

Chapter 38

ORGANIZATIONAL, PSYCHOLOGICAL, AND TRAINING ASPECTS OF SPECIAL OPERATIONS FORCES

WILLIAM KEITH PRUSACZYK, PhD^{*}; AND GLENN M. GOLDBERG, PhD[†]

INTRODUCTION

THEORY AND ORGANIZATION OF SPECIAL OPERATIONS

United States Special Operations Command
US Air Force Special Operations Command
Marine Corps

PSYCHOLOGICAL ASSESSMENT OF SPECIAL OPERATIONS GROUPS

Historical Beginnings of US Special Operations Selection
Goals of Psychological Assessment for Personnel Selection
Challenges of Psychological Assessment for Selection

SPECIAL OPERATIONS RECRUIT TRAINING

US Army Special Operations Forces
US Air Force Special Operations Command
Naval Special Warfare
Marine Corps Force Reconnaissance

SPECIAL OPERATIONS TACTICAL UNITS

US Army Special Operations
Naval Special Warfare
Marine Corps Force Reconnaissance

INFILTRATION AND EXFILTRATION TECHNIQUES

SPECIAL OPERATIONS FORCES MEDICINE

SUMMARY

^{*}Science and Technology Program Manager, Warfighter Protection, Future Naval Capability, Office of Naval Research, Arlington, Virginia 22217

[†]Commander, US Navy; Naval Special Warfare Development Group, Virginia Beach, Virginia 23461

INTRODUCTION

This overview of special operations provides an operational framework within which the reader may come to appreciate some of the differences between the conduct of special operations and of conventional warfare. The chapter also provides information about how the special operations combatant is selected and trained for service in the highly specialized units. Further, the chapter provides some insight into the operational stressors that these select individuals encounter during their training and real-world operations, including some of the physical risks, operational techniques, and modes of employment. More importantly for the medical community, it illustrates how the warfighters in special operations units, with the requisite independence from friendly support, make the demands on the Special Operations Forces (SOF) medical care providers unique in military medicine.

Members of SOF are often misunderstood—not only by the civilian community but also by others in the military. In the past, they often encountered the mistrust of conventional force commanders, who thought of SOF as difficult-to-control, trouble-causing renegades and rogues. In fact, during the planning phase (Operation Desert Shield) of the 1990/91 Persian Gulf War, leaders of the unified command were at first reluctant to fully employ the capabilities of the SOF units at their disposal. These misgivings were quickly dispelled by the decisive actions of the SOF units that performed the preliminary and initial operations of that 100-hour conflict.

The skilled combatants of SOF frequently carry out training and missions in great secrecy, adding to the mystery that surrounds them. Perhaps it is the image of highly unconventional warriors carrying out seemingly impossible operations, cloaked in secrecy, that propagates the aura. Still, the armed forces of nearly every country have units that are highly specialized, from Argentina's 601 and 602 Commando companies to Zimbabwe's Parachute brigade. These highly trained units carry out some of the most difficult missions required of military forces in service to their country.

There are, in fact, so many specialized military units that there is some disagreement on which should be properly called SOF. In the United States, for example, the Federal Bureau of Investigation's hostage rescue team and the Army's 82nd and 101st Airborne divisions could arguably be called SOF units. It is not the purpose of this chapter, however, to discuss the full range of SOF units operating in this country or in others around the world. This

chapter focuses on organizations in the US military service that are undeniably SOF units. These include the Army Special Forces (SF, also known as the Green Berets) and Rangers, the Naval Special Warfare (NSW) Units (Sea-Air-Land [SEAL] teams and Special Boat Units), the Air Force Special Operations Forces (Pararescue [PJ] and Combat Controller teams), and the Marine Corps Marine Expeditionary Units (Special Operations Capable) [MEU(SOC)] and Surveillance, Reconnaissance, and Intelligence Group (SRIG) (including elements from Force Reconnaissance, Air Naval Gunfire Liaison Companies [ANGLICO], Communications, and support units).

The fundamental differences between SOF and conventional military operations are rooted not only in the way these operations are conducted but also in the reasons for which they are conducted. The Joint Chiefs of Staff's *Doctrine for Joint Special Operations* defines special operations "direct action" missions as those that are

conducted by specially organized, trained, and equipped military and paramilitary forces to achieve military, political, economic, or psychological objectives by unconventional military means in hostile, denied, or politically sensitive areas.^{1(Chap I, p1)}

These operations may be conducted during peacetime or wartime, but they

differ from conventional operations in degree of physical and political risk, operational techniques, mode of employment, independence from friendly support, and dependence on detailed operational intelligence and indigenous assets.^{1(Chap I, p1)}

Today, the US SOF are trained and deployed in support of theater combatant commands to ensure that the objectives of our national security policy are met in peacetime as well as wartime. As national security policies have evolved, and with a reduced potential for major multinational military conflicts, a greater emphasis has been placed on SOF peacekeeping actions. As a result, the various theater commands' requirements for SOF have expanded in the areas of peacekeeping and managing actions for low-intensity conflict. Today, about half of the US SOF are trained or deployed to meet potential warfighting requirements. The other half are conducting training to provide a forward presence in regions of the world where peace is considered key to US national interests.² One of the distinct advantages of conducting special operations lies in the

flexibility with which the small units may be employed. This chapter describes some of the organizational and operational characteristics of SOF that allows them the required flexibility.

Interested readers may find useful the extensive list of publications related to the training and operations of US SOF at the end of this chapter (see Attachment).

THEORY AND ORGANIZATION OF SPECIAL OPERATIONS

Although in his classic treatise, *On War*, von Clausewitz³ asserted that an army's most effective weapon is a superior number of combatants, modern unconventional forces conducting special operations depend on what Navy SEAL Commander William McRaven calls "relative superiority."^{4(p4)} To achieve relative superiority, a numerically inferior force works rapidly to gain a decisive military advantage over what is often a well-defended, numerically superior force. The processes by which that small force gains relative superiority illustrate the differences between SOF and conventional forces in their tactics and modes of operation.

Six key principles are involved in achieving and, when required, maintaining relative superiority (Exhibit 38-1). These principles, which form the

foundation for SOF unit military actions, are (1) simplicity, (2) speed, (3) repetition (or rehearsal) (Exhibit 38-2), (4) surprise, (5) security, and (6) specificity of purpose.^{4(pp11-23)} The integration of these six principles, when properly executed, results in relative superiority favoring the small SOF unit. If, however, any of the six principles are compromised, the military advantage may shift rapidly to the opposing forces.

SOF have five primary missions: (1) direct action, (2) special reconnaissance, (3) unconventional warfare, (4) foreign internal defense, and (5) counterterrorism (Exhibit 38-3). Although these missions do not cover the full range of actions that SOF are prepared to conduct, they are common to SOF unit mission capabilities. (Also see Chapter 37, Medical Support of Special Operations, for a fuller discussion of the various missions.)

EXHIBIT 38-1

SIX PRINCIPLES BY WHICH SPECIAL OPERATIONS FORCES ACHIEVE AND MAINTAIN RELATIVE SUPERIORITY

1. *Simplicity* of action allows the small special operations forces (SOF) units to direct the limited manpower available in a small unit to a point where each unit member can focus on the action to be performed. This is in contrast to the operations of conventional forces that often depend on a complex series of actions with large numbers of combatants performing coordinated maneuvers. Simplicity reduces the number of contingencies on which an operation depends.
2. *Speed* permits the SOF unit to infiltrate an area that may be heavily defended by a larger force, perform the operation, and then exfiltrate before the enemy realizes the size of the attacking force and regroup for a counterattack. Speed and maneuverability are primary advantages small SOF units have over larger conventional forces.
3. *Rehearsal*, or practice, enables the SOF unit to capitalize on and effectively employ the principles of simplicity and speed. The more frequently an action is rehearsed, the more "reflexive" each operator's actions become. Sufficient rehearsal can turn even the most complex actions into a finely honed tactical skill.
4. *Surprise* is one of the SOF unit's most potent weapons. The small unit may achieve relative superiority rapidly only if there is an element of surprise for the enemy force. Without this surprise, the smaller SOF unit's actions can be severely, if not fatally, compromised.
5. *Security* is paramount to achieving the required element of surprise. SOF mission planning and rehearsal must be conducted in such a way that the enemy is completely unaware of the action to be undertaken. Any hope of attaining relative superiority disappears if security is breached.
6. *Specificity of purpose* allows the small unit to focus on a limited number of objectives. Attempting to achieve too many objectives in a single action compromises the element of surprise for later objectives in that mission, thereby placing the SOF unit, and the overall mission, at increased risk of failure.

United States Special Operations Command

By the mid 1980s, each service branch had established and was maintaining an independent SOF structure under that service's direct control. The lack of centralized command and control resulted in problems with several SOF missions conducted in the late 1970s and early 1980s. One such mission—in fact, *the* mission that prompted congressional and presidential action—was the ill-fated joint service attempt to rescue the American hostages held in

Iran. As a result of these failures, the US Congress directed the president of the United States and the Department of Defense (DoD)⁵ to establish a joint special operations command for the purpose of ensuring the combat readiness of the assigned SOF units. (Please see Chapter 37, Medical Support of Special Operations, for additional discussion.)

In response to the congressional mandate, DoD established the United States Special Operations Command (USSOCOM) in April 1987. The organization was established to provide a unified com-

EXHIBIT 38-2

ARCTIC OPERATIONS: A SEAL OUT OF WATER

I was a member of a SEAL squad that inserted into the wooded hills north of Fairbanks, Alaska. Our target, a simulated fuel depot, lay 4,000 m ahead, a distance that would normally have required only 6 hours of patrolling through the 3-foot base of wet snow to cover. The monotonous rolling hills offered no distinct landmarks for navigation. Disembarking the helicopter at the exact insertion point was critical, as all land navigation (pacing on compass bearings) would have to rely on this starting point. Unfortunately, the pilots set down several thousand meters north of the intended insertion point. Our squad set off in search of a target that wasn't there.

After 4 or 5 hours of humping and careful pacing, we calculated our position to be within 1,000 m of the target and decided to rest for the next hour until darkness fell. Most of the squad had anticipated that this direct action mission would require a maximum of 8 or 10 hours in the field and thus had packed light. Over the next hour, an inch and a half of heavy, wet snow fell and soaked our outer garments. A hasty decision was made to move on despite the fact that no one had eaten in the last 10 hours. The squad, although very fit, was now cold and hungry. With the flawed idea that the target was nearly in sight and the mission only an hour or two from completion, we pressed on. Little did we know that we were moving further and further away from the target and our extraction point. After another 2 hours, the paceman picked up the pace and we were 500 m beyond the expected target site. We believed that surely the target must be just over the next hill.

We now had been in the field for 10 hours and had not eaten for 12 hours. We were wet through and through, and fatigue and frustration were starting to take their toll. Our communications man, who was bearing a disproportionate amount of weight, looked the worst. After another hour of searching for the target, we determined we had been inserted in the wrong spot. Any hope of finding the target was soon lost.

Critical mistakes had been made all along, but now it seemed that all reason was lost. Despite protests from the corpsman to bivouac, hydrate, and take on sustenance, the squad leader immediately decided to return to the insertion point, where the Chinook helicopter would pick us up. After an hour of retracing our steps, the radioman became ataxic and collapsed with hypothermia. Fortunately, our corpsman had a clear enough mind to recognize the potential for disaster and directed the squad to erect a tent. He placed the injured squad member in a dry sleeping bag with another alert squad member. By the time a casualty evacuation (CASEVAC) helicopter arrived (within 1 h), there were three more casualties with cold injuries. All three were extracted and then CASEVACed via jungle penetrator (ie, a forest canopy penetrator). They were treated and returned to full duty within 24 hours.

The mistakes made by the squad are obvious but, unfortunately, far too common. Severe climates are never forgiving, and disregard for basic hydration and caloric needs almost always results in senseless injury or death.

Prepared especially for this textbook by Lieutenant Commander Kevin Walters, MC, USN, a SEAL who is currently assigned to the medical department of the Naval Special Warfare Center, Coronado, California. After many years as a Naval Special Warfare operator, Lieutenant Commander Walters obtained his medical degree from the Uniformed Services University of the Health Sciences, Bethesda, Maryland.

mand structure responsible for triservice SOF operations. At that time, USSOCOM inherited most of its force structure from existing SOF units in the three services. Between 1988 and 1994 USSOCOM's organic assets increased while DoD's overall personnel and funding levels were decreasing. This uneven distribution reflected the changing needs of national security in response to our dynamic global defense requirements.

At the time that USSOCOM was established, the Marine Corps elected not to participate in the organizational structure. Instead, the Corps chose to maintain an autonomous special operations capability. Marine Expeditionary Units (Special Operations Capable) (MEU-SOC) and Surveillance, Reconnaissance, and Intelligence Group (SRIG) both use personnel from the Marine Corps's own highly skilled Force Reconnaissance, Air Naval Gunfire Liaison Company (ANGLICO) and support units. To ensure coordination for joint operations, however, the Marine Corps maintains a detachment at USSOCOM.

USSOCOM is headquartered at MacDill Air Force Base, Florida. Its mission is to provide command and control and to establish training requirements

for all SOF units under its command. It provides SOF manpower ready for rapid deployment in support of the other eight unified commands. To accomplish this task, USSOCOM is directly responsible for developing doctrine, tactics, techniques and procedures; conducting specialized instruction; ensuring interoperability of equipment and forces; and developing or acquiring equipment or conducting research to address unique SOF needs. The latter is accomplished through the Special Operations Center, which is also located at MacDill Air Force Base, Florida.

The major subordinate commands of USSOCOM include the Joint Special Operations Command and the special operations commands of the Army, Air Force, and Navy. The special operations of the Marine Corps is separate from the USSOCOM.

Joint Special Operations Command

The Joint Special Operations Command (JSOC), Fort Bragg, North Carolina, is responsible for analyzing joint special operations requirements and techniques, developing plans for training and exercises, and for establishing tactics.

EXHIBIT 38-3

FIVE PRIMARY MISSIONS OF SPECIAL OPERATIONS FORCES

1. *Direct action* (DA) missions are typically of short duration and limited scope, involving overt or covert operations. The purpose of DA is to capture, disable, or destroy enemy assets or personnel considered of strategic importance. The goals are achieved through the use of raids, ambushes, or direct assaults on targets in hostile or denied territory. DA may be used in support of conventional forces by providing targeting for precision munitions, deception operations, or mine emplacement.
2. *Special reconnaissance* (SR) missions are conducted to provide local or theater commanders with information critical to operational objectives. The actions provide direct information on enemy strength and location, terrain features, weather, hydrography, or other information needed by commanders. These missions can also provide direct verification of information provided by other intelligence sources, or provide postaction information on the effectiveness of conventional assaults.
3. *Unconventional warfare* (UW) is probably the mission most commonly associated with the actions of special operations forces (SOF). These missions include a wide variety of military and paramilitary activities and are typically conducted covertly or clandestinely. The actions taken to accomplish the missions may include guerrilla warfare, including long-duration activities. They are frequently conducted by indigenous forces that are trained, equipped, and supported by SOF.
4. *Foreign internal defense* (FID) missions are conducted by SOF to provide training and assistance to friendly indigenous forces or developing host nations. This assistance can take the form of technical assistance to military or civil forces; humanitarian aid; and the fostering of internal economic, political, or social stability.
5. *Counterterrorism* (CT) missions have become increasingly visible to the public with the increase in international terrorism. The actions are offensive in nature and are designed to prevent or react to incidents of terrorism. These activities are most frequently directed and performed by the specialized units in the SOF community.

US Army Special Operations Command

The US Army Special Operations Command (USASOC), also located at Fort Bragg, has primary responsibility for the United States-based Army SOF commands, both active and reserve. The Army SOF units include Special Forces (SF, also known as the Green Berets), Rangers, Special Operations Aviation Regiment (Airborne) (SOAR), Psychological Operations (PSYOP), and Civil Affairs (CA). In addition, the command is responsible for select special mission and support units assigned to it by the secretary of defense. USASOC currently has about 30,000 active and reserve personnel in the command.

Special Forces. Army SF units are organized into seven groups. Of these, five are active duty and two are National Guard groups (Table 38-1). Each group is responsible for operations conducted in a different region of the world.

The groups are organized, trained, and equipped to conduct the five primary special operations missions (see Exhibit 38-3). In addition, SF soldiers train, advise, and assist host nation military or paramilitary forces. In addition to the five primary missions, SF soldiers engage in Coalition Warfare/Support (CWS) and Humanitarian and Civic Action (HCA). These additional tasks take full advantage of the language skills and cultural training that are

a hallmark of SF training. There are currently about 6,000 active duty SF soldiers, with another 2,000 in the National Guard units.

Special Operations Aviation Regiment (Airborne). The 160th SOAR is organized into one active duty regiment comprised of three battalions, with a detachment in Panama and one National Guard battalion. The 1st and 2nd battalions are headquartered at Fort Campbell, Kentucky, and the 3rd battalion at Hunter Army Airfield, Georgia. SOAR units act as a dedicated specialty force for aviation support of other SOF units. The units' missions include offensive attack, insertion, extraction, and resupply of SOF personnel. They also provide aerial security, medical evacuation, electronic warfare, mine dispersal, and command and control support.

Psychological Operations. Army PSYOP forces are organized into one active duty and three reserve groups. Their mission is to examine, evaluate, and prepare strategies designed to influence the attitudes and behaviors of the civilian and military personnel of foreign populations. They operate with conventional forces and other SOF, both foreign and domestic, to advise and assist host nations in support of special operations missions. The size of the PSYOP groups varies in personnel number and in the type of subordinate units, based on the mission requirements.

Civil Affairs. CA consists of 1 active duty battalion; 5 reserve headquarters, comprised of 3 commands and 9 brigades; and 24 reserve battalions. The units function principally to foster favorable relationships between foreign governments and populations and the US military in those countries. CA also assists ongoing military operations in those countries by conducting population and refugee assistance and providing support to other US agencies in the area. The CA reserve units provide professional civilian skills unavailable in the active duty unit, engineering, law enforcement, magisterial, and other civil functions.

Battalion Support Company. The battalion provides intelligence, combat service, and signal support to the forward-deployed SF teams. The intelligence detachment may deploy teams with the operational A-Teams of the SF (discussed below in the Special Operations Tactical Units section) to provide intelligence and electronic warfare support. The service detachment provides unit-level supply and maintenance services for the battalion. A signal detachment provides communications between the forward operating base and the operating detachment. There is also a medical section to provide support to the forward operating base.

TABLE 38-1
US ARMY SPECIAL FORCES GROUPS
(AIRBORNE)

Group	Home Base	Area of Operations
1st SFG(A)*	Ft Lewis, Wash	Pacific and eastern Asia
3rd SFG(A)*	Ft Bragg, NC	Western Africa and Caribbean
5th SFG(A)*	Ft Campbell, Ky	Southwest Asia and northeast Africa
7th SFG(A)*	Ft Bragg, NC	Central and South America
10th SFG(A)*	Ft Carson, Colo	Europe and western Asia
19th SFG(A)†	Camp Williams, Utah	Asia
20th SFG(A)†	Birmingham, Ala	Europe and western Asia

* active duty
† National Guard

Rangers. The Rangers are organized into a single regiment, the 75th Ranger Regiment, comprising a headquarters company and three operational battalions, with a total of approximately 1,600 qualified soldiers. At present, there are no reserve Ranger units. The Rangers are organized and trained to perform as rapidly deployable, airborne, light infantry units. The units are organized, trained, and equipped to conduct joint strike operations; however, when needed, they can operate as light infantry, supporting conventional forces during operations.

US Air Force Special Operations Command

The US Air Force Special Operations Command

(AFSOC), Hurlburt Field, Florida, has one Special Operations Wing, two Special Operations Groups, and one Special Tactics Group in its active duty force. There are also one Special Operations Wing and one Special Operations Group as AFSOC reserve components. The command has approximately 9,500 reserve and active duty personnel (Table 38-2).

The command’s primary missions are to organize, train, and equip its units, but it may also train, assist, and advise the air forces of other nations in support of foreign internal defense missions. The command operates uniquely equipped fixed- and rotary-wing aircraft for missions that include inserting, extracting, and resupplying SOF personnel;

TABLE 38-2
AIR FORCE SPECIAL OPERATIONS COMMANDS AND ACTIVITIES

Major Command and Headquarters	Region of Responsibility	Component Squadrons	Craft/Activity
16th Special Operations Wing, Hurlburt Field, Fla	North America, South America, the Middle East, and Northeast Africa	4th Special Operations Squadron (SOS)	AC-130U Spectre gunship
		6th SOS	FID
		8th SOS	
		9th SOS	HC-130P/N Combat Shadow
		15th SOS	MC-130 Combat Talon II
		16th SOS	AC-130H Spectre gunship
		20th SOS	MH-53J Pave Low III
352nd Special Operations Group, Royal Air Force Mildenhall, United Kingdom	Africa and Europe (including much of the territory of the former USSR)	55th SOS	MH-60G Pave Hawk
		7th SOS	MC-130H Combat Talon II
		21st SOS	MH-53J Pave Low III
		67th SOS	HC-130P/N Combat Shadow
		321st Special Tactics Squadron (STS)	Combat Controller Team (CCT) and Pararescue (PJ)
353rd Special Operations Group, Kadena AFB, Japan	Southeast Asia, Australia, and the Pacific Islands	1st SOS	MC-130H Combat Talon II
		17th SOS	HC-130P/N Combat Shadow
		31st SOS	MH-53J Pave Low
		320th STS	CCT and PJ
720th Special Tactics Group, Hurlburt Field, Fla	N/A	21st STS	CCT and PJ
		22nd STS	
		23rd STS	
		24th STS	
58th Special Operations Wing, Kirtland AFB, NM	N/A	N/A	CCT and PJ

aerial fire support; refueling; and psychological operations. Its aircraft are capable of operating in hostile airspace, at low altitudes, under cover of darkness, and in adverse weather conditions in collaboration with Army and Navy SOF. Specially trained personnel in AFSOC operating primarily on the ground include the Combat Controller Teams and the Pararescue (PJ). The command also includes a Tactical Air Control Party SOF and the Special Operations Weather Team.

AFSOC specialized aircraft and capabilities include the fixed-wing AC-130U and AC-130H Spectre gunships, the HC-130P/N Combat Shadow, and the MC-130E Combat Talon II. The AC-130U and AC-130H Spectre gunships are specially modified C-130 airframes used to provide all-weather close air support of SOF missions, reconnaissance, and aerial interdiction. The HC-130P/N is a tanker that can provide worldwide capability for the other airships in the inventory. In addition to aerial refueling of the MH-53J and the MH-60G, the HC-130P/N can resupply SOF through airdrops. The MC-130E Combat Talon II is used to provide support for unconventional warfare and other SOF missions.

The rotary-winged aircraft at AFSOC disposal include the MH-53J Pave Low II and the MH-60G Pave Hawk. These aircraft are capable of all-weather, day or night, low-level penetration, and are used for infiltration and exfiltration, resupply, and fire support for SOF on the ground. In addition, the Pave Hawk adds long-range capability, making it useful for combat rescue.

Naval Special Warfare Command

The Naval Special Warfare Command (NAVSPECWARCOM), Coronado, California, consists of two Naval Special Warfare (NSW) Groups, one located in Coronado (NSWG-One) and one in Little Creek, Virginia (NSWG-Two). There are two Special Boat Squadrons collocated with the NSW Groups. Each group is composed of three SEAL teams, one SEAL Delivery Vehicle (SDV) team, and supporting special warfare units. Each Special Boat Squadron includes subordinate Special Boat Units (SBU). SBU-12 (Coronado, Calif) is under the command of Special Boat Squadron One in Coronado, while SBU-20 (Little Creek, Va), SBU-22 (New Orleans, La), and SBU-26 (Panama) fall under Special Boat Squadron Two, Little Creek. NSW forces deployed outside the continental United States receive forward support from permanent NSW units located in Guam; Stuttgart, Germany; Rota, Spain; Puerto Rico; and Panama. NAVSPECWARCOM has

a manning status of about 5,500 active duty and reserve personnel.

The six active duty SEAL teams are organized into headquarters elements and ten 12- to 16-man operational platoons. Navy SEALs are organized, trained, and equipped to conduct the five primary SOF missions. Although maritime and riverine operations are undisputedly the SEALs’ specialty, they are fully capable of operating in terrestrial and aerial operations. SEALs may also be used to provide direct support during conventional Navy and Marine Corps maritime operations. Each team has a world region of responsibility for SOF actions (Table 38-3).

Marine Corps

Marine Expeditionary Unit (Special Operations Capable)

While not falling within the command structure of USSOCOM, a Marine Expeditionary Unit (Special Operations Capable) [MEU(SOC)] has many of the same missions as the SOF units; hence, we will describe them here. A MEU is composed of a Marine Battalion Ground Combat Element (GCE), an Aviation Combat Element (ACE), and a MEU Service Support Group (MSSG). The ground force is an artillery-reinforced infantry battalion including light armor and amphibious assault vehicles forming a battalion landing team (BLT). Among the BLTs is a Force Reconnaissance (Force Recon) platoon.

**TABLE 38-3
US NAVY SEAL TEAMS: HOME BASE AND REGION OF RESPONSIBILITY**

Unit	Home Base	Region of Responsibility
<i>Naval Special Warfare Group One</i>		
SEAL Team 1	Coronado, Calif	Southeast Asia
SEAL Team 3	Coronado, Calif	Middle East
SEAL Team 5	Coronado, Calif	Pacific Rim, Asia
<i>Naval Special Warfare Group Two</i>		
SEAL Team 2	Little Creek, Va	Northern Europe
SEAL Team 4	Little Creek, Va	South America
SEAL Team 8	Little Creek, Va	Africa

The aviation element is an augmented Marine Medium Helicopter Squadron. Additional rotary-winged aircraft include the CH-53E Super Stallion, CH-46E Sea Knight, UH-1N Huey, and AH-1W Super Cobra. The aviation element also may include fixed-wing aircraft for mission support. Notable among the fixed-wing craft is the AV-8B Harrier, or jump jet, and the KC-130 transport plane. The MSSG maintains, among other capabilities, logistics, maintenance, engineering, and medical services. A command element provides command and control for the three other elements of the MEU(SOC).

The MEU is unique to Marine Corps operations, in that the ACE and GCE are combined with the MSSG under a single commander. The flexibility of a combined air/ground task force provides the ability to organize rapidly for operations under a wide variety of combat situations. Having the MSSG providing the sustenance and support capability with the combat battalion means that the MEU(SOC) can accomplish its mission rapidly, setting the stage for any follow-on elements. To achieve the SOC status, a unit must successfully complete and demonstrate excellence in a rigorous evaluation process with field capability demonstrations. Prior to deployment, a MEU conducts training in 29 areas ranging from humanitarian assistance to the traditional techniques of amphibious warfare. The MEU(SOC) receives further training in special operations missions.

There are currently seven MEU(SOC)s; the 11th, 13th, and 15th are based at Camp Pendleton, Cali-

fornia; the 22nd, 24th, and 26th at Camp Lejeune, North Carolina; and the 31st at Okinawa, Japan. A typical MEU(SOC) has a complement of approximately 2,100 Marines and sailors. Of the overall force, the Command Element is manned by 250 Marines and Sailors, the GCE by 1,150, the ACE by 450, and the CSSE by 250.

Surveillance, Reconnaissance, and Intelligence Group

Within the Marine Expeditionary Force (MEF), the major service components are Ground Combat Element (GCE), Air Combat Element (ACE), Combat Service Support Element (CSSE), and a Surveillance, Reconnaissance, and Intelligence Group (SRIG). As does the MEU(SOC), a SRIG contains elements from specialized Marine Corps units. SRIG Headquarters directs the action of personnel from a Force Reconnaissance Company, an Air Naval Gunfire Liaison Company (ANGLICO), an Intelligence Company, a Communications Company, and a Headquarters and Service Company. These elements are brought together and trained prior to deployment. The Fleet Marine Forces formed the SRIGs to bring together under one commander the resources necessary to meet the operational and tactical commander's needs. This action facilitated the integration of command and control, communications, computing, and intelligence (C4I) resources at the tactical level.

PSYCHOLOGICAL ASSESSMENT OF SPECIAL OPERATIONS GROUPS

There are numerous reasons to utilize psychological methods to assess personnel applying to work in special operations units. By definition, such personnel will be tasked to do things that require not only great physical ability and highly specialized skill but also the personality qualities that allow them to effectively utilize these skills in stressful situations. While physical stressors are generally accepted, intense psychological stressors, which are not necessarily either widely understood or accepted, nonetheless also exist. Special operations personnel may be expected to spend extended periods performing important missions in harsh and hostile environments that may quickly change, and that may present unprecedented challenges. Furthermore, while in such an environment the operators (ie, individual members of SOF) must generally apply their skills at a superior level of performance in order to succeed or even survive. Under such circumstances, psychological and interpersonal factors

may become as important as one's physical abilities or technical expertise.

Methods of assessing the psychological status of special operations personnel were developed initially in the United States during World War II when it became apparent such a need existed. Although the methods have been improved on over the years, the challenge of predicting an individual's "real-world" performance remains.

Psychological assessment methods attempt to provide unique data not readily obtainable through other methods. However, psychological assessment is but one component of an overall screening and selection process and must always be viewed within the context of other available information. Although the challenges of using psychological assessment techniques for selection are many, so are the benefits. For if such methods are used to help select personnel best suited for special operations roles, an organization may have a better chance of suc-

ceeding in carrying out high stake/high risk missions with a reduction in potential liabilities. In the words of Sun Tzu, a Chinese general and military theorist who lived about 500 BC,

He who knows the enemy and himself will never in a hundred battles be at risk; ... He who knows neither the enemy nor himself will be at risk in every battle.⁶

Historical Beginnings of US Special Operations Selection

Although psychological assessment methods were being implemented as early as World War I in an effort to reduce battlefield psychiatric casualties, the first US organization to utilize psychological assessment methods for the selection of special operations personnel was the Office of Strategic Services, or OSS.⁷ The OSS was a World War II wartime agency that was unlike any other in United States history.⁸ It was created in 1941 to conduct various forms of unconventional warfare such as intelligence collection, espionage, subversion, and psychological warfare.⁷ Because its purposes were so varied, agents selected into the OSS could be expected to perform a wide range of roles, often under dangerous circumstances. For example, whereas one function was to establish intelligence-gathering networks in the US and abroad, another function involved carrying out destructive missions in enemy-occupied territory and working with the underground. Most of these activities were quite novel for the OSS agents being recruited. For some assignments it was difficult even to know the job description in advance, or what the situation was like prior to arrival at an assignment, which might be at a remote overseas location. Not surprisingly, many agents experienced significant difficulty in adapting to such high levels of stress.

Along with reports from the field expressing concern over the quality of individuals selected for difficult missions, Medical Branch records of the OSS indicate that 52 acute psychiatric casualties among the personnel who should be removed from duty. This figure represents approximately 0.29% of the total (all of whom were nonassessed) OSS personnel.⁸ This finding led to the decision in 1943 to develop assessment procedures that included a significant psychological component, so as to improve the chances of selecting agents who would be better suited to endure the extreme stress of their assignments.

About the same time, an OSS official who had visited the War Office Selection Board in Great Brit-

ain reported that a British psychological-psychiatric assessment unit was successfully screening British officer candidates, and a recommendation was made to develop a similar OSS unit.⁷ The screening program implemented by the OSS did in fact seem to be useful. At one assessment location (Station S), of a total of 2,373 people evaluated, only two (0.04%) developed emotional problems severe enough to warrant removal from duty.⁸ The results are even more impressive when we consider that, of the two individuals, one was not recommended for OSS service by the screening staff but was selected anyway; and the other was recommended under the condition that he be closely watched and used only if concerns expressed by the assessment staff seemed unjustified. Although at a second screening site (Area W) the percentage of candidates assessed who developed significant emotional problems (0.20%) was higher than that obtained at Station S, the percentage obtained at Area W is still lower than the overall 0.26% for the OSS.

Although psychological screening methods were being utilized by the US in World War I and fairly extensively in Germany prior to World War II, the methods used by the OSS represent the first US attempt to systematically screen special operations personnel. While not perfect, the assessment techniques used by the OSS were an ambitious and fairly successful effort to utilize scientific psychological research methods for the purposes of systematic evaluation; they are the precursors to many psychological assessment procedures currently used in special operations assessment and selection.

Goals of Psychological Assessment for Personnel Selection

As noted above, psychological assessment is but one component of a special operations selection process that draws from numerous data sources. In this regard, the psychologist is in the role of a consultant rather than a decision maker. The final decisions regarding selection of SOF personnel are almost always made by senior special operations personnel.

While it is true that methods of psychological assessment often can provide valuable information to assist in making a decision about selection, psychological assessment alone cannot begin to provide all of the information necessary. For example, although psychological assessment may indicate that certain Special Forces applicants are intelligent and highly tolerant of stress, it cannot indicate if they have the physical capabilities or technical ap-

titude to meet the required standards. Conversely, even though psychological assessment may raise concerns about an individual, there may be a “real life” record of superior performance that outweighs such concerns.

On the other hand, psychological assessment can often provide the type of information that can help to predict the performance of special operations candidates (eg, their level of flexibility in adapting to changing or unexpected challenges, their ability to manage sensitive interpersonal situations). Similarly, such an assessment can help determine how responsibly and maturely the candidates live their personal lives, a consideration that may have direct relevance to professional reliability.

In that the information obtained through psychological assessment methods must be viewed in conjunction with other available sources of data (eg, performance history, supervisor and peer recommendations, technical expertise), the assessment should provide unique data (eg, personality and interpersonal strengths and /or weaknesses) that are not readily available through other sources and that can assist in the selection process. For example, whereas review of an applicant’s service record or observation of a candidate performing a task may reveal certain abilities, or lack of abilities, psychological testing and interviewing can reveal personality traits, work values, and interpersonal qualities that may influence an applicant’s performance in general, and yet be difficult to discern through other methods without long-term contact with that individual. Once obtained, the information can be compared with other sources of information to help round out a selection team’s knowledge of an applicant. Furthermore, because psychological assessment methods can often be conducted in group settings and are neither expensive nor time consuming, they can provide such information in a cost- and time-efficient manner.

In terms of the goals of psychological assessment for personnel selection, a basic distinction is made between “screening-out” versus “screening-in.” Screening-out has been described as the process of weeding out applicants who cannot meet the minimum standards for the job,⁹ especially when the applicant pool may be large and the processing costs are high.¹⁰ In contrast, the objective of screening-in is to identify the most desirable applicants based on the qualities, abilities, or both, believed to be related to successful performance.⁹

From a special operations perspective, the goal of screening-out is to identify individuals who have an extremely low likelihood of successfully com-

pleting a selection program. This is done by assessing the variables that are associated with performance or adjustment problems. If identified early in the selection process, a decision may be made not to have such individuals participate in the more costly and risky aspects of a special operations selection program. From a psychological assessment perspective, some common criteria for screening-out include evidence of significant character pathology, emotional problems, poor interpersonal skills, low stress tolerance, and limited intelligence.

Screening-in, on the other hand, attempts to identify the characteristics that are associated with successful performance and adjustment. This approach can be used to identify applicants who not only have a higher probability of passing a selection program but who also possess qualities that are valued in special operations personnel. In addition, a screening-in approach can be used to identify individuals who have the characteristics or abilities that are associated with better performance at specific types of tasks. This is not, however, an attempt to identify a specific profile for the “perfect” candidate. There is no ideal special operations profile, and variety among personnel allows for individual strengths to emerge. Furthermore, heterogeneity among personnel often leads to creative improvements in how things are done.

From a practical standpoint, it is usually much easier to identify characteristics that will predict problems than it is to determine the “perfect model soldier,”⁷ especially when no measure of attributes can account for all of the variance in job performance.⁹ Furthermore, it is impossible to determine in advance exactly what type of performance will be required in a situation, or what other variables may influence the outcome. In reality, both screening-in and screening-out methods may be used together, along with other components of the assessment and selection process.

Challenges of Psychological Assessment for Selection

The challenges of accurate psychological assessment for SOF personnel selection are many. Basically, an attempt is being made to identify qualities that can predict future performance. This presents an immense challenge, considering that we are dealing with a multitude of fluid and unpredictable variables. Although psychological assessment methods can provide accurate information about a person, they cannot predict with complete accuracy how an individual will respond or perform in ev-

ery type of situation. An individual may perform differently depending on his or her physical or emotional state, or on the type of information or perception held about their situation at the moment in which he or she must perform. Clearly, these are variables that are difficult to control for during an assessment.

In addition, we can never underestimate the situational component that personnel face. Personnel assessed in one context may be required to perform in a completely different—and alien—situation. This may involve not only environmental changes (eg, climate, geography, threat of harm) but also social, cultural and language, and consequential differences between the setting in which they were assessed and that in which they must act.

Finally, even comprehensive psychological assessment methods can provide but a sampling (albeit an important one) of the whole individual. Although psychological testing can reveal much information, it certainly cannot tell us everything about an individual, or how that individual will act in every type of situation. Even when psychological assessment methods are linked to performance criteria in a selection or training program, there is never a perfect correlation between psychological information and performance. Even if such an amazing feat were possible, it would still be impossible to assess an individual's response to every type of challenge. Despite these challenges—or perhaps because of them—special operations assessment methods have continued to evolve and improve in their efforts to identify the factors that are most likely to influence performance in a variety of situations.

One of the basic challenges in an assessment program is knowing what to assess, or, to state it differently, what are we attempting to screen-out or screen-in? Certainly one source of guidance for this is experienced special operations personnel, who have a fairly clear idea of what they are looking for in an applicant. Consider the following portion of a memorandum written by a Navy SEAL in a leadership position following a discussion on personnel screening with the author:

The personal traits we want are HONESTY, seeks CHALLENGES, will take calculated RISKS (RISK/ OPPORTUNITY are different sides of the same coin). I'll pay lip service to COURAGE because I think that quality exists in all the guys. We don't want guys who have large mood swings (combative) when they drink. Extreme introverts don't fit in well, nor do men that place blame on other factors and won't accept responsibility for their shortcomings. We don't want guys that have endless

excuses for problems. Guys that are extremely "anal retentive" and value order above all else do not seem to do well either, because they have a hard time dealing with disorder and chaos.

(Later, the writer of the memorandum also emphasized the need for a sense of humor.)

While not the results of a scientific study, these comments are based on the memorandum writer's years of personal experience in special operations, and although additional qualities may be added to these, it is doubtful that anyone in the field of special operations would disagree with any of those given. In fact, these comments are consistent with the findings of an empirical study¹¹ that examined the personality traits of SEALs. This study compared the personality traits of SEALs with non-SEAL adult males, and found that SEALs score higher on measures of excitement-seeking behavior, assertiveness, activity interests, openness, and conscientiousness, and lower on measures of emotional vulnerability and depression. Consider the comments in the memorandum excerpt with those of the study's authors, who describe typical Navy SEALs as

calm, hardy, secure, and not prone to excessive psychological stress ... rarely impulsive ... prefer being in large groups ... seek excitement and stimulation and prefer complex and dangerous environments ... very reliable.^{11(p13)}

Extensive research conducted with Army SOF focused on the qualities of their personnel and determined which qualities are more likely to lead to success (Exhibit 38-4).¹² This research, like the Navy's, certainly dispels any stereotypes of special operations personnel as "crazy commandos" and instead conveys the impression of highly trained professionals. Several methods are used that allow for the assessment of qualities associated with success in special operations. To begin with, a "mission analysis" may be carried out to determine what the requirements of a mission are likely to be.¹² As pointed out by the OSS assessment staff, a lack of knowledge concerning job requirements was one of the chief causes of prediction error concerning those personnel screened.⁸

Following that, personnel attributes associated with mission success must be identified,¹² quite often through the use of psychological tests or self-report questionnaires. Conversely, attributes and abilities that predict failure at training tasks and challenges similar to those likely to be encountered in a real-world special operations environment must also be identified. Some of this information is

EXHIBIT 38-4

DESIRABLE PSYCHOLOGICAL QUALITIES FOR SUCCESS IN US ARMY SPECIAL OPERATIONS FORCES

- Organizational skills
- Trainability
- Situational awareness
- Ability to make complex discriminations and decisions
- Personal adaptability
- Resistance to stress
- Dependability, determination, and stability
- Physical endurance and specialized military skills

available through an applicant's service record (eg, the Armed Forces Vocational Aptitude Battery and physical readiness scores).

Psychological information is generally obtained by administering tests and questionnaires to applicants prior to entering a selection or training program, and then later analyzing these data statistically to identify the qualities that are associated with success or failure. For example, one study¹³ examining psychological factors associated with passing Basic Underwater Demolition/SEALS (BUD/S) training discovered sev-

eral differences between those trainees who complete training and those who drop out. Those who completed BUD/S scored higher on measures of self-perception of athletic and physical abilities, as well as measures of self-esteem/confidence and lack of anxiety, cordiality/even-temperedness, a disposition toward being helpful and courteous, and leadership ability, including planning and decision making skills. Similarly, preliminary findings from a study¹⁴ in progress on BUD/S trainees suggest that trainees with even suggestive evidence of psychopathology or stress vulnerability on psychological testing are much more likely to fail training, as are those who report a significant history of family dysfunction.

The use of instruments such as psychological tests has been termed the "elementalistic" approach, whereas an "organismic" approach assesses performance on training challenges designed to simulate those likely to be encountered in special operations missions. In reality, these two approaches are often combined today, just as they were by the OSS assessment staff.^{8,15} Possible strengths or weaknesses identified through testing can be watched for while applicants confront performance challenges.

The final component of the selection process generally entails some type of selection board that considers all of the available information. As noted above, the final decision regarding selection is made by experienced SOF personnel. Research with Army SOF has shown that such a process results in the selection of personnel who have a high probability of success, including a 95% rate of success in training following selection and a 99% success rate during operational assignments.¹²

SPECIAL OPERATIONS RECRUIT TRAINING

SOF missions require the operators to be in peak physical condition as well as to be tactically and technically skilled. Studies of Army and Navy SOF show that the operators are highly aerobically fit, with peak oxygen uptakes of 53 ± 4 mL/kg/min for Army SF¹⁶ and approximately 59 ± 5 mL/kg/min for Navy SEALs.^{17,18} Those in training to become SEALs are even more aerobically fit than are the operators; Beckett, Goforth, and Hodgdon¹⁷ reported a peak aerobic capacity of 62 ± 4 mL/kg/ for recent graduates from the Navy's BUD/S training.

US Army Special Operations Forces

The US Army SOF comprise five main organizational units. (1) Army *Special Forces* plan, prepare for, and when directed, deploy to conduct uncon-

ventional warfare, foreign internal defense, special reconnaissance, and direct actions in support of US national policy objectives within designated areas of responsibility. (2) *Rangers* are the special light infantry units for conducting special operations. The missions include attacks to temporarily seize and secure key objectives. Like their Special Forces counterparts, Rangers infiltrate an area by land, sea, or air. (3) The *160th Special Operations Aviation Regiment* is a unique unit providing support to SOF worldwide. The capabilities of the aviation units include inserting, resupplying, and extracting US and Allied SOF personnel. They also assist in SOF search and rescue, and they provide airborne command and control and fire support. (4) *Psychological Operations* disseminates information in support of US goals and objectives. (5) *Civil Affairs* units

prevent civilian interference with tactical operations, assist commanders in discharging their responsibilities toward the civilian population, providing liaison with civilian governments and non-governmental organizations.

Special Forces

Training for Special Forces consists of two courses: the first deals with assessment and selection, the second with qualification. Each course is subdivided into several phases.

Special Forces Assessment and Selection (SFAS) Course. The purpose of the 3-week SFAS course is to identify soldiers (E-4 and above) who have the potential for completing SF training. The SFAS course consists of two distinct phases. During the first phase, instructors assess the soldiers' overall physical fitness and motivation. Perhaps more importantly, this phase gives the instructors an opportunity to evaluate the individual soldier's ability to cope with stresses imposed on them during the assessment activities.

In this first phase, soldiers will undergo psychological tests as well as tests of physical fitness, swimming ability, run and march times, and orienteering. Following completion of this phase, an evaluation board, with input from the instructors, determines which candidates are qualified to continue into the second phase.

The second phase of SFAS emphasizes individual leadership ability and the ability to work as part of an operational team. At the end of the 3 weeks, on completion of this phase, a board meets to evaluate the soldier's performance. Here soldiers are selected or deselected for continuation in training.

Special Forces Qualification Course (SFQC). SFQC is composed of Individual Skills, Military Occupational Specialty (MOS) Training, and a Collective Training phase. The course ranges in duration from 24 to 55 weeks, depending on the candidates' MOS. Individual Skills are taught over the 40-day course conducted at Fort Bragg. Training includes small-unit patrolling tactics and land navigation.

For the MOS Training portion of the SFQC, each soldier engages in specialty training based on the individual's aptitude and (occasionally) aspirations. MOS Training is 24 weeks for Detachment Commander (18A), Weapons Sergeant (18B), and Engineer Sergeant (18C). The Communications Sergeant (18E) course is 32 weeks; and the Medical Sergeant (18D) course is 57 weeks, during which the medics receive instruction in many advanced medical procedures.

Training culminates with a 38-day deployment

to the Nicholas Rowe Special Forces Training Center near Fort Bragg. During this period, students are trained in air operations and unconventional warfare techniques. There, the SF candidates engage in the Robin Sage Field Training Exercise, wherein each candidate demonstrates his military skills as a member of an A-Team. The first 5 days are spent with the A-Team in isolation, at which time the teams plan their operation. On day 6, the students make an airborne insertion into a fictitious country, link up with other detachments, and begin execution of the operation. The instructors place the students in realistic situations where each will be allowed to demonstrate his skills and abilities. Those who successfully complete the exercise will receive the coveted Green Beret of the Army SF soldier.

Special Operations Aviation Regiment

Only the best-qualified Army aviators are selected for the 160th SOAR. All soldiers selected for the SOAR, commissioned officers and enlisted, attend the Basic Mission Qualifications course. The Officers Qualification course is 14 weeks long, whereas the Enlisted Qualification Course is just 3 weeks. After the qualification courses, SOAR personnel can achieve two other levels of qualification. The Fully Mission Qualified level is 12 to 18 months, and the Flight Lead qualification requires 36 to 48 months of additional training. The high level of training of SOAR aviators is required, given the mission requirements of the SOF operations in which they engage.

Ranger

The Ranger course is 65 days in length and is designed to provide the Ranger candidate with tough, realistic training. During the course, training averages 19.5 hours per day, 7 days per week, with a minimum of classroom instruction. Training is divided into three phases, each conducted at a different location. During the three phases, students are under the constant stress of nearly continuous operations, physical demands, mental challenges, and restricted dietary intake. The course is designed to force each candidate to physical, mental, and emotional limits. The course can take a substantial physical toll on the candidates.¹⁹ In all phases, leadership is stressed and any candidate may be called on to become a small-unit leader at any time during training.

"Benning Phase" is 17 days long and is conducted by the Ranger Training Brigade at Fort Benning,

Georgia. This phase is designed to develop the basic military skills of a small-unit leader and to enhance the physical and mental endurance required for completing the course. This phase includes instruction in land navigation skills, airborne operations, and survival training (including environmental and medical aspects). (For additional information, see Exhibit 17-1, Ranger Training Incident Report, in Chapter 17, Cold Water Immersion, in *Medical Aspects of Harsh Environments, Volume 1*.²⁰ (One of the authors of this chapter [WKP] served as the first Subject Matter Expert for the Office of the Under Secretary of the Army, providing a review of the conditions that lead to the deaths of the Ranger candidates.) Also during Benning Phase, candidates receive instruction in combat operations to prepare them for reconnaissance and direct action missions.

The second phase of training, the “Mountain Phase,” occurs in the mountains of northern Georgia near the town of Dahltona. Here candidates continue developing the skills required to conduct small-unit operations in mountainous terrain. Training during this phase includes ambush, air assault, rappelling, and rock climbing. The phase culminates in a field training exercise in which the candidate must apply all of his acquired knowledge and skills.

The third phase of Ranger training occurs at Eglin Air Force Base, Florida. This experience allows the Ranger candidate to develop the skills required for small-unit operations in a jungle and swamp environment. Techniques learned during this phase include small boat operations, stream and swamp crossing, air assault operations, and survival skills. During an 8-day field training exercise under live-fire conditions, the candidates can apply all of the combat survival and leadership skills accrued during the previous training.

On graduation, the Ranger has developed the skills required of a SOF unit leader. He can plan, organize, execute small-unit operations; perform demolition actions, ambush, and long-range operations; and execute the required infiltration and exfiltration operations by sea, air, and land as required.

US Air Force Special Operations Command

AFSOC is an Air Force major command and constitutes the Air Force component of the unified USSOCOM. AFSOC operational forces consist of uniquely equipped fixed- and rotary-wing aircraft operated by highly trained aircrew. This command’s primary missions include insertion and extraction, resupply, aerial fire support, refueling, combat search and rescue, and PSYOPS. AFSOC forces are

available for worldwide deployment (as a unit motto says, “anytime, anywhere”). Unit assignment to regional unified commands promotes the conduct of the full spectrum of principal special operations missions.

Only the most qualified airmen serve in AFSOC units. Each of the different airframes in AFSOC service requires highly specialized technical training to operate and maintain. Perhaps the most physically demanding specialties are the PJ and Combat Controller teams, and this chapter focuses on the intense training that personnel in these specialties undergo. Much of the basic training indoctrination course occurs during 12 weeks at Lackland Air Force Base, Texas, in what is known as Operating Location–Hotel (OL-H). Advanced PJ training is conducted at Kirtland Air Force Base, New Mexico. Before beginning training, each candidate has demonstrated his physical capabilities in a Physical Ability and Stamina Test (PAST). The PAST is conducted over a 3-hour period during which the candidate must demonstrate proficiencies in surface and underwater swimming, running, and calisthenics. The PAST is a physically rigorous screening tool, allowing only the most physically fit to continue in training.

Operating Location–Hotel (OL-H). This training element is divided into two phases. The first phase is a 4-week section called Initial Familiarization Training (IFT). This phase consists of progressively demanding physical conditioning combined with water skills and confidence building. Academic skills taught during IFT include diving physiology and physics. Progress checks are done weekly to ensure skill advancement during this phase. The remainder of OL-H consists of team training. Physical training continues to grow more intense, with weekly evaluations of physical advancement and of underwater confidence skills. The physical training is so intense that a large proportion of students drop from training due to physical injury.²¹

Scuba School. Following OL-H, successfully advancing candidates attend the Special Forces Underwater Operations Combat Diver Course at Key West, Florida. The course consists of 4 weeks of didactic and practical instruction in diving. Here the students continue physical conditioning, but they also get advanced instruction in open- and closed-circuit diving. They learn, among other things, about underwater navigation, diving physics and physiology, dive tables, hazardous marine life, antismimmer systems, and altitude diving.

Airborne School. Following successful completion of the Scuba School, candidates attend the Army’s 3-week Airborne School at Fort Benning.

Here they are taught the basics of military parachuting while continuing to undergo rigorous physical training.

USAF Survival School. The 17-day Survival School, conducted at Fairchild Air Force Base, Washington, is designed to promote survival-skills training to aircrew. The USAF Survival School provides PJ candidates—along with USAF personnel in other high-risk positions—academic and practical information on survival, evasion, rescue, and escape.

USAF Water Survival School. Held at Naval Air Station Pensacola, Florida, the 4-day USAF Water Survival School provides instruction in the basics of flotation devices, water parachute landing and survival, airframe safety, parasailing, helicopter hoist recovery, and raft survival and safety. The purpose of the course is to promote skill development and proficiency in the basics of military water survival requirements.

Pararescue School. The PJ School is located at Kirtland Air Force Base, New Mexico. The 24 weeks of training are divided into four sections: medical, field operations and tactics, tactics, and air operations. During the medical section, the candidate receives advanced medical training, reaching the level of Emergency Medical Technician–Paramedic (EMT-P). The field operations section includes training in foraging, signaling and communications, land navigation, mountain operations, and search and rescue. The tactics section trains each PJ candidate with the information and experience to conduct small-unit operations in hostile territory. The final phase of PJ School, the air operations section, consists of training in crew coordination, aerial search techniques, and aircraft operations. As part of the air operations section, the candidates learn advanced parachuting techniques, fast roping, rappelling, hoisting, and water deployment and recovery. Each phase of training is capped by a field training exercise in which the candidates practice the skills they have learned in real-world situations. Graduation from the School allows the successful candidate to wear the coveted maroon beret of an Air Force PJ.

Naval Special Warfare

Naval Special Warfare Command is one of the most responsive, versatile, and effective forces available to the commanders in chief of the unified commands. The command's authorized manning is about 2,300 SEALs and 600 Special Warfare Combatant Crewmen (SWCC). The primary mission ar-

reas of NSW are unconventional warfare, direct action, special reconnaissance, and foreign internal defense, but the command also conducts security assistance, counterdrug operations, personnel recovery, and hydrographic reconnaissance. With the ability to conduct operations at sea, on land, and in the air, NSW comprises ready forces for any environment.

Sea, Air, Land (SEAL) and Basic Underwater Demolition/SEAL (BUD/S) Training

SEAL is an acronym for the modes of *sea-air-land* infiltration, exfiltration, and operations. All sailors aspiring to be SEALs must go through a 26-week program of Basic Underwater Demolition/SEAL (BUD/S) instruction. They may receive additional training before reporting to a SEAL team. BUD/S training is conducted at the Naval Special Warfare Center, Coronado, California. The highly demanding physical training required at BUD/S leads to a large number of overuse injuries.²² The training requires that the individual be physically and mentally fit prior to entering training, characteristics that are developed throughout training.²³ The training is intentionally demanding and difficult, developing confidence in the individual's abilities and those of his classmates.

BUD/S is divided into three phases. All BUD/S students have passed an entrance physical fitness test that includes swimming. First Phase (Physical Conditioning) is designed for progressive physical conditioning that builds on the entry fitness level. The phase is 9 weeks long and consists of calisthenics, running, swimming, and team-building—all physically demanding drills. The emphasis throughout BUD/S is on teamwork. Early in training, students are divided into 6-man boat crews. Everything that students at BUD/S do is centered around the boat crew. The first 4 weeks of First Phase are designed to prepare the students for the physical and mental demands of the fifth week, known as Motivational Week (and unofficially as "Hell Week").

Hell Week consists of 5.5 days, during which students conduct continuous activities that require both military skills and team-building drills. Students receive about 2 hours of sleep a night, and the threat of hypothermia is a constant companion. Hours are spent going into and out of chilling ocean water while the students engage in nearly constant physical activity. Most of the attrition at BUD/S occurs by the end of Hell Week. The remaining 3

weeks of First Phase are primarily devoted to continued physical conditioning and learning the techniques of hydroreconnaissance, or beach and littoral survey, a major function performed in preparation for amphibious landings.

Second Phase (Diving) is 7 weeks long with a primary focus on learning open- and closed-circuit scuba techniques. Students learn the techniques of operating the LAR V Draeger rebreathing system. They also begin to develop the techniques that will be required for combat swimmer operations, including underwater navigation, survival, and rescue skills. During Second Phase there is a continued emphasis on physical conditioning. Second Phase culminates with a 5.5-mile open-ocean swim that challenges the student to demonstrate his physical capabilities and endurance.²⁴ The swim is conducted to confirm the confidence and physical skills that must be exhibited to successfully complete this phase. At the end of this phase, the student is a qualified combat swimmer.

Third Phase (Land Warfare) consists of 9 weeks of instruction in SOF military operations and tactics. The first 6 weeks are spent learning small-unit tactics, rappelling, land navigation, the use of explosive ordnance, and weapons. The final 3 weeks of Third Phase are spent on San Clemente Island, California. In this relatively isolated environment, the students practice the skills learned during the mainland portion of the phase.

Following graduation from BUD/S, SEAL candidates attend the 3-week Army Airborne School at Fort Benning to become jump qualified. Prior to 1997, the corpsmen received advanced medical training at the Army's 30-week 18D Combat Medic Course at Fort Sam Houston, Texas. Beginning in 1997, corpsmen attend the 6-month Special Operations Medical Training Course at the JFK Special Warfare Center at Fort Bragg before being attached to a SEAL team. Those who are going on the SDV teams complete an additional 10 weeks of training at the Naval Special Warfare Center's SDV School. These students engage in didactic training, training in the high-fidelity SDV simulator (Navy Training Device 21D3), and open-water training in the SDV.

Once assigned to a SEAL team, all BUD/S graduates will undergo further SEAL Tactical Training (STT). This consists of approximately 4 to 6 months of tactical training taught by team members so they can not only assess the level of skill of the individual but also to teach the advanced skills necessary to be a member of the SEAL team. On successful completion of STT, the candidate will be able to pin

on the badge of a SEAL-qualified combatant, the "Budweiser" (so-called because it resembles the logo of the Anheuser-Busch company).

SEAL Delivery Vehicle

The SEAL Delivery Vehicle (SDV) is a small, wet submersible operated by a two-man crew: a pilot and navigator pair. The SDV provides a stand-off platform for covert delivery of combat swimmers or for actions conducted by the pilot and navigator pair. The course for basic training of SDV personnel occurs at the Naval Special Warfare Center, Coronado, California. Over the duration of the course, students spend approximately 7 weeks in didactic instruction, operation of the high-fidelity SDV simulator (Navy Training Device 21D3), and training in the SDV during open-water operations. The technical skill required to be an SDV operator is enormous, because the operators must perform the complex required tasks under difficult operational conditions.²⁵ These operators receive additional instruction in the use of the MK-16 closed-circuit breathing device. On graduation, the students are assigned to one of the two SDV teams.

Small-Craft Combatants

Although Small-Craft Combatants have not gone through BUD/S training and will not wear the SEAL trident, they are integral to NSW operations and will ultimately be assigned to one of the Special Boat Units (SBU). Basic training is conducted at the Special Warfare Combatant Crewmember (SWCC) School, Coronado, California. This course of instruction is a separate curriculum taught by personnel at the NSW Center. The course was initiated in 1992 with 6 weeks of instruction, expanded to 9 weeks in 1995 (10 including Week 0, which provides basic indoctrination). Students are instructed in the three core areas of physical fitness/water safety skills, basic crewmember skills, and basic SWCC warfare skills. Personnel receive instruction in tactics and operations required for seamless integration into NSW missions. Crewmembers are trained in the basics of boat handling and operations using the 10-m Rigid-Hull Inflatable Boat (RIB) and the Combat Rubber Raiding Craft (CRRC).

On graduation from SWCC, the crewmembers are assigned to a unit to continue their instruction. At the unit, they enter SWCC-Individual (SWCC-I). Over the course of several months, personnel are assigned to a boat detachment. It is at the SBU that

they learn all aspects of maintenance and operations of a single type of watercraft.

Marine Corps Force Reconnaissance

There are many different reconnaissance qualifications within the Marine Corps, including the Light Armored Reconnaissance (LAR), Amphibious Reconnaissance, and, perhaps the best known, Force Reconnaissance (Force Recon). Those considered for Force Recon usually have an Infantry or Communications MOS in the Marine Corps, or are Navy Corpsmen. They are required to have a first-class rating on the Marine Corps physical fitness test and must be certified by their commanding officers as qualified to attend. Typically, those recommended for the course from the infantry are sergeants (E-5) or very senior corporals (E-4), or are lance corporals (E-3) from communications.

Each Recon company sets its own standards for recruiting and testing. A typical qualification process for the 1st Force Recon includes a 48-hour indoctrination program. The program includes back-to-back obstacle-course runs; a 500-m swim, and 30 minutes of treading water in full battle dress uniform; and two physical fitness tests: a 20-mile forced march followed by a 3- to 4-mile timed run with a rucksack. Being physically able to complete the program is only the first step. On the afternoon of the second day, prospective candidates are interviewed by the company

executive officer and commanding officer. Often, the attitude displayed during the physically demanding tests and the interview will determine selection.

Reconnaissance Indoctrination Platoon. Individuals selected as prospective Force Recon personnel are first assigned to a Reconnaissance Indoctrination Platoon (RIP). Here they are introduced to the mission of the Force Recon and continue to engage in demanding physical training. The Marines or sailors assigned to the RIP stay there until they are deselected, quit, or are selected to attend the Amphibious Reconnaissance School.

Amphibious Reconnaissance School. From the RIP, prospective Force Recon personnel can attend the 9-week Amphibious Reconnaissance School (ARS) at either Little Creek, Virginia, or Coronado, California. During the course, candidates are taught skills in communications, fire support, patrolling, sketching and photography, demolitions, helicopter insertion and extraction, small-boat handling, and hydrographic and beach reconnaissance. On completion of ARS, the graduate is assigned a 0321 MOS, that of Reconnaissance Marine.

Following ARS, these Marines can attend other military specialty schools. Among the schools available are the Army Airborne and Freefall schools; the Special Operations Dive School; Survival, Escape, Evasion, and Reconnaissance School; Scout Sniper School; Jungle Environment Survival Training; and Army Pathfinder School.

SPECIAL OPERATIONS TACTICAL UNITS

US Army Special Operations

The basic tactical operating unit in Army Special Operations is the Special Forces Operational Detachment-Alpha, or the A-Team. Each SF company is composed of six A-Teams, units of 12 men led by a captain (O-3) as detachment commander, with a warrant officer second in command as the executive officer. The remaining members of the A-Team are noncommissioned officers (E-6 and higher). Team members are cross-trained in each of five basic areas: weapons, engineering and demolition, medicine, communications, and operations and intelligence. All members are trained in at least one additional language. Each of the basic areas is staffed by two noncommissioned officers, one with primary responsibility for that area of expertise and the other acting as an assistant. This provides redundancy for each of the capabilities. The A-Teams' capabilities include the ability to infiltrate and exfiltrate by means of air, sea, or land (further de-

scribed below in the section entitled Infiltration and Exfiltration Techniques); operate behind enemy lines for extended periods with minimal external support; and organize, equip, and train indigenous forces. They also train, advise, and assist US and other allied forces and agencies. Within an SF company, one of the A-Teams is trained in combat diving and one in free-fall parachuting.

The A-Teams members are well equipped to perform their assigned duties. The communications equipment they operate provides the capability for satellite transmissions, global positioning systems, and secure communications. The medical equipment includes, among other items, kits for emergency field surgery, sterilizers, and resuscitators. In addition to the standard kits for each specialty, A-Team members carry mission-specific auxiliary equipment. The A-Teams that are combat diving qualified use both open- and closed-circuit (LAR V Draeger) systems for aquatic operations (see Chapter 31, Military Diving Operations and Medical Sup-

port, for additional information on the open- and closed-circuit scuba systems, including the LAR V Draeger rebreathing system).

Naval Special Warfare

SEALs

Although the uniquely capable SEALs undeniably excel in underwater operations, they are also fully capable of operating in all areas of operation. Prusaczyk and colleagues²⁶ reported the high degree of complexity that goes into SEAL missions. The physical demands of a mission or mission segment can be great, and even simple mission segments can be made more difficult by the demands of all the segments that preceded it.

A SEAL team is composed of approximately 30 officers and 200 enlisted men. From these are formed approximately eight platoons, each in various stages of training and deployment. Two corpsmen are assigned to each platoon. At an operational level, SEALs have multiple operational units to be used during training and missions. Beginning at BUD/S, SEALs train to work with a swim buddy to form a "dive pair." Given the hostility of the underwater environment, it is critical that each diver has a companion who knows his "buddy's" location and functional capabilities. Training for SEAL teams is conducted at the platoon level with 12 to 16 members. A SEAL platoon comprises two officers (the senior is an O-3), one chief petty officer (E-6), and thirteen enlisted. Primary responsibilities in a platoon are determined by the positions held in a patrol (eg, point man, patrol leader, radioman, gunner, corpsman, and rear security).

Overall planning and execution depends on department leadership (eg, diving, air operations, and ordnance/demolition). The senior enlisted man in the platoon is the chief petty officer, with the second-most senior enlisted the leading petty officer, who is in charge of the day-to-day management of the enlisted platoon members. As operational requirements dictate, the platoon is divided into eight-member squads. The squad is then broken into four-man fire teams. SEAL platoons have a training cycle that includes a 12- or 18-month training "work-up," followed by a 6-month deployment in an operational "combat ready" status at one of the NSW units or detachments.

Combat swimmers operate in dive pairs, much as they were trained at BUD/S. The two SEALs forming the dive pair are the "driver" and the "navigator." Using an illuminated compass and watch,

the navigator assures that the dive pair will arrive at the predetermined location at the designated time. The driver, attached to the navigator by a lanyard, observes the surroundings for underwater obstacles, surface craft, or other unanticipated obstacles to mission success.

SDVs are operated by a pilot-navigator pair. Although many of the SDVs functions are jointly managed during an operation, each position has primary responsibilities. It is the pilot's responsibility to "fly" the craft. He must operate the craft so that on-course indicators are followed. He is responsible for maintaining the craft's depth, altitude (from the bottom), and heading. The navigator is responsible for ensuring that the craft avoids obstacles, both expected and unexpected, using Obstacle Avoidance Sonar. Crew coordination is necessary for successful mission completion. The SDV may carry additional operators, equipment, or ordnance as needed for the mission.

Special Boat Units

Although most SBU operators are not SEALs, the theory of having redundancy in operational units carries over from the SEAL platoon. Operations are usually conducted with boat pairs. The operational requirements determine which of the numerous types of craft are selected. The crew of these crafts typically includes a coxswain in charge of boat operations, a navigator, and an engineer, although the exact crew composition depends on the vessel class and the operational requirements. The Combatant Crewmember teams most often are trained on and stay with one class of vessel, developing the required knowledge of performance characteristics and capabilities, maintenance, and operations. They coordinate closely with the SEAL teams to provide tactical support as required to complete the missions.

Marine Corps Force Reconnaissance

The mission of Force Recon is to conduct amphibious, deep ground reconnaissance and surveillance, and limited scale raids for the Marine Expeditionary Force, or the Joint Task Force. The basic operating unit is the Recon team, which is organized within a Force Recon company. A Force Recon company typically has 12 officers and 145 enlisted. Within the company are a Company Headquarters, a Supply Service platoon, and six Recon platoons. Headquarters conducts overall command and control through operations and communications sections. The Supply Service platoon provides supply,

mess, medical, motor transport, and equipment repair. Each Recon platoon has a Headquarters platoon and three four-man Recon teams. A Force Recon company normally operates under the cogni-

zance of a Marine Air Ground Task Force G-2/S-2 (Intelligence) for its reconnaissance and surveillance requirements and the G-3/S-3 (Operations) for offensive missions.

INFILTRATION AND EXFILTRATION TECHNIQUES

As mentioned above, the theory of relative superiority⁴ suggests that beginning an operation unobserved is one of the elements critical to achieving mission success (see Exhibit 38-1), and conducting an operation completely unobserved often is the most desirable goal. In the words of Sun Tzu (who emphasized surprise, mobility, flexibility, and deception²⁷):

Attack where [the enemy] is not prepared; go by way of places where it would never occur to him you would go.⁶

While not always necessary, it is highly desirable that the technique work at night. Because of the requirements of special operations and the similarity of missions and training, many of these techniques are common to the SOF units, while others are uniquely based on mission capabilities and requirements. The methods of insertion and extraction are highly diverse, owing to the diversity of mission requirements and operational conditions. They are integral parts of the mission and critical to mission success. Only those that are more frequently employed by SOF are mentioned below.

The infiltration and exfiltration techniques of

SOF personnel may be broadly categorized on the primary mode of transportation and requirement for action; the seven most common methods are (1) fully terrestrial, (2) fully aquatic, (3) fully aerial, (4) aerial to terrestrial, (5) aerial to aquatic, (6) terrestrial to aerial, and (7) aquatic to aerial. As mission requirements dictate, the full infiltration and exfiltration procedure may require combinations of techniques that may be used independently for insertion and extraction. There are many potential combinations of techniques; those presented here are, of necessity, not inclusive, but they represent some of the common methods by which SOF personnel reach and are removed from the area of operations. A hallmark of SOF is the ability to reach the target and perform the operation despite seemingly impossible odds against success.

It is contrary to USSOCOM policy to release details of insertion and extraction techniques. Readers should understand, however, that the physical demands of the techniques can be great; they may involve transporting loads of up to, and occasionally exceeding, 55 kg of operational materiel. The medical consequences and injuries associated with some of these techniques have been documented.^{28,29}

SPECIAL OPERATIONS FORCES MEDICINE

Few medical procedures are unique to the special operations medical community. The treatments used for combat injuries incurred during special operations missions, in general, do not differ from those used in the treatment of casualties of conventional warfare. However, the extraction of casualties is notable in one respect. In fact, a key phrase from *Publication on Special Operations* points out that the unique requirement of special operations casualty handling is the "independence from friendly support."^{1(Chap I, p1)}

Until 1997, Army and Navy SOF medics and corpsmen were trained at the Army's 18D Special Forces Medical Sergeant course held at Fort Sam Houston (31 wk) and the JFK Special Warfare Center and School at Fort Bragg (15 wk). During the 46-week-long course, they were educated in such medical skills as providing anesthesia; basic recognition and treatment of cardiovascular; dental; eye, ear, nose, and throat; and orthopedic problems; and basic trauma medicine and

surgery. They also received instruction in handling environmental and nuclear-biological-chemical problems, psychiatric and neurological problems, and veterinary medicine.^{30,31} The training they received made them among the most skilled medical care providers outside the Medical Corps.

In 1997, Special Operations Combat Medic (SOCM) and Advanced Special Operations Combat Medic (ASOCM) courses were established to provide a common training course for all SOF enlisted medical care providers. The 24-week SOCM course provides training to EMT Paramedic certification. The ASOCM course provides an additional 20 weeks of training. Enlisted medical care providers from the Army SF and Ranger, AFSOC PJs, NSW SEALs, and Marine Corps Force Reconnaissance attend the SOCM course, with Army SF, SEALs, and Reconnaissance personnel continuing their training with the ASOCM course. The courses are currently held four times each year.

SUMMARY

This chapter provides a broad overview of the organizational, psychological, and training aspects of the United States's special operations. Each of the service-specific SOF organizations can boast of special skills that make them unique among the warfighter communities, but they must also be prepared for joint operations; hence the USSOCOM.

A general goal of psychological assessment is to provide unique information about a special operations candidate in a cost- and time-efficient manner. This information, when viewed in conjunction with other sources of data, attempts to predict how an applicant will perform in a special operations role. Special operations selection programs within the United States have continued to evolve since their inception within the selection programs developed by the OSS. Psychological methods are but one component of the screening and selection process, and attempt to provide unique data in a cost- and time-efficient manner, which can help to screen-out undesirable applicants, or screen-in those who are best qualified. This is generally done by identify-

ing those factors that have been found to be associated with performance success or failure at tasks relevant to special operations missions. A great challenge for any assessment and selection program involves the attempt to use limited data to predict "real world" performance that will take place in an unpredictable environment. Despite this challenge, assessment methods can greatly assist in the challenge of selecting the most qualified personnel for special operations programs.

Special operations stands apart from conventional warfare in the unique physical and technical requirements placed on the SOF operator. With the changing global political climate, the role that SOF personnel play in maintaining national security will be ever increasing, with a concomitant increase in the technical, technological, physical, and emotional demands placed on the operators. It is critical that both the military and the civilian communities understand and appreciate the importance of SOF in maintaining national and international peace and security.

REFERENCES

1. Joint Chiefs of Staff. *Publication on Special Operations*. Washington, DC: Department of Defense; 17 Apr 1998: Chap I: 2-4. Joint Publication 3-05. Available at www.dtic.mil/doctrine.
2. Report to the Chairman, Committee on Armed Services, House of Representatives. *Special Operations Forces—Force Structure and Readiness Issues*. Washington, DC: Special Operations Forces; 1994. GAO/NSIAD-94-105.
3. von Clausewitz C. *On War*. Howard M, Paret P, trans. Princeton NJ: Princeton University Press; 1976.
4. McRaven WH. *Spec Ops, Case Studies in Special Operations Warfare: Theory and Practice*. Novato, Calif: Presidio Press; 1995.
5. Public Law 99-661.
6. Giles L, trans-ed. *Sun Tzu on The Art of War*. The Project Gutenberg Etext of *The Art of War* by Sun Tzu. May 1994 [Etext 132].
7. Banks LM. *The Office of Strategic Services Psychological Selection Program* [master's thesis]. Fort Leavenworth, Kan: US Army Command and General Staff College; 1995.
8. The OSS Assessment Staff. *Assessment Of Men*. New York, NY: Rinehart & Co; 1948.
9. Leake SA. Basic issues in the psychological screening of sensitive classes: Screening-in versus screening-out. Paper presented at the 1st annual Med-Tox Conference for Psychological Screening and Physical Ability Testing of Police, Firefighters, and Corrections; November, 1988; Santa Ana, Calif.
10. Hogan R, Hogan J, Roberts BW. Personality measurement and employment decisions. *Am Psychol*. 1996;51(5):469-477.
11. Braun DE, Prusaczyk WK, Goforth HW Jr, Pratt NC. *Personality Profiles of US Navy Sea-Air-Land (SEAL) Personnel*. San Diego, Calif: Naval Health Research Center; 1993. NHRC Technical Report 94-8.

12. Carlin TM, Sanders M. Soldier of the future: Assessment and selection of Force XXI. *Spec Warfare*. 1996;9(2):16–21.
13. McDonald MA, Norton BA, Hodgdon MS. Training success in US Navy Special Forces. *Aviat Space Environ Med*. 1990;61:548–554.
14. Vickers RR, PhD, Research Psychologist, Human Performance Department, Naval Health Research Center, San Diego, Calif. Personal communication, 1996.
15. Young S. A short history of SF assessment and selection. *Spec Warfare*. 1996;9(2):22–27.
16. Sawka M, Young AJ, Rock PB, et al. Altitude acclimatization and blood volume: Effects of exogenous erythrocyte volume expansion. *J Appl Physiol*. 1996;81(2):636–642.
17. Beckett MB, Goforth HW Jr, Hodgdon JA. *Physical Fitness of US Navy Special Forces Team Members and Trainees*. San Diego, Calif: Naval Health Research Center; 1989. NHRC Technical Report 89-29.
18. Jacobs I, Prusaczyk WK. Unpublished data, 1993–1994.
19. Moore RJ, Friedl KE, Kramer TR, et al. *Changes in Soldier Nutritional Status and Immune Function During the Ranger Training Course*. Natick, Mass: US Army Research Institute of Environmental Medicine; 1992. USARIEM Technical Report T13-92.
20. Pandolf K, Burr RE, Wenger CB, Pozos RS, eds. *Medical Aspects of Harsh Environments, Volume 1*. In: Zajtcuk R, Bellamy RF, eds. *Textbook of Military Medicine*. Washington, DC: Department of the Army, Office of The Surgeon General, and Borden Institute; 2001 (in press). Available at www.armymedicine.army.mil/history.
21. Hammer D. AFSOC Force Surgeon, San Antonio, Tex. Personal communication, 1996.
22. Shwayhat AF, Linenger JM. *Profiles of Exercise History and Overuse Injuries Among US Navy SEAL Recruits*. San Diego, Calif: Naval Health Research Center; 1993. NHRC Technical Report 93-3.
23. McDonald DG, Norton JP, Hodgdon JA. Determinants and Effects of Training Success in US Navy Special Forces. San Diego, Calif: Naval Health Research Center; 1988. NHRC Technical Report 88-34.
24. Prusaczyk WK, Goforth HW Jr, Sopchick T, Griffith P, Schneider K. *Thermal and Physiological Responses of Basic Underwater Demolition/SEAL (BUD/S) Students to a 5.5-Mile Open-Ocean Swim*. San Diego, Calif: Naval Health Research Center; 1993. NHRC Technical Report 93-27.
25. Prusaczyk WK, Stuster JW, Goforth HW Jr. *An Analysis of Critical Tasks and Abilities of SEAL Delivery Vehicle (SDV) Crew Positions (C)*. San Diego, Calif: Naval Health Research Center; 1995. NHRC Technical Report 95-20.
26. Prusaczyk WK, Stuster JW, Goforth HW Jr, Sopchick Smith T, Meyer LT. *Physical Demands of US Navy Sea-Air-Land (SEAL) Operations*. San Diego, Calif: Naval Health Research Center; 1995. NHRC Technical Report 95-24.
27. Dupuy TN, Johnson C, Bongard DL. *Harper Encyclopedia of Military Biography*. New York, NY: HarperCollinsPublishers; 1992: 720.
28. Kragh JF, Taylor DC. Fast-roping injuries among Army Rangers: A retrospective survey of an elite airborne battalion. *Mil Med*. 1995;160(6):277–279.
29. Miser WF, Doukas WC, Lillegard WA. Injuries and illnesses incurred by an Army Ranger unit during Operation Just Cause. *Mil Med*. 1995;160(8):373–380.
30. Moloff AL, Bettencourt B. The special forces medic: Unique training for a unique mission. *Mil Med*. 1992;157(2):74–76.
31. Hasbarger JA, Culclasure TF. Special Forces medical sergeants (18 Delta) recertification. *Mil Med*. 1994;159(1):7–9.

Chapter 38: ATTACHMENT

SELECTED PUBLICATIONS RELATED TO SPECIAL OPERATIONS FORCES TRAINING AND OPERATIONS

Prepared for this textbook by William Keith Prusaczyk, PhD, and Glenn M. Goldberg, PhD.

Army Special Forces–Related Publications:

FM 21-76	<i>Survival</i> . 05 June 1992.
FM 31-19	<i>Military Free-Fall Parachuting Tactics, Techniques, and Procedures</i> . 18 February 1993.
FM 31-20	<i>Doctrine for Special Forces Operations</i> . 20 April 1990.
FM 31-20-3	<i>Foreign Internal Defense Tactics, Techniques, and Procedures for Special Forces</i> . 20 September 1994.
FM 31-20-5	<i>Special Reconnaissance Tactics, Techniques, and Procedures for Special Forces</i> . 23 March 1993.
FM 31-71	<i>Northern Operations</i> . 21 June 1971.
FM 33-1	<i>Psychological Operations</i> . 18 February 1993.
FM 33-1-1	<i>Psychological Operations Techniques and Procedures</i> . 05 May 1994.
FM 34-36	<i>Special Operations Forces Intelligence and Electronic Warfare</i> . 30 Sep 1991.
FM 41-5	<i>Joint Manual for Civil Affairs</i> . 18 November 1966.
FM 41-10	<i>Civil Affairs Operations</i> . 11 January 1993.
GTA 31-1-2	<i>Detachment Mission Planning Guide</i> . 01 August 1993.
GTA 41-1-1	<i>Civil Affairs Information Planning Guide</i> . 01 September 1994.
ARTEP 33-705-MTP	<i>Mission Training Plan for a Psychological Operations Battalion Headquarters</i> . 23 October 1989.
ARTEP 33-707-30-MTP	<i>Mission Training Plan for a Psychological Operations Regional Support Company</i> . 01 October 1994.
ARTEP 33-708-30-MTP	<i>Mission Training Plan for a Psychological Operations Tactical Support Company</i> .
ARTEP 41-701-30-MTP	<i>Mission Training Plan for a Headquarters and Headquarters Company, Civil Affairs Command</i> . 31 December 1993.
ARTEP 41-702-30-MTP	<i>Mission Training Plan for a Headquarters and Headquarters Company, Civil Affairs Brigade</i> . 02 September 1993.
ARTEP 41-705-MTP	<i>Mission Training Plan for a Civil Affairs Battalion (GP)</i> . 22 March 1992.
ARTEP 41-707-30-MTP	<i>Mission Training Plan for a Detachment (General Support), Civil Affairs Battalion (GP)</i> . 19 March 1993.
ARTEP 41-715-MTP	<i>Mission Training Plan for a Civil Affairs Battalion (FID/UW)</i> . 20 April 1992.
ARTEP 41-717-30-MTP	<i>Mission Training Plan for a Detachment (General Support), Civil Affairs Battalion (Foreign Internal Defense/Unconventional Warfare)</i> . 30 September 1993.
ARTEP 41-718-30-MTP	<i>Mission Training Plan for a Detachment (Direct Support), Civil Affairs Battalion (Foreign Internal Defense/Unconventional Warfare)</i> . 30 September 1993.

STP 31-18-SM-TG	<i>Soldier's Manual and Trainer's Guide Cmf18 Special Forces Basic Tasks Skill Levels 3 and 4.</i>
STP 31-18B34-SM-TG	<i>Soldier's Manual/Trainer's Guide MOS 18b Special Forces Weapons Sergeant Skill Levels 3/4. 05 October 1990.</i>
STP 31-18C34-SM-TG	<i>Soldier's Manual and Trainer's Guide MOS 18c Special Forces Engineer Sergeant Skill Level 3 and 4. 05 October 1990.</i>
STP 31-18E34-SM-TG (FD)	<i>Soldier's Manual and Trainer's Guide MOS 18e Special Forces Communications Sergeant Skill Levels 3 and 4. 20 September 1994.</i>
STP 31-18F4-SM-TG	<i>Field Manual Focus: An Infantryman's Guide to Combat in Built-Up Areas.</i>

Training Publications Recommended by the Ranger Training Brigade, Fort Benning, Georgia:

FM 5-20	<i>Camouflage, Basic Principles.</i>
FM 5-25	<i>Explosives and Demolitions.</i>
FM 7-8	<i>Infantry Platoon and Squad.</i>
FM 7-9	<i>MTP Mission Training Plan for the Infantry Rifle Platoon and Squad.</i>
FM 7-10	<i>The Infantry Rifle Company.</i>
FM 7-20	<i>The Infantry Battalion.</i>
FM 7-85	<i>Ranger Unit Operations and Training.</i>
FM 21-11	<i>First Aid for Soldiers.</i>
FM 21-20	<i>Physical Readiness Training.</i>
FM 21-26	<i>Map Reading.</i>
FM 21-75	<i>Combat Skills of the Soldier.</i>
FM 21-76	<i>Survival, Evasion and Escape.</i>
SH 21-76	<i>Ranger Handbook.</i>
FM 21-150	<i>Combatives.</i>
FM 22-100	<i>Military Leadership.</i>
FM 22-101	<i>Counseling.</i>
FM 25-100	<i>Training the Force.</i>
FM 30-5	<i>Combat Intelligence.</i>
FM 90-3	<i>Desert Operations.</i>
TC 21-24	<i>Rappelling.</i>
TC 90-6-1	<i>Military Mountaineering.</i>
TC 621-1	<i>Evasion and Escape Training.</i>
TM 9-1005-224-10	<i>Operating Manual M60 Mg.</i>

TM 9-1005-249-10	<i>Operating Manual M16 Rifle.</i>
TM 9-1010-221-10	<i>Operating Manual 40mm Grenade Launcher M203.</i>
TM 11-5855-203-13	<i>Individual Weapons.</i>
STP 7-11BCHM14-SM-TG	<i>Soldiers Manual and Trainers Guide.</i>
STP 21-1 SMCT	<i>Soldiers Manual of Common Tasks, Skill Level 1.</i>
STP 21-24 SMCT	<i>Soldiers Manual of Common Tasks, Skill Level 2 through 4.</i>
ARTEP 7-8 DRILL	<i>Battle Drills for the Infantry Rifle Platoon and Squad.</i>

Ranger-, Special Forces-, and Light Infantry-Related Publications:

FM 7-92	<i>Infantry Reconnaissance Platoon and Squad (Airborne, Air Assault, Light Infantry). 23 Dec 1992.</i>
FM 7-93	<i>Long-Range Surveillance Unit Operations. 3 Oct 1995.</i>
FM 7-98	<i>Operations in a Low Intensity Conflict. 19 Oct 1992.</i>
FM 17-98	<i>Scout Platoon. Supersedes FM 17-98, 7 Oct 87, 9 Sep 1994.</i>
FM 20-3	<i>Camouflage.</i>
FM 23-10	<i>Sniper Training. 17 Aug 1994.</i>
FM 57-38	<i>Pathfinder Operations. 9 Apr 1993.</i>
FM 90-13	<i>River Crossing Operations.</i>

Air Operations-Related Publications:

FM 1-108	<i>Doctrine for Army Special Operations Aviation Forces. 3 Nov 1993.</i>
FM 1-112	<i>Tactics, Techniques, and Procedures for the Attack Helicopter Battalion. 21 Feb 1991.</i>
FM 1-113	<i>Assault Helicopter Battalion. 28 Oct 1986.</i>
FM 1-114	<i>Tactics, Techniques, and Procedures for the Regimental Aviation Squadron. 20 Feb 1991.</i>
FM 1-116	<i>Tactics, Techniques, and Procedures for the Air Cavalry/Reconnaissance Troop. 20 Feb 1991.</i>
FM 57-220	<i>Static Line Parachuting Techniques and Training.</i>
FM 5-125	<i>Rigging Techniques, Procedures, and Applications. 3 Oct 1995</i>
FM 10-500-1	<i>Airdrop Support Operations in a Theater of Operations. 19 Jun 1991</i>
FM 10-500-7	<i>Airdrop Derigging and Recovery Procedures. 20 Sep 1994</i>

Intelligence Operations-Related Publications:

FM 34-60	<i>Counterintelligence.</i>
FM 34-1	<i>Intelligence and Electronic Warfare Operations. Supersedes FM 34-1, 2 Jul 87, 27 Sep 1994.</i>
FM 34-2-1	<i>Tactics, Techniques, and Procedures for Reconnaissance and Surveillance and Intelligence Support to Counterreconnaissance. 19 Jun 1991.</i>

Selected Naval Health Research Center (NHRC) Technical Reports Related to Special Operations Forces:

Beckett MB, Goforth HW, Hodgdon JA. *Physical Fitness of US Navy Special Forces Team Members and Trainees*. San Diego, Calif: Naval Health Research Center; 1989. NHRC Technical Report 89-29.

Beckett MB, Hodgdon JA. *Heat Production and Optimal Cooling for Navy Special Warfare Divers*. San Diego, Calif: Naval Health Research Center; 1992. NHRC Technical Report 91-23.

Braun DE, Prusaczyk WK, Goforth HW Jr, Pratt NC. *Personality Profiles of US Navy Sea-Air-Land (SEAL) Personnel*. San Diego, Calif: Naval Health Research Center; 1994. NHRC Technical Report 94-8.

Burton HD, Banks WW, Schultz EE, Berghage TE. *An Inventory of Wargaming Models for Special Warfare: Candidate Applications for the Infusion of Human Performance Data*. San Diego, Calif: Naval Health Research Center; 1989. NHRC Technical Report 89-60.

Hermansen LA, Butler FK, Flinn S, Noyes LD. (1995) *Naval Special Warfare Computer-Aided Corpsman Training Program (Version 1.0)–Multiple Choice Items*. San Diego, Calif: Naval Health Research Center; 1994. NHRC Technical Document 94-3C.

Hodgdon JA, Goforth HW Jr, Hilderbrand RL. *Biochemical Responses of Navy Special Warfare Personnel to Carbohydrate Loading and Physical Performance*. San Diego, Calif: Naval Health Research Center; 1983. NHRC Technical Report 82-3.

Jacobs I, Prusaczyk WK, Goforth HW Jr. *Muscle Glycogen, Fiber Type, Aerobic Fitness, and Anaerobic Capacity of West Coast US Navy Sea-Air-Land Personnel (SEALS)*. San Diego, Calif: Naval Health Research Center; 1993. NHRC Technical Report 92-10.

Jacobs I, Prusaczyk WK, Goforth HW Jr. *Adaptations to Three Weeks of Aerobic/Anaerobic Training in West Coast US Navy Sea-Air Land Personnel (SEALS)*. San Diego, Calif: Naval Health Research Center; 1995. NHRC Technical Report 94-28.

Kelly T, Assmus J, Shillcutt C, Goforth HW Jr. *The Use of Tobacco Products Among Naval Special Warfare Personnel*. San Diego, Calif: Naval Health Research Center; 1993. NHRC Technical Report 92-16.

McDonald DG, Norton JP, Hodgdon JA. *Determinants and Effects of Training Success in US Navy Special Forces*. San Diego, Calif: Naval Health Research Center; 1988. NHRC Technical Report 88-34.

Meyer, LT; J Moore, T Sopchick-Smith, & A Friedlander Naval Special Warfare Sports Medicine Conference Proceedings. San Diego, Calif: Naval Health Research Center; 1995. NHRC Technical Document 95-4D.

Meyer LT, Smith TS, Friedlander AL. *Expert Panel Review of Naval Special Warfare Calisthenics: Sports Medicine Conference Summary*. San Diego, Calif: Naval Health Research Center; 1995. NHRC Technical Document 95-5E.

Naitoh P, Kelly TL, Goforth HW Jr. *Sleep During SEAL Delivery Vehicle (SDV)/Dry Dock Shelter Exercises Analyzed by a Graphic Approach*. San Diego, Calif: Naval Health Research Center; 1995. NHRC Technical Report 94-30.

Naitoh P, Kelly T. *Sleep Management User's Guide for Special Operations Personnel*. San Diego, Calif: Naval Health Research Center; 1993. NHRC Technical Report 92-28.

Prusaczyk WK, Goforth HW Jr, Nelson ML. *Physical Training Activities of East Coast US Navy SEALs*. San Diego, Calif: Naval Health Research Center; 1995. NHRC Technical Report 94-24.

Prusaczyk WK, Goforth HW Jr, Nelson ML. *Characteristics of Physical Training Activities of West Coast US Navy Sea-Air-Land Personnel (SEALS)*. San Diego, Calif: Naval Health Research Center; 1993. NHRC Technical Report 90-35.

Prusaczyk WK, Goforth HW Jr, Sopchick T, Griffith P, Schneider K. *Thermal and Physiological Responses of Basic Underwater Demolition/SEAL (BUD/S) Students to a 5.5-Mile Open-Ocean Swim*. San Diego, Calif: Naval Health Research Center; 1994. NHRC Technical Report 93-27.

Prusaczyk WK, Stuster JW, Goforth HW Jr, Sopchick Smith T, Meyer LT. *Physical Demands of US Navy Sea-Air-Land (SEAL) Operations*. San Diego, Calif: Naval Health Research Center; 1995. NHRC Technical Report 95-24.

Prusaczyk WK, Stuster JW, Goforth HW Jr. *An Analysis of Critical Tasks and Abilities of SEAL Delivery Vehicle (SDV) Crew Positions (C)*. San Diego, Calif: Naval Health Research Center; 1995. NHRC Technical Report 95-20.

Shwayhat AF, Linenger JM. *Profiles of Exercise History and Overuse Injuries Among US Navy SEAL Recruits*. San Diego, Calif: Naval Health Research Center; 1994. NHRC Technical Report 93-3.

Selected US Army Research Institute of Environmental Medicine (USARIEM) Publications Related to Special Operations Forces:

Fairbrother B, Shippee RL, Askew EW, et al. *Nutritional Assessment of Soldiers During the Special Forces Assessment and Selection Course*. Natick, Mass: US Army Research Institute of Environmental Medicine; 1995. USARIEM Technical Report T95-22.

Jeziar D, Arsenault J. *Nutritional and Immunological Assessment of Ranger Students With Increased Caloric Intake*. Natick, Mass: US Army Research Institute of Environmental Medicine; 1995. USARIEM Technical Report T95-5.

Moore RJ, Friedl KE, Kramer TR, et al. *Changes in Soldier Nutritional Status and Immune Function During the Ranger Training Course*. Natick, Mass: US Army Research Institute of Environmental Medicine; 1992. USARIEM Technical Report T13-92.

Selected Nonfiction Reading Related to Special Operations Forces:

Adams J. *Secret Armies: The Full Story of the SAS, Delta Force and Spetsnaz*. Hutchinson & Co. ISBN 0-330-30661-8.

Bank A. *From OSS to Green Berets*. Novato, Calif: Presidio Press; 1987.

Barker GT. *A Concise History of US Army Special Operations Forces*. Tampa, Fla: Anglo-American Publishing Co; 1993.

Beaumont R. *Special Operations and Elite Units, 1939–1988*. New York, NY: Greenwood Press.

Beckwith CA, Knox D. *Delta Force*. San Diego, Calif: Harcourt Brace Jovanovich; 1983.

Bosiljevac, TL. *SEALs: UDT/SEAL Operations in Vietnam*. Ballantine Books. ISBN 0-8041-0722-X.

Chinnery PD. *Air Commando: Inside the Air Force Special Operations Command*. St Martin's Paperbacks. ISBN 0-312-95881-1.

Collins JM. *Green Berets, SEALs and Spetsnaz*. Washington, DC: Pergamon-Brassey; 1987. ISBN 0-099-035747-4.

Cummings DJ. *The Men Behind the Trident: SEAL Team One in Vietnam*. Naval Institute Press. ISBN 1-55750-139-4.

Fane FD, Moore D. *The Naked Warriors: The Story of the US Navy's Frogmen*. Naval Institute Press. ISBN 1-55750-266-8.

Halberstadt H. *Green Berets*. Novato, Calif: Presidio Press; 1988.

Kelly FJ. *US Army Special Forces, 1961-1971: Vietnam Studies*. Washington, DC: US Government Printing Office; 1973.

Kelly O. *Brave Men, Dark Waters: The Untold Story of the Navy SEALs*. Novato, Calif: Presidio Press; 1982.

Kelly O. *From a Dark Sky: The Story of US Air Force Special Operations*. Novato, Calif: Presidio Press; 1996. ISBN 0-89141-520-3.

Kelly O. *Never Fight Fair! Navy SEALs' Stories of Combat and Adventure*. Novato, Calif: Presidio Press; 1995. ISBN 0-89141-519-X.

- Landau A, Landau F. *Airborne Rangers*. Motorbooks International. ISBN 0-87938-606-1.
- McRaven WH. *SPEC OPS: Case Studies in Special Operations Warfare: Theory and Practice*. Novato, Calif: Presidio Press; 1995. ISBN 0-98141-544-0 (hardcover) and 0-89141-600-5 (paperback).
- Padden I. *US Army Special Forces*. New York, NY: Bantam Books; 1995.
- Rottman GL. *US Army Special Forces, 1952-1984*. London, England: Osprey; 1985.
- Simpson CM. *Inside the Green Berets: The First Thirty Years*. Novato, Calif: Presidio Press; 1983.
- Simpson CM. *Inside the Green Berets: The Story of US Army Special Forces*. Berkley, Calif. ISBN 0-425-09146-5.
- Stanton SL. *Green Beret at War*. Novato, Calif: Presidio Press; 1985.
- Sutherland IDW. *Special Forces of the United States Army, 1952–1982*. San Jose, Calif: R. James Bender Publishing; 1990.
- Thompson L. *US Special Forces 1941-1987*. New York, NY: Blandford Press; 1987.
- Time–Life Books. *Special Forces and Missions*. Alexandria, Va: Time–Life Books; 1990. ISBN 0-8094-8600-8.
- Waller D. *The Commandos*. New York, NY: Simon & Schuster. ISBN 0-671-78717-9.
- Walmer, M. *An Illustrated Guide to Modern Elite Forces*. Prentice Hall Press. ISBN 0-668-06064-6.
- Watson J, Dockery K. *Point Man*. William Morrow. ISBN 0-688-12212-4.

Providing optimal care for special operations forces (SOF) requires familiarity with the organizational culture and the operational job requirements of this group; yet there is very little written in the psychiatric literature which would prepare a provider for this challenge. The US Special Operations Command (USSOCOM or SOCOM) is the Unified Combatant Command which oversees the various Special Operations Component Commands of the Army, Air Force, Navy, and Marine Corps.Â Organizational, psychological, and training aspects of Special Operations Forces. In: Lounsbury DE, editor. Medical aspects of harsh environments. Washington, DC: Department of the Army, Office of The Surgeon General; 2002. pp.1166â€“93.Google Scholar. 2.