SOUTH CHINA SEA STRATEGIC SITUATION
PROBING INITIATIVE

An Incomplete Report on US Military Activities in the South China Sea in 2022

SCSPI

March 2023

About SCSPI

With a view to maintaining and promoting the peace, stability and prosperity of the South China Sea, we launched the South China Sea Strategic Situation Probing Initiative (SCSPI). The Initiative aims to integrate intellectual resources and open source information worldwide and keep track of important actions and major policy changes of key stakeholders and other parties involved. It provides professional data services and analysis reports to parties concerned, helping them keep competition under control, and with a view to seek partnerships.

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Preface

In peacetime, conducting highly-intensified military activities in a coastal state's surrounding waters, such as thousands of close-in reconnaissance operations and hundreds of military exercises, is contrary to the spirit of "maintaining international peace and security" of the *UN Charter* and "the peaceful uses of the seas" of the *United Nations Convention on the Law of the Sea* (UNCLOS).

Since 2009, US military activities against China in the South China Sea have strengthened in frequency and intensity. Against the backdrop of the Russia-Ukraine conflict, US military operations in the South China Sea continued unabated in 2022, significantly increasing the risk of maritime and air frictions and conflicts between China and the US. Are China's warships and aircraft too close to the US's, or conversely the US warships and aircraft get too close to China? Here lies the main divergence between China and the US in maritime crisis management.

In 2022, the politicization of military operations by the US military has been further enhanced, with increased exposure to the Taiwan Strait transit operations, deployment of carrier strike groups (CSGs), military exercises and drills. The Pentagon and the US military have also repeatedly highlighted the so-called "dangerous interception" or "unprofessional" actions of the People's Liberation Army (PLA) at sea to put diplomatic, public and strategic pressure on China.

However, excessive deterrence and stimulations will provoke more determined countermeasures from China, and contribute to destabilizing action-reaction cycles. At present, deterrence and counter-deterrence, stimulation and counter-stimulation, as well as provocation and counter-provocation have become critical strategic and tactical issues in

US-China maritime interaction.

The US military presence and operations in the South China Sea are major factors affecting the situation in the South China Sea. Since 2019, the *South China Sea Strategic Situation Probing Initiative* (SCSPI) has been releasing the annual report, *An Incomplete Report on US Military Activities in the South China Sea*. The report is intended to promote the transparency of South China Sea Situations and provide the perspective of a third-party think tank for reference to government departments, research institutions, media and the public of related parties.

Director of SCSPI　Hu Bo

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An Incomplete Report on US Military Activities in the South China Sea in 2022
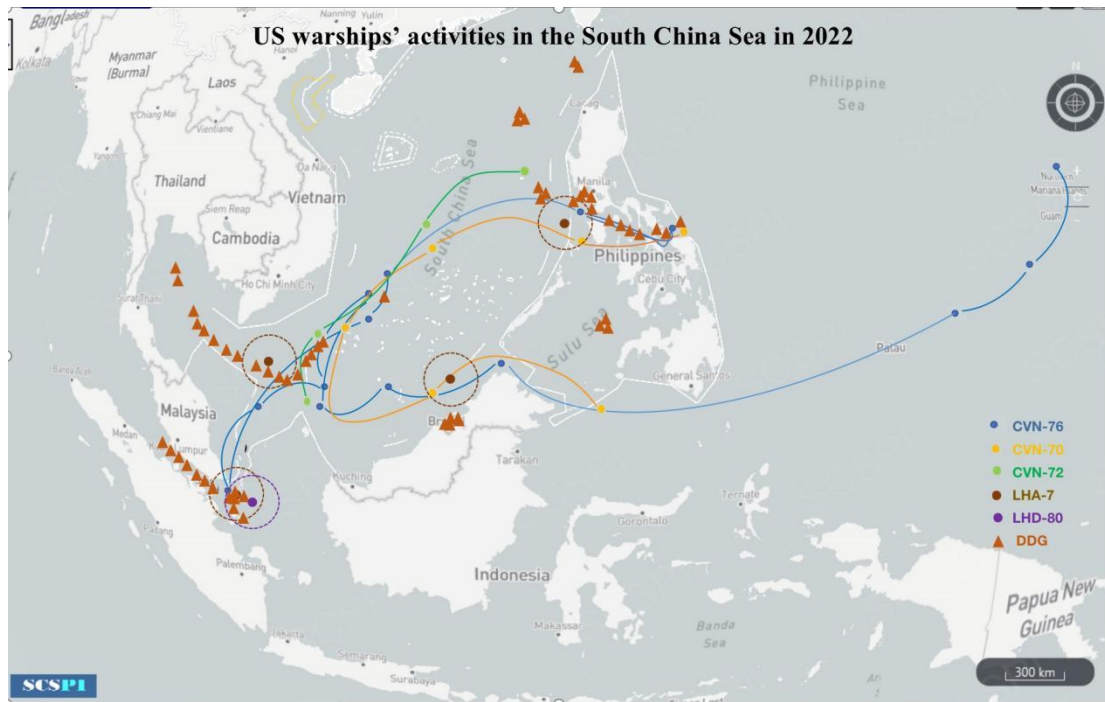
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In 2022, alongside the context of the Russia-Ukraine conflict, the US military placed great emphasis on military deterrence against China in the South China Sea, maintaining high-intensity activities including close-in reconnaissance operations, Taiwan Strait transits, forward presence, strategic deterrence, freedom of navigation operations (FONOPs), military exercises and drills, and battlefield construction. Around 1,000 sorties of large reconnaissance aircraft conducted close-in reconnaissance, including reportedly reaching the Chinese mainland's territorial air space several times. CSGs and amphibious ready groups (ARGs) entered the South China Sea eight times, down from 12 times in 2021, but the duration of each deployment increased, mostly for more than 10 days. At least 12 nuclear attack submarines (SSNs) appeared in the South China Sea, with a clear aim to exert deterrence. As the former Speaker of the US House of Representatives Nancy Pelosi's visit to Taiwan escalated the Taiwan Strait Situation sharply, the US military's forward deployment and operations in the South China Sea strengthened the linkage with the Taiwan Strait and the East China Sea.

I. Increasingly Targeted Strategic Platforms' Activities

In 2022, the US military deployed three CSGs, two ARGs, 20 bombers, and 12 SSNs to the South China Sea and its surrounding areas, carrying out frequent targeted patrols and drills to strengthen military deterrence against China.

1. Large Fleets and Surface Forces

In 2022, the US military successively deployed three carriers to the South China Sea; the USS *Carl Vinson* (CVN-70), USS *Abraham Lincoln* (CVN-72) and USS *Ronald Reagan* (CVN-76); two amphibious assault ships, the USS *Tripoli* (LHA-7) and USS *Makin Island* (LHD-80); nine guided missile destroyers, the USS *Higgins* (DDG-76), USS *Chafee* (DDG 90), USS *Michael Murphy* (DDG-112), USS *Benfold* (DDG-65), USS *Gridley* (DDG-101), USS *Momsen* (DDG-92), USS *Ralph Johnson* (DDG-114), USS *Fitzgerald* (DDG-62) and the USS *Milius* (DDG-69); three littoral combat ships, the USS *Charleston* (LCS-18), USS *Jackson* (LCS-6) and the USS *Tulsa* (LCS-16); three cruisers, the USS *Antietam* (CG-54), USS *Chancellorsville* (CG-62) and the USS *Mobile Bay* (CG-53); and one expeditionary base ship, the USS *Miguel Keith* (ESB-5).

US warships' activities in the South China Sea in 2022

Legend:
- CVN-76
- CVN-70
- CVN-72
- LHA-7
- LHD-80
- DDG

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300 km

Compared with 2021, the frequency of activities of large US naval groups in the SCS has decreased, but the duration of activities has increased. With the exception of the USS *Ronald Reagan's* 20-day deployment in the SCS in July, the rest of the carrier strike groups stayed in the SCS for about 10 days, which is much longer than the four to five days in 2021. Three aircraft carrier strike groups and two amphibious ready groups entered and left the SCS five times and three times, respectively, with the following features:

First, increasing attention was paid to the Philippines' Archipelagic Sea Lanes (ASLs). With increasingly intensified great power competition from US military's perspective, US military significantly strengthens readiness in Western Pacific and pays more attention to carrier strike groups' survivability in the anti-access/area denial (A2/AD) condition. Therefore, US military strengthens the use of the Philippines' ASLs in recent years. The access route taken by the CSGs was always San Bernardino Strait, Mindoro Strait, Barabak Strait, Verde Island Channel

and other straits within the Philippine Archipelago. Only USS *Abraham Lincoln* passed through Bashi Channel to enter the South China Sea, in early 2022.

Second, the targeted training was strengthened. Except for the USS *Abraham Lincoln* and USS *Miguel Keith* which participated in the US-Philippines Exercise Balikatan 22 in the South China Sea in March, other CSGs focused on targeted training instead of frequent large-scale exercises in the region. During the Dual carrier exercise, the USS *Carl Vinson* left the South China Sea after one of its F-35C carrier-based fighters crashed into the sea due to an on-board accident. After entering the South China Sea in July, the USS *Ronald Reagan* made a port call to Singapore on July 22, then conducted mass casualty and damage control exercises in the waters bordering Indonesia and Malaysia. In October, the USS *Ronald Reagan* entered the South China Sea for the second time with a smaller scope of activities. After deploying into the region through the San Bernardino and Mindoro Straits, it mainly carried out tactical exercises in waters near Scarborough Shoal, such as AIM-9X live-fire drills and carrier-based aircraft flight training.

Table 1. Activities of the US CSGs in the South China Sea in 2022

No.	Date	CSG	Access	Exit
1	Jan. 9-25	USS *Carl Vinson*	Barabak Strait	Mindoro Strait
2	Jan.22-31	USS *Abraham Lincoln*	Bashi Channel	Barabak Strait
3	Mar.22-Apr.5	USS *Abraham Lincoln*	Mindoro Strait	Barabak Strait
4	Jul.12-31	USS *Ronald Reagan*	Barabak Strait	Mindoro Strait
5	Oct.12-17	USS *Ronald Reagan*	Mindoro Strait	Mindoro Strait

Third, the US improved the role of ARGs. Constrained by the deployment bottleneck of CSGs, the US military has been developing the

'Lighting Carrier' concept in recent years to augment its sea-based tactical airpower. The trend of the US military to promote 1+1 deployment, to deploy a CSG and an ARG simultaneously, especially, in the Western Pacific, was very clear. As a result, the activities of the ARGs have increased significantly. From August to October 2022, the USS *Tripoli* entered the South China Sea twice with only 10 days apart, and deployed there for 30 days. Since commissioning in 2020, the USS *Tripoli*'s first deployment in the South China Sea saw it conduct frequent flight training carrying F-35B fighters, CH-53 Super Stallion helicopters and MV-22B Osprey transport aircraft, in addition to port visits to Changi, Singapore and Manila, Philippines. In April 2022, it carried 20 F-35B STOVL fighters in the Pacific Ocean, fully demonstrating the Lightning Carrier concept for the first time.[1]

2. Bombers

According to incomplete statistics, in 2022, the US Air Force flew 20 sorties of B-52H or B-1B bombers in 11 batches in and out of the Western Pacific Area. Of these, at least 5 sorties of bombers entered the South China Sea.

In terms of departure bases, most took off from Andersen Air Force Base in Guam. But the effect of other air bases in the US mainland and the Western Pacific has been increasing significantly. Notably, on December 20, two B-52H bombers set out from Kadena, before flying to the Sea of Japan to participate in a US-South Korea military exercise. In addition, the US military also planned to deploy six nuclear-capable

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[1] "3rd Marine Aircraft Wing, Expeditionary Strike Group 3 Demonstrate Lighting Carrier Concept", April 14, 2022,
https://www.marines.mil/News/News-Display/Article/2995310/3rd-marine-aircraft-wing-expeditionary-strike-group-3-demonstrate-lightning-car.

B-52H bombers to the air base in northern Australia.[①]

Table 2. Activities of US Bombers in the South China Sea
and Surrounding Areas in 2022

No.	Date	Aircraft	Sortie
1	Feb. 12, 2022	B-52H (South China Sea)	2
2	Jun. 12, 2022	B-1B (South China Sea)	2
3	Sep. 30, 2022	B-52H	2
4	Oct. 19, 2022	B-1B	2
5	Oct. 24, 2022	B-1B	2
6	Nov. 5, 2022	B-1B	2
7	Nov. 7, 2022	B-1B (South China Sea)	1
8	Nov. 14, 2022	B-1B	2
9	Nov. 16, 2022	B-1B	1
10	Nov. 19, 2022	B-1B	2
11	Dec. 20, 2022	B-52H	2

3. SSNs

In 2022, the US military deployed at least 12 SSNs in the Western Pacific, including the USS *Key West* (SSN-722), USS *Scranton* (SSN-756), USS *Missouri* (SSN-780), USS *Annapolis* (SSN-760), USS *Asheville* (SSN-758), USS *Alexandria* (SSN-757), USS *Springfield* (SSN-761), USS *Jefferson City* (SSN-759), USS *North Carolina* (SSN-77), USS *Charlotte* (SSN-766), USS *Chicago* (SSN-721), USS *Oklahoma City* (SSN-723). Among them, the USS *Missouri*, USS *North Carolina*, USS *Chicago*, USS *Alexandria*, USS *Key West* and USS *Springfield* visited Yokosuka Port on January 10, February 25, April

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[①] "With eye on China, US to boost military forces in Australia and 'invite' Japan to join in", Reuters, December 6, 2022,
https://edition.cnn.com/2022/12/06/australia/us-australia-defense-ministers-intl-hnk/index.html.

19, June 25, August 15, and October 18 respectively. In addition, the USS *Frank Cable* (AS-40)，the second *Emory S. Land*-class submarine tender, was active in the South China Sea, visiting Changi, Singapore, Kota Kinabalu, Malaysia, and Jakarta, Indonesia successively in July.

In recent years, the US military has kept nuclear submarines' presence at a high-level in the South China Sea. The high operational tempo has contributed to high-risk accidents. On May 23, 2022, the US military released the final investigation report on the accident involving the *Seawolf*-class SSN, USS *Connecticut*, on October 2, 2021. Although the report attributed the accident to inadequate navigation planning, irresponsible personnel on duty and inadequate risk control, it also cited unreasonable deployment cycles and personnel training, as well as fatigue caused by over-deployment.[1] However, the US Navy has not reduced the deployment of nuclear submarines in the Western Pacific while carrying out relevant rectification and accountability actions. Jeffrey Jablon, commander of the Submarine Force of the US Pacific Fleet, also said in November that the US Department of Defense planned to expand its submarine warfare capabilities in Guam over the next five to ten years to optimize the combat power of the US military in the Western Pacific.[2]

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[1] Command Investigation of the Apparent Striking of a Submerged Object by USS Connecticut (SSN 22) While Underway in the U.S. Seventh Fleet Area of Operations on 2 October 2021, U.S. Pacific Fleet, https://www.cpf.navy.mil/FOIA-Reading-Room/#release-181682.
[2] Navy Expanding Guam Submarine Forces To Counter Growing Chinese，Defense Daily，Capabilitieshttps://www.defensedaily.com/navy-expanding-guam-submarine-forces-to-counter-growing-chinese-capabilities/navy-usmc.

II. Intensive Close-in Maritime and Aerial Reconnaissance

In 2022, the US military continued sending reconnaissance aircraft and ships to conduct high-intensity reconnaissance operations in the South China Sea. In the air, the US conducted around 1,000 large reconnaissance aircraft sorties over the South China Sea, which was slightly lower than in 2021. However, the sorties of electronic reconnaissance aircraft increased. At sea, the US military, including ocean surveillance ships and oceanographic survey ships, have conducted regular operations in the South China Sea, totaling 339 ship-days.

1. Aerial Close-in Reconnaissance

According to incomplete statistics, in 2022, the US sent about 1,000 sorties of large reconnaissance aircraft of various types into the South China Sea from Osan Base in the ROK, Kadena Base in Okinawa, Anderson Base in Guam, and Clark Base in the Philippines. The aircraft types included the US Navy's P-8A anti-submarine patrol aircraft, EP-3E electronic reconnaissance aircraft and MQ-4C unmanned reconnaissance aircraft, and the US Air Force's RC-135 series electronic reconnaissance aircraft, E-8C Joint STARS (Joint Surveillance Target attack Radar System) airborne battle management, command and control, intelligence, surveillance, reconnaissance aircraft, E-3B and E-3G airborne warning and control system (AWACS) aircraft and U-2S high-altitude reconnaissance aircraft.

The US close-in reconnaissance operations in the South China Sea in 2022

1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月
69	62	61	58	41	59	67	46	28	47	51	68

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*PS: The data, based on ADS-B, shows about 70% of the actual sorties.

First, high-profile surveillance operations to monitor China's forces and military facilities. The Biden administration strengthened deterrence against China in recent years. Close-in reconnaissance, originally used for gathering intelligence, has also been given the significance of deterrence. Due to the change in strategy and policy, the US military's aerial close-in reconnaissance has been increasingly bold and deliberately high-profile. In 2022, high-intensity close-in reconnaissance became increasingly frequent, focusing on military radar systems along China's southeast coast, the submarine base in Sanya, and aerial and maritime activities of the PLA. A US Air Force RC-135U electronic reconnaissance aircraft conducted a close-in reconnaissance sortie along the eastern coast of the Chinese mainland on June 3, the closest distance reaching 29 nautical miles from the territorial baseline of China. On December 21, an RC-135U electronic reconnaissance aircraft had an unsafe encounter with a J-11 fighter of the PLA Navy around the South China Coast and Paracel Islands, Hainan Province. The US military dramatically increased its reconnaissance operations during China's military exercises. For example,

during the PLA military exercises around Taiwan Island from August 2 to 10, the US military sent out at least 22 sorties, including 14 large reconnaissance aircraft such as P-8A, RC-135S, RC-135V, U-2S and E-3G. On August 5 alone, at least seven early-warning reconnaissance aircraft of various types were dispatched.

Second, intelligence support for US military operations. The US military typically sent multiple reconnaissance aircraft to provide intelligence support during or around operations such as carrier exercises, Taiwan Strait transits and FONOPs in the South China Sea. For example, during the deployment of the USS *Ronald Reagan* in the South China Sea in July 2022, the US military dispatched at least three to four reconnaissance aircraft per day to coordinate its operations. On July 25, the US Navy sent out two P-8A anti-submarine patrol aircraft, a US Air Force E-3B airborne early-warning aircraft, an E-8C Joint Star air-ground reconnaissance aircraft and an RC-135V electronic reconnaissance aircraft. On June 12, as two US Air Force B-1B bombers took off from Anderson Air Force Base to conduct military operations in the South China Sea, three P-8As, one EP-3E, and one E-3B took off from Kadena Base and Clark Base respectively to conduct reconnaissance operations in the South China Sea.

US 5 large reconnaissance aircraft sorties over the South China Sea, July 25th

Third, the number of sorties of electronic reconnaissance aircraft increased significantly. In the second half of 2022, the types and number of electronic reconnaissance aircraft dispatched by the US military increased significantly, including EP-3E electronic reconnaissance aircraft, MQ-4C unmanned reconnaissance aircraft, the US Air Force's RC-135 series electronic reconnaissance aircraft, E-8C battlefield command and surveillance aircraft, E-3B airborne early-warning aircraft, E-3G airborne early-warning aircraft and U-2S high-altitude reconnaissance aircraft. In August and September, 57.0% and 65.8% of reconnaissance sorties were electronic reconnaissance aircraft operating in the South China Sea respectively. As a "rare visitor" in the South China Sea, an E-8C conducted six reconnaissance sorties in August, which was related to the ongoing regional situation, but also reflected that the US military was strengthening the battlefield construction and electronic countermeasures.

2. High-altitude Airship (Balloon)

The high-altitude airship/sounding balloon project was part of a Multi-Domain Sensing System (MDSS) concept under exploration by the US Army and Marine Corps. It would fill the gap between ground-based, air-based and space-based Intelligence, Surveillance, and Reconnaissance (ISR). Such high-altitude sounding balloons generally operated at an altitude of 15,000-20,000 meters in the stratosphere, and could be deployed for 100 days at a time. The longest test time was 300 days and the balloon was allowed to be recalled in the middle. Its operating radius was 50 kilometers (equivalent to the working area of 7,850 square kilometers) and the operating resolution was 5 centimeters. It has integrated functions of communication, navigation, remote sensing and so on. Compared with reconnaissance means such as satellites and reconnaissance aircraft, it had lower cost, longer time in the air, and higher resolution.

At least four high-altitude airships were deployed between late March and early April 2022, during the US-Philippines Exercise Balikatan. According to the ADS-B signal, the four high-altitude airships whose ICAO numbers were AD0512, AD08C9, AD015B and ACFDA4 were launched from Clark Base in the Philippines to carry out reconnaissance operations in the South China and Philippine Seas. Each airship's activity cycle was about one week. AD08C9 ran from March 30 to April 1, AD08C9 March 30 to April 2; both AD015B and ACFDA4 ran from April 2 to April 9. They were all from the American company Raven Aerostar, with the probable primary mission to provide intelligence support for the exercise.

Raven Aerostar's balloon

Tracks of balloons during the US-Philippines Exercise Balikatan 2022
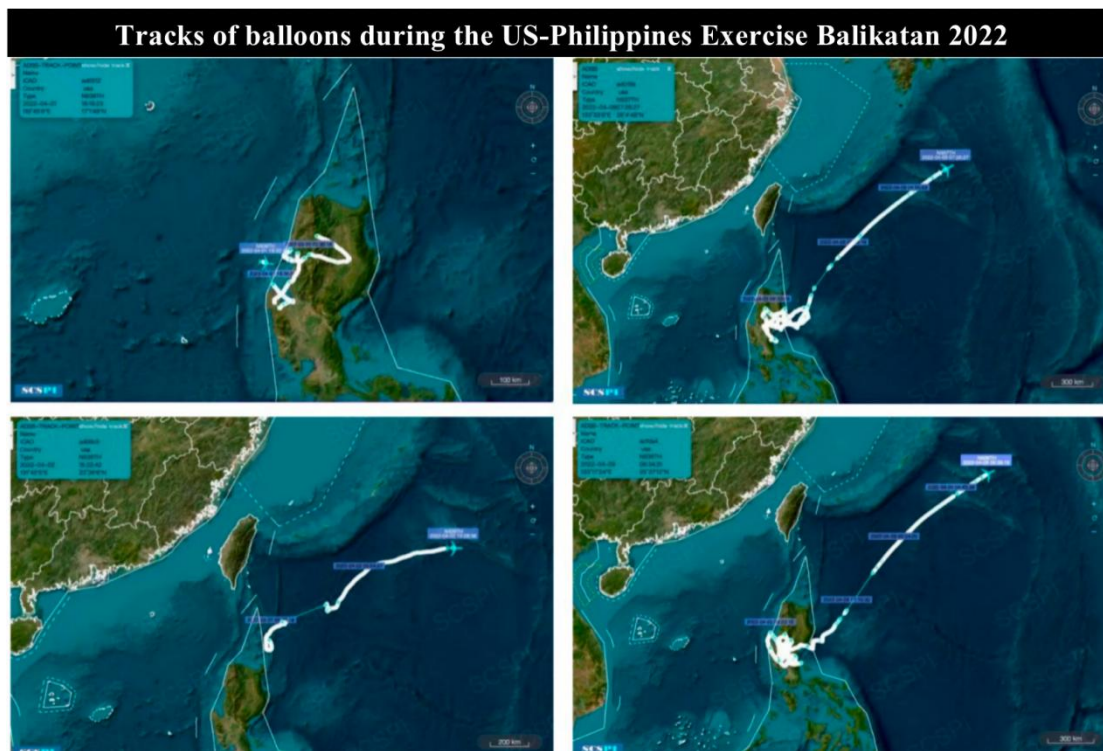
The deployment of civil high-altitude airships was another major attempt by the US to engage in "gray zone" competition with China in the South China Sea. The airships were not assets of the US Department of Defense or of the US military, similar to the US military's hiring civilian aircraft for close-in surveillance in the South China Sea. On the one hand,

it intended to use civilian forces to complement the lack of platforms and sensors in the US military. On the other hand, it helped to explore or expand the boundaries of US military activities.

3. Maritime Reconnaissance and Surveillance

In 2022, the US military successively deployed four ocean surveillance ships in the South China Sea, including the USNS *Able* (T-AGOS 20), USNS *Effective* (T-AGOS 21), USNS *Loyal* (T-AGOS 22) and the USNS *Impeccable* (T-AGOS 23). They spent 134 ship-days operating in the South China Sea. Among them, the USNS *Effective* was the most active, operating mainly in the waters near the Paracel Islands and Macclesfield Bank.
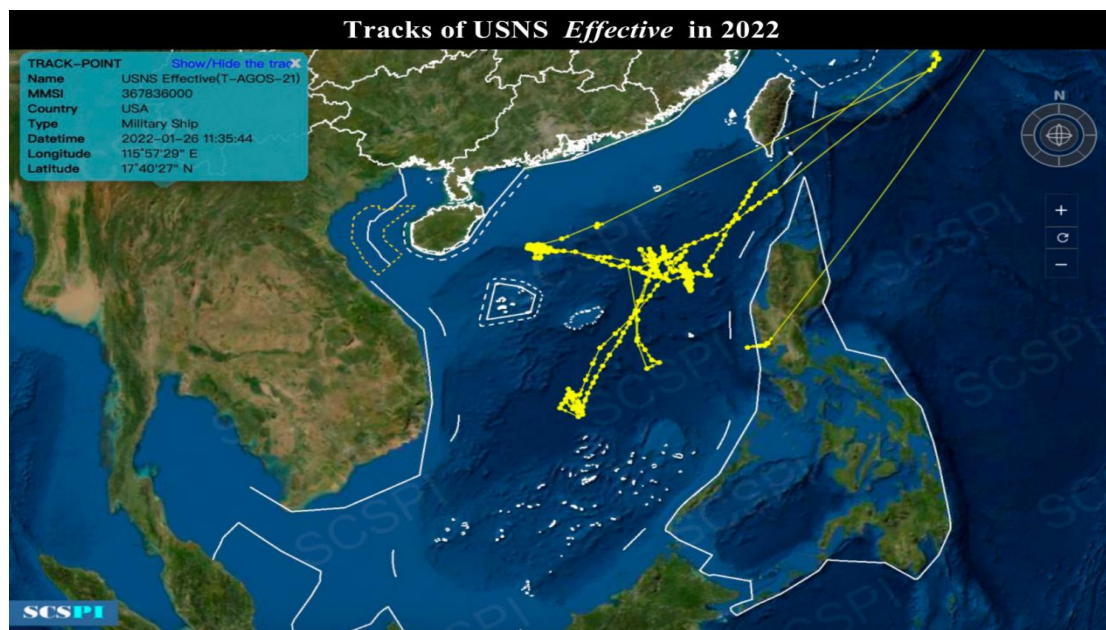

The US military also deployed three oceanographic survey ships, including the USNS *Bowditch* (T-AGS-62), USNS *Henson* (T-AGS-63) and USNS *Mary Sears* (T-AGS-65) for seabed topography and geomorphology as well as the marine meteorological and hydrological survey. They spent 205 ship-days in the South China Sea.

III. The Island-intrusive FONOPs

Since 2020, the frequency of the US military's island-intrusive FONOPs in the South China Sea has been decreasing from nine in 2020 and eight in 2021 to four in 2022. Although there has been a reduced frequency of operations, the tendency of the US military to politicize military operations in the South China Sea has become more apparent.

US warship's intrusions into the territorial waters of Paracel Islands and adjacent waters of China stationed features in the South China Sea, 2015-2022
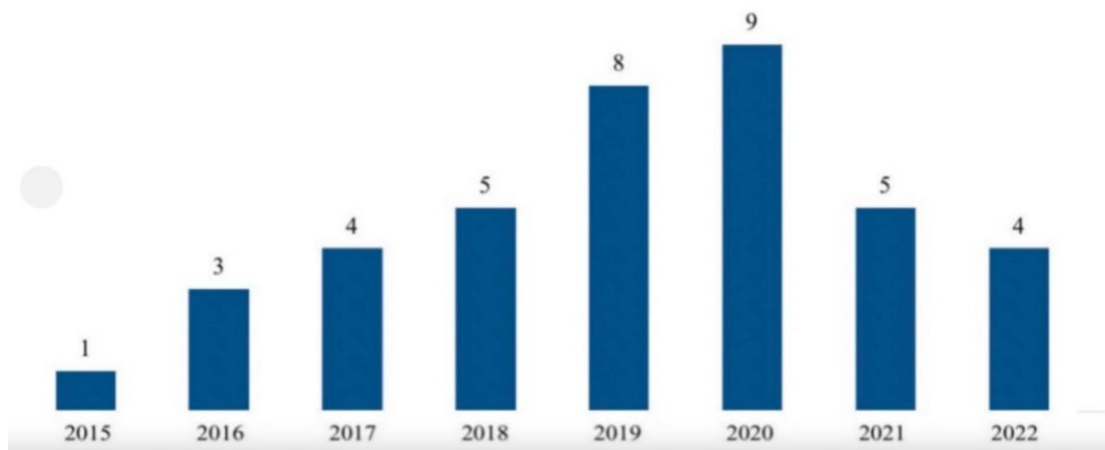
1. Basic Information on Island-intrusive FONOPs

In July 1979, the Carter administration launched the Freedom of Navigation (FON) Program to demonstrate its own interpretation of the UNCLOS and challenge other countries' so-called "excessive maritime claims" with its own actions. According to the annual *Freedom of Navigation Operations Report* released by the US Department of Defense, there are at least six types of FONOPs against China in the South China Sea: 1. The passage system of foreign warships in the territorial sea (China's declared territorial sea area of the mainland and Hainan Island);

2. Straight baselines (Paracel Islands); 3. Measurements and surveys by foreign entities in the Exclusive Economic Zone; 4. Territorial sea and airspace claims on low-tide elevations; 5. Security management system in the contiguous zone; 6. Jurisdiction of Exclusive Economic Zone and overlying airspace. Among them, the island-intrusive FONOPs against the Paracel and Spratly Islands are only a tiny part of the US military's overall FONOPs in the South China Sea, most of which are not publicized. Moreover, regarding the operational trajectory alone, FONOPs have many similarities to ordinary presence operations or patrols. Unless the US military confirms or clarifies, it is difficult for the outside world to judge whether certain operations are FONOPs. Therefore, counting how many FONOPs the US military conducts against China every year is not easy. Experts only have a glimpse of how many FONOPs are conducted based on media information or information disclosed by the US military. Even island-intrusive FONOPs are hard to count, and the so-called "number" does not mean as much as one might think.

Table 3. US Warship's Intrusions into the Territorial Waters of Paracel Islands and Adjacent Waters of China Stationed Features in the South China Sea in 2022

No.	Date	Overview
1	Jan. 20	USS *Benfold* entered the territorial waters of the Paracel Islands
2	Jul. 13	USS *Benfold* entered the territorial waters of the Paracel Islands
3	Jul. 16	USS *Benfold* entered waters near the Spratly Islands
4	Nov. 29	USS *Chancellorsville* entered the adjacent waters of Spratly Islands and Reefs

2. The Politicization of Island-intrusive FONOPs

Since October 27, 2015, when the USS *Lassen* (DDG-82) entered within 12 nautical miles of Subi and Mischief Reefs, the US military has embarked on more politicized and highly publicized FONOPs.

On the one hand, in contrast to the traditional low-key and secretive style, the more recent island-intrusive FONOPs have been assumed a higher profile. In the past, FONOPs were operationally low-intensity and diplomatically low-key. The purpose is not threatening the targeted country with gunboats, or winning the public through media, but to uphold the relevant legal norms through words and actions.[①] Since the operation of the USS *Lassen* in October 2015, the US military has taken the initiative to disclose the details of FONOPs against China including the forces involved, time and location to media organizations such as Reuters and USNI News, and released official statements.[②] Moreover, as the statement of FONOPs has grown in length, its language has become more intense and acute. In 2022, the US military's statement regarding the FONOP against China's stationed islands and reefs ran to 1,000 words and frequently used phrases such as "unlawful and sweeping maritime claims" .

On the other hand, the timing of the island-intrusive FONOPs was closely related to the wider context of China-US relations. The political intention of pressuring China and coordinating with US influential China-related agenda has become increasingly evident. For example, the two FONOPs in July 2022 coincided with the sixth anniversary of the South China Sea Arbitration. Whilst on November 29, the day the US

[①] Peter A. Dutton, Isaac B. Kardon, "Forget the FONOPs — Just Fly, Sail and Operate Wherever International Law Allows," June 10, 2017,
https://www.lawfareblog.com/forget-fonops-%E2%80%94-just-fly-sail-and-operate-wherever-international-law-allows，访问时间：2022 年 7 月 5 日。
[②] 胡波、艾雪颖：《美军南海军事行动的政治化》，《边界与海洋研究》，2022 年第 6 期，第 20-34 页。

military carried out an island-intrusive FONOP, the US Department of Defense released *Military and Security Developments Involving the People's Republic of China*.

IV. Improving the Coordination of Operations between the Taiwan Strait, the South and the East China Sea

1. Warships and Military Aircraft Transit the Taiwan Strait with High Profile

In recent years, under the name of "freedom of navigation and overflight", the US military has continued to carry out Taiwan Strait transits. In 2022, a total of nine US warships transited the Taiwan Strait. Although the frequency decreased significantly compared with 12 in 2021 and 15 in 2020, the public profile and political significance of the transits have increased.
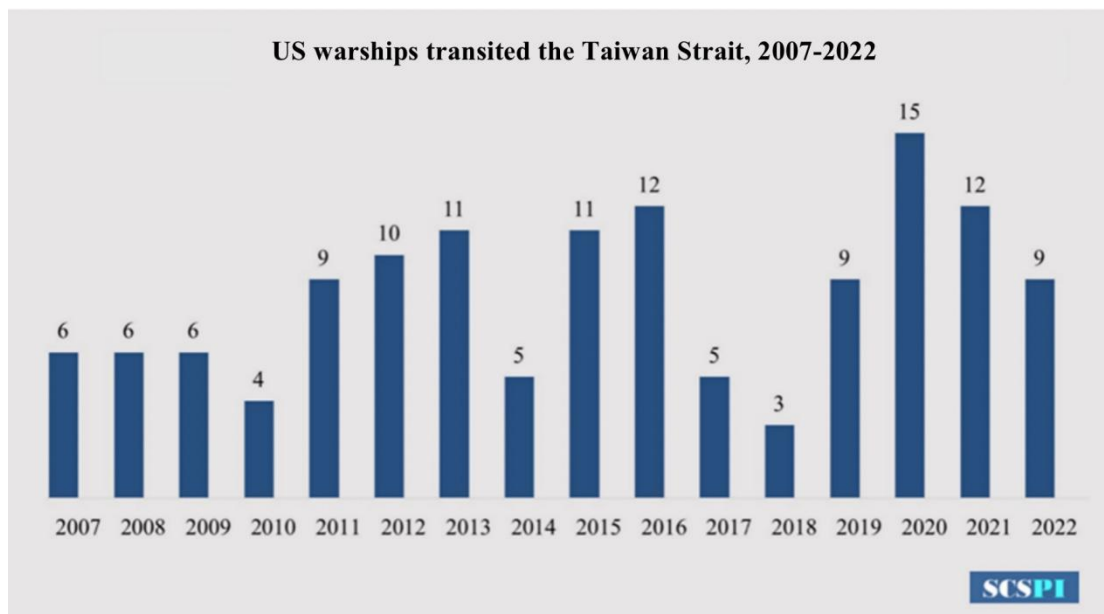

US warships transited the Taiwan Strait, 2007-2022

Table 5. The US Warships Transited the Taiwan Strait in 2022

No.	Date	Warship
1	Jan. 22	USS *Dewey*
2	Feb. 26	USS *Ralph Johnson*
3	Mar. 17	USS *Ralph Johnson*
4	Apr. 26	USS *Sampson*
5	May. 10	USS *Port Royal*
6	Jul. 19	USS *Benfold*
7	Aug. 28	USS *Antietam* and USS *Chancellorsville*
8	Sep. 20	USS *Higgins* and HMCS *Vancouver*
9	Nov. 18	USS *Benfold*

Such moves intended to ramp up political and strategic pressure on China. On February 26, 2022, the USS *Ralph Johnson* transited the Taiwan Strait from south to north with the AIS signal opening throughout the whole process, which implicated the apparent significance of the political demonstration and posturing. On August 28, the USS *Antietam* and USS *Chancellorsville* transited the Taiwan Strait from north to south. The US military encourage the media to exaggerate the implication this transit. Three US officials informed Reuters immediately after the two cruisers entered the Taiwan Strait. Then the US Navy Seventh Fleet issued an official announcement that the USS *Antietam* and USS *Chancellorsville* were transiting the Taiwan Strait. During the transit, the US Navy's carrier-based aircraft MH-60R helicopter took off and landed several times with the ADS-B signal broadcasting, attracting much attention from the global media.

The US military high-profile exaggerations about Taiwan Strait transit
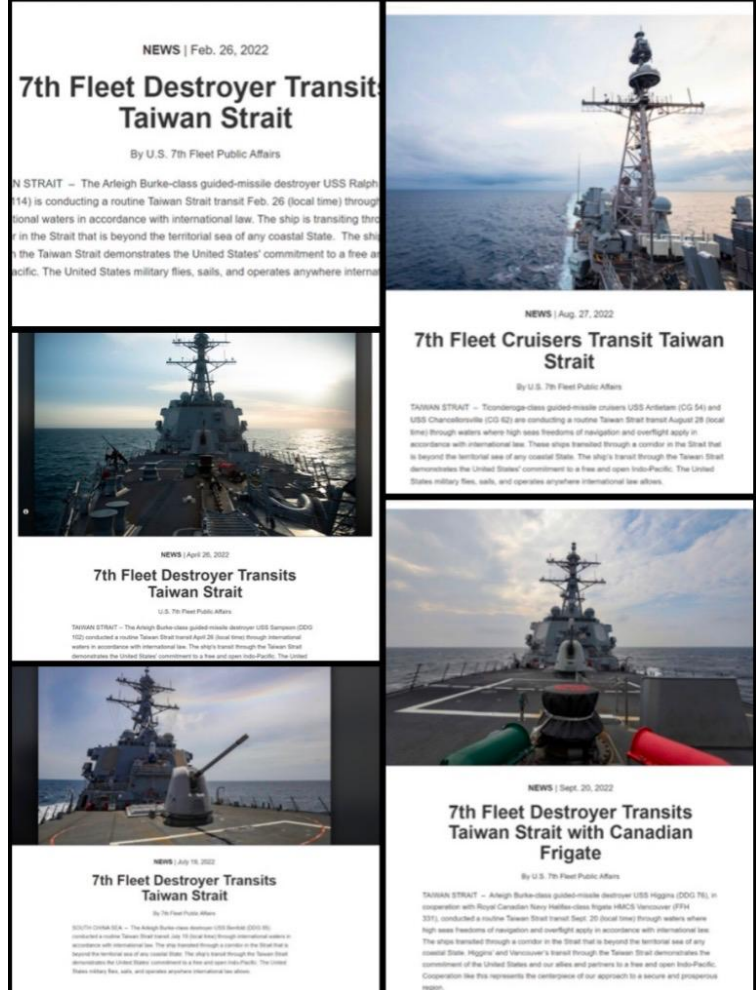
The operations of US anti-submarine patrol aircraft transiting the Taiwan Strait have gradually normalized. In 2022, US P-8A anti-submarine patrol aircraft flew over the Taiwan Strait three times, the same number as in 2021. On January 25, a US Navy P-8A anti-submarine patrol aircraft flew across the Taiwan Strait from south to north. On June 24, a US Navy P-8A anti-submarine patrol aircraft flew across the Taiwan Strait from south to north. On December 8, a US Navy P-8A anti-submarine patrol aircraft flew across the Taiwan Strait from north to south. It flew less than 13 nautical miles away from the baseline of the territorial sea of the Chinese Mainland, marking the closest flight of a

P-8A in recent years.

USN P-8A flew through the Taiwan Strait, Dec. 8
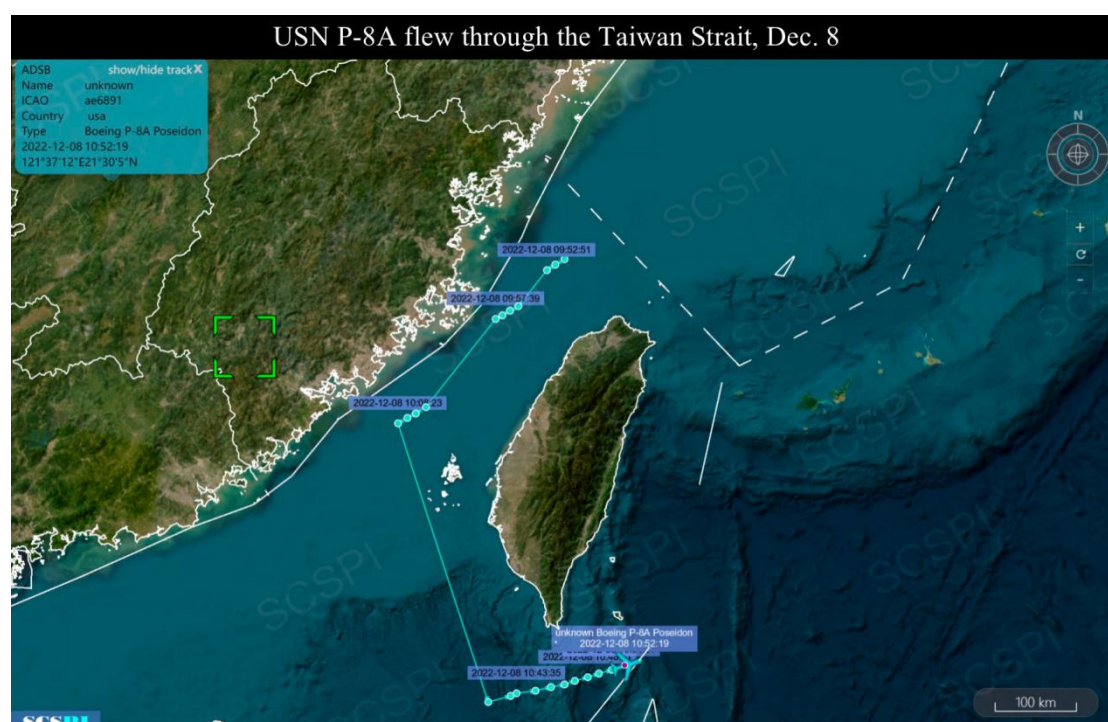
2. Targeted Deployments and Operations Relevant to Major Events

According to data from Bloomberg, 28 members of the US Congress visited Taiwan in 2022, the most since at least 2013.[①] The US legislators and politicians' frequent visits to Taiwan have greatly stimulated regional tension. Accordingly, the US military has made targeted deployments to strengthen deterrence against the Chinese Mainland.

On August 2, 2022, Nancy Pelosi, then Speaker of the US House of Representatives, visited Taiwan, and the US military was on high alert. On July 30, the USS *Ronald Reagan* and its strike group members, the USS *Higgins*, USS *Antietam* and USS *Tripoli*, entered the Philippine Sea via the South China Sea and San Bernardino Strait, and all deployed to

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[①] Sarah Zheng, "US Lawmaker Visits to Taiwan Hit Decade High, Irking China", Bloomberg, September 7, 2022, https://www.bloomberg.com/news/articles/2022-09-07/more-us-lawmakers-visit-taiwan-as-shows-of-support-rise?leadSource=uverify%20wall.

the waters east of Taiwan on August 2 to guard Pelosi's aircraft. From then on, according to the temporary instructions of the White House and the Pentagon, the USS *Ronald Reagan* CSG frequently moved back and forth between the waters east of Okinawa and the waters south of Japan until August 19,[①] highlighting the correlation between the deployment of the US aircraft carrier strike group and the regional situation. During the PLA exercises around Taiwan, the US military also significantly strengthened its reconnaissance efforts. From August 4 to 5, the US military dispatched at most seven reconnaissance and early-warning aircraft of all types to the airspace around Taiwan, including one RC-135V, one RC-135S, three P-8As, one E-3G, one U-2S, and six refueling aircraft for support. On August 7, the USNS *Howard O. Lorenzen* (T-AGM-25) equipped with the Cobra King radar system arrived in waters near Okinawa and took up station.

Tracks of USNS *Howard O. Lorenzen*, Aug. 4-7

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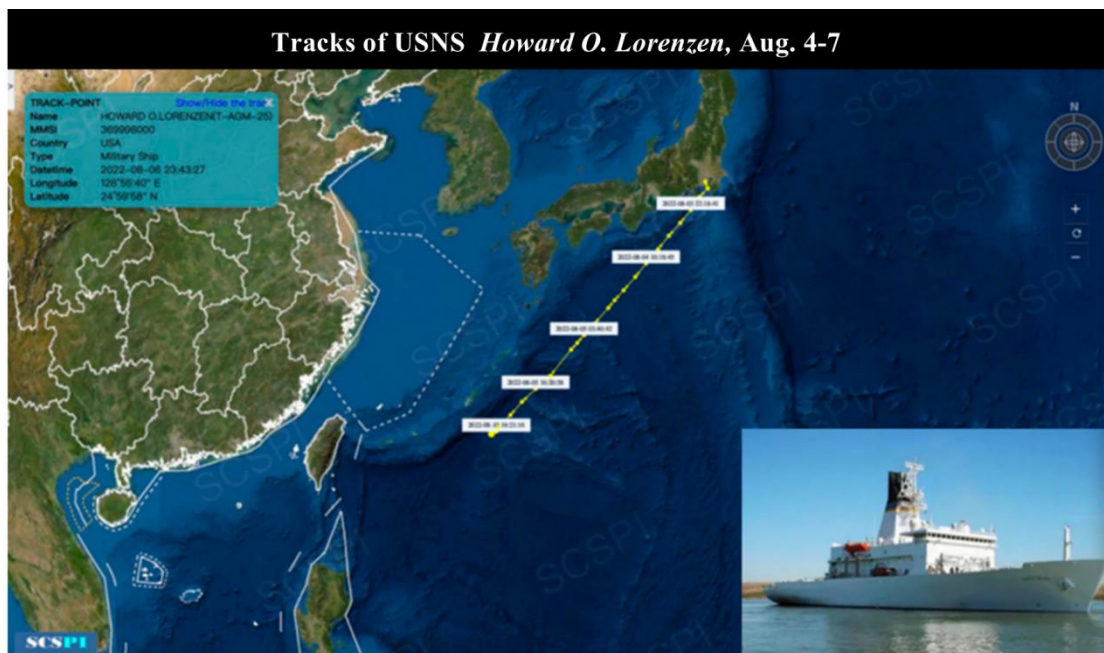
① "Press Briefing by Press Secretary Karine Jean-Pierre and NSC Coordinator for Strategic Communications John Kirby", The White House, August 4, 2022,
https://www.whitehouse.gov/briefing-room/press-briefings/2022/08/04/press-briefing-by-press-secretary-karine-je
an-pierre-and-nsc-coordinator-for-strategic-communications-john-kirby-5/.

Tracks of Ronald Reagan CSG from July 30 to August 19
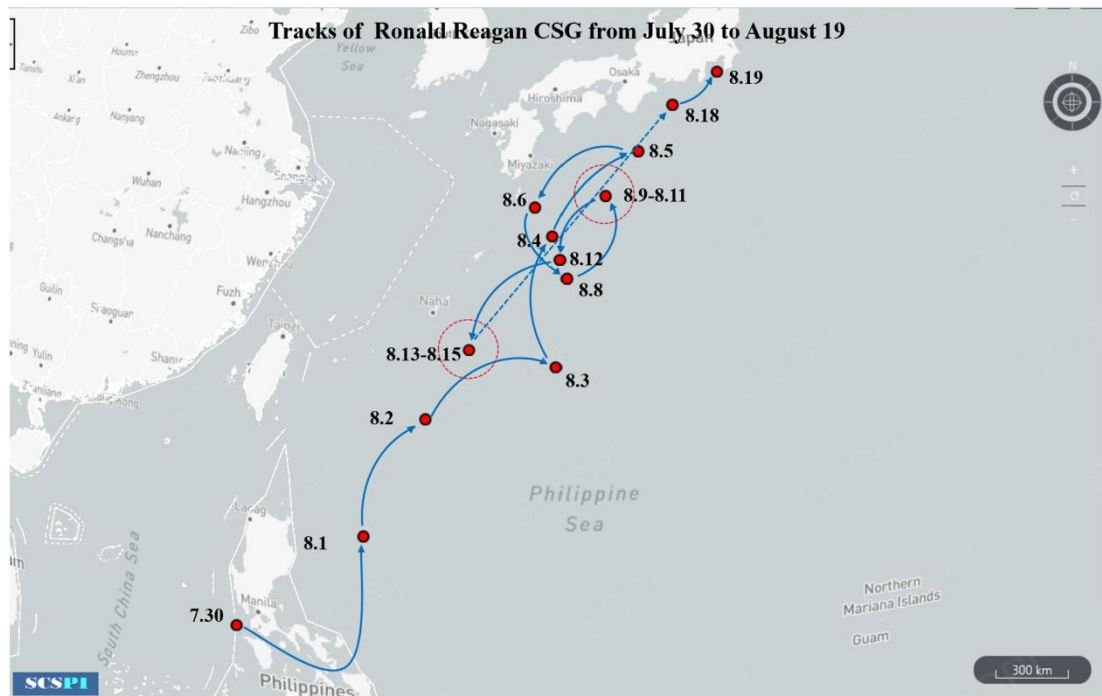
3. US Military Strategy and Policy in the Taiwan Strait

Deterring China's "military adventure" in the Taiwan Strait has become a strategic priority for the US military in the Indo-Pacific. The new *Indo-Pacific Strategy of the United States* released in February 2022 listed China's challenge to "peace and stability in the Taiwan Strait" as a major geopolitical risk in the region. It required the US military to strengthen its deterrence against China.[1] After the outbreak of the Russia-Ukraine conflict, the US military set the primary strategic objective in the Indo-Pacific region to deter the PLA from attacking Taiwan and triggering a chain reaction. On March 10, Admiral Aquilino, the commander of the US Indo-Pacific Command, said at a congressional hearing that the Command was improving its ability to deter "China's

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[1] "Department of Defense Press Briefing by Secretary Esper and General Milley in the Pentagon Briefing Room", Department of Defense, December 20, 2019, https://www.defense.gov/News/Transcripts/Transcript/Article/2045725/department-of-defense-press-briefing-by-s ecretary-esper-and-general-milley-in-t/; "Indo-Pacific Strategy of the United States", The White House, February 22, 2022, https://www.whitehouse.gov/wp-content/uploads/2022/02/U.S.-Indo-Pacific-Strategy.pdf.

attack on Taiwan" and was ready to fight "tonight".[1] After Pelosi's visit to Taiwan, the situation in the Taiwan Strait changed dramatically. Under the "new normal of the Taiwan Strait", the US military, represented by Admiral Michael Gilday, the Chief of Naval Operations, has been forming the understanding that China will solve the Taiwan Question ahead of the "Davidson Time".[2] At the end of October 2022, the US Department of Defense issued the latest *National Defense Strategy* where the situation in the Taiwan Strait has been listed as a priority. It was also listed that the US military would, in accordance with the "integrated deterrence" strategy, jointly oppose "China's increasingly provocative remarks and coercive activities against Taiwan" with its Indo-Pacific allies and partners.[3]

However, compared with President Biden's repeated statements that "the US will send troops to defend Taiwan",[4] the US military has not yet ended the "strategic ambiguity" in its policies and statements. It has tried to avoid answering whether it will defend Taiwan by force, instead emphasizing to help Taiwan improve its "self-defense capability". Since March, senior US defense officials and generals have asked Taiwan to improve its "asymmetrical capabilities" following the "Ukrainian model",[5] and the military presence of the US in Taiwan in the name of

[1] "Senate Armed Services Committee (SASC) Transcript", U.S. Pacific Command, March 11,2022, https://www.pacom.mil/Media/Speeches-Testimony/Article/2964526/senate-armed-services-committee-sasc-transcript/.

[2] "US Navy chief warns Beijing could attack Taipei by 2024, not 2027", Asia News, October 21, 2022, https://www.asianews.it/news-en/US-Navy-chief-warns-Beijing-could-attack-Taipei-by-2024, -not-2027-56930.html.

[3] "2022 National Defense Strategy of the United States", Department of Defense, October 27, 2022, https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF.

[4] Jimmy Quinn, "Biden Says, for Fourth Time, U.S. Would Send Troops to Defend Taiwan from Chinese Invasion", NATIONAL REVIEW, September 18, 2022, https://www.nationalreview.com/corner/biden-says-u-s-would-send-troops-to-defend-taiwan-from-chinese-invasion-for-fourth-time/.

[5] Michael Martina, "Ukraine is model for Taiwan defense should China violate its 'sovereignty' -U.S. official", Reuters, March 11, 2022, https://www.reuters.com/world/china/ukraine-is-model-taiwan-defense-should-china-violate-its-sovereignty-us-official-2022-03-10/; Lara Seligman, "'Deadly serious': U.S. quietly urging Taiwan to follow Ukraine playbook for

assisting in the training of the Taiwan military has also changed from secret to public.[①] On the one hand, the US defense ministers and senior generals correlated the situation in the Taiwan Strait with the Russia-Ukraine conflict, played up China's "military adventure" and justified the US's assistance in defending Taiwan.[②] It has also "advised" China to avoid making the "mistake" of Russia's attack on Ukraine.[③] Meanwhile, the US military is also stepping up its preparations for the failure of deterrence. For example, Indo-Pacific Command and all services have been adjusting their combat readiness policies based on the changes in the situation in the Taiwan Strait, placing greater emphasis on Japan as a forward location, and strengthening their military presence in Guam, Australia and other places in the second and third island chains.

With the Philippines as the focus, the US has frequently sought forward military bases around the South China Sea to respond to contingencies in the Taiwan Strait and the South China Sea. In November, the Philippine Ministry of Defense said in a statement that, according to the US-Philippines *Enhanced Defense Cooperation Agreement* (EDCA), the US would begin to help the Philippines upgrade and transform three military bases in 2023. According to the new plan under EDCA, the US will add four new military facilities in the Philippines for the deployment of US military equipment, aircraft and ships.[④]

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countering China", POLITICO, May 19, 2022,
https://www.politico.com/news/2022/05/19/deadly-serious-u-s-quietly-urging-taiwan-to-follow-ukraine-playbook-for-countering-china-00033792.

[①] 陈进安：《台军解说板出现"台美协训成果"证美军在澎湖协台训练特种部队》，2022 年 12 月 31 日，
https://www.hk01.com/article/852545?utm_source=01articlecopy&utm_medium=referral.

[②] Stuart Lau, "Austin: U.S. 'determined' to keep Taiwan's status quo", POLITICO, June 10, 2022,
https://www.politico.com/news/2022/06/10/austin-determined-to-keep-taiwans-status-quo-00038990; Ellen Mitchell, "US military points to Ukraine in warning China against Taiwan attack", THE HILL, September 26, 2022,
https://thehill.com/policy/defense/3660667-us-military-points-to-ukraine-in-warning-china-against-taiwan-attack/.

[③] "China attacking Taiwan would be a mistake, top U.S. general says", the Japan times, November 18, 2022,
https://www.japantimes.co.jp/news/2022/11/18/asia-pacific/us-general-china-taiwan/.

[④] 2023 年 2 月 2 日，五角大楼宣布，美菲计划加快落实原菲律宾 5 个军事基地，且菲律宾同意再向美国开放 4 个军事基地，美在菲军事基地将增至 9 个。"Philippines, U.S. Announce Four New EDCA Sites",
Department of Defense, February 1, 2023,

V. Strengthen Combat Readiness Through Exercises

1. Further Improve the Number and Scale of Exercises

According to incomplete statistics, in 2022, the US military carried out 102 large-scale exercises and drills (thousands of times at small and medium-scale) in the South China Sea and surrounding areas (from the Philippines Sea in the east to Australia in the south), with an increase in both number and scale compared with 2021. Of the 102 exercises, 16 were unilateral and 87 were bilateral or multilateral. Forces including the US Navy, the Air Force, the Marine Corps, the Army and the Coast Guard were involved. Furthermore, the joint exercise in the South China Sea and its surrounding areas involves ASEAN countries and extra-regional powers such as Japan, Britain, Australia, India, France and Canada.

2.Strengthening Joint Exercises with Regional and Extra-regional Countries

In 2022, the US continued strengthening joint military exercises with regional and extra-regional countries. In the exercises with the latter, the US military has continuously strengthened its military combat exercises with its allies in the South China Sea and surrounding areas, focusing on maritime cooperative operations and other aspects. The US's intention of mustering more extra-regional powers to the region was quite evident. The number of joint exercises with these countries in the South China Sea

https://www.defense.gov/News/Releases/Release/Article/3285566/philippines-us-announce-four-new-edca-sites/;
"U.S. to spend $66 mln on new facilities at Philippines military bases", Reuters, November 15, 2022,
https://www.reuters.com/world/us-spend-66-mln-new-facilities-philippines-military-bases-2022-11-15/.

and surrounding areas has reached 69, among which Japan ranked first with 61 times and Australia followed with 23.

In the exercises with regional countries, the traditional subjects were continued, focusing on maritime domain awareness, amphibious operations and others. The participation of allies and partners in and outside the region has been constantly improved. For instance, the US-Indonesia Super Garuda Shield exercise in early August was one of the most extensive multinational exercises in the Indo-Pacific region. It attracted participants from Australia, Japan and Singapore for the first time, and conducted the first parachute jump of Indonesia, Japan and the US. In Early October, Japan and South Korea sent military personnel as observers to participate in the US-Philippine Kamandag 6 joint exercise. Additionally, the US strengthened its military security relations with its major allies in the region. In September 2022, the US-Philippines Mutual Defense Board and the Security Engagement Board Meeting agreed a plan that 496 joint military activities of all kinds would be held in 2023, which was far higher than 461 in 2022 and 353 in 2021.[1]

3. Verification of New Operational Concepts

The US military exercises mainly include anti-submarine, air defense, mine, amphibious operations, etc., such as Sea Dragon 2022, Kakadu 2022 as well as verification actions around new operational concepts.

From June 12 to 17, 2022, the US military held the biennial Heroic Shield 2022 joint exercise in the Philippine Sea, the largest and most practical unilateral exercise of the US military in the Indo-Pacific region.

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[1] Priam Nepomuceno, "PH, US to have 496 defense, security engagements in 2023", Philippine News Agency, October 10, 2022, https://www.pna.gov.ph/articles/1185726.

More than 13,000 personnel participated in the exercise, including forces from the US Army Air Defense Artillery force, an Air Force fighter wing, bombers, the Space Force and Special Forces from various services conducted joint combat exercises. The exercise used more than 200 aircraft and 15 warships, including two carrier strike groups led by the USS *Abraham* Lincoln, and USS *Ronald Reagan*, and the USS *Tripoli*. During the exercise, the US military carried out the concept training of Multidomain Operations by integrating the land, sea, air and network forces to detect, locate, track and engage. It is also worth mentioning that a full-scale tactical model similar to a Dong Feng missile appeared on the scene, whose pertinence was self-evident.

The full-scale tactical model of Dong Feng missile

From June 29 to August 4, the US military sought to verify the concept of Distributed Maritime Operations in RIMPAC 2022 held in the Hawaiian Islands and off Southern California. The participating countries include all four members of QUAD (the US, Japan, India and Australia), as well as some regional countries Sea (Brunei, Indonesia, Malaysia, the

Philippines, Singapore and Thailand). According to Admiral Mike Gilday, the US Navy's Chief of Operations, about 30 unmanned platforms were dispatched during RIMPAC 2022, demonstrating the Navy's future development direction of "distributed maritime operations, joint multi-domain operations and manned-unmanned cooperative operations".[1]

In late November, the US and Japan jointly held Keen Sword 23 in the Ryukyu Islands. A total of 36,000 personnel, 30 warships and 370 aircraft were dispatched from both sides. According to the video released by the US military, during the military exercise, the US marines were stationed on Yonaguni Island, which is only 110 kilometers away from Taiwan for the first time. They set up the so-called Joint Tactical Coordination Center with the Japanese Self Defense Forces on the island. Moreover, the US and Japan also carried out joint amphibious landing exercises on several islands in the southwest direction, such as Amami Islands. This exercise was also intended for verifying the US military concept of Expeditionary Advanced Base Operations.

In general, the US military exercises in the South China Sea and its surrounding areas in 2022 actively explored the emerging concept of operations besides the traditional subjects. They also strengthened the joint exercises and training with regional and extra-regional countries to achieve the goal of strengthening the regional military presence and readiness to any crises in the South China Sea and Taiwan Strait.

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[1] "Chief of Naval Operations Travels to RIMPAC, Meets with Exercise Participants", US Navy, July 23, 2022, https://www.navy.mil/Press-Office/Press-Releases/display-pressreleases/Article/3103366/chief-of-naval-operations-travels-to-rimpac-meets-with-exercise-participants/.

Ⅵ. Summary and Prospect

Since the Biden administration came to office, it has repeatedly called for the establishment of "guardrails" for Sino-US relations,[1] that is, to prevent the outbreak of conflicts due to uncontrolled military competition between China and the US. However, in the past two years, under the dual-purpose of strengthening competition and deterrence as well as enhancing crisis management, the frequency and intensity of most US military activities in the South China Sea have been further increased.

Centered on the situation in the Taiwan Strait, the US military intends to strengthen its presence in the South China Sea and try to set up a "second battlefield". Although the focus of strategic pressure on China has shifted to the Taiwan Strait, the focus of military pressure is still on the South China Sea. In 2022, the US military's operations in the South China Sea have significantly increased its dependence on the Philippine air and sea military bases. With the new plan under the EDCA, the US military's forward bases in the Philippines will play a more critical role in future operations in the Taiwan Strait and the South China Sea.

In 2023, it is predictable that, US military operations around the Taiwan Strait will be a new variable to the stability of the South China Sea. Also, with the implementation of the Indo-Pacific Partnership for Maritime Domain Awareness (IPMDA), the US military involvement in the South China Sea disputes will be a constant state.[2]

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[1] "US should prioritise 'guardrails' in its China dealings this year, White House official says", South China Morning Post, January 13, 2023,
https://www.scmp.com/news/china/diplomacy/article/3206639/us-should-prioritise-guardrails-its-china-dealings-year-white-house-official-says.
[2] 胡波："印太海域态势感知伙伴关系计划与南海局势"，*南海战略态势感知计划*，2023 年 2 月 25 日，
http://www.scspi.org/zh/dtfx/1677319583

Appendix

Main U.S. Military Exercises in the South China Sea and Neighboring Areas in 2022

NO.	NAME	DATE	LOCATION	PARTICIPANT	FORCE	SUBJECT
1	Sea Dragon 22	1.02-1.20	Guam	US, Australia, India, South Korea, Canada, Japan	US: P-8A, The Los Angeles-class submarine Australia: P-8A India: P-8I South Korea: P-3C Canada: CP-140 Japan: Two P-1 and approximately 50 personnel	Anti-submarine warfare
2	Exercise Iron Fist 2022	1.12-2.16	Marine Corps Base Camp Pendleton, California	US, Japan	U.S. Marine Corps, U.S. Navy, and JGSDF	Advanced marksmanship, amphibious reconnaissance, fire and maneuver assaults, logistics and medical support and fire support operations
3	Dual carrier operations	From 1.23	South China Sea	US	US: USS Carl Vinson (CVN-70) CSG, USS Abraham Lincoln (CVN-72) CSG, USS Essex (CV-9)	/
4	Bilateral Exercise	1.13	South China Sea	US, Brunei	/	Bilateral communication exercises and tactical exercise
5	Live-Fire Exercise	1.17	South China Sea	US	US: USS Ralph Johnson (DDG-114)	Live-fire exercise

					US: USS Carl Vinson (CVN-70) CSG, USS Abraham Lincoln(CVN-72), USS America (LHA-6), USS Essex(CV-9), USS Mobile Bay(CG-53), USS Lake Champlain(CG-57), USS Chafee(DDG-90), USS Gridley(DD-380), USS Spruance(DD-963), USS Pearl Harbor(LSD-52) Japan: JS Hyuga(DDH-181)	
6	Bilateral Exercise	1.17-1.22	Okinawa	US, Japan		Tactical exercise
7	Exercise Iron Dragon22	1.23-1.28	Okinawa	US	U.S. Marines with Combat Logistics Regiment 37	Distributed command and control and Maritime Prepositioning Force Operations, mass casualty training event
8	Airborne22	1.25-1.26	Japan	US, Japan	US: 11 C-130Js from the 36th Airlift Squadron and two from Dyess Air Force Base, Texas Japan: approximately 50 approximately 500 JGSDF soldiers	Jump and cargo drop exercise
9	MAREX22 PH	1.27-2.02	South China Sea and Sulu Sea	US, the Philippines	US: USS Essex (CV-9), USS Portland (LPD-27) and USS Pearl Harbor (LSD-52) PH: Armed Forces of the Philippines	Amphibious assault coordination and execution, subject matter expert exchanges and integrated maritime operations

					US: III Marine Expeditionary Force Japan Self Defense Forces	Employed computer simulations to practice responses in the event of a crisis or contingency.
10	KeenEdge22	1.27-2.03	Hawaii、Japan	US, Japan	US: III Marine Expeditionary Force Japan Self Defense Forces	Employed computer simulations to practice responses in the event of a crisis or contingency.
11	Pacific Defender 2022	2.01	Guam	US, Australia	US: The 736th Security Forces Squadron Australia: Royal Australian Air Force	Mounted convoyed operations, dismounted squad movements, jungle survival, urban operations, close quarter battle, weapons firing, fly away security and crowd control techniques
12	Cope North 22	2.02-2.18	Guam 、 Northern Mariana Islands、Palau and the Federated States of Micronesia	US, Japan, Australia	More than 2500 U.S. Airmen, Marines, and Sailors, 1000 combined JASDF and RAAF counterparts、 F-35A, E-7A, C-27J, KC-30A	Humanitarian assistance and disaster relief (HA/DR), large force employment, and aerial combat training exercise
13	Noble Fusion-2022	2.03-2.07	Philippine Sea	US, Japan	US: USS Abraham Lincoln(CVN-72), USS America(LHA-6), USS Essex(CV-9), USS Mobile Bay(CG-53), USS Dewey(DD-349), USS Spruance(DD-963), USS Ashland(LSD-48), USS Pearl Harbor(LSD-52), USS Miguel Keith (ESB-5), F-15C, P-8A, he 11th、31st MEU Japan: JS Kongo (DDG-173)	Amphibious combat, maritime strike drills, replenishment at Sea, etc.
14	Live-Fire	2.07	South China	US	US: USS	Live-fire training

	Exercise		Sea		Charleston (LCS-18)	
15	JWX 22	2.13-2.18	Okinawa	US, Japan	US: USS Abraham Lincoln (CVN-72), USS Mobile Bay (CG-53), USS Spruance (DD-963), more than 7, 500 U.S. Marines across III Marine Expeditionary Force, F/A-18, F-35B, F-35C, F-15, F/A-18, EA-18G Japan: JS Inazuma(DD-105), JS Hatakaze(TV-3520), F-15, JS INAZUMA, JS HATAKAZE	Leveraging the integrated capabilities of joint and allied partners to strengthen all-domain awareness, maneuvers, and fires across a distributed maritime environment
16	Bilateral Exercise	2.16-2.17	Okinawa	US, Japan	US: USS Abraham Lincoln (CVN-72), USS Mobile Bay (CG-53), USS Spruance (DD-963) Japan: JS Inazuma (DD-105), JS Hatakaze (TV-3520)	Tactical exercise
17	Bilateral Exercise	2.19-2.22	Okinawa	US, Japan	US: USS Abraham Lincoln (CVN-72) USS Mobile Bay (CG-53), USS Spruance (DD-963) Japan: JS Myoko (DDG-175)	Tactical exercise
18	Cobra Gold 2022	2.20-3.05	Thailand	US, Thailand, Singapore, Japan, South Korea, Indonesia, Malaysia	US: U.S. Marines from the 3rd Assault Amphibian Battalion, 1st Marine Division. 1, 953 soldiers from Thailand, 50 from Singapore, 41 from South Korea, 36 from Malaysia, 35 from Japan, and 16	Command Post Exercise, Humanitarian/Civic Assistance, humanitarian assistance and relief tabletop exercise, small-scale field training exercise

						from Indonesia	
19	Resilient Shield22	2.21-2.25	Japan	US, Japan		US: USS Barry (DDG-52) Japan: JS Kirisame (DDG-174)	Ballistic missile defense
20	Hanuman Guardian22	2.24-3.23	Thailand	US, Thailand		US: 29th Brigade Engineer Battalion, 3rd Brigade Combat Team, 25th Infantry Division Thailand: Royal Thai Army	Live fire training, combined arms operation
21	MILAN2022	2.25-3.04	India	More than 40 countries including US, India, Japan, Australia, Indonesia, France, Malaysia, Myanmar, Sri Lanka, Singapore, South Korea, Thailand, UK, Vietnam		US: USS Fitzgerald (DDG-62), P-8A Japan: JS Yudachi (DD-103)	Maneuvering drills, tactical training, communications drills, submarine familiarisation, air defense exercises, multinational replenishment at sea, gunnery exercise, and joint warfighting scenarios.
22	Bilateral Exercise	2.28-3.04	Guam	US, Japan		US: USS Barry (DDG-52), USS Milius (DDG-69), USS Higgins (DDG-76), USS Dewey (DD-349), USNS Richard E	Ground firing exercise, surface warfare exercise, etc.

					Byrd, 5th AIR Naval Gunfire Liaison Company, III Marine Expeditionary Force Japan: JS Shiranui (DD-120), JS Hyuga (DDH-181), Amphibious Rapid Deployment Brigade	
23	SWATT	Mar.	Philippine Sea	US	US: USS Milius (DDG-69), USS Dewey (DD-349)	Live-fire training
24	Salakanib 2022	3.05-3.24	The Philippines	US, the Philippines	Approximately 1,100 U.S. Army Soldiers include the 25th Infantry Division, 3rd Infantry Brigade Combat Team, 25th Combat Aviation Brigade, 25th Division Sustainment Brigade, 17th Field Artillery Brigade, the 5th Security Force Assistance Brigade, 413th Contracting Command, 130th Engineer Brigade	Fire support, communications, engineering, counter-improvised explosive devices, and military intelligence
25	Exercise Noble Arashi	3.06-3.25	Japan Numazu Beach, Guam	US, Japan, UK	US: 31st Marine Expeditionary Unit (MEU) Japan: Amphibious Rapid Deployment Brigade	Fire support exercise
26	Indonesian Platoon Exchange 2022	3.08-3.21	Indonesia	US, Indonesia	US Army Indonesia: TNI	Joint Force Combat and Tactic Sharing Practice
27	Trilateral raining	3.14-3.16	South China Sea	US, Japan, Australia	US: USS Momsen (DDG-92), P-8 Japan: JS Yudachi (DD-103) Australia: HMAS Stuart (FFH-153),	Tactical exercise

					AP-3C	
28	Cope Tiger 2022	3.13-3.25	Thailand	US, Singapore, Thailand	US: F-16C/D Thailand: F-16A/B Singapore: F-15, F-16C/D	Large-scale air defence and strike missions in a challenging environment
29	Tactical training	3.15	Philippine Sea	US	US: USS Barry (DDG-52), USS Dewey (DD-349), USS Milius (DDG-69), USS Higgins (DDG-76)	Maneuvering training
30	Exercise Typhoon Crossbow	3.16-3.17	Japan Iwo To	US	U.S. Marines	High Mobility Artillery Rocket System Rapid Infiltration mission
31	Tactical Exercise	3.28	Philippine Sea	US, France	US: USS Charleston (LCS-18) France: FS Vendémiaire(F734)	Tactical exercise
32	Exercise Balikatan 22	3.28-4.08	South China Sea	US, the Philippines	US: USS Abraham Lincoln (CVN-72), USS Ashland(LSD-48), USS Miguel Keith(ESB-5)	Maritime security, amphibious operations, live-fire training, urban operations, aviation operations, counterterrorism, and humanitarian assistance and disaster relief
33	Bilateral exercise	4.12-4.14	South China Sea	US, Indonesia	US: USS Momsen (DDG-92) Indonesia: KRI Bung Tomo	Formation sailing, etc.
34	Bilateral Exercise	5.08-5.16	Philippine Sea	US, Japan	US: USS Ronald Reagan (CVN-76), USS Antitam (CG-54) Japan: JS Teruzuki (DD-116), P-3C, UP-3D	Live-fire, electronic warfare exercise, formation sailing, communication exercises, air defense exercise and

						replenishment at Sea, etc.
35	Bilateral Exercise	5.09	South China Sea	US, Japan	US: USS Gridley (DD-380) Japan: JDS Kashima (TV-3508), JDS Shimakaze (TV-3521)	Tactical Maneuvering, etc.
36	Southern Jackaroo 22	5.09-5.27	Australia	US, Japan, Australia	200 US soldiers, 400 Australian soldiers, and nearly 100 Japanese soldiers	Infantry live fire
37	Thailand, U.S.2022 CARAT Exercise	From 5.23	Gulf of Thailand	US, Thailand	US: USS Jackson (LCS-6), P-8A Thailand: HTMS Naresuan (FFG-421), HTMS Bangpakong (FFG-456), and HTMS Kraburi (FFG-457), S76-B	Maritime domain awareness tracking, search and rescue training, helicopter cross-deck landings
38	Bilateral Exercise	5.24-5.26	Philippine Sea	US, Japan	US: USS Ronald Reagan (CVN-76), USS Antietam (CG-54), USS Benfold (DDG-65) Japan: JS Teruzuki (DD-116)	Anti-submarine warfare
39	Carrier Strike Group Exercise 2022	6.02-6.04	Philippine Sea	US, South Korea	US: USS Ronald Reagan (CVN-76), USS Antietam (CG-54), USS Benfold (DDG-65) South Korea: ROKS Sejong The Great (DDG-991), ROKS Marado (LPH 6112), and ROKS Munmu The Great (DDH-976)	Communication exercises, air and missile defense interoperability, maritime interdiction and air defense serials, formation sailing, liaison officer exchanges, strike group integration, as well as scenarios that involved

						anti-submarine warfare and air wing operations
40	Bilateral Exercise	6.05、6.07	South China Sea	US, Japan	US: USS Fitzgerald (DDG-62), USNS Tippecanoe(T-AO-199) Japan: JS Harusame (DD-102)	Replenishment at Sea, etc.
41	Bilateral Exercise	6.08-6.10	Philippine Sea	US, Japan	US: USS Ronald Reagan (CVN-76) Japan: JS Hyuga (DDH-181)	Tactical exercise
42	Valiant Shield 22	6.12-6.17	Philippine Sea	US	US: USS Abraham Lincoln (CVN-72) and USS Ronald Reagan (CVN-76) CSG, USS Tripoli (LHA-7), USS Mobile Bay (CG-53), USS Antietam (CG-54), USS Benfold (DDG-65), USS Fitzgerald (DDG-62), USS Spruance (DD-963)	Joint Field Training Exercise (FTX)
43	Cope West 2022	6.17-6.24	Indonesia	US, Indonesia	US: Two C-130 Indonesia: Two C-130	Tactical airlift exercise
44	NOBLE PARTNER 22	6.19-6.24	Pacific	US, Japan, Australia	US: USS Abraham Lincoln (CVN-72), USS Mobile Bay (CG-53), USS Spruance (DD-963), USS Gridley (DD-380), USS Sampson (DD-63), USS Spruance (DD-963) Japan: JS Izumo (DDH-183), JS Takanami (DD-110) Australia: HMAS Warramunga	Air defense exercise, etc.

					(LCS-30), HMAS Canberra (FFH-152), HMAS Supply (AOR-195)	
45	Bilateral Exercise	6.21-6.30	Philippine Sea	US, Japan	US: 5th EOD Mobile Unit Japan: JS BUNGO, JS Hirado, JS Hirashima, JS Sugashima, JS Ukushima, JS Aishima, JS Kuroshima	Mine Sweeping, Mine Hunting and Mine spotting by EOD
46	RIMPAC2022	6.29-8.04	Hawaii and south of California	US, Brunei, Canada, Chile, Colombia, Denmark, Ecuador, France, Germany, India, Indonesia, Israel, Japan, Malaysia, Mexico, Holland, New Zealand, Peru, South Korea, the Philippines, Singapore, Sri Lanka, Thailand, Tonga and UK	US: USS Abraham Lincoln (CVN-72), USS Essex (CV-9) Japan: JS Izumo (DDH-183), JS Takanami (DD-110)	Various tactical exercise (Various types of warfare exercise, missile firing exercise, etc), HA/DR training
47	Trilateral training	7.04-7.06	Philippine Sea、East China Sea	US, Japan, Australia	US: USS Dewey (DD-349) Japan: JS Asahi (DD-119) Australia: HMAS Parramatta (FFH154)	Joint tactical training
48	Humanitarian Mine Action	7.11-8.05	Thailand	US, Thailand	U.S. Marines	Explosive ordnance disposal training, live-fire training
49	Garuda Canti Dharma 2022	7.18-7.31	Indonesia	US, Indonesia, Argentina, Australia, Bangladesh, Canada, Fiji, Japan, Malaysia, Nepal, New	Approximately 70 U.S. and 420 TNI personnel are participating, along with approximately 350 personnel from other nations	UN peacekeeping operations staff training event, a field training event, and a critical enabler

				Zealand, the Philippines, South Africa, South Korea, Sri Lanka, Thailand and Vietnam		capability enhancement event at the PMPP
50	Koolendong 22	7.18-8.02	Australia	US, Australia	US: Two B-2 Australia: F-35A	Fire support coordination exercise
51	Bilateral Exercise	7.25	Japan	US, Japan	US: EA-18G Japan: JS Hyuga (DDH-181), JS Inazuma (DD-105), JS Makinami (DD-112), JS Yuugiri (DD-153), JS Kirishima (DDG-154), P-1, EP-3, OP-3C, UP-3D	Air defense exercise, electronic warfare exercise
52	Tactical training	7.26-7.27	South China Sea	US	US: USS Ronald Reagan (CVN-76)	Mass casualty exercises and damage control training
53	Super Garuda Shield exercise	8.03-8.14	Indonesia	US, Japan, Australia, Singapore, Japan, Canada, France, India, Malaysia, New Zealand, South Korea, Papua New Guinea, East Timor and UK	2, 000 soldiers from Indonesia, and over 1, 100 personnel from US.	Amphibious exercise, maritime security training, military operations in an urban terrain training, an air defense exercise, airborne operations, and an airfield seizure exercise
54	Trilateral training	8.08	Solomon Islands	US, Japan, Solomon Islands	Japan: JS Kirisame (DDG-174) US: USS Oakland (LCS-24) Solomon Islands: RSIPV TARO	Tactical Maneuvering

55	PACIFIC DRAGON 2022	8.08-8.14	Hawaii	US, Japan, Australia, South Korea, Canada	US: USS Fitzgerald (DDG-62), USS William P.Lawrence (DDG-110), F/A-18F Australia: HMAS Sydney(DDG 42), HMAS Supply(AOR-195) Japan: JS Haguro (DDG-180) South Korea: ROKS Sejong The Great(DDG-991) Canada: HMCS Vancouver (FFH-331)	Information sharing on tracking ballistic missile simulation targets, etc.
56	Bilateral Exercise	8.13-8.24	Okinawa	US, Japan	US: UH-60L Japan: JS Yamagiri (DD-152)	Tactical exercise
57	Pacific Angel22	8.15-8.19	Malaysia	US, Malaysia, Australia	the U.S. Pacific Air Forces, Royal Malaysian Air Force, Royal Australian Air Force, and non-governmental organizations as well as observers from Mongolia, Indonesia and The Philippiness	Search and rescue exercise
58	Citadel Pacific 2022	8.15-8.19	Japan	US	/	Simulates threat scenarios emergency response
59	Pacific Partnership 2022	8.16-8.18	The Philippines	US, the Philippines, Australia, Chile, South Korea and UK	US: USNS Mercy UK: HMS Tamar	Search and Rescue Exercise, etc.
60	Exercise Pitch Black	8.19-9.08	Australia Base Darwin and Base Tindal	US, Australia, Canada, France, Germany, Indonesia, India, Japan, Malaysia, Holland, New Zealand, the Philippines, South	up to 2500 personnel and up to 100 aircraft from around the globe including participants	Evaluate and hone skills and force integration in a simulated combat environment Air-to-air refueling.

				Korea, Singapore, Thailand, UAE and UK		
61	Pacific Vanguard 22	8.21-8.29	Guam	US, Japan, Australia, South Korea, Canada	US: USS Barry(DDG-52), USNS Alan Shepard (T-AKE-3), submarine, USNS Amelia Earhart(T-AKE-6), P-8A, EA-18G, 5th Air Naval Gunfire Liaison Company, III Marine Expeditionary Force Japan: JS Izumo(DDH-183), JS Takanami(DD-110), 1 submarine, P-1, UP-3D, SH-60K, Amphibious Rapid Deployment Brigade Australia: HMAS Sydney(DDG 42), HMAS Perth (FFH-157), HMAS Supply(AOR-195) South Korea: ROKS Sejong The Great(DDG-991), ROKS Munmu The Great(DDH-976) Canada: HMCS Vancouver (FFH-331)	Surface warfare exercise, air defense exercise, anti-submarine warfare, live-fire missile training and replenishment at Sea, etc.

62	SEACAT 2022	8.22-8.26	Singapore	21 nations include US, Australia, Bangladesh, Brunei, Canada, Fiji, France, Germany, Indonesia, Japan, Malaysia, Maldives, New Zealand, Peru, the Philippines, South Korea, Singapore, Sri Lanka, Thailand	US: staff of DESRON 7, a P-8A Poseidon aircraft assigned to Task Force 72, and personnel from Task Force 76, U.S. 7th Fleet, and U.S. Pacific Fleet	Maritime domain awareness (MDA) seminar, visit, board, search, and seizure (VBSS), and unmanned aerial systems (UAS) training
63	Orient Shield 22	8.27-9.03	Japan	US, Japan	A total of about 2, 100 personnel from the GSDF and the U.S. Army	Live-fire exercise, anti-ship combat training
64	Noble Raven22	8.30-9.07	Guam to the South China Sea	US, Japan, Canada	US: USS Higgins (DDG-76), USNS Rappahannock(T-AO-204), USNS John Ericsson(T-AO-194) Japan: JS Izumo (DDH-183), JS Takanami (DD-110) Canada: HMCS Vancouver (FFH-331)	Tactical exercise
65	Tactical training	9.02-9.03	The Philippines	US, the Philippines	US: USCGC Midgett (WMSL-757) 2 vessels from The Philippines Coast Guard	Joint search and rescue exercise
66	SEASURVEX 2022	9.5-9.10	Thailand	US, Thailand	US: Patrol Squadron (VP) 8 Thailand: Squadron 102, Wing One, of the Royal Thai Navy (RTN)	Maritime domain awareness, anti-surface warfare, and anti-submarine flight
67	Gema Bhakti 22	9.9-9.16	Indonesia	US, Indonesia	US: Hawaii Army National Guard, US Indo-Pacific Command Indonesia: The Tentara Nasional Indonesia	Operational-level planning and execution of combined military operations

68	Kakadu 2022	9.12-9.24	Northern Australian and Darwin regions	US, Australia, Brunei, Cambodia, Canada, Fiji, France, Germany, India, Indonesia, Japan, Malaysia, New Zealand, Pakistan, Papua New Guinea, Peru, Philippines, Republic of Korea, Singapore, Solomon Islands, Sri Lanka, Thailand, Timor Leste, Tonga, United Kingdom and Vanuatu	US: USS Charleston (LCS-18), P-8 Japan: JS Kirisame (DDG-174) Malaysia: KD Lekiu (FFG 30) Thailand: HTMS Bhumibol Adulyadej (FFG 471) France: FS Vendemiaire (F 734) Australia: HMAS Perth (FFH-157)	Humanitarian and disaster relief, maritime law enforcement operations, maritime warfighting, ASW and anti-air warfare combined scenarios
69	Bilateral Exercise	9.12-9.22	Japan, East China Sea	US, Japan	US: USS Ronald Reagan (CVN-76), USS Chancellorsville (CG-62), USS Barry (DDG-52), USS Benfold (DDG-65), USNS Rappahannock (T-AO-204) Japan: JS Yamagiri (DD-152)	Anti-surface exercise and anti-submarine exercise
70	Bilateral Exercise	9.13/15	Okinawa	US, Japan	US: 16 F-15C, 2 KC-135 Japan: 23 F-15, 1 E-2C, 1 C-130H, 1 U-125A and 1 UH-60J,	Tactical exercise
71	Bilateral surface action group operations	9.16-9.18	South China Sea	US, Canada	US: USS Higgins (DDG-76) Canada: HMCS Vancouver (FFH-331)	Damage control training, maritime technology training, etc
72	Bilateral Exercise	9.16-9.19	Japan Numazu Beach	US, Japan	US: USS Tripoli (LHA-7), USS Rushmore (LSD-47), MH-60S Japan: JS Kunisaki (LST-4003)	Beach exercise, search and rescue exercise
73	Tactical training	9.17	East China Sea	US	US: USS Tripoli (LHA-7), USS America (LHA	Formation sailing

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74	Maritime security training exercise	9.20-9.22	Guam	US		U.S. Coast Guard Forces Micronesia/Sector Guam, Government of Guam stakeholders, and industry partners	Maritime security training exercise, exercise scenarios include simultaneous cyber incidents at several port facilities, coordination of response efforts during an island-wide loss of communications, a simulated response to suspected terrorist activity, changes to the maritime security level, and establishment of a Unified Command to manage the various response efforts
75	Exercise Golden Bee	9.22-9.28	Guam	US		US: 36th Logistics Readiness Squadron, 36th Operations Support Squadron, 36th Contingency Response Squadron, 644th Combat Communications Squadron	Rapidly off-loading and reloading High Mobility Artillery Rocket Systems in an austere location, preforming aeromedical evacuation movements, and conducting hot refuel and defuel training
76	Noble Raven 22-2	9.23-10.01	South China Sea	US, Canada, Japan		US: USS Higgins (DDG-76), USNS Big Horn (T-AO-198) Canada: HMCS Winnipeg	Maritime operations, anti-submarine warfare operations, air warfare

					Japan: JS Izumo (DDG-183), JS Takanami (DD-110), submarine	operations, live-fire missile events, and advanced maneuvering scenarios
77	Bilateral Exercise	9.28	Okinawa	US, Japan	US: Three F-35B, four F-15C, one KC-135 Japan: Four F-15s	Tactical exercise, live-fire missile training
78	Kamandag 6	10.01-10.14	The Philippines	US, the Philippines, Japan, South Korea	US: 1, 900 U.S. Marines, USS Tripoli (LHA-7), USS Miguel Keith (ESB-5) and F-35B, MV-22, CH-53, UH-1Y, AH-1Z, and KC-130J The Philippines: 530 Philippine Marines and 100 members of The Philippines Navy and Air Force Japan: 30 members of the JGSDF South Korea: approximately 100 Republic of Korea Marines	Combined Arms Live-Fire Exercise, amphibious Operations
79	Noble Mist 22	10.04-10.08	South China Sea	US, Japan, Australia , Canada	US: USS Milius (DDG-69), USS Higgins (DDG-76) Japan: JS Kirisame (DDG-174) Australia: HMAS Hobart (DDG-39), HMAS Stuart (FFH-153), HMAS Stalwart (A-304) Canada: HMCS Winnipeg (FFH-338)	Anti-submarine warfare

80	Exercise Sama Sama-Lumbas	10.11-10.18	Sulu Sea	US, the Philippines, Japan, Australia, UK, France	US: USS Milius (DDG-69), 1 P-8A and CTF72, 73, 75 Japan: JS Kirisame (DDG-174), US-2 Australia: HMAS Hobart (DDG-39) and HMAS Stalwart (A-304) The Philippines: C90, BRP Jose Rizal (FF-150) France: Falcon 200 Guardian from Flotilla 25F UK: HMS Spey (P-234)	Surface warfare exercise, anti-submarine warfare, search and rescue exercise, replenishment at Sea, etc
81	NOBLE FUSION 22	10.19-10.21	South China Sea	US, Japan	US: USS Oakland (LCS-24) Japan: JS Kirisame (DDG-174)	Tactical Exercise
82	Mine Warfare Exercise	10.24	Philippine Sea	US	US: 4 B-1B, USS Ronald Reagan (CVN-76) CSG	Mine Warfare Exercise
83	Trilateral training	10.24-10.28	Philippine Sea	US, Japan, Canada	US: USS Ronald Reagan(CVN-76), USS Chancellorsville(CG-62), USS Higgins(DDG-76), USS New Orleans (LPD-18); Japan: JS Kirisame (DDG-174); Canada: HMCS Vancouver (FFH-331), HMCS Winnipeg (FFH-338)	Tactical Exercise
84	CARAT Brunei	10.24-10.31	Brunei	US, Brunei	US: USS Charleston (LCS-18), P-8A	/
85	Bilateral Exercise	10.26-10.27	Japan	US, Japan	US: P-8A Japan: P-3C	Anti-submarine warfare, LINEX
86	Bilateral Exercise	10.27	Miyako Island	US, Japan	US: 1 CV-22, 1 MC-130J Japan: 1 U-125A, 1 UH-60J	Search and rescue exercise
87	Bilateral	10.27-1	Okinawa	US, Japan	US: P-8A	Anti-submarine

					Japan: P-3C	warfare, anti-surface warfare exercise, LINEX
	Exercise	0.28			Japan: P-3C	warfare, anti-surface warfare exercise, LINEX
88	MALABAR 2022	11.08-11.15	Philippine Sea	US, Japan, Australia, India	US: USS Ronald Reagan(CVN-76), USS Chancellorsville(CG-62), USS Milius(DDG-69), P-8A; Japan: JS Takanami(DD-110), JS Shiranui(DD-120), JS Hyuga(DDH-181), JS Kunisaki(LST-4003), JS Oumi(AOE-426), submarine, P-1 and UP-3D; Australia: HMAS Stuart(FFH-153), HMAS Stalwart (A-304), submarine and P-8A; India: INS Shivalik (F-47), INS Kamorta(P-28), P-8I, MARCOS	Submarine integration, anti-submarine warfare training, air defense exercises, multinational replenishment-at-sea operations, communications drills, joint warfighting planning scenarios, gunnery exercise, and maritime interdiction operations
89	Tactical training	11.09	Philippine Sea	US	US: B-1B, A-10C, KC-135	Joint exercise
90	Keen Sword 23	11.10-11.19	Amami Islands	US, Japan, Australia, Canada	US: USS Ronald Reagan (CVN-76), USS Benfold (DDG-65), USS New Orleans (LPD-18), etc. Japan: JS Setogiri (DD-156), JS Atago (DDG-177), JS Ashigara (DDG-178) Canada: HMCS Vancouver (FFH-331), HMCS Winnipeg (FFH-338)	Distributed, combined and joint maritime operations

					Australia: HMAS Hobart (DDG-39)	
91	Trilateral training	11.19-11.20	Philippine Sea	US, Japan, Australia	US: USS Ronald Reagan (CVN-76), USS Chancellorsville (CG-62), USS Milius (DDG-69) Japan: JS Setogiri (DD-156) Australia: HMAS Stalwart (A-304)	Air defense exercise and anti-surface warfare exercise and replenishment at Sea
92	Bilateral Exercise	11.18-11.28	Japan	US, Japan	US: 2MSO and 2MH-53E Japan: 1MST, 3MSO, 16MSC, 3MCH-101	Mine laying, mine sweeping, and mine hunting
93	CARAT Malaysia 2022	11.18-11.30	Malaysia	US, Malaysia	US: USS Charleston (LCS-18), P-8A, and CTF71, 72, 73, 75	Anti-submarine warfare, air defense exercise and surface warfare exercise
94	Yama Sakura 83	11.28-12.13	Japan and Washington	US, Japan	Approximately 5, 700 members of the U.S. Department of Defense and Japan Ground Self-Defense Force	Cross-domain operations an multi-domain operations
95	Bilateral Exercise	11.29	Okinawa	US, Japan	US: 2 F-22, 1 KC-135, 2 EA-18, 4 F-35B Japan: 4 F-15	Tactical training
96	Fuji Viper 23.1	Nov.to Dec.	Japan	US, Japan	US: U.S. Marines Japan: JGSDF	Combat fire training, high-explosive range training, squad attack
97	Bilateral Exercise	12.02-12.08	Philippine Sea	US, Japan	US: USS Ronald Reagan (CVN-76), USS Shiloh (CG-67), USNS John Ericsson(T-AO-194) Japan: JS Ikazuchi	Anti-submarine warfare, replenishment at Sea etc.

					(DD-107)	
98	Bilateral Exercise	12.06	Japan	US, Japan	US: P-8A, MH-60R Japan: JS Izumo (DDH-183), P-1 and submarine	Anti-submarine warfare
99	CARAT Indonesia 2022	12.07-12.21	Indonesia	US, Indonesia	US: USS Makin Island (LHD-8), USS John P. Murtha (LPD-26) and USS Anchorage (LPD-23), 13th MEU Indonesia: KRI Raden Eddy Martadinata (331) and KRI Abdul Halim Perdakusuma (355), KRI Diponegoro (365) and KRI Teluk Banten (516), Indonesian Navy (TNI-AL) and Marine Corps (KORMAR RI)	Subject matter expert exchanges, standing up the bilateral command and control center, which will provide control over the at-sea and beach landing operations
100	Bilateral Exercise	12.14	Okinawa	US, Japan	US: 1 F-15C, 2 KC-135, 2 EA-18G, 2 F-35B Japan: 4 F-15	Tactical training
101	Bilateral Exercise	12.19	Guam	US, Japan	US: USS Nimitz (CVN-68), P-8A, F/A-18, E-2D, E/A-18G, B-52 Japan: P-1	Surface warfare exercise
102	Ryukyu Vice 23.1	December	Okinawa	US	US: U.S. Marines with Marine Air Control Squadron 4, Marine Fighter Attack Squadron (VMFA) 312, VMFA-242, U.S. Navy Sailors with Electronic Attack Squadron 131, and Marine Aerial Refueler Transport Squadron 152	Fixed-wing aviation command and control exercise