NATIONAL DEFENSE AUTHORIZATION ACT (NDAA) 2021

SECTION 1251 INDEPENDENT ASSESSMENT

Executive Summary

U.S. Indo-Pacific Command's Investment Plan

Pacific Deterrence Initiative

Fiscal Years 2022 and 2023-2027

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OVERVIEW

The Indo-Pacific continues to be the Department of Defense's priority theater. Section 1251 of the 2021 NDAA requires the Commander of U.S. Indo-Pacific Command (USINDOPACOM) to provide an independent assessment to Congress outlining USINDOPACOM's resourcing requirements for the Pacific Deterrence Initiative (PDI) no later than (NLT) 1 March 2021. Strategic context and more detailed funding profiles are provided in the classified version of this report.

PDI represents less than seven-tenths of one percent of the DOD's total obligation authority for any given year across the FYDP and is critical for deterring our adversaries decision calculus as outlined in *Regain the Advantage* — USINDOPACOM'*s* concept for establishing the necessary linkages between the strategy, required capacity, capabilities, and budgetary priorities contained across five focus areas:

1) Joint Force Lethality
2) Force Design and Posture
3) Strengthen Allies and Partners
4) Exercises, Experimentation, and Innovation
5) Logistics and Security Enablers

The PDI is structured to enhance budget transparency and oversight while focusing resources on vital military capabilities to deter China. The requirements outlined in this report are specifically designed to persuade potential adversaries that any preemptive military action will be too costly and likely to fail by projecting credible, combat power at the time of crisis. This includes providing several flexible deterrent options including full OPLAN execution if deterrence should fail.

The recommended funding profile for USINDOPACOM's requirements for PDI is as follows:

USINDOPACOM – *Regain the Advantage* *(Costs in millions of dollars)*	**FY22 Request**	**FY23-27 Request**
Joint Force Lethality	1,066.9	6,608.1
Force Design and Posture	2,221.2	6665.9
Strengthen Allies and Partners	532.8	2796.7
Exercises, Experimentation, and Innovation	772.2	6124.0
Logistics and Security Enablers	83.1	490.7
TOTAL	**4,676.2**	**22,685.5**

JOINT FORCE LETHALITY

The most important action the U.S. can take to increase the Joint Force's lethality is to introduce a 360-degree persistent and integrated air defense capability in Guam (Guam Defense System (GDS)). Guam is our most crucial operating location in the western Pacific and its defense remains USINDOPACOM's number one unfunded priority.

In addition to the GDS, USINDOPACOM requires highly survivable, precision-strike networks along the First Island Chain, featuring increased quantities of ground-based weapons. These networks must be operationally decentralized and geographically distributed along the western Pacific archipelagos using **Service agnostic** infrastructure. This distribution allows USINDOPACOM to deter and defend by reversing an adversary's anti-access and aerial-denial (A2/AD) capabilities that limit U.S. freedom of action or access to vital waterways and airspace.

To adequately compete and defend American interests, the most critical investments to increase joint force lethality include the following:

- **Guam Defense System (GDS).** Provides fixed and persistent 360-degree air missile defense from the Second Island Chain using current, tested open architecture Programs of Record and precision, long-range strike capability.
- **Tactical Multi-Mission Over-the-Horizon Radar (TACMOR).** High Frequency radar system in Palau provides persistent, long-range, detect and track air and surface targets.
- **Space-Based Persistent Radar.** A constellation of space-based radars with rapid revisit rates to maintain situational awareness of adversary activities and provide low latency target custody and ground and air moving target indicators and represents a persistent queuing source for TACMOR and GDS.
- **Enhanced ISR Augmentation.** High demand, low density, globally deployable capabilities require augmentation from specialized manned aircraft to provide discrete, multi-source intelligence collection requirements (SIGINT, COMINT, MASINT).
- **Ground-Based, Long-Range Fires.** Highly survivable, precision-strike fires can support the air and maritime maneuver from distances greater than 500 km**.**

Joint Lethality Investments *(Costs are in millions of $)*	**FY22**	**FY23-27**
Guam Defense System (GDS)	350	1,303.8
TACMOR - Palau	167.9	29.3
Space-Based Persistent Radar	100	2,200.0
Enhanced ISR Augmentation	41	165.0
Ground-Based, Long-Range Fires	408	2,910

FORCE DESIGN AND POSTURE

USINDOPACOM's force design and posture must enable the convergence of capabilities from multiple domains and create the virtues of mass without the vulnerability of concentration. Forward-based, joint rotational forces are the most credible way to demonstrate U.S. commitment and resolve to potential adversaries while simultaneously assuring allies and partners. This requires a force posture and joint force laydown properly distributed west of the International Date Line (IDL), possessing the capabilities and authorities to respond to contingencies while balancing lethality and survivability.

This effort begins with completing the Defense Posture Realignment Initiative (DPRI), the current program of record enables sustainment operations and provides the necessary lift for Marine forces scheduled to relocate from Okinawa to Guam. This initiative is partially funded by the government of Japan. Additionally, the U.S. and our allies must develop locations that provide expeditionary airfields for dispersal and ports for distributed fleet operations. Ground forces armed with long-range weapons in the First Island Chain allow USINDOPACOM to create temporary windows of localized air and maritime superiority, enabling maneuver. Additionally, amphibious forces create and exploit temporal and geographic uncertainty to impose costs and conduct forcible entry operations.

The critical investments necessary to provide adequate dispersion to preserve deterrence options are arranged by region and include:

- **U.S. Territories and the Compact States.** Key strategic locations to project power, deter adversaries, and respond to crises across the Indo-Pacific. Investments are focused on divert locations that enhance USINDOPACOM's distributed force posture and enhanced training facilities.
- **Oceania and the Pacific Islands Countries (PIC).** Investments focused on alternative facilities for training and dispersion opportunities to increase air power capacity.
- **Southeast Asia**. Investments are focused on alternative facilities to support modernized and dispersed power projection airfields to enable forward forces and enhance logistics readiness with prepositioned stores and infrastructure.

Locations *(Costs in millions of $)*	**Posture Effort**	**FY22**	**FY23-27**
U.S., Territories, COMPACT States	Power Projection, Dispersal, and Training Facilities	1,631.1	4668.0
Oceania	Dispersal, Training, and Prepositioning Facilities	114.4	481.9
Southeast Asia	Dispersal, Staging, and Prepositioning Facilities	51.1	878.9
Construction Activities	Contingency Construction, Planning & Design	424.6	637.1

STRENGTHEN ALLIES AND PARTNERS

Relationships are the key components of U.S. national power beyond our nation's economic and military strength. One of the significant advantages these relationships provide is a common vision for Free and Open Indo-Pacific. This foundation is based on the network of alliances and partnerships built over the last 75 years that exemplify mutual trust, understanding, and respect characterized by significant interoperability, information sharing, and a common view of the regional security landscape.

These alliances and partners are the building blocks for a networked security architecture that promotes advanced information sharing and interoperability. This architecture requires a resilient, multi-enclave, command and control environment for integrating audio, video, and text that is capable of providing ubiquitous battle management and automated engagement decision-making using a multi-domain sensor network. The critical investments needed include:

- **Combined, Command and Control Network (C3N).** Enabled by INDOPACOM Mission Partner Environment (IP-MPE). PDI provided $50M in FY21 for MPE as the critical investment for providing resilient, secure, adaptable, and interoperable information architecture. This capability delivers the same function as a physical data center and hosts multiple, discreet mission sets using cloud-based technologies, integrated systems, and secure access controls. FY22 funding will maintain the current systems as the coalition architecture is advanced.
- **Fusion Centers (Counter Terrorism Information Facility; Oceania Fusion Center; Indo-Pacific Maritime Coordination Center).** The Counter Terrorism Information Facility (CTIF), hosted by Singapore, represents USINDOPACOM's first collaborative, operational partnership with ASEAN to use network analysis and multilayer analytics to identify trends, aberrations, and terrorist threats. For FY22, the Oceania Fusion Center is the next priority and represents an initiative to provide the Pacific Island nations a venue to address common challenges such as climate change; illegal, unregulated, and unreported (IUU) fishing; and transnational crime.
- **International Security Cooperation Programs (ISCP: Title 10, Section 332, 333 and Maritime Security Initiative).** Security cooperation programs provide funding for building, training, and equipping national security forces of ally and partner nations to support deterrence activities. The FY22 funding profile for the various authorities meets USINDOPACOM's theater security cooperation requirements. It provides a powerful tool for advancing USINDOPACOM theater security cooperation objectives while reinforcing the values embraced by a Free and Open Indo-Pacific.
- **State Partnership Program (SPP)**. The National Guard's SPP provides a valuable tool for conducting military to military engagement to support security cooperation objectives. There are currently 15 nations partnering with ten states and one U.S. territory. Resourcing this program assists logistics and training programs to increase U.S. access and expanded agreements with partner nations.

Most Critical Investments *(Costs in millions of $)*	**FY22**	**FY23-27**
Combined, Command and Control Network (C3N) (MPE, BICES-X, HQ C4IT)	99.6	556
Fusion Centers (South & Southeast Asia, Oceania)	3.3	18
International Security Cooperation (Sec 332; 333; and MSI)	423.7	2188.8
State Partnership Program	6.3	33.9

EXERCISES, EXPERIMENTATION, AND INNOVATION

The Joint Force needs capacity to integrate Service recommended weapons and capabilities into a warfighting concept that deters the adversary and ensures positional advantage. U.S. forces must be capable of fighting in highly contested environments against technologically advanced opponents while also preserving freedom of action across all domains. This challenge can only be met by conducting high-end, multi-domain exercises with a continuous campaign of joint experimentation.

USINDOPACOM'S **Joint Exercise Program (JEP)** was resourced for $128.45M by PDI for FY21 and requires $155.1M for FY22 to modernize the JEP into a series of high-end, multi-domain exercises to expand and advance interoperability with allies and partners and develop additional interdependencies across the Services. This effort evolves the current JEP into a named operation (**PACIFIC RESOLVE)** as a series of coalition and joint exercises deliberately linked over time and space in the western Pacific and demonstrate the ability to mass forces quickly multiple times a year as an integrated joint force and execute war-time planning while increasing joint readiness.

PDI provided $2M in FY21 to launch the **Pacific Multi-Domain Test and Experimentation Capability (PMTEC)** establishing requirements for fully instrumented, live-virtual training areas throughout the Indo-Pacific by networking test and training ranges from the west coast of the U.S. to Japan and Australia. This initiative forms the largest coalition range complex globally with the most advanced capabilities, including simulation, virtual reality training, and operational rehearsal scenarios over long distances. The PMTEC requirement in FY22 is $328.1M and $1.68B across the FYDP to fully modernize range complexes and incorporate the analytical tools needed to provide the foundation of the Joint Fires Network.

PMTEC funding will generate joint readiness by enabling joint operations using a Joint Fires Network (JFN) that removes the latency of target quality data between air, ground, and naval forces. This network will focus on integrating fire control quality data and overcoming individual system limitations to find, fix, and engage targets. The JFN is enabled by artificial intelligence and incorporated into both actual and virtual training scenarios using 5G technology; this capability also enables Continuity of Operations (COOP) options. The primary Service ranges for upgrades in FY22 include:

- **Joint Pacific Alaska Range Complex (JPARC) -** Elmendorf, Alaska, U.S. Air Force – provides all domains integration.
- **Pacific Missile Range Facility (PMRF) -** Barking Sands, Hawaii, and U.S. Navy – provides a surface, subsurface, air, and space operations as the largest instrumented multi-environmental range complex.
- **Pohakuloa Training Area (PTA) -** Hawaii Island, Hawaii, U.S. Army – provides joint/combined arms and live-fire for Brigade-size maneuver units.
- **FUTURE Combined/Joint Military Training (CJMT) -** Commonwealth of Northern Mariana Islands (CNMI), U.S. Marine Corps – CJMT will support training for battalion and company size units and is essential for supporting the relocation of Marines from Okinawa.

Additional functional ranges to consider as part of the constellation across the FYDP include:

- **Kwajalein Ranges**, Kwajalein Atoll, U.S. Army – missile and missile-interceptor development, space surveillance, and satellite tracking.
- **Nevada Test and Training Range (NTTR)**, Nellis Air Force Base, U.S. Air Force – simulated Integrated Air Defense System and Aerial Gunnery; and Fallon Training Complex, U.S. Navy - Naval Carrier Air Wing unit level training.
- **Naval Air Warfare Center, Weapons Division (formerly Pacific Missile Test Center (PMTC))**, Point Mugu, California, U.S. Navy – test and develop air-to-air, air-to-ground, sea-to-air, sea-to-ground, and high-energy weapons.
- **Vandenberg Space and Missile Facility**, Vandenberg, California, U.S. Air Force - provides Intermediate Range Ballistic Missiles, Ground-Based Interceptors (GBIs), and civilian space vehicle operations.

Much of the analysis and concept development for PMTEC is derived from reports and briefings from the Institute for Defense Analysis (IDA) and the Defense Science Board (DSB). PMTEC provides a joint training environment that replicates the conventional operations requiring increased dependence on a joint/coalition command and control, integrated fires, and a logistics concept that supports joint sustainment operations while also informing new cross-domain ideas for warfighting.

Identified Range Investments *(Costs in millions of $)*	**FY22**	**FY23-27**
Joint Exercise Program (JEP)	155.1	874.0
Operation Pacific Resolve	377.1	3,565.7
Pacific Multi-Domain Training and Experimentation Capability (PMTEC)	240.07	1,684.3

LOGISTICS AND SECURITY ENABLERS

The tyranny of distance from CONUS to forward operating locations in the western Pacific requires a sophisticated balance of distribution capacity to sustain the Joint Force and provide a credible combat deterrent in a contested environment. The First and Second Island Chains offer the capacity to support crisis and contingency operations such as establishing dispersal locations, airfield repair capabilities, C4I, munitions, mobility processing, and fuel storage. Additionally, PDI funding in FY22 provides vital resources for USINDOPACOM to work perception management by integrating the employment of electronic warfare, computer network operations, psychological operations, deception, and operations security. Finally, critical human resources must address essential personnel shortages in low density, high demand positions for planning and integration.

- **Pacific Movement and Coordination Center (PMCC).** PDI authorized a full-time Deployment and Distribution Operations Center (DDOC) in FY21 to provide a permanent ability to synchronize strategic and operational logistics in real-time across the Indo-Pacific. PDI funding in FY22 will resource program development and design within the INDOPACOM headquarters.
- **Joint Electro-Magnetic Spectrum Operations (JEMSO).** USINDOPACOM requires the capability to coordinate electromagnetic warfare, spectrum management, and intelligence support to exploit, attack, protect, and manage military activities within the USINDOPACOM electromagnetic operational environment (EMOE).
- **Information Operations (MISO).** The changing role and access of information has allowed state and non-state actors to undermine our relationships with partners and allies. USINDOPACOM is initiating a various number of counter-propaganda tools designed to target malign influence.
- **Asia Pacific Regional Initiative (APRI).** These resources support key military-to-military and military-to-civilian engagements such as subject matter expert exchanges, seminars, and conferences to increase partner interactions. Examples include the Indo-Pacific Chiefs of Defense Forum and annual Environmental Security Forums.
- **Critical Manpower.** The 2019 DOD Joint Manpower Validation process approved 90 additional joint billets for USINDOPACOM to address critical manning shortfalls. These top 90 crucial billets are in direct support of Great Power Competition.*

Key-Enablers *(Costs in millions of $)*	**FY22**	**FY23-27**
Pacific Movement and Coordination Center	0.5	7.5
Joint Electro-Magnetic Spectrum Office (JEMSO)	6.06	48.2[1]
Joint Task Force Indo-Pacific (JTF-IP)	8.0	36.6
Information Operations (MISO)	35.7	190.5
Asia Pacific Regional Initiative (APRI)	10.0	50.0
Critical Manpower Positions	4.6	69.2
CSI	18.2*	88.7*

*See Classified Report for Details.

CONCLUSION

The greatest danger to the future of the United States continues to be an erosion of conventional deterrence. Without a valid and convincing conventional deterrent, China is emboldened to take action in the region and globally to supplant U.S. interests. As the Indo-Pacific's military balance becomes more unfavorable, the U.S. accumulates additional risk that may embolden adversaries to unilaterally attempt to change the status quo.

USINDOPACOM's focus is to ensure access, maneuver, and fires in the shared domains, which enable USINDOPACOM to deter and deny our adversaries' ability to engage in acts of aggression or coercion against our allies along the First Island Chain. Ultimately the steps we take must convince our adversaries they simply cannot achieve their objectives with force.

PDI provides a pragmatic and economically viable approach for implementing a deterrence strategy for defending U.S. interests in the Indo-Pacific while mitigating risk and avoiding escalation. Funding levels for the Pacific Deterrence Initiative (PDI) in FY22 ($4.6B) is less than seven-tenths of 1% of the Department of Defense's Total Obligating Authority in FY21, and two-thirds the amount spent on the European Defense Initiative in FY20 ($5.9B).

The U.S. must lead interoperability among like-minded nations to establish an effective deterrent with the lethality and agility to fight and win. The U.S. - alongside our allies and partners - must seamlessly integrate and regularly operate across multiple domains. When integrated globally across numerous combatant commands, this coalition effort ultimately convinces our adversaries they cannot achieve their objectives with force.

The focus areas outlined in PDI are challenges that require immediate and joint solutions not accounted for through Service investments—specifically, the fielding of an Integrated Joint Force with precision-strike networks west of the International Date Line along the First Island Chain, integrated air missile defense in the Second Island Chain, and a distributed force posture that provides the ability to preserve stability, and if needed, dispense and sustain combat operations for extended periods.