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Due to the advancement and proliferation of Anti-Access/Area Denial employment, specifically long-range precision fires, the Air Force has recognized that its current sanctuary-based warfighting structure is not survivable. Namely, a reliance on main operating bases within a potential hostile weapons engagement zone will be extremely vulnerable to long range precision fires, and potentially unable to generate combat airpower during crisis or conflict. Part of the USAF solution is the Agile Combat Employment concept. ACE is an operational scheme of maneuver that aims to generate combat airpower away from the main operating bases. The Office of Special Investigations is currently set up for providing support to force protection along with counter-threat operations at MOBs in hostile and permissive environments. To provide effective CI support to future ACE combat operations, OSI will have to take an approach that spans across the competition continuum by building the threat picture and relationships in the competition phase and by executing CI operations rapidly in crisis and conflict scenarios.

15. SUBJECT TERMS

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Executive Summary

Title: Air Force Office of Special Investigations Support to Distributed Operations

Author: Major Matthew Treadwell, United States Air Force

Thesis: In order to be successful in distributed operations, Air Force Office of Special Investigations (OSI) counterintelligence (CI) forces will have to minimize "cold starts," by building necessary relationships in the competition phase before crisis or conflict; increasing connectivity with combat units they will be supporting; and embracing a distributed operations model for themselves.

Discussion: Due to the advancement and proliferation of Anti-Access/Area Denial (A2/AD) employment, specifically long-range precision fires, the Air Force has recognized that its current sanctuary-based warfighting structure is not survivable. Namely, a reliance on main operating bases (MOB) within a potential hostile weapons engagement zone (WEZ) will be extremely vulnerable to long range precision fires, and potentially unable to generate combat airpower during crisis or conflict. The 2018 National Defense Strategy emphasizes a need for Dynamic Force Employment (DFE) to prioritize US combat advantage in a scalable manner. DFE provides operational unpredictability by US forces to change an adversary's calculus, and force adversaries into unfavorable positions. Part of the USAF solution is the Agile Combat Employment (ACE) concept. ACE is an operational scheme of maneuver that aims to generate combat airpower away from the main operating bases. The Office of Special Investigations (OSI) is currently set up for, and well-practiced at, providing counterintelligence (CI) support to force protection along with counter-threat operations at MOBs in hostile and permissive environments. To provide effective CI support to future ACE combat operations, OSI will have to take an approach that spans across the competition continuum by building the threat picture and relationships in the competition phase and by executing CI operations rapidly in crisis and conflict scenarios.

Conclusion: OSI's approach to distributed operations, ACE, will have to include building relationships, informant networks, and the intelligence picture on the ground in potential deployment locations; expanding participation in unit-level ACE exercises; exploring the possibility of direct supporting relationships with deployed combat units; embracing distributed operations for OSI; expanding the limits of OSI agents missions.

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The selective employment of the MPF T-AKEs to provide sea-based sustainment for amphibious operations is one way for the Department of the Navy (DoN) to address the shift in the national military strategy towards the Asia Pacific Region while optimizing the amount of forward positioned equipment and supplies afloat. This would be taking a big step towards operationalizing the MPF for steady-state requirements c;tnd shattering the "break glass in time of war" perception of the MPF. Beginning in July 2012 the DoN will incorporate the first of two T-AKEs into the Marine Corps prepositioning program. The T-AKEs will contribute to the prepositioning of Marine Expeditionary Brigades by providing selectively offloadable sea-based sustainment to forces afloat and ashore. The ships' ability to distribute and restock underway brings a new capability to the MPF which should also be employed to augment the concept of sustainment for amphibious operations. By incorporating the T-AKE into amphibious operations the DoN could relieve some pressure from the task saturated lover-embarked amhibious fleet and further justify the utility of the MPF.

15. SUBJECT TERMS
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INTRODUCTION

In 2019, tensions between the United States and Iran rose sharply following the United States' withdrawal from the Joint Comprehensive Plan of Action (JCPOA), which limited the Iranian nuclear program in exchange for sanctions relief. Iranian actions allegedly included attacks on a number of commercial ships in the Persian Gulf, shooting down an unmanned US reconnaissance aircraft, and attacks on Saudi oil fields. Part of the US response was an increased presence across the Middle East, including the addition of a contingent of US personnel at Prince Sultan Air Base (PSAB), Saudi Arabia, which had been vacated in 2003. In October 2019, Air Force Office of Special Investigations (OSI) deployed two special agents to provide counterintelligence (CI) support to US forces at PSAB. The CI entities immediately forged liaisons with impactful contacts, including US Army CI personnel and counterparts at the US Embassy, to develop a threat picture for US commanders. The OSI team collected and disseminated threat intelligence with veracity within days and did so while operating out of a tent with shared secure communications capability. However, the OSI team was not able to meet with, let alone develop, host nation counterparts for nearly three months due to host nation challenges with facilitating initial and follow on meetings. In the meantime, US forces killed Iranian General Qasem Soleimani, and Iran vowed retaliatory strikes against US forces in the region. Without the benefit of time to build strong relationships before development of this crisis, OSI agents were unable to successfully engage host nation defense and security counterparts to obtain the most relevant threat intelligence for the PSAB commander.

The scenario described above is not unlike many missions for OSI, or any other CI personnel deployed to new operating locations around the world. CI teams are often presented with a "cold start" situation, in which they have to build successful CI support from scratch with

few resources. US CI forces can, and do, begin having an impact almost immediately due to their expertise and professionalism, however, there are limits to what they can do in a given amount of time. Building effective relationships with host nation counterparts and constructing effective informant networks takes time, and that time could range from a number of weeks, to a number of years. In distributed operations at locations where US forces are not typically operating, especially when facing an adversary with long range precision fires during crisis or conflict, CI forces will not have the luxury of time to develop sources and host nation contacts. Distributed operations pose an increasing challenge for CI forces due to the lack of time that CI personnel will have to develop the relationships required to provide meaningful threat information to US commanders. With knowledge of planned distributed operation locations, CI forces must take preemptive steps to minimize the impact of the unpredictable, dynamic operational tempo that distributed operations will have on CI operations. Mitigation may include building the necessary relationships in the competition phase before crisis or conflict, increasing connectivity with combat units they will be supporting, and embracing a distributed operations model for themselves. This will be the initial challenge, of many, in which OSI must heed the Chief of Staff of the Air Force's call to "Accelerate Change or Lose;" because if OSI does not accelerate change, "it will be ill-prepared to compete, deter, and win." [1]

BACKGROUND

Air superiority has become a critical aspect of how the United States wages war.[2] Since airpower became a prominent instrument of war during the World War II, the United States has made obtaining air superiority a high priority in conflict. The last time US ground troops were attacked by enemy airpower was in 1953 during the Korean War. Since that time, the USAF has done an exceptional job of obtaining and maintaining air superiority throughout conflicts to

allow for deep strikes and freedom of maneuver for ground forces. The Air Force has postured for air superiority by establishing a network of sprawling air bases worldwide with vast contingents of combat aircraft, support forces, and infrastructure. These bases can be maintained during peacetime, such as those in Japan, Qatar, and Germany, and built to facilitate combat operations during the early stages of a conflict. In Vietnam, Desert Storm, Operations Enduring Freedom, and Iraqi Freedom, the USAF has continued to deploy combat forces to a relatively small number of extensive, very capable airbases. Presently, bases are positioned in the middle of contested areas and act as centers of gravity (COGs), not only for flying operations, but also for logistics, intelligence, surveillance and reconnaissance (ISR), medical support, and Command and Control."[3]

Although these main operating bases (MOB) have an incredible capacity for combat power generation and logistical support sustainment, they also pose lucrative targets for hostile forces. The proliferation of long-range precision fires, specifically ballistic missiles, cruise missiles, and long-range unmanned aerial vehicles (UAVs), have increased the vulnerability of these ever more critical airbases. Even with advanced missile defense systems such as Patriots and the Terminal High Altitude Area Defense (THAAD) system, well-established air bases are vulnerable to the vast number of long-range attack systems that US adversaries possess and will continue to develop. The Air Force recognized that its way of war is not enough to succeed in tomorrow's fight. Losing in tomorrow's fight could result in the end of the rules based international order and significant challenges to US interests.[4]

AGILE COMBAT EMPLOYMENT (ACE)

The 2018 National Defense Strategy (NDS) spells out the Joint Force's need to utilize "dynamic force employment" to successfully compete with, and defeat if necessary, great power

competitors. Dynamic Force Employment (DFE) is a model for utilizing the Joint Force to prioritize capabilities and capacity for major combat operations while providing options for proactive and scalable solutions.[5] DFE is intended to force an adversary to adjust their operational or strategic calculus based on US military action. As stated in the NDS, the US military needs to be "operationally unpredictable" and force adversaries into unfavorable positions that limit their options while expanding the United States' options.[6] Part of the US Air Force's (USAF) answer to this call is Agile Combat Employment (ACE). ACE is an operational scheme of maneuver to increase survivability while generating combat power away from main operating bases which are vulnerable to pacing threats' ability for long-range precision strikes.[7]

As an operational model for distributed operations, ACE is designed to generate survivable combat airpower, independent of a reliance on MOBs. In the Pacific theater for example, the Pacific Air Forces (PACAF) ACE concept explores five lines of effort beginning with "Setting the Theater," or establishing a network of main and forward operating locations that will present a credible combat force and deter aggression.[8] PACAF will utilize an "adaptive cluster operations" construct for ACE in the Pacific theater, comprised of one or more MOBs, which will serve as the "hub" to direct operations for a group of geographically separated operating locations, or "spokes." Hub locations will be resilient bases with the maximum level of combat support capability and will link the forward operating spokes and rear echelon units. Hubs will coordinate and support their spokes. Spokes will be expeditionary and generate combat power from the front lines of a high-end conflict.[9] One of the essential requirements to enable ACE will be to rapidly deploy force packages to multiple operating locations with minimal indications and warnings.[10] Dispersal of combat forces is the essence of force protection in a high-end conflict. By dispersing assets to many operating locations, as opposed to one large

base, the Air Force aims to complicate enemy targeting and project combat power effectively. Although not specified at the unclassified level, several different types of bases could be used as "hubs" and "spokes" in the PACAF ACE model. Figure 1 depicts a notional “regional cluster” of operating locations within Japan.

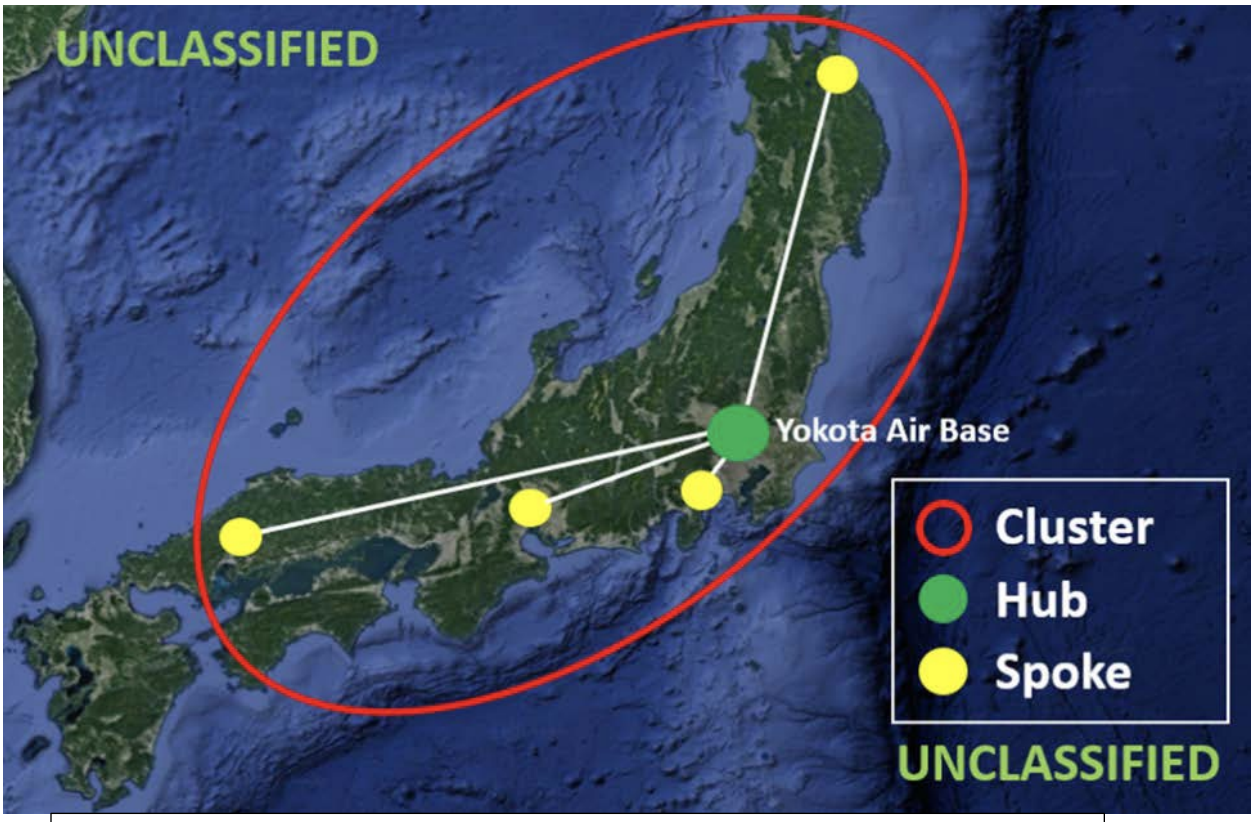

Figure 1: Notional “regional cluster” in Japan.

Source: Headquarters Pacific Air Forces, *Agile Combat Employment (ACE): PACAF Annex to Department of the Air Force Adaptive Operations in Contested Environments* (Honolulu, HI: Headquarters Pacific Air Forces, June 2020), 9.

Three potential types of bases could serve as the hubs and spokes in the PACAF ACE model. They are the "stay and fight," "drop-in," and "forward arming and refueling points (FARPs)."[11] These types of bases could exist for varying periods of time, have diverse levels of infrastructure, and require different levels of operational support. Stay and Fight bases will be the largest of these, with the capacity to support a full flying squadron for one month with about

1200 agile combat support personnel. Stay and fight bases would also have significant active and passive defense systems along with a greater ability to recover from an attack. The capability and capacity of stay and fight bases make them the most likely to serve as the hubs in an ACE operation. Drop-in bases would have few defenses, limited sustainment capability for approximately 300 agile combat support personnel, and only enough capabilities to evacuate following an attack. Finally, the FARPs would be the farthest forward operating locations and likely only operate for a few hours until located by hostile forces. FARPs would support fewer than 100 agile combat support personnel with all supporting equipment arriving via cargo aircraft.[12] A potential option for the FARP locations has already been tested via the "Rapid Raptor" concept. In Rapid Raptor, four F-22s and one C-17 are dispatched to a forward or dispersed operating location from which they will launch a small number of sorties and then move to another location. In this scenario, all available seating on the C-17 is used by operations support for the flying mission; there is simply no room for security elements to provide a base defense.[13] The idea behind the various operating locations is to limit an adversary's ability with long-range precision fires to neutralize large, vulnerable, MOBs. The use of operating locations without permanent forces and the limited space available for transportation to those locations will require a heavy reliance on host nation counterparts for security.

Security cooperation partnerships with host nation law enforcement, military, and intelligence agencies will be required to bolster security around the operating location coupled with improved threat intelligence will be critical to base defense.[14] Host nations will protect dispersal airfields in permissive environments, where the possibility of asymmetric ground threats exists.[15] The limited space for base defense personnel to travel to these forward locations necessitates maximizing the impact of a small number of personnel. One of the most impactful

operational specialties to ensure operating locations' security and safety from intelligence threats is via USAF CI forces, the OSI. A foundational explanation of CI is necessary to explain the role of OSI in combat operations as well as how OSI can play a role early in the competition continuum to set the theater in preparation for future operations.

COUNTERINTELLIGENCE (CI) BASICS

Defining CI and the different aspects of what an OSI unit is responsible for is essential to understanding the variety of the CI mission set. CI is the "collection, analysis and production, investigations, operations, and functional services conducted to identify, deceive, exploit, disrupt, or protect against intelligence activities on behalf of foreign powers, organizations, or international terrorists."[16] Collection is the acquisition of information to answer intelligence collection requirements. For example, in the current construct, an USAF Wing Commander may have a standing collection requirement regarding insurgent forces' activity near their base. CI agents would then actively pursue, collect and vet information to provide the commander context of insurgent activity affecting base security or the generation of combat power, leading to the commander's ability to make a threat-informed decision. CI operations are designed to identify, deceive, disrupt, neutralize or deter foreign intelligence entities' activities.[17] While conducting their CI mission, OSI agents are collecting critical force protection information.

The USAF has two doctrinal documents discussing CI support to Force Protection (CI/FP), AF Doctrine Publication (AFDP) 3-10, Annex Force Protection, and AFDP 3-99, DAF role in Joint All Domain Operations (JADO). CI, Intelligence, Surveillance and Reconnaissance (ISR), and liaison efforts are critical to identifying, analyzing, and disseminating threat information to commanders, ensuring force protection. Threats to force protection include conventional military units, special forces, foreign intelligence entities, terrorists, civil

populations, criminals, insiders, and extremists.[18] CI/FP is the employment of OSI capabilities to find, fix, track, and neutralize enemy threats to create a sustained permissive environment for air operations.[19] Intelligence, CI, and law enforcement entities will need to leverage access to and relationships within planned and potential ACE locations to provide on-demand force protection and intelligence support. This will be critical to enabling air operations in the face of potential ground-based threats.[20] All of the CI missions can be employed throughout the competition continuum in support of distributed operations.

HOW CAN CI SUPPORT DISTRIBUTED OPERATIONS?

CI forces will be critical to supporting distributed operations throughout the competition continuum and during all phases of ACE combat operations by collecting, reporting, and analyzing threat information to commanders and other key decision makers. The Central Pacific campaign of World War II serves as an example of what is now categorized as Joint Intelligence Preparation of the Operational Environment (JIPOE) and how important it is to conducting combat operations in an unknown operating environment. JIPOE is a process used to analyze relevant information about an operating environment including adversary and other actors; air, land, sea and space domains; the information environment; and political, military, economic, social, information and infrastructure systems and subsystems.[21] In 1941, the US had good information on the Germans due to the experience and information sharing of the British, but knew almost nothing about the Japanese military, or about its pacific island bases like Saipan and Iwo Jima.[22] The US needed a way to collect and analyze information to support future combat operations in the Pacific theater.

The Joint Intelligence Center, Pacific Ocean Areas (JICPOA) was created to analyze intelligence information and provide the Commander, Admiral Nimitz, with information to plan

and execute the war. Although there were other factors that impacted these campaigns, there were some similarities in the intelligence "pictures" provided in advance of the campaigns. For the campaigns of Kwajalein, Eniwetok, Tinian and Guam, JICPOA had access to radio intelligence that exposed some of the Japanese troop positions, documents providing the order of battle, terrain intelligence and effective photo intelligence on enemy defensive plans. The campaigns for Kwajalein, Tinian and Guam were completed with relative speed and relatively low numbers of Killed-In-Action (KIA). Kwajalein was secured in four days with 1,295 KIA, Tinian was secured in nine days with 328 KIA, and Guam was secured in 19 days with 1,744 KIA.[23] Conversely, for the more costly campaigns of Saipan, Peleliu and Iwo Jima, JICPOA lacked effective photo and radio intelligence, and captured enemy documents were incomplete or arrived too late to have an impact on the operations.[24] Saipan was secured in 24 days with 3,225 KIA, Peleliu was secured in just over two months with 1,790 KIA, and Iwo Jima was secured in 36 days with 6,821 KIA.[25] The importance of JIPOE cannot be understated and CI forces are uniquely trained and suited to provide JIPOE.

Developing relationships with host nation counterparts in the competition phase will require a long-term investment of personnel. CI and law enforcement personnel who are either prepositioned via permanent assignment, such as a Force Protection Detachment (FPD) or Seat of Government (SOG) agent, or those who are dedicated to supporting distributed operations and conduct regular trips to potential distributed operations locations, will be critical to the JIPOE. FPDs are manned by a handful of CI agents from either, or all, Naval Criminal Investigative Service (NCIS), OSI, and Army Military Intelligence (MI) and located within US Embassies in nations where US military forces may transit but typically do not have a long term presence. CI forces would be well positioned and able to collect intelligence information that could assist with

JIPOE for future distributed operations. CI forces use their developed networks and liaisons with host nation counterparts through subject matter expert exchanges to hone useful threat information for commanders to respond to threats in the operating environment including terrorist, intelligence and criminal along with assessments of potential operating locations such as airfields. Joint Force CI elements are well versed in conducting airfield, port and location surveys that contain a significant portion of the information required for JIPOE. Building the threat picture in advance of crisis or conflict will be critical, and upon transition to conflict, information gleaned will inform force protection decisions regarding ground-based threats to operating locations.

Given the priority placed on the projection of air power by US warfighters, the bases that generate combat airpower will be high priority targets for US adversaries in future conflict. Long range precision fires place US air assets at risk on the ground, where they are most vulnerable. In a distributed operations environment, an adversary will have to decide where to employ long-range fires and where to employ other methods to defeat US airpower, before it gets into the domain where it is most successful; the air. There are various ground-based threats to dispersed airfields that CI forces can impact, including intelligence collection threats and potential force protection threats. For example, large Chinese populations throughout the Pacific theater could enable intelligence collection on dispersed airfields.[26] Ground based threats will remain a persistent hazard to air operations in distributed operations.

Historically, ground attacks against air bases have been some of the most disruptive attacks against US airpower. One only needs to look to the Vietnam conflict to find evidence of how much damage a well-equipped and determined enemy can do to air bases, especially MOBs. Throughout the Vietnam conflict, 99 aircraft were destroyed, and another 1170 were damaged in

ground attacks conducted by either the NVA or Vietcong.[27] This number is compared to 6 destroyed and 19 damaged in both Operations Enduring Freedom, and Iraqi Freedom combined.[28] In a conflict or crisis involving a peer or near peer adversary the threat posed by ground attack could be even greater as they can employ competent and well-equipped special forces units to attack and disrupt flying operations. At the height of the Cold War, the North Atlantic Treaty Organization (NATO) was working on airpower dispersal concepts to ensure combat airpower in the event of a Soviet attack. To counter this, the Soviets envisioned using Spetsnaz forces inserted near NATO airbases. The Spetsnaz would then either infiltrate the target base and destroy aircraft or set up surface-to-air missiles near the airfield to shoot down aircraft.[29] Although lessons from base defense and the CI application to enable improved base defense from these conflicts are essential, similar base defense methods are unlikely to succeed in future conflicts with an adversary that is as determined as the Vietnamese were but far better equipped.[30] OSI's authorities and capabilities for building relationships with host nation counter parts and expertise in building informant networks make OSI well suited to provide the JIPOE needed for distributed operations throughout the competition continuum. OSI's experience in combat operations will form the basis of providing the information needed to defend operating locations from a variety of hostile threats during crisis and conflict.

OSI's CI ROLE IN COMBAT OPERATIONS

OSI performs multiple CI missions to support Air Force combat operations. Air Force Tactics, Techniques, and Procedures 3-10.3, Integrated Defense Counterthreat Operations (CTO) outlines how OSI supports the Air Force Mission Directive of "find, fix, track, and neutralize enemy threats in order to create a sustained permissive environment for air operations." OSI CTO provides commanders tactical awareness of force protection threats.[31] The CTO mission

and CI/FP mission have been the main thrust of OSI's support to combat operations throughout the Global War on Terror (GWOT).

Through its CTO and CI/FP missions, OSI has played a key role in the protection of the massive airbases across the US Central Command (CENTCOM) area of operations. Further, OSI's CTO proved extraordinarily effective at identifying, locating, and tracking potential force protection threats through various collections and then neutralizing those threats. OSI operations in Afghanistan and Iraq primarily focused on clandestine and overt human source intelligence (HUMINT) and host nation security and intelligence counterparts to identify emerging threats to airbase operations. The OSI unit then vetted information to validate credible threats and develop plans to neutralize those threats. Target packages were passed to direct action elements to neutralize the threat. Direct action elements ranged from US or Coalition Special Operations Forces to host nation security forces. Over time, additional resources were employed to this end, such as the addition of all-source analysts and the Tactical Security Element (TSE) comprised of Air Force Security Forces equipped with mine-resistant armored vehicles and heavier weaponry.

OSI units also expanded their working relationships with US and Coalition Forces to increase ISR capabilities that enhanced the capability to collect information from human informants by adding signals and imagery intelligence capabilities. In the instance of Expeditionary Detachment 2413, Task Force (TF) Black, Kandahar Airfield, Afghanistan, the OSI team became a complete find, fix, finish, exploit, analyze and disseminate (F3EAD) entity. TF Black incorporated additional analytical support and unmanned aerial vehicles (UAVs) to direct strikes and raids against identified targets threatening air operations at the base.[32] Although extremely successful, this construct has limitations when it comes to supporting distributed operations such as ACE. These OSI operations were quite large, with substantial logistical footprints. Further,

OSI teams had time on their side. No doubt OSI agents were quite successful early on in these conflicts, but their successes increased as their capabilities, source networks, relationships with counterpart agencies, and human resources increased. A distributed operations environment may not support the logistics tail demanded by today's typical OSI operations over long periods. The USMC CI community is facing a similar challenge to that of OSI, and a review of available USMC doctrine related to CI force employment in distributed operations is necessary to identify insights of potential value to the Air Force.

MARINE CORPS CI

Similar to the Department of the Air Force, the USMC CI community is evaluating how to best support the future of Marine Corps distributed operations in the form of Expeditionary Advanced Basing Operations (EABO). As the Marines build out an operational construct for the future, it is expected to be informed by operational doctrine in place prior to the 9/11 attacks. For example, the pre-9/11 Marine Corps Warfighting Publication (MCWP) 2-14, published in 2000, described CI functions as identifying potential threats, threat capabilities, providing indications and warnings of potential attack and support to targeting.[33] Direct support CI elements fall under the command and control authority of the supported commander. CI elements assigned to direct support are attached to particular units and are very useful for widely dispersed units, such as the Marine Air/Ground Task Force (MAGTF) air elements.[34] Direct support CI elements then provide direct support to the commander of the air element, in this instance, and work closely to ensure they are meeting the needs of the unit to which they are assigned.

The Marine Corps also demonstrates a distributed operations model of command and control (C2) for CI. HUMINT Support Teams (HSTs) or CI teams act as independent units with coordination conducted by a CI/HUMINT Company Commander or one of the team's Officers

In Charge (OIC).[35] The CI/HUMINT Company (Co) headquarters would establish a command post near the Intelligence Operations Center (IOC), which would typically be co-located with the Marine Expeditionary Force (MEF) command post. CI/HUMINT Co C2, planning and direction, and some analysis, production, and dissemination functions are executed within the CI/HUMINT Co CP. The CI/HUMINT Co personnel within the CP perform the CI and HUMINT processing, analysis, exploitation, production, and reporting of CI and HUMINT products and information per ISC direction and the intelligence operations plan.[36] This offers a model of how CI forces can be employed in distributed operations across the Joint Force in both the direct support employment of CI forces with combat units and the distributed nature of USMC CI command and control.

LESSONS LEARNED, OBSERVED, AND RECOMMENDATIONS

BUILDING RELATIONSHIPS DURING COMPETITION

Posturing of CI forces must account for the fact that distributed operations are different in character from what the Air Force has been doing in the Global War on Terror since 2001. The long-established basing at MOBs of past conflicts has allowed CI forces the opportunity to develop very effective techniques, tactics, and procedures to find, fix, track and neutralize threats to air operations. Critical factors to OSI's increasing success were time, hard lessons learned, and manpower, to name a few. These factors are not likely to avail themselves to OSI operating in a distributed operations environment against peer competitors. The speed and expeditionary nature of the future fight will make time and these resources a luxury. CI forces must take steps to minimize the impact the loss of time in distributed operations will have on CI operations, including building the necessary relationships in the competition phase before crisis or conflict,

increasing connectivity with combat units they will be supporting, and embracing a distributed operations model for themselves.

Time is assessed as an important factor to building successful CI relationships, whether liaison relationships or those with confidential informants, and time will likely be in short supply in distributed operations. OSI is already embarking on a crucial part of the work that will be required to employ CI forces in support of future Air Force distributed operations, that is, the building of relationships with foreign counterparts in potential operational areas before hostilities begin. This effort will be foundational for success in future distributed operations, and will require substantial resources, patience, and effort on the part of OSI leaders and agents. As the PACAF ACE concept of operations states, "…tomorrow's fight will be unprecedented in speed…,"[37] OSI units will not have weeks to build source networks or relationships with the host nations as they have in the past. Therefore, it is imperative to build those networks and relationships early.

CI forces must develop relationships with all nations in the Pacific and Europe with potential for distributed operations locations for crisis or conflict. As it can take months for CI forces to build relationships with the host nation's CI and law enforcement communities, as well as simultaneous weeks, or months, to build adequate source networks, this important work must begin at the earliest opportunity. Locations where there are limited host nation security and intelligence capacity will require additional attention for an organization such as OSI that has limited resources. To build capacity in addition to the currently fielded number of approximately 2,000 agents, OSI has requested, and been provided, several billets to support distributed operations. Those billets have been split up amongst the OSI enterprise to locations geographically aligned with USAF Major Commands (MAJCOM) responsible for

INDOPACOM, EUCOM, SOUTHCOM, and CENTCOM. Although the environments may require different approaches, a common goal is to use these additional resources to build host nation relationships and, potentially, source networks.

A possible augmenting solution to the competition phase building of relationships and source networks would be expansion of the FPD system to include nations where distributed operating locations are. Expansion of the FPD system would create a more permanent OSI presence to facilitate the building of source networks, liaison with host nation counterparts, and increase interaction with US government counterparts in those nations. Over time, a permanent OSI presence could build and maintain all of these relationships and assist deploying OSI personnel in executing distributed operations. Ideally, the permanent OSI personnel would be able to meet with deploying CI forces and introduce those agents to their host nation counterparts and any sources the deployed agents might be able to work with in the execution of their mission to support a distributed operating location. This could work in both actual combat deployments and exercise situations. It may be even more effective in exercise situations to demonstrate the value of CI and law enforcement expertise in distributed operations.

DIRECT SUPPORT TO COMBAT UNITS

Another component of OSI operations where change is required is the actual deployment of personnel to support distributed operations via a model more akin to "direct support." Past Marine Corps CI doctrine offers a possible solution to counterintelligence support to the MAGTF. The Marine Corps attaches CI personnel directly to combat units. Those CI personnel go through pre-deployment training and deploy with the unit to which they are assigned in direct support. The manpower requirement for OSI units in the continental United States would be too high for units to implement a direct support model with dedicated agents to combat units.

Further, Lead Wings, and their associated OSI units, could be tasked to support contingencies anywhere in the world, making the demand on those units impossibly high. However, OSI units that are already part of the geographic combatant commands (GCC), such as those assigned to INDOPACOM and EUCOM, possibly CENTCOM, may benefit from assigning agents to a form of direct supporting relationship with combat units they support. Combat units in the GCCs are the frontline Air Force units that may have identified dispersal locations, or are working on finding them, and will go to those locations when required in a combat or crisis scenario. As discussed above, as the combat units conduct distributed operations exercises, an OSI agent could also participate in those exercises alongside the combat unit they support. If that agent was in a direct supporting role, the agent would become familiar with the human terrain and have the opportunity to work with the OSI distributed operations teams or FPD agent that has built long term relationships.

The direct support relationship model will also help OSI foster an environment of trust with the combat units themselves. Like the above conversation about the advantages of long-term relationships with the host nation, the same is true for USAF combat units and leaders. OSI needs to explore being part of the planning process early and often to ensure CI and law enforcement prerogatives are brought up in planning, as well as a clear understanding of what each unit will be doing in the planned combat, exercise, or deployment. Over time, exercising and training together will not only help OSI with its mission, but it will improve OSI's relationship with the combat units by demonstrating the value of OSI to the success of the unit's mission. Combat unit recognition of OSI contributions could be critical during a crisis or conflict situation, when the commander has a very limited number of personnel they can bring along to

ensure mission success. This operational design, both the purposed permanent personnel and direct supporting personnel will strain OSI's current force design, however.

OSI's current force structure and demands on that force may not be able to accommodate these recommendations as is. Adding additional requirements for permanent presence in support of distributed operations may not be possible due to manning constraints. For example, the growth could require nearly 20 more permanent agents in the INDOPACOM and EUCOM operating areas to cover the myriad nations that could host distributed operating locations. As of this writing, it is unlikely that OSI would be able to accommodate this without acquiring more billets or divesting in another mission to move personnel. OSI is currently addressing this by using a rotational team whose sole job will be to support ACE distributed operations by developing the long-term relationships with host nation and US counterparts along with conducting the needed assessments in advance of crisis or conflict. This will likely work in the competition phase, but it could prove challenging for OSI ACE teams to travel to any distributed operations location during crisis or conflict. The direct supporting model may also challenge those OSI units who would execute it. However, those direct supporting agents would continue their normal home station duties when not conducting exercises, training or deployments with their assigned combat units. Further, these direct supporting agents would only support their assigned combat units when those units deploy to operations that do not already have a permanent OSI presence. There is no doubt that these recommendations come with a manpower requirement that may not be met in today's resource constrained environment. OSI may have to make manpower movements to support this, along with relying on the Joint Force CI forces when possible to support USAF distributed operations. OSI will also have to become comfortable with a different employment of its units and agents than in the recent past.

Due to the number of potential distributed operations locations, OSI should explore a change to its force presentation and become more comfortable expanding the "mission command" concept to lower levels than OSI does today. It is unlikely that OSI units would be able to deploy in the same way they do today with an entire unit consisting of a commander, superintendent, agents and support personnel all deploying to one location. It would be more effective and efficient for OSI to model the USMC CI community in which the unit leadership would be collocated with a higher command echelon while CI teams are deployed forward. OSI unit leadership could be deployed with the appropriate level command authority, group or squadron, for a particular regional cluster. Meanwhile the field agents, typically in pairs, will operate from the outlying "spoke" locations. This setup would minimize the OSI resource requirement at smaller operating locations while providing the OSI agent in charge direct access to the next higher-level unit commander to provide intelligence updates on what is occurring within the regional cluster. The mission command concept would be critical to the success of OSI distributed operations. Mission command is the conduct of operations through decentralized execution that minimizes detailed control and empowers subordinates to take initiative based on commander's intent vice constant communications.[38] Mission command based on mission-type orders, orders that include the total mission and/or an order to a unit to execute a mission without details on how to do it[39], enables subordinate units to focus on required effects and mission accomplishment.[40] OSI currently models mission command however, it is within the current force presentation construct in which the OSI unit commander is operating with mission type orders. In a distributed operations scenario, OSI unit commanders and geographically separated field agents will have to operate with mission type orders. OSI units will need to be able to distribute with, and effectively support, the combat units to which they are assigned. Relaying

information between the outlying spoke locations and hubs within a cluster will be a challenge for OSI agents.

CI forces deployed in support of distributed Air Force operations will require man-portable, secure, text and voice communications to reach back to higher echelons and pass critical threat information. Discussions with the Massachusetts Institute of Technology, Lincoln Laboratories, have yielded a set of proposed requirements for a possible satellite communications (SATCOM) solution to ensure agents can pass information over long distances. Possible requirements for this SATCOM system include:

- Requirement	- Reasoning
- Low probability of intercept, detection	- CI forces cannot be why the adversary discovers a distributed operations location in a combat situation.
- Anti-Jam	- Jamming of communications transmitting CI information could pose a risk to operations.
- Battery-powered, ground power capable	- Initial distributed operations deployments could be very austere, thus requiring an ability to be self-powered.
- Voice and text capable	- Voice and text are critical to passing information collected by agents at their deployed location to the next higher echelon in the rear.
- Capable of classified transmissions	- CI information is generally classified in nature and needs to be transmitted over classified communications capable devices.
- Transported in a maximum of two travel cases, no heavier than 50lbs	- Space on distributed operations, which demand agility and flexibility, will be at an absolute premium.

PUTTING IT ALL TOGETHER

A hypothetical example of how this CI Force operational design might be executed can be explored using the 35th Fighter Wing (35 FW) at Misawa Air Base (AB). In 2025, the two operational F-16CJ fighter squadrons of the 35 FW, the 13th, and 14th Fighter Squadrons are

tasked to conduct an ACE distributed operations deployment as part of both the "contact" and "blunt" layers of forces. The contact layer consist of activities in contested areas to counter adversary influence while the blunt layer is comprised of "combat-credible" forces that are forward deployed and can deter aggression or degrade adversary objectives.[41] The ACE deployment calls for one squadron to move to Clark International Airport and the other to Mactan-Cebu International Airport in the Philippines. OSI agents assigned to support the 35 FW then activates two pairs of agents, one pair for each squadron. At least one agent per pair has been executing distributed operations exercises and training with the respective squadron they are now deploying with. The teams of agents contact the permanent OSI presence in the Philippines, in this case an FPD agent(s). The FPD agent(s) provides threat, airfield, and local conditions information to the agent teams who, in turn, provide the most up to date information to the deploying combat squadrons and support personnel. Upon arrival at Clark and Mactan-Cebu the deployed agents meet with the FPD agent(s) within days to conduct meetings with host nation counterparts and any sources in their respective operating areas. The field agents can operate independently at their respective locations while leaning on the FPD agent(s) for higher level host nation and US counterpart support. From this point, CI collections and efforts to identify and neutralize threats to US operations can operate largely as they do currently in permissive, or semi-permissive, environments. OSI will execute its own distributed operations during this ACE deployment as well.

Due to the nature of distributed operations, small units at the various operating locations, OSI agents will operate in a distributed model as well. In the hypothetical example above, the deploying field agents would not operate at a typical OSI unit complete with support personnel, analysts and leadership. The field agents' operational leadership would remain at Misawa AB,

Japan or be transferred to a deployed OSI command structure located closer to the operating locations. Due to the potentially limited space on transport aircraft and limited communications bandwidth in certain scenarios, it is unlikely that field agents will be able to do more than transmit voice and text to higher echelon OSI elements. Field agents will have to rely heavily on reach back support for everything from basic intelligence information report (IIR) publication to complex analysis of threat information and source validation, if possible. Perhaps most importantly, that higher level OSI echelon will have to be aligned with the deployed operational command echelon and be able to disseminate threat information being collected from the distributed OSI field agents throughout the theater.

Beyond having ready-to-work networks and host nation contacts, OSI agents will have to be prepared to collect information that may not typically be thought of as CI or CI support to Force Protection. OSI will have to train deploying agents to consider any threat to the force, including adversary operational units, as a threat to force protection. A historical example to model includes the efforts Special Agent Donald Nichols undertook in Korea, to exploit opportunities to collect positive intelligence about enemy capabilities and locations. In the mid-late 1940s Nichols was an Army, then Air Force, CI agent. Prior to any hostilities, Nichols developed a relationship with Syngman Rhee, who would later become the President of South Korea, through the course of his four-year liaison work with Korean police, security services and government officials. Nichols adapted his CI and force protection collections to include virtually any threat to US forces in the Korean conflict, including enemy forces. As a result, Nichols and his informant network became one of the primary sources of targeting information for USAF strike missions.[42] Agents may also be integral to coordinating and taking part in operations to rescue friendly forces or assist in the interdiction of adversary forces with host nation

counterparts. From the forward operating locations, the "spokes," the agents could be the most advanced ground intelligence collectors in a distributed operations combat scenario. This must be embraced, not shunned. Through networks of sources and contacts with host nation counterparts, OSI agents could provide critical targeting information to the Joint Force as adversary elements are located.

CONCLUSION

OSI, and other Joint Force CI forces, will need to adapt to distributed operations that will likely characterize the conflicts of today and tomorrow. CI forces need to consider a number of possible factors including time to develop source networks and relationships with host nation entities; distributed operations concepts for CI forces themselves; command and control of CI forces; and logistics, including transportation within an area of operations. The author recommends that OSI consider increasing the permanent, or semi-permanent, presence of OSI personnel in nations that are likely to host Air Force units during crisis or combat. The increased presence would help address the time issue associated with high intensity fights by allowing OSI to develop liaison relationships and build vetted source networks in advance of crisis. Further, by adapting the direct supporting relationship Marine Corps CI forces have with the distributed combat units they support, OSI will be enabled to develop long standing knowledge of that unit, strong working relationships, and to demonstrate the value of the OSI mission to distributed Air Force operations through exercises. To address command and control, OSI should consider empowerment and training of field of agents to execute the CI mission with little to no oversight. Although field unit leadership may be deployed, it is unlikely that the higher echelon will ever be at the same location as the field agents. As this paper is being written a number of OSI units are exercising distributed operations deployments, and the results are promising.

OSI completed an ACE exercise focused on squadron sized combat unit in August 2020 and learned some of these very lessons. In the lead up to the exercise, the unit developed a set of six, twelve, and eighteen-month plans to ensure agents could "set the theater." The unit sent agents to build relationships with Japanese counterparts who assisted agents in identifying threats to exercise. The garnered information provided the mission commander with dynamic planning and preparation information. OSI participated in ACE training and planning to identify possible ACE locations and get to those locations in advance of the main contingent. The deployed OSI personnel were empowered by unit leadership to execute their mission sans oversight from a geographically separated higher echelon allowing agents to take initiative and execute activities necessary to the protection of the larger mission from intelligence and other threats.[43] OSI is working and testing different operational approaches to the challenge of distributed operations, but further analysis is required.

To continue to develop the best way to provide CI support to distributed operations, a number of topics require further research, especially as OSI and the Joint Force begin to exercise and test distributed operations. OSI and most of the CI forces in the Joint Force are rather small. Targeted research and exploration of the best way to maximize the efforts of CI forces within the Joint Force will likely be critical to future success. Force package size and the best way to employ CI teams as distributed operations elements disperse beyond their initial location as operations during crisis or conflict drag on requires more research and experimentation. The challenge of distributed operations will not be easily solved, and much more continued development is required. However, if OSI, and Joint Force CI elements, embrace "Accelerate Change or Lose," and accept new ways of executing its traditional missions, OSI will continue to provide critical support to the generation of US combat airpower.

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