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THESIS

**LEADERSHIP TO ENABLE 21ST-CENTURY TEAMS TO
SOLVE ILL-STRUCTURED PROBLEMS**

by

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March 2022

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**LEADERSHIP TO ENABLE 21ST-CENTURY TEAMS TO SOLVE
ILL-STRUCTURED PROBLEMS**

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ABSTRACT

Although contemporary literature overwhelmingly shows that high-performing teams are greater than the sum of their parts, the current Marine Corps manpower model systematically creates ad-hoc teams. Ad-hoc teams are temporary teams, which are formed to accomplish a specific task, in contrast to enduring, cohesive teams, which possess teamwork skills, share mental models, and have refined team processes to successfully accomplish a range of tasks. Due to the changing character of war, ad-hoc teams are tasked to operate in an increasingly complex environment. While manpower model initiatives have begun under Talent Management, the effect and timeline of these initiatives are yet to be seen. This thesis addresses current team challenges by synthesizing cross-discipline scholarly research findings into four recommendations for tactical-level Marine teams. The thesis presents a two-part, decision-forcing case study and teaching note that provides a mechanism to train teams in practical methods to improve team performance. Tactical Marine units cannot afford to wait for structural changes to address team dynamics. The tactical leader should use contemporary scholarly research findings to augment their current team practices to create an environment for high-performing teams to solve the ill-structured problems they will face.

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TABLE OF CONTENTS

I.	BACKGROUND	1
A.	INTRODUCTION.....	1
B.	CURRENT INITIATIVES.....	3
C.	CURRENT TEAM AND LEADERSHIP MODELS.....	5
1.	USMC Team Status Quo	5
2.	USMC Leadership Status Quo	9
D.	INDUSTRIAL AGE.....	12
E.	CHANGING CHARACTER OF WAR.....	14
F.	NEW TEAM AND LEADERSHIP DEMANDS.....	15
G.	RESEARCH QUESTIONS AND DEFINITIONS.....	16
1.	Primary Research Question	16
2.	Secondary Research Questions.....	16
3.	Findings.....	17
4.	Definitions.....	17
H.	METHOD	18
I.	CHAPTER SUMMARY.....	20
II.	LITERATURE REVIEW	23
A.	MARINE CORPS DOCTRINE.....	24
B.	TEAM RESEARCH	26
1.	Team Models	26
2.	Depth vs. Width.....	33
3.	Characteristics.....	36
4.	USMC Doctrine on Teams	52
C.	TEAM LEADERSHIP RESEARCH	55
1.	Leadership and Management	55
2.	Team Leadership Scholarly Literature	57
3.	We-Leadership	61
4.	USMC Doctrine on Team Leadership.....	64
5.	Summary.....	66
D.	ILL-STRUCTURED PROBLEMS	66
E.	ORGANIZATIONAL CONCEPTS.....	70
F.	ORGANIZATIONAL BEHAVIOR LEVELS OF ANALYSIS	74
III.	CASE STUDY	79
A.	INTRODUCTION.....	79
B.	PART A.....	84

1.	War Patrol One, 23 Aug 1942 through 17 Oct 1942	84
2.	War Patrol Two, 8 Nov 1942 through 26 Dec 1942	88
3.	The Problem	92
C.	PART B.....	93
1.	War Patrol Three, 16 Jan 1943 through 7 Feb 1943	94
2.	A New Wahoo.....	95
3.	War Patrol Four, 23 Feb 1943 through 6 Apr 1943.....	100
D.	AFTERWARD	102
IV.	TEACHING NOTE	105
A.	PURPOSE.....	108
B.	LEARNING OBJECTIVES.....	108
C.	SUGGESTED DISCUSSION QUESTIONS	108
1.	Part A Discussion Questions	108
2.	Part B Discussion Questions	109
D.	CENTRAL CASE THEMES	110
1.	Understanding Environmental Context.....	111
2.	Team Decision Space and Trust	112
3.	Organizational Clarity.....	115
4.	Top Cover	118
5.	Learning Orientation.....	119
E.	MODELS FOR ORGANIZATIONAL ANALYSIS.....	120
1.	Macro, Mezzo, Micro.....	120
2.	Tuckman and Jensen Model	122
3.	We-leadership.....	124
F.	CONCLUSION	127
V.	CONCLUSION AND RECOMMENDATIONS.....	131
A.	RECOMMENDATIONS.....	134
1.	Conduct Team Education.....	135
2.	Conduct Deliberate Organizational Design.....	137
3.	Define Decision Space	138
4.	Fiercely Defend Team Continuity	139
B.	CONCLUSION	141
	LIST OF REFERENCES.....	143
	INITIAL DISTRIBUTION LIST	151

LIST OF FIGURES

Figure 1.	Tuckman and Jensen's Updated 1977 Model. Source: Bonebright (2010).....	28
Figure 2.	Integrative Framework of Team Effectiveness. Source: Salas et al. (2007).....	32
Figure 3.	Organizational Width and Depth. Source: Headquarters Marine Corps (1996).	34
Figure 4.	USS Wahoo: Tons of Shipping Destroyed by Patrol. Adapted from McDaniel (2005).....	93

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LIST OF TABLES

Table 1.	Thesis Definitions	18
Table 2.	Team Characteristic Grouping.....	37

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LIST OF ACRONYMS AND ABBREVIATIONS

ABC	attitudes, behaviors, and cognitions
CDR	commander (U.S. Navy rank for the grade of 05)
CPG	Commandant's Planning Guidance
DOD	Department of Defense
DOT	Dynamic Organic Transformational
JSOC	Joint Special Operations Command
KSA	knowledge, skill, and attitude
KSAO	knowledge, skills, attitudes, and other characteristics
LCDR	lieutenant commander (U.S. Navy rank for the grade of 04)
LT	lieutenant (U.S. Navy rank for the grade of 03)
MCDP	Marine Corps doctrinal publication
MCRP	Marine Corps reference publication
MCTP	Marine Corps tactical publication
MCWP	Marine Corps warfighting publication
MOS	military occupational specialty
NCO	non-commissioned officer
OCS	Officer Candidates School
OODA	Observe Orient Decide and Act
PME	professional military education
PTP	pre-deployment training program
TBS	The Basic School
T/O	Table of Organization
USMC	United States Marine Corps

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I. BACKGROUND

A. INTRODUCTION

The United States Marine Corps is re-structuring its force to better align with the *National Defense Strategy* (Headquarters Marine Corps, 2019a). During this institutional transformation, the Marine Corps has not addressed advancing Marine teams past an Industrial Age model. This model is based on processes and efficiencies that has served the military well but is ill-suited to tackle complex problems in dispersed environments that are anticipated due to a changing character of war. The lack of team performance initiatives is likely not a deliberate omission but rather due to outdated assumptions and the ambiguity of measuring social dynamics.

One possible reason for the lack of team initiatives is the outdated assumption that qualified individuals will naturally form around a strong leader to create high-performing teams. This view undervalues the role of teamwork and the complex social dynamics at play. The Marine Corps ethos, “who we are and what we do for our Nation” (Headquarters Marine Corps, 2014a, p. iii), is instilled in every Marine in basic training and reinforced through education and traditions. Although the ethos provides a shared foundation, it reinforces the idea that effective teams will naturally form around this shared cultural baseline. While the Marine Corps’ shared ethos helps teams form and bond, it is insufficient to create high-performing teams as operations become more distributed. High-performing teams require a deliberate focus on teamwork and will not naturally form from strong leaders and mature individuals.

The second possible reason for team initiative omission is simply that teamwork is difficult to measure. Fowlkes et al. (1994) argue that measuring team performance is not straightforward and that there are few effective metrics. While Aguado et al. (2014), Morgan et al. (1986), and others have evaluated and proposed frameworks to measure teamwork, the Marine Corps does not currently have a system. Teamwork is indirectly measured by team performance in mission-oriented unit evaluations.

In contrast to teamwork, initiatives in the *Commandant's Planning Guidance* (Headquarters Marine Corps, 2019a) and *Talent Management* (Headquarters Marine Corps, 2021b) are quantitatively measurable. Current initiatives, such as Homesteading,¹ can be measured. For example, a report in 2025 may state, “last year we homesteaded 2,347 Marines, who would have conducted a geographic move, under the pre-*Talent Management* system. This resulted in a savings of xxx dollars.” The same quantitative statement cannot be made for a teamwork initiative that measures the ambiguous dynamics such as “cohesion” or “communication.” However, these dynamics are no less important for the Marine Corps’ transformation and deserve a deliberate focus even if a formal measuring system is not currently used. *Marine Corps Operations* directly addresses the difficulty in quantifying social dynamics by stating, “because it is difficult to quantify mental and moral forces, it is tempting to exclude them from the assessment effort. However, any assessment process that neglects these factors ignores the greater part of the nature of war—the human element” (Headquarters Marine Corps, 2017, p. 3-26). Tactical leaders cannot ignore teamwork because it is difficult to quantify.

Scholarly research generally divides team performance into two categories: taskwork and teamwork. Taskwork is the technical competency of individuals to accomplish their individual tasks associated with team performance. Teamwork focuses on the social dynamics necessary for members to function as a team to achieve common goals (Salas, Goodwin, Burke, & Rosen, 2009). While team members must have technical competence, they also require a knowledge of social dynamics to form effective teams (Salas, Goodwin, Burke, & Rosen, 2009). The Marine Corps has made great advances in taskwork by formalizing military occupational specialty roadmaps,² reforming entry level

¹ Homesteading is the practice of a Marine remaining at one geographic location for multiple contracts or tours. Traditionally Marines receive Permanent Change of Station (PCS) orders nearly every operational tour or contract. This typically occurs between two and four years. The practice of remaining at the same station for multiple tours has traditionally been discouraged. *Talent Management* directs that this practice no longer be discouraged and states “the institution will no longer view ‘homesteading’ as a negative practice to avoid, but rather a vehicle for improving training, increasing unit stability” (Headquarters Marine Corps, 2021b, p. 11).

² Each military occupational specialty has a roadmap that is updated regularly. The roadmap details courses that a Marine should attend, to acquire increasingly complex individual skills, as a Marine progresses through their occupational specialty.

schools, and increasing education and training opportunities for individual Marines. The current initiatives laid out in the *Commandant's Planning Guidance*, *Talent Management*, and iterations of *Force Design 2030*, further this progress in taskwork. However, the more nebulous social dynamics of teamwork have been largely omitted from formal concepts. This thesis explores teams and team leadership scholarly literature to search for practices that the tactical leader can adopt to foster an environment for high-performing teams in lieu of formal, service level initiatives.

In this chapter, I briefly review current Marine Corps initiatives, outline current Marine team, and team leadership practices, and explain the Industrial Age's effect on current Marine Corps models. After establishing the status quo, I address the changing character of war which introduces new team and team leadership challenges.

B. CURRENT INITIATIVES

Primary Marine Corps redesign initiatives generally fall into one of two categories. The first is individual Marine improvement through talent management initiatives. The second is the exchange of legacy systems for the acquisition of new advanced materiel. While both are essential, the critical echelon in which these initiatives merge to create combat effectiveness is the Marine team. The Marine Corps requires mature individuals to form effective teams that can use advanced technology in innovative ways to face tomorrow's challenges. Contemporary literature overwhelmingly supports the concept that high-performing teams are greater than the sum of their parts (Burke et al., 2004; Zinni & Koltz, 2009). The Marine Corps' current individual and acquisitions initiatives are alone insufficient to form these teams because they undervalue the social dynamics of teamwork.

The commandant of the Marine Corps, General Berger, acknowledges the need to update the Marine Corps' model of individual Marine development in the *38th Commandant's Planning Guidance* which states, "Our manpower system was designed in the industrial era to produce mass, not quality. We assumed that quantity of personnel was the most important element of the system, and that workers (Marines) are all essentially interchangeable" (Headquarters Marine Corps, 2019a, p. 7). The *Commandant's Planning Guidance* and *Talent Management* (Headquarters Marine Corps, 2021b) address current

structural manpower issues through initiatives such as maturing the force and increasing Professional Military Education (PME) opportunities.

In parallel to the individual Marine initiatives, a significant effort is focused on replacing legacy platforms with state-of-the-art materiel. *Force Design 2030* states, “We cannot accept or accede to recommendations for incremental change or better versions of legacy capabilities but must pursue transformational capabilities that will provide naval fleets and joint force commanders with a competitive advantage in the gray zone and during contingency” (Headquarters Marine Corps, 2020b, p. 10). The *Commandant’s Planning Guidance* and iterations of *Force Design 2030* have clearly defined acquisitions and divestment priorities. For example *Force Design 2030* makes 17 changes under the “Objective Force” title such as eliminating all tank battalions and adding 14 rocket artillery batteries (Headquarters Marine Corps, 2020b, p. 7). The *Force Design 2030 Annual Update* revises this list with another clear listing of force structure changes (Headquarters Marine Corps, 2021a).

Talent Management discusses the structural manpower constraints which hinder organizations from reaching their full potential and the arbitrary nature in which the current manning system allocates Marines to battalions based on numerical occupational requirements. These structural impediments are holdovers from Industrial Age systems (Headquarters Marine Corps, 2021b). To address these structural shortcomings, *Talent Management* directs homesteading to the degree feasible, and states that “the assignments process should build unit cohesion and create conditions that best enable our commanders to lead, train, and employ their forces for competition and conflict” (Headquarters Marine Corps, 2021b, p. 11). *Talent Management* directs numerous other initiatives that have the potential to increase the maturity of individual Marines. More mature Marines will help make better teams.

While significant structural manpower issues are addressed in both the *Commandant’s Planning Guidance* and *Talent Management*, the guidance falls short of discussing teams, groups, or initiatives for improving tactical-level team performance. It is unlikely that all the manpower initiatives will survive fiscal constraints. While the validity of each individual initiative is beyond the scope of this thesis, I generally agree that these

initiatives will improve the force. However, these structural initiatives are unlikely to have any meaningful effect for four to five years if that soon. The *Commandant's Planning Guidance* details that the change is targeted to be implemented in the 5–15-year time frame. This thesis does not critique these documents, but rather provides the Marine leader team and team leadership concepts and techniques, supported by scholarly research, that may be used in lieu of structural team initiatives.

Talent Management comes the closest of the force transition documents to discussing teamwork and how the Marine Corps forms and employs teams. The document acknowledges the advances in “organizational leadership” and the “science of management” and posits that we need to take advantage of these to create an effective talent management system (Headquarters Marine Corps, 2021b, p. 1). This is directly in line with my argument that leaders must leverage the significant progress made in academic fields since most Marine Corps doctrine was published to update how teams are formed and led.

Individual and acquisitions initiatives are required due to the changing character of war and the *Commandant's Planning Guidance*, *Talent Management*, and iterations of *Force Design 2030*, establish a clear roadmap to accomplish these initiatives. Although these initiatives are critical, they fall short of addressing the critical team level that will combine these initiatives to solve ill-structured problems.

C. CURRENT TEAM AND LEADERSHIP MODELS

Teams and team leadership are inseparable concepts because of the dynamics that make a high-performing team. However, the bulk of scholarly research addresses team and team leadership disciplines separately. To reflect this separation in the literature, I discuss team and team leadership on their own terms in the status quo discussion and literature review. I bring the concepts together in the teaching note chapter to illustrate the interconnectedness.

1. USMC Team Status Quo

The Marine Corps has a rich history of developing cohesive and high-performing units. These units are exemplified by those such as the 1st Provisional Marine Brigade in

Korea that is credited with filling a critical capability gap in the U.S. campaign during the Korean War and performing well above what was expected of this sized unit (Hammes, 2010). Hammes (2010) credits the success of this ad-hoc team, that was piecemealed together from forces across the country, largely to ethos and a unique Marine culture. While I argue that relying on our ethos and culture will not be sufficient to creating high-performing teams that can solve ill-structured problems, it is important to understand the history of Marine Corps team building and how teams are formed today. The Marine Corps' ideal team forming process outlined in *Sustaining the Transformation* aligns with many best practices from scholarly literature. However, that ideal process is often interrupted in today's reality, which favors creates ad-hoc teams over enduring, cohesive teams.

Ad-hoc teams are temporary teams formed to accomplish a specific task (Courtney et al., 2007). This contrasts with the traditional, cohesive team which has stable membership (Trainer et al., 2020), which possess teamwork skills, share mental models (Salas, Goodwin, Burke, & Rosen, 2009), and possesses refined team processes, that can successfully accomplish a range of tasks (Bonebright, 2010). The ad-hoc nature is due to contract lengths, training requirements, a quantity-over-quality manning model, and unofficial force requirements, such as gate guards and traffic control duties, which pull Marines out of their primary billets for intermittent periods. These ad-hoc, or pickup teams, are tasked to operate in an uncertain and complex environment. While changing the manpower model is a priority of the commandant, these changes will take years to design and implement. The Marine Corps cannot afford to wait for structural changes to address teamwork within the organization. Ad-hoc teams will be required to accomplish difficult missions in dynamic environments before structural changes improve team effectiveness.

The forming of Marine Corps teams begins before basic training when poolees³ become part of a pool. Here, under the supervision of a recruiter they begin to work together and become indoctrinated within the Marine Corps culture (Headquarters Marine Corps,

³ "Poolee" is a term for a potential recruit who works with a recruiter before departing for boot camp. Once an individual arrives at boot camp they become a "recruit," until they fail to complete the course or pass and receive the title "Marine" (Headquarters Marine Corps, 2014b).

2014b). After arriving at a recruit depot “recruit training immerses recruits in Marine Corps culture and values” (Headquarters Marine Corps, 2014b, pp. 4–1).⁴ Drill instructors demonstrate how to function as a team and force recruits from all walks of life to perform as a team.

Teamwork should continue when a Marine arrives at their first operational unit. *Sustaining the Transformation* states, “unit cohesion increases fighting power, provides positive peer pressure, and reinforces our core values as the team’s collective sense of honor becomes dominant over self-interest,” and charges every leader with creating an environment for each new Marine to become part of their team (Headquarters Marine Corps, 2014b, pp. 5–1).

Sustaining the Transformation explains the ideal life cycle of a Marine from “phase I” or “recruitment,” through “phase V,” or “citizenship” (Headquarters Marine Corps, 2014b, p. 7-1). The importance of teamwork, cohesion and camaraderie is reinforced throughout all five phases. For example, during the recruitment phase, *Sustaining the Transformation* shows the process by which poolees are allowed to join a pool, undergo arduous preparation for recruit training, and form a common bond with the recruiter and fellow poolees with a common focus of preparation for recruit training (Headquarters Marine Corps, 2014b). During phase V, *Sustaining the Transformation* charges Marines to maintain cohesion and camaraderie through fraternal organizations and continue the Marine Corps birthday celebration (Headquarters Marine Corps, 2014b). Each of the five phases demonstrates the importance of the Marine team.

Sustaining the Transformation describes the ideal method in which Marine Corps teams are formed. This method is based on a linear, progressive process in which teams are formed, learn to work together, build trust, and then are deployed as cohesive units. The ideal life cycle starts when a unit absorbs Marines from basic training. These Marines are integrated into their sub-units, immersed in the unique subculture of that unit, and learn their roles and responsibility on the team. This unit then begins a deployment workup

⁴ While *Sustaining the Transformation* uses the term “recruit” and the vignette introductions follow two junior enlisted Marines, team building concepts in entry level training are identical for potential officers referred to as “candidates” prior to earning the title “Marine.”

together, through increasingly complex training. This process ideally takes a minimum of six months. Teams work together daily in dynamic environments to refine their team processes and understand the dynamics within their team. The team also learns how they fit into the larger organization. While *Sustaining the Transformation* clearly outlines the ideal team forming model, current practices often deviate.

Team forming often comes down to a numbers game which creates ad-hoc teams based on operational requirements. Recruiting trends, training constraints, unpredictable personnel loss, fiscal constraints, among other factors, prevent the Marine Corps from being fully manned (Headquarters Marine Corps, 2019b). The overall effect is that “most organizations are staffed with fewer Marines than prescribed in the unit’s Table of Organization (T/O)⁵ or the ASR⁶ process” (Headquarters Marine Corps, 2019b, p. 1). This reality forces the Marine Corps to prioritize manning to units with a scheduled deployment over those without. Deploying units receive Marines from those not deploying to fill vacancies. The resulting personnel shuffle among units to make a fully manned, deployable unit, creates ad-hoc teams which do not benefit from the ideal team-forming process described in *Sustaining the Transformation*.

Some of the turmoil created by pre-deployment personnel shuffle may be eventually lightened by *Talent Management* initiatives. Some of the turmoil can be reduced by leaders who understand the second and third order effects of interrupting the life cycle of a team which is explored in the literature review portion of this thesis. However, the nature of the system will continue to create ad-hoc teams to some degree. Leaders can understand team performance and team leadership better to employ ad-hoc teams more effectively when they are inevitably formed.

⁵ The T/O is the table of organization. This document depicts what a unit would possess in both equipment and personnel in an unconstrained environment.

⁶ The Authorized Strength Report process is a semi-annual process that determines how many Marines the Marine Corps can afford to buy. This number is less than the T/O but ideal within fiscal restraints. This number is further reduced by fluidity and unpredictable events within the system (Headquarters Marine Corps, 2019b).

2. USMC Leadership Status Quo

The Marine Corps has a long history of creating exceptional combat leaders. The success of Marine Corps leadership training and the adaptability of the leaders that it produces are represented by the large number of business executives and public office holders who are former Marines. The Marine Corps leadership philosophy generally aligns with post-Industrial Age scholarly research recommendations and does not require wholesale change. However, leadership must continue to evolve with other aspects of professional military organizations. This thesis focuses on leadership specifically as it relates to team performance. Academic research on team leadership provides best practices that complement the timeless Marine Corps leadership philosophy. As with teams, this section will briefly establish the status quo of Marine leadership to establish a baseline prior to exploring academic research.

Like teams, every Marine's leadership development begins early in their career. Marines are placed in leadership positions and introduced to leadership traits⁷ and principles⁸ in both officer and enlisted basic training. Officer Candidates School⁹ evaluates the potential of each candidate to lead Marines. Officer Candidates School and The Basic School indoctrinate candidates and Marine Officers in the Marine Corps leadership

⁷ There are 14 leadership "traits" often memorized with the mnemonic JJ DID TIE BUCKLE. The traits are: justice, judgment, dependability, initiative, decisiveness, tact, integrity, enthusiasm, bearing, unselfishness, courage, knowledge, loyalty and endurance (Headquarters Marine Corps, 2014b, pp. 8-3 - 8-4).

⁸ There are 11 Marine Corps leadership "principles." They are: "be technically and tactically proficient," "Know yourself and seek self-improvement," "Know your Marines and look out for their welfare," "Keep your Marines informed," "Set the example," "Ensure assigned tasks are understood, supervised, and accomplished," "Train your Marines as a team," "Make sound and timely decisions," "Develop a sense of responsibility among your subordinates," "Employ your command in accordance with its capabilities," "Seek responsibility and take responsibility for your actions" (Headquarters Marine Corps, 2014a, p. 2-6).

⁹ All potential Marine officers, except for Naval Academy graduates, attend Officer Candidates School (OCS) prior to commissioning as a Second Lieutenant. OCS is 10-12 weeks depending on program. After successful completion of OCS, all Marine officers attend The Basic School in Quantico Virginia. This six-month school establishes baseline knowledge for Marine officers before departing for military occupational specialty specific training.

philosophy. Formal leadership education continues for enlisted Marines at Corporal's Course¹⁰ and throughout their PME continuum.

While each step of the formal education continuum¹¹ for both officer and enlisted Marines typically has a leadership portion, informal mentorship is the primary vehicle through which leaders are developed. Formal mentorship is required through periodic written counseling documents. However, informal counseling should be continuous through daily activities and it "is the responsibility of leaders at all levels to mentor and develop the next generation of Marine leaders" (Headquarters Marine Corps, 2014a, p. v). The Marine Corps sees leadership as a continuously developed skill rather than a natural characteristic. General Lejeune's Marine Corps Order number 29 cemented the role of mentorship when he stated, "The relations between officers and enlisted men should in no sense be that of superior and inferior, nor that of master and servant, but rather that of teacher and scholar" (Lejeune, 1920). This passage is repeated in *Learning* (Headquarters Marine Corps, 2020a), *Leading Marines* (Headquarters Marine Corps, 2014a) and *Sustaining the Transformation*.

Although the Marine Corps leadership program has effectively developed high-performing teams at the tactical level, it cannot stagnate. The emphasis for continued improvement is reflected in the *Commandant's Planning Guidance*. The Commandant established *Command and Leadership* as his fifth priority focus area. While this section primarily focuses on upholding the standard, eliminating harmful conduct, and empowering subordinates, it establishes command and leadership as an area that requires constant focus.

The Marine Corps leadership philosophy is still relevant and is often used as a model for post-Industrial Age leadership in industry and scholarly articles. The basic

¹⁰ Corporal is the first non-commissioned officer (NCO) rank. While NCO's do not hold a commission, they fill leadership billets at the tactical level and are expected to embrace the Marine Corps leadership philosophy like that of a commissioned officer. The spirit of the guidelines given to commissioned officers is extended to noncommissioned officers (Headquarters Marine Corps, 1980).

¹¹ The Marine PME continuum is well established for each rank in a Marine's career. While some steps have different options that Marines can pursue, there is a minimum required school or course at most ranks.

leadership philosophy is timeless, with a focus on the “relationship between the leader and the led” (Headquarters Marine Corps, 2014a, introduction). The philosophy uses selfless service and shared hardships as common ground and places emphasis on understanding what it means to share the Marine ethos and an individual’s responsibility for upholding the traditions of the Marine Corps (Headquarters Marine Corps, 2014a). General Lejeune’s 1920 statement that leadership should “partake of the nature of the relation between father and son,” (Headquarters Marine Corps, 2014a, p. 2-2) shows that the Marine Corps leadership philosophy was never rooted in autocratic models. Shifting away from autocratic, rigidly hierarchical models, is the focus for much of the post-Industrial Age leadership literature.

Although the Marine Corps’ storied leadership philosophy is still effective, recent conflicts have highlighted practices which do not align with the philosophy. The Marine Corps has shifted toward a managerial¹² style of leadership. Managerial styles will be addressed in the literature review. The Pre-deployment Training Program (PTP)¹³ requirements and theater level standardization that took place during Operation Enduring Freedom and Operation Iraqi Freedom are often used as examples of a leadership philosophy in peril (Thiele, 2010). While the application of the Marine Corps leadership philosophy during Operation Enduring Freedom and Operation Iraqi Freedom is outside the scope of this thesis, scholarly research validates the Marine Corps leadership philosophy. Poor practices in recent conflicts are indicative of a misapplication of the philosophy rather than a flawed philosophy.

While the Marine Corps leadership philosophy is still valid, scholarly research provides a wealth of knowledge that tactical leaders can embrace to better their team

¹² The differences in leadership and management are discussed at length in the literature review portion of this thesis. In short, management focuses on processes and control. Leadership is more encompassing and demanding with a focus on goal and values alignment, long term goal orientation, and preparation for uncertainty.

¹³ The Pre-deployment Training Program (PTP) was a standardized process for preparing for what became templated deployments to OIF and OEF. While the well intentioned PTP ensured units met the same standard for deployment it was overly prescriptive and removed the initiative from small unit leaders. Unit training plans were over-ridden by mandated PTP, and training plan design and implementation skills atrophied (Thiele, 2010).

leadership practices in a changing environment. These practices substantiate the Marine Corps leadership philosophy and reject the managerial focused models which have crept into common use in the past few decades. These managerial models are reminiscent of the Industrial Age and are invalidated by the demands of today's Marine team.

D. INDUSTRIAL AGE

The traditional Marine way of forming and leading teams reflects origins in the "Industrial Age" or "Industrial Era." These terms are often used to frame the problem and mandate for change in contemporary policy documents and defense discussions. However, these terms are rarely defined and are used interchangeably. I use "Industrial Age" throughout this paper for consistency. This section will briefly discuss what the Industrial Age is and how it still affects team performance and team leadership.

The goal of the Industrial Age was to maximize productivity and efficiency based on Frederick Taylor's principles in his Scientific Management (Taylor, 1947). Taylor was hyper-focused on efficiency and advocated for seeking "laws of least waste," and "Laws governing the conservation of human and material energies in achieving the greater productivity" (Taylor, 1947, p. xiv). Taylor's use of the scientific method to perform experiments produced more efficient factory work and higher productivity which led to large parts of American and European industry accepting his principles (Taylor, 1947).

While the Industrial Age is often viewed in a negative light today, it was critical for civilization at that time. The Industrial Age and its efficient processes led to an American industrial base which largely contributed to allied victories in both World Wars (Gray & Otte, 2006). The increase in factory and business sizes also led to an increase in middle management, centralized power, and bureaucracy (Gray & Otte, 2006). These are holdovers of the Industrial Age that still characterize our institutions today. The Industrial Age used structure to provide control which stifled initiative and innovation (Gray & Otte, 2006). This was the preferred method of the time because it maximized industrial production. There was little requirement for innovative thinkers in factory work, characterized by repetitive physical labor and processes. However, the post-Industrial Age is characterized by rapidly changing environments for both industry and defense

organizations. The problems these organizations face is often ill-structured and do not lend themselves to templates or efficient processes which were so effective in the Industrial Age.

Processes were a necessary characteristic of the Industrial Age. Process is important today and can lead to the efficient accomplishment of routine and administrative tasks. However, when the process becomes the focus rather than the outcome, organizations suffer. *Command and Control* cautions against focusing on the process and losing perspective of the big picture (Headquarters Marine Corps, 1996). Marquet (2012) states, “When it comes to process, adherence to the process frequently becomes the objective, as opposed to achieving the objective that the process was put in place to achieve” (p. 98). In other words, the means becomes the ends, and the original goal is forgotten. The over-focus on process is a negative holdover of the Industrial Age that today’s organizations need to change.

The classic example of an over-focus on the process is using the Marine Corps Planning Process¹⁴ in a time- constrained environment. The Marine Corps Planning Process is a combat proven, effective process. However, the full process is lengthy and includes dozens of templates and products. The process can be drawn out indefinitely through multiple iterations of wargaming and product refinement. While the process can produce an excellent operations order, it defeats the purpose if the operational units receive the order too late to sufficiently prepare. If an undisciplined staff creates an excellent but complex operations order and sends it to operational units with no time to conduct planning or rehearsals at their level, the planning was for the sake of the process only. In this event the objective of the process, which was to execute an effective operation and accomplish the mission, was over-shadowed by the objective of completing the process and thus was counterproductive.

¹⁴ The Marine Corps Planning Process is the formal process that the Marine Corps uses to plan operations. It is formally defined as, “A six-step methodology that helps organize the thought processes of the commander and staff throughout the planning and execution of military operations. It focuses on the mission and the threat and is based on the Marine Corps philosophy of maneuver warfare” (Headquarters Marine Corps, 2018, p. II-49).

The Marine Corps' manpower and education system, among others, are targeted by current policy documents as being stuck in the Industrial Age. The *Commandant's Planning Guidance* and *Talent Management* detail the folly in this design in the current operating environments and outline the path for change. While it only makes sense that large organizations such as the Marine Corps would adopt successful Taylor methods of organizing to produce large, efficient formations capable of crushing enemy conventional forces, the environment and adversary have changed. We need to update how we form and lead teams to allow them to succeed in the post-Industrial Age.

E. CHANGING CHARACTER OF WAR

The changing character of war mandates that the Marine Corps update its team and team leadership practices. The Department of Defense's (DOD) long-term operational environment predictions are consistently wrong (Danzig, 2011). To complicate forecasting, "The acceleration, proliferation and diversification of technical and political changes make 21st-century security risks even more unpredictable than those of the past" (Danzig, 2011, p. 5). However, *Joint Operating Environment 2035* attempts to predict some broad characterizations and details six contexts that will define future warfare which are: violent ideological competition, threatened U.S. territory and sovereignty, antagonistic geopolitical balancing, disrupted global commons, a contest for cyberspace and shattered and reordered regions (Joint Chiefs of Staff, 2016). These broad contexts, combined with the Commandant of the Marine Corps' vision of the future, point toward a changing character of war which will require teams to adapt to remain effective.

Experts agree that the character of war is changing. The commandant states, "the coming decade will be characterized by conflict, crisis, and rapid change-just as every decade preceding it" (Headquarters Marine Corps, 2019a, p. 1). His *Commandant's Planning Guidance* continues, "The character of war is increasingly dynamic, and the rapid advance of new technologies ... has accelerated the rate of change, ensuring that the character of war in the future will be much different than that of the recent past" (Headquarters Marine Corps, 2019a, p. 9). The Commandant argues that the current organization of the Marine Corps is insufficient for this changing character (Headquarters

Marine Corps, 2020). The *Commandant's Planning Guidance* clearly establishes the imperative for the Marine Corps to change to meet the changing character of war. Teams and team leadership must be a part of this change.

F. NEW TEAM AND LEADERSHIP DEMANDS.

Team performance requirements have shifted based on the changing character of war. Experts cannot predict where the military will compete next but rather, “American military forces must be able to fight and win on any battlefield, under any conditions, and with whatever means the nature of the contest requires” (Van Riper & Scales, 1997, p. 9). Teams must be able to adapt rapidly to the changing conditions.

Another challenge is the Marine Corps will reduce troop levels by at least 12,000 Marines by 2030 (Headquarters Marine Corps, 2020b). While *Force Design 2030* directs some purpose-built units, downsizing will require Marine Corps teams to be more flexible and adaptable to fill multiple roles due to reduced troops numbers. Teams designed to maximize efficiency and competency in their specific area are ill-suited to adapt to the ill-structured problems they will face. Future force deployments will consist of smaller formations, dispersed over greater distances, with little higher headquarters support (Headquarters Marine Corps, 2020b). These changing requirements for team performance requires teams and team leadership to evolve.

The unit of work or basic ground unit for the ground combat element has traditionally been the infantry battalion (Headquarters Marine Corps, 2016). The changing character of war is forcing a fundamental change to the unit of work. Future conflict will require distributed operations that will require units below the company level to possess a combined arms capability and be self-sustainable (Headquarters Marine Corps, 2019a). This shift in the basic unit of work, places further demand on the tactical team. Units such as an infantry company, who traditionally deployed under a battalion construct may now lack that higher headquarters and sister company support. The organization will flatten, become more decentralized, and the company, or lower, team may be required to self-perform functions that were traditionally held at higher echelons. The changing character

of war, reduced troop levels from *Force Design 2030*, and smaller units as the basic unit of work, introduce new challenges to twenty-first century teams and team leadership.

G. RESEARCH QUESTIONS AND DEFINITIONS

The new team demands coupled with the lack of current team-performance initiatives is the primary motivation for this thesis. The scope of this research was focused on the company and battalion level team. While I analyze the problem through the lens of a Marine tactical unit, the breadth of literature drawn on opens the conclusions up to potential broader application. The current manpower construct systematically creates ad-hoc teams. While the commandant has prioritized talent management and structural initiatives, ad-hoc teams will be placed in mission critical, dynamic environments before these structural changes are implemented. This conundrum leads to my research questions.

1. Primary Research Question

- How can the Marine Corps leverage best practices in strategic leadership to foster a culture of adaptable and resilient teams capable of solving ill-structured problems?

2. Secondary Research Questions

- What are the characteristics of an effective, post-Industrial Age, 21st century team?
- What are ill-structured problems and how do we prepare teams to solve them?
- Under what organizational conditions are teams most adaptable and resilient?
- How can tactical leaders affect organizational design to build an adaptable culture?

3. Findings

Marine Corps tactical-level leaders can leverage best practices in leadership and teamwork to foster a culture of high-performing teams by conducting team education, conducting deliberate organizational design, defining decision space, and fiercely defending team continuity.

Effective post-industrial age teams are decentralized to the maximum extent possible and possess a higher degree of collective leadership than Industrial Age teams (Marquet, 2012). Effective teams possess teamwork skills, share mental models (Salas, Goodwin, Burke, & Rosen, 2009), possess refined team processes (Bonebright, 2010), and have a high degree of trust and cohesion (Couch, 2021).

Ill-structured problems are problems that have multiple solutions, and a great deal of uncertainty exists around the appropriate answer (Reed, 2016). We can prepare teams to solve ill-structure problems by fostering effective, decentralized teams. Decentralized teams operate faster than highly centralized teams because the decision maker is at the level that the information is received rather than routing the information up a hierarchical structure before the decision comes back down (Headquarters Marine Corps, 1996). Teams that can cycle quickly will be more capable of solving ill-structure problems.

Teams are most adaptable and resilient in organizations that have created an environment for teams to build effective team processes through intense interactions (Okhuysen & Bechky, 2012) and continuity (Scales, 2003). Leaders can affect organizational design by deliberately structuring their teams based on their organization's purpose, providing top cover for organizational experimentation, and fighting for team continuity.

4. Definitions

I define terms here for three reasons. The first is that military and academic communities often use the same term to mean different things. To effectively communicate concepts that bridge the communities these terms require definition. The second is that this thesis covers a vast array of literature and academic disciplines that do not agree on the definition of terms. The third reason for definitions is to help outline the scope of this

research by defining broad terms such as “tactical leader” or “team.” These terms will be used consistently throughout the thesis unless noted.

Table 1. Thesis Definitions

Term	Definition	Source
Ill-Structured Problem	Problems that “possess multiple solutions and uncertainty about which concepts, rules, and principles are necessary for the solution.”	Reed (2016, p. 691)
Leadership	The relationship between a leader and a follower in the achievement of a positive goal.	Gray & Otte (2006, p. 18)
Tactical Leader	Any leader, formal or informal, of a team from the fire team to battalion level, in any unit.	None.
Taskwork	“The specific behavior required by the individual to perform his or her specific individual duties.”	Salas et al. (1995)
Team	“A set of two or more individuals that adaptively and dynamically interacts through specified roles as they work toward shared and valued goals.”	Salas, Goodwin, Burke, & Rosen (2009, p. 40)
Teamwork	“The means by which individual task expertise is translated, magnified, and synergistically combined to yield superior performance outcomes, the wisdom of collectives.”	Salas, Goodwin, Burke, & Rosen (2009, p. 42)
Team Effectiveness	“An evaluation of the outcomes of team performance processes relative to some set of criteria.”	Salas, Goodwin, Burke, & Rosen (2009, p. 41)
Team Performance	“A multi-level process arising as team members enact both their individual taskwork performance processes and individual team-level processes.”	Salas, Goodwin, Burke, & Rosen (2009, p. 41)
Team Process	“Members’ interdependent acts that convert inputs to outcomes through cognitive, verbal, and behavioral activities directed toward organizing taskwork to achieve collective goals.”	Mathieu et al. (2017)

H. METHOD

My initial motivation for this thesis derived from personal, company-level team life cycle experiences, coupled with the wealth of knowledge I was introduced to after arriving

at the Naval Postgraduate School (NPS). Anecdotally, at both the platoon and battery command level it always appeared that as soon as the team began to perform at a satisfactory level (if it ever did) a team membership change¹⁵ event would interrupt the team life cycle. After the interruption, performance would suffer, and teams were stuck in a constant cycle of integrating new joins and losing seasoned members, rarely reaching a state of competent performance. At NPS, I saw the breadth of knowledge available in organizational behavior, strategic leadership, among other academic disciplines and sought to find a model or framework that tactical leaders could apply to their organizations to solve team fluidity issues. There were a significant number of relevant concepts that are not included in Marine Corps doctrinal publications.

While my initial intention was to seek out the most specific team performance model available for ad-hoc teams, I quickly found that the issue of team performance was far more complex than I understood. As I dug deeper into the literature, I realized there was much more to team performance than prescriptive models and that team dynamics were too vast and context-specific to capture in one model. This led to an effort to synthesize as much research as I could into common themes which I address in the teaching note and recommendations portions of this thesis.

I began with a review of open-source scholarly team literature. Team literature is vast and researched across several academic disciplines such as organizational behavior, psychology, and organizational design. Each of these has additional subset disciplines. I focused on articles with a specific military focus and then used the reference list from those scholarly articles to branch out further. This research regularly crossed academic discipline silos.

The leadership aspects of teams opened another entire scholarly research area. I focused specifically on team leadership articles and attempted to exclude strategic leadership articles that focused on CEO level leadership as my research focused on a

¹⁵ A team membership change event describes an event in which a team member joins or leaves a team which changes the functioning and performance of that team (Trainer et al., 2020).

smaller team leadership level. Controlling the scope of the leadership literature was the most difficult aspect of this research.

After I spent some time in the scholarly literature, I conducted a thorough review of Marine Corps doctrine and foundational publications to draw correlations. I discuss each of these in the literature review as it relates to scholarly concepts. The review of Marine Corps foundational publications led to a review of literature produced by prominent Marine Corps figures which reflected on lessons learned from their leadership experiences both in the military and civilian sector. This opened another large area of literature and I read as many of these works as I could to add them to the team and team leadership knowledge pool. After a review of scholarly literature on teams and team leadership, and reading works from prominent Marine figures, the challenge was to find a medium to synthesize this wealth of knowledge into a usable format for the tactical leader.

The case study method brings the conceptual concepts from scholarly research into practical application for the tactical leader. I sought a military focused case study that highlighted team and team leadership concepts. I eventually landed on the USS Wahoo case which is discussed at length in the case study and teaching note chapters of this thesis. The USS Wahoo case study is the effort to synthesize the breadth of scholarly research concepts into a quickly digestible resource for the time constrained tactical leader.

Although I found that no single team performance model or framework is appropriate to every tactical team, the case study illustrates a real-world example of broadly applicable team performance concepts in use. The works cited throughout this thesis and reference list can serve as a gateway for tactical leaders who seek more specific concepts applicable to their unique organizations.

I. CHAPTER SUMMARY

Marine Corps teams are currently formed based on an Industrial Age manpower model which assumes that qualified individuals, placed together under competent leadership, will form a cohesive and high-performing team due to a common ethos and training. Scholarly research shows that simply placing appropriately trained individuals together does not guarantee team performance (Salas et al., 1995). The Marine Corps has

a storied history of creating high-performing teams and superior leaders. Marine Corps teams are not ineffective. However, for Marine Corps teams to perform in an increasingly complex environment caused by a changing character of war, tactical leaders must deliberately address how teamwork is fostered and teams are led. A deliberate focus on teamwork is required to capitalize on individual improvements from *Talent Management* and to employ newly acquired materiel in innovative ways.

Former Commandant Gray writes in the preface of *Warfighting*, “War is both timeless and ever changing. While the nature of war is constant, the means and methods we use evolve continuously. Like war itself, our approach to warfighting must evolve” (Headquarters Marine Corps, 1997b, p. preface). Advances in scholarly team and team leadership research can help Marine teams evolve to adapt the required approach to warfighting. In conclusion of a study on team dynamics Salas et al. (2007) states, “organizations must adapt their vision, structure, and human-capital practices in order to avoid entropy and enjoy prosperity in the 21st century” (Salas et al., 2007, p. 228).

The following chapters will explore scholarly research and re-visit Marine Corps doctrine to identify team performance and team leadership practices and concepts that can help the tactical leader prepare their teams to solve ill-structured problems in the twenty-first century. Chapter II reviews the academic and military literature on team performance and team leadership. Chapter III is a case study of the USS Wahoo’s transformation during World War II from an under-performing submarine to one of the highest-performing submarines of the war. This case provides a potential analogous scenario through which tactical leaders can analyze their own organizations. In Chapter IV I analyze key team performance and team leadership concepts at play aboard the USS Wahoo and analyze the case through three frameworks introduced in the literature review. I conclude in Chapter V with recommended practices that the tactical leader can use to prepare their teams for the future.

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II. LITERATURE REVIEW

Teams and leadership are inseparable. A high functioning team cannot exist if leaders do not create an environment which allows the team to foster positive processes. “Leadership has substantial ramifications for the effectiveness of teams and organizations at large” (Salas, Goodwin, Burke, & Rosen, 2009, p. 42). Zaccaro et al. (2009) argue that while leadership is essential to team effectiveness, the effect of the leader on team processes was largely ignored until the beginning of the twenty-first century. They believe this was because team and leadership researchers did not distinguish between “leader-subordinate” interactions and “leader-team” interactions (Zaccaro et al., 2009, p. 84). This shift in focus from the individual leader attributes or traditional (leader-subordinate) focus to a shared leadership (leader-team) model aligns with a shift away from Industrial Age leadership. The shift from Industrial Age rigidity and hierarchy is an enduring theme throughout team and leadership literature.

The delineation between leadership and team literature becomes less clear when leadership is shared, and decision authority is pushed to lower echelons. *Command and Control* illustrates this distinction by detailing two leadership theories (Headquarters Marine Corps, 1996). The first is the authoritarian or autocratic top-down hierarchical leadership model. The second is the persuasive or delegating leadership style which pushes decision making authority to lower levels (Headquarters Marine Corps, 1996). Marquet (2012) makes a similar distinction by coining the Industrial Age model of leadership the leader-follower model and proposing the new leader-leader model as a decentralized, engaged model.

While contemporary team and leadership models demonstrated that the line between leadership and the team is nearly indistinguishable, I review the literature separately because they encompass separate academic fields and draw from different bodies of background literature. Some of the same literature appears in both sections due to their overlap and integration. I start with a brief overview of Marine Corps Doctrine, then discuss team and leadership literature separately. I briefly discuss ill-structured problems, organizational concepts and introduce the organizational behavior levels of

analysis framework. I review Marine Corps doctrine in each section as it relates to that topic.

A. MARINE CORPS DOCTRINE

While I discuss Marine Corps doctrine separately as it relates to each section of this literature review, its uniqueness among military publications warrants a brief introduction. Marine Corps doctrine is unique among the Armed Forces in that it distinguishes doctrinal publications from the numerous other publications. The DOD dictionary defines doctrine as, “Fundamental principles that guide the employment of United States military forces in coordinated action toward a common objective and may include terms, tactics, techniques, and procedures” (Department of Defense, 2020, p. 104). This is generally interpreted as “any written publication is doctrine.” The Marine Corps uniquely distinguishes doctrine as, “Fundamental principles by which the Marine Corps forces or elements thereof guide their actions across the range of military operations in support of national objectives. It is authoritative but requires judgment in application” (Headquarters Marine Corps, 2018, p. 90). The Marine Corps currently maintains 12 doctrinal publications. This is unique from the hundreds of other service and joint publications.

The distinction between doctrine and other publications is critical because it de-emphasizes the importance of process and institutionalizes the role of judgment, learning, and critical thinking in the application of the Marine Corps’ overarching philosophy to warfighting. Former Secretary of Defense Donald Rumsfeld stated, “rules cannot be a substitute for judgment” (Rumsfeld, 2013, p. xiii). Doctrine acknowledges that war is unpredictable and that no pre-conceived solution will fit perfectly. *Marine Corps Operations* (Headquarters Marine Corps, 2017) addresses the distinction between doctrine and other publications this way:

[doctrinal] publications constitute overarching and enduring doctrine that should not be confused with more numerous, frequently revised, subordinate Marine Corps warfighting publications (MCWPs) and Marine Corps reference publications (MCRPs), which address evolving tactics, techniques, and procedures. The MCDPs provide an overarching philosophy of warfighting with the expectation that readers will consider, discuss, and creatively apply the ideas contained therein. They do not

prescribe specific techniques or procedures; instead, they provide ideas and values that require a high degree of professional competence and judgment in their application. (Headquarters Marine Corps, 2017, p. 1-3)

While I offer areas in which Marine Corps doctrine does not go far enough in terms of teams and team leadership, the Marine Corps doctrinal publications are brilliantly designed. They are easily digestible “little white books”¹⁶ which are concise and often provide short vignettes to demonstrate concepts. Commandant Krulak opens *Warfighting* by stating that every Marine should read it cover to cover rather than use it as a reference manual (Headquarters Marine Corps, 1997b). Commandant Gray, who published the original Fleet Marine Force Manual (FMFM)-1¹⁷ in 1989, followed General Krulak in the introduction of *Warfighting* by emphasizing its importance to every Marine and restated that war’s everchanging character requires doctrinal updates (Headquarters Marine Corps, 1997b). Marine Corps doctrine is not intended to be academic or esoteric for the senior officer elite, but rather foundational for every Marine to understand the Marine Corps’ warfighting philosophy and ethos.

MCDP 1 *Warfighting*, MCDP 6 *Command and Control*, and MCDP 7 *Learning*, are the pertinent doctrinal publications I reviewed for this thesis. In addition to these doctrinal publications, Marine Corps Warfighting Publication (MCWP) 6–10 *Leading Marines*, and Marine Corps Tactical Publication (MCTP) 6–10A *Sustaining the Transformation* are critical to this topic and were reviewed in their entirety. While many concepts and lessons are enduring, the majority were published in the late 1990s. MCDP 1 and MCDP 6 were published in 1996. MCDP 1-3 was published in 1997 and MCDP 7 was published in 2020. Both *Sustaining the Transformation* and *Leading Marines* were

¹⁶ The term “little white books” is used throughout the Marine Corps because doctrinal publications in print form are slim 5.5 x 8” white books with green lettering. This physically distinguishes them from the larger, more various, and more numerous, Tactics, Techniques, and Procedures publications.

¹⁷ FMFM-1 was published in 1989. MDCP-1 was published in 1997. Both are titled *Warfighting*. MCDP-1 is consistent with the updated doctrinal labeling system and includes some updates from the original version.

completely revised in 2014.¹⁸ Academic fields have continued to progress in the more than 20 years since many of the Marine Corps' doctrinal publications were published. As the Marine Corps shifts to focus on the post War-on-Terror period, it provides an opportunity to evaluate, update, and verify doctrine. While Marine Corps doctrine on teams and team leadership are simple and still valid, the Marine Corps should assess its doctrine through the lens of scholarly research for potential updates.

B. TEAM RESEARCH

Team research has dramatically increased since most Marine Corps doctrine was written in the late 1990s. This increase in research has produced a more thorough understanding of team performance and the “building blocks” of team and individual competencies which support high team performance (Salas, Goodwin, Burke, & Rosen, 2009). This increased understanding of teamwork should be leveraged by the tactical leader seeking to best prepare their unit for the future. I begin by discussing two team models which show a range of complexity and application, continue by discussing organizational depth versus width and five pervasive characteristics of high-performing teams, and conclude this section by discussing Marine Corps doctrine as it specifically relates to teams.

1. Team Models

Hundreds of team models have been proposed in academia. Salas, Goodwin, Burke, and Rosen (2009) note a recent review found 138 attempts to model team performance or effectiveness. I discuss two models that provide a vehicle for tactical leaders to conduct a more in-depth analysis of how they form and lead teams. The first is Tuckman's 1965 model of small group development. This model is simple yet broadly applicable. It served as a baseline for research and the comprehensive conversation on team development in the latter half of the twentieth century (Bonebright, 2010). Tuckman's model has largely been replaced due to the recognition of the complexity and scope of team dynamics (Bonebright,

¹⁸ While *Sustaining the Transformation* and *Leading Marines* are not doctrinal publications, they provide foundational information in the areas of leadership and teams. I refer to these two publications and the doctrinal publications collectively as “Foundational publications” for the purpose of this thesis.

2010), but it is still a logical starting point for understanding military team performance and the life cycle of teams.

The search for a more comprehensive model and deeper understanding of team dynamics has been ongoing since the first models, such as Tuckman's, were developed (Salas, Goodwin, Burke, & Wildman, 2009). Researchers made iterative improvements to include feedback loops, team development advancements, and several integrated and consolidated modes (Salas, Goodwin, Burke, & Wildman, 2009). I discuss Salas et al.'s (2007) multi-layer comprehensive model to illustrate a contemporary model that accounts for team dynamics.

I do not discuss these models to suggest a template or process which will result in effective military teams. I introduce these models to demonstrate that extensive research has been conducted in team performance which post-dates most Marine Corps doctrinal publications. Qualitative and quantitative research studies and experiments have been conducted in controlled and real-world environments. Tactical leaders should understand the wealth of information available and seek to apply concepts to their organization where applicable. At a minimum, the Tuckman model should be discussed in every team and organization. Using the Tuckman model as a lens of analysis will spark discussions about personnel management and how to improve team development, performance, and life cycle management.

a. Tuckman and Jensen Model

Bruce Tuckman was originally supported by the Office of Naval Research which sought to understand the role of individual personality traits in team functioning (Bonebright, 2010). He and Mary Ann Conover Jensen updated Tuckman's original model in 1977 (Figure 1). This model was useful in the business industry to help predict the stages of team growth and became one of the most widely recognized models in organizational literature (Bonebright, 2010). This model is straightforward and intuitive. While some leaders may believe the model is exceedingly obvious, it serves as a conversation starter and should be explicitly considered. If these topics are not explicitly discussed, they will

be ignored and hinder team processes. Tuckman and Jensen's model is a starting point for a more comprehensive team understanding.



Figure 1. Tuckman and Jensen's Updated 1977 Model.
Source: Bonebright (2010).

Although a quick internet search will reveal dozens of depictions of Tuckman's model, neither his 1965 nor 1977 article with Jensen include a graphical depiction of the model. Some lay the model out in a cyclical or interwoven fashion. However, Tuckman intended the original model to be conceptual to spur research rather than prescriptive (Tuckman, 1965), and research has shown that teams generally progress sequentially through the stages (Bonebright, 2010). The linear depiction (Figure 1) lends itself easily to conceptual discussion. I discuss the effects of an interruption to this model in the teaching note and conclusion chapters of this paper.

Tuckman conducted his research to "bring the facts into sharper focus" in the research of small-group development (Tuckman, 1965, p. 384). He largely established his model as a basis to better understand group development and lead to further research (Tuckman, 1965). It was designed as a generalizable, temporal model (Tuckman & Jensen, 1977). His model evolved from his review of existing models that had been developed for the stages of development in therapy groups, stages of development in training groups, and stages of development in natural and laboratory groups (Tuckman, 1965). He posits that the four original conceptual stages of his group development model, that he synthesized from existing team models, were consistent across research and intuitive (Tuckman, 1965). The five stages of Tuckman and Jensen's model of group development are:

- **Forming:** This is the orientation stage. Groups identify interpersonal as well as task behaviors. Initial relationships and roles are established (Tuckman, 1965).

- Storming: This stage results from conflict and “polarization around interpersonal issues,” which serve as an initial resistance to team performance until these conflicts are resolved (Tuckman, 1965, p. 396). Conflict results from emotional responses to new tasks and a hesitancy to leave notions of individual security and embrace self-change for group goals (Bonebright, 2010).
- Norming: This stage sees the resolution of conflicts from “storming.” Cohesiveness, group norms and standards are established. Personal relationships are solidified and opinions expressed (Tuckman, 1965). This is the stage in which shared mental models develop and the team discovers “the most effective ways to work with each other” (Bonebright, 2010, p. 114).
- Performing: The problem-solving stage. The structure built during “norming” becomes the “tool of task activities” (Tuckman, 1965, p. 396). The group focuses on the task and roles become more flexible and interchangeable (Tuckman, 1965). The team process is working and has become a “problem-solving instrument” (Bonebright, 2010, p. 114).
- Adjourning: This stage was added after Tuckman and Jensen reviewed the previous decade of literature surrounding Tuckman’s 1965 model and other team models (Tuckman & Jensen, 1977). Tuckman and Jensen (1977) concluded that adequate research around the life cycle of the group showed that the impact of the pending “death of the group” had sufficient effect on team performance to add “adjourning” to Tuckman’s original model (Tuckman & Jensen, 1977, p. 426).

Tuckman and Jensen’s 1977 model synthesized the research that had been conducted at the time and makes common sense. This model evolved extensively into more comprehensive models such as Salas et al.’s (2007) model. While follow-on models introduce a complex level of analysis that is too cumbersome for most operational leaders

to realistically employ with operational time constraints, the Tuckman and Jensen model provides an intuitive lens of analysis, conversation starter, and a gateway into team research.

b. Salas et al. (2007) Model

Salas et al. (2007) acknowledge that team performance is an “elusive, dynamic, and complex phenomenon” (p. 186) that has generated a significant body of research but lacks in comprehensive frameworks or models. They found over 800 articles or chapters presenting evidence on team effectiveness and conducted a study to synthesize 25 years of team research and produce a more coherent picture of teamwork. Salas et al. (2007) produced an integrative, multilevel model of team effectiveness intended to be a departure point for follow-on research. They conducted an in-depth review of 11 of the 138 models they found in the literature. The result of their research was a proposed integrative framework that can be used as a simple heuristic in follow-on research. The framework highlights often ignored aspects of team-effectiveness research (Salas et al., 2007). Their model highlights significant teamwork aspects of team performance that Marine Corps doctrine and initiatives do not explore.

The center of the model (Figure 2) is a rotating cylinder containing team-level (adaptive and communication) and individual-level (interpersonal) competencies (Salas et al., 2007). The dynamic and simultaneous interaction of team, and individual-level competencies is illustrated by the rotation of the cylinder (Salas et al., 2007). Salas et al. (2007) posit that the interaction of these competencies is facilitated by teamwork processes and shared vision. The cylinder rotates as long as required to accomplish the objective and results in individual and team performance outcomes (Salas et al., 2007). The outcomes or “emergent states” such as cohesion and collective efficacy provide inputs for new performance episodes as depicted by the arrow going from the outcomes back to the team inputs (left side ovals) (Salas et al., 2007).

The cylinder is influenced by the organizational environment and team leadership (top and bottom triangles) (Salas et al., 2007). Salas et al. (2007) depicts that leadership processes are essential to team effectiveness and the processes synchronize the

developmental cycles and create the environment for teams to develop process gains. The organizational environment is dynamic and varying depending on the team's tasks. This environment will affect how the team develops processes (Salas et al., 2007).

Salas et al.'s (2007) model depicts four inputs. These broad categorical inputs, which represent a wide range of topics are:

1. Individual Characteristics: Individual characteristics encompasses Knowledge, Skill, and Attitudes (KSA) "motivation, team orientation, mental models and personality" (Salas et al., 2007, p. 218). Each individual characteristics have a direct effect on team processes (Salas et al., 2007).
2. Team Characteristics: These include constructs such as power structure, performance arrangements, team-level openness to experience, team-level team orientation, and cohesion. These characteristics directly affect team performance (Salas et al., 2007).
3. Task Characteristics: These are task organization, task type, and task complexity. Task characteristics are team dependent and have a direct influence on team processes (Salas et al., 2007).
4. Work Structure: Work structure are team norms and communication structures. This input highlights the effect of social dynamics on team performance (Salas et al., 2007). The four inputs promote teamwork and team performance (Salas et al., 2007).

The four inputs not only provide inputs for the dynamic process in the central cylinder but affect individual-level cognition, which is represented by the top left rectangle with rounded edges labeled "expectations about roles and requirements" (Salas et al., 2007, p. 217). Team members actively interpret team inputs and "via this ongoing process, form stable yet malleable expectations regarding the nature of their obligations" (Salas et al., 2007, p. 217). Team members use these expectations to moderate team inputs and throughputs. Salas et al. (2007) state: "As the processes constituting teamwork are dynamically, simultaneously, and episodically enacted over time, they lead to shared

cognition. Shared cognition accrues as teamwork occurs and, in a recursive fashion, influences subsequent teamwork activities” (p. 217). Shared cognition is represented in the model by the top right rectangle with rounded edges labeled “shared cognition.”

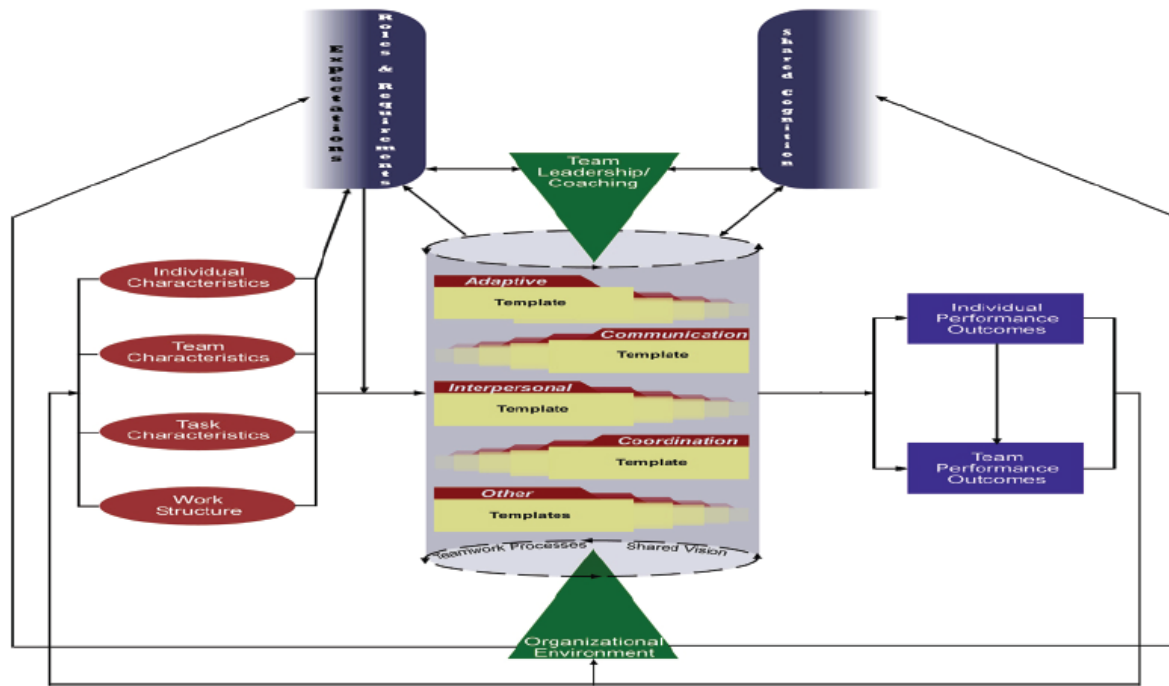


Figure 2. Integrative Framework of Team Effectiveness.
Source: Salas et al. (2007).

The integrative framework of team effectiveness model is designed to highlight a “cognitive approach to framing the dynamic and multilevel nature of team effectiveness” and to illustrate “some of the interdependencies between team members’ competencies and team competencies” (Salas et al., 2007, p. 222). Although this model is complex and tactical leaders should not attempt a literal application to their organization, it illustrates how far academia has come since Tuckman’s 1965 model, in understanding the interconnectedness of teams, individuals, and leaders. The model emphasizes the dynamic and comprehensive nature of team performance.

The purpose of discussing these models is to increase tactical leaders’ understanding that team performance is dynamic and everchanging and that models from

academia can provide a framework to better understand team performance in their organization. In addition to better understanding teams, Salas et al. (2007) argue that team effectiveness models provide a framework to measure team performance, provide insight into the type of training required, and better staff teams by ensuring individuals fit with the team in which they are placed. While Salas et al.'s (2007) model includes taskwork, it highlights the role of teamwork in team performance. The teamwork dynamics of the model are those which are under-represented in Marine Corps foundational publications and the tactical leader needs to address to foster an environment for high-performing teams to form and operate.

2. Depth vs. Width

Post-Industrial Age team and team leadership literature often revolves around the concept of flattening the organization. This concept is important for the tactical leader to understand so that they can make an informed, deliberate, decision on the appropriate level of depth versus width for their organization. A flat or wide organization is generally understood as a more decentralized organization and a deep organization is reminiscent of a rigid, Industrial Age, vertical hierarchy. *Command and Control* depicts the differences in Figure 3.

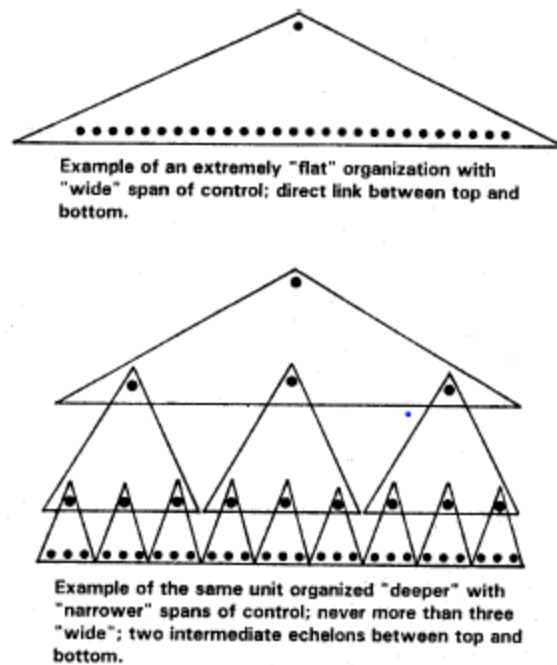


Figure 3. Organizational Width and Depth.
Source: Headquarters Marine Corps (1996).

On the far end of the wide spectrum or the flattest organization is what General McChrystal et al. (2015) describe as a "team of teams" in their book *Team of Teams*. They detail the journey that Joint Special Operations Command (JSOC) took in Iraq from 2003 through 2008. They describe the transformation of an organization rooted in hierarchy and Taylorist rigidity into the *Team of Teams* model which is characterized by a highly integrated network of teams with minimal hierarchical requirements (McChrystal et al., 2015). This transformation was required because the adversary JSOC was facing in the Iraq War had become a truly interconnected and complex organization that was outpacing U.S. forces. General McChrystal credits this new organizational structure with the success that JSOC had in Iraq.

While General McChrystal et al. (2015) make a convincing argument for their *Team of Teams* model, it is uniquely applicable within the military to JSOC or the few similar formations. The conventional forces can broadly apply some techniques they propose, but their model at large is not replicable due to maturity of the force. JSOC is an organization

of the most experienced and qualified individuals and teams from across the Department of Defense. The experience level allows employment methods not plausible in the conventional forces. This is a similar challenge that conventional forces will have in applying a *Legacy* (Kerr, 2013) or Wooden professional or collegiate sports model.

In his book *Legacy*, Kerr (2013) describes 15 leadership lessons that we can draw from the world champion New Zealand rugby team, the All Blacks. Wooden and Jamison (2005) describe coach John Wooden's success at UCLA exemplified by the fact that the basketball team won ten NCAA championships in twelve years. Both books, and the dozens of others that frequent military reading lists, share the problem of elitism with General McChrystal et al.'s model. General themes can be drawn from them, but they serve limited utility to the tactical leader in a conventional force. The average individual in a typical military organization is far less experienced and qualified. This in no way detracts from the commitment of individual or potential of the units, but rather acknowledges the structural challenges that are less of an impediment to professional sports teams and elite military units such as JSOC. These elite organizations have stringent selection and assessment processes and the ability to remove anyone from their team who does not fit. This is simply not the case in the conventional forces. Marine Corps doctrine refers to this variable of individual competency in organizations as "maturity" (Headquarters Marine Corps, 1996). The commandant of the Marine Corps consistently speaks to increasing maturity in *Talent Management*. Maturity is a key factor that leaders should assess when determining how flat to structure their team.

The narrowest organization is a vertical, hierarchical organization with top-down control. Industrial Age Taylor models are typically associated with this construct. They work well when the organization is focused on physical labor or routine processes in which heavy control is desirable (Marquet, 2012). Narrow organizations allow the maximum amount of control but slow information flow and limit flexibility (Headquarters Marine Corps, 1996).

Command and Control describes the benefits and drawbacks of each structure while acknowledging that in practice no organization is actually at one of the extremes. *Command and Control* states, "Organizations should ensure a reasonable span of control

which refers to the number of subordinates or activities under a single commander” (Headquarters Marine Corps, 1996, p. 90). A rule of thumb, from *Command and Control*, is that three to seven subordinates can be effectively commanded by each individual. Deeper or more hierarchical organizations can exercise more detailed control of subordinate units, but are slower to react due to the extra layers that information has to travel (Headquarters Marine Corps, 1996). While a flatter organization can react more rapidly, it is more difficult to control and thus requires more mature individuals and teams that understand the organizational goals and commander’s intent (Headquarters Marine Corps, 1996). *Command and Control* concludes by stating that “the aim is to flatten the organization to the greatest extent compatible with reasonable spans of control. Commanders should have the flexibility to eliminate or bypass selected echelons of command or staff as appropriate in order to improve operational tempo” (Headquarters Marine Corps, 1996, p. 134).

While a significant body of literature is devoted to the interplay between width and depth, the key takeaway for the tactical leader is to understand the benefits and risks of each and deliberately design the organization accordingly based on mission set.

3. Characteristics

Organizational behavior and psychology offer an abundance of research that addresses characteristics of high-performing teams in the twenty-first century. Researchers used qualitative and quantitative approaches and many developed lists of characteristics with different labels. While “competencies” was the most often used term, Salas, Goodwin, Burke, and Rosen (2009) list 30 Attitudes, Behaviors, and Cognitions (ABCs) and KSAs or Knowledge, Skills, Attitudes, and Other Characteristics (KSAOs) appear regularly. KSAOs are essentially, “what constitutes teamwork” (Salas et al., 2007, p. 190). Various other labels were used throughout the huge body of research.

I use “characteristic” to generally refer to an attribute or competency that affect team performance and are possessed by high-performing teams. While I catalogued over 80 different characteristics that were referenced in the literature more than once, I focus on

the top five that were most prominent.¹⁹ Table 2 identifies scholarly and Marine Corps doctrinal concepts that I grouped with each characteristic for discussion. While I discuss characteristics one at a time to underline some consistent themes in the research, it is important to note that characteristics will never function in teams in isolation. They interact dynamically and simultaneously to affect team performance (Salas et al., 2007). This is a key concept for the tactical leader. The characteristics identify focus areas but only positively affect team performance when brought together through teamwork. This process is detailed by the Salas et al. (2007) model.

Table 2. Team Characteristic Grouping

Characteristic	Related Scholarly Concepts	Related USMC Doctrinal Concepts
Organizational clarity	Vision, priority establishment, goal setting, collective orientation	Commander's intent, unity of effort
Communication	Transparency, information sharing, mental models, situational awareness, collective intuition	Implicit communications, mutual understanding, familiarity, "Keep your Marines informed"*
Decision space	Delegation, empowerment, decentralization	Decentralization, delegation, "Develop a sense of responsibility among your subordinates"***
Culture	Cohesion, team identity, culture	Ethos, culture, cohesion, identity, loyalty, camaraderie
Trust	Familiarity, trust,	Familiarity, trust, bond

* This is the fourth Marine Corps Leadership Principle. (Headquarters Marine Corps, 2014a, p. 2-6)

** This is the ninth Marine Corps Leadership Principle. (Headquarters Marine Corps, 2014a, p. 2-6)

¹⁹ I acknowledge that individuals may take issue with the way I have grouped characteristics. There are valid arguments against grouping these. However, in the attempt to distill the literature review into a digestible section that could be referenced by a tactical leader, I have grouped them for simplicity and with the intent to pull out the "so what" of each characteristic.

a. Organizational Clarity

Marquet (2012) uses the term organizational clarity to mean “people at all levels of an organization clearly and completely understand what the organization is about” (p. 160). This term effectively encapsulates what others have termed vision, an aligning narrative, establishing priorities, and goal setting. While the military concept of “commander’s intent” aligns with organizational clarity, organizational clarity transcends a mission or intent statement in that it speaks to the overall organization purpose and why it exists.

Organizational clarity grows in importance as decision making ability is pushed to lower levels in the organization (Marquet, 2012). In a strictly hierarchical organization, only the individuals at the top need to understand what the organization is about. Everyone else just does what they are told. As organizations flatten to more quickly adapt to changing situations, organizational clarity becomes more critical (Marquet, 2012).

Salas, Goodwin, Burke, and Rosen (2009) list “team/collective orientation” at the top of their ABC list which they describe as being characterized by “team members value team goals over individual goals.” Their study found substantial empirical evidence for this attribute (Salas, Goodwin, Burke, & Rosen, 2009).

Fussell and Goodyear (2017), in a follow-on book to McChrystal et al.’s (2015) *Team of Teams*, describe the use of an aligning narrative to bring disparate teams together to focus on the large picture. He argues it is good for teams to have their own identity and team goals but there must be an aligning narrative at the highest level of the organization to focus efforts (Fussell & Goodyear, 2017). Engdahl (2005) argues that terrorists have been so successful during the first part of the twenty-first century because they have a common purpose and constantly reorganize to fulfill that purpose. He asserts that businesses and the military must re-structure from the ground up beginning with their purpose and principles to be successful in a changing environment (Engdahl, 2005).

Courtney et al. (2007, p. 40) states that “teams align the purpose with the organization’s mission, values, vision, goals and strategies.” This is best accomplished when goals are internalized within team members (Courtney et al., 2007). Mintzberg (1994) discusses the fallacy of plans without a vision and discusses the importance of

getting committed members seeing the same vision to get the organization moving in the same direction.

Organizational clarity can lead to innovation and improvisation. Barrett (2012) uses his experience in jazz groups to explore the art of encouraging improvisation within business organizations. He argues that an organization which communicates freely and creates minimal formal structure can create an environment in which individuals can find a way to excel and benefit the team (Barrett, 2012). He describes how individuals excel when they have flexibility in making unique contributions, within a loose framework that orients members in the right direction (Barrett, 2012). Mintzberg's (1994) position aligns with Barrett's (2012) by suggesting that innovation will increase when formal constraints are loosened. Loosened constraints requires organizational clarity (Marquet, 2012).

Each Marine Corps doctrinal publication reviewed discusses the importance of unity of effort and organizational clarity as it relates to the topic of that publication. Commander's intent is central to mission tactics, the Marine Corps' command and control philosophy. *Command and Control* bluntly states that "without a commander's intent to express that common vision, there simply can be no mission command and control" (Headquarters Marine Corps, 1996, p. 113). *Warfighting* describes commander's intent this way: "We achieve this harmonious initiative in large part through the use of the commander's intent, a device designed to help subordinates understand the larger context of their actions. The purpose of providing intent is to allow subordinates to exercise judgment and initiative-to depart from the original plan when the unforeseen occurs—in a way that is consistent with higher commander's aims" (Headquarters Marine Corps, 1997b, p. 89).

Learning explains the importance of intent to maneuver warfare, the Marine Corps' over-arching warfighting philosophy by stating, "decentralized execution within the commander's intent is central to maneuver warfare; this requires that each Marine understand the situation and execute actions to support and achieve that intent" (Headquarters Marine Corps, 2020, p. 1-18). *Command and Control* summarizes the Marine Corps' command and control philosophy thusly: "We seek to decrease the amount of command and control that we need. We do this by replacing coercive command and

control methods with spontaneous, self-disciplined cooperation based on low-level initiative, a commonly understood commander's intent, mutual trust, and implicit understanding and communications" (Headquarters Marine Corps, 1996, p. 110).

Marine Corps doctrine describes commander's intent specifically in a military setting. However, it aligns with literature reviewed on the importance of organizational clarity and the critical aspect of focusing the organization on the big picture.

Richards (2012) discusses the significant impact of a shared orientation on team performance, in his analysis of Colonel John Boyd's OODA²⁰ loop. His discussion around a common outlook supports the other literature's findings on organizational clarity. Richards's (2012) argument for shared orientation is that better situational awareness possessed by everyone on a team allows them to make faster decisions within the OODA loop while the adversary is trying to gain understanding of the environment (Richards, 2012). His research supports *Command and Control* by drawing the link between organizational clarity and the speed of decision-making.

Retired Marine General Zinni and Koltz conclude their book *Leading the Charge* with a chapter titled "*Vision*." They discuss the lack of strategic thinking and leadership in today's world which results in an ambiguous purpose and lack of vision (Zinni & Koltz, 2009). They lay out a framework for developing logical, well communicated goals, that support a strategic vision (Zinni & Koltz, 2009). They make a strong argument that organizational clarity is critical to team success. Gray (1959) argues that high level mission statements are not specific enough for tactical units to achieve organizational clarity. He succinctly states the importance of organizational clarity as, "any fighting unit must have a limited and specific objective, and the more defined and bounded it is, the greater the willingness, as a rule, on the part of soldiers to abandon their natural desire for self-preservation" (Gray, 1959, p. 42).

²⁰ Air Force Colonel John Boyd developed the Observe Orient Decide and Act (OODA) loop concept which has been applied and mis-applied to many applications but can be used in an organizational setting for initiative and synchronization (Richards, 2012).

The literature reviewed, while using differing terms, align in a strong argument that organizational clarity is central to the success of teams and organizations. Tactical leaders should use the broad literature as a lens to evaluate if their organization operates with enough clarity about the purpose of the organization, rather than organize based on temporary mission statements.

b. Communication

I use the characteristic of communication to discuss concepts that appear in literature as shared consciousness, transparency, information sharing, mental models, situational awareness, collective intuition, and familiarity. Communication was the most prevalent characteristic following organizational clarity.

Richards (2012) details how effective, implicit communication results in a team outpacing and gaining an asymmetric advantage over their adversary. His review of Colonel Boyd's OODA loop largely focused on the implicit guidance and control mechanism which integrates the OODA loop compartments and is only possible through effective communications (Richards, 2012). Burke et al. (2004) conducted research to apply military and aviation team processes to ad-hoc medical teams. Their finding that effective communications results in shared mental models which link team competencies, supports Richards's (2012) analysis of the role of mental models in implicit communication (Burke et al., 2004).

Okhuysen and Bechky's (2012) research on group processes aligns with Richards's (2012) position on shared orientation and Burke et al.'s (2004) findings. They introduce collective intuition which is created by "real-time information gathered by group members and shared together" (Okhuysen & Bechky, 2012, p. 312). They argue that the contemporary notion that the antidote to information overload is to limit the information gathered is incorrect. Rather, teams should collect more information but focus on real-time fact-based information rather than historical or speculative information (Okhuysen & Bechky, 2012). This process of gathering and sharing more, better information results in teams which build linkages between and synthesize information faster than teams that do not (Okhuysen & Bechky, 2012). This increases their collective knowledge base, builds

collective intuition and allows them to adapt to complex situations in a more effective and timely manner (Okhuysen & Bechky, 2012).

Salas et al. (1995) reviewed ten years of military team research and found multiple studies that showed a positive correlation between clear communication and positive crew performance. The inverse was found as well: Air and ground crews with faulty or unclear communications suffered in performance (Salas et al., 1995). Fowlkes et al. (1994) found similar results in a search for an improved measure of team performance. They reviewed a study which lists communication as a critical aircrew coordination behavior (Fowlkes et al., 1994). Similarly, Aguado et al., (2014) list communication with four subcategories as one of their five team competencies.

Courtney et al. (2007) introduce the Dynamic Organic Transformational (DOT) team model which adopts a more comprehensive approach for team performance in dynamic environments. Their research found that effective communications are critical for knowledge and information movement. The effective movement of knowledge and information increases creativity and innovation which fosters team building (Courtney et al., 2007). Team process is one of the five key dimensions of their model which is largely a product of effective team communication (Courtney et al., 2007).

While shared mental models contribute to both organizational clarity and effective communications, they are critical for implicit communications and effective information sharing. Shared mental models allow team members to create compatible images of incoming information (Salas, Goodwin, Burke, & Rosen, 2009). These compatible images enhance coordination and enable situational awareness based on similar causal explanations, which results in more adaptable and ready teams (Salas, Goodwin, Burke, & Rosen, 2009). Mental models can capitalize on implicit communications to increase the speed of decision-making (Salas, Goodwin, Burke, & Rosen, 2009). Salas, Goodwin, Burke, and Rosen, (2009) argue that shared mental models are one of the three “coordination mechanisms” which bring together teamwork components in effective teams (p. 45). Shared team cognition underlies much of team performance and is central to the integrative framework of team effectiveness model discussed in the team models section of this thesis (Salas et al., 2007).

Marine Corps doctrine aligns with the communications literature. *Warfighting* argues that we must exploit implicit communications and mutual understanding. It states we can do this by “anticipating each other’s thoughts” which we develop the ability to do “through familiarity and trust, which are based on a shared philosophy and shared experience” (Headquarters Marine Corps, 1997b, p. 79). *Command and Control* argues, in several places, that the Marine Corps’ philosophy of command and control can only be executed by implicit communication which is based on a shared understanding developed by realistic training, familiarity, and trust (Headquarters Marine Corps, 1996). *Learning* articulates that effective communication has repercussions on learning and *Leading Marines* establishes “Keep your Marines informed” as the fourth leadership principle (Headquarters Marine Corps, 2014a). While Marine Corps doctrine is laced with the importance of communications, the academic literature confirms the assertions with qualitative and quantitative experiments and studies.

Effective communications will surely seem like a no brainer to most. It would be difficult to find a leadership or teambuilding book which didn’t list communications as a critical component of teamwork. However, it is important to note that the literature consistently found teams that suffered in performance because they did not communicate effectively. This finding was confirmed across disciplines and environments from elite military units (Blaber, 2008 and McChrystal et al., 2015) to pick up jazz teams (Barrett, 2012). The literature provides cross-discipline applications of effective communication that leaders can study to improve their own units.

c. Decision space

I grouped the concepts of delegation, empowerment, and decentralization, under the term “decision space.” *Command and Control* succinctly summarizes this concept by stating, “the commander should do only those things which only the commander can do or which nobody else can do adequately. Routine tasks must be delegated to others” (Headquarters Marine Corps, 1996, p. 126). Decision space is explicitly defining, as best possible, the type of decisions each level of command is responsible for (Fussell & Goodyear, 2017). Defining subordinate decision space removes some of the ambiguity

associated with broad declarations of delegation, empowerment, or decentralization. An explicit definition of decision space gives subordinates the flexibility to be creative and aggressive in the execution of decisions within their confines (Fussell & Goodyear, 2017).

Decision space is a practical departure from well-meaning initiatives such as empowerment programs, which Marquet (2012) argues is a contradictory concept. Marquet (2012) convincingly argues that empowering by fiat defeats the purpose because the message is still that subordinates are being empowered by leaders, rather than from inherent aptitude or motivation. This reinforces a top down model and requires a cultural approach to correct (Marquet, 2012). Marquet (2012) illustrates his position by detailing a practical initiative he implemented while the captain of a submarine. Marquet (2012) delegated the authority to approve Sailors' leave from the officer chain of command to the enlisted chain of command. While this was contrary to naval regulations, it was a concrete definition of the senior enlisted member's decision space and began a cultural shift. Marquet (2012) argues that if he had simply directed the senior enlisted Sailors to "be empower" or "take initiative," the culture would have remained the same. This is a stark example of effective implementation of decision space that is a re-occurring theme throughout team literature.

Barrett (2012) provides an excellent, non-military, example of effective decision space in his study of jazz teams. He details that players are constrained by chord and scales, but the music is not scripted further. Within the defined chords and scales, players are free to innovate and feed off of one another (Barrett, 2012). This provides considerable freedom and the ability for the team to take advantage of each individual's creativity and unique perspective and skillset (Barrett, 2012). The defined decision space provides enough structure to keep the team moving in the right direction but not so much that creativity is stifled, and the performance suffers.

In academic studies, Salas, Goodwin, Burke, and Rosen (2009) list "team empowerment" as an ABC which is defined by Mathieu et al. (2006) as "team members' collective belief that they have the authority to control their proximal work environment and are responsible for their team's functioning" (p. 98). This definition effectively synthesizes the differing definitions of empowerment in the literature.

The scholarly literature agrees that teams which possess individuals with decision making authority, rather than just worker bees, will be more effective than an organization with decision authority at the top. Useem (1998) states “pick your associates well, back them fully, empower them with both accountability and responsibility, and they will produce far more than you ever will achieve on your own” (p. 282). Trainer et al. (2020) find that teams are less disrupted by team member change if new members believe they are empowered upon joining the team.

Defining decision space is especially critical for teams in a dynamic or distributed environment. Engdahl (2005) describes a Natural Change Organization concept which is designed to create organic organizations which can more rapidly adapt to a changing environment. Empowered, self-directed work teams are critical to creating a “living system” which reduces reliance on traditional hierarchical organizations that are too slow for the changing environment (Engdahl, 2005, p. 58). The decision space for self-directed teams is provided by well-defined purpose and principles (Engdahl, 2005).

Team models and lists of team competencies broadly include decision space. In their variation of the Input Mediating Mechanisms Outcomes (IMO) model, Mathieu et al. (2019) include empowerment as a structural and mediating feature due to its strong positive relationship with team performance. Team empowerment is a proposed KSA which allows teams to control their immediate environment and choose which processes their team engages in and how to do so (Salas, Goodwin, Burke, & Rosen, 2009). Courtney et al.’s (2007) DOT model stipulates that self-directed teams are more effective than top-down directed. Empowered teams look beyond individual considerations and are more committed, innovative, and focused on long term organizational goals (Courtney et al., 2007). The research consistently finds a positive relationship between decision space and team performance.

Effective delegation and decentralized command and control are underlying themes throughout Marine Corps doctrinal publications. *Warfighting* places decentralization at the heart of the Marine Corps philosophy of command by stating, “in order to generate the tempo of operations we desire and to best cope with the uncertainty, disorder, and fluidity of combat, command and control must be decentralized” (Headquarters Marine Corps,

1997, pp. 78–79). The Marine Corps Manual directs “maximum discretion” be given to its officers (Headquarters Marine Corps, 1980, p. 1-21). Competent, initiative-seizing commanders at the point of information will be able to make more timely decisions than routing information up and then back down the chain of command (Headquarters Marine Corps, 1997b). While *Warfighting* was last updated in the late twentieth century, the overarching theme to push decision authority to lower levels or define decision space, is consistent throughout twenty-first century academic and military team literature.

Command and Control opens with a vignette which clearly illustrates the imperative of defining decision space. In this vignette two different friendly forces are depicted. One executes the Marine Corps command and control philosophy with delegation to the lowest levels and defeats the adversary. The second unit employs centralized, iron fisted leadership and does not contribute to the mission. Beyond this vignette, while pervasive, the decision space discussion remains at the conceptual level.

While Marine Corps doctrine is designed to provide an over-arching philosophy rather than prescriptive procedures (Headquarters Marine Corps, 2017), the tactical leader must translate the conceptual to the applicable (Augier & Barrett, 2021). Twenty-first century literature can help with this. For example, Marquet’s (2012) important discussion around the social dynamics that make empowering by fiat counterproductive, should be implemented into future edits of doctrinal publications and leveraged by leaders in the meantime. The concept is empowerment, but the application is more subtle and is explored in non-doctrinal literature.

Marine Corps doctrine and academic research agree that decentralized, empowered organizations that delegate decision making authority to competent people at the level the information arrives will outperform organizations which rely on vertical, hierarchical decision-making processes. The literature also agrees that these same team characteristics will free leaders up to focus on forward thinking, and holistic strategic direction which will allow the organization to succeed. The literature differs in the best techniques to create an organization that embodies these characteristics. Well defined decision space for teams and team members is critical to a high-performing team and must become an ingrained part of the culture.

d. Culture

Ethos, cohesiveness, team identity, and culture are prevalent themes throughout military and academic literature which I have combined under the characteristic of culture. The Commandant of the Marine Corps highlights this culture in his *Commandant's Planning Guidance* by stating, "I believe in my soul that Marines are different. Our identity is firmly rooted in our warrior ethos. This is the force that will always adapt and overcome no matter what the circumstances are. We fight and win in any clime and place" (Headquarters Marine Corps, 2019a, p. 0). While the literature overwhelmingly argues the importance of culture it does not agree on how to establish a culture. Similar to Marquet's (2012) assertion that directed empowerment is counter-intuitive, so is directed culture. Rather, culture is a "bi-product of the behavior of the people in the organization" (Argyris, 2010, p. 148). The literature highlights the imperative of the tactical leader to critically assess how to develop a culture that forms the foundation for positive team processes and team effectiveness.

There is no one-size fits all solution or step action to building a positive team culture (Couch, 2021). Leaders must create an organization which genuinely focuses on individual success and longevity, takes a holistic approach to work and life balance, and embodies transparency and trust (Couch, 2021). These practices help create a culture or tribe to which individuals are loyal and committed (Couch, 2021).

Military studies are ripe with unit successes being credited to an effective culture. Porch (2010) conducted an in-depth analysis into the French Foreign Legion's battlefield success. The French Foreign Legion had the unique task of designing a structure which created an effective team from a heterogeneous, multi-cultural recruit base. He credits this relative success to a high degree of unit loyalty and unit identity. The loyalty was driven by sacred rituals, competition, and shared suffering during entry level training and operations. Unit identity and Legion culture was fostered by reinforcing a rich history and embracing the Legion's unique mission set and status as a refuge for those looking for danger and adventure (Porch, 2010).

Hammes (2010) credits a unique Marine culture with the asymmetric success that the First Provisional Marine Brigade had in stopping the North Korean advance in 1950 and with the breakout of the Pusan Perimeter. He states, “in short, Marine culture substituted for the normal methods of building unit cohesion. This is a remarkable conclusion given the importance both serving officers and historians place on time served together as an essential element of unit cohesion” (Hammes, 2010, p. 200). Culture created a foundation for the Marine team that was able to overcome challenges which short circuited the typical team forming process (Hammes, 2010). Similar to Porch’s (2010) findings on the French Foreign Legion, in Korea “the cohesion came from the common culture based on education, doctrine, and training” (Hammes, 2010, p. 215).

Kearney (1997) found that the initial founders’ beliefs and values formed the culture of the 75th Ranger Regiment. This culture was continued by reinforcing values and behaviors implemented by its founders which has contributed to a lasting legacy in this elite military formation (Kearney, 1997). Research in military innovation has found that innovation will only occur if a culture is created that incentives and rewards risk takers and innovators (Augier & Hughes, 2018).

Research outside of the military echoes these ideas. In one example, in his study of the All Black’s championship rugby team, Kerr (2013) credits the unique culture, reinforced by rituals and selflessness, as pivotal to the team success.

Cohesion is a key cultural aspect reflected in military and scholarly literature. Cohesion built over time makes better teams (Marques-Quinteiro et al., 2019). Team cohesion can be described by team pride and task commitment which is seen through a desire to stay with the team and shared commitment to attain team goals (Salas, Goodwin, Burke, & Rosen, 2009).

The commandant’s *Talent Management* concept states:

Commandant Gray’s 1990 assessment on the importance of building unit cohesion: “In combat, the most critical element of a unit’s combat power is its cohesion. Cohesive units are built by stabilizing personnel assignments so that Marines can work and train together over a relatively long period of time. Units whose Marines are in a constant state of flux and turnover will

perform poorly in combat because they will not be cohesive combat teams.”
(Headquarters Marine Corps, 2021b, p. 11)

Building on the concept that leaders cannot direct an effective team culture, Argyris (2010) lays out features of a productive culture. Among those are, “commit to continued cultural change and learning, and focus on strengthening of trust and cooperation” (Argyris, 2010, p. 119). Argyris’s (2010) findings are mirrored in Marine doctrine. The culture of change and continuous learning is reiterated throughout the Marine Corps’ doctrinal publication *Learning* (Headquarters Marine Corps, 2020a). The Marine Corps ethos and culture is instilled beginning in basic training and continues throughout a Marine’s career (Headquarters Marine Corps, 2014b). The culture and ethos is reinforced throughout a Marine’s career through tradition and education (Headquarters Marine Corps, 2014b).

The Marine Corps also reinforces its unique culture through the stories it tells its members (Augier & Barrett, 2020). *Learning* says this about Marine culture: “Organizational culture consists of the underlying beliefs, assumptions, values, and ways Marines interact that contribute to an organization’s unique social and psychological environment. The culture of an organization comes from its history, customs, beliefs, behaviors, and expectations” (Headquarters Marine Corps, 2020a).

The literature agrees that ethos, cohesion, identity, and culture are foundational to creating an effective team. While some authors state these concepts simply as mandates to be broadly applied, authors such as Argyris (2010) and Couch (2021) underline the social dynamics and behaviors required to implement a healthy culture. Marine Corps doctrine identifies behaviors and practices that reinforce effective culture and ethos that are re-enforced in current Marine Corps policy documents. Marine Corps doctrine is uniquely strong in the reinforcement of this characteristic among the team characteristics discussed in this thesis. The tactical leader should start with a unit wide understanding of doctrine and Marine Corps history to build a martial culture.

e. Trust

Trust is a dominant theme in academic and military team literature. While each of the five characteristics discussed here are inter-related and complementary, trust is foundational in the conversations around each of the others. Marine Corps doctrine and contemporary Marine documents acknowledge the role of trust in team performance. Tactical leaders should understand the significance of trust as a foundational characteristic to team performance and leverage scholarly research to understand it better within their teams.

Okhuysen and Bechky (2012) find that familiarity reduces conflict. This primarily happens through trust which is developed through frequent and meaningful interactions (Okhuysen & Bechky, 2012). Similarly, Trainer et al. (2020) find that familiarity can make the effect of team membership change events less disruptive. Duhigg's (2016) research found that commitment cultures are more successful because of the sense of trust that emerges which encourages individuals to work together through friction.

Former military leaders reflect the imperative of trust. For example, in an interview discussing maneuver warfare during the mid-1980s General Gray stated that essential to mission type orders was a "familiarity with the commander that can only come with experience and mutual confidence" (Scharfen, 1984, p. 13). He continued by arguing that an additional implication was that "the commander has a great deal of trust in the judgment of his subordinate commander" (Scharfen, 1984, p. 13). Trust is a recurring theme in the memoir of former Secretary of Defense and Marine General Mattis. He states, "the more trust there is inside a unit, the more strain that unit can withstand without a lot of discussion" (Mattis & West, 2019, p. 102) and "operations occur at the speed of trust" (Mattis & West, 2019, p. 156). He further details that "you need to ensure that they [Marines] are in the same unit long enough to know their brothers and develop trust and confidence in one another" (Mattis & West, 2019, p. 27).

Richards (2012) identifies a high level of trust as essential for organizations to be able to quickly adapt. He finds that thinking on one's feet can only occur when individuals at the organizational level share a common outlook and trust one another (Richards, 2012).

Couch (2021) describes a familial level of trust that creates a tribal bond for successful teams in the military context. Trust is “the hardest to gain and the easiest to lose” and core to the interactions of team members (Couch, 2021, p. 49).

Scholarly research often addresses trust through the concept of mutual performance monitoring. Mutual performance monitoring is the idea that team members use their shared mental models to understand what other members should be doing and hold them to that expectation while performing their own tasks. This is essential to team performance but requires a culture of acceptance and trust so that this is not viewed as keeping tabs or devolves into individual competitiveness (Salas, Goodwin, Burke, & Rosen, 2009). (Salas, Goodwin, Burke, & Rosen, 2009) identify mutual trust as a mechanism to facilitate teamwork. They argue trust is critical for team members to rely on each other to complete individual tasks, and that they will protect each other’s rights and look out for their welfare. Team processes are underlined by mutual trust (Salas, Goodwin, Burke, & Rosen, 2009). Similarly, Courtney et al. (2007) found that leadership works when members “voluntarily share their intellectual contributions,” a shared vision is obtained and shared leadership achieved (Courtney et al., 2007). Trust is the essential ingredient that allows these attributes to come together for their team model.

Trust is widespread throughout Marine Corps foundational documents. Marine Corps doctrine effectively outlines the responsibility of both the superior and subordinate in establishing trust in their unit. *Warfighting* states, “trust is an essential trait among leaders -- trust by seniors in the abilities of their subordinates and by juniors in the competence and support of their seniors. Trust must be earned, and actions which undermine trust must meet with strict censure. Trust is a product of confidence and familiarity” (Headquarters Marine Corps, 1997, p. 58). The Marine Corps Manual illustrates the two-way responsibility of special trust and confidence. It should be “tangible and real” in issuance and every Marine must “wholly deserve” that trust in return (Headquarters Marine Corps, 1980, p. 1-21).

Two themes on trust are consistent throughout military and scholarly literature. First is that trust is essential for effective teamwork. Both trust within the team and trust within the organization which is made up of the individual teams. The second theme is that trust

is formed through frequent interaction which builds familiarity. While breaking up teams too often has negative effects (Trainer et al., 2020) and structural initiatives such as homesteading in the Marine Corps will increase continuity (Headquarters Marine Corps, 2021b), tactical leaders should understand the underlying imperative of trust and seek to reinforce it at every level within their organization. Leaders must reinforce trust as an organizational value and hold violators accountable, so they do not undermine the culture.

4. USMC Doctrine on Teams

As discussed in the background of this thesis, the literature breaks down team performance into taskwork, the technical competence of team members, and teamwork, the social dynamics which affect team functioning. Marine Corps doctrine conceptually addresses the five characteristics of teamwork addressed in the literature review. However, Marine Corps doctrine does not offer a model or a comprehensive analysis of the social dynamics in which these characteristics are synergized to form high-performing teams.

Warfighting does not directly address teams but discusses collective behavior, cooperation, harmony of parts, and the importance of indoctrinating all individuals with a shared background and heritage through shared experiences (Headquarters Marine Corps, 1997b). *Warfighting* goes on to emphasize teamwork and cohesion when it challenges manpower management practitioners to maintain continuity to build familiarity and implicit understanding (Headquarters Marine Corps, 1997b). While this is the extent of the team discussion in the seminal doctrinal publication, this is appropriate as *Warfighting* describes a philosophy and way of thinking. It is designed to remain at the conceptual level.

Command and Control and *Sustaining the Transformation* contain the most in-depth discussion of teamwork that is found in Marine Corps foundational documents. *Command and Control* effectively addresses teamwork dynamics as they relate to the Marine Corps command and control philosophy. This publication focuses on the organizational level and the dynamics that effect the interworking of units to accomplish the organization's mission. *Command and Control* acknowledges the uncertainty of war and seeks to "exploit trust, cooperation, judgment, focus, and implicit understanding to

lessen the effects of the uncertainty and friction that are consequences of war's nature" (Headquarters Marine Corps, 1996, p. 138).

Command and Control acknowledges the Marine Corps' shared culture and ethos as the "greatest command and control resource" (Headquarters Marine Corps, 1996, p. 138). While *Command and Control* does not designate a section to team dynamics, it sufficiently covers conceptual level team interactions throughout the publication to establish a foundation and open avenues for future research. *Command and Control* cites several dated academic sources and touches on team models and theory. *Command and Control* does an effective job of balancing digestibility by every Marine with academic rigor. As leaders progress, they should thoroughly review this publication and then seek to gain a deeper understanding of the social dynamics of teamwork through other literature.

Sustaining the Transformation focuses on the leadership principle of, "know your Marines and look out for their welfare," (Headquarters Marine Corps, 2014b, p. i) and details practical implications for teams more than other foundational publications. The publication opens with a vignette which follows two brothers through basic training and the first three months at their first units. The vignette depicts one brother whose gaining unit fosters an environment for him to succeed and the other brother is set up for failure.

The vignette generally follows the Tuckman and Jensen model but stops short of explicitly discussing a team model or comprehensively discussing characteristics that lead to effective teamwork in the successful unit. The successful brother had leadership who sat down with him while still in basic training, explained what to expect at the new unit, and explained the traditions and legacy of his first unit. After the brother joins the unit, his leadership is engaged in mentorship, writes to the Marine's family to welcome them, and escorts the new Marine around the battalion area. This behavior follows the *forming* and *norming* stages of the Tuckman and Jensen model. The vignette stops here but a logical continuation would include the new Marine figuring out procedures with his first fire team, training and learning through mistakes, or *storming*, and then becoming a cohesive member of that team.

The second brother has the opposite experience. He is not received by his gaining unit and does not have engaged leadership. Rather than following the positive processes of the Tuckman and Jensen model, this unit fails to welcome the new Marine and he soon is involved with the wrong crowd and gets in trouble. While this vignette is overly simplistic, it is designed for junior leaders as a companion piece for *Leading Marines* and provides practical context to creating effective teams (Headquarters Marine Corps, 2014b). This practical context helps translate conceptual doctrine into practical application.

Common themes throughout *Sustaining the Transformation* are camaraderie, ethos, shared bond, cohesion, trust, and faith in team members. An entire chapter is designated to cohesion which is defined as “the intense bonding of Marines that is strengthened over time, resulting in absolute trust, subordination of self, understanding of the collective actions of the unit, and appreciation for the importance of teamwork” (Headquarters Marine Corps, 2014b, p. 5-1). The publication charges the leader with establishing an environment for cohesion to emerge and ensuring Marines understand the big picture, i.e., achieving organizational clarity for their unit (Headquarters Marine Corps, 2014b). *Sustaining the Transformation* discusses teamwork in most chapters, posits that cohesion and teamwork will determine success or failure in a complex operating environment, (Headquarters Marine Corps, 2014b), and vividly depicts the importance of teamwork in Marine Corps units.

Marine Corps doctrinal foundational publications discuss teams and teamwork throughout. While the publications often refer to teams as units or allude to the collective instead of using the terms team or group, the concepts and some practical skills are discussed in sufficient detail for entry level Marines and leaders. However, these publications stop short of designating a section or chapter to break out teams as a separate, unique discussion. The cohesion chapter in *Sustaining the Transformation* comes the closest to the level of discussion required into team characteristics and dynamics. The Marine Corps’ foundational documents provide a sufficient starting point for the tactical leader. Once a leader is well versed in these documents, they should look to other literature to create a more in depth understanding of team dynamics to better lead their units and teams.

C. TEAM LEADERSHIP RESEARCH

Team Leadership warrants a brief background on how I arrive at the definition I use in this thesis. While more than 200 definitions of leadership exist, none are universally accepted (Elkhedr, 2019). *Command and Control* offers “leadership is the influencing of people to work toward the accomplishment of a common objective” (Headquarters Marine Corps, 1996, p. 82). Marquet (2012) recalls the control centric 1984 naval definition, “the art, science, or gift by which a person is enabled and privileged to direct the thoughts, plans, and actions of others in such a manner as to obtain and command their obedience” (Marquet, 2012, p. xxv). To show the range of definitions, in contrast to the 1984 definition is author Stephen Covey’s definition, “Leadership is communicating to people their worth and potential so clearly that they are inspired to see it in themselves” (Marquet, 2012, p. xiv).

The Marine Corps manual states, “The objective of Marine Corps Leadership is to develop the leadership qualities of Marines to enable them to assume progressively greater responsibilities to the Marine Corps and society” (Headquarters Marine Corps, 1980, p. 1-21). While this sample demonstrates the range of leadership definitions, Gray and Otte’s (2006) definition most concisely and accurately depicts the leadership of teams and organizations in the military today. Leadership is “the relationship between a leader and a follower in the achievement of a positive goal” (Gray & Otte, 2006, p. 18). This simple definition highlights the importance of a two-way relationship and focuses on a positive goal or vision.

I use this definition to frame team leadership throughout this study. I briefly discuss leadership versus management, review scholarly team leadership literature, summarize the “we-leadership” model as a lens of leadership analysis, and conclude this section by summarizing Marine Corps leadership doctrine. The concepts covered in this chapter will be used as a lens through which to analyze the case study presented in Chapter III.

1. Leadership and Management

Leadership and management are often used synonymously but have distinct features (Elkhedr, 2019). It is important to clarify the distinction because there is a large

body of literature on both and there are distinct considerations when assessing the effects of both on team performance. The literature does not agree on either the similarities or differences. In contrast to their definition of leadership, Gray and Otte (2006) define management activities as those that “emphasize process, power, and control” (Gray & Otte, 2006, p. 3). The focus shifts from a relationship and goal orientation to process, procedure, and control. Management is sufficient for stable environments, but leadership is required for uncertain and complex environments (Gray & Otte, 2006). Otte (2015) furthers this position by agreeing that uncertainty is the difference between leadership and management, and stating that leaders understand uncertainty and therefore “lead people through the uncertainty (the fog) by sharing their ideas and ideals, describing the end state and intent” (Otte, 2015, p. 253).

Elkhdr (2019) argues that management and leadership are both required, yet distinct roles for multiple people to play. Elkhdr (2019) posits they are different in this way: “Leadership focuses on general influence for increasing trust and inspiring people but the management is mainly concerned with problem-solving, planning, organizing, controlling and influencing” (Elkhdr, 2019, p. 60). While the Marine Corps manual does little to distinguish the two and lists “military leadership” as a subsection of “management” (Headquarters Marine Corps, 1980), most Marine Corps doctrine discusses leadership and reserves the discussion of management to manpower management functions. This use of management and leadership align with Gray and Otte’s (2006) distinction.

The difference between management and leadership is discussed in the literature using different terms. Mintzberg (1994) argues that managers using a calculating style of management are less successful in the long term than those who lead by a committing style. The committing style takes into account member preferences and builds enthusiasm for the accomplishment of a common objective (Mintzberg, 1994). While Mintzberg (1994) is drawing out two distinct styles of management, his committing management style aligns with what Elkhdr (2019) and Gray and Otte (2006) describe more similarly as leadership.

The point of discussing this distinction is not to advance a concrete definition of leader or manager but rather to acknowledge that these terms are not synonymous, are used differently in the literature, and have unique implications for team performance. Marine

Corps doctrine describes leadership as much more encompassing, holistic, and requiring a larger responsibility than a process driven managerial role. While Elkhdr (2019) makes a convincing argument that management and leadership are distinct roles to be held by different people, this takes place largely at the corporate level. At the tactical Marine level, this role is often held by the same individual. However, the imperative of team leadership should not be confused with necessary managerial functions and processes. The term “leadership” is used in most team literature reviewed and will be the focus here because it has the largest impact on team performance and is more difficult in application than purely managerial tasks.

To summarize, I explore leadership through the lens that leadership is “the relationship between a leader and a follower in the achievement of a positive goal” (Gray & Otte, 2006, p. 18). While management and leadership are often used synonymously, Marine leadership includes process focused managerial functions in addition to the more important influence, inspiration, and long-term responsibility inherent in leadership.

2. Team Leadership Scholarly Literature

Twenty-first century academic research in team leadership generally reflects the transition from the Industrial Age model to a cognitive focus discussed in the background chapter of this thesis. There is no shortage of leadership books on the *New York Times* best seller lists that offer lists of leadership principles or best practices for leading a twenty-first century organization. While some of these books can be useful, the amount of raw information can be overwhelming and is often based on an individual’s experience within a narrow operational field. Scholarly research has provided quantitative and qualitative rigor to anecdotal leadership best practices and can provide insight for Marine leaders practicing the timeless Marine Corps leadership philosophy in a wide array of environments. This research identifies practical team leadership techniques that can improve team performance.

Like *New York Times* best sellers, *Leading Marines* (2014) prescribes a list of 11 “leadership principles” and 14 “leadership traits.” While these traits and principles generally align with academic research findings, the art of understanding the social

dynamics involved in leading teams can be under appreciated if taken only as a list of things to apply. Scholarly research has pulled out some of these nuances that Marine leaders must understand as they progress in their careers. Memorizing traits and principles is appropriate for entry level training. However, as leaders progress, they must understand the art and nuance of team leadership, beyond lists of best practices. Scholarly research can assist in this understanding.

In addition to Marine doctrine and academic research, a wealth of leadership literature comes from retired military leaders who have gone on to have careers in private industry. These leaders' reflections on leadership practices in both sectors are insightful. Their extensive experience in the government and private sector synthesized with existing Marine doctrine and academic studies provides a rich addition to a Marine leader's basic leadership training. For example, Marine General Anthony Zinni achieved the rank of general before retiring after 39 years and serving on several boards of directors and as the executive vice president of DynCorp (Zinni & Koltz, 2009). General Zinni has co-authored several books, one of which is titled *Leading the Charge: Leadership Lessons From the Battlefield to the Boardroom* which draws on his leadership experience across military and civilian organizations. He continued his education and wrote a dissertation on leadership and innovation while pursuing his doctorate. While General Zinni does not have all the answers, retired military leaders such as himself with extensive experience from diverse perspectives, coupled with the opportunity to reflect on their lessons learned after the fact, provide a wealth of knowledge that should be leveraged by today's military leader.

Scholarly research consistently identifies a leader's requirement to understand context. Leaders must understand the context in which their team operates if they are going to apply the appropriate concepts from academia, doctrine, and former military leaders because "leadership is not a one-size-fits-all proposition" (Snowden & Boone, 2007, p. 2). Snowden and Boone (2007) argue that a leader must understand context to know when to rely on intuition and when to delegate to their team. Leadership style matters and should be tailored to the specific organization because the chosen style has a direct impact on team performance (Salas et al., 1995, p. 58).

Several frameworks have emerged in the last twenty years to help leaders understand the context their organization operates in and how to best approach problems and adapt their personal leadership style. For example, Snowden and Boone (2007) propose the “Cynefin” model which breaks down operating environments into five “contexts.” These are “simple, complicated, complex...chaotic...and disorder.” This breakdown aligns with a shift in leadership from the Industrial Age to today. While other frameworks and models are proposed, the shift from the leader as the sole decision maker, to a team of decision makers, scalable based on context, is consistent throughout the literature.

This study does not advance or propose a leadership framework. Frameworks are useful for understanding nuances of team leadership and provide techniques for viewing leadership problems from different perspectives. However, like team models, no leadership model is universally applicable to tactical Marine organizations and should be used to provide leaders a different perspective on their unique organization but not as an additional process to be strictly followed.

Outside of leadership specific models, leadership is integral in numerous team models. It is represented in the Salas et al. (2007) model reviewed in the team model section of this thesis, is central in Courtney et al.’s (2007) DOT team model, and a variation of the Input Mediating Mechanisms Outcomes model advanced by Mathieu et al. (2019). The DOT model designates “shared transformational leadership” as a key assumption in the model (Courtney et al., 2007). The model embraces shared leadership as a philosophy that promotes “an empowered team environment that enhances commitment, encourages innovation, and enables knowledge-workers to develop entrepreneurship (ownership)” (Courtney et al., 2007, p. 37). The shared leadership basis of this model aligns with literature on team leadership that stresses psychological safety, trust, and a leader-leader over leader-follower model as discussed by Marquet (2012). This aligns with the twenty-first century literature’s departure from the top-down leader-follower, Industrial Age model.

Mathieu et al. (2019) discuss leadership in two locations within their IMO model. Like the DOT model, “shared leadership” is a central “structural and mediating feature” that distributes leadership roles among members. Their research showed that shared

leadership is positively associated with positive team processes and encourages initiative among team members (Mathieu et al., 2019, pp. 32–33). The IMO model also includes “external leadership” as a contextual influence. External leadership was not as strongly correlated as shared leadership, yet was positively associated with psychological safety and empowerment (Mathieu et al., 2019). The role of external leadership aligns with the theme of “top cover” and is found throughout the literature. While the IMO model uniquely distinguishes external from shared leadership, the distinction is also made elsewhere in the literature through various other terms. The IMO model’s external leadership is often found as “organizational leadership.”

The next consistent theme throughout scholarly literature is that of top cover. Okhuysen and Bechky (2012) charge the team leader with “setting the tone for positive group processes” (Okhuysen & Bechky, 2012, p. 319). This is central to this thesis and aligns with the shift from top-down hierarchical leadership to shared and delegated leadership. Okhuysen and Bechky (2012) state that the leader is imperative in creating collective intuition and that “leaders have a disproportionate influence on group process” (Okhuysen & Bechky, 2012, p. 319). Similar to Mathieu et al. (2019), Okhuysen and Bechky (2012) describe the role of leaders in creating and protecting an environment for positive team processes such as psychological safety and initiative. This aligns with the literature on top cover (Okhuysen & Bechky, 2012, p. 319). To allow teams to grow and learn, a legitimate leader must provide top cover and create the environment for positive processes to take place (Okhuysen & Bechky, 2012).

To apply top cover to military research, in a discussion on fostering military innovation, Augier and Hughes (2018) posit that the military must reward leadership “who stick their necks out for those willing to experiment and do things differently and provide top cover for the people who are implementing the new ideas, technologies, and tactics” (Augier & Hughes, 2018, p. 9). The literature regularly returns to the imperative for organizational leadership to protect individual members. For example, Colonel Wyly was instrumental in re-writing Marine Corps doctrine after lessons from Vietnam and was able to do this because his boss protected him from institutional pressures and mechanisms that would have otherwise de-railed this effort (Augier & Barrett, 2020).

While leadership's role in team performance is not always detailed beyond highlighting its importance, numerous academic articles agree in their characterization of leadership as a core team competency. Burke et al. (2004) list "team leadership" as one of the "big five" competencies of teamwork. They provide several examples of this competency such as "facilitate team problem-solving" and "synchronize and combine individual team member contributions" (Burke et al., 2004, p. 1100). Salas, Goodwin, Burke, and Rosen (2009) list both "shared/distributed leadership" and "team leadership" (p. 60) as KSAs. Similar to Mathieu et al.'s (2019) IMO model, Salas, Goodwin, Burke, and Rosen, (2009) and Zaccaro et al. (2009), discuss team leadership as building inter-team processes and effective teamwork. While Mathieu et al. (2019) referred to this as shared leadership, they came to similar conclusions. Salas Goodwin, Burke, and Rosen (2009) used shared leadership differently and referred to something that aligns closer to Mathieu et al.'s (2019) external leadership. Shared leadership is used to discuss the shifting of functions and responsibilities among team members based on the task at hand (Salas, Goodwin, Burke, & Rosen, 2009).

The intricacies of what one author terms one thing or another are unimportant to this research. This section is provided simply as an example of different terms being used for similar concepts that scholarly team leadership overwhelmingly agrees on. What is important is that the literature broadly accepts leadership as a competency and central to the effectiveness of high-performing teams. Further, the leadership literature distinguishes between the direct leader of a team who works intimately with the team to perform tasks, and over-arching or external, organizational leadership which creates the environment for that team to perform, but is not necessarily involved in the day-to-day process. This thesis is primarily concerned with the latter. The tactical leader who must create an environment for effective team performance.

3. We-Leadership

Shared leadership, collective leadership, distributed leadership, and transformational leadership are all terms that appear in literature to discuss contemporary organizational leadership theory. These terms generally reflect the imperative to shift

organizational leadership from an authoritative, top-down, or hierarchical leadership to a flatter, collective leadership more adaptable to complex situations. Collective leadership models agree that organizations can adapt to a changing environment faster when the decision maker is where the information is received. Steep, hierarchical organizations slow decision making, when information has to be pushed up the leadership pyramid, to build context, and then the decision must be communicated back down (Headquarters Marine Corps, 1996). Competent lower-level leaders who have the information and authority can more rapidly adapt to complex situations.

This style of leadership has been defined by several authors as “we-leadership.”²¹ We-leadership captures concepts that directly apply to leading twenty-first century teams. Its discussion in both academic and military circles make it an ideal starting point for the tactical leader who has a firm grasp on military leadership doctrine and wants to explore further.

We-leadership is a philosophy or approach, rather than specific leadership style, that can be used by leaders with different leadership styles from diverse organizations (Otte, 2015). Otte (2015) establishes shared vision and shared responsibility as organizational pre-requisites for we-leadership. While vision has become cliché in leadership articles, Useem’s (1998) study of high-performing teams argued that the most important lesson from his research is the “overwhelming significance of vision and action” (p. 263). We-leadership emphasizes shared responsibility at lower levels but does not reduce the responsibility of the individual leader for establishing a clear and actionable vision.

The underlying theme of we-leadership is engagement (Otte, 2015). Otte (2015) explains “engaged employees are committed to their positions and organizations. They have an emotional alignment with their organization; what it does and where it’s going; they provide sustained discretionary effort; and feel a sense of shared ownership” (p. 205). Engagement is seen throughout team literature and encompasses competencies such as

²¹ The origin of the term “we-leadership” is unclear. Academic article date from the early 2000s but I did not find any that claimed to have originated the term or referenced where it originated. Dr. Paul Otte’s 2015 book, *We-Leadership*, provided the most in depth analysis of the concept found (Otte, 2015).

commitment, initiative, and shared vision. Engagement comes from values being prioritized over skill, individuals seeing their actions align with organizational goals, and individuals thinking and acting in terms of “we” or the organization rather than “I” or the individual (Otte, 2015). Once individuals establish a psychological connection with the organization, the followers will take actions that benefit the organization (Augier & Guo, 2016).

We-leadership goes beyond the individual relationships between the leader and led and embraces the organizational context to leader-led relationships which builds organizational identification (Augier & Guo, 2016). We-leadership is people centric (Augier & Guo, 2016), which aligns with the *Commandant’s Planning Guidance* that “everything starts and ends with the individual Marine” (Headquarters Marine Corps, 2019, p. 6). We-leadership departs from traditional trait based, or hierarchical leadership by focusing on individual commitment to the organization and emphasizing selflessness among all individuals. This aligns with Mintzberg’s (1994) committing style of management and is reflected throughout the literature. We-leadership encompasses the advanced understanding of social dynamics of the twenty-first century and provides complimentary concepts to amend traditional leadership philosophies rather than outright replace.

We-leadership aligns well with Marquet’s (2012) analysis of his leadership experience as a submarine commander and follow-on career as a business consultant. Marquet (2012) makes an important distinction on empowerment that furthers the we-leadership concept. We-leadership is based on creating an organization in which individuals are engaged through values alignment, goal orientation, and embracing of ownership and responsibility (Otte, 2015). This involves what appears regularly in the literature as “empowerment,” and is cemented in *Leading Marines* as the ninth leadership principle: “develop a sense of responsibility among your subordinates” (Headquarters Marine Corps, 2014, p. 2-6). Marquet (2012) furthers this literature by arguing that you cannot direct empowerment because it only re-enforces the leader-follower model of Industrial Age origins. If it requires the leader to “empower” the follower, then the follower doesn’t really hold any power but must receive it from the leader (Marquet, 2012). Part of

Marquet's solution was to replace the military tradition of requesting permission with an intent statement (Marquet, 2012). In this model a subordinate would state, "Captain I intend to..." and the Captain would acknowledge. This seemingly small shift of words puts the onus on the subordinate to be engaged and develop a plan rather than relying on the Captain to provide top down guidance (Marquet, 2012). Marquet (2012) does not mention we-leadership; however, his leadership study overwhelmingly aligns with the we-leadership philosophy.

Retired Marine General Anthony Zinni recorded his findings on leading in today's environment based on a career's worth of military and private industry leadership positions. While his work was published prior to the works on we-leadership, his findings align with the we-leadership philosophy. Zinni and Koltz (2009) emphasize the role of values, culture, identity, and multi-discipline or diverse perspectives for contemporary leadership. They posit that understanding the environment and context in which an organization operates is critical in today's operating environment (Zinni & Koltz, 2009). Their emphasis on organizational identity, common purpose, mutual support, cohesion and pride (Zinni & Koltz, 2009) all align with we-leadership's emphasis on engagement and pushing responsibility below the single leader at the top of the hierarchy. We-leadership provides an intuitive framework that practically applies teamwork to military organizations, and is a logical next step for the tactical leader to improve team performance within their organization. I apply the we-leadership model to the USS Wahoo case study in Chapter IV of this thesis.

4. USMC Doctrine on Team Leadership

The Marine Leadership philosophy is widely accepted as an ideal post-Industrial Age philosophy, and it is important to highlight what the foundational publications have already established before attempting to apply scholarly concepts to team performance. *Leading Marines* is designed for all Marine leaders to read and provides mostly anecdotal evidence for the application of leadership traits and principles (Headquarters Marine Corps, 2014a). *Leading Marines* convincingly provides examples of successful combat leadership grounded in the Marine Corps' rich heritage, ethos, and battlefield success. While *Leading*

Marines is an essential read for Marines throughout their career to provide a common education and foundational understanding of the organizational identity, it falls short of providing research or cross discipline evidence for its positions.

Command and Control lays out the Marine Corps' philosophy of command and control and discusses the leadership of units or teams (Headquarters Marine Corps, 1996). It lays out a framework or philosophy that requires judgement in application that transcends the competition continuum, leadership level, and garrison or tactical environment. Common themes throughout the publication mirror that found in academic research. Delegation of authority, team cohesion, unit identity, engagement, trust, shared vision, mutual understanding and situational awareness are all layman's terms intended for every Marine to understand, which mirror concepts found in academic research (Headquarters Marine Corps, 1996). While *Command and Control* is over 20 years old, the emphasis on developing subordinates to make decisions at their level to increase the tempo in complex and uncertain environments shares common themes with we-leadership and scholarly research.

Command and Control takes on some academic rigor by designating three pages to discuss leadership theory. It lays out two types of leadership. The first, "authoritarian," which assumes people naturally do not like work and thus must be coerced. The second is "persuasive" or "delegating" which assumes work is "as natural as rest or play." In delegating leadership, "people will exercise initiative and self-control to the degree they are committed to the organizational objective" (Headquarters Marine Corps, 1996, p. 82). *Command and Control* emphasizes the importance of commitment, engagement, and the leaders' role in creating an environment for subordinate teams to excel (Headquarters Marine Corps, 1996). The doctrinal manual summarizes these concepts by quoting a 1960 Douglas McGregor book that is worth repeating in its entirety.

Under proper conditions, people learn not only to accept responsibility but to actively seek it. According to this theory, the potential for exercising imagination, ingenuity, and creativity in the solution of unit problems is widespread throughout any unit. Leadership thus becomes a question of inspiring, guiding, and supporting committed subordinates and encouraging them to perform freely within set limits. Over time, delegating or persuasive leadership tends to produce subordinates who exhibit a high degree of

independence, self-discipline, and initiative. (Headquarters Marine Corps, 1996, p. 83)

While scholarly research distinguishes between the leader of a small team and an organizational leader, Marine Corps Doctrine does not. This is simply by the design of Marine Corps doctrine to be concise and digestible by every Marine. Doctrine agrees with leaders' responsibility to create mutual trust, cohesion, and respect among their subordinates (Headquarters Marine Corps, 1997b) but falls short of detailing the social dynamics that leaders of teams should understand as they move forward in their leadership careers. Academic research in this area can fill these gaps in content and updated concepts after leaders have a firm understanding of Marine Corps doctrine.

5. Summary

While the literature provides different recommendations for individual leader techniques for leading in the twenty-first century, it aligns in the understanding that the twenty-first century is too demanding for any single individual to process the plethora of information and direct a team of automatons. Leading in the twenty-first century requires a different approach than during the Industrial Age (Zinni & Koltz, 2009). Leaders must focus on shared leadership or the leader-leader model to capitalize on individual talents and create teams that are adaptable to solve complex problems that characterize today's operating environment (Marquet, 2012). Leading by fiat, or by legitimate authority alone, in a hierarchical, top-down structure, is no longer flexible enough to operate effectively. Information flow is too slow when it goes through hierarchical channels and the operating environment is too rapid and complex for the leader at the top to make informed decisions. The decision must happen where the information is received, and leaders must develop organizations that create teams capable of making these decisions. We-leadership is a logical next step of exploration for the tactical leader, with a firm grounding in foundational leadership concepts, to further their ability to lead high-performing teams.

D. ILL-STRUCTURED PROBLEMS

The future operating environment is unpredictable (FOE 2035). Preparing the Marine Corps for a single environment would likely result in the wrong force (Berger,

2021). Therefore, a force should prepare to deal with uncertainty, ambiguity, and complexity. For this reason, my research focuses on developing team leadership and teams around ill-structured problems rather than a single problem set or a single predicted operating environment. Teams that can solve ill-structured problems will be better postured to perform in any operating environment the Marine Corps finds itself in.

Adapting to an unpredictable environment has been extensively researched across disciplines. Scholarly research created many terms, theories, and concepts. The most prevalent in the literature reviewed are termed chaos and complexity. I briefly discuss both of these and why ill-structured problems is a better fit for analyzing Marine Corps teams and team leadership.

Chaos is often used in its literal sense in the literature to mean, “complete confusion and disorder” (Merriam-Webster, 2022) but has evolved into a study of its own. Chaos Theory can be defined as, “the concept that chance, changing conditions and creativity enter complex systems at any point and alter the course” (Engdahl, 2005, p. 56). Chaos theory has too many implications to be useful for this study. The purpose of the chosen term in this study is to better understand what environment teams need to be prepared for. While the term chaos is used in defense literature to discuss the future, it can bleed into Chaos Theory which is well beyond the scope of this study.

Complex problems or environments are defined differently throughout the literature. McChrystal et al. (2015) argue that the difference between complicated and complex is the number of interactions between components. Complicated things have multiple components but can be predictably broken down into individual components of cause and effect. The increased interactions from complicated to complex problems increases the degree of unpredictability and reduces the ability to see cause and effect (McChrystal et al., 2015). This distinction between complicated and complex aligns with Snowden and Boone’s (2007) discussion of their Cynefin model for understanding environmental context. Complex follows complicated on their contextual continuum. Complicated problems have multiple right answers but a discernable cause and effect relationship still exists (Snowden & Boone, 2007). Complex problems still have a right answer, but this answer is difficult, if possible, to find. The complex environment cannot

be broken down neatly by cause and effect due to the constant state of flux (Snowden & Boone, 2007). I chose not to use the term complex for this research because it has been so widely used that it lacks definition and specificity.

The term ill-structured removes some of the fatalistic images that often accompany terms such as chaos and complexity. Ill-structured problems are those that “possess multiple solutions and uncertainty about which concepts, rules, and principles are necessary for the solution” (Reed, 2016, p. 691). Ill-structured simply means a problem that is not well-structured and whose structure is difficult to define (Simon, 1973). Simon (1973) demonstrates that Ill-structured and well-structured problems overlap and there is no clear boundary (Simon, 1973). While Ill-structure problems are difficult to define and fluid, multiple answers may exist and they can be solved (Simon, 1973).

Reed (2016) reviewed Simon’s original work on Ill-structured problems, specifically his claim that “solving ill-structured problems could be modeled within the same information-processing framework developed for solving well-structured problems” (Reed, 2016, p. 691). Reed’s (2016) multi-discipline review found that Simon’s initial claims were still valid and that similar information-processing frameworks can be used for well-structured and ill-structured problems but that the framework will apply differently as “problems become more ill-structured” (Reed, 2016, p. 691). He finds that individuals who can think critically and re-orient their perceptions are more able to solve problems and puzzles that have an unknown decision space or are ill-structured (Reed, 2016).

“Ill-structured” appears in military literature around discussions on systems thinking and analytic models. While the literature cautions against an over-reliance on these methods, it endorses the use of them as tools to compliment decision making. Augier and Barrett (2019) find that while systems analysis is a useful tool for understanding well-structured problems, it is less so for ill-structured problems. This aligns with Reed’s (2016) finding that well-structured problem-solving frameworks become less useful as problems drift toward ill-structured. In support of models, Joint Publication 5-0, *Joint Planning*, details a “cautionary note” in which human elements and unpredictability are emphasized to the point that models and analytical tools may be insufficient for tackling ill-structured problems. However, the publication claims that with the appropriate contextual

understanding these models can be used to assist the decision maker in an ill-structured operating environment (Joint Chiefs of Staff, 2017).

While the terms chaos and complexity, among others, regularly appear in military and academic literature, I chose ill-structured problems to describe the problems that teams will face in the future operating environment. Ill-structured problems are simply those that do not lend themselves neatly to analytic modeling or pattern recognition and have no obvious way to go about solving them (Van Riper, 2013). Ill-structured problems are agnostic with regard to adversary and operating environment but require decision makers and teams to assess them critically, through diverse perspectives, to find creative solutions.

While ill-structured is not found in Marine Corps foundational or contemporary publications, the terms chaotic, uncertainty and complexity are pervasive. These terms are used in their literal sense and Chaos Theory is not invoked. These terms are used somewhat interchangeably to generally define a fluid and dynamic environment. *Warfighting* lays out the case that because the operating environment is uncertain, chaotic, and disorderly, the Marine Corps must employ a command-and-control philosophy that can not only cope with but thrive in this environment. *Warfighting* establishes maneuver warfare as a “particularly disorderly style of war” and challenges every Marine to embrace and thrive on chaos rather than attempt to define it with analytical frameworks.

Command and Control states that “the fundamental point is that any military action, by its very nature a complex system, will exhibit messy, unpredictable, and often chaotic behavior that defies orderly, efficient, and precise control” (Headquarters Marine Corps, 1996, p. 45). It speaks to preparing for the future operating environment this way, “since we cannot predict when and where the next crisis will arise or what form it will take, our command and control must function effectively in any environment” (Headquarters Marine Corps, 1996, p. 58). The Marine Corps philosophy of command and control is grounded on the ability to accept uncertainty and the role of chance and randomness, and excel in spite of it (Headquarters Marine Corps, 1996).

The role of uncertainty is fundamental to Marine Corps doctrine (Headquarters Marine Corps, 1997b) and is found throughout the foundational and contemporary

literature. While Marine Corps literature somewhat interchangeably uses the terms complex, chaotic, and uncertainty, ill-structured could be implemented in many of these places without changing the intent of the literature. Ill-structured is unique from the general use of uncertain, complex, and chaotic in that it specifically refers to problems which are not insurmountable and can be solved. The means in which they can be solved departs from traditional analytic models and involves diverse, educated, mature teams and leaders of teams. Ill-structured problems provide a useful concept to assess the effectiveness of teams and team leadership.

E. ORGANIZATIONAL CONCEPTS

Tactical Marine teams and team leadership need to be analyzed within the context of the larger Marine organization. Guzzo and Dickson (1996) note that while the bulk of traditional team research studied teams without consideration for their organizational context, the research trend is shifting due to the recognized impact that organizations have on environmental factors that affect teams. Organizational change is a central topic in Marine Corps transformation documents. Understanding teams within organizations and the imperative for organizational change within the Marine Corps led me to explore organizational theory literature which revealed implications for addressing teams and team leadership.

Organizational change and transformation research opens the door to several other academic disciplines. Namely, Organizational design and organizational structure. While the scope of this thesis restricted in-depth research into each of these fields, they provide insight into team interactions with the organization. These distinct academic disciplines hold vast opportunities for future research on teams and team leadership.

Organizational design can be defined as, “the complete specification of strategy, structure, processes, people, coordination and control, and incentive components of the firm” (Burton et al., 2006, p. 17). Design can be understood as “the choices made in an organization about how the organization is to be structured” (Hall, 2002, p. 84). Organizational structure includes physical aspects such as how workspaces are organized to relational aspects such as who reports to whom and who coordinates or delegates which

activities (Ahmady et al., 2016). Organizational structure defines communications channels, formal relationships, and is typically reflected in the organizational chart or wire diagram (Ahmady et al., 2016). Organizational structure includes the practical organizational techniques that tactical leaders can use to better their organizations. Since organizational design includes how to structure the organization (Hall, 2002), I use the term “organizational design” from here forward to refer to structural and conceptual organizational practices that leaders can explore.

A cursory look was taken at the organizational design literature. This is an immense area of literature which should be explored by other team researchers in the future. Tactical leaders should understand that they must organize for a dynamic and unknown environment and thus organize their teams to be flexible and ready to adapt to non-standard organizations based on the environment they encounter. The Industrial Age organization based on wire diagrams²² and cold war organization will remain for decades to come. *Talent Management* and the *Commandant's Planning Guidance* lay out a path for conceptual exploration to update these Industrial Age models, but this change will take years to implement. Tactical leaders should not constrain themselves to these antiquated organizational structures and be prepared to informally reorganize as necessary.

Cunliffe (2008) defines an effective organizational structure and design as “one that optimizes the performance of the organization and its members by ensuring that tasks, work activities and people are organized in such a way that goals are achieved” (p. 2). Organizational design is not a linear step-action process. Rather it requires judgement and foresight, and is different for every organization (Hall, 2002). The academic and military literature agree on leaders' responsibility to critically think about how their organizations are organized based on the organization's purpose.

²² The wire diagram refers to the traditional military or organizational chart which depicts the structure. Typically, the boss is depicted at the top in a box. A line goes from this box to the subordinates' boxes. The pyramid structure is depicted this way to clearly show who reports to who in a top-down structure. These are often used in the military to depict reporting channels and command and control relationships. Different types of lines (dotted, dashed etc.) depicts a different command and control relationship between entities.

The literature also agrees that Industrial Age models are insufficient for the present and future. Bryan and Joyce (2007) argue that organizational design has taken a back burner to product design and long-range plans that never come to fruition due to a dynamic environment. They argue that investing in organizational design can provide a disproportionate corporate advantage, compared to the time invested, in today's changing environment (Bryan & Joyce, 2007). Walcutt and Schatz (2019) argue that sticking to current organizational design in the current ecosystem is a "sure fire way to be disrupted" (p. 271). They find that in addition to general organizations, learning institutions must adjust their organizational design as well to stay abreast of today's competition (Walcutt & Schatz, 2019).

Some literature argues that flexibility should be the focus of organizational design rather than concrete changes. Hall (2002) argues that organizational theory has not matured to the point that we can apply a specific theory to a specific setting. Engdahl et al. (2000) argue for a shift in focus from making specific, one-time design or structure changes, to developing skills to excel in an increasingly dynamic environment. They posit that a focus on better understanding a "self-organizing process and the development of requisite individual and team building skills," is more valuable (Engdahl et al., 2000, p. 28). Teams require the skills to "continuously define the rapidly evolving environment, skills to do problem-formulation under conditions of high uncertainty, and skills to effectively collaborate on problem-solving the relevant problems for their organization" (Engdahl et al., 2000, p. 28).

At the practical level, many military organizations have been analyzed through the lens of organizational design. JSOC and the French Army are two prominent organizations whose successes or failures have been analyzed in the literature. General McChrystal reorganized JSOC into the *Team of Teams* model, from the traditional hierarchical model (McChrystal et al., 2015). He focused on "flattening" the organization by reducing middle management and increased lateral communication. This offers a comparatively radical model, admittedly in a unique organization, to move organizations beyond the Industrial Age model of hierarchical, process focused, organizations. Doughty (1985) examined the historic failure of the French Army to adapt and innovate in the inner-war period between

the World Wars. He credits this largely to an inflexible organization that failed to embrace a learning orientation and doubled down on its concept of methodical battle.²³ The methodical battle concept was designed to fight the Germans of the First World War and failed to adapt to the future threat. These are practical examples from the literature in which organizational design affected the mission outcome.

In Marine Corps doctrine, *Command and Control* agrees with Engdahl et al.'s (2000) call for flexibility and adaptability in organizational design. The publication argues that while organizational constructs should be as flexible as possible, the “commander must reconcile this desire for organizational flexibility with the need to create implicit understanding and mutual trust which are the product of familiarity and stable working relationships” (Headquarters Marine Corps, 1996, p. 134).

Each echelon should not exercise all command functions (Headquarters Marine Corps, 1996). *Command and Control* states, “just as we task-organize our force, so should we task-organize our command and control structure” (Headquarters Marine Corps, 1996, p. 134). Former Secretary of Defense and Marine General Mattis employed a technique which aligns with *Command and Control* termed “skip echelon” (Mattis & West, 2019, p. 59). With the intent to keep a lean staff, each staff function was not represented at each echelon of command if the higher or subordinate staffs could fill that role (Mattis & West, 2019).

Command and Control contains a section titled “Organizational Theory.” This section discusses that the intent of the organization is to establish unity of command through an established chain of command, support relationships, and proper authorities (Headquarters Marine Corps, 1996). It describes the importance of organizations in promoting a unique identity, seamless communications, and creative solutions from self-contained teams within the organization (Headquarters Marine Corps, 1996). The

²³ Methodical Battle was the firepower centric, highly centralized French Army way of battle employed in the opening stages of the Second World War (Doughty, 1985). This way of battle proved far too inflexible for the 1939 German Army and is largely credited with contributing to the French collapse (Doughty, 1985).

Organizational Theory section includes the flat versus hierarchical diagrams and discussion, addressed in the literature review chapter.

Command and Control has the most in depth discussion of organizational design among Marine Corps' foundational publications. This discussion does not offer any specific structure but rather emphasizes the imperative for leaders to task organize their organizations for their unique purpose (Headquarters Marine Corps, 1996). It requires that adaptability and flexibility be built into the structure rather than rigid compliance with organizational charts (Headquarters Marine Corps, 1996). *Command and Control* provides a sufficient entry level discussion in organizational design and aligns with the other literature reviewed.

While specific organizational design mechanisms could be explored for individual organizations in further research, they fall beyond the scope of this study. However, the literature re-iterated the imperative of flexibility and adaptability in any design rather than periodic, concrete structural changes. The literature further emphasizes that form should follow function, rather than attempting to conduct every mission within the established organizational structure.

While institutional structural changes are being instituted through *Force design 2030*, the tactical leader has little influence over this process. Tactical leaders should deliberately assess organizational design and not limit organizational structure to what the table of organization says. Blaber (2008) argues that a perspective change needs to take place to get leaders out of the mindset of employing their organization as is. He states, "what would you do if your people were cut off from all their different headquarters and all their institutional histories? Constantly ask yourself and your organization this question: How would we organize if we didn't know how we were supposed to organize? Then do it!" (Blaber, 2008, p. 296).

F. ORGANIZATIONAL BEHAVIOR LEVELS OF ANALYSIS

Organizational behavior offers a useful framework for understanding the Marine Corps' change requirement. Organizational Behavior scholars dissect organizations into three levels of analysis (Sims, 2002): individual, group and organization (Sims, 2002).

These levels of analysis are also found in the literature as micro, mezzo (or meso), and macro respectively. While a level analysis helps break down the dynamics within an organization, all three levels must be considered in total to understand the complexity of the organization as a whole (Sims, 2002). Tactical leaders should generally understand these levels of analysis to gain a deeper understanding of organizational dynamics that directly affect their team performance. Looking at teamwork within a company or battalion is far too broad. These levels of analysis provide a framework to look deeper into the interactions and draw practical conclusions.

The individual level is associated with individual “perceptions, attitudes, and personality” (Sims, 2002, p. 2). The individual level of analysis is typically associated with psychology and includes things such as individual emotions, motivation, and learning (Robbins & Judge, 2012). The group level is concerned with, “how people communicate with each other and coordinate their activities in work groups and teams” (Sims, 2002, p. 2). Organizational behavior literature often uses “group” instead of “team” which I use throughout this paper. The group level of analysis is typically associated with sociology and includes group processes, group decisions making, and intergroup behavior (Robbins & Judge, 2012). This is the level of analysis which this thesis focuses on. The highest level of analysis is organizational which describes organizations as a whole, “the way they are structured and operate in their environments, and the effects of their operations on their employees” (Sims, 2002, p. 2). The organizational level is sometimes referred to as the “system” or macro level. The organizational level is typically associated with anthropology and sociology and also includes a focus on culture, power, and organizational theory (Robbins & Judge, 2012).

These levels of analysis nicely represent current initiatives in the Marine Corps and offer a framework for understanding. The individual level analysis is reflective of the individual Marine. That Marines’ motivation, training and education, technical acumen, and competency. The individual level is associated with taskwork. For the group level

analysis, I focused research on the fire team²⁴ through battalion²⁵ or squadron level. The battalion or squadron formation is the traditional unit of work and highest echelon that reflects the dynamics studied in the group context of organizational behavior such as communication and cohesion. The organizational level of analysis in this study is the Marine Corps or Service level. How Headquarters Marine Corps, directed by the commandant, influences and affects the groups to move the Marine Corps in a certain direction is the focus of the organizational level of analysis.

The Marine Corps has traditionally, and is continuing today, to do a superior job of preparing the individual and organizational level, however, lacks initiatives or focus on the group level. The group level includes the primary units of work within the Marine Corps from the traditional battalion to the future smaller, dispersed unit.

The organizational behavior levels of analysis provide a framework to view current service level initiatives through and to demonstrate why the tactical leader needs to focus efforts on the group level. The *Commandant's Planning Guidance* highlights five priority areas. Force design, warfighting, education and training, core values, and command and leadership (Headquarters Marine Corps, 2019a). The Force design and warfighting areas are almost exclusively organizational initiatives. Of the 15 warfighting initiatives, 14 are organizational level initiatives. Command and control is an organizational initiative but focused on the success of the group level. Education and training, except for one mention of group problem solving and some discussion of unit training, is organizational or individually focused. Corps Values focuses on all three levels of analysis. This section is one page and primarily focused on reducing harmful behaviors among individuals that hurt the group. While command and leadership is less than one page it focuses on improving leader selection to improve the group. The bottom line is that the fewest initiatives of the *Commandant's Planning Guidance* are focused on the primary unit of work.

²⁴ A fire team has 4 Marines.

²⁵ A typical infantry battalion has between 900–1000 Marines and Sailors. Battalions from other occupational fields as well as squadrons numbers will vary, however all are like size units and commanded by a Lieutenant Colonel (MAGTF Staff Training Program, 2017).

I do not point out the lopsided focus on organizational and individual level initiatives to negatively critique the *Commandant's Planning Guidance*, but rather to highlight the idea that our current teambuilding system assumes that qualified individuals within a sound organizational construct will come together to make competent groups and teams. Indeed, the initiatives in the *Commandant's Planning Guidance* will improve the group level, however it under-focuses on teamwork dynamics. The organizational behavior levels of analysis can help frame the issue that needs to be addressed within the Marine Corps and provides a framework for the tactical leader to better focus on the issues they can affect.

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III. CASE STUDY

A. INTRODUCTION

The Marine Corps must foster continuous learning and organizational improvement to succeed in today's operating environment (Headquarters Marine Corps, 2020a). The Marine Corps' modernization and re-design efforts driven by The *Commandant's Planning Guidance* and *Force Design 2030* provide an ideal opportunity for the Marine Corps to self-assess in all areas. Team performance and team leadership are two of these areas which are critical to the Marine Corps' warfighting capability and should be evaluated. The USS Wahoo provides a partially analogous historical example of a military organization which transformed to meet an emerging threat.

This case study explores the life of the USS Wahoo to analyze the team performance and team leadership that assisted the transformation of the USS Wahoo from an underperforming submarine to a fleet-leader. The drastic transformation aboard the USS Wahoo and other submarines, helped turn the war in the Pacific in favor of the United States. The USS Wahoo is remarkable and representative of a general shift in mindset and tactics of the Pacific submarine fleet which disproportionally contributed to the defeat of the Empire of Japan and the end of WWII hostilities. The USS Wahoo is credited with sinking 27 ships, totaling 119,100 tons²⁶ and damaging two more in six patrols (McDaniel, 2005, p. 146).²⁷ The USS Wahoo conducted seven war patrols and was tragically sunk by Japanese forces on the seventh patrol. The first two war patrols resulted in two freighters and one submarine sunk, totaling 13,899 tons (McDaniel, 2005). The second two war patrols resulted in ten freighters, two tankers, one destroyer, one transport, one patrol craft, and two sampans sunk, totaling 73,103 tons (McDaniel, 2005). This disparity in results

²⁶ Many different numbers exist for quantifying WWII materiel and personnel casualties. Poor record keeping, destruction of records, differing eyewitness accounts, and destruction of parties involved, contributed to differing numbers. Several attempts after the war were made to reconcile these numbers (McDaniel, 2005). These were then disputed. I have used the numbers compiled by J.T. McDaniel (2005) from patrol reports compiled at the time. The difference in accounts does not affect the objectives of this case study.

²⁷ Reports from Japanese news sources and post war studies credited the Wahoo with four additional sinkings on its seventh war patrol before the Wahoo was sunk (McDaniel, 2005).

took place with the same submarine with most of the same crew. The Wahoo is ideal for this exploration into team performance and team leadership due to its surviving records, the stark contrast in performance between patrols, and similarities between the crew and ship from the first two to the second two patrols. This is an attempt to isolate the causes for the dramatic performance improvements.

Before we delve into the USS Wahoo, it is critical to understand the broader context aboard the USS Wahoo, including the time and motivational forces at play. Four Pearl Harbor based submarines ceased routine drills in the Pacific and headed for port upon notification of the attacks on 7 December 1941. As they approached Pearl Harbor on December 9th, Ensign Paine was the Officer of the Deck aboard the USS Pompano. He experienced the carnage firsthand. First, the Pompano passed the sunk USS Nevada. As they progressed:

Bodies bobbed in the water...then the damaged battleship Pennsylvania...the battleship California was seen resting on the bottom, her main deck underwater. Rounding the dock...new horrors appeared. Paine's sentimental favorite, the battleship Oklahoma on which he had taken one of his midshipman's cruises, had capsized...Oklahoma's upturned bottom was covered with workers desperately trying to cut through to reach four hundred men still trapped...Beside her the Maryland was a shambles...next in Battleship Row was the battleship West Virginia, sunk in the mud, her decks awash...Paine's prior ship, Arizona, gone along with eleven hundred of her crew—a deep personal tragedy for the young ensign...everywhere, oil-soaked bodies were being fished from the debris...gathered for mass burial; some of Pompano's young deck crew were sickened to the point of vomiting. Anger and dismay welled up in all of them at the human loss, the destructive waste, the lack of preparedness that had led to this disaster. (DeRose, 2000, p. 25)

President Roosevelt responded to the attacks in his famous speech:

The attack yesterday on the Hawaiian Islands has caused severe damage to American naval and military forces. I regret to tell you that very many American lives have been lost...No matter how long it may take us to overcome this premeditated invasion, the American people in their righteous might will win through to absolute victory...With confidence in our armed forces with the unbounding determination of our people we will gain the inevitable triumph so help us God. I ask that the Congress declare

that since the unprovoked and dastardly attack by Japan on Sunday, December 7, 1941, a state of war has existed between the United States and the Japanese Empire. (Roosevelt, 1941)

After the declaration of war, the United States scrambled to mobilize and respond to the Japanese surprise attack. The United States desperately needed a swift and decisive response. Some high-ranking U.S. officials placed faith in the U.S. Navy submarine fleet. President Roosevelt, in a radio address, went as far as to mention that the USS Argonaut²⁸ was on station at Midway, defending the United States (DeRose, 2000). Unfortunately, the reality of U.S. submarine operations in the Pacific was dismal.

On the day of the Pearl Harbor attacks, the Chief of Naval Operations sent the following message to the Commander of U.S. Submarines in the Pacific: “Execute unrestricted air and submarine warfare against Japan” (DeRose, 2000, p. 21). This gave submarine commanders the green light for commerce raiding.²⁹ If it floated or flew and looked Japanese, civilian or military, it was to be destroyed. However, after receipt of such urgent and empowering orders, in December 1941 the Pacific submarine fleet had “mounted more than forty attacks on Japanese ships, expending nearly one hundred torpedoes, but sunk only three small merchant ships” (Arquilla, 2011, p. 192). This was hardly the overwhelming response the president and the country needed.

This performance would not quickly turn around. In the first three months of 1942 all U.S. submarines in the Pacific mounted just 17 war patrols which resulted in a meager 15 Japanese ships sunk (DeRose, 2000). Meanwhile off the east coast of the United States, German U-boats were commerce raiding with little resistance. From mid-December 1941 through March 1942 a “handful” of German U-boats sank 244 Allied ships in American waters (DeRose, 2000, p. 38). The U.S. Pacific submarine fleet was falling flat, while the

²⁸ The USS Argonaut was an early model Pearl Harbor based submarine. The USS Argonaut was destroyed by enemy action in 1943.

²⁹ The term unrestricted warfare allowed submarine commanders to use their initiative to sink any enemy vessel, civilian or military. Pre-war doctrine focused on submarine attacks on enemy Naval vessels. Unrestricted warfare opened commerce raiding against any enemy flagged vessel. This was a huge shift for pre-war cautious submarine commanders. Most commanders struggled to effectively implement unrestricted warfare until close to 1943 (Benere, 1992).

German fleet operated with impunity and the Japanese continued expanding in the Pacific. This disparity in performance was rooted in how countries viewed and developed submarines after their World War I debut.

After the First World War and the success of the German U-boats, submarine warfare held a precarious position among the world's industrial powers (Arquilla, 2011). Some leaders held ethical concerns about their employment considering them illegal weapons, and strategists could not agree on the best method of employment (Arquilla, 2011). Due to this international uncertainty, submarines were omitted from formal treaties and continued to be built by the very nations that feared them (Arquilla, 2011). While the horrors of the attack on Pearl Harbor quieted most ethical concerns, the best method of employment was still debated (Arquilla, 2011).

The inter-war submarine service consisted of highly qualified, engineer-minded officers who were technical experts in the emerging and technologically advanced field of submarine warfare³⁰ (DeRose, 2000). These officers saw the role of submarines as short range defensive weapons (Arquilla, 2011). They believed their submarines were overly susceptible to enemy depth charges and were warned by fleet leadership to limit the exposure to risk (Arquilla, 2011). However, Admiral Charles Lockwood and a small group of officers believed in the offensive potential of long-range, single-ship submarine raids and eventually changed the operational employment method of the Pacific submarine fleet (Arquilla, 2011). This change in operational employment drastically increased the strategic effect of the Pacific submarine fleet (Arquilla, 2011) but would not be employed by the fleet until the latter half of 1942.

At the tactical level, this same group of engineer minded, inter-war officers pioneered the underwater sonar approach which capitalized on the submarine's stealth and technological advancements, such as on-board sonar systems (DeRose, 2000). This technique maximized the survivability of the individual submarines. This was beneficial because inter-war submarine captains took a career hit for anything that went wrong on

³⁰ Due to the United States' relatively late entry into the First World War the United States Navy faced a degraded German Navy. This resulted in few submarine encounters and only one enemy submarine was sank at the hands of a U.S. sub during the War (Arquilla, 2011).

their submarines in training or routine patrols (DeRose, 2000). This developed a culture of technically proficient, cautious, and risk-averse submarine captains who opted to employ their ships in accordance with the accepted doctrine of submerged, acoustic approaches, to maximize their survivability (DeRose, 2000). While this mentality was sufficient for peacetime exercises, the attacks on Pearl Harbor introduced a requirement to immediately degrade the Japanese fleet. This could not be accomplished by waiting for all the conditions to be set for a textbook, stealthy approach, and attack. These opportunities were too rare.³¹ To strategically damage the Japanese fleet called for aggressive and relentless offensive operations (DeRose, 2000). Admiral Lockwood would eventually relieve nearly one-third of submarine commanders in search of those who could shed overly cautious tactics in favor of aggressive and effective ones (Arquilla, 2011).

While the U.S. submarine force was largely ineffective and had no meaningful contributions to Midway or other early U.S. victories (DeRose, 2000), by the end of the war, the U.S. Pacific submarine fleet had distinguished itself and turned the tide of the war with Japan. Just “two percent of all Navy personnel accounted for more than half of Japanese naval losses. In merchant tonnage Japan fell from six million at the start of the war to less than two million by its end” (Arquilla, 2011, p. 199). How did the Pacific submarine fleet, specifically the USS Wahoo, transform from sterile, early-war force, to decimate Japanese commercial and naval vessels and help tip the scales in favor of the Allies? What role did team performance and team leadership play in this transformation?

This case is divided into two parts. Part A focuses on the background and first two patrols of the USS Wahoo. The USS Wahoo was struggling with the rest of the submarine fleet through the first two patrols, sinking only three enemy vessels. Part A ends at the conclusion of the second patrol with the USS Wahoo crew demoralized and at a breaking point. This intermission allows leaders to assess the situation aboard the USS Wahoo and develop action plans to address the USS Wahoo’s issues which prevented it from

³¹ Submerged attacks required the submarine to correctly anticipate an enemy ship’s movements and lay in wait. Periscope use was discouraged so that enemy lookouts were not alerted of a pending attack. This left the submarine blind and reliant on radar. Submarines could only move slowly while submerged due to technology limitations. This slow speed, combined with time spend re-surfacing, reduced the chance of follow on attacks (O’Kane, 1989).

effectively contributing to the war effort. Part B discusses the second two patrols which were among the most productive by a single submarine in U.S. history. This historical transformation provides a venue for today's leaders to evaluate team performance and team leadership in an organization that rapidly transformed from an ineffective peacetime unit to a critical wartime asset. This transformation provides a lens for reflection on our own organizations during a time of relative peace.

B. PART A

The USS Wahoo (SS-238) was a Gato class submarine commissioned on 15 May 1942. It was 312 feet long and launched from Mare Island Naval Shipyard. The USS Wahoo was a “modern wonder” (DeRose, 2000, p. 37) and was equipped with state of the art torpedo gunnery computers, a search radar and increased torpedo firing tubes and storage capacity. The USS Wahoo's first Commanding Officer was Lieutenant Commander (LCDR) Marvin Kennedy. LCDR Kennedy came with an “excellent reputation in fire control and tactics, and a history of running taut ships” (DeRose, 2000, p. 36). He was a Naval Academy graduate from the class of 1929 (McDaniel, 2005) and had served on submarine and staff duty during peacetime. While LCDR Kennedy and his executive officer, Dick O'Kane, did not immediately click, both were competent and formed a capable command team (DeRose, 2000).

1. War Patrol One, 23 Aug 1942 through 17 Oct 1942

The USS Wahoo completed pre-patrol training and departed for the South Pacific on 23 August 1942. LCDR Kennedy had prepared the crew well. His engineering background was seen in his technical expertise and attention to detail. He was a “perfectionist and a slave driver,” and the “training he enforced on approach techniques was excellent” (DeRose, 2000, p. 41). LCDR Kennedy was not without his quirks. He forbade the sailors from using the showers or washing machines for fear of water waste. Sailors gathered the condensation from air-conditioning units to take sponge baths. He had a folding bunk installed in the crowded conning tower to ensure he could take control at a moment's notice. He personally assigned watches, meticulously observed navigation, and established a relentless work schedule (DeRose, 2000). While some of these practices were

annoying and obtrusive to the crew, they initially had little negative effect on performance. The team had to be excellent because “quick diving is a complex task requiring a smoothly functioning team” (DeRose, 2000, p. 42). The USS Wahoo achieved excellent pre-patrol proficiency. Most sailors considered the captain’s quirks insignificant in comparison to the task at hand and their enthusiasm to attack the Japanese in their new, state of the art, submarine.

While morale began to suffer due in part to restrictions seen as unnecessary by the crew as well as a lack of action with the enemy (O’Kane, 1989), excitement grew during the first attack. LCDR Kennedy approached with a pre-war standard sonar approach tactic³² that allowed the “estimated 2,500-ton freighter, with no visible surface escort,” to escape unharmed (O’Kane, 1989, p. 44). The attack had been continuously interrupted due to potential sonar readings of another ship which spooked LCDR Kennedy, who refused to investigate with the periscope for fear of detection. By the time LCDR Kennedy felt comfortable enough to use the periscope the target ship was out of range and could not be pursued at the slow submerged speeds.

LCDR Kennedy did not conduct formal debriefs after each attack, but the other officers of the crew began to meet informally to discuss attacks and lessons learned (O’Kane, 1989). The junior officers of the crew did not have extensive peacetime naval service and were anxious to contribute to America’s war effort. After several botched attacks, the USS Wahoo sank its first freighter. The USS Wahoo crew was ecstatic and eager for more (O’Kane, 1989).

This was the only ship the USS Wahoo would sink on the first war patrol. Missed opportunities resulted in rising tensions among the crew. The small irritations among the

³² LCDR Kennedy preferred the conservative approach tactic which involved the submarine lying in wait, and then attacking once the enemy was aligned perfectly. While the most survivable, it required to submarine to attack with the periscope retracted, thus reliant on the rudimentary sonar system to “see.” This approach often resulted in a failed attack if everything didn’t work perfectly. The submarines were too slow to pursue while submerged if a re-attack was required. O’Kane encouraged a surface approach, in which the submarine used surface vessel tactics. The submarine could move much faster while surfaced which allowed for re-attack opportunities yet made the submarine more susceptible to enemy anti-submarine forces. This tradeoff of survivability versus aggressiveness was central to the conflict brewing among the USS Wahoo leadership (O’Kane, 1989).

crew began to fester; they were no longer counteracted by the enthusiasm of the patrol and were exacerbated by the lack of success. The relationship between LT O’Kane, and LCDR Kennedy began to worsen (DeRose, 2000). The major frustration was the captain’s refusal to try different approach tactics and perceived overcautiousness which continued to limit attack opportunities (DeRose, 2000).

The junior officers of the crew began to circumvent the captain’s risk averse orders when he was not in the conning tower in a desperate attempt to sink more ships. For example, while the captain refused to extend the submarine’s periscope beyond three feet for fear of being detected, the crew would extend it to ten feet when he was not present (O’Kane, 1989).

One stark example of the conning tower conflict took place toward the end of the first patrol when the lookouts spotted a Japanese aircraft carrier. This was a target that could have reversed the entire course of the first war patrol if sunk. Kennedy arrived in the conning tower for the attack and confusion ensued. Kennedy debated with O’Kane about the best approach and then ordered one that was too slow. By the time they came to a solution the enemy carrier was out of range and could not be caught by a submerged Wahoo. The ruined attack resulted in the “dejected” captain retiring to his quarters (O’Kane, 1989, p. 56).

The determined crew attempted to recover from this failure, surfaced and caught up to the carrier, and set up for another attack while the captain was away. The executive officer alerted the captain of the new attack opportunity. The captain proceeded to the conning tower and concluded the Wahoo was too close to shore³³ and liable to be detected if they attacked the enemy carrier. “Two blasts took us down”³⁴ (O’Kane, 1989, p. 57).

³³ Enemy shorelines possessed lookouts, rudimentary radar systems, and short-range patrol vessels. While the submarine was relatively safe while submerged an attack on a surface vessel would alert those ashore of the submarine’s presence. Even if the ship was sunk before being able to radio the submarine’s position, those on shore would alert Japanese Naval forces. This was a risk that limited conservative submarine captains to operations away from the shore.

³⁴ Submarine diving was a well-rehearsed drill and initiated with whistle blasts on board. Once a submarine began to fill the ballast tanks to “dive” it was not quickly reversed. When the captain made the call to dive, the submarine was restricted to slow, submerged, speed until it could reverse the process and re-surface. By this time most fleeing vessels would have escaped (O’Kane, 1989).

The crew was frustrated and demoralized. The crew believed that no matter how many opportunities they created, their risk averse captain found a way to botch the opportunity or offer an excuse for not attempting an attack (O’Kane, 1989). They had only sunk one ship on their entire first patrol and were due to return to base.

Dick O’Kane recommended the Wahoo extend the patrol to pursue enemy ships. From O’Kane’s personal recollection, LCDR Kennedy responded with stark humility, “No, Dick. We’re going to take Wahoo back to get someone in command who can sink ships; we’re never going to win the war this way” (O’Kane, 1989, p. 58). On the return trip, the crew privately discussed how such a superb vessel with a highly trained crew could perform so poorly. The officers were concerned about the captain’s performance. He was an expert in practice runs but did not seem able to operate a modern submarine in war time³⁵ (O’Kane, 1989).

Cautious submarine commander problems were not isolated to the Wahoo at the early part of the war. Most submarine commanders were technical experts with engineering backgrounds of the pre-war era (DeRose, 2000). However, early observations of wartime performance showed that this was “like sending the design section of General Motors out to race their cars in the Indianapolis Speedway races” (DeRose, 2000, p. 4). Innovative night or surface attacks were never dreamed of. The fear of anti-submarine aircraft was pervasive. The peacetime Navy was quick to relieve commanders who had any incident occur on their ship. This resulted in decision making authority being maintained by the captain and the crew under pervasive supervision. This is highlighted by LCDR Kennedy’s conning tower bunk which kept the crew on edge at all times (DeRose, 2000). The Navy headquarters began to understand the issue at hand. Early in the war, the Commander of Submarines in the Pacific bragged that no submarine under his command had been lost. This was clearly because they were not going into harm’s way (DeRose, 2000, p. 38).

³⁵ The war reports from the time and post war accounts cited, consistently depict LCDR Kennedy as overly cautious and unable to adapt from the peacetime Naval procedures to that required in the time of war. However, he is also depicted as a generally competent and caring leader. He had bursts of common sense. In one instance when a radioman was able to receive a pertinent message by using his initiative to try different radio frequencies against orders, Kennedy, “held mast and gave him a reprimand for his offense and advanced him one grade in rating for his loyalty, initiative, and ability to get results” (McDaniel, 2005, p. 10).

The USS Wahoo returned to Pearl Harbor on 17 October 1942 having sunk one freighter totaling 6,300 tons. Post patrol reports from Kennedy's own admissions, through the Commander of Submarines in the Pacific's endorsement cited a lack of aggressiveness for an overall poor performance (McDaniel, 2005). The Division Commander's comments read, "that attack position...could be gained only by the most aggressive kind of approach. It is regrettable that the need for such immediate action was not recognized" (DeRose, 2000, p. 53). Criticisms were widely disseminated and the crew felt "a little ashamed" (DeRose, 2000, p. 53).

The USS Wahoo underwent replenishment and routine maintenance. From O'Kane's post-war account,³⁶ both LCDR Kennedy and the officers of the Wahoo expected a new captain for War Patrol Two. LCDR Kennedy chose not to stay at the quarters with the other officers opting instead to stay with friends. O'Kane thought this was unusual and felt that "over a few beers the ice might have cracked a bit and led to a better understanding" (O'Kane, 1989, p. 64). Upon O'Kane discovering that LCDR Kennedy was slated to conduct the second war patrol he circumvented him and protested to higher headquarters. "Five years our senior, he cannot bring himself to delegate, and I doubt that he can last another patrol without someone closer to his seniority to lean on for advice" (O'Kane, 1989, p. 69). Under this cloud of discouragement, the Wahoo prepared for its second war patrol. Although the second war patrol would produce similar results, a unique addition to the crew would set the conditions for a remarkable transformation. A transformation the United States desperately needed.

2. War Patrol Two, 8 Nov 1942 through 26 Dec 1942

The USS Wahoo departed Pearl Harbor on 8 November 1942 for a patrol around the Solomon Islands. The ship was in excellent condition and the crew was largely the

³⁶ O'Kane wrote extensively about his experience on both the USS Wahoo and USS Tang after the war. While there weren't any directly conflicting accounts of events aboard the Wahoo it is important understand that several of the post war accounts of the Wahoo's life originated from O'Kane's writings. O'Kane's wartime success is undeniable, however he also had leadership qualities that others did not care for. Some of his junior officers described him as abrasive and egoistic and the ships Yeoman remarked that O'Kane "could get alarmingly purple in the face whenever his work did not receive precedence over all other matters" (DeRose, 2000, p. 55).

same. The only significant addition to the crew was the addition of LCDR Dudley W. Morton as a Prospective Commanding Officer (PCO). The practice of the time was for prospective submarine commanders to conduct a war patrol with a submarine prior to taking over their own command (McDaniel, 2005). This provided an opportunity for the prospective officer to observe best practices and establish their command philosophy before taking over their own ship.

While LCDR Morton was subordinate to LCDR Kennedy, his presence was immediately felt by the crew. “His genial personality seemed contagious, perhaps emphasized by the vacuum it filled” (O’Kane, 1989, p. 70). While Morton respected his subordinate position, he headed innovations on the ship such as rigging up the radar to a General Electric washing machine motor and developing red glasses for those about to go on watch. On the previous patrol the ship had been fitted with all red lights so that crew members going on watch at night would not have to adjust their eyes. This resulted in not only well adapted eyes but months of everything, to include food, taking on a red hue which was a morale killer. Morton had an instant impact on the ward room and “was described as a big overgrown Kentucky boy who had never been told that adults weren’t supposed to smile” (O’Kane, 1989, p. 73).

Patrol two started off optimistically, but quickly become reminiscent of the first patrol. LCDR Kennedy’s refusal to extend the periscope or run on the surface resulted in the first ship being missed. O’Kane commented, “It was the same mistake my captain had made just south of Midway nearly a year ago” (O’Kane, 1989, p. 77). Morton and the officers, except for the captain, debriefed each failed attack in the wardroom to explore new ideas. The officers tried to learn what tactics worked for other ships, such as attacking on the surface. Trying a surface attack would require abandoning the pre-war doctrine of submerged sonar attacks and LCDR Kennedy would have none of it (O’Kane, 1989). It was clear to the officers of the Wahoo that the captain did not trust them (O’Kane, 1989). In a particularly stark example of the captain’s overcautiousness, Kennedy ordered the Wahoo into a non-reversible dive after a crew member in the conning tower mistakenly

called a reciprocal³⁷ attack heading. This was a quickly reversible error. Morton immediately realized the mistake and not wanting to miss an opportunity at this large tanker yelled “Reciprocal! Reciprocal!” (DeRose, 2000, p. 58), but it was too late. Kennedy had ordered the dive in fear of being vulnerable to counterattack and the chase was off.

This missed attack on a vulnerable target was the height of tensions among the crew. This resulted in Morton retiring below to avoid confrontation with the captain (O’Kane, 1989), and the executive officer reading the assumption of command portion³⁸ of the Navy Regulations (DeRose, 2000). LCDR Kennedy entered the conning tower and saw the book open next to the executive officer. In what O’Kane called, “one of life’s touchy moments,” Kennedy read a few pages with the executive officer watching. “The full depth of O’Kane’s disgust, even hatred, was now clear to LCDR Kennedy” (DeRose, 2000, p. 59). The Wahoo’s crew was at odds and “not on the same wavelength” (O’Kane, 1989, p. 90). The USS Wahoo was on the forefront of the submarine force in the Pacific, upon which so much of the Armed Services’ faith was put, however their disheartened crew missed several more attempts with similar circumstances.

The USS Wahoo continued their patrol and LCDR Kennedy continued to call off attacks or refuse to start them all together. An attack setup by LT O’Kane and LCDR Morton was called off by LCDR Kennedy because it would result in the Wahoo being in another submarine’s area of operations³⁹ (O’Kane, 1989). O’Kane was irate and “headed for an ugly confrontation” (DeRose, 2000, p. 63) until Morton was able to signal to O’Kane

³⁷ Military protractors and navigational devices often display two headings. The actual heading as well as the direct, 180 degrees, opposite heading. For example, 10 degrees would be displayed with its reciprocal of 190 degrees. This is necessary for applications in which you are communicating the direction toward or away from the position of reference. While the depiction of both numbers can lead to confusion it can quickly be corrected with the appropriate amount of situational awareness to realize that the operator simply read the incorrect number. In this case the number called out did not line up with what LCDR Kennedy expected to hear and instead of giving the crew a second to correct the error, he opted to abort the attack.

³⁸ This section would detail the conditions in which the executive officer could relieve the commanding officer of his duties. This procedure is extremely rare and would be authorized under only the most extreme situations of commanding officer misconduct.

³⁹ LCDR Kennedy slowed the Wahoo and took 20 minutes to determine the Wahoo would be in a different area of operations (DeRose, 2000). While the plotted incursion was probably accurate, it had a very slim chance of having negative consequences on the border of huge areas of operations. This reasoning was seen by the crew as a “legalistic” reason not to attempt an attack (DeRose, 2000, p. 63).

from behind the captain that he had to cool it and leave the conning tower. Although Kennedy continued to fear detection, the Wahoo was able to sink two vessels during the second patrol. In a notable example, Kennedy came to the tower in a towel only and coolly led the Wahoo in a successful attack (O’Kane, 1989). While the crew was elated, they were disgruntled that the captain had taken a shower, yet they were strictly forbidden from doing so.

The USS Wahoo’s second war patrol was winding down and as they headed for Brisbane, Australia, the crew was at a breaking point. The officers’ sentiment was reflected by O’Kane’s remark that “I loved this ship and the challenge of her full potential, but could not go to sea again with my present captain when a blowup would be inevitable” (O’Kane, 1989, p. 99). Another officer reflected, “We put into Brisbane...more discouraged than we had been at the end of the first patrol...Wahoo...was not making much of a record and we knew it. We had excuses [but]...we still felt thoroughly discouraged. We didn’t want good excuses; we wanted a good record” (DeRose, 2000, p. 63). Yeoman Sterling understood the frustration of the crew when he was nearly knocked unconscious by a frustrated chief petty officer who mistakenly thought Sterling had missed his watch and slugged him in reprisal (Sterling, 2011).

The USS Wahoo’s first two patrols ended with two freighters and one enemy submarine sunk (McDaniel, 2005). While this was progress, the United States was searching for solutions, and it was not getting much from the submarine force which had not adapted well to war footing. The second patrol war reports were reminiscent of the first. From the task force commander, “Eight contacts were made, of which only two were developed into attacks, both of which resulted in sinkings. However, it is believed that at least three of the other contacts should have been developed into attacks...speed should have been used to close this apparently unescorted vessel” (McDaniel, 2005, p. 43). As the Wahoo began its resupply in Brisbane, several officers requested transfer to different vessels because they were not happy with how contacts were being followed up. The fleet command was in a bind.

3. The Problem

The USS Wahoo was not the only vessel that was struggling to achieve desperately needed results. Submarines faced myriad complex challenges. The U.S. torpedo design was ineffective yet was not fixed for 18 months due to “a sickening organizational scandal” (DeRose, 2000, p. 3), in which military and civilian designers would not admit the torpedoes were flawed.⁴⁰ Pre-war doctrine was proving ineffective against Japanese surface combatants and commercial ships. Counter submarine planes, mines, coral reefs, uncharted underwater mountains, rudimentary and incomplete navigational charts, and malfunctioning radars added to the challenges. Each submarine experienced some personnel turnover at each port. The Ship’s Yeoman recalled, “After each war patrol, many familiar faces were missing, and I had to get accustomed to the new ones (Sterling, 2011, p. 169). The submarine force was desperately trying to stop the Tokyo Express that was resupplying enemy forces on Guadalcanal (O’Kane, 1989). To add to these challenges, in “the vast majority of these actions, the submarines were on their own—seventy crewmen and seven officers, fighting outnumbered and without hope of timely reinforcement or air support” (Arquilla, 2011, p. 198). Failing batteries⁴¹ limited submerged duration and commercial transports were now accompanied by an increasing number of military

⁴⁰ Malfunctioning torpedoes were a scandalous hinderance at the beginning of the war and many enemy combatants were hit with torpedo duds and unharmed. Issues existed in multiple detonation mechanism which caused the torpedoes to dud or swim far too deep and go underneath a vessel. Submarine captains tried various attack profiles to compensate for the bad torpedoes. Admiral Lockwood himself, flew to Washington to address the ordnance bureau and later conducted his own torpedo tests in Hawaii. The torpedo problem was eventually corrected, but not before greatly inhibiting the Allied war effort (McDaniel, 2005 and DeRose, 2000).

⁴¹ Diesel electric submarines can only operate their diesel engines while on the surface. The internal combustion engine requires oxygen to operate which is unavailable while submerged. To submerge, diesel electric submarines close both exhaust and intake vents to prevent flooding. Once submerged, onboard batteries are used to power electric motors for propulsion. The battery technology of the time reduced the maneuverability of submarines. Batteries were an open design and were significantly degraded if flood water entered the battery compartment. Battery technology at the time resulted in a relatively short lifetime which reduced submerged propulsion as they aged.

escort⁴² vessels (O’Kane, 1989). The submarine and her crew were an isolated team, attempting to operate in the larger naval organizational team to change the projection of the war. The challenges were daunting, and the current Wahoo crew and submarine force were broken and searching for a way forward.

C. PART B

The Brisbane port call marked the low water mark for morale of the crew and team effectiveness of the USS Wahoo. As depicted in Figure 4, the USS Wahoo’s effectiveness increased dramatically in the second two patrols. Part B will examine this new Wahoo.

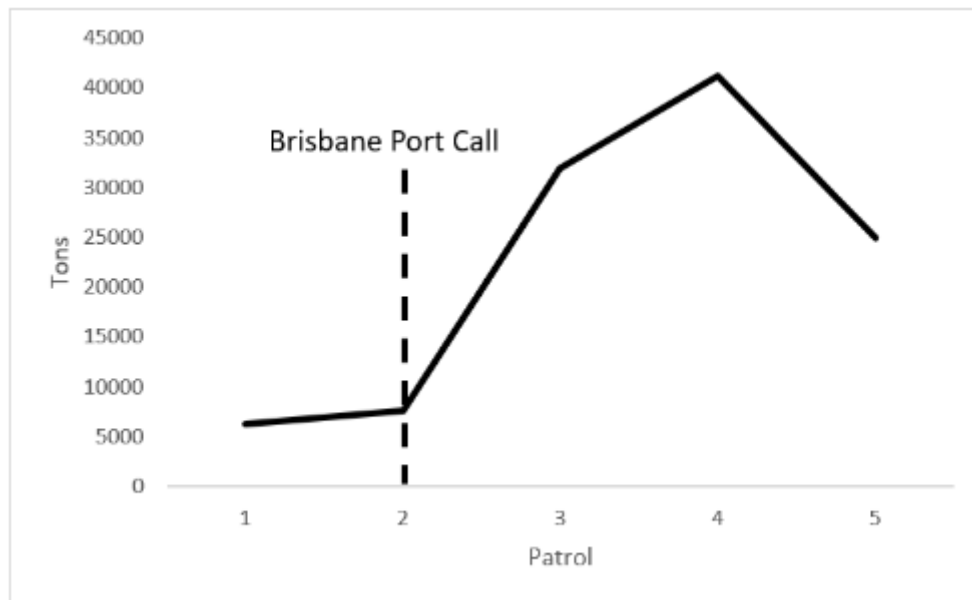


Figure 4. USS Wahoo: Tons of Shipping Destroyed by Patrol.
Adapted from McDaniel (2005).

⁴² The Pacific fleet had little impact on Japanese shipping at the start of the war (Arquilla, 2011). Japanese commercial ships could transit the oceans freely. As the war progressed, unrestricted warfare was embraced, and the allied Naval presence in the Pacific increased, Japanese shipping began to be degraded (Arquilla, 2011). The Japanese Navy dedicated more military or “escort” vessels to accompany commercial ships. The escorts were equipped to seek out and destroy, or at a minimum deter, allied surface and sub-surface attack. The more escorts that accompanied commercial shipping, the less likely a submarine could approach, attack, and escape Japanese shipping.

1. War Patrol Three, 16 Jan 1943 through 7 Feb 1943

In Brisbane, several Wahoo officers formally requested to be transferred to a different ship (McDaniel, 2005). Instead of transferring multiple officers, Admiral Fife⁴³ relieved LCDR Kennedy⁴⁴ and gave the USS Wahoo to LCDR Morton (McDaniel, 2005). Morton possessed a mediocre naval record but was already respected by the Wahoo's crew, based on his last patrol as the PCO (DeRose, 2000). Standard practice of the time was for the PCO to depart the ship after patrol and take over their own command. Morton took command of the same ship due to the circumstances of Kennedy's relief (McDaniel, 2005). This gave Morton break-in time with the crew and time to observe the Wahoo operations. He observed the friction among the crew and had changes catalogued for implementation upon assumption of command. LT O'Kane was still serving as the executive officer and recalled the captain immediately setting the tone by personally,⁴⁵ at full bore, aggressively pulling away from dockside. O'Kane remarked, "If there were any in Wahoo who had thought the new captain's friendly manner was indicative of a carefree approach to seamanship the last few minutes had squared that away. To me, it meant that he would not hesitate to use the 5 million watts at his disposal to close the enemy" (O'Kane, 1989, p. 112).

Morton instantly began to form a new identity for the Wahoo, which had an immediate impact on the crew (DeRose, 2000, p. 69). Yeoman Fisher recalls that everything felt different upon departing Brisbane for the third war patrol. He wrote:

A different Wahoo this time. I could feel the stirring of a strong spirit growing in her. The officers acted differently. The men felt differently. There was more a feeling of freedom and of being trusted to get our jobs done. A high degree of confidence in the capabilities and luck of our ship grew on us and we became a little bit cocky. (Sterling, 2011, p. 68)

LCDR Morton got straight to the point and addressed the crew:

⁴³ Commander of Task Force 42 which operated out of Brisbane.

⁴⁴ After relief and a period of staff duty, LCDR Kennedy would go on to successfully command the USS Guest (Destroyer Photo Index DD-472 USS GUEST, 2018)

⁴⁵ This was a task usually delegated to a subordinate officer. Morton set the example by conducting this task personally on the initial outing.

I am glad to have every one of you aboard the Wahoo, personally. I will be brief, as what I have to say can be stated simply. Wahoo is expendable. We will take every reasonable precaution, but our mission is to sink enemy shipping. We are going out there on this war patrol to search for Japs. Every smoke trace on the horizon, every contact on watch will be investigated. If it turns out to be the enemy, we are going to hunt him down and kill him. (Sterling, 2011, p. 72)

He was passionate, positive, and had a borderline reckless desire to destroy enemy shipping (Sterling, 2011). Following his speech, he posted the operations order for the patrol on the mess deck wall. This was typically reserved for officers' eyes only. He remarked, "All in the same boat, why not?" (O'Kane, 1989, p. 115)

2. A New Wahoo

The captain immediately implemented changes based on his observations on the previous patrol and discussions with the crew. He placed cards in each crew space that read, "WE MUST FIGHT, WE MUST SHOOT TO KILL, FOR OUR ENEMIES HAVE POINTED THE WAY TO SWIFTER SURER CRUELER KILLING," another read "SHOOT THE SONS OF BITCHES" (O'Kane, 1989, pp. 110–111). This latter phrase would become the galvanizing slogan of the ship. Morton stitched a home-made banner that flew from the mast of the Wahoo when they returned to port after successful patrols. Morton re-opened the showers and washing machines and immediately removed LCDR Kennedy's extra fold down bunk from the conning tower. He returned the authority of the executive officer⁴⁶ and chief⁴⁷ to make the watch schedule and removed excess watches. No one dared suggest a shell backing⁴⁸ ceremony under Kennedy's command. However, Morton insisted on the ceremony and festivities. O'Kane remembered, "The ceremony

⁴⁶ While peers remember O'Kane as a bit of a hot head, he was an exceptionally talented leader and submariner in the right crew. Morton was able to capitalize on his talents and the two grew quite close. In one recollection by O'Kane, Morton told O'Kane he would retire to his cabin for a period and O'Kane was to find an enemy ship. Morton relayed that when O'Kane and Morton came to a consensus they compromised too much and limited their options. He gave the submarine to O'Kane to chase ships with the utmost imagination and remained out of the conning tower when he did (O'Kane, 1989).

⁴⁷ The submarine's chief was the senior enlisted member of the crew.

⁴⁸ The Shell Backing ritual is an age-old Naval tradition in which new sailors are initiated by the older sailors upon first crossing the equator.

commenced with the captain first to be initiated. Meekly, the pollywogs [un-initiated] in the crew followed; how could they do otherwise? But in truth, they loved the captain for it” (O’Kane, 1989, p. 121).

While many of LCDR Morton’s changes focused on the living conditions and morale of the crew, he initiated tactical changes as well. During approaches, Morton would give the executive officer the periscope duties⁴⁹ so he could focus on the entire attack and would press the button which fired the torpedoes. “The fire control party of this ship was completely re-organized...this type of fire control relieves the Commanding Officer of a lot of strain and it gives excellent training to all hands, especially the Executive Officer” (McDaniel, 2005, p. 61). This was a deliberate re-design by Morton which gave him better situational awareness of the overall attack sequence, while letting the junior officers get the technical periscope training, they would one day need. While Morton could still check the periscope if needed, he was now better postured to direct follow-on attacks in quick succession.

Morton re-established the authority of the officer of the deck and ensured the officer knew that he “was on his own, that he was trusted, and that he was thoroughly in command unless...he asked for help” (DeRose, 2000, p. 71). Morton would retire to his quarters and not return to the conning tower unless called. He was available but created distance to display trust. He put Sailors in positions in which they were best suited, rather than necessarily by their rank or position. He placed subordinates in positions to make decisions (McDaniel, 2005). Some of these procedures were against pre-war techniques and doctrine which prescribed centralized control by the captain to mitigate mistakes by subordinate personnel. Sterling recalled that “the initiative fever was catching, and we all began to have ideas. Communication between officers and men became increasingly easier. We had the best morale I had ever experienced aboard a ship since my Nautilus days before the war” (Sterling, 2011, p. 78).

⁴⁹ During an attack, the submarine commanding officer typically viewed the enemy combatant through the periscope and called off technical data to the conning tower crew. This was a demanding task which required technical expertise but also reduced the vision and situational awareness of the operator.

Morton created a “commando team” which was designed to raid other vessels and take POWs.⁵⁰ They trained with Marines in port and even brought homemade Molotov cocktails aboard which were stored in an extra torpedo tube (O’Kane, 1989). “Morton’s relaxed management techniques may have been a wonder to the officer corps, but this relaxation did not extend to training” (DeRose, 2000, p. 73). The Wahoo trained intensively and cut three seconds off their dive time. This was critical, because Morton decided to abandon the pre-war technique of submerged sonar approaches and opted for the riskier, yet far quicker and bolder, surface approach (DeRose, 2000). The Wahoo was forced to dive quickly when they faced anti-submarine aircraft and enemy ship’s weapons.

The atmosphere in the wardroom and mess decks took on a jovial tone with joking and laughing. A crew member remarked, “instead of staring at our plates and fretting...as we had grown accustomed to doing, we found ourselves led along by a captain who was constantly joking” (DeRose, 2000, p. 70). This was a welcome change, “perhaps best described as a combination of pleasant, proper etiquette, with an overriding camaraderie” (DeRose, 2000, p. 70).

While the officer and enlisted corps were overall enthusiastic about the upcoming patrol, some crewmembers had concerns. A chief petty officer aboard was “wary of men like Morton...I don’t think he had a postwar plan, which I did have...to come back from the war alive. [I don’t] think Morton thought that far ahead” (DeRose, 2000, p. 73). The crew debated the line between aggressiveness and foolhardiness. It was under these new conditions that the USS Wahoo departed on what would become one of the most successful submarine war patrols of the Second World War.

Just a few days after departing Brisbane, Morton positioned the Wahoo into the middle of an enemy convoy and commenced firing with bow and stern torpedoes. At one point Morton chased a ship in full reverse. The executive officer captured the mood on the Wahoo after the successful sinkings of more ships in a single attack than on their previous two patrols combined:

⁵⁰ This was a highly unusual tactic for a submarine. Submarines preferred to stay submerged and hidden to increase survivability. Surfacing and using the deck gun, not to mention boarding surface combatants, was a rare occurrence in the fleet that became a favorite tactic of the Wahoo.

After a word and friendly smile through the doorway, Morton started forward to seek out every hand and personally thank and congratulate them. As far as he was concerned, this was their day, but I believe they felt just the opposite...None of us had heard of any submarines sinking her first ship before reaching her patrol area, to say nothing of a convoy of four more ships. These were things submariners daydreamed about but never expected to happen. Like some other boats, we had long possessed the capability, but it had taken Morton to cast aside unproven prewar concepts and bugaboos. Dead serious during battle, he still commanded with a flair that captured the support of all hands” (O’Kane, 1989, p. 155).

After the change of command and their first successful attack more than one man reflected that, “It was a new Wahoo, with an incredibly tightly knit crew” (DeRose, 2000, p. 12).

The third war patrol continued with outstanding success. Morton incentivized watch duty. If a sailor was responsible for spotting an enemy combatant which resulted in a sinking, he promised and followed through on a promotion of one rank. This resulted in volunteers from all areas of the ship for what was once considered monotonous, begrudging watch duty on the sonar, radar, and periscope equipment, or on the deck. Morton began the practice of letting crew members come to the conning tower to look through the periscope after a successful attack. This was a means of shared celebration, so they could all watch a ship sink and see the fruits of their labor. The remainder of the third war patrol was characterized by the captain’s statement to the executive officer during a follow-on attack, “Tenacity, Dick. Stay with ‘em till they’re on the bottom!” (O’Kane, 1989, p. 156).

The Wahoo was out of torpedoes and headed for home to reload. On setting sail for Pearl Harbor the executive officer reflected, “We were proud of our captain, of Wahoo, of our shipmates, and believing that I can speak for all, proud of ourselves” (O’Kane, 1989, p. 165). Congratulations began to pour in once radio contact was established. Admiral Halsey sent, “Congratulations for...new epic in submarine warfare complete destruction of loaded convoy” (O’Kane, 1989, p. 162). Admiral Lockwood called the Wahoo “the one-boat wolf pack.” Adoration aside, “It was clear that Morton’s combativeness had ended the pre-war stealth philosophy of submarine attacks. From now on, daring aggressiveness

would be rewarded” (DeRose, 2000, p. 92). Wahoo’s third patrol ended in stark contrast to the ending of the second. “She had left Brisbane a comparative nonentity and returned to Pearl Harbor a celebrity” (Sterling, 2011, p. 118).

LCDR Morton and LT O’Kane were greeted at Pearl as celebrities (DeRose, 2000). The patrol report endorsement from the Commander of Submarine Force in the Pacific Fleet was short and to the point. “The Commander of Submarine Force in the Pacific Fleet takes great pleasure in commending the Commanding Officer, Officers and crew of the Wahoo on an outstanding war patrol. This patrol speaks for itself, and the judgment and decisions displayed by the Commanding Officer were sound. All attacks were carried out in a most aggressive manner, and it clearly demonstrates what can be done by a submarine that retains the initiative” (McDaniel, 2005, p. 63). The Wahoo had been submerged for 500 hours on the second patrol and just 50 on the third. This statistic demonstrated the stark change in tactics employed from the second to third patrol which accompanied an over four times increase in enemy tonnage destroyed. This shift was from risk averse submerged operations to aggressive surface actions. O’Kane reflected that, “it was Wahoo under Morton that had turned the corner completely from the prewar submerged vessel of opportunity to an aggressive raider” (O’Kane, 1989, p. 172).

During the Wahoo’s refuel and refitting, the executive officer proofread the captain’s war report and wrote about its uniqueness. “I had been reading patrol reports for almost exactly a year, and Morton’s narrative was the first that devoted a separate paragraph to his officers and men, the senior by name. But he was a new breed of captain to us, one who exercised the adage of reprimand in private,⁵¹ commend in public” (O’Kane, 1989, p. 165). The Wahoo’s third patrol destroyed one destroyer, two freighters, one tanker, and one transport, totaling 31,890 tons (McDaniel, 2005). This was the result the Navy needed. This was the success that would prohibit the Japanese from operating with impunity and begin to build momentum for the United States in the Pacific Theatre. This successful patrol was even more impressive by the objective increase from the

⁵¹ The crew of the Wahoo regularly recorded LCDR Morton’s positive attitude and cheerfulness. When a junior officer nearly grounded the Wahoo off the coast of Japan, Morton did not publicly scold the junior officer and remained positive during this potentially catastrophic incident (DeRose, 2000).

previous patrol. The Wahoo, with nearly the same crew and same ship, had transformed from a dismally performing ship from which officers tried to transfer, into a fleet-leading vessel with a cohesive team, adamant on destroying the Enemy. Yeoman Sterling exemplified the pride of the new Wahoo when a temporary in port yeoman asked,⁵² ““This is a swell ship, good officers, and good morale. You wouldn’t consider a swap, would you?” ‘Hell no,’ I exploded.” (Sterling, 2011, p. 125).

3. War Patrol Four, 23 Feb 1943 through 6 Apr 1943

War Patrol Four began on 23 February 1943 with Morton pinning a map of the Yellow Sea to the mess deck’s wall and welcoming new joins⁵³ (DeRose, 2000). Morton talked with the Sailors⁵⁴ about their patrol in the Yellow Sea and his plans to relentlessly pursue the Enemy. His enthusiasm was contagious (Sterling, 2011). The Wahoo had a quick start and sank several ships. The officers and crew continued to progress and took on more responsibility. Morton left most actions to the crew and spent time in the wardroom or his stateroom. The Wahoo did blunder attacks, and when they did, the executive officer recalled “The captain took the responsibility, but it truly lay with all of us” (O’Kane, 1989, p. 218).

⁵² During the war submariners were stationed at each port to assist in-port submarines. Once the submarine pulled into port, the permanent crew would finish post war reports and then hand over the submarine to the in-port crew. The submarine crew would then conduct liberty and rest while the in-port crew attended to matters on the ship to prepare it for the next patrol. Once the Wahoo developed a celebrity reputation, it was not uncommon for these temporary crewmen to attempt to get assigned to the Wahoo (Sterling, 2011).

⁵³ Several crew members recalled LCDR Morton’s uncanny ability to remember details about the members of the crew. In one stark example of the captain’s good spirits and cheerfulness he remembered Yeoman Sterling’s birthday in the middle of a dynamic patrol. Sterling recalled, “The lights sprang on suddenly, revealing the compartment filled with shipmates with Captain Morton in the middle of them. I stared unbelievably and uncomprehendingly at them.... [they sang happy birthday] Captain Morton stepped forward with a saucer in his hand. It contained a cupcake with a candle in the center...” Tears welled up in my eyes and rolled down my cheeks. I had no control over them” (Sterling, 2011, p. 176).

⁵⁴ Morton’s efforts to spend time with every member of the crew was central in crew members’ recollection. O’Kane recalled, “Instead of receiving the Navy Cross, for his actions in command of Wahoo on her third patrol, from Admiral Nimitz back at Pearl, he had elected receiving it with his crew assembled, and did the same for me by bringing my Silver Star Medal. No ship’s company could have been more proud than were we of our skipper” (O’Kane, 1989, p. 245).

Determination defined War Patrol Four. The Wahoo began to use the deck gun⁵⁵ often to engage smaller ships and save the torpedoes. Morton explained, “Every time we sink a sampan,⁵⁶ we help shorten the war. We cut down on the Japanese supply of food and they get that much hungrier” (Sterling, 2011, p. 151). Every smoke trail or sign of ship was pursued. While running on the surface and using the deck gun made the Wahoo vulnerable, it resulted in more ships sunk and damaged. The commando crew had trained again with the Marines between patrols. The commando’s Molotov cocktails had trouble lighting the decks of the wet sampans so they began to throw buckets of oil on board first to light the wooden craft (McDaniel, 2005). The commando’s innovation and determination to burn ships, mirrored the captain’s willingness to attack anything that could degrade the Enemy.

On the fourth war patrol the “Wahoo easily set the record for the number of sinkings on a single patrol” (DeRose, 2000, p. 100). The Wahoo expended all torpedoes and headed for Midway. Morton sent reports over the radio requesting that repair parts be ready upon the Wahoo’s arrival. Some of these parts were not parts that typically needed replacement but were needed due to on board error and pushing the Wahoo to its maximum performance limits. Submarine crews typically would not send such a report as doing so would alert the command of errors on board. However, these parts were damaged by pushing the Wahoo to its physical limits to destroy ships and Morton was undeterred about admitting the crew’s mistakes. He simply wanted the parts ready so they could quickly make repairs and go hunting again (O’Kane, 1989). Spirits were high after another successful patrol. “The crew was intensely proud of their ship and themselves” (DeRose, 2000, p. 105).

⁵⁵ The Wahoo deck gun crew trained often and enjoyed their ancillary task. They had other primary duties aboard the ship. The extensive use of the deck gun was not common among pre-war submarines which prioritized submerged approaches. The Wahoo used it liberally, often attacking large vessels once torpedoes were depleted. The deck gun also introduced additional risk. During one attack a malfunctioning shell exploded on deck injuring one of the crew members. The on-board pharmacist mate took pride in using makeshift surgical tools to amputate the remainder of the two toes. This surgical procedure was congratulated by the crew as they rotated through to visit the injured sailor and pharmacist mate (Sterling, 2011).

⁵⁶ A sampan is a small wooden boat used for fishing and the transportation of goods and supplies. These were increasingly used by the Japanese for military means as the war progressed, and more formidable and purpose-built vessels were in short supply due to destruction. Most submarines avoided these to not compromise their position for destroyers and aircraft to pursue them. LCDR Morton and the Wahoo regularly pursued and destroyed these vessels (DeRose, 2000).

Congratulations poured in again. From Commander of Submarine Forces Pacific, “Congratulations on a job well done, Japanese think a submarine wolf pack⁵⁷ operating in Yellow Sea, all shipping tied up” (DeRose, 2000, p. 104). The Wahoo was the only submarine in that patrol area. The Division Commander endorsement read, “During this patrol, as on the third patrol of this ship, the outstanding aggressiveness and the magnificent fighting spirit of the captain, officers, and crew were largely responsible for the splendid results obtained” (McDaniel, 2005, p. 88). The Commander of Submarine Forces Pacific finished off the official war report by writing “Outstanding in aggressiveness and submarine warfare efficiency, this was the fourth war patrol of the Wahoo and the second under its present Commanding Officer. Sinking eight ships, one trawler, and two sampans, and damaging one other ship, the Wahoo continued the outstanding record established on its third war patrol” (McDaniel, 2005, p. 93). The Wahoo pulled into Midway and “On deck, a full section, in machine-washed dungarees, again stood proud of Wahoo, of her captain, and rightfully, of themselves” (O’Kane, 1989, p. 23). The Wahoo had achieved the most successful patrol to date sinking 41,213 tons of enemy ships.⁵⁸

D. AFTERWARD

The USS Wahoo went on to conduct three additional war patrols and sink eight⁵⁹ more vessels totaling 25,004 tons.⁶⁰ However, submarine warfare was dangerous work. The United States lost 52 submarines on patrol. Submarines had the highest casualty rate in the armed forces which was six times that of surface ships (O’Kane, 1989). The U.S.

⁵⁷ *Wolf pack* was a term given to the tactic of multiple submarines operating as a team in the same operational area. This was the opposite tactic of single submarine, long range raids that the USS Wahoo and sister ships were conducting.

⁵⁸ Torpedoes had begun to significantly degrade the Wahoo’s operations. In between the fourth and fifth patrols the crew immersed themselves into investigating the issues they were having with torpedoes. The crew set up an informal seminar on Midway to discuss tactics with other submarine crews (O’Kane, 1989).

⁵⁹ Post-war investigations and reports showed that the Wahoo sank four additional ships on the 7th patrol prior to her sinking that aren’t included in the official war reports (McDaniel, 2005).

⁶⁰ This includes patrol six which netted zero sinkings due to a load of dud torpedoes (McDaniel, 2005). The Wahoo brought 10 torpedoes from this batch back to be examined. Morton personally handed the serial numbers of the dud torpedoes to each submarine captain at Midway to ensure they didn’t accidentally get re-issued to a submarine (O’Kane, 1989).

Navy suffered 3,505 submariners killed or as O’Kane put it, are “still on patrol” (O’Kane, 1989, p. 327). Tragically, on the seventh war patrol the Wahoo was attacked by Japanese anti-submarine aircraft and was lost with all hands on 11 October 1943.⁶¹ The Wahoo sank with LCDR Morton and all 80 of the USS Wahoo crew (McDaniel, 2005).

The USS Wahoo’s accomplishments on six patrols placed her among the most valued assets of the U.S. Navy. “Her feats have become submarine legend. She sank 27 ships, totaling 119,100 tons, and damaged two more, making 24,900 tons, in the six patrols completed before her loss” (McDaniel, 2005, p. 146). Commander Morton was acknowledged as among the top commanders of the fleet, and “the loss of this ship was an irreparable blow to the Service” (McDaniel, 2005, p. 147).

The Wahoo’s legacy continued through officers and crew that had served under LCDR Morton. Several officers departed the Wahoo, prior to its fateful patrol, and took command of their own ships. Commander (CDR) Duncan MacMillan served as a PCO under Morton⁶² aboard the Wahoo and went on to sink 11 ships as the Commanding Officer aboard USS Thresher (O’Kane, 1989). CDR Moore served aboard the Wahoo and went on to sink 10 ships while the captain of the USS Greyback (O’Kane, 1989). Another Wahoo alumni who served under Morton, George Grider, went on to sink 43,800 tons of enemy vessels (DeRose, 2000). After leaving the Wahoo, following the fifth patrol, Dick O’Kane took command of the USS Tang⁶³ and is credited with the most tonnage sunk

⁶¹ There are few details of the circumstances surrounding the Wahoo’s sinking. However, a post war review of Japanese records revealed that Japanese anti-submarine forces attacked and sank a surfaced submarine on 11 October 1943 in the vicinity that the Wahoo would have been patrolling (McDaniel, 2005).

⁶² Commander MacMillan did not approve of Morton’s unconventional submarine tactics he observed while aboard the Wahoo. There are rumors of a physical altercation that took place on Midway when MacMillan was badmouthing the Wahoo crew. O’Kane showed up to the ship with a mysterious black eye. How much of this is lore versus fact is unknown. What is known is that MacMillan was aboard the Wahoo for a very successful patrol and then went on to have a successful command (DeRose, 2000). His experience aboard the Wahoo was surely educational, regardless of whether he would apply those specific tactics or not.

⁶³ The USS Tang was sunk off the coast of China in shallow waters on 25 October 1944. A malfunctioning torpedo was fired at an enemy ship and turned 180 degrees and smashed into the Tang. Commander O’Kane was blown from the conning tower and eight others were able to escape by various means. The nine survivors were captured by the Japanese and spent 10 hellish months in captivity. They all barely survived until the end of the war. Richard O’Kane would receive the Congressional Medal of Honor (DeRose, 2000).

during WWII by a submarine captain with 227,800 tons of enemy shipping (DeRose, 2000). Each of these successful captains was formed by their time aboard the Wahoo.

After recovering from a rocky start, the Pacific submarine force decimated Japanese commercial shipping and severely degraded surface combatants. “By November 1944, with the sea virtually drained of enemy merchant ships and escort vessels declining sharply in numbers, Lockwood shifted target emphasis...to Japan’s troop transports and larger warships” (Arquilla, 2011, p. 197). “By war’s end Japan had lost just under seven hundred warships of all sizes, more than two hundred of them sunk by submarines” (Arquilla, 2011, p. 197). The U.S. surface fleets and aviators made significant gains during this time as well; however, in the assessment of retired Rear Admiral O’Kane “After the war, Japanese admirals and generals alike placed U.S. submarine operations first in the factors leading to the fall of the Empire” (O’Kane, 1989, p. 325). Regardless of the proportion of impact, the submarine fleet underwent a significant transformation from peacetime submerged vessels trained to attack military targets of opportunity, to wartime surface raiders which savaged commerce and military vessels. The USS Wahoo is an example of one of these raiders that through innovative and assertive team leadership achieved cohesion and superior team performance that tipped the scales of the war in the Pacific.⁶⁴ O’Kane closes his book Wahoo with the passage, “Though her life was short, her sinkings placed Wahoo within the first four boats, and Morton tied for second place among skippers. For best patrol, he was again in second place... But these are just numbers, and submariners will remember the captain who shook off the shackles and set the pace, Mush⁶⁵ Morton” (O’Kane, 1989, p. 327).

⁶⁴ Richard O’Kane and Yeoman Sterling survived the war due to transfers from the Wahoo prior to its last float. Both men wrote extensively after the war. It is largely due to their accounts that we know what we do about the transformation that took place aboard the Wahoo.

⁶⁵ “Mush” was a nickname that Morton had taken on throughout his career. The Sailors were aware of it but never used this in his presence (O’Kane, 1989). Much of the post-war writings use this nickname in a seemingly term of endearment.

IV. TEACHING NOTE

The USS Wahoo case plainly demonstrates the transformation of a team that adapted to a new operating environment and solved ill-structured problems. The case highlights the roles of teamwork and team leadership during this transformation. The stark change in performance from the first two patrols to the second two patrols was significant and provides a perspective to analyze today's tactical teams.

The counterargument could be made that an omitted variable such as patrol area selection or enemy activity caused the increase in enemy shipping sunk. While other causes could have added to a target rich environment starting with patrol three, I found no documentation or suggestions that the transformation in the USS Wahoo's performance was not directly attributed to the onboard team and leadership changes.

The USS Wahoo is a remarkable case study on teams and team leadership for three reasons. First, is the ill-structured problem they faced. Pre-war submarine doctrine proved largely ineffective against the Japanese. The submarine force was left trying to figure out how to attrite the Japanese war effort over vast distances, with limited intelligence and communications, and under constant Japanese anti-submarine warfare efforts. The situation the Wahoo faced meets all of the criteria for an ill-structured problem, defined as problems which "possess multiple solutions and uncertainty about which concepts, rules, and principles are necessary for the solution (Reed, 2016, p. 691)." No single answer existed for how individual submarines should operate and there was a great deal of uncertainty around any possible solutions.

Second, the USS Wahoo's operational situation and crew remained relatively stable across patrols. This allows for some control in the study. While there is no counterfactual submarine to completely isolate the effect of the leadership change, the relative stability of the mission and crew provide sufficient control. The Wahoo had already conducted two war patrols, had established team processes, and experienced limited crew turnover while in Brisbane between patrols two and three. This provides sufficient isolation to analyze the causes of the transformation.

The third factor that makes the Wahoo a meaningful case study is the surviving documentation that exists. While much of this documentation is anecdotal, we have the experiences of sailors who were in key positions to observe this change on board for at least the second and third patrols. As long as the reader understands the authors' retrospective, and potentially rosy view, there is valuable insight to be gained. The war reports provide organizational leadership⁶⁶ comments from individuals who were not a part of the crew, which support the degree of transformation. The various agencies that reported data on destroyed enemy shipping provide quantitative evidence to the Wahoo's success. These are the primary factors that make this case a worthwhile study and justify its selection over other cases of team performance.

Parallels can be drawn between the case of the USS Wahoo and the situation that today's tactical leaders may find themselves in. The Marine Corps will remain a force in readiness (Headquarters Marine Corps, 2019a). The Marine Corps' mandate to remain a force in readiness presents unique challenges in the post Operation Enduring Freedom environment. The relative state of peace can lull the Marine Corps into a state of complacency that struggles to adapt to an emerging threat in a timely manner. This was the state of the Pacific submarine force when the Japanese attacked Pearl Harbor. Peacetime operations did not prepare the submarine force effectively for war and it took nearly a year to correct.

The case study provides a lens through which to evaluate our organizational readiness. The case invokes several reflection questions for the tactical leader. First, how drastic of a transformation would be required for our organization to be able to solve ill-structured problems in a dynamic environment tomorrow? Secondly, how long would this transformation take? Finally, does the current state of readiness in our organization support the Marine Corps' force in readiness mandate? This is the primary conversation that this case study should inspire.

⁶⁶ Organizational leadership comments come from the squadron, division, and Pacific submarine fleet commanders. These comments help assess the relative transformation of the Wahoo compared to other submarines under similar conditions. The comments highlighted in the case study clearly illustrate that the Wahoo transformed more quickly and effectively than other submarines.

Although this case study is not primarily designed to be taught in an academic setting, the teaching note format effectively organizes concepts and draws out lessons from the case. More importantly, the teaching note provides a structure that drives discussion while allowing readers to form their own conclusions based on their unique experiences and background. This case will not give anyone the answer on how to prepare their unique organization or team. It simply provides a lens for evaluation. Therefore, maximum flexibility should be retained for readers to form their assumptions based on their organizational purpose.

While case instructors should choose a teaching method that best fits their team, the details of the individual characters lend themselves well to the role-playing method of case discussion. Role playing is an active-learning technique which encourages engagement and can result in better knowledge retention (Olusegun, 2004). Role playing can help bridge the conceptual with the practical (Olusegun, 2004), which is the purpose of this case study. Leaders should assign specific case characters to individual learners and assign specific tasks to leverage the positive attributes of the role-playing methodology. Case facilitators should force leaders to form decisions based on the role assigned.

For example, a company commander could assign platoon commanders and platoon sergeants to individual characters. For instance, the first platoon commander could take the role of LT O’Kane. The company commander would then assign the platoon commander questions based on the discussion questions posed in this teaching note or questions the company commander sees fit to drive their learning objectives. The first platoon commander then briefs his plan, assuming the role of LT O’Kane. The scenario could be set up as a debate between LT O’Kane and the role player for CDR Kennedy, or any combination of actors.

The overall suggestion is that assigning individuals to roles will create an active learning environment and more impactfully drive home learning objectives rather than simply posing rhetorical questions in a conceptual conversation. Decision forcing coupled with the role-playing methodology can create an impactful discussion that creates practical understanding of concepts that can be applied to unique organizations.

A. PURPOSE

The purpose of this case study is to provide the tactical leader an alternate perspective to view their team performance and team leadership, and to explore their organization's readiness to solve ill-structured problems. Some techniques employed were unique to the circumstances of the time. Some techniques can be employed in today's organizations to improve team leadership and team performance. Only the leader can determine which are which, but the Wahoo provides an example of how a team that became high performing was able to apply the appropriate techniques within their context.

The case is designed to be taught in two sessions to provide structure for the decision forcing format. Case readers should read Part A and answer assigned questions. Instructors should lead a Part A discussion, or role-playing exercise, prior to assigning Part B. This requires readers to make decisions without knowing the full story. This allows for comparison of reader derived answers with those actually made by the USS Wahoo crew. This comparison will enable further discussion and deeper understanding of the team and team leadership concepts.

B. LEARNING OBJECTIVES

The learning objectives are targeted to isolate the team performance and team leadership practices which contributed to the USS Wahoo's transformation.

1. Identify specific team characteristics at play aboard the USS Wahoo.
2. Identify specific team leadership techniques employed aboard the USS Wahoo.
3. Identify the ill-structured problems that the USS Wahoo faced and the environmental context that prevented straight-forward answers.

C. SUGGESTED DISCUSSION QUESTIONS

1. Part A Discussion Questions

1. What negative or positive teamwork characteristics were most prominent aboard the Wahoo in the first two patrols?

2. How would you describe LCDR Kennedy's leadership style? Was this leadership style appropriate for the context of the USS Wahoo?
3. How should LCDR Kennedy have identified and then addressed the teamwork issues aboard the USS Wahoo to make it more effective?
4. How hierarchical or flat was the Wahoo's organization under LCDR Kennedy?
5. What should the executive officer and junior officers have done about their disagreements with the captain? If you were LT O'Kane, what would your plan be for working with LCDR Kennedy on patrol three?
6. What should the higher headquarters have done about the command situation aboard the Wahoo, characterized by junior officers requesting a transfer? If you were Admiral Fife, the Task Force Commander, what would your plan for the USS Wahoo be?
7. What is the actual problem that the USS Wahoo faced? Was most of the problem due to external (outside of the Wahoo), or internal (within the Wahoo crew) factors? If the problem was internal, was it mostly individual-level issues or group-level issues?
8. Can you relate team leadership and team issues aboard the Wahoo to another case study or an organization in which you served? How did that organization address these issues?

2. Part B Discussion Questions

1. What negative or positive teamwork characteristics were most prominent aboard the Wahoo in the second two patrols that were not prevalent in the first two?
2. How would you describe LCDR Morton's leadership style? Was this leadership style appropriate for the context of the USS Wahoo?

3. How did LCDR Morton identify and then address the teamwork issues aboard the USS Wahoo to make it more effective?
4. How hierarchical or flat was the Wahoo's organization under LCDR Morton?
5. To what degree were changes in the team performance aboard the Wahoo due to LCDR Morton's deliberate actions and practices as opposed to broader circumstances and factors outside of his direct control? How applicable are LCDR Morton's deliberate actions to a tactical Marine Corps unit today?
6. Which, if either (LCDR Kennedy or LCDR Morton) leadership style is more applicable to a tactical Marine Corps unit today? Why?
7. LT O'Kane's post-war writings largely credit LCDR Morton with developing several officers who went on to have very successful command tours during the war. LT O'Kane served under both LCDR Kennedy and LCDR Morton and eventually became the submarine captain credited with the most tonnage sunk during the war (DeRose, 2000).⁶⁷ Compare the culture of learning that each captain implemented aboard the Wahoo. Was LCDR Morton's learning orientation superior to LCDR Kennedy's? Did LT O'Kane learn from failure while serving under LCDR Kennedy?

D. CENTRAL CASE THEMES

The case of the USS Wahoo provides a rich example of organizational transformation. However, the case is broad, has relatively little source material, and can lead to an infinite number of conclusions. While I offer some key takeaways supported by my research findings, different readers from diverse backgrounds will come to different conclusions. This is perfectly acceptable, and the case instructor should not use my findings as an answer key but rather focus on generating meaningful discussion among participants.

⁶⁷ Per war reporting. As discussed in the case study various numbers around enemy shipping sunk exist and some later assessments did not credit LT O'Kane as the top submarine captain. All reports place LT O'Kane near the top of the list.

The central case themes that directly contributed to the USS Wahoo's successful transformation are understanding environmental context, defining decision space, establishing organizational clarity, nurturing a learning organization, and providing top cover.

1. Understanding Environmental Context

LCDR Kennedy and his peers embraced a risk-averse, over-cautious mentality during the peace-time Navy which hindered early war efforts. This mental model is understandable based on peacetime requirements and the incentive structure in place by the chain of command. Submarine warfare was new, and the U.S. Navy was in the early stages of determining their role in global warfare and the U.S. strategy. The Navy was probably correct to advise caution on the part of submarine commanders until the true capabilities of these new ships were determined. This is especially true in the peacetime environment in which casualties would be an unacceptable risk for cavalier submarine commanders participating in routine exercises.

The problem arose when the commanders did not adjust tactics when the context changed after the attacks on Pearl Harbor. The failure to adapt was not due to negligence or lack of patriotism on the part of submarine commanders. Rather, the difference between pre-war developmental tactics and those which would eventually attrite the Japanese was too great for many submarine commanders to grasp. They were not able to update the appropriate level of mission risk to address the new context.

While we have limited information about the sinking of the USS Wahoo, an argument could be made that LCDR Morton's daringness was too great and eventually resulted in unnecessary loss of life among the crew. Any leader will empathize with not wanting to foolhardily risk the lives of their people. The cold quantitative calculator could argue that this sacrifice was worth the asymmetric damage caused to the Japanese war effort. My intention is not to discuss the ethics of either position but rather to discuss the team performance and team leadership aspects which shifted the mission risk balance away from the pre-war over-cautiousness.

The U.S. submarine force had an objectively significant role in degrading the Japanese by the end of the war (DeRose, 2000). A handful of commanders at each echelon of command was able to understand the change in context and adjust the mission risk balance accordingly. Although there is no textbook or analytic solution to the appropriate risk balance, the tactical leader must have this conversation and analyze where their organization currently lays on the spectrum and how they would adjust this if the context required.

The United States is in a time of relative peace and every training casualty is necessarily scrutinized. While it is difficult to argue that peacetime casualties are acceptable, leaders at each echelon should candidly discuss how the mission-risk balance will shift if the context changes. To posit that casualties are unacceptable and avoidable in modern warfare is folly and turns a blind eye to history. To posit that casualties are necessary and should be freely accepted is morally negligent. Tactical leaders should acknowledge the required shift, based on context, and critically analyze how the culture they have fostered can adapt with the shift in risk acceptance. The wrong time to discuss this balance is over a year into a conflict with an existential threat.

It is the leader's responsibility to understand the environmental context and adjust their team practices accordingly (Snowden & Boone, 2007). There will never be an easy or clear-cut answer. This in itself is an ill-structured problem that tactical leaders and teams must face. My hope is that this case highlights this issue and that tactical leaders candidly discuss the level of risk acceptable in the different contexts for their organization.

2. Team Decision Space and Trust

LCDR Morton clearly defined decision space which increased innovation, pushed decision making authority lower to increase the speed of operations, and increased the responsibility that the crew embodied. Although LCDR Kennedy defined decision space, it was too narrowly defined and negated the positive effects that well-defined decision space can have on team performance. The bunk installation in the conning tower was the representation of this. While the bunk was in part due to a lack of trust, it symbolized to the crew that the captain made every decision and would personally direct every action in

the conning tower. The centralized watch schedule epitomized the narrowness of the decision space. While the watch schedule seems trivial, it sent a clear message to the crew. The message was that the captain did not trust the next senior officer and senior enlisted advisor. If the captain did not trust these individuals there was little chance that he trusted those further down the chain. The captain felt the need to control everything to avoid mistakes and mishaps aboard his ship. While this level of centralized control worked sufficiently to meet peacetime exercise standards, it was far too slow to work effectively in the dynamic environment which presented itself after the attacks on Pearl Harbor.

LCDR Morton capitalized on individual competence among the crew. Many of the anecdotes recorded by Yeoman Sterling and LT O’Kane immediately after LCDR Morton assumed command revolve around the renewed sense of responsibility and empowerment among the crew. LCDR Morton was able to create an environment in which individual crew members believed their efforts directly affected the Wahoo’s performance. This built commitment and cohesion. LCDR Morton realized that he was unable to centrally control the Wahoo quickly enough to be effective and made defining decision space a priority upon assuming command.

LCDR Morton clearly defined decision space in three ways. First, returning the watch schedule authority to the executive officer and chief of the ship immediately changed the dynamic aboard the ship and showed that LCDR Morton would rely on individual members of his team. This act is analogous to Captain Marquet allowing the enlisted chain of command aboard his submarine to approve leave. The delegation allowed the captains to focus on other tasks, but more importantly was a signal to the crew that the captains would rely on and trust their crews.

The second way LCDR Morton defined decision space was through his conning tower re-organization. This practice was contrary to the prescription of the time but allowed him to focus on the broader picture of the attack which led to numerous follow-on attacks. This re-organization often put a less experienced officer behind the technical tasks of periscope duty, a risk LCDR Kennedy may not have been willing to take. The deliberate conversation and re-organization showed the crew that LCDR Morton was willing to change procedures to capitalize on the individual strengths of crew members.

The third way that LCDR Morton defined decision space was by providing LT O’Kane broad guidance to find enemy vessels the best way he saw fit and then retiring to his state room until contact was made. LCDR Morton realized that sinking enemy ships was an ill-structured problem and that multiple answers existed. He wanted to capitalize on his subordinates’ diverse perspectives to accomplish this task and left the conning tower to provide them the freedom and flexibility to do so. This space was bounded by the authority to launch a torpedo. LCDR Morton retained the authority to fire a torpedo but left the search and lead up of the attack to the crew. This was well defined decision space which eliminated ambiguity, fostered initiative, and resulted in a more effective crew.

LCDR Morton understood the context of the ill-structured problem that the USS Wahoo and Pacific Fleet faced. He understood that the Japanese had the upper-hand, and that mediocre, risk-averse patrols were not going to change that. He also understood that the Wahoo could not achieve the success required through a slow centralized team leadership model. He demonstrated trust by defining decision space and bringing the crew together, focused on a common goal. LCDR Kennedy is depicted as standoffish and tense, opting to not have beers with the officers during their patrol intermission. In contrast, LCDR Morton is depicted as livening up the ship by playing board games with the crew and antics such as walking around in his robe. While this could be interpreted as an unprofessional level of familiarity, the crew responded to his personality which created crew cohesion. Okhuysen and Bechky (2012) found that familiarity reduces conflict by creating trust developed through frequent, intense interactions. This was the situation after LCDR Morton assumed command of the Wahoo. The crew intensely interacted, became familiar and trusted one another, and LCDR Morton clearly defined decision space to capitalize on crew talents.

The challenge of defining decision space and properly delegating did not disappear with World War II and will resonate with today’s tactical leaders. Today, articles abound with claims of institutional micromanagement caused by risk aversion or similar topics. For example, Retired Marine General Mullen argued that the nature of the conflicts in Iraq and Afghanistan, coupled with communications technology that enabled senior leaders to control lower echelons of command from greater distances, has eroded the Marine Corps’

command and control philosophy in practice (Mullen, 2020). The Commandant of the Marine Corps cautions against micromanagement in his *Commandant's Planning Guidance* and directs the officer corps to “provide every opportunity for your junior officers and enlisted leaders to lead, educate, train, supervise, and enforce high standards. Do not encroach on their space unnecessarily and do not prescribe every action; instead, teach, coach, and mentor” (Headquarters Marine Corps, 2019a, p. 22). The contemporary salience of defining decision space should help leaders draw parallels with the Wahoo and more intensely engage the case study.

Defining decision space and appropriate delegation is not just a leader's responsibility but is a bi-directional influence that requires capable subordinates. The role of the subordinate is to be self-disciplined, actively seek responsibility, and possess competence for that responsibility (Headquarters Marine Corps, 1996). A team's competence and willingness to accept responsibility will influence leadership styles that can be employed (Headquarters Marine Corps, 1996). The simplistic view is that LCDR Kennedy should have delegated more effectively. The more comprehensive discussion can revolve around a bi-directional influence. Not only did LCDR Kennedy need to better delegate, but LT O'Kane and the chief of the ship had a responsibility of trustworthiness and competence to LCDR Kennedy. The case can drive a rich conversation about the interplay of a leader's and subordinate's role in defining decision space which affects team performance.

Team decision space and trust are inextricably linked to organizational clarity. An organization with clearly defined decision space and has high levels of trust but lacking in organizational clarity will likely be ineffective because they are focused on the wrong purpose.

3. Organizational Clarity

Organizational clarity is simply defined as, “people at all levels of an organization clearly and completely understand what the organization is about” (Marquet, 2012, p. 160). LCDR Morton established a strong sense of organizational clarity which created a cohesive team intently focused on destroying Japanese shipping. The organizational clarity

manifested itself in the crew through increased morale. This is seen in the case with Yeoman Sterling's anecdote about the high sense of spirit and enthusiasm that took over the ship when LCDR Morton came aboard. LCDR Morton instilled organizational clarity by posting the operations order on the wall, placing cards in each space to reinforce the organization's purpose, and by prioritizing destruction of the enemy above all else. These three acts instilled a strong sense of organizational clarity which created a determined team.

LCDR Morton posted the operations order on the mess deck wall for every sailor to see upon departing Brisbane for the third war patrol. Operations orders were necessarily classified and typically only the officers would have access to them. The captain would open the orders after departing port to eliminate the risk of a security breach. LCDR Morton maintained this practice of delayed opening but saw no use in keeping the operations order from the crew. He posted them on the wall and when questioned by the executive officer responded, "All in the same boat, why not?" (O'Kane, 1989, p. 115). It is difficult to argue with this logic in retrospect. However, it was contrary to common practice of the time. This simple act let the crew understand the mission, purpose, and patrol route. They could create shared mental models through discussions of what to expect and understand the general plan for the patrol. This created buy-in from the team, reinforced the leadership's transparency, and fostered an environment where each crew member believed that their actions directly reflected the ship's mission, rather than just doing what they were told until the patrol was over.

LCDR Morton placed cards that built organizational clarity in each space on the submarine. Space is in short supply on submarines and the crew works throughout the ship in many small compartments. LCDR Morton placed cards in each of these compartments that stated things such as, "WE MUST FIGHT, WE MUST SHOOT TO KILL, FOR OUR ENEMIES HAVE POINTED THE WAY TO SWIFTER SURE CRUELER KILLING," and "SHOOT THE SONS OF BITCHES" (O'Kane, 1989, pp. 110–111). These re-enforced the overall purpose of each patrol in every space. These were not empty words but rather a centralizing theme that LCDR Morton validated in everything the Wahoo did. The crew understood that as long as they pursued enemy vessels, they were doing the right thing. This shared purpose goes beyond a mission statement. While readers who discuss this case

will be familiar with the mission statement and commander's intent, there is a rich discussion around whether sayings such as those employed by LCDR Morton are enhancing, or empty and redundant words if there is already a clearly stated commanders' intent.

The third pervasive habit to solidify organizational clarity aboard the Wahoo was to vigorously attack any enemy vessel or structure, regardless of size. Submarines typically avoided sampans and smaller vessels because captains did not think the risk of detection was worth the limited material loss for the enemy. LCDR Morton did not subscribe to this practice and prioritized any enemy destruction over all else. The Wahoo regularly used the under-utilized deck gun to sink sampans, shell shoreline infrastructure, and in several instances attack full sized surface ships when they were out of torpedoes. The creation of a commando team and instances of taking POWs were far from standard submarine tactics. While the material loss to the enemy due to these tactics was likely small, it had a significant effect on the Wahoo's organizational clarity. This relentless pursuit of the enemy removed any questions around the Wahoo's purpose. Crew members relished the opportunity to conduct their ancillary duties such as being on the deck gun crew or commando team. These non-standard tactics, and prioritization of enemy destruction, reinforced the organizational clarity of the Wahoo and increased the morale of the crew by breaking up the monotony of submerged operations and providing an opportunity for them to be creative.

Strong organizational clarity fostered innovation and creativity among the crew. This is seen in the training with Marines in between patrols, bringing Molotov cocktails aboard the Wahoo, and dumping oil aboard wet sampans to cause them to catch fire more quickly. Similar to the innovation Barrett (2012) found in his study of jazz teams, the free communication and loosened structure of the crew aboard the Wahoo sparked innovation in both traditional submarine tactics and non-standard missions. LCDR Morton loosened the rigid restraints which allowed crew members to make unique contributions and increase the overall team effectiveness.

LCDR Morton removed all ambiguity about what the Wahoo was about by posting the operations order on the wall and addressing the sailors the day he came aboard, placing

cards in each space to reinforce the mission, and prioritizing enemy destruction above all else. Leaders should discuss the effect that organizational clarity had on the crew of the USS Wahoo and use it as a lens to analyze the clarity within their own organizations.

4. Top Cover

LCDR Kennedy, LCDR Morton and Admiral Lockwood all provided top cover for their subordinates which provided space for initiative and risk taking. LCDR Kennedy demonstrated this when he promoted the radio operator who acted against procedure to receive a critical message. Admiral Lockwood provided top cover to LCDR Morton and the USS Wahoo by fighting the bureaucracy in Washington, D.C., over torpedo issues and not reprimanding LCDR Morton for his experimental tactics or for damaging the Wahoo by pushing it so hard. While this discussion naturally overlaps with the risk acceptance discussion, each of these leaders, to some degree, protected their crew from higher scrutiny. LCDR Morton's examples are the most prevalent.

LCDR Morton consistently provided top cover for his crew to such an extent that they became comfortable innovating and truly pressing the limits of the USS Wahoo. While LCDR Kennedy provided top cover at times, there is a sense in the literature that the crew was constantly on edge and afraid of acting outside of established procedures. LCDR Morton removed this sense of caution. Okhuysen and Bechky (2012) describe the role of leaders in creating and protecting an environment for positive team processes such as psychological safety and initiative. LCDR Morton protected this environment which is epitomized by his private reprimand of the officer who nearly ran the USS Wahoo aground. A public and humiliating reprimand could have been deserved for such a serious offense. However, LCDR Morton decided to preserve the psychological safety aboard the Wahoo by not publicly humiliating the officer. Augier and Hughes (2018) argue that leaders must defend those who experiment and innovate. LCDR Morton consistently showed his crew that he was willing to do this. Sending non-standard maintenance requests and specifically praising the crew in war reports substantiated LCDR Morton's willingness to stick his neck out for the crew. LCDR Morton created a sense of top cover aboard the USS Wahoo that

created an environment for crew members to experiment and increase team performance. The top cover also led the crew to embrace a learning orientation.

5. Learning Orientation

LCDR Morton created a learning orientation aboard the USS Wahoo which was fostered by the decision space, organizational clarity, and top cover that he created. The learning orientation is highlighted by the Wahoo's crew setting up informal, inter-patrol schools aboard Midway Island to discuss tactics and best practices for the faulty torpedoes. Additional learning orientation examples are the conning tower re-organization, surface-tactic experimentation, and the different torpedo employment technique trials.

Marquet (2016) argues that admitting you don't know opens the door for experimentation and learning. Lcdr Morton understood that the submarine force did not know how to effectively degrade Japanese materiel from the dismal results of the Wahoo while Morton was the PCO. Instead of stubbornly sticking with the established, submerged, sonar approach tactics, Lcdr Morton acknowledged that there must be a better way, which opened the door for learning. His candid discussions with the crew allowed them to suggest innovative ideas for experimentation. This learning orientation created the aggressive surface approach which became a trademark of the Wahoo and was emulated on other submarines as the war progressed.

Doughty (1985) convincingly lays out an argument that the French did not embrace a learning orientation in the inter-war period which contributed to their initial defeat in 1940. Contrasting the French failure with the learning orientation embraced aboard the USS Wahoo opens an opportunity for discussion. The leader can analyze how a learning orientation led one organization to depart from pre-war doctrine once the environment changed, and why the other organization failed to adapt. This analysis can prompt reflection on leaders' own organizations: do they embrace a learning orientation or risk only being effective as long as current practices are relevant?

LCDR Morton effectively committed to a culture change and created an environment characterized by learning, immediately upon assuming command of the Wahoo. Argyris (2010) substantiates this practice in a contemporary leadership case study

with one of his six features of a productive culture, which is to “commit to continued cultural change and learning” (p. 119). This change in culture and learning orientation is largely responsible for the transformation and success of the USS Wahoo after the initial two patrols.

E. MODELS FOR ORGANIZATIONAL ANALYSIS

I found three models⁶⁸ from the literature especially useful and use them to analyze the USS Wahoo case to illustrate how they can be helpful for the tactical leader. First, I analyze the case through the organizational behavior construct of macro, mezzo, and micro. Then I use Tuckman and Jensen’s 1977 model of small group development to show the team life cycle of the USS Wahoo crew. Finally, I use the we-leadership model to analyze the leadership situation aboard the USS Wahoo. These three models are discussed to provide additional perspectives from scholarly literature that the tactical leader may find useful. Each of these models provide opportunities for a different perspective on team performance.

1. Macro, Mezzo, Micro

The primary purpose of this case study is to analyze team performance and team leadership at the mezzo level of organizational behavior analysis. The defined level of analysis allowed for a better focus of research and better-defined corollaries to the Marine Corps’ current transformation. The fire team to battalion echelons are the mezzo-level of analysis that I focused on. The mezzo or group level in the Wahoo case study is the leadership and crew of the USS Wahoo. The organizational or macro level is the Pacific submarine fleet headquarters and higher headquarters of the USS Wahoo. The micro level of analysis is focused on the individual crew members aboard the Wahoo. While I touch on micro and macro discussions, the mezzo level of analysis was of the primary focus because the Marine Corps’ mezzo level is the echelon of focus for this thesis.

⁶⁸ I use the term “model” here to refer to three different lenses of analysis. These are found in the literature as “models” or “frameworks.” While each of these might not fit the academic definition of a model, the term should not detract from the purpose here.

All three levels of analysis must be considered in concert to understand the complexity of the organization as a whole (Sims, 2002). The case study depicts a journey which starts with a disconnect between the levels to an eventual harmony among all three levels which resulted in superior team performance.

The mezzo level is concerned with “how people communicate with each other and coordinate their activities in work groups and teams” (Sims, 2002, p. 2). The mezzo echelon brings together the micro-level individual actions with macro-level organizational guidance to create team performance. During the first two patrols, the mezzo actions did not align with most micro-level mental models. The individual sailors were exuberant and determined to avenge the attack on Pearl Harbor. However, at the mezzo level, LCDR Kennedy established practices that did not reflect this determination. The dissonance grew as the patrols progressed and few ships were sunk or attacked. At the mezzo level, the Wahoo lacked organizational clarity which caused a general disorganization characterized by sailors who were unsure how to contribute to the Wahoo’s mission. Relational conflict developed among the leadership and communication suffered. There was little trust and a general sense that that Wahoo was failing. This is represented in the language used by crew members when they reflect on the first two patrols.

LCDR Morton made significant changes to the practices aboard the Wahoo which corrected the mezzo- level issues. The five central themes, balancing mission risk, team decision space and trust, organizational clarity, top cover, and a learning orientation are mezzo-level changes that LCDR Morton made. Changes made at the mezzo level directly affected the micro and macro levels which demonstrates how the levels are integrally linked and should not be studied in isolation.

The micro level, focused on the individuals, can be seen in personal anecdotes and reflections on individual crew members. The case provides a reasonable amount of information about LCDR Kennedy, LCDR Morton, LT O’Kane and Yeoman Sterling. These all provide insight into how micro-level actions affect the mezzo level team performance. The contrast in leadership by LCDR Kennedy and LCDR Morton is the most available example of the micro effect on the mezzo and macro levels. This dynamic and

interaction should be studied by leaders to understand how the levels interact and thus gain a deeper understanding of the dynamics within their organization.

The macro level analysis of this case is limited to the little information about the Pacific submarine fleet, Admiral Lockwood, Admiral Fife, and other submarines within the organization. The macro level affected where the Wahoo patrolled, coordinated all the logistics, and facilitated personnel assignments. The harmony of the macro and mezzo levels is reflected in the language of the war reports after the second two patrols. This contrasts with the first two patrols. Admiral Lockwood assumed command of the Pacific submarine fleet in February of 1943, during the Wahoo's third patrol. Admiral Lockwood and LCDR Morton's views on submarine warfare generally aligned and this created harmony between the mezzo and macro levels.⁶⁹

Tactical leaders should understand that the organizational behavior levels of analysis provide a venue to conduct a deeper analysis of their organization. Simply looking at teamwork within an organization, for example a battalion, is far too broad to draw specific conclusions. However, if a leader analyzes battalion teamwork through the micro, mezzo, and macro model, they will inevitably conduct a more thorough exploration and draw more impactful conclusions.

2. Tuckman and Jensen Model

The Tuckman and Jensen model was primarily designed to focus group research but can be used as a rudimentary model to understand team life cycles. It is critical that leaders understand the effects of team membership change events⁷⁰ on the team life cycle. The application of Tuckman and Jensen's model to the USS Wahoo case demonstrates the value of life cycle analysis to analyzing team performance.

The Tuckman and Jensen model follows a progressive process of *forming-storming-norming-performing-adjourning*. These steps are detailed in the literature review

⁶⁹ There is a robust documented history of the Pacific Fleet and Pacific submarine fleet during World War II. Research is available if case proctors desire a more in-depth macro analysis of the case.

⁷⁰ A team membership change event describes an event in which a team member joins or leaves a team which changes the functioning and performance of that team (Trainer et al., 2020).

section of this thesis. The USS Wahoo team remained largely the same but experienced a significant team membership change when the leader was switched.⁷¹ The team processes changed significantly when LCDR Morton took command. The initial team *formed* under LCDR Kennedy at the Mare Island Navy Yard during the construction and training patrols. The team *formed* their initial relationships and roles and responsibilities in preparation to *perform* during the first patrol. The case shows this stage by discussing the Kennedy and O’Kane command team directly before patrol one.

The second stage, *storming*, consists of resolving inter-personal issues and abandoning individual security in support of group goals (Bonebright, 2010). This meant the Wahoo leadership must agree on the best method of employment and resolve individual issues to progress to the *norming* stage. The Wahoo team under LCDR Kennedy was never able to do this and was stalled along Tuckman and Jensen’s model in the *storming phase*. The case highlights the deep divides between LCDR Kennedy, LT O’Kane and members of the crew. Sufficient positive team processes were never established, and the Wahoo’s performance suffered. The never-ending *storming* stage is emphasized in the case when the junior officers on board request transfers after the second patrol.

LCDR Morton’s impact on the Wahoo team was significant enough to push the team through the *storming* phase and progress to *norming*. The case details several situations, while still under the command of LCDR Kennedy, where he was involved in de-escalating conflict among the crew and was the leader of post attack review sessions. Each of these instances was part of the *norming* stage. LCDR Morton and the crew became oriented with one another and defined roles around him being aboard as the PCO and later the captain. The Wahoo crew remained largely the same in between the second and third patrols, except for LCDR Morton assuming command. This allowed the team to absorb new crew members without a significant reset of the Tuckman and Jensen model.

The Wahoo team, now under LCDR Morton, initiated new members and continued the *norming* stage early in the third patrol. *Norming* is illustrated in the case when LCDR

⁷¹ The team leader change in this case would be categorized by Trainer et al. (2020) as a *critical* team membership change event. The critical event involved the gain of a “key resource” (LCDR Morton) which added to the overall strength of the event (Trainer et al., 2020, p. 223).

Morton makes tactics and troop welfare changes aboard the Wahoo. These actions resolved conflicts from the *storming* stage. He settled the conflicts surrounding troop living conditions, solved the issue of the executive officer and chief's role in the watch schedule, and fixed the authority of the officer of the deck. Most importantly, he settled the conflict most significant to individual sailors which was avenging the attacks on Pearl Harbor. LCDR Morton did this by establishing organizational clarity on board and boldly attacking an enemy convoy soon after leaving Brisbane. The Wahoo team had *normed* and thus figured out the best way to work as a team.

The Wahoo quickly transitioned to the *performing* stage in which team processes were working effectively. Bonebright (2010) states that the team process is working when it has become a "problem-solving instrument" (p. 114). The USS Wahoo under LCDR Morton had truly become a problem-solving tool able to solve the ill-structured problem that the USS Wahoo and Pacific submarine fleet faced. The *adjourning* stage was added to the Tuckman and Jensen model because the foreseen dissolution of the team has significant impacts on team processes (Tuckman & Jensen, 1977). The Wahoo team would never reach this stage because of the sinking of the Wahoo before any team dissolution was planned.

The Tuckman and Jensen model is not strictly linear. Crew changes and conflicts still arose during the third and follow-on patrols. However, the general progression through the Tuckman and Jensen model of the USS Wahoo, both under LCDR Kennedy and LCDR Morton, provide insight into the life cycle of teams. Leaders should discuss the USS Wahoo case through the lens of the Tuckman and Jensen model and use this perspective to analyze their own organizations for a deeper understanding of the team and team leadership dynamics involved in the life cycle.

3. We-leadership

We-leadership is the third lens for organizational evaluation that I found particularly useful for the tactical leader. We-leadership lays out an imperative to break down hierarchical leadership models in favor of collectively focused leadership, accentuates engagement among each echelon of command, and details establishing a sense of "we" over "I" by developing a strong sense of psychological connection between the

individual and the group (Otte, 2015). LCDR Morton created an environment aboard the USS Wahoo that accomplished each of these we-leadership guidelines.

LCDR Morton shifted the leadership model aboard the USS Wahoo from a highly centralized to a collective leadership model. This is difficult in a high stakes environment in which the captain holds ultimate responsibility for every act and mishap aboard the ship.⁷² Although he upended the leadership structure at personal career risk, he understood the context of the Wahoo's task and implemented a system that worked in the complex operational environment. LCDR Morton re-modeled the leadership system by returning the authority of the officer of the deck to fully employ the submarine in his absence, removing the obtrusive captain's bunk from the conning tower, and empowering the executive officer and chief of the ship. These early actions had a trickle-down effect until the Wahoo possessed a collective leadership model which embodied we-leadership characteristics. While LCDR Morton retained the ultimate responsibility for the ship, his re-organization of the Wahoo into a ship of collective leadership allowed the crew to operate much more quickly and effectively.

Engagement is the central theme of the we-leadership model and becomes pervasive aboard the Wahoo after LCDR Morton assumes command. Engagement is characterized by a sense of shared ownership and individuals who see their actions contribute to organizational goals (Otte, 2015). The sense of shared ownership is best illustrated in the case study by Yeoman Sterling's recollection of the change when LCDR Morton comes aboard. His reflections of a contagious sense of initiative and his anecdote about refusing to swap with a sailor from another ship due to his pride in the Wahoo, reveal the new attitude of the crew. The crew began to feel their actions actually affected the success of the Wahoo, in contrast to the language used at the end of the second patrol in which the crew felt their actions were in vain and the Wahoo was doomed to failure.

⁷² Captain Marquet (2012) explains why decentralizing leadership in this environment is so difficult in his book *Turn the Ship Around*. The book details his success aboard a nuclear-powered submarine in implementing a post-Industrial Age model in the late twentieth century. While Captain Marquet's case takes place 50 years after LCDR Morton's, they faced many of the same issues. *Turn the Ship Around* is an insightful, simple read, that will generate discussion among tactical leaders.

LCDR Morton implemented three practices that catalyzed crew engagement. First, he incentivized watch duty, turning a previously monotonous task completed by those commanded to do so, into a high payoff opportunity that sailors readily volunteered for. Some sailors surely volunteered for the promise of promotion, but there was also the understanding that an enemy sighting typically led to an attack. This contrasts with before when LCDR Kennedy was less inclined to pursue visual contacts. The second practice was allowing sailors to rotate through the periscope in the aftermath of a sinking. Each sailor who looked through the periscope and saw a burning ship instantly understood the fruits of their labor and felt attached to the organization. The third practice was establishing the commando teams and utilizing the deck gun. These practices gave more junior members of the crew ancillary tasks with little prescription or existing procedure. They were put in leadership positions and given a clean slate to develop tactics. These crews relished this opportunity and were congratulated when they returned below deck. Even when unsuccessful, these ancillary duties tied the sailors directly to the success of the ship and they were engaged. While the term we-leadership was first used more than a half century after the sinking of the USS Wahoo, the engagement that LCDR Morton instilled epitomized the central tenant of the model.

LCDR Morton established a sense of “we” rather than “I” by developing a strong sense of psychological connection between the individual and the group. LCDR Morton initially established a sense of “we” by addressing the crew. He laid out the substantial task that the Wahoo had in the greater war effort. This spoke to the sailor’s individual motivation to avenge the attacks on Pearl Harbor and created an emotional connection between the success of the Wahoo and the success of the overall war effort. LCDR Morton created a strong sense of identity by placing the ships slogan cards in each compartment and adopting unique tactics among the submarine force. This identity is reflected in the pride the sailors demonstrated in “their” ship in the case study. Putting the group before the individual is a key tenant of the we-leadership model and was prevalent in the cohesive group aboard the USS Wahoo.

In keeping with Otte’s (2015) assertion that change starts at the top with a we-leadership philosophy, LCDR Morton immediately changed the philosophy and values of

the USS Wahoo. He made their mission clear, laid out a concrete vision, and re-enforced this at every step of the way through his personal actions. His vision, personal example, and empowering practices created a crew that possessed collective leadership, was genuinely engaged, and possessed a cohesive culture of “we” resolute on destroying enemy shipping to aid the war effort.

While hundreds of leadership models are available today, the we-leadership model provides an intuitive lens through which tactical leaders can evaluate their organizations. We-leadership is not a step-action or checklist model but rather a philosophy which focuses on individual values and incentives to create an engaged team of collective leaders (Otte, 2015). The validity of the we-leadership lens to this case study and a leader’s unique organization should generate discussion among learners and provide a different perspective of analysis.

F. CONCLUSION

I open the literature review portion of this thesis with arguments that teams, and team leadership are integrated yet often researched separately. I research the topics separately because of the distinct fields within scholarly research. It is important to bring these concepts together. The USS Wahoo case study provides an effective venue for that fusion.

Leadership research is necessarily distinct from that of team performance. This distinction is highlighted in this research project in two ways. First, leaders must understand the context in which their organization operates. This is a leader’s responsibility and is discussed in the literature review of this thesis. Once a leader understands the unique context and purpose of their organization, they can determine the appropriate leadership model (Snowden & Boone, 2007). This leadership model will determine how the organization’s teams will perform and will be unique to each organization. Second, leaders must understand individual leadership requirements, such as top cover, which will create an environment for their teams to succeed. While effective individual leadership characteristics are required for team performance, they are often found separated from team research. Once leaders truly understand the context in which their team will operate, how

that context will change, and have a firm grasp on their individual leadership responsibilities, they should delve into team research to best understand how their leadership will affect their unique team performance. While the delineation between team and leadership research is imprecise, the leader should understand the different disciplines, and the wealth of knowledge available and not just lump it all in to “leadership.”

Military team effectiveness should be measured by the objective team outcomes based on the mission set. Therefore, the USS Wahoo team prior to the change of command was not a high-performing team. While we cannot completely isolate the effect of LCDR Morton on the USS Wahoo, we know that, “leadership has substantial ramifications for the effectiveness of teams and organizations at large” (Salas, Goodwin, Burke, & Rosen, 2009, p. 42). We also have quantitative data that the Wahoo’s performance dramatically increased after LCDR Morton assumed command. While acknowledging that other factors surely affected some of the Wahoo’s transformation, the evidence we have from crew members and superiors highlight the significant impact that the change of the leader had on this team.

LCDR Morton set conditions for the talented team already aboard the Wahoo to excel. By all accounts LCDR Morton was a charismatic leader and could have embodied the persona of top down, authoritarian leadership style that was common for the time. While there is no counterfactual, a convincing argument can be made that if LCDR Morton had simply replaced LCDR Kennedy, left all procedures in place with the exception of LCDR Morton’s aggressive surface attack, that his individual leadership alone would have improved the crew of the USS Wahoo. However, LCDR Morton did much more than this. He realized that a talented crew was aboard the Wahoo and enthusiastically awaited the opportunity to make a difference in the war effort. Instead of parading in front of a stiff formation with his leadership philosophy and fiats as the new captain, LCDR Morton addressed the men on the mess decks and galvanized them around a common theme. Note the language in his initial address:

We will take every reasonable precaution, but our mission is to sink enemy shipping. We are going out there on this war patrol to search for Japs. Every smoke trace on the horizon, every contact on watch will be investigated. If

it turns out to be the enemy, we are going to hunt him down and kill him.
(Sterling, 2011, p. 72)

He begins the first two sentences with “we” and discusses the team purpose rather than discussing what he will do. While this may come across as a trivial word choice, he embodied this message by having open discussions with the crew about methods of improvement. While LCDR Morton had not heard TED talks on empowerment or read *New York Times* best sellers on empathetic leadership, his team leadership style reflected the twenty-first century literature that argues for a departure from Industrial Age, autocratic leadership. Instead of seeing leadership as coercion or a convincing act, he viewed it as a relationship with the crew on a shared journey. This is the point where leadership and team dynamics merge. LCDR Morton assessed the context and fit a leadership model to the organization. He demonstrated an intimate understanding of team dynamics by creating an environment for his crew to succeed.

While cases can be found in which a high-performing team made up for a weak leader or a strong leader made up for a low-performing team, the important discussion point is that these disciplines cannot exist separately from one another and are both integral to the performance of the other. As the line between leader and led is blurred by an increasing emphasis on collective leadership, the understanding of the relationship between teams and team leaders is more important. In tactical military organizations there must always be a leader with the ultimate responsibility for decision making. However, collective leadership models will increase the authority of lower echelon leaders to increase the tempo of operations. If tactical leaders implement increasingly collective leadership models yet fail to understand the dynamics and retain an autocratic style, the model will fail. The adjustment in the leader’s responsibility and practice, based on the organization and purpose, will vary greatly by organization, and can make a rich discussion for leaders during this case study.

While I offer the organizational behavior levels of analysis, the Tuckman and Jensen team model, and we-leadership as lenses of evaluation, the options are nearly unlimited. The literature and research in the academic areas of teams and team leadership are immense. I found these models particularly useful for framing and analyzing the USS

Wahoo case and reflection on organizations I have had the opportunity to lead in. I discovered hundreds of other models, frameworks, and concepts that could be equally useful from a different perspective. The key purpose of this exercise is to expose tactical leaders to the plethora of information available and demonstrate the value of leveraging diverse perspectives to analyze their organizations. Only through rigorous analysis and improvement will tactical-level teams be able to successfully solve ill-structured problems in the future operating environment.

V. CONCLUSION AND RECOMMENDATIONS

Marine teams would progress through the Tuckman and Jensen model of Small Group Development unimpeded in an ideal state. They would be isolated from operational requirements until the *performing* stage, remain together for a minimum of five years, and be able to discard any member of the team who did not embody team values. However, as discussed in the background chapter of this thesis, the status quo does not reflect this ideal state. The *Commandant's Planning Guidance* and *Talent Management* documents outline initiatives that may move the team life cycle closer to this ideal in the coming decade. However, due to inevitable personnel changes and an unpredictable adversary, the Marine Corps will always require ad-hoc teams to solve ill-structured defense problems.

While writing this thesis, the Marine Corps released the *Talent Management* concept document outlining institutional, structural changes to shift the current manpower model away from the Industrial Age and mature the force. While institutional changes were outside the scope of this thesis, the initiatives outlined in this document hold potential for structural improvements at the service level. The initiatives to mature and build cohesion are complimentary with team performance but still require that tactical leaders deliberately focus on team performance. While each organization is unique and leaders need to determine the most effective techniques for team performance in their context, the case study and recommendations of this thesis synthesize a vast amount of research and can be used as a starting point to increase team performance that will augment individual-level *Talent Management* initiatives.

This chapter summarizes my research findings to provide tactical leaders techniques to prepare their ad-hoc teams to solve ill-structured problems. I argue that the battalion echelon of command is the ideal starting point for team performance initiatives and recommend areas of potential future research. In the recommendations section, I recommend that tactical leaders conduct team education, conduct deliberate organizational design, define decision space, and fiercely defend team continuity to improve team performance.

The first broad conclusion is that tactical leaders must deliberately address team performance. While some might argue that team performance is a natural byproduct of individuals working together with the appropriate resources, my research has consistently shown that this is not the case. While the social dynamics of teamwork are nebulous concepts and difficult to quantify, they significantly affect team performance. Unfortunately, “recent tragic incidents (e.g., the USS Vincennes, the USS Stark, Occidental’s Piper Alpha platform, the space shuttle Columbia) have been attributed to breakdowns in teamwork” (Salas et al., 2007, p. 186). It is naïve to posit, in the face of overwhelming evidence, that the Marine Corps’ unique culture will cultivate high-performing teams without direct attention to teamwork.

The second over-arching conclusion is that team performance initiatives should start at the battalion⁷³ level. The literature reviewed typically offered suggestions to improve “leadership” or “organizations.” However, the authors did not specify the ideal echelon or specify where to start. It is important to identify which echelon of leadership and organizations are most compatible with team performance initiatives to give them the best opportunity to take hold. Initiatives are often abandoned because they are incompatible with higher and subordinate echelons of command. In other words, a company commander might say, “I would like to keep my teams together longer, but battalion has a policy that....” The battalion is the appropriate level for team performance initiatives to take hold because the command team has the necessary experience and rank to provide legitimate top cover, and the battalion is the highest echelon of command that can re-organize all subordinate personnel without official orders issuance.

While leaders at each echelon should provide top cover to their subordinates, the battalion command team’s selection process, rank, and experience makes them uniquely positioned to provide top cover and act as a buffer for team performance experimentation. As discussed in the literature review, Okhuysen and Bechky (2012) show that legitimate

⁷³ I use “battalion” to refer to battalion, squadron, or any like-sized unit. A typical infantry battalion has between 900–1000 Marines and Sailors. Battalions from other occupational fields as well as squadrons numbers will vary. However all are like size units and commanded by a Lieutenant Colonel (MAGTF Staff Training Program, 2017).

authority is required to protect subordinates to learn and grow. In this case, the battalion commander has the legitimate authority to protect subordinate leaders to experiment with new organizational constructs. It is less likely that a regiment⁷⁴ would have the patience for company level re-organization efforts, with fast-paced operations, without legitimate top cover at the battalion level. Company level experiments could easily be seen as a distraction from higher priorities when the current company organization was tried and true. The geographic separation that typically exists between battalion and regimental echelons helps create a perceived boundary that requires more formal measures to breach. While everyone has a boss and there are limits to top cover, the battalion can provide the most protection for tactical-level team-performance improvements.

The battalion is the lowest level that can informally re-organize all subordinate personnel, which can help foster an environment for team initiatives. While higher command echelons and occupational field monitors⁷⁵ affect battalion manning, this takes a formal orders issuance process. Movement within the battalion is informal and organizational design can take place on an experimental basis with fewer administrative impediments. This ability to informally re-organize, coupled with the appropriate command team to provide top cover, makes the battalion the ideal echelon for team performance initiatives to begin.

Areas for future research in Marine team performance are immense. This opportunity is due to the large body of scholarly literature on team performance and the shifting team requirements based on the changing character of war. The first area for future researchers is to produce a draft Marine Corps doctrinal publication on teams. The literature puts sufficient emphasis on the dynamics of teamwork that an additional publication may be warranted. As discussed throughout the literature review, current foundational publications sufficiently address general leadership but fall short of discussing teamwork and team leadership in sufficient depth. There may be room for a

⁷⁴ A regiment is the higher headquarters of battalions. While battalions are the direct higher headquarters of companies, regiments are close enough to companies to have awareness of non-standard organizations.

⁷⁵ Each MOS has a “monitor” who manages personnel moves within that MOS and writes official personnel orders.

team's publication within the spirit of the concise construct of Marine Corps doctrine. An NPS professor or student could seek sponsorship and endorsement from the Marine Corps to draft this publication. An official Marine Corps publication on teams would provide the tactical leader a consolidated reference for scholarly and military team concepts and practices. This would serve the Marine Corps for years to come just as *Leading Marines* and other little white books have.

Secondly, organizational identity, loyalty, and cohesion help build tight-knit teams in which teammates are reliant on one another and conversely know that their teammates rely on them. Further implications of this dynamic could be increased retention, and better new-join reception practices. While *Sustaining the Transformation* and other service documents have targeted these areas, future research could use scholarly literature to further explore the relationship between tight-knit teams and these potential implications. These are contemporary issues with no clear answer. The idea that tight-knit teams would have a positive effect on each of these issues is generally intuitive but requires further research to validate and draw specific recommendations.

A. RECOMMENDATIONS

The following four recommendations are for the tactical leader and should not be confused as service level proposals. While the plethora of team and team leadership concepts and practices are highlighted in the literature review, these recommendations consolidate actionable practices, supported by scholarly research, that can have a positive effect on team performance. Each of these compliments existing Marine Corps doctrine and can be implemented within the structural limitations of the Marine Corps to increase tactical team performance. The four recommendations are:

1. Conduct team education.
2. Conduct deliberate organizational design.
3. Define decision space.
4. Fiercely defend team continuity.

1. Conduct Team Education

Although the Marine Corps formal PME continuum has improved, and learning has been institutionalized with the publication of MCDP-7 *Learning* in 2020, Marine Corps formal education falls short of highlighting teamwork dynamics in team performance. Tactical leaders should implement teamwork education in their organizations to augment formal PME and doctrine.

Marine Corps leaders should ensure that every Marine reads *Sustaining the Transformation* and conduct small unit discussions of the concepts. This publication is a great starting point to understand teams but does not encompass the wealth of literature available. As doctrine evolves, the Marine Corps should consider a publication synthesizing team performance concepts and practices. Until then, tactical leaders should leverage scholarly literature to develop periods of instruction on teamwork and team leadership within their units. This approach requires limited resources, builds trust and familiarity through discussion, and will measurably increase the performance of tactical teams.

A scholarly study of an Air Force officer development program found that better individual teamwork knowledge⁷⁶ improved collective team performance. Specifically that, “team members achieving greater individual mastery of designated teamwork knowledge facilitate better team task proficiency and greater teamwork effectiveness” (Hirschfeld et al., 2006, p. 473). This is an important finding and has direct implications for the tactical leader. The study further states that, “to achieve overall competence in today’s team-oriented world of work, individuals must also develop a sophisticated understanding of how they are connected to others in the workplace and how they can build

⁷⁶ Hirschfeld et al. (2006) oversaw an officer development program which included classroom instruction and a teamwork challenge course. An example team challenge is fording a body of water with a rope and a board. The team had 15 minutes to plan and execute this task. After 40 hours of classroom instruction and hundreds of pages of readings participants were given a multiple-choice test to measure teamwork knowledge (Hirschfeld et al., 2006). While the actual test was not published with research findings, 12 of 14 of Stevens and Campion’s (1994) competencies were included in the instruction that was tested. Examples of Stevens and Campion’s (1994) competencies are “to listen nonevaluatively and to appropriately use active listening techniques” and “to monitor, evaluate, and provide feedback on both overall team performance and individual team member performance” (Stevens & Campion, 1994, p. 505).

better working relationships” (Hirschfeld et al., 2006, p. 468). Marines must learn about teamwork because it is complex and too important to leave to informal mechanisms.

Teamwork education should be ongoing throughout a Marine’s career with increasingly comprehensive topics. Tactical leaders should implement specific concepts⁷⁷ at the appropriate rank. Lance Corporal Leadership and Ethics Seminar⁷⁸ may not be the appropriate venue to introduce Salas et al.’s (2007) model, but perhaps it is the right time to talk through the role of familiarity and trust in an organization. *Sustaining the Transformation* illustrates the corporal squad leader who sits down with a junior Marine during basic training and begins to instill organizational clarity through a simple, genuine conversation. Teamwork knowledge can help develop this sort of young leader.

For specific educational topics or techniques, many case studies exist that can help. Some may find the USS Wahoo case study beneficial to their organization. Military and scholarly literature has produced hundreds of excellent case studies that highlight teamwork and team leadership. Marquet’s (2012) book *Turn the Ship Around* presents an easily digestible case study on team leadership that will generate discussion around empowerment and decision space in the organization. Captain Marquet has produced several YouTube videos on the same topic that may be a useful medium. Snook (2002) takes a more academic approach to the fratricide incident over Iraq in *Friendly Fire*, which provides an in-depth analysis of team process failures that caused that incident and is a great case study for the mid-grade leader and team educator. For a different perspective, Barrett (2012) clearly lays out a case for innovation and ingenuity within a well-defined decision space in his study of jazz teams in his book *Yes to the Mess*.

While ideally each tactical leader can review each of these suggested readings in their entirety, time is the most limiting resource. Time limitations was a motivating factor of this thesis. The overall goal was to provide the tactical leader, in the operating forces, a

⁷⁷ Leaders can review the literature review and analysis portion of this thesis or the litany of literature available for specific topics that best fit their organization. Each of the suggested readings in this section are discussed to some degree throughout this thesis.

⁷⁸ Lance Corporal is the third lowest enlisted rank. Marines attend this course, held at the unit level, typically within their first year or two after joining their first unit. Marines at this level are focused on understanding the technical and individual skills of their profession.

synthesis of relevant teamwork practices that could be useful within time constraints. This synthesis is found in Chapter II (Literature Review) Sections B (Team Research) and C (Team Leadership Research), Chapter IV (Teaching Note), Sections D (Central Case Themes) and E (Models For Organizational Analysis), and Chapter V (Conclusion and Recommendations) Section A (Recommendations). The bottom line is that teamwork education should be integrated into the tactical leader's PME plan for their units.

For leaders who want to conduct a deep dive into teamwork within their organization I recommend the scholarly works of Salas et al. (2007), Mathieu et al. (2019), and Bonebright (2010). Each of these articles breaks down teamwork into understandable concepts and details the dynamics in which these concepts interaction to affect team performance. The most comprehensive understanding of teams and team leadership from scholarly leadership may be found in Salas et al., (2009).⁷⁹

2. Conduct Deliberate Organizational Design

Tactical leaders should deliberately conduct organizational design rather than unquestioningly attempt to operate within the organizational construct that is currently in place. Organizational design is a huge body of literature; I am specifically referring to the intentional design of organizations to create team structure that fosters improved team performance. Most military units are organized in a hierarchical, wire-diagram construct leftover from the Industrial Age. This may be the best structure for your team. The recommendation here is not to leverage every industry fad of investing in bean bag chairs or sleeping pods in the company office space. Rather, the suggestion is to have a deliberate conversation about what your team's mission is, how that mission has changed, and whether the current structure best supports that mission. If the Industrial Age wire diagram is the best structure, then make a deliberate decision to retain it rather than just use it because that is what was already in place.

⁷⁹ While this book is in limited supply, it is a collection of articles referenced in the list of references section of this thesis which can potentially be inter-library loaned based on the capabilities of your installation library.

Tactical leaders can leverage models and other techniques from scholarly literature to help determine the best organizational structure. Tuckman and Jensen's model of small group development is a great starting point and should be leveraged by every tactical leader. The model was not designed to be prescriptive but serves as an excellent conversation starter and lens of analysis (see Chapter IV (Teaching Note), Section E (Models For Organizational Analysis) and Chapter II (Literature Review) Section B.1 (Team Models) for additional model information). Dalenberg et al. (2009) find that if military teams were given 10 minutes to conduct a team strategy they performed better. The experiment presented teams a computer simulation in which each member could view an individual piece of the integrated problem, but not the entire scenario. The implication is simple. Tactical leaders should discuss how their unit is structured and why it is structured that way.

Organizational design initiatives should in no way be an additional administrative burden. Leaders should not implement an additional requirement for subordinate leaders to produce an organizational design plan. *Team of Teams* (2015) provides a radical example of organizational re-design and *Command and Control* addresses width versus depth. These are starting points for exploration. To summarize the essence of deliberate organizational design, Blaber (2008) states, "What would you do if your people were cut off from all their different headquarters and all their institutional history?...How would we organize if we didn't know how we were supposed to organize?" (p. 296). Deliberate organizational design is a specific practice that tactical leaders can conduct to move their teams past Industrial Age constructs and prepare them to solve ill-structured problems.

3. Define Decision Space

Ad-hoc teams do not have the luxury of time for leader-led relationships to evolve and trust to build over extended interactions. Due to the lack of time, decision space must be deliberately defined early in the leader-led relationship. While billet descriptions⁸⁰ provide a list of formal duties, decision space entails much more. The decision space

⁸⁰ Billet descriptions are included in the official fitness report and describe the official duties of the billet.

discussion or documentation specify which decisions are the responsibility of the subordinate and what decision authority does the superior retain. This conversation or document serves two functions. First, it alleviates ambiguity for the subordinate and allows them to innovate and use their initiative within their established boundaries. Secondly, this serves as a forcing function for the superior to critically assess the criteria they have established and analyze whether they are in the spirit of the Marine Corps command and control philosophy. *Command and Control* states, “the commander should do only those things which only the commander can do or which nobody else can do adequately” (Headquarters Marine Corps, 1996, p. 126). Defining decision space allows the commander to assess their level of delegation.

Decision space will adapt as the leader-led relationship progresses. As discussed in the literature review, trust is a two-way street. The decision space may broaden or narrow, and these changes will be context- and personality-dependent. Decision space should be an explicit, continuing conversation that removes the guess work. Well-defined decision space relates back to top cover. Subordinates should be expected to exercise initiative and creativity to increase team performance within their decision space. The superior must provide them top cover within this space. The research consistently shows that if subordinates do not have the top cover to innovate, the benefits of a wide decision space will be negated. Ad-hoc teams limit the trust and familiarity that are built by long, intense interactions. Creating well-defined decision space is a specific action that tactical leaders can implement to increase team performance in ad-hoc teams.

4. Fiercely Defend Team Continuity

While most leaders understand that team continuing improves performance, in the operating forces we shuffle people around from billet to billet for various reasons, such as seeking to get individuals in “key billets.”⁸¹ There is a delicate balance between career

⁸¹ *Key Billets* are informal career milestones that are MOS specific. For example, battery command is a key billet for artillery officers. There is nothing formal that says an artillery officer must be a battery commander to progress in their career. However, it is still an institutional norm to attempt to get as many officers this key billet as possible. Unfortunately, this also creates team membership change events in the battery team.

progression and hindering team performance. There is no right answer. However, tactical leaders must understand that scholarly research regularly shows that team membership change events are significantly more impactful than we tend to realize, and they must vehemently defend team continuity.

It is difficult to predict the long-term net effect of changes to teams (Trainer et al., 2020). For example, high team fluidity hinders short-term communication processes but may make the team more resilient to changes in the future (Trainer et al., 2020). We do know that team membership change events largely interrupt the Tuckman and Jensen model of small group development and delay the onset of the *performing* stage of the team life cycle. We should not dismiss team membership change events with platitudes such as “this is just the way things are” or “Marines will figure it out.” Sometimes team membership change events will be unavoidable. However, the leader should make all team membership change events deliberately and think through second order effects.

Military leaders nearly universally argue for team continuity. Scales (2003) writes:

The surest way to reduce casualties among close-combat units is to place in harm’s way only soldiers trained through a “band of brothers” approach—those who, over a period of years, have worked collectively to achieve physical fitness, emotional maturity, technical competence, and confidence in their leaders. (p. 162)

Scales (2003) continues, “The process of bonding, and coalescence should begin immediately after selection by grouping soldiers together into permanent close-combat platoons with the intent they stay together for a period of several years” (p.163). *Sustaining the Transformation* states, “The longer Marines serve and train together in a unit, the more effective they become and the more confident they are in their unit’s capabilities” (p. 5–4). The same sentiment is echoed throughout Marine Corps doctrinal publications. The commandant targets continuity and familiarity with proposed structural changes such as homesteading (Headquarters Marine Corps, 2021b). *Tactics* acknowledges that effective communications results from building familiarity and trust over time, which “requires keeping people together in their units and stable in their assignments. It implies keeping good teams together” (Headquarters Marine Corps, 1997a, p. 75).

Some team membership change events, such as an injury or retirement are inevitable. However, a concrete practice that a tactical leader can adopt is to critically analyze the second order effects of each team membership change event and attempt to mitigate these effects. They should explore alternatives to avoidable change events. Scholarly and military research are overwhelmingly consistent in the finding that continuity is essential to team effectiveness. Tactical leaders should use the Tuckman and Jensen model, combined with this understanding of the severity of team membership change events to fight for their team's continuity and avoid team changes whenever possible.

B. CONCLUSION

Scholarly research and Marine Corps doctrine on teams and team leadership are in general agreement about practices that enhance team performance such as defining decision space and keeping teams together longer. The little white books are brilliant, concise, and synthesize a breadth of literature. Scholarly literature offers no get rich quick solution to teams or team leadership. The tactical leader should ground themselves in Marine Corps doctrine and then explore specific concepts and scholarly literature that I have outlined in this thesis to develop a more comprehensive understanding of teamwork.

Tactical leaders should not leave teamwork to happenstance, but deliberately acknowledge the complex phenomenon of teamwork and understand their role in creating an environment for team performance. Leaders should thoroughly embody the leadership message in Marine Corps foundational documents and reject managerial centric, overly centralized tendencies that have characterized some Marine Corps units in the twenty-first century.

By deliberately addressing teamwork, conducting team education, conducting deliberate organizational design, defining decision space, and fiercely defending team continuity, leaders can create the environment for increased team performance. Deliberately addressing each of these will have the indirect effect of building organizational clarity.

Tactical leaders cannot base the functioning of their mission critical teams on the idea that individuals grouped together will form a cohesive team. Although the Marine

ethos is a superior starting point at the organizational level it is not enough for individual teams. Leaders must deliberately form and nurture the teams within their organization to ensure they can accomplish the tasks that the twenty-first century will likely produce.

The *Commandant's Planning Guidance* and *Talent Management* have clearly defined the way forward to keep the Marine Corps at the forefront of readiness and combat effectiveness. The tactical leader must do their part by cultivating an environment for their tactical teams to fulfill the demands of this vision and respond to tomorrow's challenges.

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