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ARMY PACIFIC PATHWAYS

Comprehensive Assessment and Planning Needed to Capture Benefits Relative to Costs and Enhance Value for Participating Units

Revised November 30, 2016, to add additional language to the highlights page from the body of the report, in order to provide more context about the costs of Pacific Pathways. The corrected section should read: "For fiscal year 2015, the three Pathway operations cost a total of \$34.5 million—about twice as much as the combined costs of those same named exercises prior to Pathways. However, the forces and equipment provided under Pathways were more than double in many categories. USARPAC officials stated that Pathways builds readiness at multiple command echelons; increases exercise complexity for partners, such as by providing more equipment to exercises; supports the rebalance of forces to the Pacific with a persistent forward presence; and allows the Army to experiment with capabilities."

GAO Highlights

Highlights of [GAO-17-126](#), a report to congressional committees

Why GAO Did This Study

In accordance with the shift in U.S. strategy and rebalance of military forces to the Asia-Pacific, USARPAC has turned its focus toward rebuilding its expeditionary readiness. To this end, USARPAC launched the Pacific Pathways initiative in 2014, in which it deploys a battalion-sized task force for approximately 90 days to conduct a series of exercises in the Asia-Pacific for the purpose of enhancing readiness and strengthening relationships with allies, among other things. As of September 2016, USARPAC had completed six Pathway operations.

House Report 114-102 accompanying a bill for the National Defense Authorization Act for Fiscal Year 2016 included a provision for GAO to review the Pacific Pathways initiative. This report examines the extent to which the Army has (1) assessed the costs and benefits of Pacific Pathways; and (2) synchronized plans and incorporated training objectives of supporting units to maximize the training value for all participating Army forces. GAO reviewed documents and data and interviewed relevant officials involved in Pacific Pathways.

What GAO Recommends

GAO recommends that USARPAC conduct a comprehensive analysis of Pathways' benefits in light of its costs, better synchronize planning, and integrate supporting units' training objectives. DOD partially concurred with the first recommendation and concurred with the other two. DOD said that USARPAC understands the strategic benefits and a comprehensive analysis is not needed. GAO believes that this recommendation is still valid, as discussed in this report.

View [GAO-17-126](#). For more information, contact Cary Russell at (202) 512- 5431 or russellc@gao.gov.

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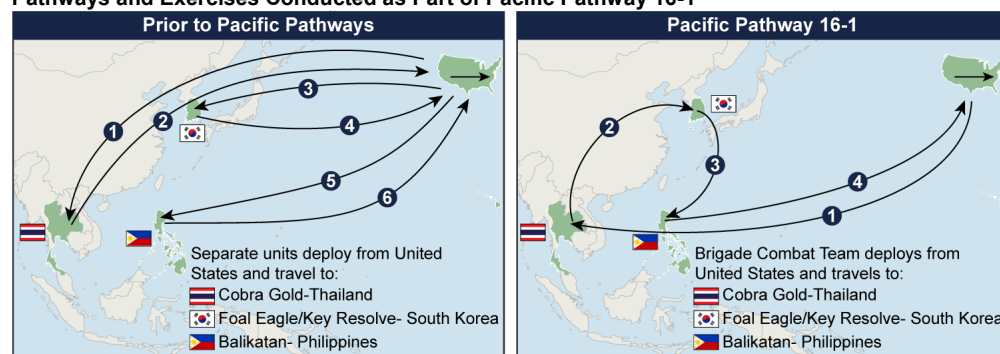
ARMY PACIFIC PATHWAYS

Comprehensive Assessment and Planning Needed to Capture Benefits Relative to Costs and Enhance Value for Participating Units

What GAO Found

U.S. Army Pacific (USARPAC), the Army's component command in the Asia-Pacific region, has identified Pacific Pathways costs and taken steps to assess some associated benefits, but it has not conducted an analysis that fully assesses the initiative's benefits relative to costs. Pacific Pathways is an initiative that combines three to four exercises with partner nations—exercises that were previously conducted as stand-alone events—into an integrated operation to strengthen relationships with allies and build readiness by rehearsing deployment tasks (see figure below). For fiscal year 2015, the three Pathway operations cost a total of \$34.5 million—about twice as much as the combined costs of those same named exercises prior to Pathways. However, the forces and equipment provided under Pathways were more than double in many categories. USARPAC officials stated that Pathways builds readiness at multiple command echelons; increases exercise complexity for partners, such as by providing more equipment to exercises; supports the rebalance of forces to the Pacific with a persistent forward presence; and allows the Army to experiment with capabilities. Units that have participated in Pacific Pathways have assessed some of these benefits, but USARPAC has not conducted a comprehensive analysis that demonstrates the initiative's value, which could better inform Department of Defense decision-makers as they consider budgetary trade-offs.

Comparison between the Concepts of Operation for Stand-Alone Exercises Prior to Pacific Pathways and Exercises Conducted as Part of Pacific Pathway 16-1



Source: GAO analysis of Army information. | GAO-17-126

The Army has taken steps to plan for Pacific Pathways as a cohesive operation, but challenges remain in synchronizing planning efforts and incorporating training objectives of supporting units, such as units that provide transportation support to the operations. USARPAC has developed some Pathways-specific planning guidance, among other things, but it continues to experience challenges in synchronizing planning across participating organizations and in ensuring that decisions made for individual exercises are aligned with the broader objectives of the Pathway operation. Also, USARPAC has not established an approach to seek out and integrate supporting units' training objectives in the design of Pacific Pathway operations. Without taking action on these issues, USARPAC may continue to experience challenges executing the Pathway operations as cohesive operations and could miss opportunities to enhance the value of Pacific Pathways as a venue for real-world training across the region.

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Abbreviations

BCT	Brigade Combat Team
DOD	Department of Defense
USARPAC	U.S. Army Pacific

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November 14, 2016

Congressional Committees

In accordance with the shift in U.S. strategy and rebalance of military forces to the Asia-Pacific region that was first set forth in 2011,¹ the Army has increased its presence in the Pacific by about 30,000 soldiers and civilians, and U.S. Army Pacific (USARPAC)—a component command of U.S. Pacific Command—has turned its focus toward rebuilding its expeditionary readiness and deployment capabilities.² USARPAC identified its exercise program with partner nations—which according to USARPAC had atrophied for almost a decade due to force requirements in Iraq and Afghanistan—as both a vehicle for innovation and an opportunity for U.S. Army forces to re-engage in the region through a more robust presence. To this end, USARPAC launched the Pacific Pathways initiative in 2014, combining multiple pre-existing exercises with partner nations into integrated operations—each operation referred to as a Pathway—for the purposes of enhancing the readiness of participating forces, strengthening relationships with allies, and providing a crisis response option to the combatant commander. Additionally, according to USARPAC and I Corps officials,³ Pacific Pathways is intended, in part, to serve as a rehearsal for how the Army may operate in the Pacific during a contingency, including how it integrates with joint and international partners and moves its forces. As of September 2016, USARPAC had completed six Pacific Pathway operations to date, and it planned to complete a seventh in October 2016. Each Pathway operation deploys a battalion-sized task force—or about 400 to 900 personnel—for approximately 90 days to conduct a series of exercises. The capabilities of these Pacific Pathways task forces (hereinafter referred to as the “task

¹The White House, *Remarks by President Obama to the Australian Parliament* (Nov. 17, 2011).

²U.S. Pacific Command is one of six geographic Unified Combatant Commands of the United States Armed Forces. The command’s mission includes enhancing stability in the Asia-Pacific region by promoting security cooperation, responding to contingencies, and deterring aggression, among other activities.

³I Corps is an operational headquarters under the command of U.S. Army Pacific that is tasked with planning Pacific Pathways.

forces”) are tailored to the requirements of the exercises that occur within the Pathway operation, and are structured around a brigade combat team headquarters and a maneuver battalion.⁴ They also include other units with specialized capabilities, such as aviation or engineering units, depending on the types of exercises that will be conducted in the operation. For example, one of the exercises conducted within a Pathway operation included a live fire training event with Army and Thai forces, as well as other training activities focused on humanitarian assistance and disaster relief.

House Report 114-102 accompanying a bill for the National Defense Authorization Act for Fiscal Year 2016 includes a provision for us to review the Pacific Pathways initiative.⁵ For this report, we examined the extent to which the Army has (1) assessed the costs and benefits of Pacific Pathways; and (2) synchronized plans and incorporated training objectives of supporting units to maximize the training value of Pacific Pathways for all participating Army forces.

To determine the extent to which the Army has assessed the costs and benefits of Pacific Pathways, we analyzed and compared USARPAC cost and force package (that is, personnel and equipment) data, examined budgetary documentation, and reviewed briefings and white papers on Pacific Pathways that detailed elements of the concept and individual Pathway operations. We used exercise cost and force package data from 2013, which was the year immediately prior to the execution of the first Pathway in 2014, and we compared them to data for the same named exercises that occurred within Pacific Pathways in 2015. We assessed the reliability of the cost and force package data by interviewing knowledgeable officials about the data and the steps that they had taken to verify their accuracy. We determined that the data were sufficiently

⁴Brigade combat teams are the Army’s smallest combined arms units that can be committed independently. These units consist of roughly 3,000 to 5,000 soldiers and can be one of three types—infantry, armor, and Stryker. Each of these brigades contains a headquarters element, which provides command, control, and supervision of the tactical operations of the brigade, and multiple battalions. Maneuver battalions are units of roughly 500 to 900 soldiers that are designed to employ forces in an operational area to achieve a position of advantage.

⁵See H.R. Rep. No. 114-02 at 116-117 (2015) accompanying H.R. 1735, a bill for the National Defense Authorization Act for Fiscal Year 2016.

reliable for the purpose for providing contextual information related to costs and the size of exercise force packages. We also reviewed unit readiness data, unit briefings, and the I Corps' readiness assessment framework for Pacific Pathways, and we compared assessment efforts to criteria contained in the Army's guidance on conducting cost benefit analyses.⁶ In reviewing the potential benefits, we analyzed and compared the mission and capabilities of the Pacific Pathways task forces and Marine Expeditionary Units to identify potential overlap, duplication, and key differences between the two. Finally, we interviewed relevant command and unit officials throughout the Pacific theater who had key roles in planning for and executing operations to discuss these issues and corroborate our findings, including officials from USARPAC, I Corps, 25th Infantry Division, Eighth Army, the brigades that had completed five of the seven Pathway operations at the time of our review, sustainment units that had supported the operations, and U.S. embassy representatives based in host nations that had been involved in Pacific Pathways.

To determine the extent to which the Army has synchronized plans and incorporated training objectives of supporting units to maximize the training value of Pacific Pathways for all participating Army forces, we reviewed command guidance, orders, standard operating procedures, and other planning documents, such as rehearsal of concept and course-of-action briefings. We also conducted a content analysis of command and unit after-action reviews from each of the Pacific Pathway operations starting with the first (Pacific Pathways 14-1) and ending with the most recently completed operation as of July 2016 (Pacific Pathways 16-1) to identify challenges experienced by units during the planning and execution of each Pathway operation. In conducting this analysis, we developed a list of categories relevant to the planning and execution of Pacific Pathways, and we then reviewed the after-action reviews by operation to identify challenges. We placed the challenges in the appropriate categories for each operation and tracked them to determine whether any of had occurred continuously over the course of multiple operations. Additionally, we reviewed lessons learned documents, briefings on the Army Warfighting Assessment, and other papers on Pacific Pathways. We compared the Pacific Pathways planning process

⁶Office of the Deputy Assistant Secretary of the Army (Cost and Economics), *U.S. Army Cost Benefit Analysis Guide*, Version 3.1 (Apr. 24, 2013).

to criteria found in Army guidance on operational planning, and to standards for internal control related to establishing an organizational structure, assigning responsibility, and delegating authority, in order to determine whether there were gaps in planning.⁷ We also used criteria from a GAO report that identifies core principles for effective stakeholder participation, as drawn from literature reviews and policies from leading federal agencies, to identify whether there were any gaps in the process by which USARPAC incorporates the Pacific Pathways' supporting units as stakeholders in the operations and seeks out and integrates their training objectives.⁸ Finally, we interviewed command and unit officials throughout the Pacific theater who had key roles in planning for and executing Pacific Pathway operations to discuss these issues and corroborate our findings, including officials from USARPAC, I Corps, 25th Infantry Division, Eighth Army, brigades that had completed five of the seven Pathway operations at the time of our review, and sustainment units that had supported the operations. See appendix I for a listing of the organizations we met with during this review.

We conducted this performance audit from July 2015 to November 2016 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

⁷Headquarters, Department of the Army, Army Doctrinal Publication 5-0, *The Operations Process* (May 2012). GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: Sept. 2014)).

⁸GAO, *Fisheries Management: Core Principles and a Strategic Approach Would Enhance Stakeholder Participation in Developing Quota-Based Programs*, [GAO-06-289](#) (Washington, D.C.: Feb. 23, 2006). This report identifies core principles for effective stakeholder participation, as drawn from literature reviews and policies from leading federal agencies in stakeholder participation. We are applying these criteria to the process through which supporting units—considered to be stakeholders in Pacific Pathways—are involved in Pacific Pathways planning and design.

Background

Army Forces in the Pacific

U.S. Pacific Command is one of the Department of Defense's six geographic combatant commands and is responsible for a variety of functions across the Asia-Pacific region, including planning for and conducting missions such as security cooperation, humanitarian operations, and combat operations.⁹ Its area of responsibility comprises 36 nations, including India, the Philippines, and Thailand, and stretches from the waters off the west coast of the United States to the western border of India, and from Antarctica to the North Pole. U.S. Pacific Command is supported by component commands—USARPAC, U.S. Pacific Fleet, U.S. Pacific Air Forces, and U.S. Marine Forces Pacific—which, along with each of the military services, are responsible for organizing, training, and equipping their forces to execute U.S. Pacific Command operational requirements.

To address U.S. Pacific Command operational requirements, the Army has assigned more than 100,000 soldiers to the Asia-Pacific region, including USARPAC; one field army—Eighth Army—in South Korea; one Corps headquarters—I Corps—in Washington State; two division headquarters—25th Infantry Division and 2nd Infantry Division—in Hawaii and South Korea, respectively; and numerous brigade combat teams.

Planning and Funding for Military Exercises

According to an Army regulation on exercises, military exercises seek to simulate wartime operations in realistic, battle-focused settings in order to train units for combat and supporting organizations to mobilize, deploy, and sustain these forces.¹⁰ Army forces participate in joint and multilateral exercises that are directed by the Joint Chiefs of Staff. Additionally, the Army's major commands, including USARPAC, develop and execute Army-specific exercises. According to USARPAC documentation, USARPAC conducts about 25 large-scale exercises in the Asia-Pacific

⁹The other five geographic combatant commands are U.S. Africa Command, U.S. Central Command, U.S. European Command, U.S. Northern Command, and U.S. Southern Command.

¹⁰Headquarters, Department of the Army, Army Regulation 350-28, *Army Exercises*, (Dec. 9, 1997).

region on an annual basis, including those conducted as part of Pacific Pathway operations.

Joint, multilateral, and Army-specific exercises—including those that are executed as part of a Pacific Pathway operation—are to be planned, executed, and evaluated through the Joint Event Life Cycle. The Joint Event Life Cycle is a 12- to 18-month process that includes multiple planning conferences, such as a concept development conference, initial planning conference, mid-planning conference, and final planning conference. Each successive planning event further develops the concept of the exercise and, according to USARPAC officials, grows the planning audience, which can include partner nations. For example, the concept development conference is intended to identify the training requirements and exercise objectives, while the mid-planning conference is to approve the plans and training developed through and between the preceding conferences. According to USARPAC officials, each exercise has specific objectives that are aligned with U.S. Pacific Command theater security goals. A primary training audience is identified for each exercise, and the training objectives of the exercise are to be tailored to that audience through collaboration between USARPAC and the host nation. With regard to Pacific Pathways, USARPAC officials stated that the task force is the primary training audience for the exercises that occur within each Pathway operation, although other units that participate may also get training value. Each exercise can include multiple training events involving the host nation and the U.S. training unit, such as live fire events that integrate multiple combat and support functions, or computer-assisted training to test command and control functions.

Army exercises are funded through a combination of Army exercise funding and—for those joint exercises that are directed by the Joint Chiefs of Staff—joint exercise and transportation funding, which can be used to cover specific incremental expenses for Army units that are participating in the exercises, such as transportation for people and equipment to the exercises, or travel costs for personnel to attend planning conferences. Participating units can also use operation and maintenance funding that is designated for their training and readiness to fund some exercise costs associated directly with their participation, such

as the cost of maintenance on their equipment.¹¹ According to USARPAC officials, units would expend this funding for training and maintenance regardless of their participation in Pacific Pathways.

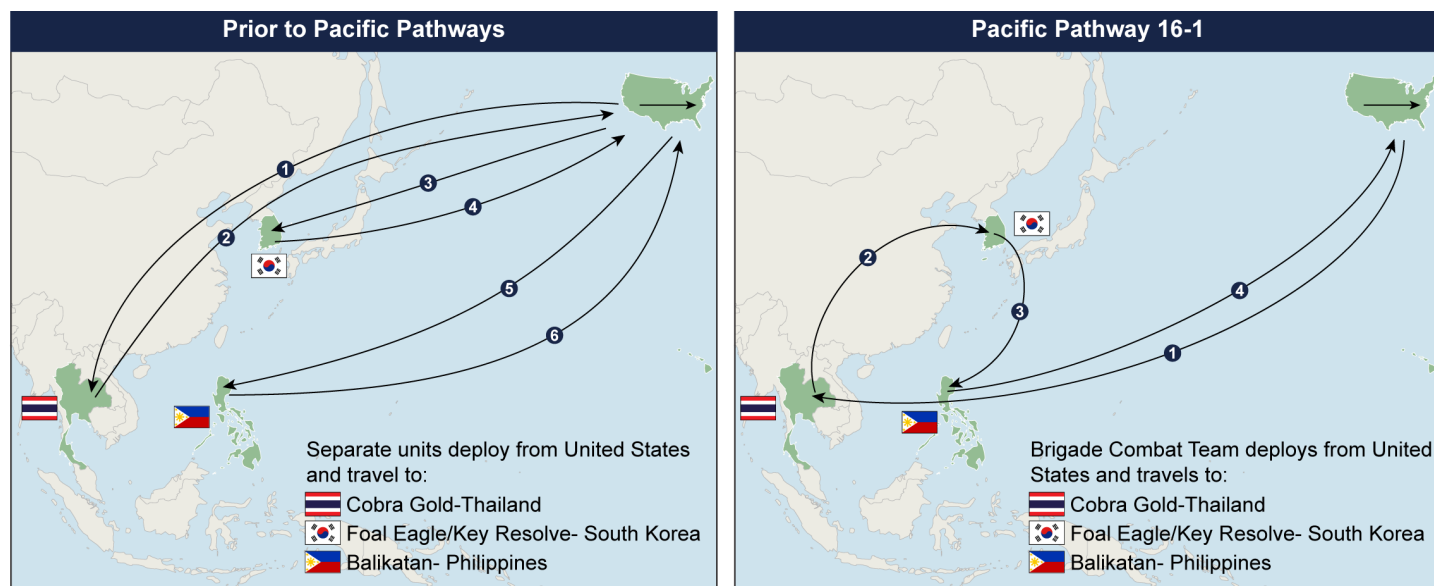
Combining Exercises within Pacific Pathways to Improve Readiness and Increase Engagement

USARPAC's stated objectives for Pacific Pathways are to use existing joint, multilateral, and Army-specific military exercises to improve and sustain readiness, shape the Asia-Pacific region through increased engagement, and enhance the capabilities of foreign partners' land forces in support of U.S. Pacific Command's theater security objectives. In addition, Pacific Pathways is designed to provide USARPAC with opportunities to address many of the Army Warfighting Challenges, including how to develop situational understanding, how to shape security environments, and how to ensure interoperability in a joint and multinational environment.¹² Each Pathway operation links a series of three to four of these pre-existing exercises into a single operation (see right side of figure 1 below). Prior to Pacific Pathways, these exercises were conducted as stand-alone events where a single unit would deploy to conduct one exercise and then return to its home station, as seen on the left side of figure 1 below.

¹¹Operation and maintenance appropriations fund Army installations and units, including the costs of military exercises and other training. Within the operation and maintenance appropriation, funding for exercises is specifically provided through an Army account designated for international support.

¹²The Army Warfighting Challenges are problems identified by the Army, the solutions to which are intended to improve the combat effectiveness of the current and future force.

Figure 1: Comparison between the Concepts of Operation for Stand-Alone Exercises Prior to Pacific Pathways and Exercises Conducted as Part of Pacific Pathway 16-1



Source: GAO analysis of Army information. | GAO-17-126

As of September 2016, USARPAC had completed six Pacific Pathway operations to date, as shown in table 1 below, and it planned to complete a seventh operation by October 2016. The first was the proof of concept in 2014, followed by three Pathways in 2015 and two as of September 2016. A third Pathway operation for 2016 is being executed from June through October 2016. According to USARPAC documentation, USARPAC intends to conduct three Pathway operations each year, going forward. According to command officials and documentation, future Pacific Pathway operations could include different combinations of exercises and partner nations, as well as other U.S. military services, depending on the objectives for the Pathway operation.

Table 1: Pacific Pathway Operations Conducted as of September 2016

Pacific Pathway	Unit Leading Task Force and Number of Personnel ^a	Exercises
14 Aug. – Nov. 2014	2-2 Stryker Brigade Combat Team (BCT) ~820 personnel	Keris Strike (Malaysia) Garuda Shield (Indonesia) Orient Shield (Japan)
15-1 Jan. – May 2015	2-25 Stryker BCT ~880 personnel	Cobra Gold (Thailand) Foal Eagle (South Korea) Balikatan (Philippines)
15-2 Jun. – Oct. 2015	3-25 Infantry BCT ~840 personnel	Hamel (Australia) Garuda Shield (Indonesia) Keris Strike (Malaysia)
15-3 June-July, Aug. – Nov. 2015	1-25 Stryker BCT ~420 personnel	Khan Quest (Mongolia) Orient Shield (Japan) Hoguk (South Korea)
16-1 Dec. 2015 – May 2016	1-2 Stryker BCT ~835 personnel	Cobra Gold (Thailand) Foal Eagle (South Korea) Balikatan (Philippines)
16-2 May – Sept. 2016	2-2 Stryker BCT ~700 personnel	Hanuman Guardian (Thailand) Salaknib (Philippines) Garuda Shield (Indonesia) Keris Strike (Malaysia)

Source: GAO analysis of U.S. Army Pacific data. | GAO-17-126

^aIn addition to the brigades identified here, other units and personnel also provided enabling capabilities to the task forces.

Training and Movement of Pacific Pathways Task Forces

The brigades charged with leading the task forces complete training on their mission-essential tasks prior to deploying for Pacific Pathways, including a rotation through one of the Army's Combat Training Centers. This approach to pre-Pathways training was identified as part of the Pacific Pathways concept, but a USARPAC Pacific Pathways concept paper has indicated that future Pathway operations could use home station or other training venues to prepare for the operation. The task forces deploy with a package of their own equipment, which is also tailored to the requirements of the exercises.

While all of the Pathway operations move equipment to the exercises via ship, the type of vessel used to move the equipment varies. For example, Pacific Pathway 15-1 and Pacific Pathway 16-1 used dedicated organic sealift vessels to move the exercise equipment throughout the region, but

Pacific Pathway 16-2 used a chartered commercial vessel.¹³ Other Pacific Pathway operations have used an Army logistics support vessel or commercial liners to move equipment.¹⁴ According to command officials and documentation, personnel participating in Pacific Pathways travel to the exercises via air, with the exception of a small number of personnel who travel aboard the vessel to assist with maintenance when the Pathway operation utilizes a military ship to move the exercise equipment.

Organizations Involved in Pacific Pathways

Each Pacific Pathway operation involves numerous commands and units. USARPAC is responsible for designing the Pacific Pathway operations, including setting strategic objectives, designating which exercises will be a part of each Pathway operation, and planning for transportation of equipment. I Corps has been tasked by USARPAC with planning the operations, including conducting mission analysis to determine how best to meet the operation's requirements, issuing operation orders, and coordinating elements of sustainment. Different operational headquarters or commands within or assigned to the Asia Pacific region, such as 25th Infantry Division and U.S. Army Alaska, provide mission command for the operation as the task force moves throughout different locations in the region.¹⁵

Pacific Pathways also involves multiple commands and units that provide sustainment and logistical support to the task force, including some that fall outside of USARPAC's organizational structure. For instance, U.S.

¹³Organic sealift vessels are vessels that are owned by the U.S. government and are capable of large-scale transportation of equipment and supplies by sea. Military Sealift Command officials said that they have dedicated organic sealift vessels to support certain Pathway operations because the requirements of those operations necessitated the use of such vessels.

¹⁴The Army's logistics support vessel is designed to give the Army strategic capability to deliver its own vehicles and cargo within a theater of operations. It is the largest watercraft in the Army fleet, is equipped with front and rear ramps that allow for expedited loading and off-loading, has the ability to load any vehicle in the Army's inventory, and can hold up to 15 M1 Abrams battle tanks.

¹⁵According to Army Doctrinal Reference Publication 6-0, *Mission Command* (May 17, 2012), mission command is the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander's intent to empower agile and adaptive leaders in the conduct of unified land operations.

Transportation Command and its subordinate commands provide transportation and port handling support to the Pacific Pathway operations. USARPAC officials stated that the other U.S. Pacific Command component commands have not been directly involved in the planning or design of Pacific Pathways, although they have participated in joint exercises that occur as part of the Pathway operations and, in some instances, have utilized the Pacific Pathways vessels to move some of their equipment to the joint exercises that comprised that operation. USARPAC officials said that identifying opportunities for joint integration will be an objective in the design for future Pacific Pathway operations. See appendix II for more detail about many of the commands and units that have participated in Pacific Pathways.

Army Has Identified Pacific Pathways Costs and Benefits, but Has Not Comprehensively Assessed Them

USARPAC has identified Pacific Pathways costs and has taken steps to assess some of the associated benefits, but it has not conducted an analysis that fully assesses the program's benefits relative to its costs, to capture its value for decision makers. USARPAC and other Army officials have stated that Pacific Pathways provides certain benefits, including the ability to provide a more robust force package to exercises in the Asia-Pacific region and to train multiple organizations and commands by conducting a 90-day expeditionary operation—as opposed to a series of stand-alone foreign military exercises conducted by several different, and smaller, units—and they have taken some steps to assess some of the program's benefits. However, USARPAC has not conducted a comprehensive analysis that demonstrates the initiative's value, or its benefits in light of its costs for external organizations.

USARPAC Has Identified Pacific Pathways Costs and Requested Funding for the Program

USARPAC has identified its costs for Pacific Pathways and the Army has dedicated some funding for the program, although its current funding has fallen short of USARPAC's requests. USARPAC initially estimated that each Pathway operation would cost about \$13.1 million on average, or about \$39.3 million annually under its plan to conduct three Pathways a year. To date, the cost of individual Pacific Pathway operations has varied, but the total cost of all three operations in 2015 was about \$34.5 million. This was about \$18.1 million more than the cost of the same named exercises prior to Pacific Pathways having been initiated, or about twice as much as the prior exercises, as shown in table 2 below.

Table 2: Cost Comparison of Fiscal Year 2015 Pacific Pathway and Pre-Pacific Pathway Exercises

2015 Pacific Pathway Exercises	Exercise Cost under Pacific Pathways (in \$millions)	Exercise Cost Prior to Pacific Pathways^a (in \$millions)	Cost Difference (in \$millions)
15-1: Cobra Gold, Foal Eagle/Key Resolve, and Balikatan	\$18.8	\$9.4	\$9.4
15-2: Keris Strike, Garuda Shield, and Talisman Sabre	\$9.4	\$5.9	\$3.5
15-3: Khan Quest, Orient Shield ^b , and Hoguk ^b	\$6.3	\$1.2	\$5.2
Total cost	\$34.5	\$16.5	\$18.1

Source: GAO analysis of U.S. Army Pacific data. | GAO-17-126

^aThe cost data for these exercises derive from 2013—the last complete year before Pacific Pathways began in 2014—for all exercises except Orient Shield, which uses 2012 cost data.

^bU.S. Army Pacific did not participate in these exercises in 2013. Orient Shield was canceled due to sequestration, and prior to 2015, Hoguk was a South Korean unilateral exercise. As a result, this table uses 2012 exercise cost data for Orient Shield and does not include Hoguk costs prior to Pacific Pathways. However, the exercise cost of Hoguk in 2015, under Pacific Pathways, was roughly \$64,500—a small portion of the total cost.

The additional cost of the exercises under Pacific Pathways is driven by the fact that the initiative, by design, provides a larger force package, which comes with associated transportation costs. For example, the cost of transportation alone for Pacific Pathway 15-1 was \$9.4 million, roughly equal to the total cost of the same named exercises in 2013. The force package provided to these exercises in 2015 was much larger—more than double in most categories—than what had been sent to the exercises prior to Pacific Pathways, as table 3 below shows. While Pacific Pathways carries an additional cost, based on USARPAC's estimates, it would have been more costly to transport the Pacific Pathway 15-1 force package using the previous transportation model of conducting each

exercise as a stand-alone event and using a commercial liner as the primary mode of transport.¹⁶

Table 3: Force Package Comparison of Pacific Pathway and Pre-Pacific Pathway Exercises

	Forces	Stryker Vehicles	Other Vehicles and Rolling Equipment	Helicopters	Unmanned Aerial Vehicles	Containers of Equipment	Primary Mode of Equipment Transport	Total Cost (in \$millions)
Pacific Pathway 15-1 exercises								
Cobra Gold ^a	880 ^b	0	0	0	0	0	Dedicated organic sealift vessel	\$18.8
Foal Eagle/Key Resolve		34	220	11	1	114		
Balikatan		18	147	9	1	67		
Fiscal year 2013 exercises								
Cobra Gold	350	0	0	2	0	24	Commercial liner ^c	\$9.4
Foal Eagle/Key Resolve	58	0	4	0	0	10	Commercial liner	
Balikatan	329	0	17	0	0	21	Commercial liner	

Source: GAO analysis of U.S. Army Pacific data. | GAO-17-126

Note: There are some smaller items and associated modes of equipment transport, such as repair parts shipped via Fedex, that are not represented in this table.

^aThe vessel used for Pacific Pathway 15-1 hit a reef en route to Cobra Gold and U.S. Army Pacific was unable to use the equipment on the vessel for that exercise.

^bThis represents the number of personnel that deployed in the task force for Pacific Pathway 15-1 and is not specific to any of the three exercises conducted with the operation.

^cA commercial liner is a type of sealift in which commercial carriers offer regularly scheduled vessel transportation to the general public.

¹⁶USARPAC developed a series of hypothetical transportation scenarios that estimated how much it would cost to transport the larger force packages that it deployed to exercises under Pacific Pathways using the prior transportation model of conducting each exercise as a stand-alone event. For instance, in one of these scenarios, transporting the amount and type of equipment used in Pacific Pathway 15-1 would have been six times as costly if it had been transported using the legacy transportation model rather than a dedicated organic sealift vessel, as it was in Pacific Pathway 15-1. However, according to USARPAC's analysis, it is unlikely that USARPAC would have shipped this much equipment using the legacy transportation model because of the high cost.

Some additional costs incurred during a Pacific Pathway operation, such as meals ready to eat or maintenance costs, are not factored into the tables above. For example, participating unit officials told us that when they use their equipment over the course of a Pathway they are increasing the maintenance and flying hour expenditures for that equipment and have to conduct maintenance accordingly. However, according to USARPAC officials, maintenance costs would be incurred by the units at some point regardless of whether the units conducted training at home station or on a Pathway. The use of equipment during a Pathway can also contribute to non-financial costs, such as a temporary decrease in units' equipment readiness ratings. For instance, according to after-action reviews, two of the task forces that deployed for Pathway operations in 2015 experienced delays in repairing their equipment due to difficulties in obtaining repair parts while in the Asia-Pacific region.¹⁷ Additionally, Pacific Pathways could be incurring some opportunity costs by using funding that could be allocated to other subordinate commands within USARPAC. For example, a commander of a major subordinate command in the region expressed concern that the USARPAC operation and maintenance funding going to Pacific Pathways could reduce the amount of funding available to support other commands in the region.

In fiscal years 2014 and 2015, USARPAC conducted Pacific Pathways using a combination of joint and Army exercise funding, as well as its own operation and maintenance budget. For example, in 2015 USARPAC funded nearly half of the total \$34.5 million Pacific Pathways costs out of its existing budget. For fiscal year 2016, the Army requested \$13.9 million in funding for Pacific Pathways, and according to Army Headquarters and USARPAC officials, Pacific Pathways received \$13.0 million in funding. For the next fiscal year, the Army requested \$13 million, but according to USARPAC officials they will receive \$7.9 million in the Army's fiscal year 2017 budget due to Army funding decrements. USARPAC has continued to fund some of the costs of the Pacific Pathway operations in 2016 through its operation and maintenance budget and, according to

¹⁷ According to I Corps officials and documentation, the task forces that participated in Pacific Pathways 16-1 and 16-2 were able to more effectively ship and receive spare parts while deployed, enabling them to maintain higher levels of sustained equipment readiness. Given the challenges experienced by the early task forces, equipment readiness rates remain a consideration when examining Pacific Pathways' potential non-financial costs.

USARPAC officials, plans to continue doing so in 2017. According to USARPAC officials, continuing to fund Pacific Pathways in this manner will become unsustainable, and the command is requesting an additional \$26 million in future years to fund all three Pathways on an annual basis.

According to USARPAC officials, they did not conduct or submit a formal cost-benefit analysis to support the approval of Pacific Pathways funding in the fiscal year 2016 budget request, as is required for all new or expanded programs or unfunded requirements per Army guidance.¹⁸ The Army Cost Benefit Analysis Guide states that such an analysis should include a clear value proposition that describes the tangible results or value that a decision maker can expect from implementing the recommended course of action, along with its benefit to the Army.¹⁹ USARPAC officials stated that they did not submit a cost-benefit analysis to the Secretary of the Army when Pacific Pathways was initiated because they viewed it as an innovation of an existing program and because the initial Pacific Pathway operations in 2014 and 2015 were conducted using existing funding. However, USARPAC requested additional funding for Pacific Pathways in fiscal years 2016 and beyond. In light of this, understanding the full costs and benefits of Pacific Pathways would help the Department of Defense and the Army determine appropriate budgetary trade-offs.

Participants We Met with Have Identified Benefits from Pacific Pathways

Although USARPAC has not conducted a comprehensive analysis assessing the benefits that Pacific Pathways has provided and could provide given its additional costs, officials from the units and commands we met with, including officials from five of the seven Pacific Pathways task forces, told us that participating in Pacific Pathways provided significant readiness and other benefits.

Benefits to Pacific Pathways Task Forces

Pacific Pathways task force officials cited readiness benefits from the initiative that traditional exercises and Combined Training Center rotations do not provide. They stated that while the exercises had always

¹⁸Headquarters, Department of the Army, memorandum, *Cost Benefit Analysis to Support Army Enterprise Decision Making* (Dec. 30, 2009).

¹⁹Office of the Deputy Assistant Secretary of the Army (Cost and Economics), *U.S. Army Cost Benefit Analysis Guide*, Version 3.1 (Apr. 24, 2013).

provided some tactical training benefits to the training units, Pacific Pathways has provided the task force with the opportunity to deploy, maintain, and operate with their own equipment in an expeditionary environment, just as they would in wartime or in response to a disaster. For example, officials in the 25th Combat Aviation Brigade told us that the speed, efficiency, and safety of their port operations have improved because of Pacific Pathways. Every time they entered or left a port on Pacific Pathway 15-1, they had to assemble or disassemble their helicopters. At the beginning of the Pathway operation, this task took them about 12 to 14 hours, but by the time they returned from the Pathway operation they were able to reduce that time to 4 hours. As a result, officials said that they have improved the speed, efficiency, and safety of their port operations and have been able to validate their ability to operate in a real-world environment. Figure 2 below shows helicopters partially disassembled and loaded on the vessel during Pacific Pathway 16-1.

Figure 2: Helicopters Loaded on Vessel during Pacific Pathway 16-1



Source: GAO. | GAO-17-126

Task force officials also told us that one of the key readiness benefits the Pacific Pathways initiative provides is the opportunity to execute mission command, or the exercise of authority and direction by the commander when conducting operations, in an expeditionary environment. Although brigade commanders also conduct mission command during combat

training center rotations—the key training event that prepares brigades for operations—officials told us that Pacific Pathways is much more complicated, as it more closely simulates a real-world deployment in the Pacific in which they conduct dispersed mission command across multiple countries. In the area of mission command, several task forces identified their ability to train to these tasks over the course of their Pathway operation, allowing them to sustain a rating of “trained”—the highest of three possible ratings in unit training assessments— in such tasks over the course of the operation. See table 4 below for the mission command tasks to which the task force was able to train during Pacific Pathway 15-1.

Table 4: Assessment of Pacific Pathway 15-1 Activities That Accomplished Mission Command Tasks

Mission Command Tasks	Activities					
	Bilateral Military Decision Making Process ^a	Bilateral Training	Platoon Level Live Fire Exercise	Platoon Level Combined Arms Live Fire Exercise	Company Level Combined Arms Live Fire Exercise ^b	Battalion Level Field Training Exercise ^c
Conduct command post operations	✓✓✓	✓✓✓	✓✓	✓	✓	✓
Conduct military decision making process	✓✓✓	-	-	-	-	-
Execute tactical operations	-	✓✓✓	✓✓	✓	✓	✓
Maintain continuity of mission command	✓✓✓	✓✓✓	✓✓	✓	✓	✓
Execute the operations process	✓✓✓	-	-	-	-	-

Legend: ✓=number of repetitions over the course of the Pathway operation; - = no repetitions identified by unit

Source: GAO analysis of U.S. Army Pacific data. | GAO-17-126

^aThe military decision-making process is an iterative planning methodology used to understand the situation and mission, develop a course of action, and produce an operation plan or order.

^bA combined arms live fire exercise is an exercise integrating combat arms, combat support, and combat service support functions, which trains units to move and maneuver and to employ weapon systems using service ammunition.

^cA field training exercise is an exercise simulating combat conditions in the field that emphasizes command and control at all levels in battle functions using actual and simulated forces.

Benefits to Logistics and Sustainment Organizations

There are a number of Army organizations in the Pacific Command region that are responsible for logistics and sustainment of the joint force in wartime. According to command officials, deploying into multiple countries and ports on each Pathway operation has helped these organizations to

test concepts, identify capability gaps, and gather information about operating in the Pacific in preparation for their wartime mission. Several of the Army sustainment and logistics officials who support Pacific Pathways stated that the program allowed them to train to their mission requirements, such as executing reception, staging, onward movement, and integration operations with a large force, in parts of the Asia-Pacific region that they otherwise would not have had the opportunity to access. Both the 10th Regional Support Group and the 835th Transportation Battalion are based out of Okinawa, Japan, but their regional area of responsibility extends to the Philippines and Thailand, among other countries. According to officials from these units, Pacific Pathways allows them to become familiar with how best to load and unload equipment, conduct port operations, and provide food, water, and lodging to U.S. forces training in these countries. For example, the 10th Regional Support Group provided tents, air conditioning units, and power generators for an exercise in the Philippines that was part of Pacific Pathway 16-1. Additionally, officials from logistics and sustainment commands, such as the 10th Regional Support Group and the 835th Transportation Battalion in Japan, told us that they were able to conduct training through Pacific Pathways that allowed them to move from “partially trained” to “trained” in some of their training tasks and subtasks.

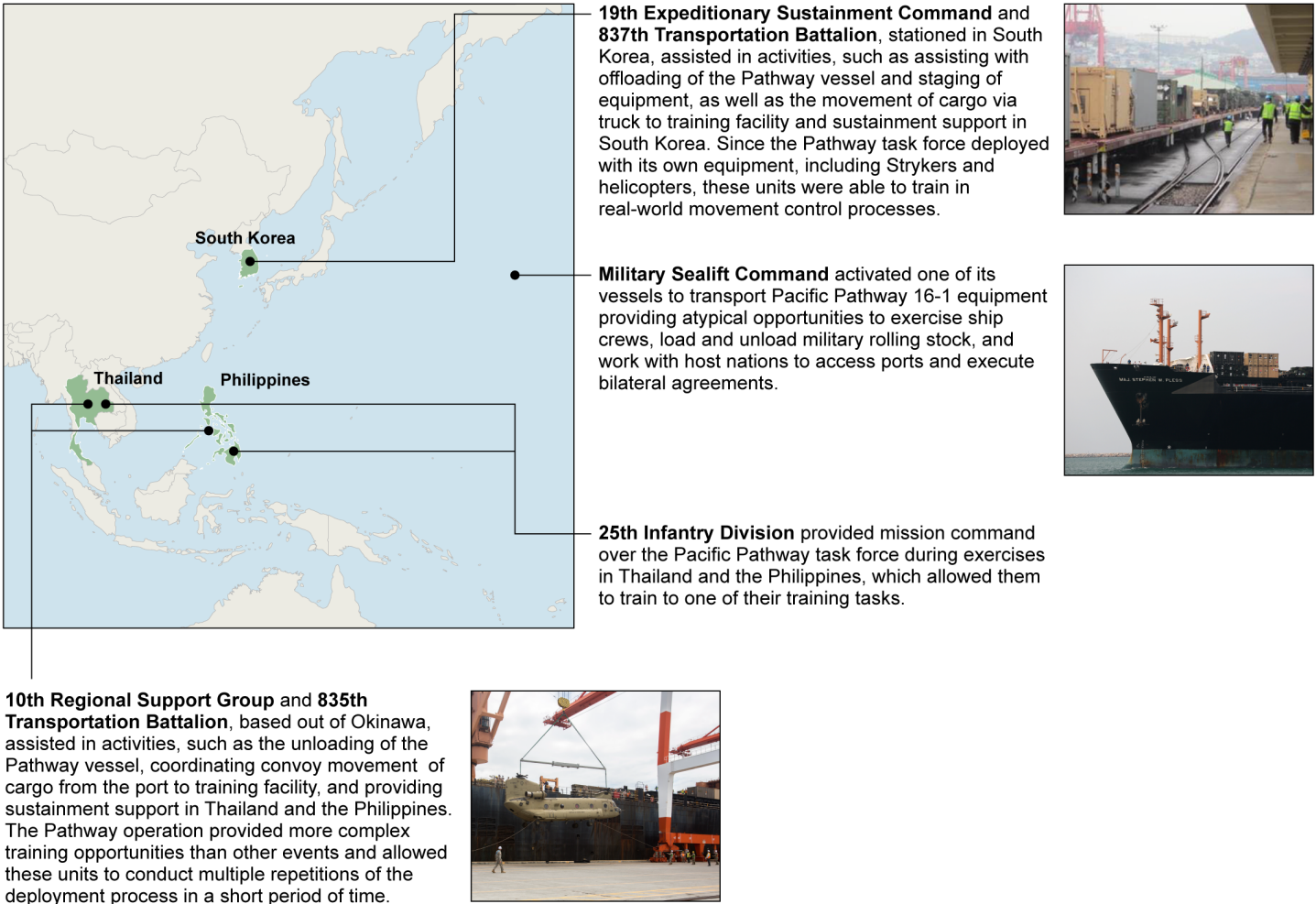
Benefits to Corps and Division Headquarters

Officials in operational headquarters under USARPAC’s command, such as I Corps and 25th Infantry Division, who previously had little engagement in exercises noted that Pacific Pathways has provided them with opportunities to exercise mission command in complex, real-world environments and to execute command transitions in theater, replicating how they may operate during wartime or disaster response operations. Officials from the 25th Infantry Division said that previously, during legacy exercises, the training unit, usually a force smaller than 350 soldiers, required only minimal mission command and sustainment.²⁰ Under Pacific Pathways, the task force, consisting generally of more than 800 soldiers, is under the mission command of several different headquarters across

²⁰According to U.S. Army Pacific officials, prior to the initiation of contingency operations in Iraq and Afghanistan, its participation in legacy exercises in the Pacific was much larger, particularly in Cobra Gold in Thailand, to which U.S. Army Pacific sent about 900 soldiers in 1999. However, according to these officials, from 2002 to 2014, these exercises produced minimal progression from year to year due to constrained availability of soldiers, equipment, and funding.

the course of the operation. For example, on Pacific Pathway 15-1, the 25th Infantry Division had mission command of the task force during exercises in Thailand and the Philippines both at the beginning and at the end of the operation, but the 8th Army in Korea assumed mission command during the second exercise of the Pathway operation. This replicates how the mission command would transition if these units had to deploy onto the Korean Peninsula in support of a contingency operation. See figure 3 below for examples of some of the training benefits that officials in sustainment units and operational headquarters identified based on their support of Pacific Pathway 16-1.

Figure 3: Examples of Training Benefits Identified by Officials in Sustainment Units and Operational Headquarters during Pacific Pathway 16-1

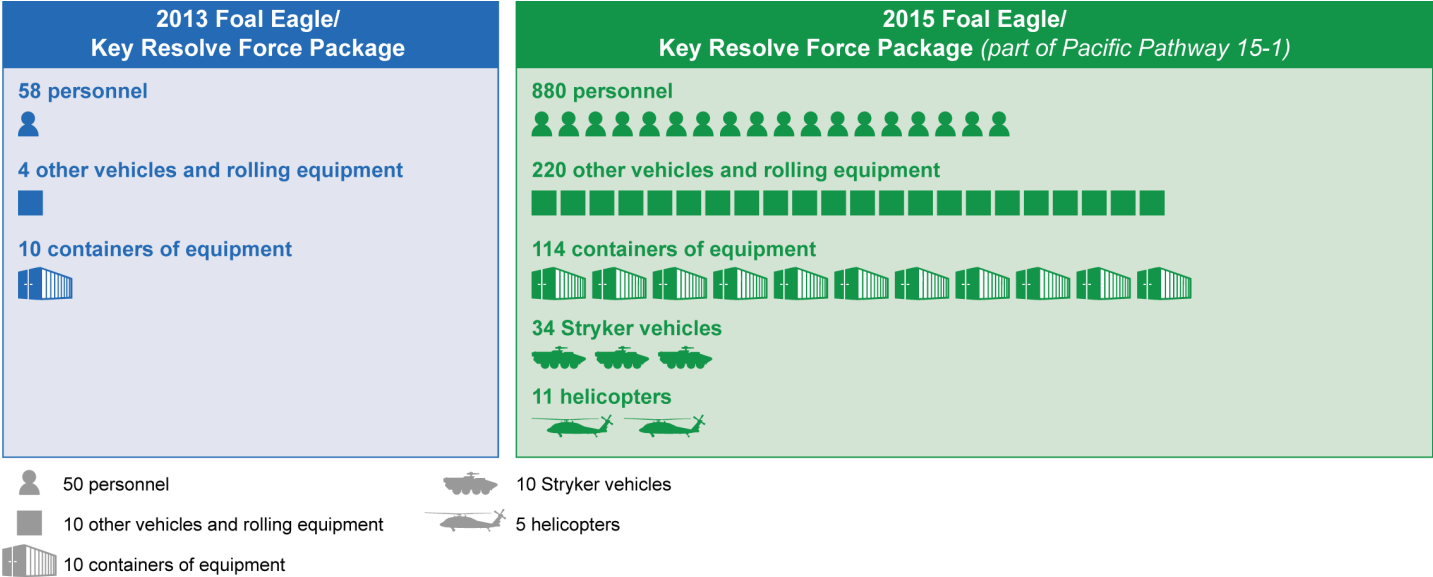


Source: GAO analysis of Department of Defense information. | GAO-17-126

Benefits to U.S. Pacific Command, USARPAC, and Partner Nations

U.S. Pacific Command, USARPAC, and U.S. embassy officials also cited a number of unique strategic benefits resulting from Pacific Pathways that exceed those of the traditional exercise model. U.S. embassy officials throughout the region stated that the larger force package Pacific Pathways brings has significantly improved the quality and level of training with partner nation forces, which in turn supports security cooperation goals. Figure 4 below compares the size of the force packages brought to Foal Eagle/Key Resolve in 2013—prior to Pacific Pathways—with those of the same event in 2015, when it occurred as part of Pacific Pathway 15-1. According to USARPAC and embassy officials, the partner nations view this increased presence as well as higher levels of senior leader engagement at the military exercises as a sign of enhanced U.S. commitment to the region. In addition, USARPAC officials told us that multiple countries in the region, including Bangladesh, Brunei, Cambodia, Japan, and Singapore, have expressed a desire to be included in Pacific Pathways.

Figure 4: Comparison between Force Package Sizes for Foal Eagle/Key Resolve Before versus During Pacific Pathways



Source: GAO analysis of U.S. Army Pacific data. | GAO-17-126

Note: Foal Eagle is an annually occurring time period during which the U.S. conducts a series of exercises with the South Korean military. Key Resolve is an exercise that occurred during that timeframe in which the Pacific Pathway 15-1 task force participated.

USARPAC officials stated that Pacific Pathways also provides deterrence and another crisis response option to Pacific Command by having forces forward-deployed in the region for about 90 days at a time. After Pacific Pathways was first announced in late 2013, the description of it as a crisis response option led to questions by some senior defense officials, as cited in the press, and by the House Armed Services Committee that it might be duplicating the role of the Marine Corps Marine Expeditionary Unit in the Pacific.²¹ In late 2014 USARPAC clarified its intent for Pacific Pathways, reiterating that the task force's central purpose is to build Army readiness and that its force package should be built according to the objectives of the exercises, not to respond to a crisis or natural disaster. While we found that these two forces have some similarities in terms of their capabilities, there are also key differences. For example, both the Marine Expeditionary Unit and the Pathways task force contain mission command nodes that could command forces responding to a crisis and report back to a higher headquarters, as well as forces that could provide a range of other support during a response, such as fixed site security. However, according to Marine Corps guidance, the Marine Expeditionary Unit is trained and designed for contingency and crisis response. As such, it deploys on its own vessel, is largely self-sustaining, and can operate independent of a well-established airport or seaport. It is also equipped for these operations and deploys with weapon systems, amphibious assault vehicles, an aviation element with attack helicopters, fighter attack aircraft, and cargo planes, and recovery equipment. Conversely, according to USARPAC officials and documentation, the Pacific Pathways task force is designed and equipped to conduct the exercises and build readiness, and it generally requires support from other U.S. Army units and access to well-established airports and seaports to deploy its forces and equipment.

U.S. Pacific Command officials stated that a forward-deployed Pacific Pathways task force could provide some capability, such as helicopters with heavy lift capabilities in a crisis response situation. For instance, if a Pacific Pathways task force is deployed in the region and there is a humanitarian assistance or disaster relief event, U.S. Pacific Command

²¹The Marine Corps Marine Expeditionary Unit is a maritime infantry force that is forward deployed and prepared to respond to contingencies as part of the U.S. quick-response force, capable of accomplishing numerous missions, including responding to crises and providing humanitarian assistance.

would identify the task force, its capabilities, and its proximity to the event for a potential response, just as it would for any other force that was in the region. However, U.S. Pacific Command officials noted that pulling a Pacific Pathways task force off an exercise carries its own risk of potentially damaging the relationship with the partner nation conducting the exercise, and this is something they would also factor into the decision.

USARPAC Units Are Taking Steps to Assess Pacific Pathways Benefits but Have Not Conducted a Comprehensive Analysis to Assess These Benefits in Light of Costs

While USARPAC has identified Pacific Pathways costs and multiple units have taken steps to assess the benefits of participating in the program from their perspectives, they have not conducted a comprehensive analysis that weighs the initiative's benefits relative to its costs to fully capture the value of the initiative for external stakeholders.

Several Pacific Pathways individual task forces and other participating units have developed briefings showing how training conducted under Pacific Pathways is related to tasks they execute to achieve and maintain readiness. For example, following the completion of Pacific Pathways 15-1, 15-2, and 16-1, the task forces developed briefings quantifying certain key readiness tasks and linking activities conducted through Pacific Pathways to their training tasks.

Furthermore, higher level commands have attempted to capture the benefits of Pacific Pathways. For instance, USARPAC has developed multiple briefings and analyses looking at how to best conduct Pacific Pathways or to support its request for funding for the initiative. These represent useful efforts to analyze or describe individual elements of the initiative and certain benefits that it provides, but none of them comprehensively captures the initiative's costs and benefits. For example, USARPAC conducted an analysis that compared the financial costs of the Pacific Pathways transportation model to the prior exercise transportation model—specifically comparing estimates of what it would cost to move the same sized force packages under each model—in an effort to show transportation cost avoidance related to conducting sequential exercises rather than multiple stand-alone exercises. This analysis also describes readiness benefits of using dedicated organic sealift vessels, but it does not discuss other benefits, such as the benefits of deploying larger force packages, and as such provides only a partial picture of the value of Pacific Pathways. Additionally, beginning with Pathway 16-1, I Corps developed a readiness assessment framework, which it then updated for Pathway 16-2, to assess the training benefits of Pacific Pathways at different levels of command and to capture the different strategic effects that the program is having on the theater.

This assessment framework includes more than 100 indicators, organized around measures of effectiveness and linked to the Army's warfighting challenges. For example, the assessment framework includes an indicator measuring the hours needed to establish a tactical operations center in a country that is ready to receive incoming forces. The I Corps' Pacific Pathway operations order has tasked the Pathways task force as the primary unit for collecting the data for these indicators. However, as of July 2016, I Corps had not received any data from the task force for Pacific Pathway 16-1—the only Pathway operation that had thus far been completed since the framework was introduced. According to I Corps officials, once the data are collected, the end result of the readiness assessment framework will be to ensure that the Pathway operation is achieving its intended objectives, including increasing readiness, and to improve subsequent Pathways—not to capture the comprehensive value of the program.

A cost-benefit analysis is a decision-making tool used to help determine the best-value course of action before solving a problem or taking advantage of an opportunity. While USARPAC did not conduct a cost-benefit analysis to support its request for funding Pacific Pathways, the Army's Cost Benefit Analysis guide states that such an analysis should be a living document so that the decision maker can make informed decisions based on the best available information.²² Going forward, the incorporation of principles from this guide in the current assessment process, or the development of another analysis using these principles, could assist USARPAC in more fully capturing the value of the program. For example, according to this Army guidance, all financial and non-financial costs and benefits of a proposed program and any alternatives should be identified and compared against each other in order to determine a recommended course of action in which the benefits more than justify the costs.

While the assessments described above capture certain benefits of the program achieved by certain units, none of these assessments comprehensively captures all of the financial and non-financial costs incurred and benefits gained from Pacific Pathways, or compares them to

²²Office of the Deputy Assistant Secretary of the Army (Cost and Economics), *U.S. Army Cost Benefit Analysis Guide*, Version 3.1 (Apr. 24, 2013).

alternative training. For example, while the I Corps' Pacific Pathways readiness assessment framework is potentially the most comprehensive of all the assessment efforts, there are a number of supporting commands and other units that are not factored into the framework, such as logistics and sustainment organizations that derive training benefits and value from Pacific Pathways, but were not tasked with collecting data related to the indicators.

In addition, according to Army officials, there can be efficiencies gained through Pacific Pathways that could represent a financial or other benefit. For example, 25th Infantry Division officials told us that instead of paying to deploy a battalion to execute platoon gunnery training at a home station training facility in Hawaii, the battalion was able to train on a range in South Korea through Pacific Pathways. These same officials said that as a result, Pacific Pathways allows them to avoid the cost of shipping a battalion to the training facility and frees up the facility for training by another unit. Additionally, I Corps officials said that the task force for Pacific Pathway 16-2—based out of Joint Base Lewis McChord in Washington—was planning to conduct platoon live fires while deployed on the operation, thus enabling it to avoid having to deploy to Yakima Training Center—about 160 miles from Joint Base Lewis McChord—for such training.

Finally, none of the assessments compare Pacific Pathways costs and benefits against those of other trainings, but some of the data from the units' readiness benefit briefings and I Corps' readiness framework could be used to compare the initiative with other trainings to better understand the relative value that Pacific Pathways provides. For example, I Corps' framework tasks units with gathering data on the number of combined arms live fire exercises conducted during the Pathway operation. These data could be compared with the number of combined arms live fire exercises conducted in other types of training, such as the traditional foreign exercise model, combat training centers, or home station trainings.

The previous USARPAC Commander and other USARPAC officials have highlighted the need to develop an analysis or assessment that captures the overall value of the program for external stakeholders, including the need to compare Pacific Pathways with other conventional Army training methods. By conducting a more comprehensive analysis that assesses all Pacific Pathways costs and benefits and compares them with other types of training, USARPAC would be better positioned to inform Department of

Defense and Army decision-makers who consider the program and any related budgetary trade-offs.

The Army Faces Challenges in Synchronizing Planning for Pacific Pathways as a Cohesive Operation and Incorporating the Training Objectives of Supporting Units

The Army has taken some steps to plan Pacific Pathways as a cohesive operation, but it faces challenges in doing so, and it may be missing opportunities to maximize the training value of the initiative for all participating Army forces. First, USARPAC and I Corps have taken steps to overcome challenges resulting from efforts to integrate Pacific Pathways into its existing exercise planning process, but they have not established an approach that more fully synchronizes Army plans, stakeholders, and objectives. Further, although Pacific Pathways provides some potentially unique training opportunities for commands that are directed to support the operations, USARPAC may be missing opportunities to better leverage training objectives of supporting units.

USARPAC Has Taken Steps to Plan for Pacific Pathways as a Cohesive Operation but Faces Challenges in the Early Synchronization of Planning Efforts

USARPAC and I Corps have taken a number of steps to plan for Pacific Pathways as a cohesive operation, including efforts to mitigate difficulties resulting from overlaying the initiative with the pre-existing exercise planning process. However, they continue to face challenges in the early synchronization of Pathway planning efforts and in ensuring that the decisions made for the individual exercises are aligned with the broader objectives of the Pathway operation, because they have not established an approach that more fully synchronizes Army plans, stakeholders, and objectives.

USARPAC Has Taken Steps to Plan for Pacific Pathways as a Cohesive Operation

USARPAC has taken steps to plan for Pacific Pathways as a cohesive operation rather than a series of stand-alone exercises. Prior to Pacific Pathways, the exercises that now occur within the Pathway operations were conducted as stand-alone events. According to joint training guidance and Pathways planning documentation, each exercise was—and still is—planned and executed through a series of exercise-specific planning conferences within the Joint Event Life Cycle. According to USARPAC officials, these conferences have often been led by a civilian exercise planner at USARPAC or other major subordinate command, such as the Eighth Army, and they have involved the host nation and other participating joint and Army units. Command officials said that these exercise planners were largely responsible for planning the details of the event, and the participating units would conduct the exercise. USARPAC and division officials referred to this approach as an administrative

movement for the training units, requiring minimal mission command and limited sustainment.

Command officials told us that by combining multiple exercises and deploying larger force and equipment packages, Pacific Pathways increases the readiness benefit of the exercises for U.S. Army and host nation forces. However, it also increases the complexity, number of stakeholders, and potential for fragmentation in the planning process. The series of Joint Event Life Cycle planning conferences for each individual exercise is at the core of planning for Pacific Pathways, but unit after-action reviews from multiple Pathway operations indicated that this structure has sometimes hindered USARPAC's and I Corps' efforts to execute each Pathway operation as a cohesive operation.²³ Pacific Pathways is designed, in part, to provide commands and units an opportunity to conduct a theater-wide rehearsal for how the command would operate if it had to support a contingency. In that sense, according to command and unit officials, some of the friction that they have experienced is actually beneficial in that Pacific Pathways compels commands and units to work out relationships and systems before having to employ them for a contingency.

However, based on challenges identified by units that have participated in Pathway operations, some of this friction also creates inefficiency, such as a lack of clarity in roles and responsibilities that has led to confusion about command relationships and gaps in sustainment. USARPAC and I Corps have taken a number of steps to overcome these challenges as the initiative has matured, in part by developing a more cohesive planning process for Pacific Pathways. These steps include the following:

- *Development of a Pacific Pathways-specific orders process:* The lack of timely, cohesive orders to guide the operations and clarify roles and responsibilities was a concern cited for some prior Pathway operations. For example, an after-action review from Pacific Pathway 15-1 stated that orders were rarely published for Pacific Pathway events, resulting in

²³Additionally, USARPAC officials stated that USARPAC and I Corps face constraints in planning with the host nations that exceed their control to fully mitigate. For instance, host nations may lack the planning capacity to identify key details of the exercises, such as training locations, host nation exercise participants, and training objectives, until late in the planning process.

conflicting guidance from different organizations and confusion within the units about requirements. In response, USARPAC and I Corps have developed a Pathways-specific orders process, including a USARPAC Pacific Pathways Campaign Order to provide the Commander's guidance and intent, and USARPAC Planning Orders that provide high-level planning guidance to I Corps, establish the roles of key supporting commands, and now for Pacific Pathway 17-1 include individual exercise operation orders as appendixes. Beginning with Pacific Pathway 16-1, I Corps began issuing Operation Orders that cover the entire Pathway and provide detailed information on the operation's mission and end state as well as what supporting activities the participating organizations will conduct. Taken together, these actions are intended to better operationalize planning for Pacific Pathways.

- *Creation of Pacific Pathways planner position:* According to USARPAC officials, while USARPAC's exercise directorate leads the planning for the individual exercises, in early 2015 USARPAC moved the responsibility for synchronizing planning across the exercises for Pacific Pathways from its exercise directorate to its future operations directorate. USARPAC has also created a Pacific Pathways planner position with the intention of integrating individual exercise planning with the strategic goals and objectives for the Pathway operations to create more cohesive operations. Command and unit officials said that in some previous cases, the USARPAC exercise planners were unaccustomed to having to plan with the other exercises in mind. USARPAC officials said that the role of this Pathways planner is to mitigate challenges that may result from a single unit executing three separately planned exercises by coordinating across the individual exercise planners.
- *Establishment of a Pacific Pathways Concept Development Workshop to design operations and synchronize timing of exercise planning conferences:* In January 2016, USARPAC held a Pacific Pathways Concept Development Workshop focused on fiscal year 2017 Pathway operations to discuss unit sourcing, refine the concepts of operation, and better align the timing of individual exercise planning conferences, which have overlapped for at least two Pathway operations. USARPAC also planned to hold a Training and Exercise Working Group in August 2016 to synchronize USARPAC exercises and training events, including discussions of the design for future Pacific Pathway operations. This is a semi-annual event, and an official said that, going forward, USARPAC intends for these working groups to address the content that was covered at the Concept Development Workshop. In addition, USARPAC and I Corps hold a number of Pacific Pathways synchronization meetings each week to discuss issues related to operations and sustainment for current and future Pathway operations.

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- *Establishment of a sustainment task force to clarify sustainment roles and responsibilities and provide support:* Each Pacific Pathway operation may involve a number of different sustainment commands that provide support for different exercises. In order to better provide sustainment and help address a lack of clarity related to sustainment responsibilities that units have cited, I Corps and the 593rd Expeditionary Sustainment Command have developed a sustainment task force concept for Pacific Pathway operations.²⁴ Each sustainment task force includes a range of logistics and sustainment subject matter experts to identify and coordinate required support, and an official from 593rd Expeditionary Sustainment Command said that having the task force has helped to provide greater predictability and clarity in Pacific Pathways sustainment roles and responsibilities.
 - *Collection of lessons and observations to improve future operations:* Officials at numerous commands and units in the Pacific have noted the value of the knowledge gained from Pacific Pathways for future operations in theater, such as operating in the ports and roadways of partner nations and gaining a better understanding of how to operate unmanned aerial vehicles in certain countries. More broadly, USARPAC officials said that Pacific Pathways provides a venue for identifying capability gaps in support of U.S. Pacific Command operational and contingency plans. Within the USARPAC enterprise, Pacific Pathway observations and recommendations for improvement are captured through an after-action review process across multiple levels of command after each Pacific Pathway operation. These forums are generally designed to improve future Pathway operations, although command and unit officials said that the information from these after-action reviews can be utilized in planning for any operation. According to officials, some units have also updated their standard operating procedures or are in the process of developing specific guidance based on lessons from Pacific Pathway operations, such as a “smartbook” that outlines standard procedures for requesting and providing sustainment across the different classes of supply. Organizations outside of the USARPAC enterprise have also identified Pacific Pathways as a venue for learning and assessment. For instance, according to USARPAC

²⁴The 593rd Expeditionary Sustainment Command provides deployable mission command to support joint forces; supports sustainment, theater opening, and joint reception, staging, onward movement, and integration to enable freedom of action in the Pacific; and provides trained and ready forces in support of unified land operations.

documentation, Army Training and Doctrine Command is utilizing Pacific Pathways 16-2 and 16-3 as venues for conducting the Army Warfighting Assessment in 2017, scheduled to occur from June through October 2016, to assess a range of capabilities in the Pacific theater, including U.S. and partner nation power projection and reception, staging, onward movement, and integration, as well as expeditionary maneuver.²⁵ The Commander of U.S. Pacific Command has also issued guidance to the command and other service components to look for joint opportunities to integrate with the assessment as a means to gain insight into the joint force's ability to identify, validate, and develop solutions to address common joint operational warfighting challenges.

According to command and unit officials, the planning and execution of Pathway 16-1 was improved from prior operations, due in part to increased coordination among organizations, more detailed orders, a better understanding of the roles of key players, and a greater awareness of sustainment requirements while deployed. For example, according to unit officials and after-action reviews, during the fiscal year 2015 operations, supporting units had struggled to ship spare parts, particularly Stryker parts, to Pacific Pathways task forces in countries where such spare parts are not available, such as Japan and Korea, resulting in delayed maintenance and decreased operational readiness rates for their equipment. However, during Pacific Pathway 16-1, the task force and supporting units were able to ship five packages of Stryker parts to Korea in a timely fashion, enabling them to conduct maintenance and to depart the country with 41 out of 42 Strykers fully operational—a significant improvement over the experience of the prior two brigades that deployed to Korea during Pathways based on the operational readiness rates of these units' Strykers.²⁶ Several of the steps being taken to develop a more cohesive planning process have been targeted toward planning for

²⁵The Army Warfighting Assessment is the Army's capstone event to test and assess emerging materiel, doctrinal, and conceptual solutions to current and future operational challenges and provides the Army a venue to achieve objectives such as training readiness, future force development, and joint/multinational interoperability.

²⁶The brigades that conducted Pacific Pathways 15-1 and 15-3 both experienced challenges shipping spare Stryker parts to their deployed battalions, resulting in decreased operational readiness rates for the deployed units. For example, according to unit documentation, during Pathway 15-3, the operational readiness rate for the deployed battalion dropped below 60 percent, meaning that fewer than 60 percent of the deployed Strykers were operational.

future operations, and officials said that they do not expect to see the full results of their efforts until 2017.

Challenges Remain in Synchronizing Early Planning Efforts and Decision-Making for Pacific Pathways

While these actions represent positive progress toward addressing planning challenges, USARPAC and I Corps continue to experience some difficulty in synchronizing Pathways planning efforts at an early point, before individual exercise planning, and in ensuring that decisions made for the individual exercises are aligned with the broader objectives of the Pathway operation. Army guidance on the operational planning process states that commanders are to encourage active collaboration among all organizations affected by the pending operations to build shared understanding, participate in course-of-action development and decision-making, and resolve conflicts before publication of the plan or order.²⁷ In addition, Standards for Internal Control in the Federal Government states that management should establish an organizational structure, assign responsibility, and delegate authority to achieve the entity's objectives, including determining the level of authority that should be delegated to key roles.²⁸ USARPAC and I Corps officials have stated that they are trying to shift planning for Pacific Pathways to get ahead of the individual exercise planning life cycle—which begins up to 12 months in advance of the individual exercises. These long planning timeframes can make it difficult to immediately integrate lessons learned into subsequent operations. For example, USARPAC officials said that the lessons that they learned from the 2014 Pacific Pathway operation regarding synchronization across the Joint Event Life Cycle were too late to affect the 2015 planning cycle. However, officials responsible for planning elements of Pacific Pathways have noted that some of the ongoing planning efforts are occurring either at the wrong levels of authority, such as that of an exercise planner instead of a commander with operational authority, or too late in the process to fully synchronize planning across exercises.

²⁷Headquarters, Department of the Army. Army Doctrinal Publication 5-0, *The Operations Process* (May 2012).

²⁸GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: Sept. 2014).

According to command officials, previously, when exercises were conducted as stand-alone events, key decisions and planning were delegated to a much lower level, such as that of an exercise planner, because the effects of any one decision were limited to that exercise, but for Pacific Pathways, some seemingly simple decisions have potentially broader effects. We heard of instances in which some key Pathway objectives and assumptions were not known by planners or commanders and, as a result, decisions were made for individual exercises that had unintended implications for the broader Pathway operations. Officials from I Corps said that some of these decisions are not rising to the appropriate level of authority or visibility, such as that of general officers with a broader understanding of the effects of any one decision on the entire operation. For example, for Pacific Pathway 16-2:

- I Corps officials said that a transportation planner made an isolated decision to air lift equipment to the Philippines for a single exercise without having a full understanding of the equipment needed, given that the country would be hosting two different exercises during that same time period. This ultimately resulted in a more complex and costly approach to moving equipment to the Philippines than if the full scope of the exercise requirements had been factored into the decision ahead of time.
- According to USARPAC and I Corps officials, the Pacific Pathways task force commander made a late decision based on operational requirements to provide catered meals to the task force while deployed in one country, but did so outside of the exercise planning process and without initially notifying the exercise planner at USARPAC. This decision conflicted with the planning assumptions that had been made and were being executed by the USARPAC exercise planners to provide pre-packaged rations that would be prepared by the units, resulting in some challenges in identifying funding and contractors. Ultimately, the Army was able to identify a contract solution, but USARPAC officials said that prior to Pacific Pathways such a decision would have been made by the exercise planners.

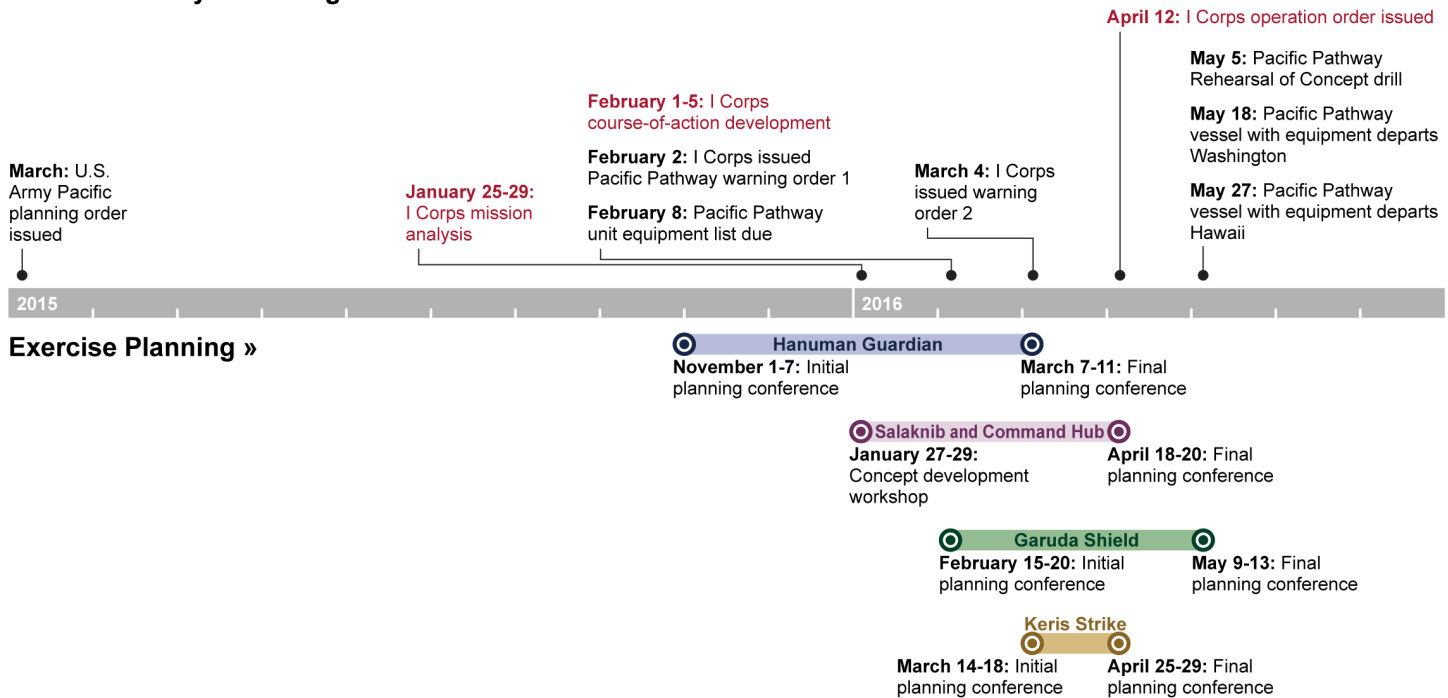
Officials from brigades that participated in prior Pacific Pathways also noted concerns about how decisions were being made during planning for those operations, citing challenges related to planners making decisions without the operational authority to do so, or a lack of clarity during regular synchronization meetings regarding who would be the appropriate decision-maker for certain issues, due in part to a lack of clarity in guidance. USARPAC officials said that some of this lack of clarity is due to USARPAC's efforts to plan for Pacific Pathways as an operation

instead of a series of exercises, which involves shifting more decision-making to commanders instead of to exercise planners.

I Corps has been conducting mission analysis, developing courses of action, and issuing orders for Pacific Pathway operations in accordance with the Army's operational planning process, but an I Corps official said that they continue to struggle with determinations about when to execute this process relative to the individual exercise planning conferences. An I Corps planner said that they currently begin to do formal mission analysis at the time of or after the initial exercise planning conferences, but that they do not issue the operation order until just before—or after, in some instances—the final planning conferences. While this allows for more detailed orders, it does not necessarily ensure that all USARPAC and other command exercise planners and the participating units have a shared understanding of the objectives and assumptions at the outset of individual exercise planning. Moreover, decisions made in the planning conferences drive many of the broader Pacific Pathway requirements, some of which may be outside of USARPAC's control. USARPAC officials said that while they have some flexibility in planning within the Joint Event Life Cycle process, they have to coordinate with the host nations, which do not always provide timely approval of key decisions. As seen in figure 5 below, which depicts the timeline of key planning events for Pacific Pathway 16-2, mission analysis and course-of-action development did not occur until after some of the exercise planning conferences had begun. However, these planning events included key decisions or identified outstanding questions about force packages, capabilities, and funding, which could have affected how the exercises were planned.

Figure 5: Timeline of Key Planning Events for Pacific Pathway 16-2

Pacific Pathways Planning »



Source: GAO analysis of Army information. | GAO-17-126

Note: A warning order is a preliminary notice of an order or action and planning directive that provides initial planning guidance, among other things.

After-action reviews of prior Pathway operations have recommended that a Pathways planning conference specific to each Pathway operation be held prior to the start of the individual exercise life cycle that would include all U.S. participating units and exercise planners in order to gain a shared understanding of the mission. The planning order for Pacific Pathway 16-1 also directed that USARPAC host such a conference, but I Corps officials said that this did not occur. According to USARPAC officials, such conferences are costly and difficult to schedule, and the officials said they believe that such issues are dealt with in pre-existing planning forums, such as operational planning team meetings and synchronization meetings that occur regularly at the USARPAC and I Corps levels once planning for each operation has begun. However, challenges in these areas have persisted despite the regularly held synchronization meetings. The Pacific Pathways Concept Development Workshop, or semi-annual training and exercise working groups, could potentially serve as such a forum, but planning officials said that the

workshop for fiscal year 2017 was not as beneficial as they had hoped. For example, an exercise planner noted that it was focused on a general approach for all of the Pathway operations in a fiscal year instead of the objectives of each individual Pathway, and that it did not result in useful output to drive the planning of the operations going forward.

A Pacific Pathways planner noted the need to further modify the operational planning process for Pathways in order to better fit the exercise planning cycle, such as by conducting mission analysis early, before the exercise planning conferences begin; issuing preliminary products and guidance; and then refining the analysis after the conferences have begun. Another potential tool that this planner suggested was the development and issuance at the outset of planning of an assumptions brief that would lay out all of the basic constructs for the operation—such as how classes of supply will be provided, and what equipment the task forces will be allowed to bring—and would be consistently applied in each exercise and throughout the planning. In cases where such facts may not be known up front or where late requirements are identified that are outside of USARPAC's control, such a tool could provide guidance on the types of decisions that may have broader implications for the Pathway operations and outline how, and by whom, such decisions should be made.

Pacific Pathways is still a relatively new program, having been implemented only 2 years ago, and officials said that it can take time for lessons from early operations to be fully integrated. As USARPAC proceeds in refining its Pacific Pathways planning approach, it may continue to experience challenges and inefficiency associated with its efforts to execute Pathways as a cohesive operation without modifying planning processes and clarifying guidance to ensure that key objectives, assumptions, and appropriate levels of authority for key decisions are identified and communicated to all stakeholders ahead of the exercise planning cycle.

USARPAC's Pathways Planning Process May Be Missing Opportunities to Train Supporting Units

There are many potential training benefits of Pacific Pathways for units throughout the Pacific, but there is no top-down effort within the Pacific Pathways planning process to deliberately seek out organizations' training objectives and incorporate them into the design of each Pacific Pathway operation. Much like the broader planning of Pacific Pathways, the development of training objectives for the Pathway operations is largely focused on the exercises that occur within the Pathway operation, and according to command officials, the task forces executing the Pacific

Pathway operations continue to be viewed as the primary U.S. training audience within the exercises. However, the size and complexity of the operations under Pacific Pathways create potentially unique training opportunities for joint and supporting units to exercise the capabilities they would be required to provide in a contingency. Many of these training opportunities occur naturally as units provide support for Pacific Pathways as part of their core missions. For example,

- USARPAC has utilized dedicated organic sealift vessels from Military Sealift Command for two Pathway operations to move equipment from location to location throughout the operation.²⁹ While these vessels are generally tasked with moving equipment, according to a Military Sealift Command official, Pacific Pathways provides atypical opportunities to exercise ship crews, load and unload vessels with military rolling stock, and work with host nations to access ports and execute bilateral agreements. The organic sealift vessels that to date have been dedicated to support Pacific Pathways have been activated out of a reduced operating status.³⁰ Aside from activations like that for Pacific Pathways, officials from U.S. Transportation Command said that these vessels are generally given only short periods (typically 3 to 5 consecutive days) of training—referred to as maintenance, or surge, activations—so as to provide necessary time afloat to conduct maintenance. However, Pacific Pathways provides additional opportunities to conduct steady-state operations in an operational environment.
- Army transportation battalions support the Pacific Pathway operations by loading equipment onto and unloading it from the ship at ports in each country.³¹ For instance, the 835th Transportation Battalion based out of Okinawa, Japan, has supported multiple Pacific Pathway operations by executing port operations in countries such as Thailand and the Philippines. According to the battalion's commander, the size (for example, up to 700 pieces of cargo) and types of equipment packages

²⁹Military Sealift Command provides ocean transportation for the Department of Defense to sustain the warfighting forces and deliver specialized maritime services in support of national security objectives in peace and war.

³⁰Reduced operating status refers to a vessel or ship that has been taken out of full operating status because of decreased operational requirements.

³¹Transportation battalions conduct surface deployment, distribution, and water terminal port operations to support and sustain the joint warfighter

(for example, Strykers and helicopters) under Pathways provide that battalion with a more complex training opportunity than other events that it supports, and provide multiple repetitions of the deployment process in a short period of time, including uploading and downloading equipment, as well as planning for stowage on the vessels.

In addition, some units have identified training opportunities, beyond those naturally incurred from providing directed support, designed to shape their involvement in Pacific Pathway operations so as to derive an additional training benefit. Such efforts, however, have according to unit officials been initiated from the bottom up, based on experience from participating in prior Pacific Pathway operations. For example, 19th Expeditionary Sustainment Command officials told us that they had recently identified a potential opportunity to use the task forces deploying to Korea to exercise a combined mission requirement with the Korean Army.³² The command was planning to use future Pacific Pathway operations to exercise its capability to receive a force with its associated equipment on the Korean Peninsula, set up staging areas, and facilitate the movement of the force from the seaport to a specified inland location. The officials said that absent Pacific Pathways, to accomplish this training they have loaded up equipment already in Korea and moved it back and forth from the pier—essentially creating movement for the sake of movement. Conducting the training using the Pacific Pathways task forces could provide the command more value because of the size and type of equipment package. Officials said that they had not previously realized that they had the ability to shape Pathway operations to achieve their own training objectives, and they are looking for additional opportunities within Pacific Pathways to integrate other elements from within the 19th Expeditionary Sustainment Command to maximize their training value, such as using the command's military police battalion to escort and provide force protection for the convoys in the future.

Officials from other organizations, such as U.S. Army Japan and the 593rd Expeditionary Sustainment Command, also told us that they are beginning to consider how they can better leverage their participation in Pacific Pathways to achieve some of their training objectives and maximize training value, such as exercising the use of intermediate

³²The 19th Expeditionary Sustainment Command provides operational sustainment and mission command of sustainment operations in the Republic of Korea.

staging bases where forces and equipment would be staged prior to movement to another location, or employing more expeditionary sustainment capabilities, such as using water purification systems instead of purchasing bottled water. Officials from U.S. Army Japan further noted that this is an evolution that occurs as commands become more familiar with Pacific Pathways and the opportunities it presents.

According to core principles of stakeholder participation identified by GAO, effective stakeholder participation includes actively conducting outreach and soliciting stakeholder input, involving stakeholders early and throughout the decision-making process, and including all stakeholder interests.³³ USARPAC officials said that the supporting units have opportunities to train on those mission-essential tasks that directly support the overall exercise and objectives of the primary training audience, and that the units can identify training objectives for themselves throughout the process, such as through the exercise planning conferences and the after-action review process. Additionally, USARPAC stated that they expect and would welcome input from participating units, as the responsibility for unit training rests with the unit commander. However, some challenges exist that may prevent supporting units from doing so. For instance, after-action reviews from the past three Pathway operations identified challenges related to supporting units not being integrated into the exercise planning conferences, and for two operations these reviews specifically identified missed opportunities for these supporting units to provide input to the training objectives. In particular, officials from the 19th Expeditionary Sustainment Command who had identified potentially unique training opportunities within Pacific Pathways said that while they do not attend the exercise planning conferences led by USARPAC, they intended to work through their higher commands to try to shape future exercises. However, those higher commands are some of the same who noted challenges related to providing input to training. In this regard, USARPAC officials said that funding limitations, limits on the number of personnel allowed at the conferences, and

³³GAO, *Fisheries Management: Core Principles and a Strategic Approach Would Enhance Stakeholder Participation in Developing Quota-Based Programs*, [GAO-06-289](#) (Washington, D.C.: Feb. 23, 2006). This report identifies core principles for effective stakeholder participation, as drawn from literature reviews and policies from leading federal agencies in stakeholder participation. We are applying these criteria to the process through which supporting units—considered to be stakeholders in Pacific Pathways—are involved in Pacific Pathways planning and design.

competing requirements for the units can affect the extent to which supporting units participate in the planning conferences. Further, USARPAC officials said that the supporting units are responsible for determining how to maximize resources to get training value from Pacific Pathways based on the commander's intent issued in the Pacific Pathway orders, and noted that some commands may be better than others at leveraging Pathways' training value.

Given the frequent rotations of military personnel within commands and given the unique opportunities that may be available only under Pacific Pathways, reliance on supporting units to recognize these opportunities and shape their personnel's participation may not be sufficient to maximize training value across the theater. Creating a more integrated planning process—whether through the existing planning conferences or other means—that deliberately seeks out and incorporates the training objectives of supporting units as appropriate could assist USARPAC and its supporting units in identifying opportunities to more fully leverage some of the unique training benefits available from Pacific Pathways.

Conclusions

Pacific Pathways is an innovative platform for enabling USARPAC and Army forces throughout the region to build expeditionary readiness, rehearse deployment and other key tasks required for potential operations, and enhance relationships with partner nations in the Pacific region. As Pacific Pathways continues to evolve, USARPAC can leverage the successes and the challenges of executing Pathway operations to modify its approach in assessing the initiative as a whole and in planning for future Pathway operations. USARPAC and other units throughout the Pacific have identified many benefits of the Pacific Pathways initiative, but they have not conducted a comprehensive analysis of these benefits relative to costs, thereby limiting their effectiveness in communicating the value of the initiative to external stakeholders, such as those making budgetary decisions within DOD and Congress. USARPAC and its subordinate commands and units have experienced challenges in synchronizing their planning process because they have not more fully established an approach and issued clear guidance that integrates all Army planners and clearly identifies the objectives, assumptions, and level of authority appropriate for key decisions ahead of the exercise planning cycle for each Pathway operation. Some of the friction that the Army has experienced could be beneficial in that it can help commands and units to identify issues and work out relationships and systems before having to employ them for a contingency. However, without further refinements to the planning process, participants may continue to

experience unnecessary friction and inefficiency. Finally, some of the supporting units we spoke with observed after participating in Pacific Pathway operations a unique potential for realistic training that more closely mirrored their wartime missions, but there is no top-down emphasis in place for having supporting units' training objectives integrated in the planning process. Leveraging their operational training objectives early in the planning process, as appropriate, could enhance the value of Pacific Pathways as a theater-wide rehearsal.

Recommendations for Executive Action

We recommend that the Secretary of the Army direct the Commander of U.S. Army Pacific to take the following three actions to assess and enhance the value of Pacific Pathways:

1. To fully determine the value of Pacific Pathways and communicate it to decision makers, conduct a comprehensive analysis of the benefits of Pacific Pathways relative to its costs. Such an analysis could both:
 - incorporate financial and non-financial costs and benefits of the initiative, to include readiness benefits for logistics and sustainment units, any training efficiencies or cost avoidance resulting from Pacific Pathways, and non-financial costs, such as decreased equipment readiness rates; and
 - compare the costs with the benefits of training conducted under the Pacific Pathways initiative against that conducted through other Army trainings, such as home station training, combat training centers, or other exercises.
2. To better synchronize planning across all commands and units and thereby achieve a more cohesive operation, modify existing USARPAC and I Corps planning processes and clarify guidance, as appropriate, that integrates all stakeholders and clearly identifies the objectives, assumptions, and level of authority appropriate for key decisions prior to the exercise planning cycle for each Pathway operation.
3. To more fully leverage the theater-wide training value of Pacific Pathways for all participating units, seek and incorporate supporting units' training objectives, as appropriate, into the Pacific Pathways planning process.

Agency Comments and Our Evaluation

In written comments on a draft of this report, DOD partially concurred with the first recommendation and concurred with the other two recommendations. DOD's comments are summarized below and

reprinted in appendix III. USARPAC also provided technical comments, which we incorporated as appropriate.

DOD partially concurred with our first recommendation, that USARPAC conduct a comprehensive analysis of the benefits of Pacific Pathways relative to its costs. In its response, DOD stated that USARPAC had conducted a deliberate analysis of costs and benefits that led to the initiation of the Pacific Pathways program. DOD added that, based on subsequent operational experience and analysis, USARPAC now has an explicit understanding of the strategic benefits of the program, its costs, and the returns on investment in relation to alternatives. The results of USARPAC's analysis are presented in DOD's comments, and included the potential for longer sustained decisive action readiness for brigades resulting from participation in Pacific Pathway operations and benefits for allies and partners, among other things. In its comments, USARPAC acknowledged that it believes that further study and analysis of brigades' readiness ratings to gain a better understanding of the readiness benefits of Pacific Pathways is warranted and would help inform development of the Army's Sustainable Readiness Process. Accordingly, DOD stated that by September 2018, USARPAC would submit an analysis to Headquarters, Department of the Army, that assesses the impact of Pacific Pathways on sustainable readiness. We agree that such an analysis would be beneficial in further clarifying the value of the initiative for brigades and communicating it to decision makers.

With regard to DOD's statement that USARPAC had conducted a deliberate analysis of the costs and benefits of the program that led to the initiation of the Pacific Pathways program, this report cites a number of analyses that USARPAC has conducted to determine how best to conduct Pacific Pathways or to support its request for funding for the initiative, such as USARPAC's analysis comparing the financial costs of the Pacific Pathways transportation model to the prior exercise transportation model. In response to DOD's comments, we expanded our discussion of these analyses within the report to acknowledge DOD's efforts. However, as noted in the report, while these individual analyses provide certain insights into the initiative, none of them captures the breadth of Pacific Pathways' costs and benefits and thus, do not provide a comprehensive assessment of the initiative's value. Moreover, while USARPAC may have an understanding within the command of the strategic benefits of the program and the returns on investment relative to alternatives, external stakeholders—such as those making budgetary decisions in DOD and Congress—may not. While USARPAC may benefit from conducting a comprehensive assessment, we made clarifications to

the report to further emphasize that external stakeholders would be key beneficiaries of such an assessment. As stated in the report, while we did not recommend that the Army conduct a formal cost-benefit analysis, we do believe that incorporating principles from such analyses could assist USARPAC in more fully capturing the value of the program for external stakeholders, as USARPAC officials have highlighted. In light of USARPAC's requests for additional funding for Pacific Pathways going forward, we continue to believe that a comprehensive analysis of Pacific Pathways costs and benefits, including comparison with other types of training, would better position USARPAC to more broadly communicate the value of the initiative to Department of Defense, Army, and congressional decision-makers as they determine budgetary trade-offs. Combining the data from previously conducted analyses, including the addendum that DOD provided with its response to the report, with USARPAC's planned sustainable readiness analysis could be one way of achieving this aim.

DOD concurred with our second recommendation that USARPAC modify existing USARPAC and I Corps planning processes and clarify guidance, as appropriate, that integrates all stakeholders and clearly identifies the objectives, assumptions, and level of authority appropriate for key decisions prior to the exercise planning cycle for each Pathway operation. In its response, DOD stated that by September 2017, USARPAC will establish improved planning processes and guidance that fully integrate all stakeholders and clearly identify the objectives, assumptions, and level of authority for key decisions prior to the exercise planning cycle for each Pathway exercise.

DOD concurred with our third recommendation that USARPAC seek and incorporate supporting units' training objectives, as appropriate, into the Pacific Pathways planning process. In its response, DOD stated that by September 2017, USARPAC will exercise greater leverage of the training value of Pacific Pathways with participating units and incorporate their training objectives, as appropriate, into the Pacific Pathways comprehensive planning process.

We are sending copies of this report to the appropriate congressional committees and the Secretaries of Defense, the Army, and the Navy, as well as the Commandant of the Marine Corps. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-5431 or RussellC@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix IV.

A handwritten signature in black ink, reading "Cary Russell". The signature is fluid and cursive, with the first name "Cary" and the last name "Russell" clearly distinguishable.

Cary B. Russell
Director, Defense Capabilities and Management

List of Committees

The Honorable John McCain
Chairman
The Honorable Jack Reed
Ranking Member
Committee on Armed Services
United States Senate

The Honorable Thad Cochran
Chairman
The Honorable Richard Durbin
Ranking Member
Subcommittee on Defense
Committee on Appropriations
United States Senate

The Honorable Mac Thornberry
Chairman
The Honorable Adam Smith
Ranking Member
Committee on Armed Services
House of Representatives

The Honorable Rodney Frelinghuysen
Chairman
The Honorable Pete Visclosky
Ranking Member
Subcommittee on Defense
Committee on Appropriations
House of Representatives

Appendix I: Departments and Organizations That GAO Interviewed

In support of our work, we met with officials from the following Department of Defense (DOD) and State Department organizations during our review. We selected these DOD organizations based on their oversight, planning, and execution roles related to the Pacific Pathway operations. In addition, we met with U.S. embassy officials from seven out of the eight countries where the Pacific Pathway operations had taken place.

DOD Organizations

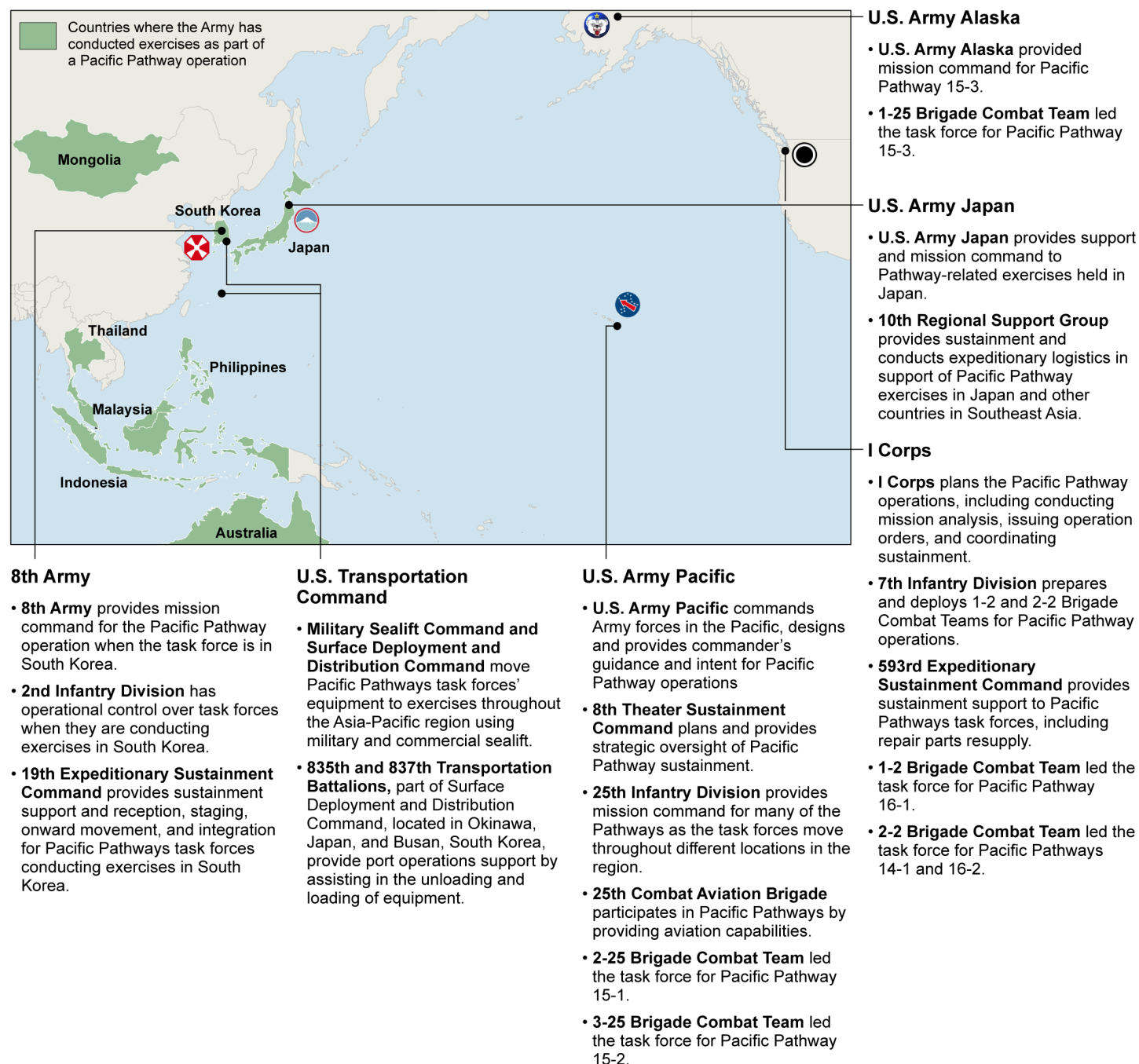
- Office of the Secretary of Defense
- Joint Staff
 - U.S. Pacific Command
 - U.S. Army Pacific
 - 8th Theater Sustainment Command
 - I Corps
 - 25th Infantry Division
 - 2nd Brigade, 25th Infantry Division
 - 3rd Brigade, 25th Infantry Division
 - 25th Combat Aviation Brigade
 - 7th Infantry Division
 - 1st Brigade, 2nd Infantry Division
 - 2nd Brigade, 2nd Infantry Division
 - 593rd Expeditionary Sustainment Command
 - Eighth Army
 - 2nd Infantry Division
 - 19th Expeditionary Sustainment Command
 - U.S. Army Alaska
 - 1st Brigade, 25th Infantry Division
 - U.S. Army Japan
 - 10th Regional Support Group
 - U.S. Marine Corps Pacific
 - U.S. Pacific Fleet
- U.S. Transportation Command
 - Military Sealift Command
 - Surface Deployment Distribution Command
 - 835th Transportation Battalion
 - 837th Transportation Battalion
- U.S. Army
 - Headquarters, Department of the Army
 - U.S. Army Forces Command
 - Army Materiel Command
 - 404th Army Field Support Battalion
- Headquarters, U.S. Marine Corps
- Special Operations Command Pacific

State Department
Organizations

- State Department Headquarters
- U.S. Embassy Manila, Philippines
 - Deputy Chief of Mission
 - Defense Attaché
 - Joint United States Military Assistance Group - Philippines
- U.S. Embassy Seoul, Korea
 - Political-Military Affairs
 - Defense Attaché
 - Joint United States Military Assistance Group - Korea
- Defense Attaché, U.S. Embassy Tokyo, Japan
- Joint United States Military Assistance Group, U.S. Embassy Bangkok, Thailand
- Office of Defense Cooperation, U.S. Embassy Jakarta, Indonesia
- Office of Defense Cooperation, U.S. Embassy Canberra, Australia
- U.S. Embassy Kuala Lumpur, Malaysia
 - Office of Defense Cooperation
 - Defense Attaché

Appendix II: Key Department of Defense (DOD) Organizations That Have Participated in Pacific Pathways

Figure 6: Key DOD Organizations That Have Participated in Pacific Pathways



Source: GAO analysis of U.S. Army information. | GAO-17-126

Appendix III: Comments from the Department of Defense

Subsequent to the Army's letter, the GAO report number was revised to GAO-17-126.



DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF, G-3/5/7
400 ARMY PENTAGON
WASHINGTON, DC 20310-0400

DAMO-TR

5 October 2016

MEMORANDUM FOR MR. CARY RUSSELL, DIRECTOR, DEFENSE CAPABILITIES MANAGEMENT, U.S. GOVERNMENT ACCOUNTABILITY OFFICE, 441 G STREET, NW WASHINGTON, DC 20548

SUBJECT: GAO Draft Report GAO-16-830, "ARMY PACIFIC PATHWAYS: Comprehensive Assessment and Planning Needed to Capture Benefits Relative to Costs and Enhanced Value," dated 24 August 2016 (GAO Code 100187)

1. Reference. GAO Draft Report GAO-16-830, "ARMY PACIFIC PATHWAYS: Comprehensive Assessment and Planning Needed to Capture Benefits Relative to Costs and Enhanced Value," dated 24 August 2016 (GAO Code 100187).
2. The Headquarters, Department of the Army (HQDA) concurs with comment regarding the Department of Defense response to the GAO provided by Headquarters, United States Army Pacific (USARPAC), dated 9 September 2016; signed by the Commanding General, USARPAC, as indicated below.
 - a. Ready forces assigned to United States Pacific Command (USPACOM), if made available for global allocation, could increase the effectiveness of Sustainable Readiness benefitting the Joint Force with a larger pool of available units to meet known, emergent and contingency demands.
 - b. By September 2018, USARPAC will provide HQDA the results of their analysis and lessons learned regarding the impact of Pacific Pathways on building sustainable decisive-action readiness. HQDA concurs with the USARPAC assessment that an additional deliberate cost benefit analysis of Pacific Pathways is not necessary at this time.
3. The Army G-3/5/7 point of contact for this action is LTC Bart C. Ritchey, at 703-614-9897, or bart.c.ritchey.mil@mail.mil.


JOSEPH ANDERSON
Lieutenant General, GS
Deputy Chief of Staff, G-3/5/7

CF:
Commander, U.S. Army Pacific

Appendix III: Comments from the Department
of Defense



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY, PACIFIC
FORT SHAFTER, HAWAII 96858-5100

September 9, 2016

Mr. Cary Russell
Director, Defense Capabilities Management
U.S. Government Accountability Office
441 G Street, NW
Washington DC 20548

Dear Mr. Russell,

This is the Department of Defense (DoD) response to the GAO Draft Report GAO-16-830, "ARMY PACIFIC PATHWAYS: Comprehensive Assessment and Planning Needed to Capture Benefits Relative to Costs and Enhance Value," dated August 24, 2016 (GAO Code 100187).

DoD partially concurs with recommendation one and concurs without comments on recommendations two and three. Specifics regarding our position and actions are found in the attached enclosures. My point of contact is Mr. Nayer Mahmoud, (808) 438-9235, nayer.m.mahmoud.civ@mail.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert B. Brown", is written over a horizontal line.

ROBERT B. BROWN
General, U.S. Army
Commanding General

Enclosures

GAO DRAFT REPORT DATED AUGUST 24, 2016
GAO-16-830 (GAO CODE 100187)

**“ARMY PACIFIC PATHWAYS: COMPREHENSIVE ASSESSMENT AND PLANNING
NEEDED TO CAPTURE BENEFITS RELATIVE TO COSTS AND ENHANCE VALUE”**

**DEPARTMENT OF DEFENSE COMMENTS
TO THE GAO RECOMMENDATION**

RECOMMENDATION 1: GAO recommends that the Secretary of the Army direct the Commander of U.S. Army Pacific to take the following action to assess and enhance the value of Pacific Pathways:

To fully determine the value of Pacific Pathways and communicate it to decision makers, conduct a comprehensive analysis of the benefits of Pacific Pathways relative to its costs. Such an analysis could both:

- incorporate financial and non-financial costs and benefits of the initiative, to include readiness benefits for logistics and sustainment units, any training efficiencies or cost avoidance resulting from Pacific Pathways, and non-financial costs, such as decreased equipment readiness rates; and
- compare the costs with the benefits of training conducted under the Pacific Pathways initiative against that conducted through other Army trainings, such as home station training, combat training centers, or other exercises.

DOD RESPONSE: DoD partially concurs. By September 2018, USARPAC will submit an analysis to HQDA that assesses the impact of Pacific Pathways on sustainable readiness.

USARPAC conducted a deliberate analysis of costs and benefits that led to the initiation of the Pacific Pathways program. Based on subsequent operational experience and analysis, we now have an explicit understanding of the strategic benefits of this program, its costs, and the returns on investment (ROIs) in relation to alternatives (Enclosure 2). Pacific Pathways operations: 1) Build readiness at multiple command echelons; 2) Increase exercise scope and complexity for partners; 3) Provide USPACOM with contingency response options and support the U.S. Pacific rebalance with a persistent Army forward presence; and 4) Facilitate experimentation in support of institutional Army requirements.

USARPAC does believe that further study is warranted in one specific area. Brigades assigned to USARPAC have a much higher average readiness rating than brigades across the rest of the Army. One can point to several factors that might explain this, including execution of Pacific Pathways operations. Further analysis in this area by USARPAC might lead to a better understanding of the readiness benefits of Pacific Pathways and help inform development of the Army's Sustainable Readiness Process.

Enclosure 1

2

RECOMMENDATION 2: GAO recommends that the Secretary of the Army direct the Commander of U.S. Army Pacific to take the following action to assess and enhance the value of Pacific Pathways:

To better synchronize planning across all commands and units and thereby achieve a more cohesive operation, modify existing USARPAC and I Corps planning processes and clarify guidance as appropriate that integrates all stakeholders and clearly identifies the objectives, assumptions, and level of authority appropriate for key decisions prior to the exercise planning cycle for each Pathway operation.

DOD RESPONSE: DoD concurs without comment. By September 2017, USARPAC will establish improved planning processes and guidance that fully integrates all stakeholders and clearly identifies the objectives, assumptions, and level of authority for key decisions prior to the exercise planning cycle for each Pathway exercise.

RECOMMENDATION 3: GAO recommends that the Secretary of the Army direct the Commander of U.S. Army Pacific to take the following action to assess and enhance the value of Pacific Pathways:

To more fully leverage the theater-wide training value of Pacific Pathways for all participating units, seek and incorporate supporting units' training objectives, as appropriate, into the Pacific Pathways planning process.

DOD RESPONSE: DoD concurs without comment. By September 2017, USARPAC will exercise greater leveraging of the training value of Pacific Pathways with participating units and incorporating their training objectives, as appropriate, into Pacific Pathways comprehensive planning process.

Enclosure 1

**Pacific Pathways Costs, Benefits, and Return on Investment
in Relation to Alternatives**

1. Overview. USARPAC has an explicit understanding of the strategic benefits of the Pacific Pathways program, its costs, and the return on investment (ROI) in relation to alternatives. This paper describes these at the macro level.
2. Costs. USARPAC concurs with the financial costs contained in GAO's report for fiscal year (FY) 2015. Other non-financial costs and benefits are discussed below.
3. Program Benefits and Return on Investment in Relation to Alternatives.
 - a. Readiness.

1. Decisive Action Readiness. Pacific Pathways require a brigade that has completed a three-week Combat Training Center (CTC) rotation to deploy a tailored Army formation that includes the brigade headquarters element, a battalion task force, and support units. That formation builds upon the high levels of readiness achieved at the CTC for three additional months through execution of decisive action missions in different foreign operational environments, often simultaneously. Concurrently, components of the brigade that do not deploy also exercise to sustain CTC readiness level and benefit from access to resources that are normally constrained with the presence of an entire brigade, such as range availability. When the brigade is reunited after the Pacific Pathways operation (Case A), we believe the net result is a longer period of combat readiness than is attainable by brigades that do not deploy following completion of a CTC (Case B).

If, for example, Case A sustains decisive action combat readiness just three months longer than Case B, it's possible to quantify that benefit in terms of CTC rotation costs which Army brigades execute about every 24 months. USARPAC CTC rotation costs generally range from \$25M to \$50M depending on unit location and deployment size. Thus, the equivalent cost to buy three months of readiness at a CTC for three brigades that execute Pacific Pathways might range from \$9.4M to \$18.8M. Actual deployment costs would yield more precise figures for comparison with, for instance, USARPAC's investment of \$18.1M in FY15. USARPAC recommends further study in this area over the next 24 months.

2. Expeditionary Readiness. Pacific Pathways operations also build readiness and leadership capabilities at multiple command echelons that are not exercised at a CTC, but which are required for effective execution of DOD operational plans. These include the skills required to plan and execute the Joint Reception, Staging, Onward Movement, and Integration (RSO&I) of forces. They also include the readiness of U.S. transportation and sustainment capabilities necessary to support decisive action missions across vast distances in multiple operational environments. The ROI in these areas are very high as evidenced by performance improvement in mission essential tasks between the first and last exercise on a Pacific Pathways operation. As an example, a deployed brigade typically takes over 10 hours to download aircraft and prepare them for flight for their first exercise, versus 2-3 hours for their last exercise. Expeditionary readiness is critical to USARPAC and the U.S. Army because this is how we support the Joint Force during contingencies. The Army's decision to make additional forces available to USARPAC in

Enclosure 2

2

response to the U.S. Pacific rebalance made the exercise of these expeditionary capabilities possible through Pacific Pathways. Finally, there is no other economical way to build this expeditionary readiness--at home station, at Combat Training Centers (CTCs), or in the conduct of discrete exercises.

b. Benefits for Allies and Partners. By employing units during a series of exercises, rather than sending different units to each exercise, Pacific Pathways makes more cost-efficient use of sealift which allows USARPAC to deploy larger formations to increase exercise scope and complexity. This improves the Army's ability to build foreign partner capability, capacity, interoperability; and to build military-to-military relationships. These factors have led to increased foreign partner demand to participate in Pacific Pathways. Our Allies and Partner characterize their return on our investment in Pacific Pathways as very high and, similarly, we judge their capabilities to burden-share during contingencies as improving as a result of Pacific Pathways.

c. Contingency Response and Strategic Messaging. Pacific Pathways operations provide USPACOM with an additional response option in contingencies and a U.S. Army presence west of the International Date Line for nine months each year in support of the U.S. Rebalance to the Pacific. The USPACOM Commander describes the return on investment from both capabilities as extremely high, as evidenced by his public statements, the fact that Pacific Pathways operations are directed in his Theater Campaign Order, and the fact that he has previously selected a Pacific Pathways formation to execute a Flexible Deterrent Option to address a real world threat because that formation was already forward deployed. Finally, again, there are no economical alternatives that can produce these results other than Pacific Pathways operations.

d. Benefits for the Institutional Army. The Army has identified 20 warfighting challenges to inform design of systems and concepts for the future force, and Pacific Pathways operations confront 16 of these warfighting challenges. As part of its force development process, the Army conducts annual Army Warfighting Assessments (AWA), which address materiel development and warfighting challenges. USARPAC and U.S. Army Training and Doctrine Command (TRADOC) agreed to conduct a portion of the AWA 2017 during Pacific Pathways 16-2 and 16-3. TRADOC deployed assessment teams with these Pacific Pathways to better define obstacles and gaps, and concepts and systems that might address them. These will be documented in a report that will inform development of Force 2025. USARPAC views the Pacific as the World's largest battle lab and Pacific Pathways will remain a principal vehicle for continuous experimentation over the coming years. The USARPAC-TRADOC partnership allows TRADOC to leverage funds allocated primarily for exercises to conduct assessments in a real world environment rather than funding parallel activities at U.S. venues that would require extensive simulation of the Pacific environment.

4. Conclusion. A comprehensive cost-benefit analysis that addresses all aspects of Pacific Pathways operations is no longer warranted. Rather, study efforts should focus on the impact of Pacific Pathways on sustainable readiness to help inform development of the institutional Army's sustainable readiness process.

Enclosure 2

Appendix IV: GAO Contact and Staff Acknowledgments

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Staff Acknowledgments

In addition to the contact named above, James A. Reynolds, Assistant Director; Tracy Barnes; Kasea Hamar; Amie Lesser; Carol Petersen; Michael Silver; Cheryl Weissman; and Amanda Weldon made key contributions to this report.

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