery

The Navy’s Space Cadre is an operationally focused workforce designed to provide the warfighter with an asymmetrical advantage and protect our assets from being exploited by our adversaries. In order to maintain a balanced workforce in all the various functional areas addressed in Figure 3, there is a need to maintain a space-smart Navy cadre. A knowledgeable, well-placed Space Cadre is crucial to a Navy requirements assessment of space solutions to warfighting gaps across the four pillars of Sea Power 21 and feeds into requirement identification (NCDP, Key Performance Parameters [KPPs], Joint Capabilities Integration and Development System [JCIDS], Prioritization, Funding, etc.). Once capability gaps are identified, prioritized, and transmitted to the DoD Executive Agent (EA) for Space, research & development of future technologies and advanced concepts to meet those needs can begin. Eventually, these capabilities are resourced and planned for in the Planning Programming Budget and Execution (PPBE) process. This will result in acquisition and fielding of space systems and payloads that maximize the effects of space on the naval campaign. Shortfalls in the desired effects of space-based capabilities can be used to determine new needs/requirements, which can be fed back into the assessment phase. This is visually depicted in Figure 3 below.



Human Capital Architecture

Figure 4 below is a graphic representation of the current Space Cadre inventory. Details for each of the Space Cadre officer's designators can be found in APPENDIX A. The numbers directly to the right of each pay grade's rectangle represent the number of members. The percentage to the far right column is the percentage of the overall cadre in that rank. Today, there are 547 identified members with an additional 149 potential new members currently serving in space coded billets who may be designated as Space Cadre upon completion of time in billet requirements.



Requirements Determination

There has not been a formal determination of end-to-end Space Cadre requirements. In 2003, Dr. Bruce Wald of the Center for Naval Analysis (CNA) completed a study on the Navy's Space solutions to warfighting gaps, known as the "Wald Study". This study may have implications for the future Space Cadre. Currently, the DoD spends more than \$12B per year on unclassified space systems. The Navy contributes only \$1B per year, less than 8 percent of the total. By proper utilization and placement of Navy Space Cadre members, the Navy can leverage their Space Cadre to benefit from other services' fiscal resource contributions.

The Strategy

Strategy Statement

The Space Cadre Advisor will facilitate the development and maintenance of a pool of qualified space professionals who possess the depth and breadth of training, education, and expertise required to advance the use of Navy and National space systems. Additionally, the Space Cadre Advisor will transform future Navy strategies and tactics by strategically managing and guiding investments in the Space Cadre professional development activities. This strategy will be implemented immediately and updated on an annual basis.

Objectives

Policy

Develop, implement, and assess Space Cadre professional development policies and practices.

Education and Training

- Establish a common baseline of knowledge and expertise for all core competencies within the Space Cadre
- Align Navy Space Cadre educational requirements with NSS educational requirements established by the Space Professional Oversight Board (SPOB) whose charter is to serve as the Space Programs Joint Oversight Board required by the Memorandum of Agreement Forming an Educational Alliance Between the Department of the Navy and the Department of the Air Force
- Determine the type and number of graduate education requirements necessary to support Space Cadre mission objectives
- Establish reporting requirements for highlighting graduate education quota fills in sufficient time to remediate education shortfalls within the current execution year
- Work with other DoD Services to eliminate unnecessary redundancies, or overlaps in training and education
- Eliminate any critical gaps in training and education
- Arrange for use of Joint education and training programs

Data Collection

- Collect data on the following subjects
 - Designated Space Cadre positions
 - Space Cadre member Subspecialty Codes (SSCs) and AQDs
 - Personnel availability projections
 - Promotion rates by designator of Space Cadre qualified individuals
 - Requirements in terms of skills, competencies, education, and experience for Space Cadre positions
 - Critical position vacancies
 - Assessment of utilization of space qualified vs. unqualified personnel in space coded billets

Management

- Create a human capital management team consisting of the Space Cadre Functional Authority, Space Cadre Advisor, Community Managers and Detailers of all participating designators, and senior Space Cadre Flag Officers in SPAWAR, OPNAV, NNWC, etc.
- Assess
 - Navy needs
 - Skill and competency gaps
 - Adequacy of available pipelines to fill programmed needs
- Create management processes to meet future programmatic needs and ensure organizations have the right people, with the right skills, doing the right jobs, in the right place, at the right time
 - Identify and selectively man “critical” billets
 - Establish a baseline certification process

Costs

The current Fiscal Year Defense Program (FYDP) includes money to manage the community, which includes 2 O-5 Billets, contract support, travel and training, etc. The budget for the FY-06 FYDP is \$5.5M. Furthermore, in considering the highly technical knowledge of the average Space Cadre members, the average annual salary cost per member in a space-coded billet is \$110.7K (This number was derived from current Navy program composite rates.). Taking into account the average number of billets is approximately 250, the community's cost is approximately **\$28M** annually. Of note, these costs are also captured in the Space Cadre member's parent community costs. These costs do not include annual training, PCS, etc.

Best Practices

- Identify and implement best practices to the maximum extent practicable
- Create and execute demonstration programs to test new approaches

Strategy Implementation

Key Actions and Time Phased Implementation

The Functional Authority will communicate directly with the Space Cadre management team to carry out assigned functions, including the transmission of requests for advice and assistance.

Roles and Responsibilities

The following roles and responsibilities are broad and overarching. The details and governing document for roles and responsibilities lies in the Navy's Space Policy, OPNAVINST 5400.39 (draft) and with more detailed responsibilities listed below.

Functional Authority (Commander, NNWC)

Expanding on OPNAVINST 5400.39 (draft), the Senior Space Cadre member's responsibilities include:

- Oversee adherence to the space policy, manage the Space Cadre, and insert space experience into appropriate billets and assignments
- Develop policy necessary to recruit, promote, train, utilize and retain Space Cadre members
- Direct the Space Cadre Advisor in the day-to-day cadre management and to provide periodic updates on implementation progress and Space Cadre status
- Ensure that Secretary of the Navy, Under Secretary of the Air Force (DoD's EA for Space), Chief of Naval Operations, and Chief of Naval Personnel, are kept informed of the status of the Navy's Space Cadre
- Upon request, update Congress on the status of the Navy's Space Cadre
- Provide Navy representation on Space Cadre issues at the NSS's SPOB

Space Cadre Advisor (N131SC/N71SC)

In addition to the responsibilities outlined in OPNAVINST 5400.39 (draft), the Space Cadre Advisor is accountable for the following actions:

- Use force shaping models to properly size the workforce
- Identify critical billets
- Develop and maintain a succession plan for critical Space Cadre billets that ensures personnel continuity and compliance with subspecialty requirements
- Ensure that opportunities for promotion exist and that members are given the opportunity to serve in Space Cadre billets as the timing in their career paths allow
- Ensure that the promotion board members understand the need to retain highly qualified Space Cadre members and that they are able to identify Space Cadre members before statutory and non-statutory boards convene
- Identify and code appropriate Fleet, Joint, and NSS billets
- Identify Space Cadre career patterns for all designators and civilians
- Oversee Space Cadre policy and management implementation
- Coordinate with NSS organizations on Space Cadre matters
- Coordinate with Space Cadre, community managers and commands/organizations having space-coded billets
- Develop guidelines for the management of Space Cadre career paths
- Analyze statistics concerning the utilization of Space Cadre members in space-coded billets and promotion trends
- Analyze requirements versus inventory for all designators of space-coded officers as a basis for educational programs and selection board requirements
- Provide input into the PPBE to ensure that the FYDP accurately tracks the resource requirements to recruit, promote, train and retain Space Cadre members

Assistant Space Cadre Advisor (PERS-44SC)

In addition to the responsibilities outlined in OPNAVINST 5400.39 (draft), the Assistant Space Cadre Advisor is accountable for the following actions:

- Liaison with detailers, placement officers, and commands/organizations having space-coded billets to ensure all Space Cadre billets are filled with qualified individuals
- Compile requirements versus inventory data for all designators of space-coded officers as a basis for educational programs and selection board requirements
- Develop statistics concerning the utilization of Space Cadre members in space-coded billets and promotion trends
- Under the direction and guidance of the Space Cadre Functional Authority, create a Senior Space Members Forum to discuss policy, validate requirements, approve Space Cadre professional development plans, and synchronize with other Navy Community Managers
- Provide guidance on professional development efforts and activities
- Recommend restructuring of critical billets

- Collect and analyze metrics to report the status of the Space Cadre community
- Produce monthly reports on the status of the Space Cadre community
- Approve Space Cadre AQD and subspecialty code assignments
- Assist the Space Cadre Advisor in the execution of his duties

Detailing

As the Space Cadre is horizontally integrated across many designators, there is no Space Cadre detailer. In order to place “space smart” individuals into the right jobs, the Space Cadre Advisor and Assistant Space Cadre Advisor must work closely with each Space Cadre member’s detailer. Space Cadre officer billets are easily identified by SSCs and AQDs, providing the Pers-4 detailers the means to place their space qualified personnel. In March 2004, the Director, Military Personnel Plans and Policy (N13) signed a Policy Decision Memorandum providing “guidance for the identification, assignment and distribution of [Navy] Space Cadre personnel”.

Road Map to the Future

Phase I – January 2005 – March 2005

- Charter a Senior Space Flag Forum to approve HCS development and implementation and to approve critical billets, billet prioritization, and succession planning
- Determine the scope, nature, and specialties associated with the Space Cadre training and education
- Evaluate Space Cadre best practices
- Hold first Space Cadre data call and report on Space Cadre status
- Identify critical Space Cadre billets
- Develop and implement Space Cadre succession planning

Phase II – May 2005 – August 2005

- Hold an education and training summit
 - Determine which education and training programs are applicable for Cadre-wide use
 - Identify common curricula, courseware, and classes as appropriate
 - Evaluate common baseline of Space Cadre competencies
 - Identify education overlaps and gaps
 - Create a Space Cadre education and training curricula
- Develop policy/strategy concerning human capital development and use it
- Implement appropriate best practices and commence demonstration projects
- Identify clear opportunities for filling critical Space Cadre billets in all appropriate designator career paths
- Identify Joint space billets which would provide a Space Cadre member the opportunity to obtain both Joint and space experience in a single tour, thereby

reducing their time away from their primary career path, while still providing space experience and growth

Phase III – September 2005 – November 2005

- Identify Officer (Reserve), Enlisted (Active Duty/Reserve), and Navy Civilian Space Cadre billets
- Establish/validate Space Cadre professional certification processes
- Craft and present first “Space Cadre Update Report” to ASN(M&RA) and CNO
- Review fill rates of Space Cadre critical billets
- Review fill rates of Navy Space Cadre graded quotas

Annual Battle Rhythm

Following the initial implementation, there will be ongoing processes based on the calendar year in order to properly manage the Space Cadre.

- Deliver an annual “Space Cadre Update Report” to ASN(M&RA), CNO and Under Secretary of the Air Force (DoD’s EA for Space)
- Determine need for a non-statutory accession board to maintain end strength. However, to date, the Space Cadre’s problem is primarily with promoting its members, not attracting new members
- Assess if the Space Cadre’s HCS meets current CNO’s Objectives. Update HCS as needed
- Implement best practices

Challenges and Barriers

Challenges

The Space Cadre is a cross-designator community, which was only identified as a community requiring oversight and planning just over one year ago (21 July 2003). The newness of the community, along with its cross-community roots, presents the following unique challenges:

The civilian workforce is concerned about being identified as a Space Cadre member and tied to the “space” skill set in fear that their job could get outsourced. Many civilians utilize their experience and education across multiple “skill sets” and are concerned with being labeled with only one of those skill sets.

There is no civilian series that is space specific. Therefore, there is a need to identify a way to track Navy Civilian Space Cadre members and positions.

A similar issue pertains to active duty enlisted and all Reserves. For enlisted, there is no NEC to identify and track enlisted Space Cadre members and billets. In the Reserves, there is no NOBC that is unique to space.

The 2003 officer promotion board precept language identified the need to promote and retain space educated and experienced individuals. Since then, a VS1, VS2, VS3, or VS4 AQD has been added to every Space Cadre member's record. There is a need to assess whether adding these AQDs to each member's record was sufficient for Space Cadre members to be unquestionably identified by promotion boards.

The Navy is moving toward a more sea-centric billet base. While sea-centric does not mean exclusively those billets that are out at sea, there is a perception that these are exclusively at-sea billets. With the Space Cadre's billet base being predominantly shore based, this could present a problem as the Navy moves to downsize its shore billet base in an effort to save money for reinvestment. Also, officer promotion board members will need to be provided with information on why some officers have undertaken non-traditional career paths with minimal sea tours.

The Navy Space Cadre is a cross-designator community, which cuts horizontally and vertically across many different designators and enlisted ratings. Therefore, there is no Officer Program Authority (OPA) or Enlisted Program Authority (EPA) associated with the community. Subsequently, the Space Cadre does not control promotion flow points. As such, the only costs that the Space Cadre can control are training costs. All manpower costs are born by the member's parent community.

Today, officer accessions occur only when members gain education in Space Systems Engineering or Space Systems Operations reflected by subspecialty codes 5500P or 6206P, respectfully, and/or fill billets that are coded with Space Cadre experience subspecialty codes (5500S/R or 6206S/R). There are no other accessions into the community. Also, there is little control over other communities' manning or activity billet reductions, which can directly impact the Space Cadre community managers' attempt at force shaping.

Parent community career path requirements, such as the need for all officers to serve as a Joint Service Officer in order to promote to flag, can affect an officer's ability/desire to fill a Space Cadre billet.

The CNO has directed the HCS as a top priority in FY-05. Each designator community will undertake separate HCS development efforts. The Navy Space Cadre is at risk if individual communities decide Space Cadre is not in their business area of responsibility. One example is the Intelligence Officer Community (1630). Among the Intelligence Community's current emphases is the development of an ISR manager career specialization track. This specialization is designed to support the Director of Naval Intelligence's role as the Navy's functional manager of ISR. This career path will include a billet base of approximately one hundred billets and is largely inclusive of those 1630 Space Cadre billets. When the Naval Postgraduate School's (NPS's) ISR curriculum was abolished, the Naval Intelligence Community position was to shift its emphasis to the Information Technology curriculum. This best empowered their entire 1630 force to meet the requirements of ISR Management. The 1630 community felt that the extremely limited pool of 6206P billets minimized their return on investment and thus stopped sending their personnel through NPS's Space Systems Operations curriculum. Because of issues like this, clear direction from N1 is required to provide a top-level vision for detailing and developing the Navy Space Cadre as other communities' Human Capital Strategies are developed.

Barriers

There are some barriers that need to be overcome in order to be able to effectively shape the Space Cadre community. First, there is a Policy Decision Memorandum (PDM) between OPNAV N13 and Pers-4 delineating how the detailers and the Space Cadre Advisor should interact related to orders pertaining to the filling of Space Cadre billets. Currently, it is worded so that it is open to interpretation and does not provide enough substance to allow the Space Cadre Advisor or his assistant to perform their job. Furthermore, some of the detailers and placement officers do not feel that there is a priority to fill space coded billets with qualified personnel unless directed by Pers-4.

Second is the Defense Officer Personnel Management Act's (DOPMA's) language, which controls the promotion of senior officers and senior enlisted. This requirement may not allow the community manager to use "out-of-the-box" techniques and force shaping to optimize his workforce and reduce overall Navy costs.

Finally, inconsistent costing models can inaccurately capture Navy's true cost savings. For example, reducing a member of the surface community may not dramatically affect promotion opportunities of that community, but can be amplified in much smaller communities, such as the Space Cadre or Information Operations Career Force communities, which rely on the promotion rates of other communities to fill their critical billets.

Gaps

Though the Navy Space Cadre members are Active Duty/Reserve Officer and Enlisted and Navy Civilians, there is no current methodology to track Reserve Officers, Active Duty and Reserve Enlisted, or Navy Civilians. Until we can identify these personnel, identifying critical Enlisted, Reserve and Civilian billets will be problematic. Furthermore, critical billets are also being determined at this time for those active duty officer billets that have been identified. Without identification of critical billets for all cadre members, there is no accurate way of shaping the force. The Space Cadre is in its infancy and thus historical trending data is non-existent.

Other gaps encumbering the Space Cadre HCS include:

- No designated training track
- No designated career patterns for all members (Officer, Enlisted, Civilians)
- No identification of current requirements/critical billets
- No identification of future requirements
- No current shaping of the workforce to meet future requirements
- Inability to cost the community because inventory is resourced by other communities
- No defined Knowledge Skill Ability (KSA) captured in Sea Warrior's 5VM

Achieving Success

Measurable Criteria to Judge Success

Ultimately, the success of a HCS plan is the improved performance of the entire organization as it executes its primary mission. This strategy is based on a model of organizational behavior. It is therefore possible to identify measurable criterion and milestones that will indicate if the community remains on track to succeed. The Functional Authority, in a “Space Cadre Update Report”, should prepare an assessment of these measures of merit (see list below) along with an analysis of the data collected on the Space Cadre annually.

Milestones

- Senior space officer forum chartered
- Space Cadre education and training framework established
- Policy documents completed/reviewed
- “Space Cadre Status Report” accomplished
- Critical billets identified/verified
- Space Cadre education and training summit held
- Space Cadre education and training curricula created/verified
- Space Cadre career patterns identified for all designators
- Joint space billets identified and additional joint billets coded

Measures of Merit

- Sufficient funding for Space Cadre education and training
- Sufficient manpower and funding for Space Cadre management
- Unnecessary overlaps in training and education between services identified and actions taken to eliminate them
- Gaps in training and education identified and actions taken to correct them
- Policy documents are implemented
- Best practices implemented following identification and validation
- Space Cadre issues are considered in all appropriate CNO documents
- Personnel with validated experience & education are selected to fill critical billets
- Succession plan developed and implemented
- System for identification and tracking of all Navy Space Cadre implemented
- Statistical analysis of promotion boards favorable for community

The implementation of this Space Cadre HCS is a strategic approach to the development of a sound Navy Space Program. Additionally, it will provide common expertise, eliminate redundancies or overlaps in training and education, improve coordination between the Services, and ultimately improve the Space Cadre and space operations.

Future Shape of Navy Space Cadre

Through the efforts of some IPTs and guidance from independent studies like the Naval Studies Board which reported to a recent Two Star and Three Star Board of Directors (BOD), the Navy Space Cadre Advisor has been identifying additional Fleet Sea Billets to re-code with the space subspecialty codes. This will provide URLs, whose career paths require staying at sea, an opportunity to remain competitive for promotion and utilize their advanced space education and past experience. The Space Cadre Advisor is also working with the Joint Manpower Analyst Office (OPNAV N-123) to identify billets that meet Joint Duty Assignment criteria to maximize Joint Duty credit for Space Cadre assignments. Furthermore, the Space Cadre Advisor has been identifying additional billets in NSS organizations to provide more Navy visibility in the Joint Program Offices and other locations which will allow the Navy to participate and compete for critical NSS/Joint billets in the NSS workforce.

Future years will have the Navy Space Cadre defined in all aspects including Officer, Enlisted, Civilian, and Reserve end-strengths. Furthermore, the “Wald Study”, which provides an analysis of where Navy would gain it best return on investment for the Fleet’s mission readiness, should be used to determine where the Navy needs to concentrate its limited resources. This will lead to best shaping of the Space Cadre of tomorrow. In order to meet this goal, critical billets must be identified and modeling tools utilized to determine how many members it will take to meet these goals.

“Human capital is a source of value creation...not an operating cost.”
Admiral Vern Clark, CNO Human Capital Strategy Development Brief 2004

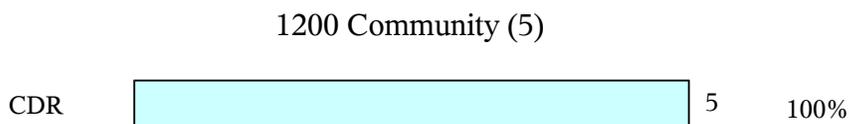
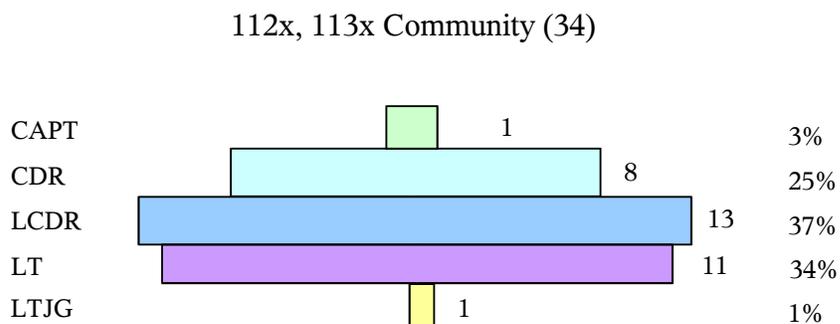
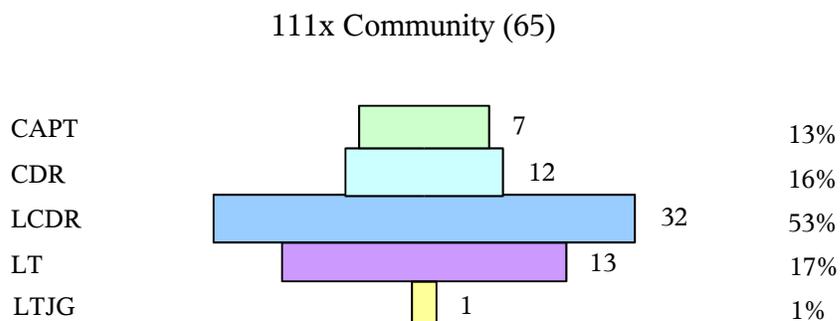
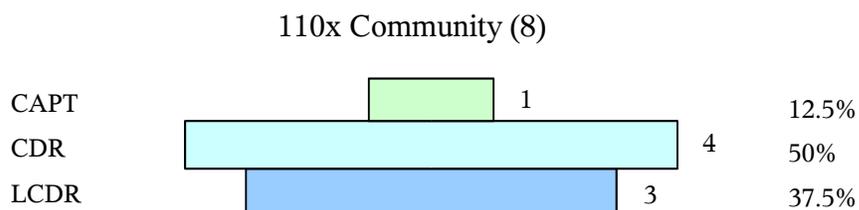
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APPENDIX A

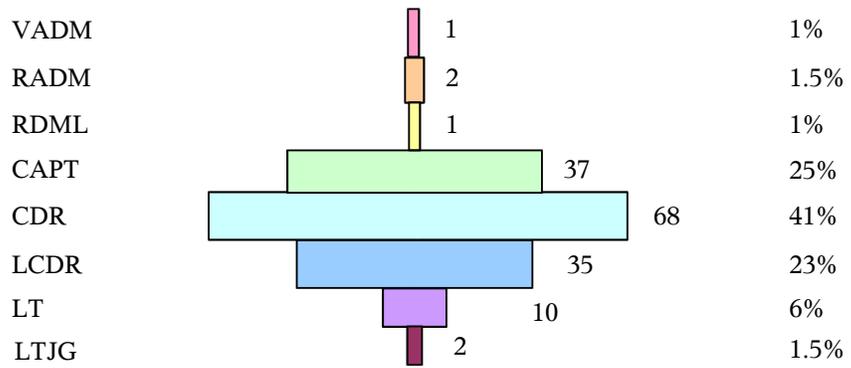
Current Space Cadre Inventory

The Space Cadre is a diverse group of active duty and reserve Officers, Enlisted, and Navy Civilians who are vertically and horizontally integrated throughout the Navy and “operationalize” space. However, to date, only active duty Officers have been officially identified and tracked. Future work will formally identify and track the remainder of the Navy Space Cadre.

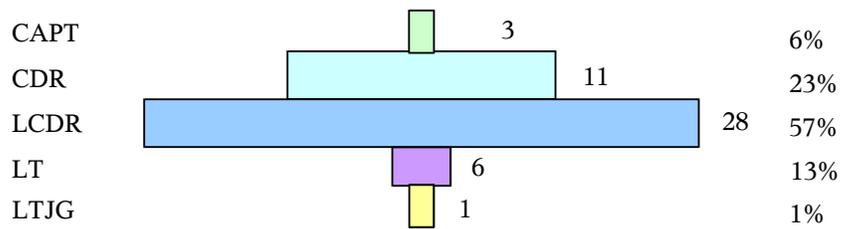
Note: Numbers in parenthesis are the total number of officers in that community. The numbers directly to the right of each bar are the number of officers in that rank for each designator. The percentages to the far right of each bar are the percentage of each rank for that community’s inventory.



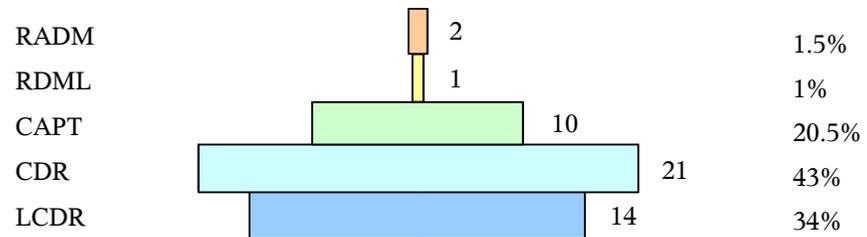
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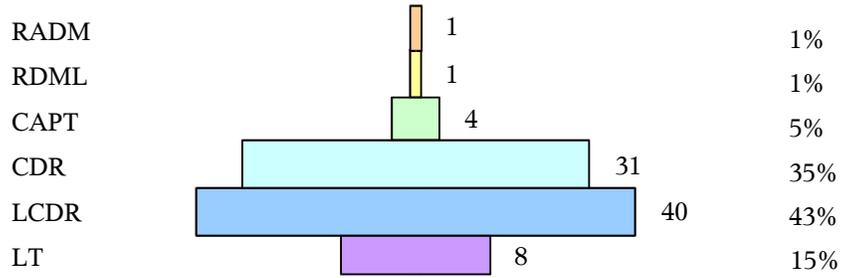
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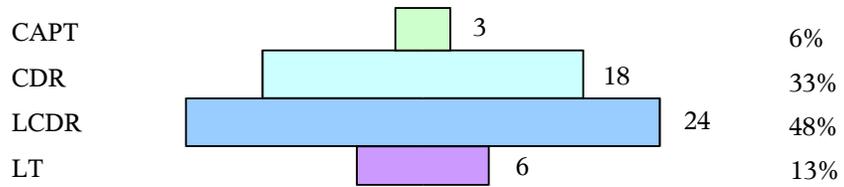
15xx Community (48)



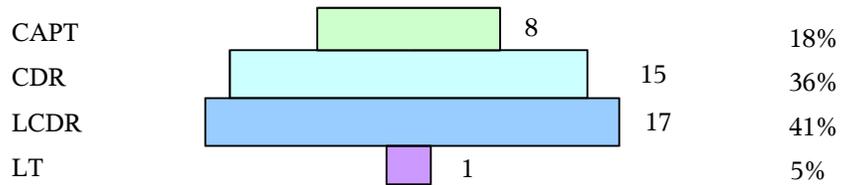
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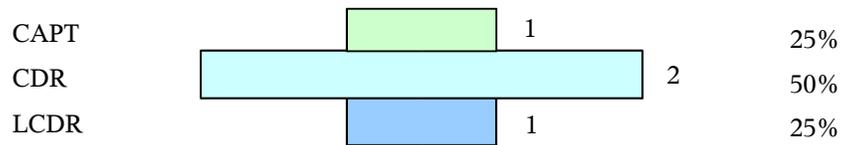
161x Community (51)



163x Community (41)



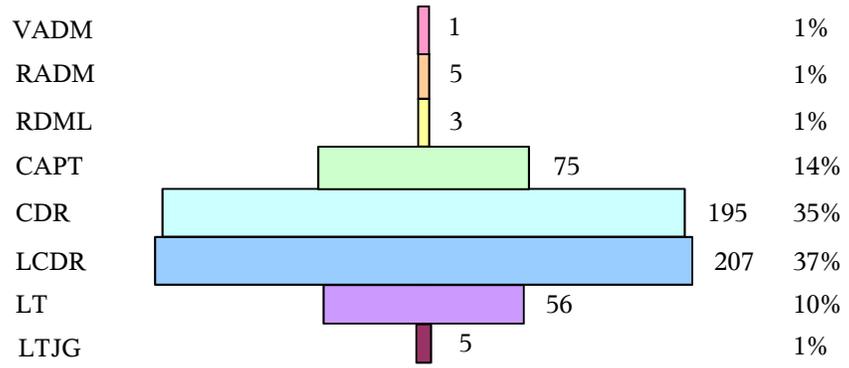
180x Community (4)



6xxx Community (1)



Entire Space Cadre Inventory (547)



APPENDIX B

Acronyms List

AED	Aerospace Engineering Duty
AQD	Additional Qualification Designator
ASN	Assistant Secretary of the Navy
AS&T	Advanced Systems and Technology
BOD	Board of Directors
CFFC	Commander Fleet Forces Command
CNA	Center for Naval Analysis
CNO	Chief of Naval Operations
CONOPS	Concept of Operations
DCNO	Deputy Chief of Naval Operations
DoD	Department of Defense
DoN	Department of the Navy
DOPMA	Defense Officer Personnel Management Act
EA	Executive Agent
ED	Engineering Duty
EPA	Enlisted Program Authorization
FY	Fiscal Year
FYDP	Fiscal Year Defense Program
GAO	Government Accounting Office
HCRS	Human Capital Resource Strategy
HCS	Human Capital Strategy
IPT	Integrated Project Team
JCIDS	Joint Capabilities Integration and Development System
KPP	Key Performance Parameter
KSA	Knowledge, Skill, and Ability
M&RA	Manpower and Reserve Affairs
METOC	Meteorology and Oceanography
NCDP	Naval Capability Development Process
NEC	Navy Enlisted Classification
NNSOC	Naval Network and Space Operations Command
NNWC	Naval Network Warfare Command

NOBC	Navy Officer Billet Classification
NPS	Navy Postgraduate School
NRL	Naval Research Laboratory
NSS	National Security Space
NSSO	National Security Space Office
OMF	Officer Master File
ONR	Office of Naval Research
OPA	Officer Program Authorization
OPNAV	Operations Navy
PCS	Permanent Change of Station
PEO	Program Executive Office
PPBE	Planning Programming Budget and Execution
R&D	Research and Development
RL	Restricted Line
S&T	Science and Technology
SECNAVINST	Secretary of the Navy Instruction
SES	Senior Executive Service
SP-21	Sea Power 21
SPAWAR	Space and Naval Warfare
SPOB	Space Professional Oversight Board
SSC	Subspecialty Code
SSFA	SPAWAR Space Field Activity
STRACOM	Strategic Command
TENCAP	Tactical Exploitation of National Capabilities
TFMMS	Total Force Manpower Management System
URL	Unrestricted Line
USC	United States Code
ZBR	Zero Baseline Review
5VM	5 Vector Model