



A Concept for Stand-in Forces

December 2021

Forward

We have been here before. Over the course of our history, Marines have often been on the leading edge of our Nation's forward deployed forces, sensing the environment and reassuring our allies and partners. Marines have also embraced truly difficult operational problems and come up with solutions no one thought possible. And Marines have gone into contested areas that others feared to enter and returned victorious. A *Concept for Stand-in Forces* represents another step on this historical path.

The security environment is ever changing. Today it is characterized by the proliferation of sophisticated sensors and precision weapons coupled with growing strategic competition. Adversaries employ systems and tactics to hold the fleet and larger joint force at arm's length. This allows these adversaries to employ a strategy that uses contested areas as a shield, under which they can then apply a range of coercive measures short of war against our allies and partners.

Enter the Marines. As part of *Force Design 2030* and intentionally aligned with the *Joint Warfighting Concept*, A *Concept for Stand-in Forces* is intended to provide options in support of integrated deterrence. Marines acting as stand-in forces will be positioned forward, shoulder-to-shoulder with our allies and partners, leveraging all-domain tools as the eyes and ears of the fleet and joint force.

This concept will be performed within the context of a naval campaign that ultimately meets the requirements of a joint force commander. Marines performing these operations have the enduring tasks of conducting reconnaissance and counter-reconnaissance for this naval campaign at every point on the competition continuum. If necessary, these forces will conduct sea denial in designated areas in support of the naval campaign. We must be prepared to do this with our available organic means, but equally as important we need to complete naval and joint kill webs, helping to bring all-domain effects to bear when needed. In doing so, Marines will extend the reach of the fleet and joint force from inside contested areas.

To reinvigorate our role as America's forward sentinels, we need to reimagine our approach, and use the results as a guide for developing our people and their supporting processes and systems. A *Concept for Stand-in Forces* animates this guide by explaining how Marines can operate effectively with allies and partners from within a contested area.

Stand-in forces disrupt an adversary's plans at every point on the competition continuum. This is an important statement, because it describes what we can provide the Nation in strategic competition below the threshold of violence. It is audacious, which makes it ideal for Marines.

It will also be difficult. Knowing it will be challenging to bring A *Concept for Stand-in Forces* from idea to reality should inspire us to wargame, experiment, and exercise with it so that we get it right. This is how we can unleash the ingenuity of the individual Marine and outpace our adversary, as we retain our role as the Nation's force-in-readiness.



David H. Berger
General, U.S. Marine Corps
Commandant of the Marine Corps

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A Concept for Stand-in Forces

“Thus, the option some advocate, of holding our maritime power near home waters, would inevitably lead to abandoning our allies. This is unacceptable, morally, legally, and strategically. Allied strategy must be prepared to fight in forward areas. That is where our allies are and where our adversary will be.”

—Admiral James D. Watkins, USN, 1986¹

Purpose

Stand-in forces (SIF) reassure the Nation and our allies and partners. SIF deter the application of military power on the part of adversaries by establishing forces designed to persist forward alongside allies and partners within a contested area, providing the fleet, joint force, interagency, and allies and partners more options for countering an adversary’s strategy. SIF win the all-domain reconnaissance battle to identify and confront adversary malign behavior directed at U.S. allies, partners, and other interests, and to develop understanding of the environment and adversary capabilities. SIF win the all-domain counter-reconnaissance battle to protect partners and joint force freedom of maneuver while disrupting adversary attempts to gain the initiative. In the event of armed conflict, SIF remain forward in the contested area alongside allies and partners to support naval and joint campaigning. At all points on the competition continuum, SIF intentionally disrupt adversary plans.

A Concept for Stand-in Forces is about generating new capabilities and operating in novel ways. In this sense, it provides an aim point for force design and force development. Iterative experimentation and exercises will be required to fully mature its methods and equipment.

Background

A Concept for Stand-in Forces deals with rivals who use (or threaten to use) counter-intervention approaches against the joint force. These counter-intervention approaches rely on advances in the mature precision strike regime² (MPSR) to disrupt the joint force’s ability to project power and sustain it over time. SIF provide an operational level response that allows naval forces to retain the initiative despite a rival’s use of counter-intervention efforts.

The concept nests underneath the Marine Corps’ maneuver warfare philosophy found in Marine Corps Doctrinal Publication (MCDP) 1, *Warfighting*, which describes maneuver as taking action to generate and exploit some kind of advantage over the enemy regardless of domain. The advantage is not only spatial; it may also be psychological, technological, or temporal.³ As “all-domain”⁴ organizations, SIF must understand and implement this robust definition of maneuver in order to accomplish their mission.

The SIF concept directly aligns to the operational approach contained in the *Joint Warfighting Concept*. The *Commandant’s Planning Guidance* (CPG) directs publication of the SIF concept in support of the Navy’s *Distributed Maritime Operations* (DMO) concept. The CPG explains that SIF integrate with the *Expeditionary Advanced Base Operations* (EABO) concept by describing how SIF will be supported by these advanced bases.⁵

1 ADM James D. Watkins, USN, as quoted in John B. Hattendorf, D.Phil., and Peter M. Swartz, Editors, “U.S. Naval Strategy in the 1980s: Selected Documents,” *Newport Papers* 33, Naval War College Press, 2008, p. 212.

2 Gen David H. Berger, USMC, “The Case for Change: Meeting the Principal Challenges Facing the Corps,” *Marine Corps Gazette*, June 2020, pp. 8-9. The trend toward the increasing range and lethal effect of military technology is a common element of the history of modern warfare. Accompanying the development of range and lethality at every stage has been the advance of the ability to apply that lethality effectively to military ends through the necessary command, control, communications, computer, intelligence, surveillance, and reconnaissance (C4ISR) organizations and technologies. These trends are very long standing.

3 MCDP 1, p. 72.

4 Stand-in forces do not need organic capability in each domain. Rather, they need the ability to integrate all domains into their operations, and collections efforts. SIF must be able to see where gaps in collections exist in any domain so that they can act decisively to eliminate those gaps.

5 CPG, p. 10.

More recently, *Naval Campaigning: The Marine Corps' Role in Strategic Competition* provided the broad framework of an expanding family of naval concepts, to include *Stand-in Forces*.

This concept is primarily intended for activities in the Global Operating Model's contact and blunt layers, and to enable the joint force's transition to surge operations. This reinforces the deterrent intent behind the concept and also illustrates how it is applied across the competition continuum. While Marines do need to be ready to conduct SIF operations in the surge layer, the goal is to employ the concept in ways that minimize incentives for rival decision-makers to escalate a confrontation.

Context

Strategic Context

Potential rivals and their proxies across the world spent decades studying the joint force's ways and means of projecting power and then developed concepts and associated capabilities to counter them. These counter-intervention strategies seek to disrupt the joint force's plans and operating methods. In turn, this disruption slows and complicates decision-making and causes other actors to doubt the extent of the joint force's capabilities, which affects how people perceive the usefulness of the United States' military element of national power.

These potential rivals make every effort to disrupt and degrade the United States' relations with its allies and partners. The U.S. alliance structure around the globe is a significant competitive advantage that rivals frequently attack (usually through ways and means below the violence threshold). Attacking our allies and partners individually helps revisionist powers intimidate others to achieve regional hegemony and dismantle the international order so they can rebuild it to their advantage. To achieve these goals, they need to sow doubt in U.S. security guarantees.

These rivals specifically apply counter-intervention strategies against the fleet's freedom of action in the contested area. They develop sea denial capabilities intended to push our operating areas beyond useful ranges. This attempt at sea denial seeks to disrupt the fleet's ability to defend allies and partners, thus allowing the rival freedom to apply the full weight of its coercive measures against our allies and partners.

The disruption of U.S. power projection gives rivals freedom to pursue their political goals underneath the military cover provided by their counter-intervention concepts and capabilities. Under this cover, they use coercive methods that fall at or below the threshold of violence to intimidate their neighbors into letting them obtain their political goals and undermine U.S. interests.

Geographic Context

The People's Republic of China (PRC) is the pacing challenge for the joint force; thus, while the concept is applicable globally, the INDOPACOM area of responsibility is appropriately the focus of the *Stand-in Forces* concept. The Chinese Communist Party (CCP) uses whole-of-government efforts to spread the PRC's influence, undercut that of the United States, drive wedges between Washington and its allies and partners, and foster

new international norms that favor the authoritarian PRC system outside of its internationally-recognized geographical, political, economic, and diplomatic borders and boundaries. The PRC seeks to apply its growing strength, recognizing the fallacy of consensus and using coercion to compel regional neighbors to acquiesce to Beijing's preferences, including its claims over disputed territory and assertions of sovereignty over Taiwan. In the maritime domain, the PRC intimidates rival claimants and uses growing numbers of air, naval, and maritime law enforcement platforms to signal to Southeast Asian countries that the PRC has effective control over contested areas. The PRC continues to expand the quantity and quality of its long-range systems, improving its ability to project power and to use conventional means to hold U.S. forces and allied bases in the region at risk.⁶ Concurrently, the PRC is enhancing and modernizing its nuclear forces.

From a naval perspective, the summary above outlines the PRC's growing potential to exercise sea supremacy

⁶ Office of the Director of National Intelligence, *Annual Threat Assessment of the U.S. Intelligence Committee*, 9 April 2021, pp. 6-8.

inside the first island chain and sea control beyond. This threatens the United States' ability to support and, if necessary, help defend allies and partners in the region, making these allies and partners susceptible to the PRC's full range of coercive tools. In effect, the PRC's goal is to push the U.S. outside these island chains so they can coerce other nations without interference from the U.S. or international community.

Geographically, SIF is a concept for the employment of naval expeditionary forces in the littorals and is inherently maritime in character. To be most effective, expeditionary forces operating in the littorals must integrate operations with other fleet forces. While it is primarily designed to address the pacing challenge, the concept is applicable for any area of the world. When applying it to a specific geographic area, the concept's maritime character shapes how it will be used. Stand-in forces able to persist inside a contested area in the contact and blunt layers will be useful to naval and joint commanders in a wide variety of theaters.

The Operating Environment⁷

A *Concept for Stand-in Forces* needs to work successfully in a dynamic operating environment regardless of location. Marines should expect the environment to have the following general characteristics.

First is the proliferation of the MPSR. Across the globe, actors at every level (including non-state actors) are demonstrating the ability to accurately sense the battlespace in multiple domains and rapidly strike. There are numerous case studies that illustrate this trend and are worthy of further study: e.g., the dawn of the missile age at sea in 1967 with the sinking of the INS *Eliat* by Egyptian-operated anti-ship cruise missiles; the 1973 Yom Kippur War, which featured the world's first all-missile naval battle; the South Atlantic War and Tanker Wars of the 1980s; and the 2020 Nagorno-Karabakh War, during which almost all battle damage was inflicted by unmanned systems.⁸ In the maritime domain, the ever-increasing power of the MPSR reinforces the naval maxim to "attack effectively first"⁹ once hostilities commence.

The continual improvement taking place in intelligence, surveillance, reconnaissance and targeting (ISR-T) capabilities — created by the trend of rapidly increasing computing power that is also rapidly dropping in cost — is a fundamental characteristic of the MPSR. This accelerates MPSR proliferation while leading to ISR parity, particularly among nation-state competitors. The implications of this growing parity are many. Among the most important for the SIF concept is that ISR parity places a premium on having accurate maritime domain awareness at each point on the competition continuum. It also increases the importance of being able to control and mask one's signature and perform effective deception in all domains if one desires to operate effectively from within a contested area. Cheaper, more powerful computing power has a similar effect on the electromagnetic spectrum, creating challenges to using the spectrum, especially for command and control.

Underneath the protection provided by the MPSR, potential rivals use activities at and below the violence threshold to achieve their political goals without triggering wider armed conflict. Adversaries confronting the U.S. often employ "salami slicing" strategies that confront the joint force with the alternatives of waging or threatening war over comparatively minor stakes or accepting *faits accomplis*¹⁰ in the form of local encroachments, annexations, or other violations of the rules of the established international order. Facing an adversary that has fielded elements of a long-range reconnaissance-strike complex or possesses other capabilities (such as irregular warfare augmented by long-range precision strike), the United States may in greater or lesser degree be deterred. If the objective the adversary seeks appears relatively insignificant, the U.S. incentive to overcome the deterrent effect is correspondingly reduced.

In the absence of persistent presence, the MPSR will make it very hard for the U.S. to re-establish access from strategic distance. The "ends" of a counter-intervention strategy is to deny access to an area, and the "ways and means" of the strategy are created to support it. Trying to gain access to a denied area from the outside is a symmetrical response to a counter-intervention approach, which should be avoided.

7 Gen David, H. Berger, USMC, "The Case for Change". 6 Aug 2020. <https://mca-marines.org/wp-content/uploads/The-Case-for-Change.pdf>, accessed 1 Dec 2021.

8 Nicole Thomas, et al., "What the United States Military Can Learn from the Nagorno-Karabakh War," *Small Wars Journal*, pp. 8-9, <https://smallwarsjournal.com/jrnl/art/what-united-states-military-can-learn-nagorno-karabakh-war>, accessed 8 Apr 2021.

9 Gen David H. Berger, USMC, ADM Michael M. Gilday, USN, and ADM Karl I. Schultz, USCG, Naval Doctrine Publication (NDP) 1, *Naval Warfare*, p. 54.

10 Something that has already happened or been done and presumably cannot be changed, *Cambridge English Language Dictionary*, <https://dictionary.cambridge.org/us/dictionary/english/fait-accomplis>, accessed 5 July 2021.

The collection, distribution, and use of information in a wide variety of forms is an integral part of the operating environment and will affect SIF operations. Obtaining, transmitting, and protecting military information will be contested at every point on the competition continuum. Rivals will attempt to use commercial means and social media to control the narrative that explains their activities and to influence audiences in ways that make it easier for them to achieve their political goals.

Finally, and most importantly, the United States' alliances and partnerships across the globe are a tremendous source of strength and a unique advantage. They help advance shared interests and values and shoulder the burdens of collective security. With them, the U.S. can address common challenges, share costs, and widen the circle of cooperation. Recognizing and taking advantage of this aspect of the operating environment offers great opportunities, especially when each ally and partner makes the best use of their respective comparative advantages.¹¹

Central Idea

Stand-in Forces Defined

SIF are small but lethal, low signature, mobile, relatively simple to maintain and sustain forces designed to operate across the competition continuum within a contested area as the leading edge of a maritime defense-in-depth in order to intentionally disrupt the plans of a potential or actual adversary. Depending on the situation, stand-in forces are composed of elements from the Marine Corps, Navy, Coast Guard, special operations forces, interagency, and allies and partners.

Theory of Success

In day-to-day activity, SIF deter potential adversaries by establishing the forward edge of a partnered maritime defense-in-depth that denies the adversary freedom of action.¹² The impact of working with allies and partners cannot be overstated; it is key to undermining the adversary's plans and is a primary reason stand-in forces' presence must be persistent. SIF also deter by integrating activities with the other elements of national power (particularly diplomatic and informational) to impose costs on rivals who want to use ways and means below the violence threshold¹³ to achieve their goals.

Stand-in forces' enduring function is to help the fleet and joint force win the reconnaissance and counter-reconnaissance battle at every point on the competition continuum. Stand-in forces do this by gaining and maintaining contact (establishing target custody and identifying the potential adversary's sensors) below the threshold of violence. This allows SIF to assist in identifying and countering malign behavior, and if armed conflict does erupt, the joint force can attack effectively first and prevent the enemy from doing so.

When directed, SIF conduct sea denial operations in support of fleet operations, especially near maritime chokepoints. SIF can perform sea denial through the use of organic sensors and weapon systems to complete kill webs, but also by integrating organic capabilities with naval and joint all-domain capabilities. SIF also possess sufficient organic maneuver and offensive capability to gain a position of advantage by securing, seizing, and controlling contested key maritime terrain in support of sea denial operations.

By doing the above, SIF become an operational problem an enemy must address to achieve its goals. SIF impose costs on the enemy by presenting operationally relevant capabilities that cannot be ignored, even as their low signature, high mobility, dispersion, and use of deception make them difficult for an enemy to find and target. Their small footprint and focus on partnership make SIF less burdensome on the host nation than larger U.S. formations.

11 President Joseph R. Biden, Jr., *Interim National Security Strategic Guidance*, March 2021, p. 10.

12 Two actors determine if a defense is "credible." The first (and most important) actor is the potential adversary, or the actor the U.S. wants to deter. The potential aggressor must believe in the effectiveness of the defense enough so that they do not take the unwanted action. The second actor is the ally or partner the defense is intended to protect. They must believe in the effectiveness of the defense enough that they will be willing partners in establishing it.

13 For a more complete description of the threshold of violence on the competition continuum, see MCDP 1-4 *Competing*, pp. 2-19 to 2-20.

Stand-in forces are employed to:

- Improve fleet, joint force, and coalition situational awareness in contested areas to support friendly decision-making across the competition continuum.
- Maintain U.S. security guarantees through a persistent, forward-deployed posture that helps defend allies and partners. SIF operate forward in partnership with other nations to identify malign behavior and gain knowledge regarding the potential adversary and environment through all-domain reconnaissance. SIF day-to-day activities support an integrated approach to competition.
- Deter potential adversaries. For deterrence to succeed, it must shape the thinking of a potential aggressor.¹⁴ The SIF deterrent capability must be credible enough to inspire confidence among our allies and partners and be useful for the achievement of their objectives.
- Gain and maintain custody of potential targets, such as a potential adversary's capabilities and assets.
- Develop understanding of a potential adversary's operating methods and establish a baseline of a potential adversary's regular activities (i.e., "pattern of life").
- Deny an adversary or potential adversary the ability to gain advantage in any domain through passive and active counter-reconnaissance.
- Complete kill webs. Kill webs allow for the rapid identification and selection of assets for tasking and re-tasking within and across military boundaries from disaggregated or distributed forces. Stand-in forces help the fleet and joint force complete kill webs.¹⁵
- Deny adversary freedom of movement, especially in and around maritime chokepoints. SIF serve as the battle manager for sea denial in focused areas, integrating organic sensors and weapons with other naval, joint, and coalition sensors and weapons. SIF perform these operations as an inherent part of the fleet's concept of operations, increasing options available to the fleet by limiting enemy freedom of maneuver.
- Secure, seize, and control contested key maritime terrain in support of sea denial operations.
- Disrupt the plans of potential adversaries. While adversaries have designed their forces to disrupt the current joint force, the creation of stand-in forces will, in turn, complicate and frustrate adversary attempts to meet their aims below the threat of armed conflict. If armed conflict occurs, SIF extend the battlespace as the forward element of a maritime defense-in-depth to limit adversary freedom of action in support of naval maneuver and joint force access.

¹⁴ Consistent with Michael J. Mazzar, "Understanding Deterrence," RAND, 1-2, this concept defines deterrence as the practice of discouraging or restraining someone (usually a nation-state) from taking unwanted actions, such as an armed attack. It involves an effort to *stop* or *prevent* an action, as opposed to the closely related but distinct concept of "compellence," which is an effort to force an actor to *do* something. *Deterrence by denial* tries to deter an action by making it infeasible or unlikely to succeed. *Deterrence by punishment* threatens severe penalties (including nuclear attack or economic sanctions) if the action does occur.

¹⁵ DARPA, "Creating Cross-Domain Kill Webs in Real Time," <https://www.darpa.mil/news-events/2020-09-18a>, accessed 21 May 2021.

Supporting Ideas and Planning Considerations

“Effective fusion of reconnaissance, surveillance, and intelligence information is so important that it must receive the same emphasis as the delivery of firepower. Contrarily, obstructing the enemy’s scouting by cover, deception, confusion, or distraction merits enormous attention for successful scouting and screening are relative to each other.”

—Captain Wayne Hughes, USN (Ret.), 1986¹⁶

Overview

Establishing the leading edge of a maritime defense-in-depth starts with an estimate of the situation oriented on the potential adversary in the region and its goals, methods, strengths, and weaknesses. The estimate considers the defensive needs of regional allies and partners and studies the effects of regional geography on the potential adversary, regional allies and partners, and naval campaigning. The estimate concludes by analyzing the campaign plans of the fleet, maritime component, and combatant commanders. *This estimate must include all domains and be refreshed regularly to account for changing conditions, to include adversary adaptation, and to reexamine underlying assumptions.* A persistent effort in the contact layer will require frequent adjustments to remain effective over time.

The estimate also guides how to establish SIF reporting mechanisms, including command arrangements.¹⁷ The information advantage SIF are designed to provide to fleet and joint force commanders can be disrupted by poorly designed reporting structures. SIF reporting should be streamlined as much as possible so that perishable information reaches decision-makers fast enough for them to make timely decisions.

SIF will use a flexible command arrangement to orchestrate the actions of elements operating in the contested area. For example, in some situations the forces will work for a Marine-led headquarters ashore. This Marine-led headquarters could be a Marine Expeditionary Force (MEF) or one of the MEF’s major subordinate commands (division, wing, or logistics group) in the role of a task group or task force working for the fleet commander. In other cases, the operational command lines could flow through the MEF headquarters under the authority of the Joint Force Maritime Component Commander (JFMCC). These intermediate headquarters will perform functions such as coordinating information, intelligence, joint and combined fires, airspace coordination, and sustainment with adjacent naval task groups and task forces, with the theater JFMCC, and with allies and partners. As these command arrangements evolve over time, we must take care to maintain the maritime domain awareness picture and the relationships with allies and partners that underpin the concept.

SIF gain and maintain contact using the smallest elements of the force possible, doing so to preserve options, to put the minimum amount of combat power at risk, and to minimize logistical requirements in the forward area. The specific posture will be determined by the estimate, but generally it will be established according to the following guidelines. The force posture prioritizes gaining contact with the potential adversary but balances it against survivability and the need to keep the sustainment burden inside the contested area as light as possible. Following this logic, the most forward elements that are first to gain contact with the potential adversary will typically be unmanned. Next will be a manned and unmanned area characterized by teaming. Its purpose will be to control the forward elements, operate an additional layer of manned and unmanned sensors, integrate operations with allies and partners, and to provide direction and support to unmanned systems as they cycle forward. An additional layer will host major weapon systems, required logistic support, and additional command and control elements (and possibly forward arming and refueling points, if required). Anything requiring significant sustainment or manpower support will ideally be postured afloat and/or ashore outside the contested area to minimize the footprint and signature inside the contested area. This concept

¹⁶ Wayne Hughes, *Fleet Tactics: Theory and Practice*. Annapolis, MD: U.S. Naval Institute, 1986.

¹⁷ Per NDP-1, p. 51, “Command arrangements include decisions made with respect to how forces are task-organized, what tasks each formation is assigned, what area of operations they are responsible for, who commands the different formations, and the command relationships among commanders.”

envisions long-duration and long-range unmanned systems bedding down outside the contested area to the maximum extent possible.

SIF establish this posture and use it to support naval campaigning in the contact layer by establishing and building upon existing relationships with allies and partners. These relationships then inform how SIF provide specific support to allies and partners, and where and how they can operate from host nation littorals. Achieving the necessary level of access will require close coordination through the chain of command to the combatant commander, as well as close coordination with interagency partners, particularly the State Department. Among other activities, SIF use security cooperation, security force assistance, and exercise events to deepen relationships and to develop the maritime domain awareness picture. Ultimately, SIF seek to routinely and consistently operate forward with our allies and partners. This describes many of the ways SIF achieve *persistent presence*.

From littoral operating areas in the contact layer, SIF perform reconnaissance to assist in the deterrence of potential adversaries. SIF use focused collections to detect malign activity, provide support to information operations, and provide early warning for the joint force. These collections are also used to support the deterrence efforts of the interagency and those of allies and partners—SIF provide complementary capabilities to make deterrence more effective. The goal of these efforts is to affect the thinking of adversary decision-makers by convincing them the cost of continuing malign activity is too high.¹⁸ Demonstrating that SIF are the eyes and ears of more substantial power signals the presence and resolve of the larger joint force. This contributes to deterrence by denial with a resilient, survivable forward positioned force. SIF are the eyes and ears of the interagency and allies and partners.

SIF reconnaissance, counter-reconnaissance, and mobility criteria require the capability to move on the seaward side of the littorals as easily as on the landward side. Examples of these seaward mobility requirements include the following needs: conducting reconnaissance for the fleet in shallow waters near shore, preventing possible adversary collections from coastal craft, and maneuvering at a tempo that out-cycles adversary ISR-T. This type of mobility is necessary to complete the forces' sustainment distribution network as well. Marines will need to be capable of using a variety of small craft, such as patrol, coastal, and commercial craft. To enable seaward littoral movement, this concept envisions SIF employing organic craft, coordinating for such support from allies and partners, or leasing and operating commercial craft found in a host nation.

To enhance deterrence, SIF must be ready to use operations in the information environment to affect the thinking of rival decision-makers and other influential target audiences. This has important planning implications. The force must identify where authority to use each information related capability resides and coordinate for its use once specific triggers are met (for example, the pre-approval for social media release of photos taken by SIF collection means). SIF also practice "integrated deterrence," which means they coordinate their activities with the joint force, interagency, and allied and partnered nations to achieve greater results than could be gained by acting alone.¹⁹

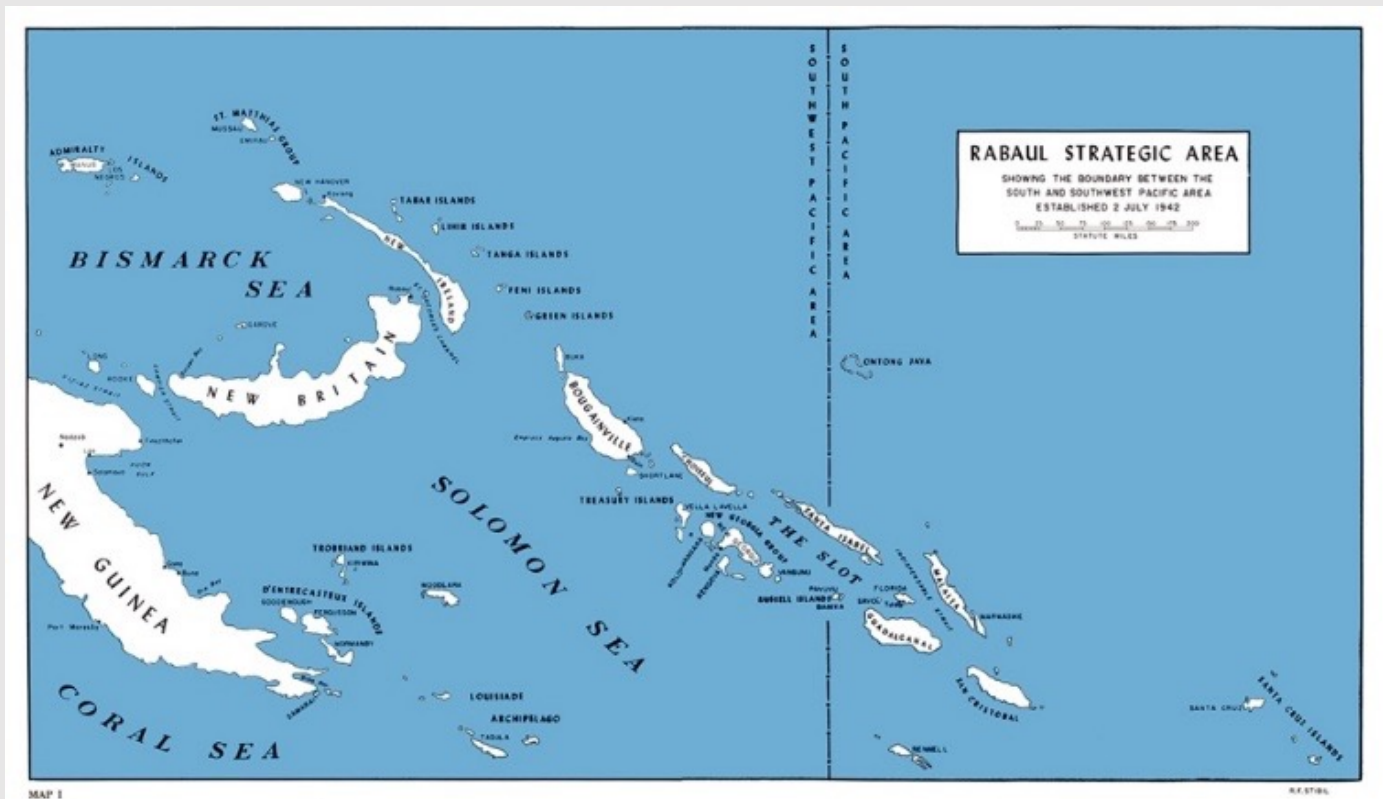
SIF identify and track formations, platforms, and sensors of potential adversaries and help identify the unique all-domain characteristics of these elements. Additionally, SIF identify how potential adversaries could perform reconnaissance if hostilities occur. As contact transitions to blunt layer activities, SIF use lethal and non-lethal means to defeat adversary reconnaissance efforts, utilizing the identification and characterization of adversary sensors and reconnaissance methods (collected through persistence in the contact layer) to develop and execute the reconnaissance/counter-reconnaissance scheme of maneuver. Generally, SIF reconnaissance supports fleet and joint attack of adversary targets, while its counter-reconnaissance missions prevent the adversary from sensing and attacking the fleet and joint force.

18 Thomas G. Mahnken et. al., *Deterrence by Detection: A Key Role for Unmanned Aircraft Systems in Great Power Competition*, CSBA, 2020, pp 6-9.

19 Gen David Berger, "The Marine Corps and the Future of Warfare," The Brookings Institute, 18 May 2021, <https://www.brookings.edu/events/the-marine-corps-and-the-future-of-warfare/>, accessed 14 June 2021.

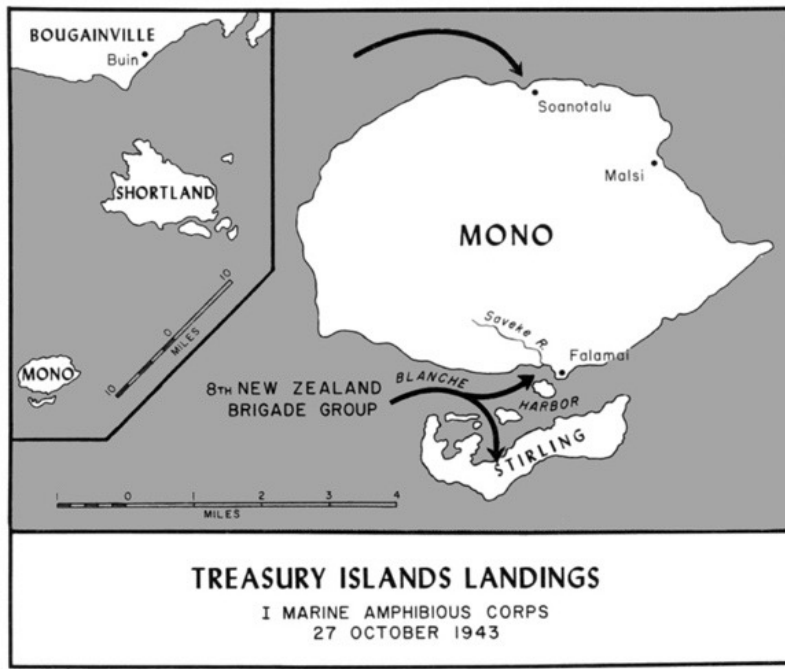
Diversionsary Operations: The Raid on Choiseul and Landings on the Treasury Island²⁰

In 1943, the Allies in the South Pacific sought to bypass the Japanese Navy's stronghold at Rabaul after the successful operation on Guadalcanal. The Allies needed to establish airfields at the northern end of the Solomon Islands chain (Guadalcanal was on the southern end) if they were going to prevent Japanese air and naval forces at Rabaul from interfering with follow on operations. Cape Torokina on Bougainville Island was chosen as the location for these airfields. The Allies planned a raid on the island of Choiseul and landings on two of the Treasury Islands to divert Japanese attention from the main effort on Bougainville and to establish supporting radar sites and torpedo boat anchorages. These diversionsary operations were intended to convince the Japanese that the Shortland Islands, and not Bougainville, was the location for the next major amphibious assault.



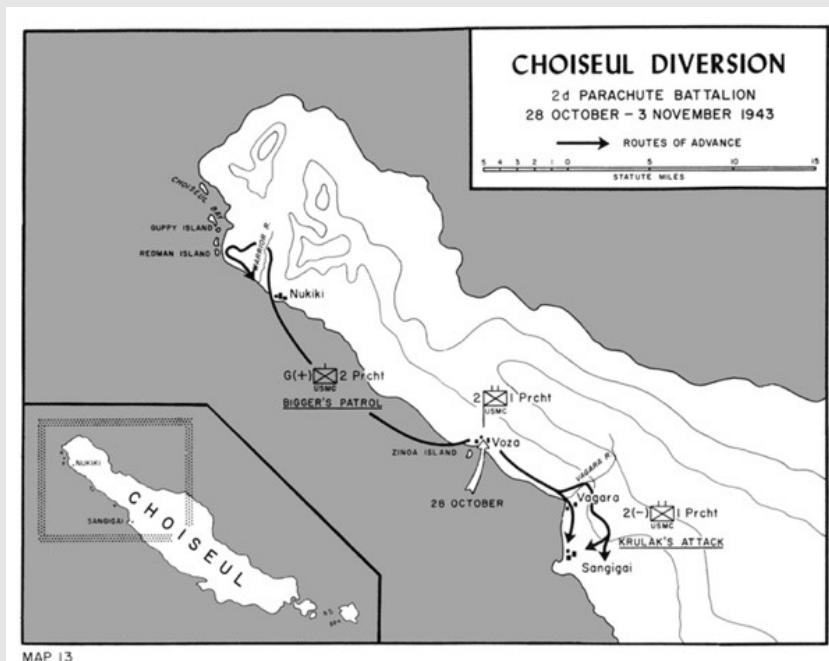
The 8th New Zealand Brigade was attached to I Marine Amphibious Corps to conduct the Treasury Islands landings. The brigade was reinforced by about 1,900 Marines, including a signals detachment and liaison section; these Marines provided the New Zealanders with complementary capabilities. The landings began on 27 October and were completed by 31 October against relatively light Japanese opposition. The radar installations and torpedo boat anchorage were quickly established.

²⁰ Henry I. Shaw and Douglas T. Kane, *History of U.S. Marine Corps Operations in World War II Volume II: Isolation of Rabaul*, Historical Branch Headquarters U.S. Marine Corps, 1963, <https://www.ibiblio.org/hyperwar/USMC/II/index.html>, accessed 26 June 2021.



MAP 12

The amphibious raid on Choiseul occurred from October 28 to November 3, 1943. During the raid, Marines from the 2nd Parachute Battalion moved via fast destroyer transports and landing craft to the island, making an unopposed landing with the help of Australian coast watchers and Choiseul islanders. They carried out raids on Japanese army and navy forces across a 25-mile (40 km) area over the course of the next seven days. The force was withdrawn by landing craft following the successful lodgment of U.S. troops on Bougainville.



MAP 13

The diversions caused Japanese hesitation and focused their attention on the wrong location. The Treasury Island landings also set conditions, with the placement of sensors and forward staging of logistics, for the introduction of additional naval and coalition forces. They exemplify how relatively small forces, operating inside a contested area, employed limited objective offensive operations to confuse the adversary's decision-making and set conditions for a major offensive.

SIF support maneuver by using lethal and non-lethal means to disrupt adversary sensors. This disruption provides windows of opportunity for manned-unmanned teams positioned outside the contested area to take advantage of the sensor disruption, enter the contested area to perform their tactical tasks, and then exit the contested area. These pulses of combat power keep the adversary off balance, disrupt adversary plans, and provide opportunities for fleet maneuver. A similar pulsing approach can also be used to move high priority sustainment inside the contested area, to include resupply for stand-in forces.

When directed, SIF perform sea denial operations to support fleet maneuver and operations or to disrupt an adversary's plans (by denying freedom of movement). In most situations, SIF will face constraints on the organic resources they can apply to sea denial and will need to prioritize where to apply them based on the analysis performed in planning (particularly analysis of the fleet's plans). In planning, SIF determine how denying an area to the adversary best supports the fleet commander's scheme of maneuver or how it achieves maximum disruption of the adversary.

SIF support sea denial through the application of both organic sensors and weapons, and by integrating naval and joint sensors and weapons. This integration gives SIF the flexibility to extend the battlespace and attack an adversary at maximum range (including the maximum range of stand-off weapons), to use an ambush mentality by massing surprise fires in a designated area, or a combination of both.

SIF support the introduction of follow-on forces by feeding sensor data into the maritime domain awareness (MDA) picture and having sufficient connectivity to complete naval and joint kill webs inside the contested area. SIF also support through the disruption of adversary collections, either through defeating their sensors or by attacking their formations to increase follow-on forces' freedom of action.

Maintain Persistent Forward Presence

For SIF, persistence means demonstrating a sustained and credible security guarantee to allies and partners, maintaining target custody of a potential adversary's formations and systems, and being able to deny adversary freedom of movement in a timely manner. Below the competition continuum's threshold of violence, the leading edge of the maritime defense in depth will likely consist of a mixture of forces contributing to the SIF mission (particularly the enduring reconnaissance and counter-reconnaissance function). This mix of forces (permanently stationed, rotational, exercise, etc.) can provide relevant persistence by orienting on the potential rival and meeting the needs of allies and partners as described below.

An operating environment characterized by a mature precision-strike regime places a premium on gaining and maintaining contact with potential adversaries. The actor who sees first can orient first, decide first, and attack effectively first, gaining a tremendous advantage. For SIF to be useful as the forward edge of the maritime defense in depth, once they gain contact with a potential adversary system or formation, they must maintain contact until it departs the area of operations or until maintaining custody of it is no longer relevant for the campaign. Because SIF will have finite resources, they will need to prioritize and determine how target custody will be maintained as units and individual Marines rotate throughout the area of operations. Maintaining contact, while ensuring survivability, is an essential element of persistence.

Allies and partners play an instrumental role in the SIF concept. SIF are specifically intended to conduct partnered operations with them in their sovereign littorals. The quality of the relationship between the host nation and the force will affect the scope and flexibility of SIF operations. Establishing and maintaining cooperative working relationships with such allies and partners is then an obvious requirement. Allies and partners must view the presence of SIF as sufficient to deter potential adversaries. In large measure, these host nation decision-makers determine the credibility of that security guarantee.

The quality of the relationship will influence the effectiveness of SIF over time. For example, it will affect sustainment by expanding opportunities or setting limits on what the force can purchase locally and what can be pre-positioned in the host nation. It will also affect signature management by determining how SIF can integrate with commercial communications, what can be emitted in the electromagnetic spectrum (EMS), constraints on supplies and equipment, etc. Information sharing agreements rely on national caveats, but also the level of trust in the relationship, which greatly affects the common operating picture. These examples are not exhaustive, but illustrate some of the key aspects of this relationship. Understanding the critical nature of the relationship between SIF and host nations is an essential element of the concept.

The final element of persistence is the stand-in forces' ability to support sea denial in a timely matter. "Timely" is relative to the potential adversary. SIF must be able to implement a feasible sea denial scheme of maneuver fast enough to frustrate the potential adversary's plans. This relative speed relies on the target custody discussion above. It also relies on having sufficient weapon systems within range to deny adversary freedom of movement. These weapons can be organic to SIF, naval, or joint systems. Most likely it will be a combination of all three, which means SIF must maintain adequate connectivity to naval and joint kill webs if they are to implement timely sea denial.

Win the Maritime Reconnaissance and Counter-Reconnaissance Battle

Conducting maritime reconnaissance and counter-reconnaissance is an enduring function for stand-in forces. Every element within the force focuses on either performing or supporting this function, of which there are two main aspects. The first orients on the potential adversary in support of fleet operations. The second focuses on threats against the stand-in force, especially in achieving positions of advantage and for ensuring the force's survivability. In either case, collecting and protecting operationally relevant information about the environment are important aspects of this enduring function.

SIF maritime reconnaissance refers to all efforts by SIF to help the fleet locate the enemy sufficiently to deliver effective firepower. SIF maritime counter-reconnaissance refers to all efforts by SIF to prevent the enemy from locating the fleet. When conducting maritime reconnaissance and counter-reconnaissance, SIF become an extension of the fleet's eyes and ears. The prioritization for collection comes initially from the fleet/maritime component commander's priority intelligence requirements (PIRs). Other sources of collection requirements include the combatant commander's PIRs and, in many cases, the information requirements of allies and partners.

Once the priorities are identified, SIF planners then develop an all-domain collections plan. This plan provides the foundation for the overall SIF scheme of maneuver, which achieves the objective with the lightest possible footprint inside the contested area. For example, SIF will need a defensive cyberspace operations capability to adequately respond to changes in the operating environment, but may be able to rely on external forces for offensive cyberspace operations (OCO) capabilities. To further lighten the footprint inside the contested area, SIF will also develop automated tools and associated pathways to integrate space and cyber domain stand-off forces into the all-domain scheme of maneuver.

SIF maritime reconnaissance efforts aim to extend the maritime battlespace. Doing so exposes a potential adversary's elements not yet in close contact to engagement, which disrupts the potential adversary's timetables, complicates adversary command and control, and frustrates adversary plans. SIF maritime reconnaissance also aims to increase the number of options available by completing kill webs for a distributed fleet and for other joint forces (ideally, this would also include capabilities of allies and partners).²¹ Demonstrating the threat of this battlespace extension to a potential adversary is a significant component of stand-in forces' deterrence value.

Maritime counter-reconnaissance in the contact layer uncovers a potential adversary's collection ways and means, answering the questions of "What is the baseline of operations for this adversary and how does it collect against the fleet?" It may also mean applying nonlethal means to disrupt a potential adversary's collections on the fleet or on allies and partners. Above the violence threshold, SIF deny adversary collection to give the fleet commander freedom of action. This could take the form of disrupting, defeating, or destroying enemy sensors (through deception, OCO, physical attack, etc.). It could also mean SIF conduct limited objective attacks or raids to disrupt adversary reconnaissance efforts.

The end goal of SIF maritime reconnaissance and counter-reconnaissance is to provide the fleet commander an advantage in situational awareness relative to an adversary at every point on the competition continuum. The reconnaissance should provide sufficient understanding of an adversary's positions and actions so the fleet can take effective action. The counter-reconnaissance should defeat the adversary's ability to sense and make sense effectively against the fleet.

²¹ GEN Donn A. Starry, "Extending the Battlefield," *Military Review*, March 1981, p. 32.

To improve understanding, SIF perform all-domain maneuver to cause a potential adversary to activate sensors and collection methods, thereby revealing how they currently perform reconnaissance. This can also expose the potential adversary's strengths and weaknesses in both the technical characteristics of particular sensors and in the tactics, techniques, and procedures the potential adversary uses for reconnaissance. The all-domain aspect of these maneuvers is important to eliminate gaps in understanding a potential adversary's methods. (The nearby gray box titled "Fighting for Information in the Contact Layer" describes an historical example of how the joint force "fought" below the violence threshold for this kind of information in the 1960s.)

Fighting for Information in the Contact Layer

During the Cuban Missile Crisis, the U.S. intelligence community monitored the construction of no less than 19 SA-2 SAM sites on Cuba. This knowledge (provided by the CIA), together with information from Oxcart [the codename for the A-12 spy plane program] gave planners an ideal opportunity to determine the sensitivity of the SA-2's associated radar receiver.

One night, a U.S. Navy destroyer equipped with a Palladium transmitter positioned itself beyond the detection range of a Soviet "Tall King" A-band early warning radar situated near Havana. With its antenna protruding just above the horizon, the destroyer produced a signal that appeared to be emanating from a U.S. aircraft out of Key West making a high-speed dash towards the capital, Havana.

At a predetermined time, a U.S. Navy submarine surfaced near Havana Bay, just long enough to release a series of balloons carrying radar reflectors of varying sizes. The idea was that having detected the "aircraft," the Soviets would switch on SA-2 target tracking radars in preparation for engaging the target. Release of the balloons ahead of the "target" would produce a number of returns, of which the smallest reported would present the highest level of radar sensitivity.

The operation progressed like clockwork. Cuban interceptors were also scrambled to hunt down the "intruder." As soon one of the Cuban interceptor pilots told his ground controlled intercept (GCI) controller that he had acquired the "target" on his radar, the technician on the destroyer flicked a switch and the 'U.S. aircraft' disappeared.

After analyzing the intelligence data collected from this operation and by other means, the CIA concluded that Soviet radar capability would indeed be able to track and "lock on" to an Oxcart, despite the aircraft's radar attenuating design features.²²

Fighting for information in armed conflict can take several forms. These include fighting with the intent to cause an enemy reaction that can be observed by SIF or another sensor; destroying enemy reconnaissance assets to expose secondary threat echelons to friendly collection and potentially affect the enemy's decision cycle; or fighting to reach a position from which SIF can perform collections.²³

SIF perform counter-reconnaissance for survivability by discovering a potential adversary's ways and means of collecting on the force, ranging from local human intelligence to understanding how space-based collections take place. This is also performed to prevent a potential adversary from learning about select SIF capabilities that should not be revealed prior to armed conflict taking place. Once in armed conflict, SIF use knowledge of adversary collections to establish a faster tempo (through techniques like deception, displacement, etc.) and to disrupt these collections using both lethal and nonlethal means.

Finally, the maintenance of target custody is an important planning consideration for maritime reconnaissance and counter-reconnaissance. As units rotate through the operating area the hand-off of custody from one unit to the next requires deliberate planning and execution. As described in the persistence section, the mix

²² Tyler Rogoway, "Are Some Of The UFOs Navy Pilots Are Encountering Actually Airborne Radar Reflectors?" *The Drive*, 22 June 2019, <https://www.thedrive.com/the-war-zone/28640/could-some-of-the-ufos-navy-pilots-are-encountering-be-airborne-radar-reflectors>, accessed 30 April 2021.

²³ Nathan Palisca, *What Do We Mean When We Say "Fight For Information"?* <https://www.benning.army.mil/armor/eARMOR/content/issues/2017/Summer/pdf/3Palisca17.pdf>, accessed 30 April 2021.

of stand-in forces will vary over time. Also, there may not be a constant presence in a particular host nation, requiring the custody of some targets to be maintained from an adjacent host nation or by seaward assets. Planning to maintain custody must account for these variations.

Fighting for Information in Armed Conflict

During Operation Desert Storm in 1991, the 1st Marine Division prepared to breach the dual obstacle belt on the border between Saudi Arabia and Kuwait. In preparation, the Marines spent a great deal of time studying the Iraqi Army's methods from the eight-year Iran-Iraq War. They believed the Iraqi goal was to trap the Division in two fire sacks when the Marines attempted to cross the obstacle belts, which were covered by an estimated 1,200 Iraqi artillery pieces.

In the weeks leading up to the attack into Kuwait, the Division executed several combined arms raids. An artillery battery would move to the vicinity of the border as a Marine EA-6B aircraft jammed Iraqi artillery communications and counter-fire radars. The battery then fired at several known and suspected Iraqi positions, which caused them to react. As the battery finished firing and started to displace, the jamming would cease for a short window to allow the Iraqis to try and coordinate counter-fire missions. As the Iraqi artillery started firing in response, Marine aircraft guided by airborne forward air controllers would then attack the Iraqi artillery positions. Marine signals intelligence also took advantage of the artillery raids to locate Iraqi command and control nodes, which they also attacked.

These artillery raids stimulated the Iraqi system causing them to react and expose their firing locations and command and control centers to Marine collection assets. The establishment of a "QuickFire" channel flattened the Marine command and control structure so that once the Iraqi positions were located, the information could be quickly transmitted to the element who could act on it immediately. This "fight for information" had the added benefit of affecting Iraqi decision-making. When the Division crossed the obstacle belts to begin the liberation of Kuwait several weeks later, remotely piloted vehicles observed Iraqi artillerymen running away from their artillery pieces whenever they heard aircraft flying over their positions.²⁴

Deter, Detect, Expose, and Counter Nonlethal Coercive Behavior and Other Malign Activities

Stand-in forces deter when their presence and capabilities affect the thinking of rival decision-makers so that they make choices beneficial to U.S. interests and those of allies and partners. Stand-in forces are designed to practice integrated deterrence by combining deterrence efforts with the fleet and joint force, the interagency, and with allies and partners.

Establishment of a maritime defense in depth in INDOPACOM demonstrates that if escalation were to occur, the potential adversary's maritime assets would be at risk. As the leading edge of that defense, SIF provide vigilant target custody and demonstrate the ability to deny key maritime chokepoints if required. SIF use the littorals to their advantage, augmenting natural maritime blocking positions through the judicious placement of sensors and weapons.

SIF integration with naval and joint kill webs and their positioning gives SIF the ability to disrupt or defeat adversary plans by extending the depth of the maritime battlespace. Successfully demonstrating this to rival decision-makers shows them they do not have maritime sanctuary for their forces. The presence of SIF puts adversary forces at risk.

Much of the time, the detection of coercive behavior or malign activity will not be countered directly by SIF. Instead, SIF detection enables counter actions by other joint forces, the interagency, and allies and partners. Thus, SIF must have sufficient understanding of these anticipated counter actions to focus detection efforts. SIF will aid these other counter actions by closing capability gaps for partners, for example by performing

²⁴ MajGen J.M. Myatt, "Close Air Support and Fire Support in Desert Shield and Desert Storm," *Marine Corps Gazette*, May 1998, pp. 70-74 and MajGen J.M. Myatt, "The 1st Marine Division in the Attack," *Proceedings*, Nov 1991, pp. 71-76.

collections, providing littoral mobility, enhancing command and control, etc. When partner nations take action to counter malign activities and enforce their sovereignty, SIF can also provide overwatch in the vicinity or immediately over the horizon.

To counter coercive behavior or malign activity directly, SIF can perform nonlethal maneuver to gain a threatening or coercive position of advantage. Much of this maneuvering takes the form of operations in the information environment or EMS. As the concept matures, Marines performing SIF are likely to develop additional nonlethal capabilities to use in directly countering malign activities.

Deny Enemy Freedom of Action at Sea

When directed, SIF conduct sea denial operations in support of naval campaigning, especially near maritime chokepoints, interfering with enemy plans by taking away their freedom of movement and disrupting their timing and tempo. SIF perform sea denial using organic sensors and weapon systems, but also through integrating naval and joint sensors and weapons into the sea denial concept of operations. This extends the battlespace, attacks the depth of the enemy system, and degrades the enemy's ability to mutually support.

Stand-in forces' mission and purpose for conducting sea denial will be provided as a specified task when the forces are subordinate to a fleet commander. Alternatively, if the stand-in forces are in a supporting or adjacent unit role, sea denial mission and purpose can be derived from analyzing the fleet, maritime component, or joint force commander's campaign goals.

Complete sea denial includes all five dimensions²⁵ of the maritime domain within a specified area. This means SIF must have the ability to integrate sensing within each dimension into its operating picture. If SIF do not have the means to sense each dimension in the location where they are performing sea denial, then they need the ability to network into sensors that provide that capability.

SIF then help deny an area to the adversary by attacking the adversary as they come into range of weapon systems, waiting until they approach a chokepoint and then ambushing them with massed, surprise fires, or a combination of both. SIF intentionally integrate other naval and joint sensors and fires (lethal and nonlethal) into the sea denial scheme of maneuver.

SIF sea denial may present a hard surface to an adversary that must be overcome if the adversary wants to implement its plans. Or the sea denial may be part of a fleet, maritime component, or joint force combined arms dilemma designed to herd adversary forces into another area where they are vulnerable. In either case, sea denial disrupts the adversary's tempo and timing, stripping away the adversary's ability to gain the initiative.

²⁵ These five dimension include: (1) seaward (both surface and subsurface); (2) landward (both surface and subterranean); (3) the airspace above; (4) cyberspace; and (5) the electromagnetic spectrum.

In the days leading up to the operation the U.S. intercepted Japanese radio transmissions, which provided the initial indications of an imminent attack on the Leyte Gulf landing forces. In the response, the Allies established a maritime defense in depth within the Surigao Strait. The outer layer consisted of submarines and long-range flying boats, followed by land- and carrier-based scouting aircraft, then patrol torpedo (PT) boats. Closer in were the destroyer and destroyer escort screens, and finally the battle line of battleships and supporting cruisers.

The Battle of Surigao Strait involved the Japanese Southern Force and the 7th Fleet's covering force, Task Group 77.2 (TG 77.2)²⁶ After the Japanese Center Force was discovered and attacked by submarines on 23 October, fleet aircraft carriers of the Task Force 38 covering force launched a strong "reconnaissance in force" at first light the next morning. By mid-morning, aircraft from the USS *Enterprise* spotted and attacked the Japanese Southern Force, thus achieving the reconnaissance mission and disrupting the Japanese formation. As evening fell, the Japanese Southern Force entered the Surigao Strait, encountering the swarm of PT boats, which provided a steady stream of reports while disrupting the Southern Force through repeated torpedo attacks. Those elements of the Southern Force that made it past the PT boats then encountered the destroyer screen, which made its own torpedo attacks and reported on what remained of the Southern Force. Both the PT boats and the destroyers used the backdrop of the surrounding islands to obscure their radar signatures, which helped them close with the Japanese ships. Finally, TG 77.2 battleships (supported by cruisers) used their relatively sophisticated radars to find and target the remaining ships of the Southern Force from medium range. The Southern Force was soundly defeated by the U.S. maritime defense in depth in and around the Surigao Strait.²⁷

Using the Battle to Illustrate Stand-In Forces

The Battle for Surigao Strait aligns well with the SIF concept. It was an "all-domain" effort, even though that terminology was not in use at the time. Allied forces integrated existing technology like signals intelligence and radar into their collections plan effectively. They also understood how the Japanese force performed collections, and this knowledge allowed them to mask their signature to defeat Japanese collections.

Set Conditions for the Introduction of Naval and Joint Forces

SIF set conditions for the introduction of naval and joint forces by fighting the initial reconnaissance and counter-reconnaissance battle, gaining the initiative by disrupting adversary plans, and lowering the risk for naval and joint forces to penetrate into contested areas.

By gaining and maintaining custody of potential high value targets below the violence threshold, SIF provide cueing for naval and joint forces so they can rapidly execute their missions. SIF also disrupt or deny the adversary's ability to interfere with naval or joint forces by locating adversary intelligence, surveillance, reconnaissance, and targeting (ISR-T) elements and attacking them with organic assets or through the joint kill web. For example, SIF develop target information by gaining custody and determining a target's characteristics; by providing linkages from inside the contested area to the naval and joint command and control architecture; and by accepting or providing third party targeting. SIF also contribute through the application of combined arms, for example, by combining littoral maneuver with fires provided by the joint kill web. SIF also disrupt adversary plans by extending the range at which friendly forces can expose an enemy to effective attack, creating opportunities for friendly action well forward in the battlespace (attack, counterattack, or reconstitution of the defense).²⁸ Extending attack ranges helps stand-off forces apply their capabilities and maximize their destruction potential without entering the contested area, while also interfering with an enemy's ability to amass combat power and generate local superiority, especially before the arrival of other naval and joint forces.

Adversary actions to degrade, disrupt, and deny space, cyber, and EMS operations in contested areas are inevitable. Such operations will interfere with positioning, navigation, and timing (PNT) and communications services provided to the fleet and joint forces. SIF will be well positioned to mitigate such adversary actions.

²⁶ Map courtesy of: Public Domain, <https://commons.wikimedia.org/w/index.php?curid=62379>

²⁷ Samuel E. Morison, *History of United States Naval Operations in World War II: Leyte, June 1944 – January 1945, Volume XII*, Boston: Little & Brown, 1958, pp.159-234 and Ian W. Toll, *Twilight of the Gods: War in the Western Pacific, 1944-1945* (Vol. 3) (Pacific War Trilogy), W. W. Norton & Company, Kindle Edition, pp. 203-362.

²⁸ Starry, "Extending the Battlefield," p. 38.

In the event an adversary disrupts the receipt of global positioning satellite signals within a contested area, for example, SIF can provide PNT services to adjacent fleet assets via surface or aerial systems. In a similar manner, SIF primary, alternate, contingency, and emergency communications can also provide the fleet and joint forces alternative communication paths to overcome adversary interference.

Finally, stand-in forces' ability to disrupt an enemy's ISR-T capabilities in a defined location and for a specified time creates opportunities for other forces to enter and exit the contested area with a reduced risk of enemy interference. For example, SIF can combine maritime raids with multi-domain attacks on sensors to redirect an enemy's attention and interfere with its ability to sense these other forces entering the contested area.

Strategic Maritime Defense Enabled by Tactical Offense

On the first day of the 1973 Yom Kippur War, 1,200 Egyptian commandos landed by helicopter in the southern portion of the Israeli occupied Sinai Peninsula. The Egyptians intended to reinforce their lodgment with an amphibious operation across the Gulf of Suez. They planned to use over 150 fishing boats and small craft as transports, protected by four modern, Soviet-supplied missile boats. Opposing them was Israel's small Red Sea Naval Command, lightly equipped with a few gunboats and vintage landing craft.

The Israeli commander realized he could not achieve a strategic defense of the Sinai's long coastline if he also remained on the tactical defense. He did not have enough force to observe the coastline's length, let alone patrol it effectively. Also, his gunboats were no match for the Egyptian missile boats in a conventional engagement—one Egyptian boat was enough to neutralize his entire force. Considering this disparity of forces, the Israelis' only hope was to seize the initiative.

To strategically defend the Sinai coast, Israeli Red Sea Naval Forces conducted a tactical offensive using a variety of aggressive small unit actions to confuse the Egyptians and keep them close to their bases, focused on defending themselves. Through a combination of navy commando raids, hit and run attacks, complemented by an understanding of how to evade and defeat Egyptian sensors, the Israelis were able to destroy Egyptian missile boats and much of their transport fleet. The Israelis were able to do all of this even though their army and air force were fully engaged in other parts of the theater of operations.

Ultimately, this tactical offensive achieved a successful strategic maritime defense of the Sinai Peninsula. The 1,200 Egyptian commandos were stranded on the Sinai Peninsula and surrendered before the end of hostilities.²⁹

Enable Allies and Partners with Complementary Capabilities

Stand-in forces are designed to provide ways and means to assist allies and partners in securing their maritime sovereignty. The presence of SIF, coupled with adequate and regular demonstration (through partnered operations, bilateral exercises, combined staff training, etc.) that SIF represent the leading edge of a maritime defense in depth, builds confidence with our Allies and Partners. These types of activities also deepen the relationship between SIF and a host nation's forces. Building these relationships is the first step toward achieving integrated deterrence.

SIF make use of persistent presence to develop and iteratively refresh understanding of ally or partner maritime security challenges and how they plan to deter a potential adversary. From this understanding, SIF develop ways to use the host nation's forces' capabilities to support these deterrence efforts in partnered operations. Partnered operations, conducted with stand-in forces and host nations applying complementary capabilities, offer significant opportunities for deterrence directed toward a potential adversary. For example, for a host nation with a small but capable coast guard, ISR capabilities organic to the SIF could be used to focus the employment of the coast guard in a manner that maximizes its deterrence effect.

²⁹ Abraham Rabinovich, *The Boats of Cherbourg: The Navy That Stole Its Own Boats and Revolutionized Naval Warfare*, Kindle Edition (2019), Chapter 16 "Red Sea Command" and Chapter 25 "Commando Operations."

SIF should remain alert for opportunities to improve sensor network interoperability. Ideally, SIF relationship building will lead to integrating select allies and partners into a common operating picture via a shared sensor network.³⁰ Initially, SIF should seek to demonstrate this as a capability during bilateral training, exercises, and partnered operations. The goal is to build this into a multi-lateral capability over time.

Survivability

SIF are designed to survive inside a contested area through the application of a “hard to find—hard to kill” approach. Hard to find refers to winning the counter-reconnaissance battle as it applies to the stand-in forces themselves. This starts first with understanding the potential adversary and how they perform collections. The goal is to defeat these collections through a combination of a light footprint, mobility and maneuver, signature management (SIGMAN), and deception.

SIF achieve a light footprint in part by automating functions traditionally performed by people to reduce the number of Marines needed to operate effectively. For example, automating a fire support task could result in the reduction of required watch standers, which then reduces the amount of life support and mobility needed. Design aspects of this approach may include production, exploitation, and dissemination (PED) of intelligence, fire support tasks, logistics delivery, etc.

Reducing the number of Marines needed to operate effectively means each Marine must have the ability to perform an expanded set of tasks when compared to current practice. For example, current practice may have one Marine on radio watch and another managing ISR. In the future, these could be performed by a single Marine performing both tasks at the same time. This provides insight into how to apply automation so that the resulting task load is manageable. The example also indicates some of the likely changes needed for the selection, education, and training of Marines performing SIF. Individual Marines will need to be assessed to determine if they can effectively perform multiple tasks over an extended period of time. The education and training of the Marines who demonstrate this potential must then develop the skills required to conduct these multiple tasks effectively. The process of educating and training Marines must evolve as the SIF concept evolves.

SIF design also lightens the footprint inside the contested area through the “avoidance” concept. Avoidance means the purposeful development of systems and related procedures that allow SIF to operate effectively by applying capabilities that do not rely on logistical, maintenance, or personnel support inside the contested area. Instead, these support functions reside outside the contested area and have sufficient range and endurance to move from external bed down sites, accomplish its mission, and return to the bed down sites again. Avoidance also means moving certain personnel-intensive processes outside the contested area.

Signature management makes SIF hard to find, which has both equipping and training implications. Learning how a potential adversary collects on the force informs the development of SIF equipment, which should be designed to make it difficult for the potential adversary to sense a SIF signature. SIF also must operate in ways that minimize and mask its detectable signature. SIF training venues need the ability to sense this signature and provide feedback on the training unit’s ability to manage it.

Hard to kill refers to making it difficult for an adversary to target SIF by understanding how the adversary performs targeting, and then negating those efforts through movement, dispersion, and by defeating the sensors themselves. For example, as SIF learn how a potential adversary’s space capabilities collect on a forward position, they establish a displacement schedule to change locations after each overflight of a sensor. By operating distributed, SIF make it difficult for an adversary to decide how to apportion collections and targeting resources.

³⁰ Matthew Kosnar, et al., *Costs, Risks, and Benefits of U.S. Force Posture Options*, NDU Paper, 2013, p. 52.

Lessons from Actions in the Red Sea: Evolution of an “Inside Force” and Command and Control³¹

Beginning in 2016 with the coastal defense cruise missile (CDCM) attack against the HSV Swift³², the southern Red Sea was subjected to a sea denial campaign by the Iranian-supported group Ansar Allah, better known as the Houthis.³³ At the time, Houthi controlled territory included most of the western coastline of Yemen. The Saudi-led coalition opposing the Houthis had performed numerous successful amphibious and special operations against this coastline, which prompted the Houthis to use sea denial in response. Their efforts quickly evolved into an excellent example of how one might conduct effective reconnaissance, counter reconnaissance, and sea denial while operating inside of a contested area.

Engagements at sea are often beyond visual range and require cueing even in the narrow waters of the southern Red Sea. The Houthis solved this cueing problem using a combination of techniques that ranged from human spotters to sophisticated coastal radars. Their most effective reconnaissance measure was placing individual spotters with a cell phone or radio on one of the many dhows, fishing boats, or other commercial vessels that congested the busy Red Sea. The Houthis also used a mix of commercial and military radars, some of which were captured from the Yemeni Coast Guard or Navy, and some likely supplied by the Iranian Revolutionary Guard Corps Quds Force.³⁴ They also integrated drone feeds and the Automatic Identification System (AIS) location service used by most commercial and military vessels into their maritime collections plan.³⁵

The Houthis also excelled at counter-reconnaissance. They proved difficult to target because they effectively managed their signature, whether it was visual, electromagnetic, or in cyberspace. They visually masked their actions by using overhead cover, blending in with urban clutter and civilian movement patterns, and using camouflage. Their use of decoys to counter aerial observation was excellent. The Houthis also expertly limited their radio communications and use of internet connected devices, relying instead on low power phones that were difficult to detect.

The Houthis' effectiveness in reconnaissance and counter-reconnaissance provided the foundation for their approach to sea denial. Initially, that approach consisted of using one weapon system against a designated target such as the CDCM attack against the Swift. However, this approach could be defeated if the target used effective countermeasures. In response, the Houthis quickly learned and developed a combined-arms approach, conducting attacks on shipping using a broad array of systems, including the previously described CDCMs, one-way explosive drones, one-way explosive boats (both manned and unmanned), several types of naval mines, and multiple variants of rockets and small arms. As the Houthis began to create more complex threats using a mix of these different systems, they also began to have increased success in affecting their adversary's actions, including a decision by the UAE to cancel a planned amphibious operation prior to the 2018 United Nations-brokered cease fire.

The United States' command and control approach in the region evolved as the Houthi's sea denial campaign evolved. By late 2016, the staffs of Commander, Task Force 51, and of Commanding General, 5th Marine Expeditionary Brigade, merged into a single Navy-Marine staff called Task Force (TF) 51/5 under the leadership of a Marine general officer. The Commander, 5th Fleet, assigned TF 51/5 as “sector sea combat

31 This illustration is derived from an unpublished paper: MajGen Frank L. Donovan and LtCol Thaddeus V. Drake, III, “A Naval Small War in the Southern Red Sea,” draft as of 4 August 2021.

32 At the time of the attack, the HSV Swift was working under contract to the government of the United Arab Emirates.

33 Caleb Weiss, “Analysis: Houthi Naval Attacks in the Red Sea,” Foundation for the Defense of Democracy Long War Journal, 17 Aug 2019, <https://www.longwarjournal.org/archives/2019/08/analysis-houthi-naval-attacks-in-the-red-sea.php>

34 Katherine Zimmerman, “Iran's man in Yemen and the al Houthis,” *Critical Threats*, January 17, 2020, <https://www.criticalthreats.org/analysis/irans-man-in-yemen-and-the-al-houthis>

35 Christian Morris and Heather Bacon-Shone, “Clandestine Cargo: Hiding Sealift in Plain Sight,” *Center for International Maritime Security*, 5 July 2021, <https://cimsec.org/ clandestine-cargo-hiding-sealift-in-plain-sight/>

commander" (SSCC), tasked to execute intelligence collection operations and be prepared to conduct sea control operations if necessary. Over the course of this operation, TF 51/5 employed a forward command and control node afloat, supporting forces from CTF 55 (Destroyer Squadron 50 and Commander, Task force 55), other 5th Fleet Task Forces, theater-level ISR, and U.S. special operations forces, while reporting to and receiving direction from the 5th Fleet Maritime Operations Center.

The lessons from the 2016-2018 actions in the Southern Red Sea are twofold. First, the Houthis approach to operating effectively inside a contested area demonstrated the development of a nascent stand-in force. They used the ways and means available to them to fight an effective reconnaissance and counter-reconnaissance battle that in turn supported their sea denial campaign, a campaign which quickly evolved into a combined arms approach that affected the decision-making of their adversaries. Second, the U.S. approach to command and control in the region evolved as well. The merging of Navy and Marine staffs into a single TF headquarters showed how a Fleet Marine Force unit could integrate into a fleet commander's formation in similar scenarios, while also showing how this headquarters could integrate the activities of fleet, FMF, and SOF units into operations in the littorals.

Deception

Understanding deception is critical for the successful implementation of the Stand-in Forces Concept. Deception starts with a *deception story*, which is the outline of actions or capabilities that will be portrayed to cause the *deception target* to adopt the desired perception. The deception targets are the political, economic, or military decision-makers who are the focus of the deception plan.³⁶ The target's intelligence, surveillance, and reconnaissance networks are the *channels* used to convey the deception story to the decision-makers (this includes both the technical and nontechnical collection means and the ways in which people process and package the information for delivery). Deception is used to reach a desired outcome, which is for the targeted decision-makers to take specific actions (or inactions) that will contribute to accomplishment of the deceiver's mission.³⁷ To win the reconnaissance battle, SIF must overcome the deception efforts of rivals. To win the counter-reconnaissance battle, SIF must defeat the efforts of rivals to collect on the force. Deception plays a key role in masking SIF activities.³⁸

At the strategic and operational levels, SIF will contribute to higher level deception plans to cause rival decision makers to hesitate. At the operational and tactical levels, SIF need to present a confusing picture to enhance survivability inside a contested area. SIF deception also imposes costs on an adversary, by forcing a rival to expend energy and resources trying to pierce through the deceptive fog.

Deception is also a key element of any potential adversaries' approach to strategic competition across the continuum, not just during armed conflict. They will develop a message to obscure their true goals and then reinforce that message through every available channel across all elements of national power. These rivals will try to present a picture to SIF that hides their true intentions and actions. This has significant all-domain implications, as it will occur through the application of techniques like spoofing, jamming, and multi-domain decoys (e.g., physical, EMS, cyber).

Deception is a constant feature of the operating environment. The PRC and Russia have both used deception in recent years to create confusion, causing enough hesitation to delay response times and thus achieve their goals without triggering armed conflict. SIF need to deceive in the contact layer so they are not immediately targeted in the event armed conflict occurs. For this reason, practicing deception below the violence threshold plays a large role in the overall resiliency of SIF (see the gray box for an illustration).

³⁶ Marine Corps Warfighting Publication 5-10 (MCWP 5-10) *Marine Corps Planning Process*, 10 August 2020, pp. 169-170.

³⁷ Jonathan F. Solomon, "Maritime Deception and Concealment: Concepts for Defeating Wide-Area Oceanic Surveillance-Reconnaissance-Strike Networks," *Naval War College Review*, Vol. 66 No. 4, Autumn 2013, p. 7.

³⁸ Chairman of the Joint Chiefs of Staff Instruction 3211.01 establishes the review criteria for deception concepts and plans. Deception planners must follow the specific administrative and security procedures established by that document to ensure that their plans are approved by the appropriate authority. For further discussion of deception operations, see Joint Publication 3-13.4, *Military Deception*.

Deception Operations in the Contact Layer The Years Before the 2006 Israeli-Hezbollah War in South Lebanon

"During the opening phases of the 2006 Israeli-Hezbollah War, Israeli Defense Forces (IDF) hammered the network of Hezbollah bunkers along the Lebanese border. Hezbollah had been building the bunker network for years, under the watchful eyes of IDF surveillance, Lebanese spies working for Israel, and the United Nations Interim Force in Lebanon (UNIFIL), patrol[ing] the southern Lebanese border. What the IDF did not realize until far too late was the network of bunkers so diligently—and visibly—emplaced by Hezbollah were decoys; Hezbollah's true bunkers were scattered across the countryside and covered by layers of security and camouflage. The bunker deception was but one of several cunning stratagems used by Hezbollah to blunt the IDF's technological and information advantages, allowing Hezbollah to maintain combat effectiveness in the face of the Israeli assault. Deception had once more proven its worth."³⁹

Hezbollah's deception operation started six years before the war, when Israel withdrew from southern Lebanon in 2000. Hezbollah understood the fact that Israeli collection methods and channels—including unmanned aerial vehicles, UNIFIL observers, and individual Lebanese spies—focused on their bunker building. In a classic example of military deception, Hezbollah purposely lured observers into believing that the openly visible bunkers they were building were their primary defensive positions. Meanwhile, they built the real bunkers in secret locations. As one UNIFIL observer said, "We were meant to see these things... They were not making any effort to stop us looking...they really fooled us on that one."⁴⁰

Hezbollah understood the collection methods and channels of their potential adversary. Through good operational security they were able to conceal the location of the real bunkers until they actually used them to engage IDF ground forces. The operation capitalized on surprise, reinforcing the perceptions of the target audience and exploiting the adversary's existing beliefs. This caused the Israelis to act by bombing the fake bunkers for over three days, diverting resources that could have been used elsewhere.

The Hezbollah bunker deception was one of several successful deception operations Hezbollah conducted during the 2006 summer war and makes a good case study that is highly relevant to SIF.

Sustainment

The SIF concept relies on an avoidance and redundancy mindset regarding logistics. This means that to achieve logistic sustainability inside a contested area, SIF should avoid posturing logistically intensive systems there in the first place. Instead, logistically intensive systems should bed down outside the contested area to the maximum extent possible. For sustainment requirements that must be met inside the contested area, Marines should think in terms of planning two or more ways to obtain each required element of support to overcome the lethality of the mature precision-strike regime.

Sustainment that does take place inside the contested area requires new approaches to existing techniques and the development of new capabilities, including the following:

- Enhanced supply distribution through the application of automation and data science. For example, enhanced distribution could be achieved by using machine learning to identify repair parts needed to perform predictive maintenance, which are then delivered by unmanned systems.
- Demand reduction across the life-cycle of stand-in forces, from their design to their employment. For example, including design features like hybrid-electric or fully electric vehicles can reduce future fuel requirements, while focused training on supply discipline best-practices can reduce demand in the near-term.
- Hardened and resilient installations that serve as Advanced Naval Bases to enable projection and sustainment of SIF.

³⁹ David A. Acosta, *The Makara of Hizballah Deception in the 2006 Summer War*, Naval Post Graduate School Thesis, June 2010, pp. 43-44.

⁴⁰ Ibid

- Positioning immediately required stocks and equipment in select host nations. To defeat adversary collections, this materiel should be housed in common containers that can be transported with modest local commercial assets so that they can be moved frequently and so that relatively inexpensive and plentiful decoys can be employed.
- Local contracting to avoid challenges associated with distribution in operating areas with adequate suppliers. Contracting does provide a signature that is vulnerable to an adversary's collections, which can be mitigated through deception and signature management planning.
- Composing or assembling capabilities at the point of need. Modular systems, software-defined capabilities and additive manufacturing all provide tools to accomplish these functions as they also reduce information and materiel flows.
- Small and plentiful vessels capable of connecting SIF inside the contested area to distribution nodes outside the contested area, matched with multi-domain decoys to deceive and slow adversary collections. SIF need expanded options for these vessels, such as leasing commercial vessels by Marines with civilian mariner licenses.
- Local and temporary defeat of adversary collections to create a lane into the contested area that allows for sustainment delivery and connection to the naval and joint logistics enterprises.

Conclusion

During and after World War II, the U.S. joint force developed the ability to project conventional military power almost anywhere on the globe. For much of that time, it was difficult (if not impossible) for potential adversaries to interfere with that power projection. The proliferation of the mature precision-strike regime and in-depth study of U.S. methods led to development of effective counter-intervention strategies. The *Stand-in Forces* concept recognizes this evolution and seeks to return relative advantage to the joint force.

The precepts listed below guide the design and development of stand-in forces.

- SIF embrace an enduring maritime reconnaissance and counter-reconnaissance function. The entire force contributes to performing this function successfully, and stand-in forces should be manned, trained, and equipped with this as its foundation. Thus, SIF must have the systems and processes needed to share information directly with the fleet and joint forces.
- SIF extend the maritime battlespace for the fleet and joint force commanders. To do this, SIF expand a network of organic, joint, and partner ISR-T sufficient to prevent surprise attack or to effectively target an enemy throughout the depth of the maritime battlespace during armed conflict.
- Maritime reconnaissance for the fleet in the western Pacific implies the need for SIF to cover long distances. As described above, the leading edge will typically consist of unmanned platforms. These systems then must have the range and endurance to adequately perform as scouts. For the concept to work as intended, force development needs to provide unmanned aerial, surface, and subsurface systems with endurance measured in days or weeks to meet range and persistence requirements.
- SIF integrate into existing and emerging naval and joint command and control (e.g., Joint All-Domain Command and Control (JADC2), Navy Project Overmatch, Air Force Advanced Battle Management System (ABMS), etc.). The emerging approaches will likely change how fires coordination is conducted. Requests for and approval of fires will flatten through the application of automation and machine learning enabled decision aids. Platforms that provide lethal fires and that are in the best position to attack a target will respond directly to requests according to automated processes. The development of SIF must anticipate these changes.
- SIF conduct deception operations at every point on the competition continuum, including through the deployment of physical and virtual (cyber and EMS) decoys.
- SIF recognize and overcome adversary deception efforts, including the ability to adjust sensors locally to counter adversary efforts to deceive them.

- SIF sustainment relies on avoidance and redundancy.
- The training areas and ranges supporting SIF force generation enable the practice of all-domain deception operations, measure and provide feedback on SIGMAN, connect to (or simulate) naval and joint kill webs, and facilitate the conduct of distributed operations. Training areas and live fire ranges can be complemented by increasing use of virtual and constructive training.

Stand-in forces persist forward and operate with allies and partners, establishing the leading edge of a maritime defense in depth. SIF are the eyes and ears of the fleet, adding depth to the battlespace to hold a potential adversary's maritime assets at risk and to deny sanctuary. SIF empower allies and partners, helping them deter aggression and counter malign activity by providing complements to their efforts. When directed, SIF perform sea denial operations to disrupt an adversary's tempo and timing. SIF disrupt an adversary's plans and the United States and its allies and partners regain relative advantage.

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