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**NAVAL
POSTGRADUATE
SCHOOL**

MONTEREY, CALIFORNIA

THESIS

**SPECIAL OPERATIONS IN THE OPERATIONAL DEEP
FIRES AREA**

by

John P. Gomen and Brian M. Wright

December 2019

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SPECIAL OPERATIONS IN THE OPERATIONAL DEEP FIRES AREA

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ABSTRACT

The 2018 National Defense Strategy redirected the efforts of the nation's military toward inter-state strategic competition and away from counter-terrorism. The shift in strategic focus away from what has been the staple of the U.S. Army regimen for the past 18 years requires new doctrine to address near-peer adversaries. Analysis is necessary to assess the future roles and capabilities of the U.S. Army Special Operations Command (USASOC) when conducting operations to support the Multi-Domain Operations (MDO) concept during armed conflict. This study reviews key aspects of the emerging MDO concept and core tasks of Special Forces, and analyzes four historical case studies of special operations personnel operating within a non-permissive environment. Through common observations of special operations missions over time, this study derives ten themes across the U.S. Army's warfighting functions that increase the efficiency of Special Forces within non-permissive environments. Key among the themes is that air power alone is insufficient to achieve operational objectives and Special Forces are required to facilitate the destruction of high-priority targets or conduct reconnaissance to answer priority information requirements. As history has shown us, Special Forces teams will continue to be employed for a variety of reconnaissance, surveillance, sabotage, and direct-action missions within the MDO environment inside of denied areas to achieve operational and strategic objectives.

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TABLE OF CONTENTS

I.	INTRODUCTION.....	1
A.	THE PROBLEM.....	2
B.	THE RESEARCH QUESTIONS	2
C.	SIGNIFICANCE OF THE RESEARCH.....	3
D.	SCOPE AND PURPOSE.....	3
II.	LITERATURE REVIEW	5
A.	MULTI-DOMAIN OPERATIONS	5
B.	U.S. MILITARY SPECIAL OPERATIONS DOCTRINE	10
C.	SPECIAL OPERATIONS CORE TASKS	11
1.	Special Reconnaissance	12
2.	Direct Action.....	13
3.	Unconventional Warfare.....	14
D.	MILITARY WARFIGHTING FUNCTIONS.....	14
1.	Command and Control.....	15
2.	Movement and Maneuver	15
3.	Intelligence.....	16
4.	Fires.....	16
5.	Sustainment	17
6.	Protection.....	17
E.	HISTORICAL RELEVANCE.....	17
1.	WWII Special Operations in Norway	18
2.	WWII Jedburghs and the French Resistance	19
3.	Vietnam.....	19
4.	Desert Storm SCUD Hunt.....	20
III.	WWII SPECIAL OPERATIONS IN NORWAY.....	21
A.	COMMAND AND CONTROL	24
B.	MOVEMENT AND MANEUVER.....	25
C.	INTELLIGENCE.....	26
D.	PROTECTION.....	27
E.	SUSTAINMENT	28
IV.	WWII: JEDBURGHS AND THE FRENCH RESISTANCE	31
A.	THE BRITISH SPECIAL OPERATIONS EXECUTIVE.....	32
B.	CREATION OF THE OFFICE OF STRATEGIC SERVICES.....	33
C.	JEDBURGH TEAM COMPOSITION	34

D.	JEDBURGH TEAM TASKS	35
E.	COMMAND AND CONTROL	37
F.	MOVEMENT AND MANEUVER.....	39
G.	INTELLIGENCE.....	40
H.	FIRES.....	41
I.	PROTECTION.....	41
J.	SUSTAINMENT	43
V.	VIETNAM	45
A.	THE TRAIL	45
B.	LEAPING LENA	47
C.	RECON TEAMS.....	48
D.	EXPANSION OF “SHINING BRASS”	51
E.	CONVENTIONALIZATION OF THE UNCONVENTIONAL	52
F.	THE ENEMY GETS A VOTE	53
G.	COMMAND AND CONTROL	53
H.	MOVEMENT AND MANEUVER.....	54
I.	INTELLIGENCE.....	55
J.	FIRES.....	55
K.	PROTECTION.....	56
VI.	SPECIAL OPERATIONS DURING THE GULF WAR	57
A.	COALITION WARFARE SUPPORT	59
B.	SPECIAL RECONNAISSANCE.....	60
C.	THE SCUD HUNT.....	61
D.	COMMAND AND CONTROL	65
E.	MOVEMENT AND MANEUVER.....	66
F.	INTELLIGENCE.....	67
G.	FIRES.....	68
H.	SUSTAINMENT	68
I.	PROTECTION.....	69
VII.	ANALYSIS	71
A.	COMMAND AND CONTROL	74
1.	Appropriate Application of SF	74
2.	Assumed Risk and Freedom of Innovation	75
B.	MOVEMENT AND MANEUVER.....	76
1.	Specialized Skills and/or Experience.....	76
2.	Economy of Force/Small Elements.....	77
3.	Environmental Considerations	78

C.	INTELLIGENCE	78
1.	Use of Indigenous Personnel	78
2.	Multi-source Intelligence for Planning Purposes	79
D.	SUSTAINMENT: NON-STANDARD LOGISTICS	80
E.	PROTECTION	81
1.	Use of Indigenous Personnel	81
2.	Frequency and Duration of Operations	83
3.	Specialized Skills and/or Experience	84
4.	Economy of Force/Small Elements	84
5.	Environmental Considerations	85
VIII.	RECOMMENDATIONS AND CONCLUSION	87
A.	SUMMARY	87
B.	TRAINING	88
1.	Specialty Infiltration Skills	88
2.	Create a Dedicated SOF Training Course for SR	89
3.	Conduct Training in Limited Communication Environment	90
4.	Re-emphasize Regional Alignment	90
5.	Emphasize Non-standard Sustainment Training	91
C.	DOCTRINE: “STRATEGIC RECONNAISSANCE”	92
D.	FINAL THOUGHTS	92
	LIST OF REFERENCES	95
	INITIAL DISTRIBUTION LIST	99

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LIST OF FIGURES

Figure 1.	MDO Framework.....	7
Figure 2.	Special Operations Core Activities.....	12
Figure 3.	Findings.....	72
Figure 4.	Recommendations.....	88

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LIST OF ACRONYMS AND ABBREVIATIONS

ARSOF	Army Special Operations Forces
BDA	Bomb Damage Assessment
CENTCOM	Central Command
CIA	Central Intelligence Agency
FAC	Forward Air Controller
MACV	Military Assistance Council Vietnam
MACVSOG	Military Assistance Council Vietnam Studies Group
MDO	Multi-Domain Operations
NVA	North Vietnamese Army
ODA	Operational Detachment Alpha
OSS	Office of Strategic Services
PAVN	People's Army of Vietnam
SAS	Special Air Service
SF	Special Forces
SFHQ	Special Forces Headquarters
SFODA	Special Forces Operational Detachment Alpha
SHAEF	Supreme Headquarters Allied Expeditionary Forces
SLAM	Search Location and Annihilation Mission
SOCCENT	Special Operations Command Central
SOCOM	Special Operations Command
SOE	Special Operations Executive
SOF	Special Operations Forces
SOG	Special Operations Group
SR	Special Reconnaissance
TEL	Transport Erector Launcher
UW	Unconventional Warfare

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I. INTRODUCTION

On the heels of threats and posturing between the United States and the government of the Democratic People’s Republic of Korea, the 2018 National Defense Strategy redirected the efforts of the nation’s military by stating, “Inter-state strategic competition, not terrorism, is now the primary concern in U.S. national security.”¹ With this shift in our strategic focus of military training efforts and budgets away from terrorism-centric tasks that had been the staple of the U.S. Army regimen for the past 18 years, a new doctrine to address a near-peer enemy, needed to be created. The result is the concept being put forth in TRADOC Pamphlet 525-3-1, *The U.S. Army in Multi-Domain Operations 2028*.² As a result of the new priority on potential conflict between nation states and the reduced focus against violent extremist organizations requires the U.S. Army Special Forces to review their current doctrine and roles.

Throughout history U.S. Army Special Forces (SF) have been called upon to conduct high-risk operations to mitigate the capability gap in conventional forces. SF have historically been required to conduct operations in hostile, denied or politically sensitive environments to enable targeting, and intelligence collection, and to conduct sabotage operations deemed inappropriate to assign to conventional forces. The future operating environment will impose a high demand for SF due to advanced technologies of U.S. adversaries that neutralize our technological advantage on the battlefield.³ Airpower alone will no longer be sufficient to achieve operational objectives of either the destruction of high-priority targets or reconnaissance operations required to answer strategic information requirements. U.S. Army SF must reassess its current capabilities and reprioritize core

¹ Jim Mattis, “Summary of the 2018 National Defense Strategy of the United States of America,” Real Clear Defense, January 20, 2018, https://www.realcleardefense.com/articles/2018/01/20/summary_of_the_2018_national_defense_strategy_112929.html.

² TRADOC, *The U.S. Army in Multi-Domain Operations 2028* (Fort Eustis, VA: U.S. Army TRADOC, 2018).

³ TRADOC, v–xii, A1, B1–2.

tasks to ensure effectiveness in the future operating environment as envisioned by the new MDO doctrine.

A. THE PROBLEM

Having reprioritized training and doctrine away from traditional warfighting tasks and in light of technological change, the SF community must renew its focus on competition and conflict between modern military powers to fulfill the obligation of the force conceptualized by the multi-domain operations (MDO). An analysis of lessons learned from previous conflicts could suggest what functional changes need to be implemented in order to prepare our special operations soldiers to succeed. The shift in focus from violent extremist organizations to inter-state competition is what makes MDO important and timely, as it will provide the training emphasis and employment of Special Forces soldiers for years to come.

Having focused on the Global War on Terror since 2001, SF soldiers have enjoyed every benefit of technology and airpower to aid them during close combat. The Global War on Terror has undoubtedly sharpened certain skillsets of Army Special Forces, but has also created a force that has become accustomed to operating from large static forward operating bases supported with the latest technology and unchallenged airpower. The future operating environment of Multi-Domain Operations envisions a battlefield where the United States' technological advantage and air power are heavily contested if not denied outright.⁴ Army SF will require a shift in doctrine, organization, training and leadership in order to successfully conduct operations in the deep maneuver and the operational deep fires maneuver areas within MDO.

B. THE RESEARCH QUESTIONS

How can U.S. Army Special Forces, prepare for conflict in the deep maneuver and operational deep fires areas of the MDO concept? What historical observations can be applied to enable U.S. Army Special Forces to prepare for this potentiality?

⁴ TRADOC, v-xii, A1, B1-2.

C. SIGNIFICANCE OF THE RESEARCH

The previous decades of combat operations in Afghanistan and Iraq have produced a status quo for U.S. Forces from a position of relative technological and firepower superiority. During a future conflict, as depicted in the MDO concept, the U.S. military's freedom of action will be contested by layered standoff weapons and denied airspace.⁵ While the current trend of limited and proxy wars may continue to require the use of Special Forces, it is critical to understand how and where SF will be asked to operate in the MDO future operational environment.

D. SCOPE AND PURPOSE

The purpose of this research is to analyze selected historical cases from successes and failures of special operations conducted in non-permissive environments that may apply to MDO's deep maneuver and operational deep fires areas. Our objective is to suggest guidelines for redeveloping atrophied SF capabilities following 18 years of a focus on counter-terrorism and counterinsurgency warfare.

This research examines four historical cases in which special operations forces conducted operations in non-permissive areas similar to the battlespace identified in the MDO concept's deep maneuver and operational deep fires areas. The case studies range from the actions conducted during World War II to present day. The cases range a span of time in which military forces adapted in order to apply technologies and tactics to overcome a variety of adversarial capabilities. It assumes that the future MDO environment may face similar challenges as in the past due to peer adversaries' technology negating previously observed U.S. technological advantages.

The U.S. Army's newly theorized MDO concept serves as the motivator for this study, insofar as it anticipates how SF will conduct future warfare against peer state adversaries. Published in November 2018, it provides the latest sanctioned insight into how the U.S. Army will need to train, organize, and equip the force for the next decade or longer. Our research analyzes prior special operations in the context of the warfighting functions

⁵ TRADOC, 6,15.

and suggests how to approach the MDO concept to recommend how the Army might prepare for the employment of SOF within the deep maneuver and operational deep fires areas. In essence, MDO directs USASOC to maintain irregular warfare skills and to employ those specialties in the spectrum of conflict short of war while simultaneously adapting future Operational Detachment Alphas (ODA) to conduct core missions in the deep maneuver and operational deep fires areas of the future.⁶

This study assumes that SF will continue to conduct the full spectrum of its core tasks but is scoped to look specifically at the role Green Berets may be called upon to conduct within the MDO concept as a member of the Joint Force during armed conflict. Specifically, the competition phase of MDO, prior to armed conflict, was not explored as SF's role is not a significant departure from current activities.

⁶ USASOC, *U.S. Army Special Operations Forces Role in the Deep Fires Area* (Fort Bragg, NC: USASOC, 2019).

II. LITERATURE REVIEW

In this chapter, we review key aspects of current USASOC doctrine, the emerging MDO concept, the war fighting functions, Special Forces core tasks, and the case studies selected to derive patterns of successful and unsuccessful adaptations of Special Operations Forces (SOF).

A. MULTI-DOMAIN OPERATIONS

United States Army Special SF have been required to conduct ground operations well beyond the forward line of troops (FLOT) since their inception. However, the reason for an emphasis on this particular area in our research is due to the lack of operational experience that ARSOF has experienced since the 1991 Gulf War. Multi-Domain Operations describes an ambiguous geographical space into several distinct zones based on enemy reach and capabilities. The U.S. Army's Multi-Domain Operations concept uses the Russian military as the pacing threat for the benchmark of technology and doctrinal strategies to meet the requirements outlined in the National Security Strategy and the National Defense Strategy.⁷ Through analysis of strategic threats to the U.S. military, MDO attempts to address the problem of layered standoff that strategic competitors are capable of creating through the synergy of land, sea, air, space, and cyber capabilities.⁸

The purpose of TRADOC Pamphlet 525-3-1, *The U.S. Army in Multi-Domain Operations 2028*, is to describe how the U.S. Army will contribute to the Joint Force's task to deter and defeat Chinese and Russian aggression in both competition and conflict as directed in the National Defense Strategy.⁹ Ideally, adversaries are outpaced and outmaneuvered in the competition phase of multi-domain operations prior to the onset of armed conflict. Army Special Forces have a highly valuable and unique role in the competition phase of MDO. However, USASOC must equally be prepared to integrate into

⁷ TRADOC, *The U.S. Army in Multi-Domain Operations 2028*, vi, 7.

⁸ TRADOC, iii,vi,7.

⁹ TRADOC, vi.

the joint force as the conflict progresses into armed conflict when required.¹⁰ In the event of armed conflict, U.S. Special Forces will be called upon as part of the Joint Force to penetrate, dis-integrate, and exploit the enemy’s anti-access and area denial systems.¹¹

The 2018 MDO draft attempts to provide a conceptual framework that accounts for activities in space and time.¹² The proposed doctrine frames the MDO battlefield geometry by operational context, friendly and enemy capabilities, and terrain (Figure 1).¹³ Each area in the MDO framework consists of both friendly and enemy capabilities.¹⁴ The increase in battlefield areas, expanded geographic terrain, and conceptual time horizons reflect new updates in proposed MDO doctrine.¹⁵ The MDO framework, from left to right, begins with the support areas (Figure 1). Together, the strategic, operational and tactical support areas is the “space in which the Joint Force seeks to retain, maximum freedom of action, speed, and agility to counter the enemy’s multi-domain efforts to attack friendly forces.”¹⁶ The Close Area is the region in which friendly forces make physical contact with the adversary to achieve overall campaign objectives.¹⁷ Commanders employ capabilities in the Close Area to synchronize the effects of combined arms maneuver to defeat the enemy.¹⁸

¹⁰ TRADOC, viii.

¹¹ TRADOC, viii.

¹² TRADOC, 8.

¹³ TRADOC, 8.

¹⁴ TRADOC, C2.

¹⁵ TRADOC, C2.

¹⁶ TRADOC, C3.

¹⁷ TRADOC, C3.

¹⁸ TRADOC, C3.

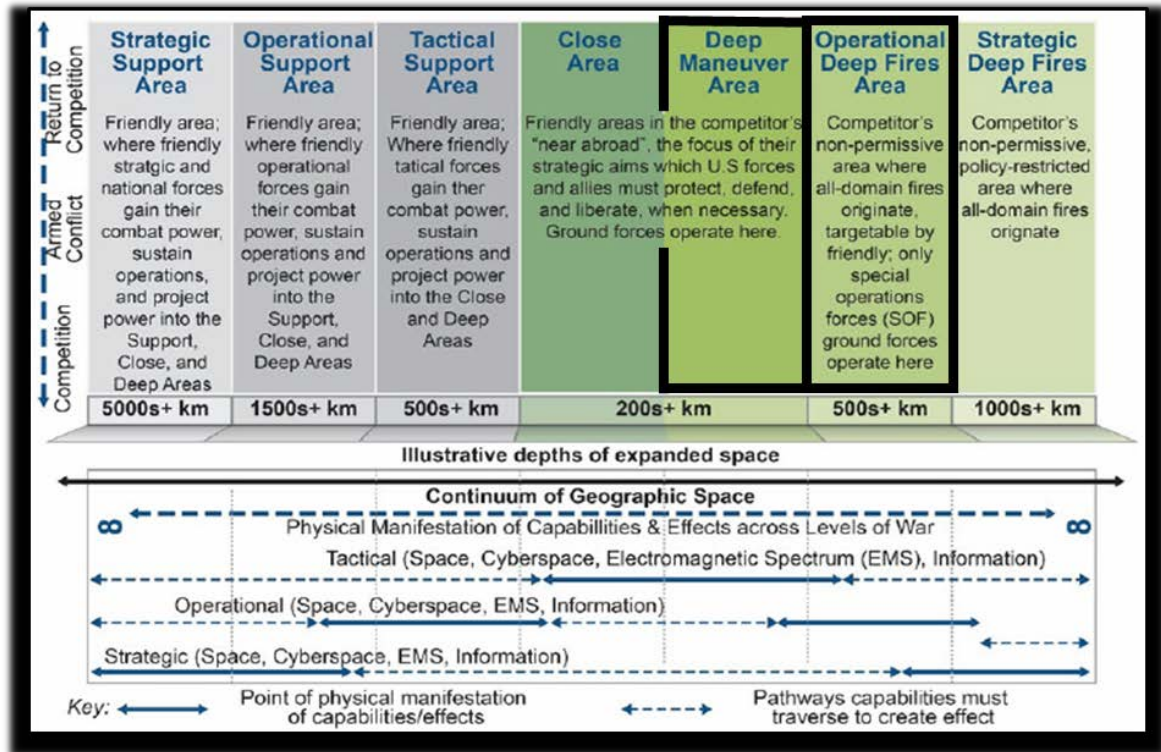


Figure 1. MDO Framework¹⁹

The Deep Maneuver Area is a highly contested area of the battlefield in which operations may be conducted, but often require significant planning and support.²⁰ It is expected that ground forces will have the capability to conduct operations for longer periods of time in the deep maneuver area compared to the operational and strategic deep fires areas.²¹ The deep maneuver area has greater potential for commanders to synchronize movement and maneuver and fires to achieve operational level objectives compared to the operational and strategic deep fires areas.²² The MDO Framework is conveying the level in which the area is denied, contested, and more restricted by the adversary the further to the right of the depicted battlefield geometry (Figure 1). While the figure does indicate

¹⁹ Adapted from TRADOC, *The U.S. Army in Multi-Domain Operations 2028*.

²⁰ TRADOC, C3.

²¹ TRADOC, C3.

²² TRADOC, C3.

potential depths of the battlefield in kilometers, the space is not rigidly delineated or set to scale. The MDO battlespace could be significantly smaller or larger and is not geographically defined but is more dependent upon friendly and adversarial capabilities to define operational zones.²³

The deep fires areas, consisting of the operational and strategic deep fires areas, are the space in which movement for conventional forces is no longer feasible.²⁴ The MDO recognizes these areas as the space in which Special Operations Forces, joint fires, cyber, and information operations may be employed to gain advantages over the adversary.²⁵ These areas are either “too far for conventional maneuver forces to enter or they are prohibited by policy.”²⁶ The limitations imposed and difference between the operational and strategic deep fires are primarily distinguished between current laws, policy and authorities.²⁷

The 2018 MDO draft document places emphasis on special operations forces operating in the deep maneuver and operational deep fires areas (Figure 1).²⁸ The theoretical deep maneuver and operational deep fires areas are historically an appropriate region within the battlefield geometry for SF to conduct operations to achieve effects at the operational and strategic level. However, a conflict with a peer state competitor in a multi-domain environment would be a distinct departure from the manner of operations which the U.S. military and Special Operations Command (USSOCOM) have been conducting counter-terrorism operations for almost two decades.

The proposed MDO concept also suggests that SOF may conduct operations in the “Close Area.”²⁹ Special operations conducted in the close area would most likely consist

²³ TRADOC, C-2.

²⁴ TRADOC, C2.

²⁵ TRADOC, C2.

²⁶ TRADOC, C2.

²⁷ TRADOC, C2-3.

²⁸ TRADOC, 8, C2-4.

²⁹ TRADOC, 27, 32.

of special reconnaissance to enable joint fires targeting. This brings the potential for the inefficient employment of SF at the tactical level to employ tactical fires. The U.S. Army maintained a dedicated Long Range Surveillance (LRS) capability, but it was disbanded in 2017 due to risk aversion and the advent of advanced Intelligence, Surveillance and Reconnaissance aerial platforms.³⁰ The deactivation of the Army's only light surveillance capability may have left a gap in intelligence collection and the employment of indirect fires. A potential solution to fill the gap would be to utilize Special Forces to conduct reconnaissance to enable brigade fires. We opine that the employment of SF to achieve tactical effects would be an inappropriate and inefficient solution to fill the potential gap in conventional military formations as it would risk operational to strategic level assets for tactical level gains.³¹

As the Army attempts to reframe the environment in which future conflicts will occur, USASOC must reassess its current core competencies and capabilities to identify gaps between current and future MDO requirements. United States Army Special Operations Command seeks to develop competitive ARSOF formations that will provide a competitive advantage as irregular warfare experts.³² USASOC recognizes that it must continue to master the basics in order to operate in austere denied areas where technology no longer exists.³³ In the deep maneuver and operational deep fires area, SOF will be required to operate with partner nation forces or unilaterally, to delay adversary movement, disrupt anti-access area denial systems, and create complex dilemmas for our adversaries.³⁴

³⁰ Josh Tawson, "Fixing the Army's Deep Reconnaissance Problem: Rebuild It's Long-Range Surveillance Capabilities," Mountain Tactical Institute, February 22, 2019, <https://mtntactical.com/knowledge/fixing-the-armys-deep-reconnaissance-problem-rebuild-its-long-range-surveillance-capabilities/>.

³¹ Department of the Army, *FM 3-05 Army Special Operations Forces* (Washington, DC: Department of the Army, 2010), 1–13.

³² USASOC, *USASOC Army Special Operations Forces Strategy* (Fort Bragg, NC: USASOC, 2019), 4.

³³ USASOC, 3.

³⁴ USASOC, 3.

The Army defines an MDO environment in which we are contested in all domains by an increasingly lethal adversary and where deterrence is challenged through the use of complex and layered long range weapon systems.³⁵ We must assume that, adversaries' technology will negate the previously experienced U.S. technological advantages.³⁶ Army SOF must adapt and overcome the anticipated loss of our longstanding advantages in technology due to the advances of area denial systems by adversarial state actors. Perhaps, we need to be prepared to revert to old tactics and techniques thought to be outdated in order to conduct operations in a highly contested and denied environment. USASOC will have to adapt new ways to gain advantage over our adversaries in the battlespace. "U.S. military dominance is not assured."³⁷ Proxy warfare is expanding to include influence from all domains to create a more complex battlefield while maintaining a threshold of violence below the level of armed conflict between larger near-peer states.³⁸ Specifically, Russia and China are exploiting these trends to challenge regional areas of weaker U.S. influence.³⁹ As the Army innovates to counter new threats and increasingly complex environments, USASOC must self-assess to maintain existing capabilities and eliminate gaps in capabilities to complement conventional forces.

B. U.S. MILITARY SPECIAL OPERATIONS DOCTRINE

The United States Army doctrine recognizes the importance to synchronize SOF with conventional forces (CF) to achieve synergistic effects against an adversary throughout all phases of conflict and in every domain.⁴⁰ However, historically Army doctrine tends to gloss over the specific roles in which to employ the capabilities of SOF.

³⁵ TRADOC, *The U.S. Army in Multi-Domain Operations 2028*, v–xii, 6.

³⁶ TRADOC, 12.

³⁷ TRADOC, vi.

³⁸ TRADOC, vi.

³⁹ TRADOC, vi.

⁴⁰ Department of the Army, *ADP 3–0 Unified Land Operations* (Washington, DC: Department of the Army, 2011); Department of the Army, *FM 3–05 Army Special Operations Forces*; Department of the Army, *FM 3–05.20 Special Forces Operations* (Washington, DC: Department of the Army, 2001); USSOCOM, *SOCOM 2035: Commander's Strategic Guidance* (MacDill AFB, FL: USSOCOM, 2016); TRADOC, *The U.S. Army in Multi-Domain Operations 2028*; USASOC, *USASOC Campaign Plan 2035* (Fort Bragg, NC: USASOC, 2017).

The integration of SF and CF has typically been conducted at the special operations task force level, but is currently being emphasized and trained at the company level at Army national training centers. Since the start of the Global War on Terror, Special Forces Operational Detachment Alphas (SFODA) have been employed in support of conventional maneuver brigades conducting tactical reconnaissance in support of conventional brigade fires.

While the integration of SF at the tactical level may be considered necessary, we suggest that it can lead to ineffective employment of SF units if capabilities are misprioritized. This is especially true if command relationships are not clearly defined. Due to the operational and strategic nature of SF missions, there are no clear tactics, techniques and procedures to integrate SF/CF missions at the tactical level. Without clear doctrinal guidance on SF/CF integration, commanders rely on prior experience, warfighter exercises, and national training centers. Conceptually, USASOC understands it must remain agile and adaptive, but where in time and space will SF best be employed in MDO? Clarity on how conventional and Special Operations Forces will integrate in the future battlespace will be vital and a lack of clarity appears to persist in the new U.S. Army in MDO 2028.⁴¹

C. SPECIAL OPERATIONS CORE TASKS

USASOC provides a unique capability to wage irregular warfare against an adversary to gain distinct operational and strategic advantages. The conduct of Irregular warfare (IW) is a “violent struggle among state and non-state actors for legitimacy and influence over the relevant population(s).”⁴² United States SOF ensures the capability to conduct IW by maintaining competency in nine core tasks (see Figure 2).⁴³ For the purposes of this study “Special Reconnaissance,” “Direct Action,” and “Unconventional Warfare” receive select focus as they are the most commonly and likely to be conducted tasks by SF in an MDO environment.

⁴¹ TRADOC, *The U.S. Army in Multi-Domain Operations 2028*, 27.

⁴² Department of the Army, *FM 3-05.20 Special Forces Operations*, II-1.

⁴³ Department of the Army, II-3.

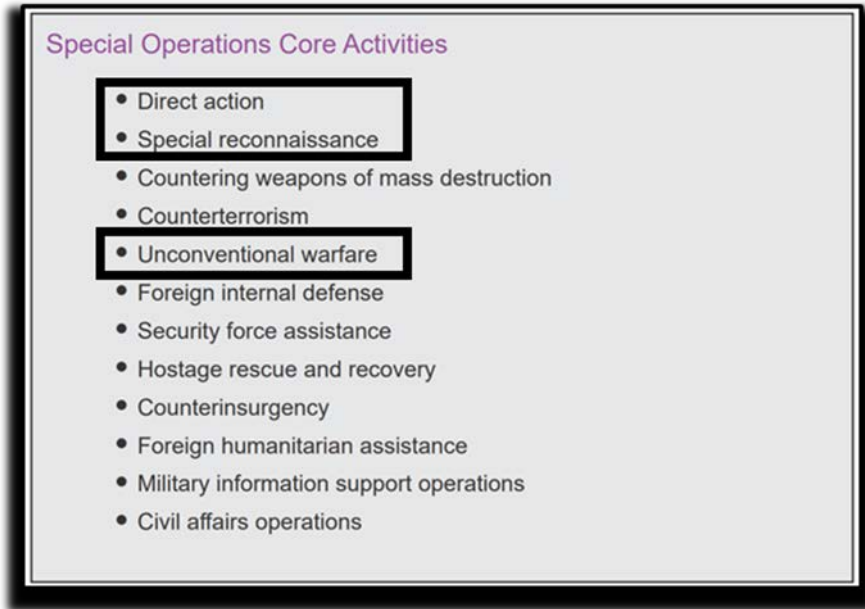


Figure 2. Special Operations Core Activities⁴⁴

1. Special Reconnaissance

Special reconnaissance (SR) is the “reconnaissance and surveillance actions conducted in hostile, denied or politically sensitive environments to collect or verify information of strategic or operational significance.”⁴⁵ The political sensitivity and the significance of the information collected is what sets special reconnaissance apart from conventional reconnaissance operations. Special Operations Forces conduct SR to collect information that will achieve operational or strategic effects. In certain cases, it may be appropriate to utilize SOF to conduct special reconnaissance on lower tactical level targets if the risk merits it. Historically, SR conducted in an environment with high levels of political risk have been cross-border operations in an undeclared combat zone. In the MDO future operating environment, SF will be called upon to conduct SR in order to see, sense, and fight.⁴⁶ SF will be required to collect operational knowledge and provide actionable

⁴⁴ Adapted from Department of the Army, II-3.

⁴⁵ Joint Chiefs of Staff, *JP 1-02 Department of Defense Dictionary of Military and Associated Terms* (Washington, DC: Joint Chiefs of Staff, 2016).

⁴⁶ USASOC, *U.S. Army Special Operations Forces Role in the Deep Fires Area*, 3.

intelligence to the Joint Force.⁴⁷ Combined with direct action objectives that a SR team may be called upon to conduct, such as sabotage, this core task is emphasized to a greater degree within this study as it represents a high degree of risk to SF soldiers and is the traditional role conventional Army leadership imparts upon SOF during high intensity conflict.⁴⁸

2. Direct Action

Direct actions consist of “short duration strikes conducted in hostile, denied or politically sensitive environments to seize, capture, exploit, or destroy” a specific target.⁴⁹ Direct action differs from conventional offensive actions due to the level of physical or political risk and the degree of precision required to achieve the desired end-state.⁵⁰ SOF may also conduct raids, ambushes, sabotage, and enable precision guided munitions.⁵¹ Typically, direct action missions conducted by SF are short duration, often time sensitive, and include a planned withdrawal.⁵² Direct action operations could be conducted unilaterally, combined with a partner force or enabled through surrogate forces. In the future MDO environment SOF will be expected to penetrate and disrupt adversary systems in the deep fires area through time sensitive targeting, precision strikes and subversion.⁵³ SOF will leverage long range precision fires in the Operational Deep Fires Area to conduct time sensitive and precision targeting of high priority targets.⁵⁴

⁴⁷ USASOC, 3.

⁴⁸ Thomas K. Adams, U.S. *Special Operations Forces in Action: The Challenge of Unconventional Warfare* (New York, NY: Frank Cass Publishers, 1998), 125, 169.

⁴⁹ Joint Chiefs of Staff, *JP 1-02 Department of Defense Dictionary of Military and Associated Terms*, 67.

⁵⁰ Department of the Army, *FM 3-05 Army Special Operations Forces*, 2-7.

⁵¹ Department of the Army, 2-7.

⁵² Department of the Army, 2-7.

⁵³ USASOC, *U.S. Army Special Operations Forces Role in the Deep Fires Area*, 3.

⁵⁴ USASOC, 4.

3. Unconventional Warfare

Unconventional warfare (UW) is defined as “activities conducted to enable a resistance movement or insurgency to coerce, disrupt, or overthrow a government or occupying power by operating through or with an underground, auxiliary, and guerrilla force in a denied area.”⁵⁵ SF may train partner forces sympathetic to U.S. interests to cause issues and create dilemmas in an adversary’s rear echelon to detract from their overall ability to mass combat power. The costs, risk and long-term third order effects of using UW must be carefully considered before employment.⁵⁶ When UW is properly integrated and synchronized with overarching joint operations, UW can provide options to gain space, time, and leverage over an adversary. SOF’s ability to prepare the future environment exists in phase zero or the competition phase, prior to onset of armed conflict.⁵⁷ Network development, partner development and infrastructure analysis requires time.⁵⁸ SOF has the capability to provide strategic options to senior military leaders and policy makers if afforded the opportunity to develop relationships and networks prior to the onset of hostilities.

D. MILITARY WARFIGHTING FUNCTIONS

This study organizes and bins observations into the U.S. Army’s Warfighting Functions. A warfighting function “is a group of tasks and systems united by a common purpose that commanders use to accomplish missions and training objectives”.⁵⁹ The use of warfighting functions allows this study to coalesce information into generalizable groups that aid in the understanding of how historical combat power was applied and under what categories observations can be applied to the future operating environment.

⁵⁵ Department of the Army, *FM 3-05 Army Special Operations Forces*, 2-1.

⁵⁶ Department of the Army, 2-1.

⁵⁷ USASOC, *U.S. Army Special Operations Forces Role in the Deep Fires Area*.

⁵⁸ USASOC, 3.

⁵⁹ Department of the Army, *ADP 3-0 Operations* (Washington, DC: Department of the Army, 2019), 5-2.

1. Command and Control

The command and control warfighting consists of the “tasks required to enable commanders to synchronize and converge all of the elements of combat power”.⁶⁰ The purpose of command and control is to “integrate all of the war fighting functions to achieve maximum combat power.”⁶¹ The coordination and synchronization of combat operations requires a balance between the “art of command and the science of control.”⁶² The commander must drive operations by visualizing, describing, directing, leading and then assessing operations.⁶³ However, the commander must develop a knowledgeable and comprehensive team of staff with joint, interagency and multinational partners.⁶⁴ In this concept the commander exercises the art of command and the staff manages the control. Within Army Special Operations, operations are typically bottom up driven. Senior leaders provide vision, purpose and a desired end-state for a specific problem. The SF Detachment Commanders then plan and execute operations to achieve their senior leaders’ vision and end-state.

2. Movement and Maneuver

Movement is how a force is arrayed on the battlefield and maneuver is how a force relocated to gain distinct advantages over an adversary.⁶⁵ It consists of all “the tasks pertinent to understanding the enemy, terrain, weather, civil considerations, and the overall operational environment.”⁶⁶ Army maneuver doctrine stresses it is “imperative forces must establish direct and indirect fires to facilitate maneuver on an adversary”.⁶⁷ Commanders manage their forces to ensure they are committed where and when necessary to gain a

⁶⁰ Department of the Army, 5-3.

⁶¹ Department of the Army, 5-3.

⁶² Department of the Army, *ADP 3-0 Unified Land Operations*, 15.

⁶³ Department of the Army, 15.

⁶⁴ Department of the Army, 15.

⁶⁵ Department of the Army, 15.

⁶⁶ Department of the Army, *ADP 3-0 Operations*, 5-4.

⁶⁷ Department of the Army, *ADP 3-0 Unified Land Operations*, 15.

tactical advantage.⁶⁸ “Commanders maneuver forces to mass in order to gain surprise and momentum”.⁶⁹ Special Forces Detachment Commanders operate in very small elements that require extreme caution when exposing forces to the adversary. Special Forces use detailed planning and partner forces to gain a marked advantage over the adversary.

3. Intelligence

The intelligence warfighting function “is all the inherent tasks and systems that must be coordinated and synchronized to enable an understanding the enemy, terrain, and civil considerations within a given operational environment”.⁷⁰ Intelligence operations “requires the synchronization of collection requirements and collection assets with the execution of reconnaissance and surveillance operations”.⁷¹ The combined nature of most special operations, lends SF Detachments the ability to leverage host nation populations and partner forces to create a robust intelligence network.

4. Fires

Fires is the “tasks and systems that enable coordinated use of Army direct and indirect fires, air and missile defense, and joint fires through the joint operational targeting process.”⁷² Fires includes “surface-to-surface, air-to-surface, surface-to-air and cyberspace operations including cyber warfare.”⁷³ Fires enable maneuver and allow commanders to create an advantage over the adversary. Army direct and indirect fires “can be defensive or offensive to deliver lethal and non-lethal effects on the enemy.”⁷⁴ Joint fires enable small SF Detachments to conduct operations that would otherwise be denied due to adversarial control over the operating environment. Leveraging fires enables SF

⁶⁸ Department of the Army, 15.

⁶⁹ Department of the Army, 15.

⁷⁰ Department of the Army, 15.

⁷¹ Department of the Army, 15.

⁷² Department of the Army, 15.

⁷³ Department of the Army, *ADP 3-0 Operations*, 5-4.

⁷⁴ Department of the Army, *ADP 3-0 Unified Land Operations*, 15.

Detachment Commanders to gain time and space to conduct operations in otherwise denied environments.

5. Sustainment

The sustainment warfighting function comprises “tasks and systems that provide support and services to ensure ground forces have freedom of maneuver within an operational environment.”⁷⁵ Sustainment consists of all logistical requirements of a maneuver force to include food, fuel, shelter, ammunition and medical supplies. Sustainment enables forces to extend operational reach, increase operational duration and exploit adversaries.⁷⁶ Sustainment determines the distance and time Army operations are capable of conducting.⁷⁷ The relatively small size of USASOC formations enables greater flexibility when planning for sustainment. Special Forces detachments are trained to procure sustainment from the host nation population or partner force when feasible.

6. Protection

The protection warfighting function is “the related tasks that preserve friendly forces to enable the commander to apply maximum combat power against an adversary”.⁷⁸ Protection for special operations include active and passive measures to safeguard friendly forces to include operational security measures, physical infrastructure, digital lines of communication, and risk mitigation. “Preservation of the force includes personnel and physical assets of both military and civilian nature and all multinational partners.”⁷⁹

E. HISTORICAL RELEVANCE

We examined four historical cases in which SOF conducted operations in an area controlled by the enemy and deemed impermissible for conventional forces to operate. The

⁷⁵ Department of the Army, 16.

⁷⁶ Department of the Army, 16.

⁷⁷ Department of the Army, 16.

⁷⁸ Department of the Army, 16; Department of the Army, *ADP 3-0 Operations*, 5-6.

⁷⁹ Department of the Army, *ADP 3-0 Unified Land Operations*, 16.

case studies range from actions conducted during World War II to Operation Desert Storm. The technology available varied drastically between case studies, but technology alone did not determine success or failure of the operations. The cases address circumstances or situations in which military forces were required to adapt in order to apply new tactics to overcome an adversary. The MDO concept asserts that the U.S. military may face similar challenges as in select past conflicts due to peer adversaries' technology negating U.S. technological advantages. We anticipate the United States Army Special Operations Command (USASOC) may have to adapt in order to rely on less technological solutions to achieve advantages over adversaries.

The case studies were considered for both historical examples of SOF adaptation successes and failures with a view to understand the potential tasks required to operate within the deep maneuver and operational deep fires areas. The cases were assessed from the standpoint of the U.S. Army's six warfighting functions of mission command, movement and maneuver, intelligence, fires, sustainment, and protection. Observations are compared across individual historical cases to derive overarching patterns of successful and unsuccessful adaptations to new operating environments. The operations were conducted in the enemy controlled rear echelon, now defined in MDO as the deep maneuver and operational deep fires area. Historically, U.S. airpower alone was not sufficient and therefore SOF had to adapt to overcome great adversity and will be required to do so again when technology and air power is heavily contested if not denied outright in the MDO future operating environment.⁸⁰

1. WWII Special Operations in Norway

In 1942, British intelligence identified a heavy water treatment facility located in German occupied Norway. The Allies attempted to disrupt production at the plant by aerial bombardment, but were continuously unsuccessful due to the protective nature of terrain and extreme fortification of the facilities.⁸¹ The austere location, harsh winters and enemy

⁸⁰ TRADOC, *The U.S. Army in Multi-Domain Operations 2028*, v-xii, A1, B1-2.

⁸¹ Thomas Allen, "Saboteurs at Work," *The Quarterly Journal of Military History* 26, no. 2 (Winter 2014): 66-67.

disposition made it infeasible for conventional forces to conduct a raid. A small team of specialized commandos was hand selected by the British Special Operations Executive (SOE). The team was tasked to conduct special reconnaissance and direct action to disrupt production of the plant. The plant was a strategic target for the Allies due to the Germans utilizing the facilities to create heavy water necessary in the production of an atomic bomb. The case study provides a vignette in which special operations commandos conducted special reconnaissance and direct action to fill a gap in the conventional force's capabilities to destroy a strategic target in a highly contested environment.

2. WWII Jedburghs and the French Resistance

In June of 1940, France surrendered to Nazi Germany and the French government was in exile.⁸² The ousted French leadership kept the morale of the country alive by instilling a spirit of resistance throughout the population of France.⁸³ The friendly sentiment of the population to the Allies primed the environment for the use of Unconventional Warfare. The Allies used the tactic of aerial bombardment to induce a cost on the German occupiers. However, aerial bombardment proved to have minimum effects on the enemy due to the inability to identify targets, inaccuracy of the bombing and inability to assess the damage following the bombardment. The British SOE and U.S. Office of Strategic Services (OSS) developed small special operations teams called Jedburghs, to fill a gap in capabilities of Allied Forces. SOE and OSS Jedburgh teams conducted unconventional warfare, special reconnaissance and direct action in a highly denied area of operation to identify priority targets and enable resistance activities.

3. Vietnam

The Military Advisory Council Vietnam Studies and Observation Group (MACVSOG) began cross border reconnaissance operations into Laos in 1966.⁸⁴ The

⁸² Lawrence D. Kritzman, "A Certain Idea of de Gaulle," *Yale French Studies*, no. 111 (2007): 157.

⁸³ Gordon Wright, "Reflections on the French Resistance (1940–1944)," *Political Science Quarterly* 77, no. 3 (1962): 337.

⁸⁴ William Rosenau, *Special Operations Forces and Elusive Enemy Ground Targets: Lessons from Vietnam and the Persian Gulf War* (Santa Monica, CA: RAND Corporation, 2001), 16.

Green Berets of MACVSOG were the covert weapon of choice for military and political leadership due to the prohibition of using American troops in Laos.⁸⁵ The primary job for the soldiers of MACVSOG was to conduct reconnaissance, limited direct action, and guide the bombing campaign against the logistic efforts of the North Vietnamese Army (NVA) along the Ho Chi Minh Trail. The Vietnam War and the cross border reconnaissance operations into non-permissive areas defended by the NVA provides an example of a conflict in which air superiority was attained for U.S. forces, but was found to be insufficient alone.⁸⁶ The use of MACVSOG recon teams to conduct numerous tactical level reconnaissance missions over a prolonged period of time also presents the hazards of continuing to operate special reconnaissance teams within a defined geographical area after crossing the threshold of violence for increasing enemy counter-reconnaissance efforts.

4. Desert Storm SCUD Hunt

When Iraqi forces invaded Kuwait in early August of 1990, the conventional Army leadership initially scoffed at inserting and risking Special Forces soldiers behind enemy lines as technology in the field of aerial reconnaissance and imagery had made a boots on the ground approach obsolete.⁸⁷ However, the Operation Desert Storm case provides an example of how airpower alone, despite the introduction of advanced precision guided munitions and maintaining air superiority, was insufficient in finding and destroying mobile Scud launchers. The Gulf War provides a valuable case of conventional military warfare in which the niche expertise of SF and similar British SAS units was again required despite advances in technology. The reconnaissance and Scud hunting teams experienced successes but also fatal failures worthy of study as they held an absolute technological advantage. Within the MDO environment the technological advantage is expected to be negligible. The errors of Gulf War SF teams were valuable as it would be apparent that they made preventable mistakes in the tasks required to operate successfully in the enemy's rear echelon regardless of technological advantage.

⁸⁵ Rosenau, 6.

⁸⁶ Rosenau, 10.

⁸⁷ Adams, U.S. *Special Operations Forces in Action: The Challenge of Unconventional Warfare*, 233.

III. WWII SPECIAL OPERATIONS IN NORWAY

In 1942, British Intelligence discovered that the Germans were pursuing an atomic bomb and were seeking heavy water being produced at a plant in Vemork, Norway as a component of the process.⁸⁸ The geographical location of the plant made it very challenging to target from via traditional air bombings. The Norsk Hydro Heavy-Water plant was situated below a steep cliff, and the primary components of the plant critical to producing heavy water resided deep within the thick-walled cement structure.⁸⁹ “The Norsk hydro-electric plant was considered a priority target by the British and it was attacked on several occasions, at considerable cost, both from air and ground forces.”⁹⁰ The first attempt to sabotage the plant was conducted in 1942, codenamed Operation Freshman. The operation resulted in the loss of two gliders filled with elite commandos and one Halifax aircraft that had towed the gliders to their desired locations.⁹¹ The reconnaissance element, code named Grouse, avoided capture and remained in place to facilitate future operations. The few survivors of the crash were interrogated and executed by their German captors in accordance with Hitler’s “Commando Order” to treat special operations type personnel as spies and not as uniformed combatants.⁹²

The second attempt, Operation Gunnerside, was conducted in 1943 and successfully reduced the production of Heavy-Water for six months.⁹³ The reconnaissance Grouse Team, that was infilled into a remote region in the vicinity of the plant on October 18, 1942 still remained in place provided vital intelligence to enable the planning of Operation Gunnerside.⁹⁴ The four-man Grouse team remained in place from October

⁸⁸ Allen, “Saboteurs at Work,” 66.

⁸⁹ Allen, 66.

⁹⁰ Allen, 67.

⁹¹ Nigel West, “SOE’s Achievements: Operation Gunnerside Reconsidered,” *The RUSI Journal* 148, no. 2 (2003): 76–77.

⁹² Allen, “Saboteurs at Work,” 68.

⁹³ West, “SOE’s Achievements: Operation Gunnerside Reconsidered,” 77.

⁹⁴ Dan Kurzman, *Blood and Water: Sabotaging Hitler’s Bomb* (New York, NY: Henry Holt, 1997).

through February surviving a harsh winter, hunting for food and avoiding detection to provide mission-critical intelligence updates to facilitate operational planning. The team relayed intelligence updates provided via local informants and maintained physical surveillance on the plant to provide updates on the German composition, disposition, and defensive posture. The team had to endure the harsh winter environment of Norway with no method of resupply. They quartered in a small hunting shack out in the exposed tundra relying on reindeer meat and cooked moss. Their local knowledge of the terrain and winter survival skills enabled the team to remain undetected by the German security forces who patrolled the area.

Norwegian Army Officer Lt Joachim Ronneberg was responsible for selecting the personnel to carry out the raid, from the Royal Norwegian Army's volunteers.⁹⁵ These men were selected for their highly specialized skillsets in climbing, skiing, demolition, and personal knowledge of the area.⁹⁶ Movement within the area of operations conducted by the teams consisted of foot, snowshoe, and skis following their aerial infiltration. Highly specialized winter mountaineering skills enabled them the freedom of maneuver to avoid enemy patrols and to attack the Norsk heavy water plant from a direction that the Germans did not recognize as plausible. The operation's planned withdrawal relied on their ability to break up into small elements and cross country ski over 400 miles to the Swedish border. The men were selected for their winter mobility skillsets. All of the men were trained at special schools organized by the Special Operations Executive (SOE), created by the British Special Intelligence Agency to conduct operations against Germany.⁹⁷

The raid was carried out by ten men total. One maintained communications via radio, and nine commandos entered the Norsk Hydro plant.⁹⁸ On the night of February 27, 1943, nine commandos conducted their final pre-mission checks and began the long

⁹⁵ John S. Craig, *Peculiar Liaisons: In War, Espionage, and Terrorism in the Twentieth Century* (New York, NY: Algora Publishing, 2005), 122.

⁹⁶ Craig, 177.

⁹⁷ Craig, 123.

⁹⁸ Allen, "Saboteurs at Work," 69–70.

approach to the hydro-plant.⁹⁹ The men skied to the top of a steep ravine, donned British uniforms and concealed their skis. They changed into British uniforms so their actions would be non-attributable to the local Norwegian populace.¹⁰⁰ The men then climbed down to the bottom of the ravine. The team crossed an ice bridge and then climbed a steep rock cliff to reach the perimeter of the compound undetected by German guards. Their primary point of entry into the facility was locked, but the team was able to adapt due to their extensive study of the facility during planning. The team set the explosives on the electrolysis chambers, the most vulnerable critical component of the heavy water production and set the fuse. Upon successful destruction of the facility, the team retraced their steps back to their stowed away gear. The team left a Thompson machine gun to further indicate that this was a British operation to reduce the risk of reprisals on the local population. The work of ten men destroyed the Germans' heavy water stock and shut down production for three months. Despite the fact that the Germans mobilized three thousand commandos to track down the saboteurs, the entire team escaped. Four members skied over 400 kilometers to Sweden, two went to Oslo to continue operations, and four reintegrated back into the local resistance.

This was also an exercise of deception. During the pursuit of the atom bomb, through research and development, British and American scientists identified graphite as being significantly more efficient as a medium compared to heavy water. The allies continued to attack the heavy water facility to deliberately deceive the Germans so they would continue the production of heavy water and pursue that method of stabilization. "The more the Allies paid attention to Vemork, the more the Germans valued heavy water."¹⁰¹ The message the allies were sending was received. The material must have been important if the allies were willing to continually risk forces and conduct operations to disrupt the Germans' production. The Nazis mistakenly pursued the wrong path, delaying their

⁹⁹ Kurzman, *Blood and Water: Sabotaging Hitler's Bomb*.

¹⁰⁰ Kurzman, 144.

¹⁰¹ West, "SOE's Achievements: Operation Gunnerside Reconsidered," 77.

progress towards achieving the nuclear bomb.¹⁰² The many costly attempts to disrupt production of heavy water at Vemork yielded significant strategic benefits.

These subversive operations conducted against the heavy water facility and throughout Norway during the course of the war resulted in the Germans diverting time, resources, and significant manpower away from the main front of the war. The number of German troops in Norway increased from 100,000 in 1942, to 250,000 by the end of the year due to the harassing operations conducted by Special Operations Forces.¹⁰³ German forces in Norway exceeded 400,000 in 1943, having diverted resources and manpower away from other critical fronts to include the invasion on D-Day.¹⁰⁴ We will now examine these operations conducted in Norway from the perspective of relevant warfighting functions.

A. COMMAND AND CONTROL

Commanders use mission command to influence people both inside and outside of their organizations.¹⁰⁵ Commanders create joint, interagency, and multi-national teams to achieve objectives.¹⁰⁶ The internal organizational structure of the units that conducted Operation Gunnerside and of the Grouse team that preceded it were designed to enable autonomous operations. Small teams conducted operations had to make quick decisions on the ground to adapt and achieve mission success. Due to limited communication windows and sheer geographic isolation, the reconnaissance teams provided information and received intermittent guidance via radio message traffic. Prior to infiltration into their operational area, the teams were provided commander's guidance and intent which enabled them to make necessary adaptations to the plan as required based on the situations they

¹⁰² West, 77.

¹⁰³ Christopher Mann, "Combined Operations, the Commandos, and Norway, 1941–1944," *The Journal of Military History* 73, no. 2 (2009): 495.

¹⁰⁴ Mann, 495.

¹⁰⁵ Department of the Army, *ADP 3-0 Unified Land Operations*, 13.

¹⁰⁶ Department of the Army.

faced. The success of the operation can be attributed to the high quality of individuals selected and their prior training.

B. MOVEMENT AND MANEUVER

The Allies had to think creatively and employ very specific forces to achieve an advantage over the enemy due to the German occupation of Norway.¹⁰⁷ Operation Gunnerside was a significant undertaking for the allied forces. The environment was non-permissive and any large movement of allied troops would have attracted an overwhelming amount of combat power by the German military. The operation would have been unsuccessful or a suicide mission if a larger more conventional force was used to accomplish the raid.

Allied forces achieved an advantage over German forces by remaining in extremely small size elements to conduct their operations in highly adverse terrain and winter conditions. Employment of forces into their operational area consisted of low signature airborne infiltration via short takeoff and landing aircraft at low altitudes. Movement within the area of operations conducted by the teams consisted of foot, snowshoe, and skis following their aerial infiltration. Highly specialized winter mountaineering skills enabled them the freedom of maneuver to avoid German patrols and to attack the Norsk heavy water plant from a direction that the Germans did not recognize as plausible. Their local knowledge and expertise in the local environment enabled them to survive and operate in a place no one would suspect. These skillsets required for the operation already existed within the men chosen for the operation as it is not feasible to mass-produce personnel with the skill sets necessary for this type of operation.

The small teams operating in the denied environment of Norway had to continuously balance effectiveness and survivability. The operations could not raise the threshold effectiveness to a point that would result in the Germans deploying sizable forces to one specific location to find, fix and destroy the small team. However, the operations

¹⁰⁷ Department of the Army, 14.

had to be effective enough to result in the deployment of German forces throughout Norway.

C. INTELLIGENCE

Operation Gunnerside provides an excellent opportunity to assess the tactics, techniques, and procedures used during World War II to meet specific intelligence requirements in a highly restrictive environment. The operation was planned, coordinated, and executed based on detailed and continuous intelligence updates provided by a reconnaissance located in the operational area and local nationals. As one member of the team accounted, “I don’t think I say too much if I state that there has never been any operation done in continental Europe with so good information on the target as we had.”¹⁰⁸ The intelligence and preparations that Operation Gunnerside benefitted from were partly due to the failure of Operation Freshman conducted before it. The Gunnerside team members used the Freshman maps, intelligence, mock-ups, and equipment lists that were already existing. They also capitalized on human intelligence provided by local workers. For example Norwegian plant engineer, Dr. Brun, built a model of the plant and was able to answer any questions the commandos had during the planning process.¹⁰⁹ He also facilitated a large model of the complex so the men could spend hours studying and rehearsing the layout of the plant. Their vast preparation enabled them to make quick, informed changes to the plan when they experienced obstacles during the operation.

Information was relayed from Norway back to the SOE operations center, in London via a radio team. “Haugland and his team of three other Norwegian agents were parachuted into a desolate area several miles from the plant on October 18, 1942.”¹¹⁰ Haugland’s task was to establish communications, via a complex radio-beam system to guide future glider pilots onto landing zones.¹¹¹ Haugland successfully established

¹⁰⁸ Russell Miller, *Behind the Lines: The Oral History of Special Operations in World War II* (Stuttgart, DE: Macmillan, 2002). (p. 110)

¹⁰⁹ Craig, *Peculiar Liaisons: In War, Espionage, and Terrorism in the Twentieth Century*, 123.

¹¹⁰ Allen, “Saboteurs at Work,” 67.

¹¹¹ Allen, 67.

communications with England, initiating the start of Operation Freshman.¹¹² Haugland and three others remained in place, following the catastrophic failure of Operation Freshman. He continued to report the movement of Colonel-General Nikolaus von Falkenhorst, commander of the German military forces in Norway and enabled the planning efforts for future operations.¹¹³ Haugland was notified that he would be part of the next attempt to disrupt production of the plant during Operation Gunnerside Haugland and his men remained in place for three more months. Despite freezing temperatures and starving conditions they reported back to their headquarters before the start of Operation Gunnerside.¹¹⁴ Due to the quality and timeliness of the intelligence provided back to headquarters by Haugland and his team, mission planners had the exact location of the heavy water cells within the High Concentration Plant.¹¹⁵ Due to the high confidence in the intelligence that planners received from the team who remained in Norway, the planners concluded that significant effects could be achieved by a small party.¹¹⁶

D. PROTECTION

The risk to force and risk to the mission was mitigated during Operation Gunnerside, by using small elements to attain strategic effects. Force protection is very important to special operations due to the small size of operational elements. It takes very few casualties to reduce an element to a non-mission capable status. Teams are often cross-trained in a myriad of skill sets, but individuals are often specialized to conduct specific tasks on the team. The loss of one operator could risk mission failure. The leader of the operation was afforded the opportunity to select his team to conduct the operation.¹¹⁷ The harsh winter environment of Norway was exceptionally hazardous for non-specialized

¹¹² Allen, 67.

¹¹³ Allen, 68.

¹¹⁴ Allen, 69.

¹¹⁵ Mann, "Combined Operations, the Commandos, and Norway, 1941–1944," 103.

¹¹⁶ Mann, 103.

¹¹⁷ Mann, 103.

troops.¹¹⁸ “The success of Operation Gunnerside illustrated both the necessity and the possibilities of using experts in these conditions.”¹¹⁹ There were very few men who possessed the skills and local knowledge required to pull off a successful operation within the required timeline. Special Forces cannot be mass-produced or created after an emergency occurs. Those chosen to execute the operation were already expert skiers and were very familiar with the operational area.

The risk to mission and risk to force was very high. The teams were very small military elements compared to the disposition of the Germans. If the teams were discovered they would face death as spies. There was very little in terms of protection to their forces and mission, but they practiced extreme operational security and small size to decrease their signature. The extreme terrain and harsh winter conditions aided in concealing the team members from discovery. Norwegian nationals operating in their own country mitigated the risk through their intimate knowledge of the surrounding areas, support from members of the populace, and specialized winter mobility and survival skills.

E. SUSTAINMENT

The endurance of today’s U.S. military forces is due to the capabilities of the force to provide the sustainment necessary to support prolonged operations.¹²⁰ Both an advantage and a limitation of SOF is often dependent on the ability to sustain the force in austere environments. In WWII, deployed SOF did not have robust systems and processes to receive sustainment, so they were expected to sustain themselves through hunting, gathering, and purchasing what they could off the local market. As seen in the Operation Gunnerside case study, sustainment was a significant challenge due to geographic location, terrain, weather and non-permissive operating environment due to German occupation. The only reason the SOF teams were successful was that they were highly adaptive and self-sufficient.

¹¹⁸ Mann, 106.

¹¹⁹ Mann, 107.

¹²⁰ Department of the Army, *ADP 3-0 Unified Land Operations*, 14.

The same factors that helped to hide the operatives also worked against them for sustainment efforts. Aerial resupply was minimal, and the Grouse team was forced to eat reindeer, moss and hunt to survive during the winter. Operating in small elements enabled the teams to be creative and adaptive in order to sustain themselves off resources available. While it may not be necessary for SOF to train individuals on the procurement of reindeer and moss; the greater array of skillset individuals possess will increase the unit's survivability and adaptability. Individuals asked to conduct operations in the strategic rear echelon of an adversary will have to possess a myriad of skills and knowledge in order to deal with the unexpected issues in which they will certainly face. In lieu of having lived in the area of operations as the members of Gunnerside had, special operations of similar design would require long term planning and preparation of the operators assigned to the task in order to replicate such survival and evasion skills.

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IV. WWII: JEDBURGHS AND THE FRENCH RESISTANCE

In June of 1940, France surrendered to Nazi Germany, and French General Charles de Gaulle was exiled to London.¹²¹ Charles de Gaulle became known as the “last great Frenchman,” and is credited with keeping the nation’s morale alive during its time of occupation by Germany.¹²² The Latin word *resistere*, to hold back, became an infamous French term used to provide the people of France hope and mobilize its countrymen to oppose the German’s occupation through armed and violent means. De Gaulle coined the term “resistance” in his first radio broadcast from London on June 18, 1940.¹²³ De Gaulle understood that communication through written and oral means was a form of action in itself that would result in a powerful psychological response from the populace.¹²⁴ Through this concept, de Gaulle was able to create a complex underground organization that published hundreds of clandestine newspapers circulated to millions of people.¹²⁵ By 1944, the Free French mobilized approximately 250,000 guerrilla fighters and provided the underground leadership capable of running the French government once liberated.¹²⁶ De Gaulle’s fledgling organization did not go unnoticed by the British and American governments in 1940. Both the British Special Operations Executive (SOE) and soon to be American Office of Strategic Services (OSS) synchronized operations to capitalize on the capabilities of the Free French and gain a marked advantage over German forces in occupied France.

The Allied Forces of World War II faced a highly capable and determined enemy willing to fight an unlimited war. The high stakes of World War II required creativity and innovation to gain any possible advantage over the adversary. Prior to World War II, the

¹²¹ Kritzman, “A Certain Idea of de Gaulle,” 157.

¹²² Kritzman, 157.

¹²³ Wright, “Reflections on the French Resistance (1940–1944),” 337.

¹²⁴ Kritzman, “A Certain Idea of de Gaulle,” 158.

¹²⁵ Wright, “Reflections on the French Resistance (1940–1944),” 337.

¹²⁶ Wright, 337.

United States did not have any official organizations designed to conduct “shadow wars” or what is known today as special operations. The United States foreign intelligence service was lacking in capabilities and extremely primitive.¹²⁷ The U.S. had a history of aversion to spies and use of espionage, as it was considered at the time to be a dishonorable method of warfare.¹²⁸ However, the onset of WWII required creative new solutions to gain an advantage over the enemy. The United States created the OSS to fill a much-needed gap in capabilities to conduct operations in the enemy’s rear echelon, capable of enabling strategic intelligence collection and conducting sabotage operations. Fortunately, for the United States, Britain had two years of experience conducting these types of actions. Much of the training, manning and equipping of the OSS mirrored the SOE.¹²⁹

A. THE BRITISH SPECIAL OPERATIONS EXECUTIVE

At the onset of the war in Europe, specifically the fall of France to the Nazis in 1940, Britain established the SOE. The SOE was designed to conduct operations in enemy-controlled areas to organize movements, conduct sabotage, and collect intelligence.¹³⁰ The SOE was created to provide Britain a unit that could conduct operations on behalf of the British government in methods employed by terrorist organizations such as the Sinn Fein movement in Ireland, Chinese Guerillas in Japan, and the internationally established Nazi Democratic International.¹³¹ All of these movements utilized information warfare and propaganda to mobilize disenfranchised or socially excluded sub-populations. SOE and eventually the OSS learned to weaponize these movements to enable conventional maneuver warfare. The Brits understood that the resistance movements, particularly in

¹²⁷ Patrick K. O’Donnell, *Operatives, Spies, and Saboteurs: The Unknown Story of the Men and Women of World War II’s OSS* (New York, NY: Simon and Schuster, 2014), xi.

¹²⁸ O’Donnell, xi.

¹²⁹ Samuel J. Lewis, *Jedburgh Team Operations in Support of the 12th Army Group, August 1944* (Fort Leavenworth, KS: Army Command and General Staff College, 1991); O’Donnell, *Operatives, Spies, and Saboteurs: The Unknown Story of the Men and Women of World War II’s OSS*; Arthur Layton Funk, *Hidden Ally: The French Resistance, Special Operations, and the Landings in Southern France, 1944* (Westport, CT: Praeger Pub Text, 1992).

¹³⁰ Lewis, *Jedburgh Team Operations in Support of the 12th Army Group, August 1944*, 3.

¹³¹ Lewis, 3.

France, could not match German forces in armed combat, but they could contribute to the war effort by means of disrupting and attriting German rear-area forces.

B. CREATION OF THE OFFICE OF STRATEGIC SERVICES

In 1940, President Roosevelt was looking for options to improve the strategic intelligence collecting capabilities of the United States, so he sent former Assistant U.S. Attorney General, Wall Street lawyer, and WW1 hero Bill Donovan on his behalf to observe Britain's intelligence and "shadow-war" capabilities.¹³² Donovan's visit initiated a close relationship between the U.S. and British intelligence collection and sabotage organizations. Upon the U.S. entering World War II on December 7, 1942, the president conducted a series of executive actions to synchronize U.S. war efforts.¹³³ Of the many efforts to synchronize U.S. intelligence operations, one of which included the establishment of the OSS.¹³⁴ Bill Donovan led the organization through a series of rapidly developed capabilities and ensured there was a significant emphasis on combined arms warfare.¹³⁵

Donovan's concept for the OSS and method to level the playing field between the U.S. and Germany was to "play a bush-league game, stealing the ball and killing the umpire."¹³⁶ The core of Donovan's method of warfare relied on what he referred to as special operations forces. These forces were trained and equipped to conduct infiltration behind enemy lines. Once the teams were established forward of the friendly line of troops, they would be synchronized to "sow mayhem in rear areas."¹³⁷ The experiences of World

¹³² O'Donnell, *Operatives, Spies, and Saboteurs: The Unknown Story of the Men and Women of World War II's OSS*, xiii–xviii.

¹³³ O'Donnell, xiv.

¹³⁴ O'Donnell, xv.

¹³⁵ O'Donnell, xv.

¹³⁶ Richard Dunlop, *Donovan: America's Master Spy* (New York, NY: Simon and Schuster, 2014), 276.

¹³⁷ O'Donnell, *Operatives, Spies, and Saboteurs: The Unknown Story of the Men and Women of World War II's OSS*, xv.

War II provide the origins of the tactics, techniques, and procedures that the special operations community relies on today.

C. JEDBURGH TEAM COMPOSITION

In the summer of 1944, a total of ninety-nine Allied special operations three-man teams conducted airborne infiltration into Nazi Germany to link up with resistance forces and enable the advancement of Allied ground forces.¹³⁸ The teams were known as “Jedburghs,” code-named after a town in the vicinity of the Scottish-English border.¹³⁹ They were an all-volunteer force specifically trained in guerilla warfare tactics.¹⁴⁰ Their task was to raise and arm civilians within occupied France to resist German occupation by conducting sabotage of rail and communications lines.¹⁴¹ OSS operations conducted by Jedburgh teams behind the main lines disrupted the Germans’ ability to mobilize troops to counter U.S. and Allied beach landings.¹⁴² OSS operations provided the majority of the intelligence enabling Allied landings in southern France by confirming German troop locations, capabilities, and supply depot locations.¹⁴³ The OSS continued to provide invaluable strategic intelligence that facilitated Allied operations throughout the war.¹⁴⁴

The Jedburgh Teams were uniformed soldiers consisting of two officers and a non-commissioned officer (NCO) who served as a communications specialist.¹⁴⁵ There were exceptions to this structure and in some cases the teams consisted of three officers. However, under most circumstances, the teams consisted of a senior officer, junior officer, and an enlisted radio operator. Each team was equipped with a Wireless Telegram (W/T)

¹³⁸ Lewis, *Jedburgh Team Operations in Support of the 12th Army Group, August 1944*, ix.

¹³⁹ Lewis.

¹⁴⁰ Lewis, 1.

¹⁴¹ Lewis, 4.

¹⁴² O’Donnell, *Operatives, Spies, and Saboteurs*, 312.

¹⁴³ O’Donnell, 312.

¹⁴⁴ O’Donnell, 312–13.

¹⁴⁵ Lewis, *Jedburgh Team Operations in Support of the 12th Army Group, August 1944*, 6–7.

set and a trained operator.¹⁴⁶ Upon successful infiltration, they made immediate contact with their respective higher headquarters. Communication between the teams and headquarters consisted of Morse code transmissions and occurred, on average, once a day between the teams and higher headquarters.¹⁴⁷ Many of the teams consisted of French, British and American nationals trained and equipped by the U.S. OSS. The teams were deliberately multi-national to appease political concerns of the British, that the U.S. was conducting unilateral covert operations, and to facilitate the synchronization of the British SOE and U.S. OSS organizations.¹⁴⁸ The multi-national teams also facilitated operations by blending in with the local populace and providing native French speakers to enable coordination with the French Resistance.¹⁴⁹

D. JEDBURGH TEAM TASKS

The purpose of the Jedburgh teams was to arm and train the remaining able-bodied French civilians comprising of the French Resistance and disrupt enemy lines of communication.¹⁵⁰ Jedburgh Team Gilbert's actions were well documented and provides a valuable insight into the tasks Jedburgh teams conducted. Jedburgh Team Gilbert consisted of British Captain Blathwayt, French Lieutenant Charron and British Sergeant Wood.¹⁵¹ Team Gilbert conducted airborne infiltration into Finistere, France on the night of 9/10 July 1944.¹⁵² The Supreme Headquarters Allied Expeditionary Force (SHAEP) planned to use Team Gilbert and three other Jedburgh Teams in the Finistere area, to create a large diversion to enable the forward progress of Allied conventional forces.¹⁵³ Team Gilbert was one of four teams; Team Frederick, George, and Giles were also working in

¹⁴⁶ John Mendelsohn, *Covert Warfare: Intelligence, Counterintelligence, and Military Deception During the World War II Era* (New York, NY: Garland, 1989).

¹⁴⁷ Mendelsohn.

¹⁴⁸ Mendelsohn, xiii.

¹⁴⁹ Mendelsohn, xii–xiii.

¹⁵⁰ Lewis, *Jedburgh Team Operations in Support of the 12th Army Group, August 1944*, 4.

¹⁵¹ Mendelsohn, *Covert Warfare*, 408.

¹⁵² Mendelsohn, 408.

¹⁵³ Mendelsohn, 408.

the Finistere area due to the large pool of resistance fighters reported to be available in the area.¹⁵⁴ Although there were four teams assigned to the Department of Finistere, each team had an assigned separate area of operation coordinated by SFHQ.¹⁵⁵ The primary task for Team Gilbert was to identify suitable drop zones to receive supplies for the resistance and coordinate reception parties to secure the dropped goods.¹⁵⁶ Team Gilbert was briefed to organize the resistance into units of no more than 100 men and avoid contact with German forces until the following BBC message was received “Is the Napoleon hat still at Perros Guirec.”¹⁵⁷ Upon receipt of the coded message the team was to activate and utilize all available resistance forces to inflict issues and delay German forces as much as possible.

On 02 August, SFHQ sent Team Gilbert the following message, “Most important maintain current harassing activity but prevent a general flare-up until you get orders.”¹⁵⁸ Team Gilbert replied back that they would continue to destroy three trains of munitions each evening to maintain the status quo of operations.¹⁵⁹ On 04 August SFHQ messaged the team, “Advancing Allied Troops lay great stress on military intelligence” and tasked the team with specific intelligence collection requirements.¹⁶⁰ Later the same day SFHQ messages the team, “In view of rapid Allied advance orders for maximum activity. All isolated detachments should be attacked and all measures are taken to complete demoralization of enemy.”¹⁶¹ The team reported back where 2000 German forces remained in center of town, but the resistance fighters controlled the countryside.¹⁶² They also provided future locations for safe airborne infiltration of Allied troops to reinforce and provided atmospheric that the enemy morale was low with a high likelihood of surrender.

¹⁵⁴ Mendelsohn, 408.

¹⁵⁵ Mendelsohn, 408.

¹⁵⁶ Mendelsohn, 408.

¹⁵⁷ Mendelsohn, 409.

¹⁵⁸ Mendelsohn, 413.

¹⁵⁹ Mendelsohn, 413.

¹⁶⁰ Mendelsohn, 413–14.

¹⁶¹ Mendelsohn, 414.

¹⁶² Mendelsohn, 414.

SFHQ acknowledged and provided Team Gilbert detailed instructions to “preserve all permanent works in your area from destruction and any harassing activities must not destroy major works.”¹⁶³ This provides one example, of many, in which a team was provided specific tasks to restrict their activities to control escalation of their activities and then in a short time frame later requested the team to provide as much disruption to German forces in their area of operations as possible. This illustrates the flexibility and capabilities of Special Operations forces that have access to denied areas and are combined with capable resistance forces to provide timely intelligence and conduct shaping operations to enable combined maneuver warfare.

E. COMMAND AND CONTROL

The OSS required a complex system of processes, networks, and command posts to synchronize and converge combat power due to the complexity of joint and multinational units and the non-permissive environment in which they were operating.¹⁶⁴ The area of responsibility for the OSS was geographically vast and isolated the command and control elements from the teams. These conditions, combined with the limited communication technology available in the 1940s, required significant emphasis, time, and planning to be committed to successfully command and control OSS operations.

To overcome the challenges of the operational environment, the OSS established a robust organization consisting of multiple tiers and varying tasks to synchronize and support ground operations. Significant emphasis was placed on ensuring coordination was conducted between the OSS and conventional Army counter-parts. The Supreme Headquarters, Allied Expeditionary Forces (SHAEF) created special forces detachments to facilitate command and control between the Jedburgh teams and the conventional field armies.¹⁶⁵ The special forces detachments resided at each Field Army headquarters and each Army Group headquarters.¹⁶⁶ The special forces detachments, responsible for

¹⁶³ Mendelsohn, 414.

¹⁶⁴ Department of the Army, *ADP 3-0 Unified Land Operations*, 5-3.

¹⁶⁵ Lewis, *Jedburgh Team Operations in Support of the 12th Army Group, August 1944*, 6.

¹⁶⁶ Lewis, 6.

coordinating and de-conflicting Jedburgh operations consisted of roughly 12 officers and 20 enlisted men.¹⁶⁷ These liaison units created a mechanism for the Commanding General of the Army to direct and synchronize the unconventional activities of the Jedburghs to enable conventional military maneuver warfare.¹⁶⁸ Despite primitive means of communication, the activities of the teams were highly controlled and synchronized by higher headquarter units to increase their overall operational effectiveness and to enable the maneuver of Allied combat forces. They were provided with an initial commander's guidance and intent prior to infiltration, but the daily Jedburgh operations orders were received via radio. The teams were in denied areas, and communications with higher headquarters could not always be relied upon so the teams had to be prepared to conduct operations autonomously if required.

Upon review of multiple message logs between various Jedburgh teams and their respective higher headquarters, it is very apparent that they received significant guidance and last-minute fragmentary orders. Frequently, advancing Allied troops would outpace the speed of intelligence available to them. As a result, headquarters would task Jedburgh teams to mobilize their resistance to conduct reconnaissance operations to provide a common operating picture of the forward line of troops (FLOT) and beyond into the deep maneuver area. For example, on 4 August 1944, Team Gilbert was ordered to mobilize 30 personnel to conduct reconnaissance on a specific target list provided to them, and then report to the nearest Allied forces. Four days after the initial order to maintain a low signature Team Gilbert received a message on 6 August 1944, to "do everything possible for next two days to hold and preserve bridges along main roads." The conventional fight was a dynamic and fluid environment. The Jedburgh teams adapted and responded rapidly to support the offensive maneuvers of the conventional fight in near real-time due to the complex network of liaisons and headquarters OSS established.

¹⁶⁷ Lewis, 6.

¹⁶⁸ Lewis, 6.

F. MOVEMENT AND MANEUVER

The director of OSS, Bill Donovan, provided a unique perspective and encouraged the unit to be creative while problem solving and developing options to gain military advantages for the Allied forces. The OSS was not a risk-averse organization. Donovan's concept of warfare enabled the OSS to gain a distinct advantage over the Germans. The placement of U.S. forces into German controlled territory was impossible for conventional forces. Donovan ensured his organization followed his philosophy: "If you fall, fall forward" and "If you don't risk, you don't win."¹⁶⁹ The movement and maneuver warfighting function is how a military force projects power and conducts maneuver to gain a marked advantage over the enemy.¹⁷⁰ The unique skills of the OSS enabled them to mitigate higher levels of risk and to gain a marked advantage over the adversary by enabling resistance through unconventional warfare. The OSS were small light forces placed in areas where the enemy had the majority of tactical advantages, but their unique methods of shadow warfare mitigated any loss of tactical advantages to the Germans. The OSS conducted special operations consisting of strategic intelligence collection, deception, and sabotage to enable conventional military forces to gain surprise and achieve momentum. The resistance forces chose the place and time they would attack German forces when they were vulnerable.

Shadow warfare, known as unconventional warfare today was not well accepted or understood by his conventional military counter-parts.¹⁷¹ As the war progressed, his new concepts proved to be both effective and value-added to the war effort. Shadow warfare consisted of "sabotage and guerilla operations to soften up an area before conventional forces invaded."¹⁷²

¹⁶⁹ O'Donnell, *Operatives, Spies, and Saboteurs*, 312.

¹⁷⁰ Department of the Army, *ADP 3-0 Unified Land Operations*, 5-3.

¹⁷¹ O'Donnell, *Operatives, Spies, and Saboteurs*.

¹⁷² O'Donnell, xv.

G. INTELLIGENCE

Information and intelligence are critical to understanding the enemy, terrain and civil considerations of any conflict.¹⁷³ The environment in occupied France was a knowledge gap for the Supreme Headquarters Allied Commander. The OSS Jedburgh teams were a means to identify friendly forces composition, disposition, and combat effectiveness. The Jedburgh teams reporting also provided the Allied commanders with information on the environment forward of friendly lines deep in enemy-controlled territory. The network of French Resistance cells that Jedburgh teams managed provided access and placement to locations where conventional uniformed personnel could not collect.

The Jedburgh team primary task was to support the resistance movement by organizing, advising, and equipping them. However, the teams were often called upon to conduct deliberate and hasty reconnaissance operations to aid advancing Allied Forces. Jedburgh Teams Gilbert and Gavin were conducting operations in vicinity of Brittany France when they were tasked with specific intelligence collection requirements.¹⁷⁴ Special Forces Headquarters sent message traffic on behalf of the Supreme Headquarters Allied Forces that due to quickly advancing Allied forces intelligence was of extreme importance.¹⁷⁵ The teams were tasked to “select volunteers with local knowledge to meet advancing troops and report enemy dispositions.”¹⁷⁶ Similar tasks were given to many of the teams conducting operations in France in 1944. Often local resistance forces were tasked specific priority intelligence reporting requirements and then they were to report directly to the G2 Intelligence officer of the nearest Allied Force upon which they would aid operations as a local guide.

¹⁷³ Department of the Army, *ADP 3-0 Unified Land Operations*, 14.

¹⁷⁴ Mendelsohn, *Covert Warfare*, 411–15, 449–50.

¹⁷⁵ Mendelsohn, 414, 449.

¹⁷⁶ Mendelsohn, 449.

Prior to going into the field, all Jedburgh Teams were provided friendly unit locations, resistance elements in the area and enemy troop movements in the area.¹⁷⁷ Some teams received more detailed information such as specific locations of police and Gestapo, topography of the area and key lines of communication such as roads and railways.¹⁷⁸

H. FIRES

Similar to intelligence collection, the Jedburgh team's primary task was supporting the resistance networks. However, the Jedburgh team's also enabled conventional forces targeting process by capitalizing on the vast network of the French Resistance. When the conventional Allied forces started to make expedited territory gains into less known areas or outrun their intelligence picture the Jedburgh Teams were tasked to support operations by identifying targets and providing battle damage assessments following a bombardment. On 4, August 1944 Team Gilbert was tasked to provide information on enemy disposition, troop concentrations, tank harbors, and other that could be prosecuted via airstrikes.¹⁷⁹ Gilbert report to SFHQ, "Boche column 50 vehicles on road Quimper Rosporden going east, most Patriot vehicles marked with flags, can you help from air?"¹⁸⁰ The Jedburghs never had dedicated fires by today's standards, but they did request fire support and facilitate Allied targeting.

I. PROTECTION

The protection warfighting function is the techniques and systems used by commanders to preserve the force so the commander can apply maximum combat power to accomplish the mission."¹⁸¹ The majority of Jedburgh teams infiltrated into France did not encounter Germany's main fighting forces.¹⁸² The teams were infiltrated into places that

¹⁷⁷ Mendelsohn.

¹⁷⁸ Mendelsohn.

¹⁷⁹ Mendelsohn, 414.

¹⁸⁰ Mendelsohn, 414.

¹⁸¹ Department of the Army, *ADP 3-0 Unified Land Operations*, 14.

¹⁸² Lewis, *Jedburgh Team Operations in Support of the 12th Army Group, August 1944*, 18.

created preferable odds for the teams to encounter German rear echelon troops such as supply or administrative units.¹⁸³ This methodology increased the survivability and effectiveness of the teams. Teams were also created as multi-national teams consisting of French-British-American nationals trained and managed by the U.S. OSS.¹⁸⁴ These enabled Jedburgh operatives to blend in with the local populace and not attract attention from the German security forces.

The Germans had a basic understanding of the composition and disposition of the French resistance.¹⁸⁵ The Germans assumed that the majority of the French population sympathized with French Resistance cause. The sympathy of the population provided the Jedburghs and resistance forces a semi-permissive environment to operate. Even with the sentiment of the local population on the side of the resistance, the Jedburgh teams had to exercise extreme caution and maintain high levels of operational security due to small portions of the French population willing to provide information to the German security forces.¹⁸⁶ The Germans assumed that the French security and police forces were not putting full emphasis on locating and illuminating the OSS and French resistance cells.¹⁸⁷ This was mostly true, so the Germans created their own Gestapo organization tasked to target the OSS and members of the resistance. The resistance was a network of cells and smaller organizations in which were highly compartmentalized. The compartmentalization of the organization degraded the Germans' targeting process and protected sections of the organization when others were compromised.

The SHAEF and OSS understood how vulnerable the French resistance forces would be if they were exposed to German security forces. SHAEF took great measures to ensure that resistance organizations remained small, less than 100 men and did not mass

¹⁸³ Lewis, 18.

¹⁸⁴ Mendelsohn, *Covert Warfare*, xiii.

¹⁸⁵ Lewis, *Jedburgh Team Operations in Support of the 12th Army Group, August 1944*, 19.

¹⁸⁶ Lewis, 19.

¹⁸⁷ Lewis, 19.

together.¹⁸⁸ SHAEF also directly ordered Jedburgh teams to limit “attacks against German troops, except when necessary to fulfill orders from high command.”¹⁸⁹ The French resistance was able to conduct operations in an area without meeting significant German resistance, as long as they did not break the level of threshold triggering the Germans to send in large formations of troops.¹⁹⁰ The Jedburgh teams played a significant role in managing the threshold of violence in which the resistance conducted operations to enable the resistance forces to attrit German forces without assuming too much risk to their forces.

J. SUSTAINMENT

The endurance of U.S. military forces is due to the capabilities of the force to provide the sustainment necessary to support prolonged operations.¹⁹¹ The Jedburgh teams enabled the resistance forces to sustain their operations. The sustainment of the resistance was vital to the success of the French Resistance and the Jedburghs. Jedburgh teams conducted infiltration into their assigned operational areas with a standard radio set, personal gear, and minimum supplies. Once the teams linked up with their assigned resistance counterparts they contacted their headquarters in London to request additional supplies and weapons.¹⁹² They identified suitable and feasible drop zones capable of receiving food, fuel and ammunition dropped via the air. The Jedburghs also were responsible for coordinating security of the drop zone, transportation and manpower to move the supplies. On average it would take about eight days from the receipt of the supply request until the teams received delivery of the requested materials.¹⁹³

¹⁸⁸ Mendelsohn, *Covert Warfare*, 409.

¹⁸⁹ Mendelsohn, 409.

¹⁹⁰ Lewis, *Jedburgh Team Operations in Support of the 12th Army Group, August 1944*, 20.

¹⁹¹ Department of the Army, *ADP 3-0 Unified Land Operations*, 14.

¹⁹² Lewis, *Jedburgh Team Operations in Support of the 12th Army Group, August 1944*, 34.

¹⁹³ Lewis, 34.

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V. VIETNAM

The cross border operations conducted by special operations soldiers during the Vietnam War produced some of the most important successes and procedural lessons learned from the war. U.S. Army Special Forces, known as “Green Berets” were credited after the war with tying down as much as one North Vietnamese Army (NVA) battalion to defend the Ho Chi Minh Trail for every actively operational recon team member.¹⁹⁴ Additionally, the soldiers and indigenous personnel of Military Assistance Council Vietnam Studies and Observations Group (MACVSOG) are credited with attaining a kill to loss ratio of 150:1 in 1969.¹⁹⁵ During that same year, the U.S. Air Force supported special operations to disrupt the Ho Chi Minh Trail with hundreds of sorties and 433,000 tons of bombs. However, despite this herculean effort to disrupt the transport of goods on the trail, only 13.5 percent of North Vietnamese supplies were destroyed.¹⁹⁶ The purpose of this study of MACVSOG cross border operations is not to suggest what the U.S. military could have done differently to attrit the logistical effort of the North Vietnamese along the Ho Chi Minh Trail. Rather, it is to glean lessons from the MACVSOG’s successes and shortfalls to apply to the modern-day U.S. Special Forces core tasks of special reconnaissance and direct action in the deep maneuver and operational deep fires areas of the Multi-Domain Operations concept.

A. THE TRAIL

The Ho Chi Minh Trail, originally called the “Truong Son Route,” was renamed in honor of North Vietnam’s revolutionary leader and began as a 1,000-kilometer road that infiltrated troops from North Vietnam through the Laotian mountains and back into South

¹⁹⁴ John L. Plaster, *SOG: The Secret Wars of America’s Commandos in Vietnam* (New York, NY: Simon & Schuster, 2019), 340.

¹⁹⁵ Plaster, 340.

¹⁹⁶ Robert Gillespie, *Black Ops, Vietnam: An Operational History of MACVSOG* (Annapolis, MD: Naval Institute Press, 2011), 170–71.

Vietnam.¹⁹⁷ Throughout the war, the Trail was constantly expanded into a network of more than 20,000 kilometers of roads and footpaths that ultimately reached Cambodia.¹⁹⁸ The Ho Chi Minh Trail acted as both a logistical lifeline and as a staging area for the People's Army of Vietnam (PAVN). Prior to the South Vietnamese Navy cutting North Vietnam's sea supply routes in 1965, approximately seventy percent of communist logistics had traveled via the water.¹⁹⁹ Due to the U.S. Naval blockade of the sea routes, the Ho Chi Minh Trail took on a new level of importance for the PAVN as the lifeblood for their war effort and became a high priority target for the U.S. military for interdiction. In the first few months of 1965, the Trail saw a fifty percent, or 5,000 troops, increase in traffic compared to 1964.²⁰⁰ Despite the Trail's increased usage, the U.S. military was unable to deploy conventional units across the Vietnam-Laos border due to the 1962 Geneva Accords which stated that neither the United States nor North Vietnam nor any of either nation's allies were permitted to conduct ground operations within Laos.²⁰¹ The 1962 Accords were disregarded by the PAVN; however, the U.S. military was restricted to the agreed-upon policy. As a method to work around the political restriction the U.S. opted to utilize secretive special operations forces and only after significant internal political opposition had been overcome. Prior to the decision to send in the Special Forces the U.S. Air Force conducted two major operations, Barrel Roll and Steel Tiger, in attempts to attack truck convoys on the Trail with the idea of creating a traffic jam that would provide additional targets for prosecution.²⁰² However, the triple canopy jungle combined with the PAVN's camouflage efforts and the high speed of the attack aircraft produced minimal results.²⁰³ The inability to deploy conventional troops and the naturally defensive nature of the Trail and its environment to thwart target acquisition by U.S. aircraft eventually demanded the

¹⁹⁷ Rosenau, *Special Operations Forces and Elusive Enemy Ground Targets*, 5.

¹⁹⁸ Adams, U.S. *Special Operations Forces in Action: The Challenge of Unconventional Warfare*, 79.

¹⁹⁹ Rosenau, *Special Operations Forces and Elusive Enemy Ground Targets*, 5.

²⁰⁰ Rosenau, 6.

²⁰¹ Rosenau, 6.

²⁰² Rosenau, 10.

²⁰³ Rosenau, 10.

addition of a ground-based reconnaissance approach to finding and destroying the PAVN logistical apparatus. These conditions set the stage for the Military Assistance Council, Vietnam (MACV) to establish the Studies and Observations Group (MACVSOG) in an effort to deter North Vietnam's use of Laos for military logistics and maneuver.²⁰⁴

B. LEAPING LENA

The first ground operation against the Ho Chi Minh Trail occurred in 1961 with the Central Intelligence Agency's (CIA) creation of a network of trained Laotian tribesmen who were to watch, report, and potentially photograph activity along the Trail.²⁰⁵ The CIA's personnel held reservations concerning the trail watchers' effectiveness as communication with them was limited, and the cameras they were provided were often lost.²⁰⁶ The tribesmen provided broad metrics of the Trail's usage to their handlers; however, this was a far step removed from being able to interdict PAVN assets. The first military operation conducted by MACV against the Trail began on May 1964 and avoided the use of American troops. The operation codenamed "Leaping Lena" involved training teams of Montagnard tribesmen led by South Vietnamese Special Forces or Luc Luong Dac Biet (LLDB) who were parachuted into Laos to conduct reconnaissance missions against the Trail.²⁰⁷ However, the indigenous teams of Leaping Lena were far less capable than military leadership had hoped. One U.S. Special Forces advisor was quoted as saying "you had to damn near force them on the plane at the point of a gun."²⁰⁸ When the forces were inserted into Laos almost all were captured or killed in short order. Of the forty personnel trained and inserted only six returned alive and with no information of intelligence value.²⁰⁹ Although Leaping Lena was a failure, it did result in recognition by

²⁰⁴ Gillespie, *Black Ops, Vietnam: An Operational History of MACVSOG*, 11.

²⁰⁵ Rosenau, *Special Operations Forces and Elusive Enemy Ground Targets*, 8.

²⁰⁶ Rosenau, 9.

²⁰⁷ Rosenau, 9.

²⁰⁸ Rosenau, 9.

²⁰⁹ Gillespie, *Black Ops, Vietnam: An Operational History of MACVSOG*, 51.

the military and political leadership that if any future cross-border operations were to be successful they would need to be led covertly by U.S. personnel.²¹⁰

C. RECON TEAMS

Understanding the need to stem the flow of PAVN supplies and personnel into South Vietnam and the inability to attack the Trail without boots on the ground, President Johnson signed General Order 6 into effect creating the classified MACVSOG within the MACV in January 1964.²¹¹ Codenamed OP 35, the Ground Studies Group, were the primary MACVSOG section in charge of interdiction of the Ho Chi Minh Trail.²¹² OP 35 spent the next two years recruiting, training, and convincing the senior leaders of MACV and the Johnston administration that U.S. personnel would not suffer to the same fate as the Leaping Lena operation. In 1966 OP 35 was finally permitted to begin reconnaissance operations under the classified title “Shining Brass” supported by tactical aircraft sorties against PAVN targets on the Trail.²¹³

The weapon of choice to conduct reconnaissance of the Trail within Laos was recon teams made up of three Americans and nine indigenous troops.²¹⁴ Due to the majority of the team being comprised of indigenous personnel, the casualties incurred would theoretically be proportional, and U.S. casualties kept to a minimum.²¹⁵ The American members of the recon teams were typically veteran Special Forces personnel who had been employed previously within Vietnam as members of the Civilian Irregular Defense Group (CIDG) program. Uncharacteristically for military units, the leadership of the recon teams was not chosen by rank, but by experience level and one’s skill at operating within the jungles of Laos and Vietnam.²¹⁶ Training for the recon soldiers of MACVSOG was not

²¹⁰ Gillespie, 51.

²¹¹ Rosenau, *Special Operations Forces and Elusive Enemy Ground Targets*, 14.

²¹² Rosenau, 15–16.

²¹³ Rosenau, 16; Gillespie, *Black Ops, Vietnam: An Operational History of MACVSOG*, 52.

²¹⁴ Gillespie, *Black Ops, Vietnam: An Operational History of MACVSOG*, 77.

²¹⁵ Plaster, *SOG: The Secret Wars of America’s Commandos in Vietnam*, 30.

²¹⁶ Gillespie, *Black Ops, Vietnam: An Operational History of MACVSOG*, 77.

specially tailored beyond the requirements to become a Green Beret prior to their assignment to the secretive unit. In fact, the standards had been lowered in the late 1960s due to mounting casualties from a minimum of 20 years of age and a rank of specialist four to 19 years old and private first class.²¹⁷

New Special Forces soldiers assigned to the dangerous recon mission quickly found that their instruction and training fell far short of what was required to survive. One SOG recon veteran described the situation as, “To prevail in these conditions demanded long-forgotten skills, tracking, counter-tracking, stealth, stalking, concealment, bushwhacking.... The skills were identifiable, yet there were no applicable field manuals, no books, no training films, not even lesson plans.”²¹⁸ As a result, the recon teams focused heavily on training newcomers to acquire the skills they would need to survive and succeed. They were also given a wide berth to conduct weapons and demolition ranges without the oversight of normal U.S. Army safety procedures and protocols.²¹⁹ This freedom allowed the teams to innovate with a variety of weapons, tactics, and explosives. The teams’ training combined with the often fatal trial and error experience of actual missions into Laos developed specific extraction harnesses, demolition charges, and tactics that would be implemented in future organizations and conflicts.²²⁰ Despite the successes of training conducting in theater to prepare the recon teams and adapt to the enemy’s tactics, SOG lost 163 personnel killed in action with another 80 listed as missing in action during the nine years it was operational.²²¹ In today’s SF organization, this is the equivalent to losing one fully manned battalion of Green Berets. In comparison, between 2001 and September 2019, 190 Green Berets have died in combat.²²²

²¹⁷ John L. Plaster, *Secret Commandos: Behind Enemy Lines with the Elite Warriors of SOG* (New York, NY: Simon & Schuster, 2018), 6.

²¹⁸ Plaster, 50.

²¹⁹ Plaster, 42.

²²⁰ Plaster, 50–62; Gillespie, *Black Ops, Vietnam: An Operational History of MACVSOG*, 260.

²²¹ Gillespie, *Black Ops, Vietnam: An Operational History of MACVSOG*, 258.

²²² “Green Beret Memorial Wall,” Green Beret Foundation, accessed October 1, 2019, <https://www.greenberetfoundation.org/memorial-wall/>.

The only dedicated rescue mechanism for recon team personnel was the Bright Light teams.²²³ These teams were recon personnel that were forward staged at the Vietnam border helicopter launching sites that would be ready to assist if an emergency extraction was required. Due to the political sensitivities of the cross border operations, conventional ground combat troops were not available to assist in this role. The successful extraction of a recon team under fire was often entirely dependent upon the available air support and the heroics of the handful of personnel currently serving Bright Light duty.

The recon teams were inserted via helicopter across the border where they moved undetected to a designated area to conduct a variety of reconnaissance and surveillance tasks. Once they had located PAVN forces, the recon teams contacted a forward air controller (FAC) flying overhead to request and direct air sorties against the targets.²²⁴ Soon after OP35 began conducting cross border reconnaissance of the Trail, military and governmental leaders realized that the recon teams could be tasked to conduct a myriad of activities in addition to calling in airstrikes. The scope of operations that the recon teams conducted was expanded to include: wiretapping, capturing PAVN personnel, emplacement of unattended ground sensors, and bomb damage assessment (BDA).²²⁵ Predictably, the recon teams became a popular asset for their ability to cause havoc along the Trail. Each patrol varied in duration and the amount of terrain the team would cover. During the early years some missions called for the teams to conduct active reconnaissance for weeks or as short as 48 hours. On average OP 35 conducted 11 recon patrols per month in 1966, and at the height of the program in 1969, the organization was up to 37 patrols per month.²²⁶ In terms of distances the team could travel, the terrain of the Laos-Vietnam border was unforgiving and highly restrictive. Recon team members reported only being able to move an average of 1500m from the point of insertion due to dense jungle, enemy activity, or a combination of the two.²²⁷ The duration and distances covered by the recon

²²³ Plaster, *Secret Commandos: Behind Enemy Lines with the Elite Warriors of SOG*, 81.

²²⁴ Gillespie, *Black Ops, Vietnam: An Operational History of MACVSOG*, 77.

²²⁵ Gillespie, 77.

²²⁶ Rosenau, *Special Operations Forces and Elusive Enemy Ground Targets*, 21.

²²⁷ Rosenau, 21.

teams became shorter and smaller over time as the PAVN became more aware of the operations and initiated countermeasures against the OP 35 personnel and their indigenous team members.²²⁸

D. EXPANSION OF “SHINING BRASS”

With the success of the initial recon teams’ ability to accurately strike PAVN assets on the Trail, the Shining Brass operation was expanded to include exploitation battalions called “Haymaker Forces.”²²⁹ These exploitation battalions and their subordinate three companies with four platoons each were used up to a depth of 10km into Laos with the caveat that only one platoon at a time was able to be involved in any single operation. This was done to limit the observable degree in which the 1962 Accords were being broken.²³⁰ These larger forces, much like the recon teams, were also made up of a small contingent of U.S. Special Forces in leadership roles with a majority of indigenous personnel. The exploitation battalions were able to place enough force forward to attack small enemy elements that had been sent into disarray by recon team airstrikes. In one particularly risky operation, a company was used to draw the attention of a larger enemy force and then defend itself with massive amounts of airpower before being forced to withdraw.²³¹ The rise of the exploitation forces gave birth to the Search-Location and Annihilation Mission (SLAM) concept.²³² A SLAM operation consisted of three phases, intelligence and reconnaissance, massive airstrikes, and then insertion of the exploitation forces.²³³ Often, once the exploitation forces were inserted into an area via helicopter, they would find and report additional targets for airstrikes in addition to providing BDA of the initial airstrikes. Four SLAM operations were carried out between 1966 and 1967. SLAM IV received strong pushback from the U.S. Ambassador to Laos, William H. Sullivan, as his

²²⁸ Rosenau, 23.

²²⁹ Gillespie, *Black Ops, Vietnam: An Operational History of MACVSOG*, 78–79.

²³⁰ Gillespie, 78–79.

²³¹ Adams, *U.S. Special Operations Forces in Action*, 124.

²³² Adams, 124.

²³³ Gillespie, *Black Ops, Vietnam: An Operational History of MACVSOG*, 29.

authorization was continuously required in order to conduct planned airstrikes within the country. Due to the Embassy's reluctance to approve SLAM IV, future SLAM operations were scaled down.

E. CONVENTIONALIZATION OF THE UNCONVENTIONAL

By 1967 the codename Shining Brass had been published in *Ramparts* magazine and was changed to Prairie Fire as a result.²³⁴ The cross-border operations of OP 35 continued until put into a temporary hiatus caused by the Tet Offensive in 1968. For nine months after the commencement of the Tet Offensive, the recon teams of MACVSOG were turned into conventional assets for the U.S. Army within the borders of South Vietnam where they conducted 236 operations.²³⁵ The conventional Army commanders were pleased to have the secretive and seemingly unruly Special Forces soldiers brought back into the fold. This was a continuation of MACV's attempt to rein in MACVSOG, by placing conventional officers in positions of leadership within the organization.²³⁶ Doctrinally, MACV was already using SOG for tactical level objectives, so it was a short jump to repurpose the specialized force for their own needs. Conducting ambushes and airstrikes against tactical targets are conventional tasks capable of being conducted by infantry or cavalry scouts. Using a specialized force for repeated tactical level gain is effective, however, doing so will also attrit a difficult to replace asset and should be avoided.²³⁷ Green Berets were being used in Laos due to the covert nature of the operation and the extreme danger requiring specially trained personnel, although they were tactical level targets. The high casualty rate of Green Berets during the time that MACVSOG was active is indicative of the risk of repeatedly using special operations troops against tactical level objectives.²³⁸ The use of indigenous personnel to fill out the recon teams and exploitation forces to lower U.S. casualties while increasing capability was, however, in

²³⁴ Gillespie, 108.

²³⁵ Gillespie, 143.

²³⁶ Adams, U.S. *Special Operations Forces in Action*, 125.

²³⁷ Adams, 52; Department of the Army, *FM 3-05 Army Special Operations Forces*, 1-13.

²³⁸ Gillespie, *Black Ops, Vietnam: An Operational History of MACVSOG*, 258.

line with the unconventional doctrine of the Special Forces. Special Forces recon teams once again conducted cross-border operations during the last three months of 1968 but were still tasked with supporting conventional unit maneuvers within South Vietnam.²³⁹

F. THE ENEMY GETS A VOTE

As the ground reconnaissance and exploitation mission of OP 35 continued, so did the resources and countermeasures of the PAVN to counter the SOG soldiers. The North Vietnamese instituted a network of personnel dedicated to watching the usable helicopter landing zones on the Laotian side of the border, much as the CIA had attempted to do several years earlier with the Trail network. With an early warning of approaching helicopters, local NVA commanders were able to immediately dispatch specially trained trackers and hunter-killer teams to find the SOG recon soldiers. Additionally, anti-aircraft artillery began to appear in defense of the Trail in 1965, and by 1970 the entire route was bristling with guns and a handful of radar stations. The PAVN's countermeasures resulted in relatively shortened mission durations and an increasing casualty rate of SOG members. Recon team missions by 1969 averaged only two days on the ground post-insertion, often due to threat of enemy activity. The casualty rate for recon team members grew from 39 percent to 50 percent per mission between 1967 and 1969. Due to the increased defensive posture of the NVA forces protecting the Trail and political restrictions on the U.S. military forces, the PAVN supply loss rate dropped from 13.5 percent in 1969 to only 3.4 percent in 1970.²⁴⁰ On April 30, 1972 MACVSOG was transferred to the control of the South Vietnamese as a result of President Nixon's Vietnamization strategy effectively marking the end of Prairie Fire and American cross border operations.²⁴¹

G. COMMAND AND CONTROL

Communications and political authority played a large part in the command and control of MACVSOG operations just as it limits or enhances operations today. The recon

²³⁹ Gillespie, 143.

²⁴⁰ Gillespie, 170–71, 200.

²⁴¹ Rosenau, *Special Operations Forces and Elusive Enemy Ground Targets*, 23.

teams in Laos required communication with the FAC in order to request extraction or to call for an airstrike. The communications network from the team across the border reached ultimately to the MACV Headquarters and the U.S. Embassy in Laos in order to grant the authority to commit air or exploitation assets. While obviously required for coordination between air and ground assets, the ability of the U.S. Embassy to receive notification within minutes and enter the decision cycle could also be argued as a detriment to the recon teams in terms of the loss of autonomous authority to receive air support as quickly as possible.

At the lower levels of military authority, the recon teams were given a wide latitude of freedom to innovate and train as they deemed fit. By permitting the recon teams to regard experience over rank for command and the ability to train and use equipment in non-doctrinal ways, they developed more effective tactics in response to their extraordinary environment. Risk acceptance by leaders to permit teams to diverge from doctrine during training and operations ultimately generated new tactics, techniques, and procedures that saved lives and many of which were codified into field manuals following the war.

H. MOVEMENT AND MANEUVER

From the perspective of the recon teams, movement and maneuver were difficult and arduous due to the dense jungle environment of the Trail alone. The jungle was a double-edged sword. It provided excellent concealment, but it also restricted insertion by helicopter. Once the NVA began investing in an early warning network to observe the limited number of suitable helicopter landing zones, increased anti-aircraft artillery and employed tracker teams, U.S. ability to move and maneuver became restricted. As the noose of area denial and active countermeasures increased so did the casualties sustained by the recon teams. Limited maneuverability and points from which to launch and land U.S. helicopters provided the NVA a defensive advantage that they exploited effectively. Despite increased security along the Trail by the forces of North Vietnam, MACVSOG was expected to continue operations at its normal pace despite the continuing loss of the recon teams' freedom of maneuver and mounting casualties.

I. INTELLIGENCE

The recon teams themselves did not benefit greatly from intelligence assets as they were the primary source of intelligence of what was moving on the Trail. Missions that resulted in NVA prisoner snatches undoubtedly benefited the recon teams as they were able to gain additional insights into the workings of the enemy's logistical apparatus along the Trail. The program code-named Igloo White was supplemental to the recon teams as it involved aerial dispersed unattended ground sensors to locate NVA truck and foot traffic. The recon teams were occasionally tasked with emplacing these devices as well. The intelligence gathered from such devices may have led to recon teams focusing their efforts on an area with a large signature, and it certainly directed additional bombing sorties against the Trail. However, with the continued operation, the NVA was able to locate such devices and learned to manipulate the U.S. analysts into believing targets were present when there were none. The vulnerability of unmanned sensors to manipulation and data interpretation provides another point of validation for the expected use of ground based reconnaissance personnel.

J. FIRES

The operations of MACVSOG could not have succeeded without the robust support of air to ground fires. When small SOF teams came into contact with numerically superior NVA forces, with no friendly ground forces available to respond, they were entirely dependent upon airpower for support and extraction. Likewise, airpower alone was unable to effectively target NVA assets on the Trail's network of roads despite the bombing capabilities of the U.S. Air Force remaining unchallenged. Vietnam saw the introduction of the Spectre gunship platform for fire support that was the innovative fire support brainchild of SOG personnel.²⁴² The use of similar platforms continues today as one of the most effective forms of fire support available to special operations troops. It should be noted, however, that the recon teams were operating against a foe that was unable to challenge U.S. airpower aside from anti-aircraft artillery emplaced defensively near the

²⁴² Adams, *U.S. Special Operations Forces in Action*, 127.

Trail. If there had been contested airspace over Laos, the recon missions would probably not have been tenable without developing ground based methods of infiltration and extraction.

K. PROTECTION

Being a member of OP 35's Shining Brass-Prairie Fire operation was a hazardous assignment. The threat to force was mitigated primarily through the process of selecting team leadership based on experience over rank. The Soldiers chosen for MACVSOG were already specially selected and trained as Special Forces members. By ensuring only those who had previous experience on the ground in Vietnam to lead the teams, the severity of the learning curve was diminished. Additionally, the size of the recon teams was kept small at twelve men each in order to minimize their physical signature to the NVA. The exploitation forces were necessarily larger, but were normally used in limited duration with ample pre-planned air support for both their protection and for target prosecution.

Additionally, the use of indigenous personnel within the recon teams provided a protective measure to reduce U.S. casualties as well as capitalize on the local knowledge of the populace. By combining and cross training the tactical skills of the Green Berets with the local expertise of the indigenous personnel the recon teams were able to conduct more missions with fewer Americans and with a higher initial entry level of expertise in their operating environment. The use of indigenous personnel helped to fill the capability gap that existed within the level of jungle experience the American soldiers had and the operational environment they were being thrust into.

VI. SPECIAL OPERATIONS DURING THE GULF WAR

On 2 August 1990, Iraq invaded Kuwait, quickly establishing control of the country and positioned the Iraqi Army on the border with Saudi Arabia.²⁴³ Saddam attacked Kuwait with one armored and one mechanized division.²⁴⁴ Simultaneously, heliborne Iraqi Special Forces invaded Kuwait City, and Sea Commandos infiltrated the south to cut off avenues of approach connecting Saudi Arabia and Kuwait.²⁴⁵ Kuwait was under Iraqi control in less than 12 hours following the onset of hostilities. The Bush Administration understood the power of a multi-national organization and established a robust coalition charged with the liberation of Kuwait and containment of further Iraqi incursion. The multinational coalition was a strategic technique by the Bush Administration to avoid negative perceptions of western countries' crusade against an Arab state.²⁴⁶ Key to maintaining unity within the coalition's Arab nations was ensuring that Israel did not play an active role in the coming operations against Saddam's Iraq.

The efforts of Operation Desert Shield and Desert Storm were the largest military operations conducted since World War II.²⁴⁷ The Coalition of military forces assembled to combat Iraqi aggression consisted of sea, air, and land forces from numerous countries. The synchronization and coordination to support coalition operations tested the U.S. ability to cross-cultural, language, and capability gaps. These forces consisted of both conventional and unconventional forces. This was the largest deployment of SOF forces to a single region in history.²⁴⁸ The employment of SF in support of Operations Desert Shield

²⁴³ USSOCOM, *United States Special Operations Command History: 15th Anniversary* (MacDill AFB, FL: USSOCOM, 2002), 36.

²⁴⁴ Adams, *U.S. Special Operations Forces in Action*, 232.

²⁴⁵ Adams, 232.

²⁴⁶ Adams, 233.

²⁴⁷ Adams, 232.

²⁴⁸ Adams, 232.

and Desert Storm provides an opportunity to explore how it was employed in support of a high tempo conventional conflict and the challenges that occurred.²⁴⁹

The geographic combatant command responsible for the region was the United States Central Command (CENTCOM). General Schwarzkopf, the CENTCOM Commander, became the overall commander for the campaign.²⁵⁰ Of note, “General Schwarzkopf was not a great believer in special operations, and his staff made two critical decisions on SOF employment.”²⁵¹ First, Civil Affairs and Psychological Operations units were removed from CENTCOM’s SOF component Special Operations Command Central (SOCCENT) and became assets to the theater headquarters.²⁵² Second, SOF were not authorized to conduct cross-border operations into Iraq.²⁵³ General Schwarzkopf was concerned that small elements of SOF “would only get into trouble and he might have to divert forces from real war to and bail them out.”²⁵⁴ To ensure these policies were enforced strict bureaucratic measures were put into place. No SOF operations could be conducted without General Schwarzkopf’s approval and SOF’s representative was a Colonel compared to the three-star generals who represented the other services.²⁵⁵ SOCCENT was restricted to the following missions to ensure they fit into the conventional fight.

- Coalition Warfare Support
- Special Reconnaissance
- Coordinate Forward Passage of Lines
- Conduct Combat Search and Rescue
- Train Kuwaiti Army and Navy Units

²⁴⁹ Adams, 232.

²⁵⁰ Adams, 233.

²⁵¹ Adams, 233.

²⁵² Adams, 233.

²⁵³ Adams, 233.

²⁵⁴ Adams, 233.

²⁵⁵ Adams, 233.

A. COALITION WARFARE SUPPORT

The United States Special Operations Command deployed forces to Riyadh, Saudi Arabia, and the King Fahd International Airport (KFIA) to support primarily Saudi Arabian and Kuwaiti forces.²⁵⁶ Initially SOCCENT tasked Naval Special Warfare Task Group (NSWTG) to provide early warning of Iraqi incursion into Saudi Arabia.²⁵⁷ By September 1990, 5th Special Forces Group replaced NSWTG to provide early warning, train coalition partners, and provide guidance for close air support operations.²⁵⁸ The burden of SOF operations consumed all of 5th Special Forces Group and elements of 10th SFG(A) and 3rd SFG(A). Special Forces conducted Coalition Warfare support by providing liaison teams with partner forces to facilitate coordination and conduct training as required.²⁵⁹ The liaisons were very successful and highly sought after to decrease friction during operational planning and execution with Allied forces.

The coalition in support of Operation Desert Shield continued to grow, and so did the demand for training and liaisons from Special Forces teams. Initially, SOF were relied heavily on to provide training to Kuwaiti military units to rebuild and reestablish their capabilities following liberation of Kuwait by the Coalition.²⁶⁰ Special Operations Forces were also highly requested to train and support the U.S. Coalition partners. The ability to call in close air support was a highly sought after capability SOF had to offer Coalition partners. Many of the coalition partners deployed to the Arabian Peninsula requested the support of U.S. Special Forces to facilitate close air support.²⁶¹ The demand required the majority of 5th Special Forces Group to meet all of the requests. Special Forces continued training coalition forces up until the initiation of the ground war and subsequently supported the maneuvering of Kuwaiti forces to liberate Iraqi control areas. The SF

²⁵⁶ USSOCOM, *United States Special Operations Command History: 15th Anniversary*, 36.

²⁵⁷ USSOCOM, 37.

²⁵⁸ USSOCOM, 37.

²⁵⁹ Adams, *U.S. Special Operations Forces in Action*, 234.

²⁶⁰ Adams.

²⁶¹ USSOCOM, *United States Special Operations Command History: 15th Anniversary*, 37.

personnel found themselves routinely coordinating and synchronizing movements between their coalition allies as well as providing navigational and tactical guidance.

B. SPECIAL RECONNAISSANCE

Special Forces were also tasked with conducting special reconnaissance of Iraqi forces within the Combined Special Operations Area and facilitate forward passage of friendly lines with conventional ground commanders when required.²⁶² In early January of 1991, Special Forces Operational Detachment Alpha (SFOD-A) 532 from 5th SFG (A) was reassigned from training a Saudi mechanized brigade to conduct a special reconnaissance mission deep within Iraq to monitor troop movements along a critical section of highway.²⁶³ With only three weeks to prepare and high altitude aerial reconnaissance photos to base their plan on, the team would split into two SR teams and conduct helicopter borne insertions and spend up to four days hiding from and surveilling Iraqi units.²⁶⁴ Despite the ODA's best attempts at preparing themselves during the three week train-up, the lack of accurate ground level intelligence within the target area significantly hampered their chances of success. Upon insertion the helicopter pilot and team leader observed numerous Bedouin camps and artillery guns emplaced throughout their area of operations that the aerial reconnaissance had completely missed.²⁶⁵ Upon landing at the appointed insertion site the members of the SR teams immediately found that they were not standing in the Saudi sand dunes that they had practiced digging in, but vegetated and hard earthen soil irrigated by the Euphrates flood plain. Unable to dig a hide site and surrounded by Bedouins and enemy soldiers, one of the SR teams was quickly discovered and evacuated while under attack by a force of 150 Iraqi soldiers.²⁶⁶ The other SR team of ODA 532 hid under bushes and was repeatedly unable to make radio contact with their higher headquarters. Unfortunately, the team had cached their spare radio and

²⁶² Adams, *U.S. Special Operations Forces in Action*, 234.

²⁶³ Linda Robinson, *Masters of Chaos: The Secret History of the Special Forces* (New York, NY: Public Affairs, 2004), 62.

²⁶⁴ Robinson, 63.

²⁶⁵ Robinson, 65.

²⁶⁶ Robinson, 65–67.

excess equipment at a predetermined site that was now occupied by Bedouin nomads.²⁶⁷ Additionally, due to sand storms in Saudi Arabia, helicopters were unable to fly the predetermined rescue corridor to conduct exfiltration of a team in such circumstances. The SR team was unable to communicate their observations of the Iraqi highway and was forced to continually hide from passersby with only moderate concealment. Finally, on the fourth day a helicopter overflew the team and was able to conduct extraction safely. The helicopter pilot had flown the mission only after he had dismissed the misgivings of the SOCCENT Commander about the risk of flying for a team that had not communicated and was likely dead.²⁶⁸

C. THE SCUD HUNT

An additional unexpected mission for SOF arose that could be considered one of the most important operations conducted during the ground war.²⁶⁹ SOCCENT was tasked to hunt Iraq's mobile short-range ballistic missiles.²⁷⁰ Saddam Hussein had very few options to impose costs upon Coalition forces following their establishment of air superiority during the initial airstrikes conducted on January 17, 1991.²⁷¹ However, Saddam Hussein used Scud missiles to threaten neighboring countries, impose costs, and attempt to weaken the coalition alliance. Knowing that the U.S. led coalition of Arab states would not survive if Israel entered the conflict, Saddam specifically targeted Israeli cities. Within the first week of the war, over 30 Scuds were launched into Israel and Saudi Arabia.²⁷²

A Scud is the NATO name for a Soviet made short range ballistic missile that the Iraqis modified to use in attacks against Coalition forces and Israel.²⁷³ The missiles are 37

²⁶⁷ Robinson, 68.

²⁶⁸ Robinson, 70.

²⁶⁹ Adams, *U.S. Special Operations Forces in Action*, 234.

²⁷⁰ Adams, 234.

²⁷¹ USSOCOM, *United States Special Operations Command History: 15th Anniversary*, 44.

²⁷² USSOCOM, 44.

²⁷³ Adams, *U.S. Special Operations Forces in Action*, 240.

feet tall and can travel about 400 miles in distance placing Coalition forces in Saudi Arabia and Israel well within their range.²⁷⁴ The mobile Scud platforms, known in military jargon as transporter-erector-launchers (TELs), were extremely challenging to locate and target. Despite admittedly spotty intelligence by U.S. agencies, Iraq had an estimated 1,200 operational missiles.²⁷⁵ The Scuds were not a devastating weapon, but countries could not remain idle while missiles caused civilian casualties. Israel continued to threaten to enter the war. In the second week of the air war, 26 Scuds were fired on Israel and 27 against Saudi Arabia.²⁷⁶ The Scuds were not accurate and did not cause a significant amount of damage. Tactically they were ineffective. However, they had a significant psychological impact and when used as a weapon of terror they had strategic implications.²⁷⁷ Senior leaders were also very concerned the Scud missiles could be outfitted with chemical warheads.

On January 18, 1991, seven Scud missiles impacted within Israel.²⁷⁸ The United States' policymakers became highly concerned that Israel would retaliate and inadvertently splinter the Coalition Alliance. Israel's government and military was required by their own policies to take action, however, then U.S. Secretary of Defense Donald Rumsfeld assuaged the Israelis by employing U.S. and British SOF assets to hunt and destroy Scud missiles. The Scuds became enough of a concern to U.S. military and policy leaders that three squadrons of Coalition aircraft were dedicated to destroying the threat.²⁷⁹ The real challenge was locating the mobile TEL Scud firing platforms. The Iraqis pre-surveyed firing positions across the thousands of empty square miles of desert, allowing a mobile platform to fire missiles and disappear in ten minutes.²⁸⁰ By the time the coalition aircraft were in vicinity, the platforms were gone or unable to be observed by the high flying, fast

²⁷⁴ Adams, 240.

²⁷⁵ Adams, 240.

²⁷⁶ Adams, 241.

²⁷⁷ Adams, 241.

²⁷⁸ USSOCOM, *United States Special Operations Command History: 15th Anniversary*, 44.

²⁷⁹ Adams, *U.S. Special Operations Forces in Action*, 242.

²⁸⁰ Adams, 242.

moving jets. The ability to find and attack the mobile TELs from a unilateral air approach was so difficult that in 42 instances of actually observing a launcher the pilots were only able to engage eight times.²⁸¹ Despite General Schwarzkopf's misgivings about the use of SOF to do anything "that a Stealth fighter could not," the inability of an air only campaign to score hits against the mobile TELs convinced the civilian and military leadership that ground reconnaissance was required.²⁸²

Operating out of Saudi Arabia, the Joint Special Operations Task Force (JSOTF), coordinated reconnaissance and surveillance teams comprised of U.S. SF and British SAS teams to hunt and destroy Scud infrastructure.²⁸³ While the British SAS had begun missions within Iraq on 20 January, the first U.S. cross-border operation was conducted on February 7, consisting of 16 SOF personnel and two vehicles.²⁸⁴ The Scud hunter elements conducted infiltration during hours of limited visibility escorted by armed helicopter gunships.²⁸⁵ The teams would dig hide sites and rest all day to lower the risk of compromise. The missions were successful, and eventually, the JSOTF provided mission command to four Scud hunter elements at a time conducting operations. Due to success of their operations, General Schwarzkopf augmented the JSOTF with support from the 160th Special Operations Aviation Regiment and a Ranger company.²⁸⁶ The teams conducted special reconnaissance providing critical information to facilitate air attacks on identified Scud complexes via airstrikes. Often Special Forces teams conducted special reconnaissance while Rangers secured the compound and used demolitions to destroy critical communication infrastructure of the Scud complexes including microwave communications arrays and fiber optic cables.²⁸⁷ Due to the JSOTF's efforts, the frequency

²⁸¹ Rosenau, *Special Operations Forces and Elusive Enemy Ground Targets*, 34.

²⁸² Michael Asher, *The Real Bravo Two Zero* (London, UK: Orion Publishing Group, 2011), 38; Rosenau, *Special Operations Forces and Elusive Enemy Ground Targets*, 34.

²⁸³ USSOCOM, *United States Special Operations Command History: 15th Anniversary*, 44–45.

²⁸⁴ USSOCOM, 44.

²⁸⁵ USSOCOM, 44.

²⁸⁶ USSOCOM, 45.

²⁸⁷ USSOCOM, 45; Rosenau, *Special Operations Forces and Elusive Enemy Ground Targets*, 40.

and accuracy of Scud attacks were reduced from an average of 4.7 launches per day during the first week of Desert Storm, to only an average of 1.5 Scuds launches for the remaining 36 days of the conflict. However, there was an increase in Scud launches during the final week of the conflict leading analysts to believe that adjustments by Iraqi TEL crews to subvert the Scud hunt mission were being recognized and successfully implemented.²⁸⁸

It is also worth noting that the Scud hunt missions were extremely risky. The British SAS teams underestimated the difficulty of maneuvering in the western Iraqi desert during periods of darkness. Two SAS teams chose to conduct infiltration without vehicles and patrol by foot. One of those teams would immediately turn around having recognized their planning error and inability to cover such a vast area, while the other team forged ahead and was almost entirely captured or killed by the Iraqi military.²⁸⁹ This SAS team is the now infamous Bravo Two Zero, which saw four members captured, three killed, and one managing to evade to the Syrian border.²⁹⁰

The story of Bravo Two Zero shares many similarities with the unsuccessful SR mission of ODA 532. The SAS teams had minimal time to prepare for the Scud hunt mission. Originally sidelined by General Schwarzkopf's misgivings about SOF, the SAS was fighting for a relevant job and their own piece of the war when Iraq launched Scuds into Israel on 18 January. By January 20, the SAS teams were re-directed to hunt for Scud missiles and their mobile TEL launchers.²⁹¹ The British SOF units initially struggled to establish effective procedures for working with coalition aircraft to provide terminal attack guidance. The only solution available to them was to communicate without encryption using emergency rescue frequencies and radio beacons.²⁹² The Brits were also short on timely and accurate intelligence. While U.S. teams involved in the Scud hunt were provided daily intelligence updates, the SAS teams were only given a general area of

²⁸⁸ Rosenau, *Special Operations Forces and Elusive Enemy Ground Targets*, 42.

²⁸⁹ Rosenau, 37.

²⁹⁰ Asher, *The Real Bravo Two Zero*, 11.

²⁹¹ Asher, 41.

²⁹² Rosenau, *Special Operations Forces and Elusive Enemy Ground Targets*, 39.

probable Scud activity and relied on their own visual reconnaissance.²⁹³ Just as the SF team leader found Bedouins and anti-aircraft artillery gun emplacements unknown to intelligence analysts upon infiltration, so did the SAS members. The men of Bravo Two Zero also lacked an understanding of the physical environment they were asserting themselves into. Having considered the desert a hot environment and sleeping bags a luxury item, they suffered from hypothermia at night.²⁹⁴ Additionally, just as ODA 532 had misjudged the soil composition, so did the SAS team that had practiced digging in southern Saudi Arabia.²⁹⁵ The men of Bravo Two Zero experienced an inability to establish communications with their radio system to their higher headquarters during their first night on the ground, just as the failed U.S. SF mission had experienced. Fortunate for the U.S. Green Berets, they were not compromised by local civilians, however, Bravo Two Zero's location was.²⁹⁶ Following their discovery the SAS soldiers attempted to evade on foot through difficult terrain and freezing temperatures. This also led to the team abandoning their heavy backpacks which contained their backup radio as well as ammunition, food, and water.²⁹⁷ Ultimately, the team became separated and half of the group attempted an ill-fated mad dash to the border by hijacking a taxi.²⁹⁸ The ordeal of Bravo Two Zero is highlighted as both an example of the extreme physical endurance of the SAS men as well as important lessons for the preparation and conduct of high risk special reconnaissance missions behind enemy lines.

D. COMMAND AND CONTROL

Command and control of the SR and Scud hunting missions during the Gulf War involved the integration of coalition assets across wide areas of geography to locate Iraqi military targets and mobile TEL Scud systems. Initially the bilateral integration between

²⁹³ Rosenau, 38.

²⁹⁴ Asher, *The Real Bravo Two Zero*, 58–59.

²⁹⁵ Asher, 58–59.

²⁹⁶ Asher, 60–61, 64–65.

²⁹⁷ Asher, 77–78.

²⁹⁸ Asher, 123–26.

communication systems and coordinated airpower proved difficult but was overcome through back up contingency and emergency radio procedures, mainly for the British units that had not previously worked with American airpower.²⁹⁹ The individual cases of Bravo Two Zero and ODA 532, however, provide an example of what can happen when command and control breaks down due to an inability to communicate. These cases, while they are the exception, stresses the importance of the lifeline that radio contact represents. The necessarily small elements that conduct reconnaissance within enemy territory are at constant risk of being compromised and attacked by a superior force. Without the benefit of command and control from a higher echelon to provide lifesaving reinforcement or air support, such small elements are left to their own devices for survival. The difficulties of communicating from within enemy held territory also reinforce the need for commanders to permit and acknowledge the autonomy of these teams to execute the intent of the operation without constant oversight.

It is important to note that command and control also encompasses the planning timeline and conduct of operations. The reconnaissance teams that found intelligence unreliable and planning insufficient may have benefited from additional time to prepare and study their geographical areas of operation. The decisions by higher echelon commanders that led to truncated planning for such high risk missions carry a share of the blame for the misfortunes of the men on the ground. However, hunting for Scud systems was of strategic value to the Coalition and international community, making the mission appropriate for SF.

E. MOVEMENT AND MANEUVER

Both the American and SAS reconnaissance and Scud hunting patrols inserted into their respective areas using helicopters. Just as in Vietnam, the helicopter proved its capability to support the rapid infiltration and extraction of reconnaissance teams. Teams that understood the terrain and the distances they were required to traverse used specialized

²⁹⁹ Rosenau, *Special Operations Forces and Elusive Enemy Ground Targets*, 39.

off-road vehicles capable of being transported by their helicopters.³⁰⁰ The teams that opted instead to maintain a smaller visual and audible signature preferred to remain on foot. Given the harsh and vast desert terrain they found themselves in, combined with the excessive weight of equipment the teams carried in order to sustain themselves, foot movement proved to be extremely difficult. In hindsight, movement by foot while scouring the desert for hidden Scud launchers was impractical as the distances covered were insufficient to locate the mobile TELs.³⁰¹ The ability to maneuver across large distances rapidly also meant that teams at risk of compromise could also create a degree of separation between themselves and their would-be aggressors quickly. In a conflict such as the Gulf War where the recon teams enjoyed superiority of air power, this also meant that their vehicular movement was safe from aerial interdiction or tracking.

F. INTELLIGENCE

The Scud hunting and reconnaissance teams had the benefit of aerial and satellite imagery during the planning of their operations. This is, however, limited and was subject to the shortfall of being only one source of intelligence that could not alone provide a complete picture. The aerial photographs used by both ODA 532 and Bravo Two Zero did not clearly indicate the presence of anti-aircraft guns or Bedouin camps. The imagery by its overhead nature also made identifying terrain features difficult when the teams were planning their hide site locations. A broader approach to intelligence that combines multiple sources to create a clearer picture of the battlefield would have benefitted both of the teams. Based on the information available it does not appear that either the SAS or the U.S. SF team had access to human intelligence such as Bedouin herders, who migrate throughout the area, or ex-patriots that would have been able to provide the units with the ground truth they were lacking upon infiltration.

On the other side of the conflict, the Iraqi Scud crews knew their adversary as well as their own strengths and weaknesses. The mobile TEL crews were able to thwart

³⁰⁰ Rosenau, 37.

³⁰¹ Rosenau, 39.

intelligence analysts by using their own knowledge of the terrain to mask the launchers from aerial reconnaissance. Further, it was learned after the war that the Iraqi military had intentionally used their fixed Scud sites as a deception ploy to divert attention away from their mobile TEL program.³⁰²

G. FIRES

The ability of coalition aircraft to penetrate Iraqi airspace and destroy anti-aircraft systems and Scud launchers was crucial to the SOF missions within the country. Originally, the coalition attempted to rely solely on its attack aircraft to find and destroy Scuds in western Iraq. The military leadership, however, soon realized that the ability of the Iraqis to hide the mobile TELs and rapidly move after firing made this task incredibly difficult for aircraft flying at hundreds of miles per hour. Once SOF teams were employed to locate and provide terminal attack guidance for aircraft the success rate of destroying Scud launchers increased significantly.³⁰³ However, this success was not without a period of trial and error. The British teams originally had no procedure in place for calling in air strikes and were forced to use unencrypted emergency channels on survival radios in order to orient pilots onto targets.³⁰⁴ Only after the initial attempts to call for fire against observed Scud assets did the coalition realize the need to provide liaison elements between commands and streamline the process. Even after the procedure was established, the time from observing a launcher to the bombs reaching the target took up to 50 minutes.³⁰⁵

H. SUSTAINMENT

Sustainment for the reconnaissance patrols was primarily limited to what the team members were able to carry on their backs or transport in their vehicles. Aerial resupply drops were available if required, however, this would only be conducted in extremis due to the potential for compromise. The fewer available British SAS teams, compared to the

³⁰² Rosenau, 33.

³⁰³ Rosenau, 34, 42.

³⁰⁴ Rosenau, 39.

³⁰⁵ Rosenau, 39.

more numerous U.S. SF teams, resulted in longer duration operations and heavier loads for the SAS to sustain themselves and cover an area of comparable size.³⁰⁶ The teams that opted for vehicular transportation enjoyed the ability to remain on ground longer as they were able to carry far more supplies. Both Bravo Two Zero and ODA 532 brought extra equipment, including spare radios, in order to prepare for potential contingencies. However, in both cases those spare radios and backup equipment was lost due to either a cache site becoming inaccessible or due to dropping the burdensome gear in favor of a greater degree of maneuverability.

I. PROTECTION

Protection of the SOF teams operating within Iraq was multifaceted. The teams deployed with as few personnel as possible and moved primarily at night to maintain a smaller detectable signature while avoiding civilians.³⁰⁷ Radio communications were kept to specific and brief windows of time in an attempt to prevent detection by Iraqi forces employing radio frequency triangulation systems. Planning for the environment was perhaps the most crucial protective measure, and the one that failed Bravo Two Zero. Teams that accurately predicted their maneuverability and sustainment requirements fared far better and were able to adapt to their combat environment.

³⁰⁶ Rosenau, 37.

³⁰⁷ Rosenau, 35.

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VII. ANALYSIS

We researched four cases to illuminate themes of success and failure at select points in the history of U.S. special operations. Our objective was to determine best practices that might apply to USASOC in the future operational environment of MDO. The four case studies provide historical vignettes in which special operations forces were called upon to conduct operations in what would now be known as the deep maneuver and operational deep fires areas within MDO. Each case displayed that airpower alone was insufficient to answer high priority intelligence requirements and destroy high priority targets to meet operational objectives.

By observing history, it can be assumed that SF will be required to conduct ground based actions in the future operating environment. At the conclusion of historical analysis, ten common themes were illuminated across the historical cases. These themes are categorized into the applicable warfighting functions (see Figure 3). Some themes were found to be pertinent under multiple warfighting functions due to a range of implications and are repeated as applicable.

Observed Operational Themes	
1. Air Power Alone Insufficient to Meet Operational Requirements	
Special Reconnaissance Required in Non-Permissive Environment	
COMMAND AND CONTROL	
	2. Appropriate Application of Special Forces
	3. Assuming Risk and Freedom of Innovation
MOVEMENT AND MANEUVER	
	4. Specialized Skills / Experience
	5. Economy of Force / Element Size
	6. Environmental Considerations
INTELLIGENCE	
	7. Use of Indigenous Personnel
	8. Multi-Source Intelligence Collection
SUSTAINMENT	
	9. Self-sustainment and Non-standard Logistics
PROTECTION	
	7. Use of Indigenous Personnel
	10. Frequency and Duration of Operations
	4. Specialized Skills / Experience
	5. Economy of Force / Element Size
	6. Environmental Considerations

Figure 3. Findings

In WWII, the Norsk Hydro Heavy-Water plant was a strategic target that the Allies targeted to delay the Germans from obtaining a nuclear bomb. The target resided in German controlled territory in a particularly austere location that encountered harsh winters. It was infeasible for a conventional company or battalion sized element to conduct a raid. The plant was also extremely well-fortified, making it highly resistant to Allied bombing raids. Therefore, it was necessary to use special operations teams to gather intelligence and conduct sabotage operations to degrade the plant's heavy water production. Similarly, the OSS partnered with the French resistance to increase the effectiveness of air bombardment operations. The Jedburgh teams on the ground leveraged host nation resistance forces and the local population to locate high priority targets for the allied air campaign as well as gather key intelligence and conduct sabotage against the German infrastructure and fortifications that opposed the D-Day landing sites.

In Vietnam, special operations recon teams were inserted via helicopter across the border, where they moved undetected to a designated area to conduct a variety of reconnaissance and surveillance tasks. Green Berets were specifically used in Laos due to the covert nature of the operation, political risk and the extreme danger requiring specially

trained personnel. The missions were arguably a conventional application of special operations forces, as the targets were tactical in nature. Once the recon teams located PAVN forces, they contacted a forward air controller (FAC) flying overhead to request and direct air sorties against the targets.³⁰⁸ The exploitation forces located and reported targets for airstrikes in addition to providing a battle damage assessment of the initial airstrikes. The use of indigenous personnel to augment the recon teams and exploitation forces decreased U.S. casualties and increased capability, in line with the unconventional warfare doctrine of the Special Forces.

In Desert Storm, the inability of the air campaign to successfully target the mobile TELs convinced much of the civilian and military leadership that ground reconnaissance was required.³⁰⁹ The TELs were highly maneuverable and extremely difficult to identify with air assets alone. Operating out of Saudi Arabia, the Joint Special Operations Task Force (JSOTF), coordinated reconnaissance and surveillance teams comprised of unilateral U.S. SOF and British SAS teams to hunt and destroy Scud infrastructure.³¹⁰ The teams conducted special reconnaissance providing critical information to facilitate air strikes on identified Scud complexes. It is worth noting that in Desert Storm while the coalition had achieved air supremacy, ground reconnaissance assets were still required. In the contested airspace of the MDO concept the inability of high value aircraft to loiter while searching for targets of commensurate value will likely require ground based confirmation prior to an attempted strike.

Throughout history ground reconnaissance has proven essential when aerial assets alone are unable to achieve mission requirements. In an MDO environment the adversary is anticipated to conduct area denial through layered systems of long range weapons in all domains of warfare. It is also assumed that in an MDO environment the airspace will be highly contested or denied.³¹¹ Therefore, as history has shown us, it is reasonable to

³⁰⁸ Gillespie, *Black Ops, Vietnam: An Operational History of MACVSOG*, 77.

³⁰⁹ Asher, *The Real Bravo Two Zero*, 38; Rosenau, *Special Operations Forces and Elusive Enemy Ground Targets*, 34.

³¹⁰ USSOCOM, *United States Special Operations Command History: 15th Anniversary*, 44–45.

³¹¹ TRADOC, *The U.S. Army in Multi-Domain Operations 2028*, v–xii.

assume Special Forces teams will continue to be critical for a variety of reconnaissance, surveillance, sabotage, and direct action missions in the deep maneuver and operational deep fires areas to achieve operational and strategic effects.

To suggest the best practices of employing ARSOF teams within adversarial territory this study binned the common observations from each historical case into the six Warfighting Functions. The following themes emerged from analysis of the four cases. Some themes were assessed to be applicable across multiple Warfighting Functions.

A. COMMAND AND CONTROL

1. Appropriate Application of SF

Special Forces are capable of operating at each level of warfare: tactical, operational, and strategic. However, SF teams are highly skilled units that are not able to be reconstituted easily or quickly; they should be applied against objectives that are commensurate to the risks and criticality of an operation.³¹² Doctrinally SF conducts SR against only operational or strategic level objectives that are beyond the capability of conventional reconnaissance assets.³¹³ To utilize SF teams against tactical level objectives that are within the capability of conventional assets should be avoided whenever possible. The employment of SF teams to perform tactical reconnaissance for conventional units places these assets at risk and displaces their specialized ability as a combat multiplier elsewhere on the battlefield. Vietnam observed a high casualty rate of Green Berets due to repeatedly using special operations troops against tactical level objectives.³¹⁴ In the MDO environment SF will continue to be a finite resource that should be applied judiciously. Therefore, the application of ODAs against tactical level objectives is a suboptimal use of assets. The use of SF teams against operational to strategic level targets permits a more efficient allocation of theater assets to support the mission. Focusing the planning of

³¹² Department of the Army, *FM 3-05 Army Special Operations Forces*, 1–13.

³¹³ Joint Chiefs of Staff, *JP 1-02 Department of Defense Dictionary of Military and Associated Terms*.

³¹⁴ Gillespie, *Black Ops, Vietnam: An Operational History of MACVSOG*, 258.

intelligence and available fires assets to support a team throughout planning to extraction ensures a higher chance of operational success.

2. Assumed Risk and Freedom of Innovation

Assumption of risk and innovation are tied to one another within the rote doctrine confines of the military. In order for innovation to occur within an organization defined by discipline, commanders need to accept the risk of failure that is possible when subordinates attempt to implement new tactics, techniques, or procedures. Innovative ideas that may provide an edge in combat can be stifled by a leader unwilling to allow variations from the normal operating procedures. Throughout the historical cases common successful themes of risk acceptance by commanders and the ability to innovate solutions emerged. Commanders not only had to accept the higher level of risk to force commensurate with deep area operations, they needed to permit small unit leaders a high degree of autonomy during training for such missions. The high risk nature of a small element operating within proximity to large adversarial forces and the need to maintain a minimal electromagnetic spectrum signature required the SR teams to make and alter decisions on the ground in real time without authorization from higher. In the training environment, SR teams that were permitted to experiment outside of standardized tactics, techniques, procedures, and doctrine were better able to adapt to their operating environment and the enemy.

Recon teams in Vietnam were provided a wide latitude to determine what equipment they carried and how to train and use explosives and firearms. British SAS “patrol members have a tradition of great operational autonomy” and were afforded the opportunity to innovate solutions to enable maneuver in the desert environment.³¹⁵ Some SAS teams opted to use specially modified Land Rovers and were more efficient than those that chose to patrol on foot.³¹⁶ The freedom to experiment was crucial to finding new solutions to tactical problems that ultimately reduced risk and increased efficiency.

³¹⁵ Rosenau, *Special Operations Forces and Elusive Enemy Ground Targets*, 37.

³¹⁶ Rosenau, 37.

In the MDO operating environment an electromagnetic signature is expected to draw the attention of adversarial defensive measures. SF teams should expect to have limited communications capabilities with their higher headquarters and vice versa. Teams operating within this non-permissive environment will be required to act upon their commander's intent more heavily and rely less on direct control. With communications and direct support limited by the effects of electromagnetic signals interception and contested airspace, leaders will need to provide their soldiers the freedom to innovate and assume risk during training that reflect this anticipated reality.

B. MOVEMENT AND MANEUVER

1. Specialized Skills and/or Experience

To remain undetected in hostile territory and to be able to retain a degree of freedom of movement often requires special skills unique to the geography, environment, and or culture of the location. In each historical case the success or failure of a mission was often the result of the team's ability to move when necessary and to blend into their surroundings while stationary. During Operation Gunnerside the skills required were technical in nature, such as cross country skiing, mountaineering or airborne infiltration. For the OSS, it was their ability to blend in and move within the local population to remain undetected and operational. The soldiers of MACVSOG relied upon the jungle warfare experience of senior members that had previously fought within Vietnam as well as the inherent knowledge of the indigenous personnel within their teams. During the Gulf War there was little to no prior experience operating within the Iraqi desert for either the British SAS or the U.S. SF teams and a loss of efficiency occurred. Personnel with experience in a specific geographic area, were observed to be especially beneficial as they provided an additional knowledge base of what may be normal within the area and how to move from one point to another without arousing suspicion or drawing attention.

Generally, during SR missions the personnel needed to move from an insertion point to an observation point and then conduct extraction upon conclusion of the operation. Each movement is extremely deliberate and represents the greatest chance of compromise. To reduce the risk of discovery, specialized infiltration methods are used to enable SF to

conduct operations where the adversary does not expect due to austere environments, harsh terrain, or enemy disposition. Modern Army SF companies maintain dive, airborne, military freefall, and mountaineering skills as specialty infiltration techniques.

In an MDO environment, the ability for a team to move undetected will be paramount for any mission within the Deep Maneuver or Operational Deep Fires Areas. Advances in surveillance technology will make the task of remaining undetected more difficult. Therefore, any specialty skill that aids in the effort of arriving to an objective undetected should be emphasized in training. The ability to move undetected within the physical or human terrain of an operational area depends on the specialized skills of the SOF soldiers and requires extensive training prior to its high stakes application.

2. Economy of Force/Small Elements

Smaller and lower cost assets such as SFOD-A's provide a combat multiplier effect that allows the force to employ significantly less logistical resources to obtain a higher payoff of operational/strategic value than by employing a larger scale conventional unit. During the Gulf War SR teams more effective and cost efficient than the initial air campaign to find and destroy Iraq's mobile TEL Scud systems.³¹⁷ Additionally, by maintaining smaller logistical footprint, SOF teams retained a greater freedom of maneuverability within a denied or contested area. The initial plan for Operation Freshman used a much larger ground force and saw the loss of one Halifax bomber, two gilders and their entire compliment of commandos. The resulting Operation Gunnerside destroyed the heavy water electrolysis chambers at the hydro plant using only ten personnel. Considering the long range of an adversaries anticipated layered standoff weapon systems across all domains within the MDO concept, it is assumed that large static units and logistical trains will be priority targets for kinetic and cyber weapons. Smaller and more mobile formations, such as SF, will continue to offer a high reward / low cost option for commanders to employ against the adversary with a minimal risk to logistical assets.

³¹⁷ Rosenau, 34, 42.

3. Environmental Considerations

The environment of the area of operations defines the SR mission. The terrain and environment of an area determines what mobility equipment is required as well as range of observation for both friend and foe. In the cases, successful operations within denied territory effectively accounted for the local terrain and environment into their planning and operations. Unsuccessful missions often failed to compensate for factors such as weather conditions specific to the region or inaccurately assumed what the soil composition would be. Recon teams in Vietnam would be entirely unable to operate if dropped in the desert of Western Iraq and vice versa. Within the future operating environment this maxim is not likely to change. Teams that fail to fully understand their operating environment may not be capable of covering the terrain necessary to locate their target, take advantage of a tactical situation, or they may be unable to withdraw to avoid capture. Immobile teams provide little more benefit than an emplaced static sensor could provide.

C. INTELLIGENCE

1. Use of Indigenous Personnel

The use of indigenous personnel for their local knowledge provides many obvious benefits to a military force. From an intelligence perspective these same personnel may be able to conduct reconnaissance and surveillance of a target with a lower likelihood of compromise and lower risk to SOF personnel. While examples such as the Leaping Lena operation of Vietnam discount their usefulness as a unilateral force, MACVSOG recon teams effectively incorporated indigenous personnel into intelligence collection operations by conducting combined training and operations. In Operation Gunnerside the commandos used in the raid were indigenous personnel themselves.

In WWII, the OSS routinely used local personnel to collect information on German patrols and operations. When used in concert with trained SOF personnel to direct and support their training and implementation indigenous personnel are capable of performing some of the tasks that would normally require a ground reconnaissance team. In each case study, successful operations within denied areas involved actively participating indigenous personnel or the use of intelligence gathered by the local population during the planning

process. When local knowledge was not available, such as scud hunting in the Gulf War, SF teams failed to identify critical issues during the planning process and made poor decisions during the operation due to lack of local knowledge.

Within the MDO environment indigenous personnel present a backdoor option for special operations within the deep maneuver and operational deep fires areas of the adversary's territory when feasible. While it is assumed that civilian populations will continue to exist within the geographical areas protected by an adversaries layer standoff weapon systems, those personnel will have an understanding of the pattern of life and normal operating procedures of the enemy within their purview. The use of indigenous personnel will continue to be a potentially highly valued source of experience and knowledge to bolster the effectiveness of operations within a non-permissive area and should be leveraged whenever possible. When feasible ARSOF assets should conduct operations combined with indigenous personnel to situational awareness increase intelligence collection and a myriad of other benefits to include risk mitigation.

2. Multi-source Intelligence for Planning Purposes

A single point of failure in military planning is not desirable. A plan that is derived from a single source of intelligence is likewise subject to the limitations, analytical flaws, and potential deception of that one and only piece of information. Ideally, planning is conducted using numerous sources of intelligence that create the most detailed picture possible while simultaneously highlighting outliers of data.

Within the cases studied, preparations to operate in denied areas that relied upon a single source or type of intelligence were at a marked disadvantage to those that used multiple sources. The Gulf War SR missions relied purely on high altitude aerial photography due to Iraq's robust anti-aircraft defense network. Similar to the results of the aerial reconnaissance conducted for the Scud Hunt, these photos were of limited value as they missed numerous Iraqi defenses and could not anticipate the movements of the local Bedouins. The result was that teams inserted into suboptimal areas and increased their risk of compromise or resulted in the immediate need for extraction.

During Vietnam the triple canopy jungle significantly limited the capabilities of aerial reconnaissance. The CIA attempted to resolve this issue by employing local personnel to act as road watchers along the Ho Chi Minh trail. However, the road watchers proved to be ineffective due to lack of training and oversight. MACVSOG recon teams effectively incorporated indigenous personnel into intelligence collection operations by conducting combined training and operations. As MACVSOG continued to conduct operations across the borders of Laos and Cambodia they found additional success in the convergence of intelligence gained from available local national personnel, pre-mission aerial reconnaissance flights, captured enemy soldiers, and radio signals emitted by the NVA. By combining numerous sources of intelligence to paint a more accurate picture of the target, SF teams were able to be employed more efficiently. The use of multiple types of intelligence also served to protect friendly forces against the enemy's counter-intelligence activities.

In the anticipated future MDO environment adversarial deception operations are expected to be commonplace as an additive measure to area denial weapon systems. It will be paramount to arm future ARSOF assets in the deep maneuver space with the best possible convergence of intelligence sources to limit the effectiveness of these countermeasures while simultaneously providing them with the greatest ground truth before deploying. Hastening the deployment of assets into the Deep Maneuver or Operational Deep Fires Areas of MDO without a clear understanding of the intelligence available would likely prove to be a fatal error.

D. SUSTAINMENT: NON-STANDARD LOGISTICS

As previously noted within the Movement and Maneuver Warfighting Function's Economy of Force principle, SOF operations are conducted with a limited logistical support due to the risk of compromise by a resupply operation. Sustainment efforts for SF teams conducting deep maneuver operations are understandably limited and often are comprised entirely of what the soldiers are able to carry upon insertion.

During Operation Gunnerside the Norwegian commandos hunted and foraged for food while remaining hidden from the occupying German forces. The recon teams of

MACVSOG in Vietnam carried only what would be absolutely necessary to remain as light and mobile as possible which directly effects the length of time they were able to remain within an area of operations. Both U.S. SF and British SAS employed resupply caches during the Gulf War. However, in two extreme instances those caches were unable to be recovered due to enemy or local populous movements. Other U.S. and British teams adapted by using vehicles to carry additional supplies and increase the duration they were able to remain on ground. In the selected cases, the duration of missions for soldiers within a deep maneuver area were tied to the air support available to them. During WWII the OSS and Norwegian commandos experienced heavily contested airspace, and as a result their operations tended to last longer in duration to capitalize as much as possible following a successful infiltration. During Vietnam and the Gulf War, air superiority was attained and therefore missions tended to be shorter in duration but higher in frequency. The advent of rotary wing infiltration methods enabled more frequent infiltration and exfiltration in and out of operational areas thus decreasing the duration forces were required to stay in the area of operation.

Within the MDO environment, due to the anticipated contested airspace, it is assumed that SF teams will be required to conduct operations longer in duration and without the expectation of resupply. Teams will be limited in operation duration based on the supplies they are able to carry, or their ability to sustain themselves using the local environment whether rural or urban in nature. Emergency resupply operations or frequent rotations of teams in and out of non-permissive areas is likely difficult to impossible within the expected MDO environment.

E. PROTECTION

1. Use of Indigenous Personnel

Unilateral military action is preferred from an operational security and counter-intelligence perspective, however, the knowledge that local national personnel are able to contribute to operations conducted within denied areas have proven beneficial. When feasible, indigenous personnel should be utilized for operations within denied areas to provide the best possible protective measures in the form of local geographical knowledge

and customs. The SOF commandos in Operation Gunnerside were chosen because they were native to their area of operations. Therefore, they possessed a detailed understanding of the climate, terrain and population centers enabling them to maneuver within the area to avoid detection and evade German patrols. The OSS operatives that coordinated resistance activities within France prior to the D-Day landings relied upon members of the French Resistance to move throughout urban areas and to hide them from the German occupying forces. The Jedburgh teams were able to successfully survive in the urban populations by conducting operations with an indigenous partner force and highly trained individuals on their teams who were from the local area. The Jedburgh teams were also trained in language and culture skills specific to their area of operation.

In Vietnam, the MACVSOG recon teams were comprised of nine indigenous personnel and three American Green Berets. This permitted the Green Berets to capitalize on the inherent local knowledge of the jungle while bolstering the teams' firepower and reducing American casualties once their partnered personnel were fully trained. However, during the Gulf War all SR and Scud Hunt operations were conducted unilaterally, without the use of indigenous personnel. This was primarily due to the short time frame of notification to infiltration and there was no opportunity to train cohesive teams with expatriated Iraqis, Kurds, or other personnel local to the area. Specifically, Bravo Two Zero SAS patrol infiltrated into the area of operations without basic area knowledge, no indigenous personnel, and they lacked an interpreter. Their lack of basic understanding of local customs, and unawareness of best practices for mobility in the region during the winter months led to their unsuccessful operation.

Within the MDO concept the use of resistance groups or sympathetic segments of the population remains valuable and couples the SF core tasks of unconventional warfare with SR and DA missions conducted within the deep areas. Similar to the value indigenous personnel provide to movement and maneuver, their knowledge and potential support are also an inherently protective measure for SF teams operating within their home territory.

2. Frequency and Duration of Operations

Repetition of a task breeds familiarity and expertise. The same is true for repetitive military operations within a defined geographical area, as more missions are conducted the soldiers involved develop a greater understanding of the terrain and improve upon tactical operating procedures. Over time the OSS operatives and the SOG recon teams were able to improve from a basic level of training and gain a higher degree of efficiency within their respective operations. However, the longer operations are persistently conducted within a denied area the risk to force greatly increases. Once an adversary is aware of SR operations and their operational or strategic impact is felt, countermeasures to such operations begin to appear. If operations continue to be conducted over a long enough time frame their level of efficiency drops as the enemy reacts accordingly.

The duration of operations is a delicate balance between effectiveness and protecting the force. In WWII, the OSS did not infiltrate into the area of operation until late as possible prior to the invasion of D-Day. They were not infiltrated sooner due to the fear of compromise. If they were infiltrated slightly earlier, they may have had an even greater operational impact. However, during Vietnam the recon teams lost their freedom to maneuver and experienced an increase in casualties over time due to the frequency and duration of their repeated operations. As the NVA became aware of MACVSOG reconnaissance teams they deployed tracking teams, helicopter landing zone watchers, and specialized quick reaction forces which greatly reduced the effectiveness of MACVSOG.

The frequency, duration and threshold of violence of persistent operations must be continually assessed in order to protect the force. This appears as a universal theme and will likely be inherent to the MDO concept as an adversary reacts and prioritizes threats that meet an undefined but expected threshold of violence. Evolving technologies within the MDO environment that combine SF team actions with other domains such as cyber may cause unintentional shifts to the threshold and elicit responses from an adversary that will need to be anticipated to protect the soldiers supporting such activities from within the deep areas.

3. Specialized Skills and/or Experience

As discussed under movement and maneuver, specialized skills or local area experience are required for a team to remain undetected while being able to maintain mobility. The specialized skills required for various methods of infiltration and exfiltration are also a protective measure in that they reduce the possibility of compromise through maneuvering by methods or within areas that the adversary does not consider likely or possible. During Operation Gunnerside, the Norwegian commandos were able to approach their target without opposition due to their ability exist in the harsh Norwegian winter and cross terrain that the German security personnel did not consider possible.

The ability to cross denied terrain unobserved is a requirement for both mobility and survivability. The MDO environment is characterized by layered weapon systems across multiple domains to create a larger degree of standoff between U.S. and adversarial forces. The detection capabilities and nature of these evolving networks of weapon systems will likely have a direct impact on protective measures SF teams will be required to implement to avoid compromise during all phases of operations within the deep areas. Specialized individual skills that allow SF soldiers to penetrate the area of standoff through avenues of approach deemed unlikely by the adversary will continue to bolster operational effectiveness.

4. Economy of Force/Small Elements

A common theme among successful SOF operations within denied areas is the use of the fewest personnel possible to complete the mission to maintain a small physical signature to lower the chance of compromise. SOF teams conducting SR or sabotaging enemy assets used 12 personnel or fewer across each case studied. Often the 12-man team was broken down into two smaller elements to facilitate the requirements of an operation. This permitted the team to maneuver as covertly as possible within the environment with the lowest risk of compromise. While small elements are at a firepower disadvantage if confronted by a larger adversarial force, they provide a high cost to benefit ratio when compared to forcible entry of a larger conventional unit. The protection of SOF teams operating deep within an enemy area is primarily in their ability to avoid confrontation in

the first place through remaining uncompromised. In the anticipated MDO environment the small physical size of teams will likely continue to be favored, especially as technological detection measures increase.

5. Environmental Considerations

Closely tied to movement and maneuver, characteristics of the environment within the area of operations provides a degree of protection for SOF operations if taken advantage of. During Operation Gunnerside, the harsh winter alpine environment permitted the Grouse team to evade German patrols and hide deep within the mountains until reinforcements could be provided. This was successful due to the ability and willingness of the team to conduct operations where the enemy was not able or willing. The OSS operatives were able to hide within the rural countryside masked by harsh winter weather to avoid capture. The dense jungles of Vietnam allowed recon teams to hide along the Ho Chi Minh Trail and at times snatch prisoners or valuable intelligence documents before quickly blending back into the vegetation and extracting. Conversely, the SOF teams observed in this study during the Gulf War lacked a complete understanding of the desert and were forced to improvise hide sites when they were unable to dig into the rocky soil. The SAS teams participating in the Scud Hunt quickly discovered that mobility within the desert required not only specialized vehicles, but navigational and operational skills necessary to cover any substantial distance to either locate a target or to avoid being compromised.

Teams that understand the environment and use it to their advantage are much more likely to succeed than those who do not. In the MDO environment this observation remains but may be expanded as the adversaries' capabilities are expected to include space and cyberspace capabilities. Special Forces teams operating within the MDO deep areas will need to account for the expansion of the environment to include these added domains and the risks their systems present to the soldier on the ground.

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VIII. RECOMMENDATIONS AND CONCLUSION

A. SUMMARY

In this study we have attempted to address a perceived gap between the requirements for Special Forces in the MDO concept and the current capabilities that the force has focused on for the previous two decades during the Global War on Terror. The focus of this research centered on SF team operations as a part of the Joint Force in the deep maneuver and deep operational fires areas of the MDO environment. Throughout the historical research, this study found that in all four cases military commanders first attempted to use airpower unilaterally to destroy an enemy capability or target. In every case, airpower alone failed to achieve the desired results and ground based special operations assets were required to either provide terminal targeting information for air strikes or to destroy the target through direct action. Observing that airpower alone was repeatedly insufficient and that the MDO environment anticipates the U.S. military will face contested or denied airspace, this study suggests that SF teams will again be called upon to conduct ground based operations within non-permissive areas.

Through analysis of four selected historical case studies we were able to identify common observations of SOF operations in the non-permissive environments of their individual conflicts. By categorizing the observations into the Army's warfighting functions we coalesced our findings into common themes applicable to assessing combat power in a doctrinal manner (see Figure 4). The implications of these observations to the future operating environment of MDO were then applied using selected elements of the Joint Staff's capabilities development system, specifically the aspects of doctrine and training to create recommendations for future changes to the force.

Recommendations	
TRAINING	
Emphasize Special Reconnaissance with Specialty Infiltration Skills	
Create a Dedicated SOF Special Reconnaissance Training Course	
Train in a Limited Communication Environment	
Reemphasize Regional Alignment	
Train Self-Sufficient and Non-Standard Sustainment	
DOCTRINE	
Strategic Reconnaissance	

Figure 4. Recommendations

B. TRAINING

1. Specialty Infiltration Skills

Specialized skills, such as infiltration methods, were identified as valuable capabilities within both the movement and maneuver and protection warfighting functions. The ability to infiltrate into an area using a specialized skillset creates options for approaching an objective from a direction the adversary may not anticipate, therefore decreasing the possibility of detection. Special Forces companies organize teams based on specialty infiltration methods to include military mountaineering, military freefall, and underwater dive operations respectively. As seen in operations conducted in WWII, Vietnam and Desert Storm specialty infiltration and exfiltration methods enabled SOF to gain access to denied environments and traverse rugged terrain. The layered standoff weapon systems, anti-aircraft aerial denial anticipated to be confronted within the MDO FOE will require innovative infiltration methods. Skillsets such as under water operations and military freefall have not been used frequently in the Global War on Terror, but may become applicable again in the MDO environment. Special Forces should continue to maintain specialty methods of infiltration to be prepared for a conflict with a peer adversary in the future.

2. Create a Dedicated SOF Training Course for SR

As seen throughout the historical case studies SOF was called upon to conduct SR in order to fill a gap in the conventional militaries targeting capabilities. Special reconnaissance is a specialty skill that requires continuous deliberate training. It is not a skillset that can be produced hastily following a crisis. The tactics, techniques and procedure to conduct SR is highly dependent upon the operational environment in which it is conducted. As seen in the historical cases each operational environment required local knowledge, adaptation, and detailed planning to avoid detection, conduct non-standard sustainment and maintain mobility. The individual environments, whether the tundra, desert, jungle or urban, required unique training of pertinent skillsets.

As history has shown, Special Forces will be called upon in the future to conduct SR to conduct intelligence collection and enable joint targeting. The increasingly lethal, complex, and denied environment of MDO will require multi-source intelligence collection including ground based reconnaissance. Currently there is no SOF specific SR training course and the skill set has atrophied over time. United States Army Special Operations Command maintains the Special Operations Target Interdiction Course which offers many training aspects of SR, however, it is a long range marksmanship, or sniper, course primarily with a SR focus as a secondary function to support the first. The conventional Army offers the Reconnaissance and Surveillance Leaders Course (RSLC) which is focused on specialty reconnaissance tasks, but it is not SOF specific and is taught to accommodate tactical level reconnaissance using conventional Army systems and SOPs.

During Vietnam, MACVSOG established reconnaissance and leadership training courses in theater to help prepare soldiers for the cross-border operations after it became apparent that home station training did not offer the variety of specialized skills required. A specialized course that uses the most current equipment available within SOCOM, the variety of specialized infiltration means, and the use of indigenous personnel to prepare SR teams for missions within the future operating environment of the MDO concept would bolster operational effectiveness. A dedicated training course that emphasizes such operational principles as suggested in this study would increase the effectiveness of SR

teams early in a conflict due to a reduction of risk and higher initial reconnaissance experience.

3. Conduct Training in Limited Communication Environment

Within the cases studied, SOF was required to conduct operations in an environment that restricted the method and frequency of communications between the teams and their respective higher headquarters. The small elements had to minimize their electromagnetic spectrum signature to avoid being triangulated by adversarial tracking elements. This required senior leaders to assume risk and adapt their leadership style to rely more on commander's guidance and mission intent to compensate for a lack of direct control. Junior leaders were required to operate with a higher level of autonomy, adapt, and innovate to overcome unforeseen challenges within the environment.

In the MDO environment SF teams should expect to experience similar conditions. Training in preparation of operations within the MDO FOE should reflect these anticipated environment. Senior leaders will have to become comfortable with a lack of direct control that has become expected in the recent Global War on Terror. Junior leaders will need to develop the skills and confidence to adapt to the operational environment with minimum guidance from higher command. At the lowest level, communications specialists, need to hone in the skills necessary to establish communications while maintaining a low signature.

4. Re-emphasize Regional Alignment

The success or failure of special operations often was determined by how well the units accounted for the operational environment. There are many conditions specific to a particular region that requires team to compensate for or adapt. Often these conditions are learned through experiences, detailed planning and local knowledge. The use of indigenous personnel was effective in Operation Gunnerside and operations conducted by the OSS. However, the lack of local knowledge and inability to incorporate indigenous personnel into the planning of SR in support of Desert Storm resulted in catastrophic consequences.

Special Forces are regionally aligned to increase their cultural and geographical knowledge base while maintaining relationships with indigenous forces. However, due to the operational demand of the Global War on Terror, many groups have continuously deployed outside of their assigned area of responsibility. The repeated deployments to Iraq, Afghanistan and Syria may have atrophied the overall knowledge of specific areas. Special Forces should re-emphasize regional alignment, culture and language skills to enable planning and future operations. Within the MDO concept the physical environment and human terrain will continue to be an integral part of the battlespace as it has been observed throughout the historical case studies. Collective training events, particularly with host nation partner forces, provide opportunities for SF soldiers to refine language skills, cultural awareness, geographical knowledge, and local population sentiment towards U.S. goals and objectives. As the military shifts its focus from counter-terrorism towards global peer competitors, SF will need to reestablish respective regional expertise in preparation for unknown future conflicts.

5. Emphasize Non-standard Sustainment Training

In every historical case considered re-supply efforts were limited due to either contested airspace or the risk that it posed to identifying the ground team's location, or both. The team members were required to carry the prerequisite supplies and equipment to sustain themselves throughout the duration of their mission or to procure what they needed from the environment. While there is ongoing efforts within the force to lighten the load of the individual soldier, longer duration missions may require personnel to resupply themselves with what they can obtain on the future battlefield. For SF soldiers in the deep areas of MDO, this will require re-learning lost skills of conducting non-standard sustainment through the local environment or economy instead of relying upon aerial resupply based out of large forward operating bases. For teams operating within harsh environments this may require specific knowledge of survival to extend the duration of their mission. These skills should be introduced in the training environment well in advance in order to build the individual soldier's knowledge base and to foster creative thinking that results from necessity when normal methods of sustainment are unavailable.

C. DOCTRINE: “STRATEGIC RECONNAISSANCE”

Special Reconnaissance as it currently exists as a SF core task is doctrinally conducted against targets at the operational and strategic levels of war. However, as it was observed following the Tet Offensive in Vietnam and General Schwarzkopf’s initial guidance during the Gulf War, conventional military leaders are apt to utilize SF teams to conduct reconnaissance at the tactical level if they are provided the opportunity. Utilizing SF teams in high risk reconnaissance missions against tactical objectives presents a dangerous precedent for overuse and represents a misallocation of combat power. Conventional Army units maintain reconnaissance units such as Infantry Scout Platoons and Cavalry Scout Troops to conduct this role. If SF leadership permit their units to be continually utilized in a tactical reconnaissance role they are risking an operational to strategic asset for limited gain and preventing that team from conducting or preparing for other core tasks of greater value. By changing the term to Strategic Reconnaissance there would be an acknowledged emphasis placed on the value of the reconnaissance target and an initial step towards shared understanding of reconnaissance roles within the Joint Force.

D. FINAL THOUGHTS

The most probable course of action for the U.S. is the continued proxy wars and challenges seen within the competition phase prior to open hostilities with a near-peer adversary. There is no doubt U.S. Special Forces will continue to play a vital role within the competition space to progress the nation’s foreign policy objectives. However, our research sought to initiate the first steps in preparation of a high risk scenario that may result in the U.S. engaged in high intensity conflict with a peer competitor. Lessons derived from history may inform adaptations required for SF to prepare for operations conducted in the deep maneuver and operational deep fires areas of the MDO future environment. Each selected case study displayed that air power alone was insufficient to achieve U.S. objectives. As in the past, special operations will be called upon again to fill gaps in conventional military capabilities by conducting operations beyond the line of friendly troops. The success and failures of special operations conducted in the past illuminated themes that may lead to the success of special operations within MDO. Commanders at

higher echelons within the special forces community will need to balance the required training challenges of the MDO concept with the more likely reality of continuing to deploy around the globe in support of U.S. efforts within the competition space and in conflict with non-state actors. Suggestions as represented in this study that offer preparations to conflict within MDO should be weighted appropriately between current expectations of the force and the possibility of the worst case scenario of conflict with a peer state.

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