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Preparing Engineering Duty Officers (EDOs) for Command of Major Acquisition Shore Commands and Major Acquisition Programs

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NPS NRP Executive Summary

Preparing Engineering Duty Officers (EDOs) for Command of Major Acquisition
Shore Installations and Programs

Period of Performance: 10/25/2021 – 12/31/2022

Report Date: 12/05/2022 | Project Number: NPS-22-N277-A

Naval Postgraduate School, Department of Defense Management (DDM)



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

PREPARING ENGINEERING DUTY OFFICERS (EDOs) FOR COMMAND OF MAJOR ACQUISITION SHORE INSTALLATIONS AND PROGRAMS EXECUTIVE SUMMARY

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Project Summary

The U.S. Navy's capabilities regarding the design, acquisition and maintenance of ships and shipboard systems needs continuous improvement to counter advancing threats. Engineering duty officers (EDOs) have long been associated with these capabilities in both technical and leadership positions. Over the years, the range and complexity of these professional areas have increased, requiring the need to better understand the developmental leadership opportunities needed to increase the probability of success at command of major acquisition shore installations and programs. This study centers on analysis of the fundamental leadership requirements for EDOs. Using an inductive qualitative research approach, we examine the EDO career path and the main contributors to EDOs' preparation for command, when compared with other naval officer communities. Given that the EDO community is associated with a wide variety of jobs, we focus on commanding officers for regional maintenance centers (RMCs) and supervisors of ship building (SUBSHIPS).

Based on our findings from in-depth interviews with current and former commanding officers for RMCs and SUBSHIPS, we find that while technical expertise is a necessary foundation, leadership is central to successful command. Further, we find that while education, training, experience, and mentoring are important for successful command, personality also matters. The EDO commanding officers (COs) provide not only technical, but also contractual and business oversight for Navy shipbuilding and maintenance contracts accomplished in the private sector. The education and training of EDOs is found to be lacking in business and management understanding. Officer in charge experience at RMC detachments or prior RMC experience before RMC command can be beneficial, as well as management or business graduate degrees. The talented EDO officers are driven by the critical mission to support the U.S. Navy's shipbuilding and maintenance capabilities. The recommendations in this study aim to further increase the chance of successful RMC command.

Keywords: *engineering duty officers, EDO, leadership, best practices, talent management, career development, regional maintenance centers*

Background

This study focuses on the analysis of fundamental leadership requirements for EDOs to increase the chance of successful oversight of large, complex civilian organizations such as for RMCs and SUBSHIPS.

The EDOs use technical and leadership skills to lead shore acquisition commands that provide on-site technical, contractual, and business oversight for Navy new construction shipbuilding, repair, and modernization contracts accomplished in the private sector. The demands and complexity of these positions have increased over time, requiring a need to evaluate the development opportunities for EDOs in comparison with other naval officer communities.

The objective of the study is to take a focused look across the engineering duty community on the EDO career path and how it prepares EDOs to lead major shore acquisition commands such as regional maintenance centers. This study addresses the following research questions: (1) What leadership education, training and career development experiences contributed to successful EDO command tours, compared to those of other naval communities? (2) What career development and leadership preparedness best practices from other Navy communities can support successfully completing command tours for the EDO community? (3) How do the talent management practices of



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the EDO community compare to other officer communities and industry? Where can the EDO community improve?

To address these questions, this study uses well-established inductive theory building methods to help us develop our understanding from the data themselves rather than relying on a deductive, top-down approach. The inductive approach allows us to focus in more detail on understanding the main challenges faced by EDOs' COs, identifying key contributors to their successful command, and finding what can the community do differently to support the career development and chance of success for demanding jobs such as COs for RMCs and SUBSHIPS. We employ three sequential and iterative techniques for data collection: document review, strategic contact, and interviews. This approach provides a systematic process for qualitative research that guides and encourages repeated iteration of data collection and analysis (Eisenhardt, 1989). Such repeated iteration, noted widely as key to grounding theory in the data of a qualitative study (Glaser & Strauss, 1967), enables us to focus persistently on the EDO community as a potentially unique and revelatory case to study (Yin, 1994). The semi-structured interviews (Rubin & Rubin, 1995) comprise the central method for collecting our qualitative data. Our sample focuses on former and current commanders viewed as successful by the Navy, whether they are EDOs or from other naval communities. The interviews are conducted with O6s and above who are commanding or have commanded either RMC or SUPSHIP organizations. The interviews are conducted with probing (Nelson et al., 2000) and snowballing (Reich & Kaarst-Brown, 1999) techniques, and they continue until theoretical saturation (Glaser & Strauss, 1967) is reached. Given the narrower focus of the study, on successful commanding officers for RMCs and SUBSHIPS, saturation is reached after nearly a dozen interviews, indicating sufficiency in terms of the sample frame.

Findings and Conclusions

The study's findings are identified using a coding framework following Gioia et al. (1994), with a multistage analytic approach to data collection, analysis, and interpretation. The eleven interviews conducted generated over 300 pages of interview transcripts and notes, which generates nearly 500 first level codes, supporting the identification of 11 clusters at the second level of qualitative analysis. These clusters enable us to identify 14 issues, which we propose to address through ten alternatives or courses of action for consideration by EDO community leaders. Member checking supports the fidelity of our interviews and reasonableness of our findings.

For the most part, this set of issues and alternatives center on four key elements: 1) education, 2) training, 3) experience, and 4) mentoring. However, we also find 5) personality to represent an important contributor to command success. While the technical knowledge and expertise is as a necessary foundation, leadership is identified as central to successful command. At the O6 rank is often too late for first command, although mentorship and guidance can mitigate some of the challenges of the CO job for those who seek and cultivate these types of relationships. Officer in charge experience at RMC detachments prior to RMC CO can contribute to successful RMC command. The EDO COs provide not only technical, but also contractual and business oversight for Navy shipbuilding and maintenance contracts accomplished in the private sector. The education and training of EDOs is found to be lacking in business and management understanding. Prior RMC experience before command can be beneficial as well as management or business graduate degrees. Regarding talent management, there is an unclear path to flag for RMC commanding officers. To incentivize EDOs to consider RMC command, the community needs to consider the balance between



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providing opportunities for RMC-type experience prior to command with the need to avoid specializing too narrowly and limit the path to flag level. As is the case often in technical industries, engineers do not necessarily make the best leaders. While education, training, experience, and mentorship are important to ensure the success at RMC (and SUBSHIP) command, personality also plays a role, prompting the community to carefully consider the people who have the attitudes and personality traits that are likely to help them become successful to take on the RMC command jobs.

Recommendations for Further Research

The engineering duty officer (EDO) community critically supports the U.S. Navy's capabilities for design, acquisition and maintenance of ships and shipboard systems needed to continuously improve the ability to counter advancing threats. The EDOs provide on-site technical, contractual, and business oversight for Navy new construction shipbuilding, repair and modernization contracts accomplished in the private sector. The demands and complexity of EDO jobs have increased over time.

Future research is needed to test pilot implementation of courses of action for consideration by EDO community leaders to incentivize interest to take on challenging command and to increase the chance of success at command. Future studies can use a case study or policy evaluation approach to investigate relevant intended and unintended consequences of piloted changes and provide decision-support for scaling courses of action or policy changes that best support the needs of the community and align with its long-term strategy.

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Acronyms

CO commanding officer



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EDO	engineer duty officer
RMC	regional maintenance center
SUBSHIP	supervisor of ship building

