



SOUTH CHINA SEA STRATEGIC SITUATION
PROBING INITIATIVE

2019 US Military Exercises in the South China Sea and Neighboring Areas

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With a view to maintaining and promoting the peace, stability and prosperity of the South China Sea, Peking University Institute of Ocean Research has 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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2019 US Military Exercises in the South China Sea and Neighboring Areas

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Foreword

In 2019, the US military substantially strengthened the contents and intensity of military exercises in the South China Sea and its neighboring areas, and pressed ahead with over 100 reinforced joint military exercises and drills with countries surrounding the South China Sea and extra-regional powers. These exercises covered a wide range of activities, including anti-surface warfare (ASUW), undersea attack and defense, mine countermeasure (MCM) operations, air combat and defense, special operations, cyberspace operations, maritime domain awareness (MDA), maritime law enforcement, humanitarian aid and disaster reduction. In doing so, the US military sought to strengthen its military partnerships with regional allies and partners and ramp up military deterrence targeting China.

The US joint military exercises in the South China Sea and its neighboring areas involved ASEAN member states, and several other extra-regional powers, such as Japan, Australia, New Zealand, France, India and Canada. Specifically, in the joint exercises with ASEAN member states, the US not only included traditional subjects but also continuously adjusted and added new subjects and contents, highlighting maritime law enforcement, MDA and cyberspace operations. In the joint exercises with outside powers, the US made ongoing efforts to strengthen military operation drills with its most stable allies in the South China Sea and the neighboring areas, with a particular focus on maritime cooperative combat, anti-submarine warfare (ASW) and MCM operations. Building up strong military capabilities and increasing

combat readiness, Washington has been quite outspoken about its intention to get its allies involved in the affairs of the South China Sea.

All information of military exercises mentioned in this report is sourced from official websites of the US military. However, statistics in this report be deficient or incomplete, because the US military has not disclosed information of some sensitive exercises yet. The military exercises discussed in this report include both large traditional military exercises, such as the Cooperation Afloat Readiness and Training (CARAT) and the Southeast Asia Cooperation and Training (SEACAT) exercise, and tactical and small exercises or drills, including military exercises at the battalion and company levels, experience sharing on particular subjects and special subject matter exchanges of field drills. These exercises were primarily conducted in the South China Sea and Southeast Asian countries, and moderately extended to the eastern Indian Ocean, the Philippine Sea and Australia in east, the west and the south within the geographical scope of the ASEAN.

I . US Unilateral Military Exercises in the South China Sea and Neighboring Areas

The US arms and services launched several joint tactical exercises in the South China Sea and its neighboring areas in 2019, covering the fifth-generation fighter drills, ASW, joint air-sea battles, and surface formation drills. These exercises had unmistakably specific targets, although they were performed on a comparatively small scale over a short period of time.

Table 1 2019 US Unilateral Military Exercises in the South China Sea and Neighboring Areas (not exhaustive)

Name	Time	Location	Participant	Troop	Subject
Expeditionary strike training	Jan 26-Feb 6	Philippine Sea	US	The Marine Fighter Attack Squadron 121 (VMFA-121)	The F-35B aircraft performed sea strikes with ordnance fully-loaded
Ship Anti-Submarine Warfare Readiness and Evaluation Measurement (SHAREM) 199	July 5-10	Southern coast of Guam	US	The P-8A Poseidon aircraft from VP-5 and VP-8 and the USS Milius (DDG 69)	ASW
Tactical training	Aug 12-14	South China Sea and Philippine Sea	US	The B-52H Bombers from the 69th Expeditionary Bomber Squadron and the aircraft carrier USS Ronald Reagan (CVN-76) Strike Group	Sea-air battles
Tactical training	Oct 6	South China Sea	US	The aircraft carrier USS Ronald Reagan (CVN-76), the guided missile cruiser USS Antietam (CG 54), the guided missile cruiser USS Chancellorsville (CG 62), the guided missile destroyer USS Wayne E. Meyer (DDG 108) and the amphibious assault ship USS Boxer (LHD 6)	Formation sailing
Ordnance handling training	Nov 11	The Philippines	US	The submarine tender USS Emory S. Land (AS 39) and the Los Angeles-class attack submarine USS Asheville (SSN 758)	Ordnance handling training
Vigilant Guard 2020	Nov 21	Guam	US	The Hawaii National Guard	Disaster response exercise

1. Emphasized air-sea battles, particularly tactical coordination among different weaponry platforms

From August 12 to 14, the B-52H bombers assigned to the 69th Expeditionary Bomber Squadron (EBS), US Air Force took off from the Andersen Air Force Base (AFB), Guam in three consecutive days for the airspace near Luzon, the Philippines to conduct a joint exercise with the aircraft carrier USS Ronald Reagan (CVN-76) Strike Group sailing in the waters. Similar exercises were conducted by the US military in 2018. **The US resumed joint exercises between the B-52H Bombers and the Carrier Strike Group in 2019 to further boost the command and cooperation in US air-sea battles and demonstrate its deterrence with military forces.**

2. Actively conducted surface warfare drills and continuously enhanced the combat capabilities of carrier strike groups in formation

On October 6, the aircraft carrier USS Ronald Reagan (CVN-76), the guided missile cruiser USS Antietam (CG 54), the guided missile cruiser USS Chancellorsville (CG 62), the guided missile destroyer USS Wayne E. Meyer (DDG-108) and the amphibious assault ship USS Boxer (LHD 6) joined forces in a formation sailing exercise in the South China Sea.¹ At that time, the aircraft carrier USS Ronald Reagan (CVN-76) Strike Group was performing an autumn cruising mission in the waters, and the amphibious assault ship USS Boxer (LHD 6) sailed through the waters on its way back to the US following a deployment to the Middle East. **This type of “improvisational” exercises and drills helps the US military continuously sharpen the cooperation and coordination among different combat**

units and surface warships in carrier strike groups in formation, effectively preparing them for realistic warfare scenarios.

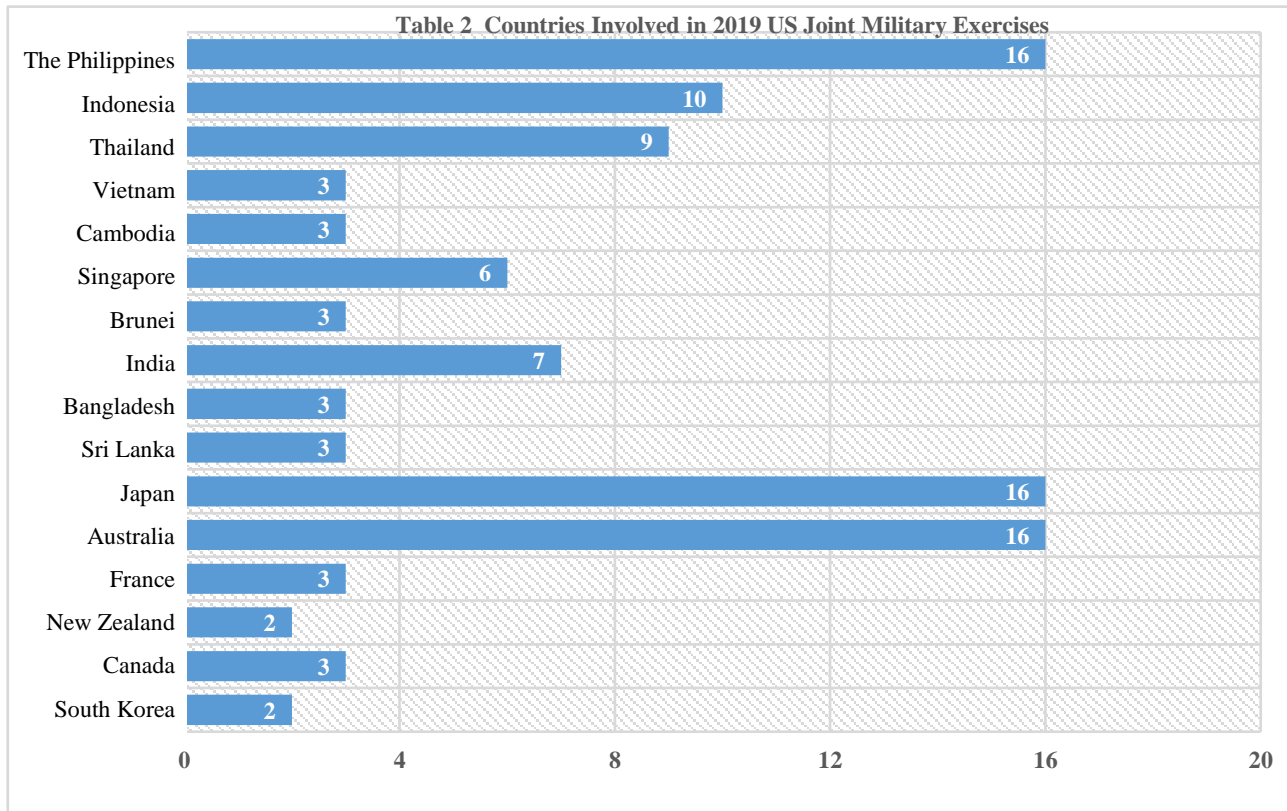
3. Reinforced live-fire ASW exercises to continuously enhance ASW capabilities

In early July, two P-8A Poseidon aircrafts from the Patrol Squadron Eight (VP-8) and the Patrol Squadron Five (VP-5) respectively joined the USS Milius (DDG 69) in a coordinated ASW exercise off the southern coast of Guam.² Generally speaking, exercises of this kind are conducted in the Contiguous United States or in waters near Hawaii. They are rarely seen in the West Pacific Region. **The intention of this ASW exercise off the southern coast of Guam might be to bolster the coordinated combat capabilities of ASW forces within the command scope of the Seventh Fleet, particularly the interoperability in real combat.**

4. Proactively tested the fifth-generation fighter operations to retain its advantages in regional air combat

In January 2019, during a military training of the USS Wasp Amphibious Ready Group (ARG) in the Philippine Sea, the F-35B Joint Strike Fighter loaded with CATM-9X air-to-air missiles, 500-pound GBU-12 Paveway II bombs, and 1,000-pound GBU-32 Joint Direct Attack Munition (JDAM) ordnance launched from its deck, and returned after striking simulated targets.³ **This was the first exercise of its kind performed by the F-35B Joint Strike Fighter from the US Marine Corps (USMC) in the West Pacific Region, playing an important role in sharpening the operational capabilities of the F-35B Joint Strike Fighter, especially its capability of air-to-ground strikes.**

II. US Bilateral and Multilateral Joint Military Exercises in the South China Sea and Neighboring Areas



According to an inexhaustive estimation, the US has conducted a total of **85** military exercises, big or small with major nations in the South China Sea and its neighboring areas in 2019 (as of November 30, similarly hereinafter). However, the actual number of joint exercises between the US and these nations is **much larger than** our estimation. The US Indo-Pacific Command noted in a press released on July 30 that there were around 22 annual exercises between Indonesia and the US,⁴ which reflects the real picture. In comparison, this report has access to information of mere ten exercises with Indonesia to count in. These exercises engaged various US military branches, including the Navy, Air Force, Marine Corps, Army and Coast Guard in a wide range of areas, including ASUW, ASW, underwater warfare, MCM operations, jungle warfare, cyberspace operations, MDA, humanitarian assistance and disaster relief (HADR) and maritime law enforcement. Participants of multilateral exercises include ASEAN member states and extra-regional countries, such as Japan, Australia,

India, France and Canada. There were traditional routine joint exercises, such as the CARAT and the SEACAT as well as new ones, such as the ASEAN-US Maritime Exercise (AUMX). **Both the frequency and the scale of exercises reached a new height.**

1. The Philippines

The US and the Philippines have conducted a total of 16 bilateral or multilateral military exercises in 2019, deepening tactics exchanges and cooperation based on routine annual exercises. They also ardently encouraged other countries to participate in their routine annual military exercises.

Table 3 2019 US-Philippines Military Exercises in the South China Sea and Neighboring Areas

Name	Time	Location	Participant	Troop	Subject
Bilateral Air Contingent Exchange-Philippines (BACE-P)	Jan 20-Feb 1	Cesar Basa Air Base, the Philippines	US and the Philippines	The 121st Fighter Squadron (121 FS), a unit of the District of Columbia Air National Guard and the Philippine Air Force (PAF)	Exchanges on the drills of tactics, intelligence, flightline, and aircraft maintenance
Subject matter expert exchange (SMEE)	Feb 24-27	Hawaii	US and the Philippines	Pilots from the US Air Force and the PAF	Exchange on aviation safety
Exercise Salaknib 2019	Mar 4-24	The Philippines	US and the Philippines	More than 1,600 soldiers from the Seventh Infantry Division of the US Army and the 7th Infantry Division of the Philippine Army	Jungle field training exercise (FTX), bilateral Command Post Exercise (CPX), various SMEEs, as well as Cooperative Health Engagements (CHE) and Humanitarian Civic Action (HCA) projects
Tactics drill	Mar 19	South China Sea	US and the Philippines	The 7th Fleet flagship USS Blue Ridge (LCC 19) and the frigate BRP Ramon Alcaraz (FF 16)	Drills of communications, maneuver and operations
Balikatan 2019 (i.e., shoulder-to-shoulder)	Apr 1-12	The Philippines	US, the Philippines and Australia	The Amphibious Assault Ship USS Wasp (LHD 1), the 31st Marine Expeditionary Unit (MEU), the PAF and the Philippine Marine Corps (PMC)	28 major subjects including amphibious operations, live-fire training, urban operations training and counterterrorism training
Joint search-and-rescue exercises	May 14	South China Sea	US and the Philippines	The US Coast Guard (USCG) Cutter Bertholf (WMSL 750), the Philippine Coast Guard patrol vessels BRP Batangas (SARV 004) and the BRP Kalangaman (FPB 2404)	Joint search-and-rescue exercises

Marine Aviation Support Activity (MASA) 19.2	July 15-25	The Philippines	US and the Philippines	The Marine Medium Tiltrotor Squadron 262 (VMM-262) and the 3rd Battalion, 6th Marine Regiment, USMC	Mutual defense, counterterrorism and HADR
SEACAT	Aug 19	Singapore	US, Bangladesh, Brunei, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Sri Lanka, Thailand and Vietnam	The Destroyer Squadron 7, the P-8A Poseidon aircraft and the USCG	Visit, board, search and seizure (VBSS)
SMEE	Aug 30	The Philippines	US and the Philippines	The USMC, the PN and the PMC	SMEE on amphibious assault vehicle (AAV)
AUMX	Sept 2-6	South China Sea	US and ASEAN member states	The littoral combat ship USS Montgomery (LCS 8), the guided-missile destroyer USS Wayne E. Meyer (DDG 108), three MH-60 helicopters, and a P-8A Poseidon aircraft	VBSS, MDA, division tactics and maritime asset tracking
SMEE	Sept 9-11	The Philippines	US and the Philippines	The medical personnel from the US Pacific Air Forces and the PAF	SMEE on aeromedical evacuation
Lifesaving First Aid Training	Sept 20-22	The Philippines	US and the Philippines	The US Army and the Philippine Army	Medical training known as Tactical Combat Casualty Care
Combined Airborne Operation	Sept 22	The Philippines	US and the Philippines	The 1st Battalion, 501st Infantry Regiment (Airborne), 4th Infantry Brigade Combat Team (Airborne), 25th Infantry Division, the Philippine First Scout Ranger Regiment and the Special Forces Regiment (Airborne)	Combined airborne training and the simulation of large-scale rapid deployment forces
KAMANDA G 3	Oct 9-18	Luzon and Palawan, the Philippines	US, the Philippines and Japan	The Amphibious Transport Ship BRP Davao (LD 602) and the Whidbey Island-class dock landing ship USS Germantown (LSD 42)	Amphibious operations, live-fire training, urban operations, aviation operations, counterterrorism training, HADR and disaster reduction training
Maritime Training Activity (MTA) Sama Sama	Oct 14-21	Puerto Princesa, Philippines	US, Japan and the Philippines	The littoral combat ship USS Montgomery (LCS 8), the Whidbey Island-class dock landing ship USS Germantown (LSD 42), the Spearhead-class expeditionary fast transport USNS Millinocket (T-EPF 3), the Safeguard-class salvage ship USNS Salvor (ARS 52), the Legend-class cutter USCG Stratton (VMSL 752) and a P-8A Poseidon aircraft	The exercise consisted of shore-based and at-sea activities. Shore-based events included a series of SMEEs on a range of naval capabilities, including MDA, force protection, medical care, HADR, explosive ordnance disposal, dive and salvage operations, engineering, aviation, and VBSS operations. The at-sea phase included VBSS drills, division tactics, a search and rescue exercise, helicopter deck landing qualifications, anti-air and surface warfare tracking, and vessel of interest tracking.

Joint medical outreach project	Oct 23	The Philippines	US and the Philippines	The US Special Operations Command Pacific soldiers and soldiers from the Philippine National Police Special Action Forces 51st Special Action Company	Battlefield first-aid services
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2. Indonesia

The US and Indonesia conducted a total of **10** bilateral or multilateral military exercises in 2019, covering air combat, jungle warfare, cyberspace operations and specialized specific areas. Routine annual exercises, including the Cope West 2019 field training exercise, the CARAT and the SEACAT were held as schedule, **while cooperation and exchanges in emerging fields, such as cyberspace operations were also enhanced.**

Table 4 2019 US-Indonesia Military Exercises in the South China Sea and Neighboring Areas

Name	Time	Location	Participant	Troop	Subject
Exercise Cobra Gold 2019	Feb 12-22	Thailand	29 countries, including US, Thailand, Japan, Indonesia, Malaysia and Singapore	Approximately 4,500 US personnel from the Amphibious Transport Dock Ship USS Green Bay (LPD 20), the 31st MEU and the 35th Fighter Squadron	Cyber FTX, FTX, HADR
Cope West 2019 Field Training Exercise	June 17-28	North Sulawesi, Indonesia	US and Indonesia	Six US Air Force F-16CM/DM aircrafts from the 14th Expeditionary Fighter Squadron and six F-16 aircrafts from the Indonesian Air Force	Aircraft maintenance techniques, close air support (CAS), air-to-air operation training and a SMEE
Information System and Technology Exchange (ISTX)	July 24-26	Indonesia	US and Indonesia	US and Indonesia service members specializing in cybersecurity	SSME on cybersecurity and protection

CARAT	Aug 1-7	Surabaya, Indonesia	US and Indonesia	Staff from CTF 73 and DESRON 7, the littoral combat ship USS Montgomery (LCS 8), the Spearhead-class expeditionary fast transport USNS Fall River (T-EPF 4), the Legend-class cutter USCG Stratton (VMSL 752), the MV Carolyn Chouest, the Navy Environmental and Preventive Medicine Unit 6, the US 7th Fleet Band and a P-8 Poseidon aircraft.	Evolutions included both shore-based and at-sea training, such as VBSS drills, mobile dive and salvage training, gunnery exercises, explosive ordnance disposal (EOD) drills, jungle warfare training and subject matter expert knowledge exchanges in MDA and other subjects
Bilateral Military Training Exchange between Marine Corps	Aug 6-29	Indonesia and Hawaii	US and Indonesia	The Alpha Company of the 1st Battalion of the 3rd Marine Regiment	Live-fire ranges, and integrated cultural events
Garuda Shield 2019	Aug 19	Indonesia	US and Indonesia	The 1st Battalion, 27th Infantry Regiment and the 16th Combat Aviation Brigade	SMEEs and platoon live-fire exercises
SEACAT	Aug 19	Singapore	US, Bangladesh, Brunei, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Sri Lanka, Thailand and Vietnam	The Destroyer Squadron 7, the P-8A Poseidon aircraft and the USCG	VBSS
AUMX	Sept 2-6	South China Sea	US and ASEAN member states	The littoral combat ship USS Montgomery (LCS 8), the guided-missile destroyer USS Wayne E. Meyer (DDG 108), three MH-60 helicopters, and a P-8A Poseidon aircraft	VBSS, MDA, division tactics and maritime asset tracking
GEMA BHAKTI 19 (GB19) Staff Exercise (STAFFEX) (Echo of Good Deeds in Indonesian)	Sept 16-23	Indonesia	US and Indonesia	The Hawaii National Guard (HING) and the Tentara Nasional Indonesia (TNI, Indonesian Armed Forces)	Joint operational staff planning and processes
SMEE	Oct 11	The 7th Fleet flagship USS Blue Ridge (LCC 19)	US and Indonesia	The staff from the US Navy and the Indonesian Navy	Staff talks

3. Thailand

The US and Thailand conducted a total of **9** bilateral or multilateral military exercises in 2019, including air combat, ASW, MCM operations, jungle warfare, counter improvisational explosive device (CIED) removal and disposal, battlefield engineering, and medical evacuation. **In the military field, Thailand is one of the US closest military partners with the widest cooperative scope of military exercises in Southeast Asia.**

Table 5 2019 US-Thailand Military Exercises in the South China Sea and Neighboring Areas

Name	Time	Location	Participant	Troop	Subject
SMEE	Jan 17	Lopburi, Thailand	US and Thailand	The 1st Battalion, 112th Aviation Regiment, 96th Aviation Troop Command, Washington National Guard and the Royal Thai Army	Exchange on aviation safety
Hanuman Guardian 19	Jan 28-Feb 7	Thailand	US and Thailand	Approximately 800 US Army soldiers operating under the US Army 2nd Stryker Brigade Combat Team and approximately 900 Royal Thai Army soldiers under the Headquarters of 2nd Infantry Division and the 12 Infantry Regiment	Aviation assets, CIED tactics and SMEEs
Exercise Cobra Gold 2019	Feb 12-22	Thailand	29 countries, including US, Thailand, Japan, Indonesia, Malaysia and Singapore	Approximately 4,500 US personnel from the Amphibious Transport Dock Ship USS Green Bay (LPD 20), the 31st MEU and the 35th Fighter Squadron	Cyber FTX, FTX, HADR
COPE Tiger Exercise	Mar 11-22	Thailand	US, Thailand and Singapore	The 14th Fighter Squadron, the Republic of Singapore Air Force and the Royal Thai Air Force	Air combat exercises and the suppression of enemy air defenses (SEAD)
SMEE	Mar 18-22	Thailand	US and Thailand	The US Army and the Royal Thai Army	A subject matter exchange on combat engineering
Guardian Sea 2019	Apr 7	Andaman Sea	US and Thailand	The Los Angeles-class attack submarine USS Louisville (SSN-724), an underway replenishment oiler, two frigates, a corvette and a Sea Hawk helicopter from the Royal Thai Navy (RTN)	The exercise was organized in two phases with a shore phase and a subsequent sea phase that culminated with tracking a submarine. It marked the first time the RTN deployed a towed array sonar to execute anti-submarines missions.

US-Thailand CARAT	May 29-June 8	Thailand	US and Thailand	The guided missile cruiser USS Antietam (CG 54), the USS Patriot (MCM-7), the USS Pioneer (MCM-9), the USNS Millinocket (T-EPF-3), the Marine Rotational Force-Darwin Task Force, the US Navy Seventh Fleet Band, the Explosive Ordnance Disposal Mobile Unit (EODMU) 5 and the Naval Environmental Preventive Medicine Unit 6	Surface warfare maneuvering tactics, VBSS drills, mobile dive and salvage training, explosive ordnance disposal (EOD), minesweeping and maritime patrol operations. MDA, submarine warfare, tactics tabletop exercises, integrated dive team training, EOD, jungle survival training and medical casualty evacuation (CASEVAC) field training exercises
AUMX	Sept 2-6	South China Sea	US and ASEAN member states	The littoral combat ship USS Montgomery (LCS 8), the guided-missile destroyer USS Wayne E. Meyer (DDG 108), three MH-60 helicopters, and a P-8A Poseidon aircraft	VBSS, MDA, division tactics and maritime asset tracking
SEACAT	Aug 19	Singapore	US, Bangladesh, Brunei, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Sri Lanka, Thailand and Vietnam	The Destroyer Squadron 7, the P-8A Poseidon aircraft and the USCG	VBSS

4. Malaysia

In 2019, the US and Malaysia conducted **7** bilateral or multilateral joint exercises in total, which involved military field training exercises, humanitarian assistance, jungle warfare, close air support, damage control and peacekeeping. **Nevertheless, the cooperation between the US and Malaysia was relatively superficial** and most programs remained in specialized military fields except Maritime Training Activity Malaysia 2019 and Tiger Strike 19.

Table 6 2019 US-Malaysia Military Exercises in the South China Sea and Neighboring Areas

Name	Time	Location	Participant	Troop	Subject
Exercise Cobra Gold 2019	Feb 12-22	Thailand	29 countries including US, Thailand, Japan, Indonesia, Malaysia and Singapore	Approximately 4,500 US personnel from the Amphibious Transport Dock Ship USS Green Bay (LPD 20), the 31st Marine Expeditionary Unit and the 35th Fighter Squadron of US Air Force	Cyber FTX, FTX, HADR
Keris Strike Joint Exercise	Mar 11 - 15	Malaysia	US, Malaysia	The Washington National Guard, the 25th Combat Aviation Brigade of the US Army and the 11th Infantry Brigade of Malaysian Army	SMEEs on anti-terrorism, military police, unmanned systems, civil affairs, nuclear, chemical and biological weapons, blasting, etc.

Bersama Warrior Command Post Exercise	Mar 20	Malaysia	US, Malaysia	The Washington National Guard and the Malaysian Army	Simulated peacekeeping operation in the command post
Maritime Training Activity Malaysia 2019	Aug 14-19	Malaysia	US, Malaysia	The USS Littoral Combat Ship (LCS) Montgomery, the Legend-class cutter USCG Stratton (VMSL 752), Salvage Ship Grasp, T-EPF Millinocket, the 1st Tactical Diving & Salvage Forces, one MH-60S Seahawk helicopter and one MH-65 Dolphin helicopter	Exercises were divided into shore-based and at-sea phases, including such subjects as riverside inspection, tactical diving and salvage, firearms exercises, maritime patrol and operations, replenishment-at-sea training, etc. During shore-based exercises, SMEEs were carried out around such topics as aviation, women's leadership, damage control, military law, public affairs and healthcare
SEACAT	Aug 19	Singapore	US, Bangladesh, Brunei, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Sri Lanka, Thailand and Vietnam	The Destroyer Squadron 7, the P-8A Poseidon aircraft and the USCG	VBSS
AUMX	Sept 2-6	South China Sea	US and ASEAN member states	The littoral combat ship USS Montgomery (LCS 8), the guided-missile destroyer USS Wayne E. Meyer (DDG 108), three MH-60 helicopters, and a P-8A Poseidon aircraft	VBSS, MDA, division tactics and maritime asset tracking
Tiger Strike 19 joint exercise	Sept 30-Oct 5	Malaysia	US, Malaysia	The USS Boxer (LHD 6) Amphibious Ready Group and the Legend-class cutter USCG Stratton (VMSL 752)	Jungle warfare, CAS

5. Japan

In 2019, the US and Japan conducted 16 bilateral or multilateral joint exercises in the South China Sea and neighboring areas, the frequency of which increased greatly. In addition to the multilateral exercises of “Sama Sama” maritime training activity and “Maritime Warrior Cooperation 3”, the US and Japan held additional six joint exercises. **The US and Japan joint exercises mainly focus on naval formation sailing, replenishment-at-sea training, air combat, ASW and other aspects, with a strong significance for real war scenario.**

Table 7 2019 US-Japan Military Exercises in the South China Sea and Neighboring Areas

Name	Time	Location	Participant	Troop	Subject
Exercise Cobra Gold 2019	Feb 12-22	Thailand	29 countries including US, Thailand, Japan, Indonesia, Malaysia and Singapore	Approximately 4,500 US personnel from the Amphibious Transport Dock Ship USS Green Bay (LPD 20), the 31st Marine Expeditionary Unit and the 35th Fighter Squadron of US Air Force	Cyber FTX, FTX, HADR
Cope North Exercise	Feb18-Mar 8	Guam	US, Japan, Australia	Approximately 2,000 from the US army, 850 are Self Defense Force and Australian soldiers and nearly 100 military aircrafts	Air combat exercise
US, Japan and UK Joint anti-submarine exercise	Mar 14	Philippine Sea	US, Japan and UK	The USS Patrol Squadron 16, one P-8A Poseidon aircraft, the HMS Frigate Montrose, the Japan Maritime Self-Defense Force (JMSDF) destroyer Murasame, P-1 JMSDF maritime patrol aircraft, one submarine.	Joint anti-submarine training
Replenishment-at-sea training	Apr 16	South China Sea	US, Japan	The fleet replenishment oiler USNS Pecos and the JMSDF ship JS Suzutsuki (DD 117)	Replenishment-at-sea training
Tactical training	May 2-8	South China Sea	US, India, Japan	The guided-missile destroyer USS William P. Lawrence (DDG 110), the Indian Navy destroyer INS Kolkata (D 63) and the tanker INS Shakti (A 57), the JMSDF helicopter-carrier JS Izumo (DDH 183), the JMSDF destroyer JS Murasame (DD 101), and the Republic of Philippine Navy patrol ship BRP Andres Bonifacio (PS 17)	Formation sailing and communication drills
Tactical training	May 16	Indian Ocean	US, Australia, Japan, France	The guided-missile destroyer USS William P. Lawrence (DDG 110), the HMAS Toowoomba (FFH 156), the submarine HMAS Collins (SSG 73), the JMSDF helicopter-carrier JS Izumo (DDH 183), the JMSDF destroyer JS Murasame (DD 101), and the French Marine Nationale aircraft carrier FS Charles de Gaulle (R 91) Strike Group	Naval formation and tactics exercise
Tactical training	May 18	Strait of Malacca	US, Japan	The guided-missile destroyer USS William P. Lawrence (DDG 110), the JMSDF helicopter-carrier JS Izumo (DDH 183), the JMSDF destroyer JS Murasame (DD 101)	Communication drill

The first Pacific Vanguard exercise	May 22	Guam	US, Japan, Australia, South Korea	The 7th Fleet flagship USS Blue Ridge (LCC 19), the guided-missile cruiser USS Antietam (CG 54), guided-missile destroyer USS Curtis Wilbur (DDG 54), the fleet replenishment oiler USNS Rappahannock (T-AO 204), the dry cargo/ammunition ship USNS Richard E. Byrd (T-AKE 4), aircrafts from the "Scorpions" of Electronic Attack Squadron (VAQ 132) and the "Mad Foxes" of Patrol Squadron (VP 5), frigates HMAS Melbourne (FFG 05) and HMAS Parramatta (FFH 154), destroyers JS Ariake (DD 109) and JS Asahi (DD 119), the destroyer ROKS Wang Geon (DDH 978)	Joint tactical mobility, live fire exercise, anti-air warfare (AAW), antisubmarine warfare (ASW), replenishment-at-sea training
Tactical training	June 10-12	South China Sea	US, Japan	The aircraft carrier USS Ronald Reagan (CVN-76), the JMSDF helicopter-carrier JS Izumo (DDH 183), the JMSDF destroyer JS Murasame (DD 101), and the JS Akebono (DD-108)	Communication check, tactical mobility, liaison officer exchange, etc.
Tactical training	June 16	Philippine Sea	US, Japan	The Amphibious Assault Ship USS Wasp (LHD 1), the amphibious Transport Dock USS Ashland (LSD 48), the Amphibious Transport Dock Ship USS Green Bay (LPD 20), the fleet replenishment oiler USNS Rappahannock (T-AO 204), the dry cargo and ammunition ship USNS Amelia Earhart (T-AKE 6), the JMSDF helicopter destroyer JS Ise (DDH 182), the JMSDF Amphibious Transport Ship JS Kunisaki (LST 4003)	Formation sailing
Tactical training	June 19 - 20	South China Sea	US, Japan	The aircraft carrier USS Ronald Reagan (CVN-76), the JMSDF helicopter-carrier JS Izumo (DDH 183), the JMSDF destroyer JS Murasame (DD 101), and the JS Akebono (DD-108)	Communication check, tactical mobility, liaison officer exchange, etc.
Exercise Talisman Sabre 2019	July 7	Australia	US, Australia, Japan	The aircraft carrier USS Ronald Reagan (CVN-76) Strike Group, the USS Wasp (LHD 1) Amphibious Ready Group, the F-22 Raptor, etc.	Amphibious warfare, ASW
Tactical training	Aug 13-23	Philippine Sea	US, Japan	The aircraft carrier USS Ronald Reagan (CVN-76) Strike Group, the JMSDF destroyer Myoko (DDG 175)	Tactical training
"Maritime Warrior Cooperation 3" joint exercise	Oct 9-18	Luzon and Palawan in the Philippines	US, the Philippines, Japan	The Amphibious Transport Ship BRP Davao (LD 602), the Whidbey Island-class dock landing ship USS Germantown (LSD 42)	Amphibious warfare, live fire exercise, urban operations, air combat and anti-terrorism action, HADRexercises

Maritime Training Activity (MTA) Sama Sama	Oct 14-21	Puerto Princesa, Philippines	US, Japan and the Philippines	The littoral combat ship USS Montgomery (LCS 8), the Whidbey Island-class dock landing ship USS Germantown (LSD 42), the Spearhead-class expeditionary fast transport USNS Millinocket (T-EPF 3), the Safeguard-class salvage ship USNS Salvor (ARS 52), the Legend-class cutter USCG Stratton (VMSL 752) and a P-8A Poseidon aircraft	The exercise consisted of both shore-based and at-sea activities. Shore-based events included a series of SMEEs on a range of naval capabilities, including MDA, force protection, medical care, HADR, explosive ordnance disposal, dive and salvage operations, engineering, aviation, and VBSS operations. The at-sea phase included VBSS drills, division tactics, a search and rescue exercise, helicopter deck landing qualifications, anti-air and surface warfare tracking, and vessel of interest tracking.
Tactical training	Oct 24 - Nov 2	Philippine Sea	US, Japan	The aircraft carrier USS Ronald Reagan (CVN-76) Strike Group, the JMSDF Escort Division 12	Tactical training

6. Australia

In 2019, the US and Australia conducted **16** bilateral or multilateral joint exercises in the South China Sea and neighboring areas, including 2 joint exercises in the South China Sea, 5 in Guam and the remaining mostly in Australia. **The exercises mainly focused on core operations such as ASW, air warfare, underwater warfare, MCM warfare and replenishment-at-sea training.**

Table 8 2019 US-Australia Military Exercises in the South China Sea and Neighboring Areas

Name	Time	Location	Participant	Troop	Subject
Sea Dragon Exercise	Jan 14-22	Waters off Guam	US, Australia	Four USS and one RAAF P-8A Poseidon aircrafts, one Los Angeles-class attack submarine	Joint anti-submarine training
Cope North Exercise	Feb 18-Mar 8	Guam	US, Japan, Australia	Approximately 2,000 from the US army, 850 are Self Defense Force and Australian soldiers and nearly 100 military aircrafts	Air combat exercise
Joint submarine training	Feb 26	Waters off Australia	US, Australia	The Los Angeles-class attack submarine USS Santa Fe (SSN-763), the submarine HMAS Collins (SSG 73), the submarine HMAS Farncomb (SSG 74), the submarine HMAS Dechaineux (SSG 76), the submarine HMAS Sheean (SSG 77)	Underwater warfare
Diamond Shield 2019 Joint Exercise	Mar 18	Darwin, Australia	US, Australia	B-52 Stratofortresses assigned to the 23rd Expeditionary Bomber Squadron (EBS)	Training for Australian air force cadets
Balikatan	Apr 1-12	The Philippines	US, the Philippines, Australia	The Amphibious Assault Ship USS Wasp (LHD 1), the 31st MEU with the PAF and the PMC	28 events including amphibious warfare, live fire exercise, urban operations, anti-terrorism operation

“Diamond Storm” Exercise	May 6- 26	Darwin, Australia	US, Australia	The California Air National Guard's 194th Expeditionary Fighter Squadron and the Royal Australian Air Force (RAAF)	Cooperative combat
Tactical training	May 16	Indian Ocean	US, Australia, Japan, France	The guided-missile destroyer USS William P. Lawrence (DDG 110), the HMAS Toowoomba (FFH 156), the submarine HMAS Collins (SSG 73), the JMSDF helicopter-carrier JS Izumo (DDH 183), the JMSDF destroyer JS Murasame (DD 101), and the French Marine Nationale aircraft carrier FS Charles de Gaulle (R 91) Strike Group	Naval formation and tactics exercise
The first Pacific Vanguard exercise	May 22	Guam	US, Japan, Australia, South Korea	The 7th Fleet flagship USS Blue Ridge (LCC 19), the guided-missile cruiser USS Antietam (CG 54), guided-missile destroyer USS Curtis Wilbur (DDG 54), the fleet replenishment oiler USNS Rappahannock (T-AO 204), the dry cargo/ammunition ship USNS Richard E. Byrd (T-AKE 4), aircrafts from the "Scorpions" of Electronic Attack Squadron (VAQ 132) and the "Mad Foxes" of Patrol Squadron (VP 5), frigates HMAS Melbourne (FFG 05) and HMAS Parramatta (FFH 154), destroyers JS Ariake (DD 109) and JS Asahi (DD 119), the destroyer ROKS Wang Geon (DDH 978)	Joint tactical mobility, live fire exercise, AAW, ASW, replenishment-at-sea training
Exercise Talisman Sabre 2019	July 7	Australia	US, Australia, Japan	The aircraft carrier USS Ronald Reagan (CVN-76) Strike Group, the USS Wasp (LHD 1) Amphibious Ready Group, the F-22 Raptor, etc.	Amphibious warfare, ASW
“Hydra Crab” Joint Exercise	Aug 19- Sept 3	Guam	US, Australia, Canada, New Zealand	The EODMU 5, the Coastal Riverine Squadron 2, the III Marine Expeditionary Forces, the 36th Civil Engineering Squadron, the Helicopter Sea Combat Squadron (HSC) 25	Mainly focused on the training of EOD, VBSS, land and sea insertion techniques, joint demolition operation, small arm proficiency, CIED, anti-terrorism force protection (ATFP), diving operations
Exercise Koolendong	Aug 21-29	Darwin, Australia	US, Australia	The US and Australian Marine Corps	Live fire exercise
Tactical training	Sept 13	Australia	US, Australia	The submarine tender USS Emory S. Land (AS 39), and the submarine HMAS Sheean	Joint training
Pacific Reach exercise	Nov 4	Australia	US, Australia	The US and Australian Navy	Submarine rescue
Tactical training	Nov 6-12	South China Sea	US, Australia	The littoral combat ship USS Montgomery (LCS 8) and the frigate HMAS Stuart (FFH 153), and the fleet replenishment vessel HMAS Sirius (O 266)	Formation sailing and replenishment-at-sea training
Dugong 2019 Mine Countermeasures (MCM) Exercise	Nov 11-15	Australia	US, Australia, UK, Canada, New Zealand	The Navy of the five countries	MCM operations

The second Pacific Vanguard joint exercise	Nov 20	Guam	US, Canada, Australia, South Korea	The guided missile cruiser USS Chancellorsville (CG 62), the fleet replenishment oiler USNS Pecos (T-AO 197), the dry cargo/ammunition ship USNS Carl Brashear (T-AKE 7) and a submarine. Aircraft from the “Yellow Jackets” of Electronic Attack Squadron 138 and the “Red Lancers” of Patrol Squadron 10	ASW, formation exercises
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7. Singapore

In 2019, the US and Singapore conducted **six** bilateral or multilateral joint exercises in the South China Sea and neighboring areas, including two bilateral exercises which were respectively the tactical drill in Guam from mid-June to mid-July and the Pacific Griffin 2019 joint exercise in Guam from late September to early October. **The bilateral exercises between the US and Singapore might be few in number but close in the depth of cooperation.**

Table 9 2019 US-Singapore Military Exercises in the South China Sea and Neighboring Areas

Name	Time	Location	Participant	Troop	Subject
Exercise Cobra Gold 2019	Feb 12-22	Thailand	29 countries including US, Thailand, Japan, Indonesia, Malaysia and Singapore	Approximately 4,500 US from the Amphibious Transport Dock Ship USS Green Bay (LPD 20), the 31st Marine Expeditionary Unit and the 35th Fighter Squadron of US Air Force	Cyber FTX, FTX, HADR
COPE Tiger Exercise	Mar 11-22	Thailand	US, Thailand, Singapore	The 14th Fighter Squadron of US Air Force, the Republic of Singapore Air Force, the Royal Thai Air Force	Air combat exercise and the suppression of enemy air defenses (SEAD)
Tactical training	June 13-July 15	Guam	US, Singapore	The 122nd Fighter Squadron from the 159th Fighter Wing of the New Orleans Air National Guard, Louisiana, 6 RSAF F-16 fighters from the RSAF 140 Squadron, an RSAF G550 Airborne Early Warning aircraft, and 150 RSAF aircrew.	Tactical training
SEACAT	Aug 19	Singapore	US, Bangladesh, Brunei, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Sri Lanka, Thailand and Vietnam	The Destroyer Squadron 7, the P-8A Poseidon aircraft and the USCG	VBSS

AUMX	Sept 2-6	South China Sea	US and ASEAN member states	The littoral combat ship USS Montgomery (LCS 8), the guided-missile destroyer USS Wayne E. Meyer (DDG 108), three MH-60 helicopters, and a P-8A Poseidon aircraft	VBSS, MDA, division tactics and maritime asset tracking
Pacific Griffin 2019 Joint Exercise	Sept 27- Oct 10	Guam	US, Singapore	The littoral combat ship USS Gabrielle Giffords (LCS 10), destroyer USS Momsen (DDG 92), the Los Angeles-class submarine USS Key West (SSN 722), the dry cargo and ammunition ship USNS Amelia Earhart (T-AKE 6), several P-8A Poseidon aircrafts	Anti-surface warfare (ASUW), ASW

8. India

In 2019, the US and India conducted **six** bilateral or multilateral joint exercises in the South China Sea and neighboring areas, including five bilateral joint exercises. Exercises involved joint ASW operations, naval formation sailing, replenishment-at-sea training, marine law enforcement, ships mobility, etc. In the context that the US is accelerating the implementation of the Indo-Pacific Strategy, India has played an increasingly important role in the joint exercise and training.

Table 10 2019 US-India Military Exercises in the South China Sea and Neighboring Areas

Title of Exercise	Time	Location	Participant	Troop	Subject
US-India joint ASW exercise	Apr 15	Indian Ocean	US, India	The guided missile destroyer USS Spruance (DDG 111), P-8A Poseidon aircraft and the Indian Navy	Joint ASW training
Tactical training	May 2- 8	South China Sea	US, India, Japan	The guided-missile destroyer USS William P. Lawrence (DDG 110), the Indian Navy destroyer INS Kolkata (D 63) and the tanker INS Shakti (A 57), the JMSDF helicopter-carrier JS Izumo (DDH 183), the JMSDF destroyer JS Murasame (DD 101), and the Republic of Philippine Navy patrol ship BRP Andres Bonifacio (PS 17)	Formation sailing and communication drills
Tactical training	June 14	The Indian Ocean	US, India	The Amphibious Transport Dock Ship USS John Patrick Murtha (LPD 260) and the destroyer INS Ranvijay (D 55)	Maritime training
USCG joint training	Aug 23	Chennai, India	US, India	the Legend-class cutter USCG Stratton (VMSL 752)	Joint training

Yudh Abhyas 19 Exercise	Sept 5-19	US Joint Base Lewis Mcchor	US, India	The US Army 7th Infantry Division and the Indian Army 99th Mountain Brigade	Expert academic exchange, HADR
Replenishment -at-sea training	Nov 1	South China Sea	US, India	The dry cargo/ammunition ship USNS Richard E. Byrd (T-AKE 4), the anti-submarine warfare corvette INS Kiltan (P 30)	Replenishment-at-sea training
Joint “Tiger” amphibious exercises	Nov 13-21	India	US, India	The Whidbey Island-class dock landing ship USS Germantown (LSD 42) and the INS Jalashwa (L41)	VBSS, live fire exercise, ships mobility, Indian helicopters landing on US warships

9. Other Countries

Apart from the major countries mentioned above, the US military also conducted bilateral or multilateral joint exercises in the South China Sea and neighboring areas with Vietnam, Cambodia, Bangladesh, France and South Korea in 2019. These exercises included ASW, naval formation training, HADR.

Table 11 2019 Military Exercises in the South China Sea and Neighboring Areas by the US and Other Countries

Name	Time	Location	Participant	Troop	Subject
“La Perouse” Joint Anti-submarine Exercise	May 14	Indian Ocean	US, France	The Virginia-class submarine USS Hawaii (SSN 776), the French Marine Nationale aircraft carrier FS Charles de Gaulle (R 91) Strike Group	Joint ASW exercise
Tactical training	May 16	Indian Ocean	US, Australia, Japan, France	The guided-missile destroyer USS William P. Lawrence (DDG 110), the HMAS Toowoomba (FFH 156), the submarine HMAS Collins (SSG 73), the JMSDF helicopter-carrier JS Izumo (DDH 183), the JMSDF destroyer JS Murasame(DD 101), and the French Marine Nationale aircraft carrier FS Charles de Gaulle (R 91) Strike Group	Naval formation and tactics exercise

The first “pacific vanguard exercise”	May 22	Guam	US, Japan, Australia, South Korea	The 7th Fleet flagship USS Blue Ridge (LCC 19), the guided-missile cruiser USS Antietam (CG 54), guided-missile destroyer USS Curtis Wilbur (DDG 54), the fleet replenishment oiler USNS Rappahannock (T-AO 204), the dry cargo/ammunition ship USNS Richard E. Byrd (T-AKE 4), aircrafts from the "Scorpions" of Electronic Attack Squadron (VAQ 132) and the "Mad Foxes" of Patrol Squadron (VP 5), frigates HMAS Melbourne (FFG 05) and HMAS Parramatta (FFH 154), destroyers JS Ariake (DD 109) and JS Asahi (DD 119), the destroyer ROKS Wang Geon (DDH 978)	Joint tactical mobility, live fire exercise, AAW, ASW, replenishment-at-sea training
Tactical training	June 7	Andaman Sea	US, France	The USS Boxer (LHD 6) Amphibious Ready Group and the French Marine Nationale aircraft carrier FS Charles de Gaulle (R 91) Strike Group	Joint formation flight training
“Pacific Angel 19-1” Humanitarian Disaster Relief Exercise	June 22-28	Bangladesh	US, Bangladesh, Sri Lanka, Nepal	50 personnel from the US Air Force soldiers	Humanitarian disaster relief
SEACAT	Aug 19	Singapore	US, Bangladesh, Brunei, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Sri Lanka, Thailand and Vietnam	The Destroyer Squadron 7, the P-8A Poseidon aircraft and the USCG	VBSS
SMEE	Sept 16-20	Cambodia	US, Cambodia	The Idaho Army National Guard and the Royal Cambodian armed forces	SMEE on peacekeeping forces
SMEE	Sept 25-27	Vietnam	US, Vietnam	The US Air Force and the Vietnamese Air Force	Professional training for pilots
Disaster response training	Oct 27-31	Bangladesh	US, Bangladesh	The Oregon Army National Guard and the Bangladesh armed forces	Simulated earthquake disaster relief
US-Bangladesh CARAT Exercise	Nov 4-8	Bay of Bengal	US, Bangladesh	The USS Task Force 72 and 73, the USS Destroyer Squadron 7, the Mobile Diving and Salvage Unit (MDSU) 1, the USS Patrol Squadron (VP) 45 one P-8A Poseidon aircraft	Tactical diving and salvage, engineering, aviation, hydrogeography, MDA, maritime law enforcement, etc. Aviation exercises include air search and rescue and vessel of interest tracking
The second Pacific Vanguard joint exercise	Nov 20	Guam	US, Canada, Australia, South Korea	The guided missile cruiser USS Chancellorsville (CG 62), the fleet replenishment oiler USNS Pecos (T-AO 197), the dry cargo/ammunition ship USNS Carl Brashear (T-AKE 7) and a submarine. Aircraft from the “Yellow Jackets” of Electronic Attack Squadron 138 and the “Red Lancers” of Patrol Squadron 10	ASW, formation sailing

III. Characteristics of US Military Exercises in the South China Sea and Neighboring Areas

In a comprehensive review of the United States' unilateral, bilateral and multilateral military exercises in the South China Sea and neighboring areas in 2019, it is noticeable that **the exercises have remained within a relatively stable framework, while also focused on introducing new subjects, involving new participants, expanding ranges, and including new force elements.** Whether jointly conducted with countries in the South China Sea or the US' allies from other part of the world, all exercises serve as a major measure for the US to carry out military exchanges, promote military cooperation, and enhance combat capabilities. As countries involved in the military exercises are of different priorities in the US' foreign relationship with different military advantages, the joint military exercises have exhibited different levels of depth and priorities: **1) joint military exercises with countries in the region featuring more complex contents and subjects, involving every aspect of responding to non-traditional and traditional security threats, and were mainly for the purpose of enhancing the US' regional presence and maintaining its political and military influence; 2) joint military exercises with the UK, France, India and South Korea featuring stronger strategic intentions, mainly for getting more countries involved in the South China Sea; 3) joint military exercises with its core allies in the West Pacific, such as Japan and Australia, focused mainly on enhancing core combat capabilities, because the involvement of such countries could substantially help the US to drill its military forces and prepare for wars.**

Generally speaking, whether unilateral combined exercises by different military branches of the US, or bilateral and multilateral exercises with countries in the region, **they were much more targeted than before and feature stronger**

significance for realistic war scenarios. To summarize, these military exercises exhibited five new characteristics as follows:

1. Adjustments and innovations were made in addition to routine exercise contents and forms

In 2019, the US continued traditional military exercises with countries in the South China Sea and neighboring areas, including the Exercise Balikatan, MTA Sama Sama, CARAT, SEACAT, and the Exercise Cobra Gold 2019, etc. These traditional annual exercises basically remained stable in scale and duration. However, the specific subjects and contents showed subtle changes as well as adjustments or evolutions according to situational changes.

In early April, during the Guardian Sea, the annual anti-submarine exercise jointly held by the US Navy and the Royal Thai Navy, was held in the Andaman Sea.⁵ For the first time, the Royal Thai Navy deployed a towed array sonar, and had the Los Angeles-class attack submarine USS Louisville as its target. It was for the first time that the Royal Thai Navy targeted a US nuclear submarine in the drill and utilized a towed array sonar to carry out the strike.

In the Exercise COPE Tiger 2019 trilateral air force exercise of the US, Thailand and Singapore, F-16C fighter aircrafts from the 14th Fighter Squadron, **for the first time** in nearly two decades, executed the “suppression of enemy air defenses” mission to create a near- real battlefield scenario.⁶ In the meantime, the US airmen also delivered trainings to the Thai counterparts in air combat exercise. The goal was to help Thailand to cultivate joint terminal attack control (JTAC) airmen and establish a relatively mature air-to-ground combat model. JTAC plays an important

role in the US overseas military operations, especially air-to-ground strikes, and has achieved significantly in military operations in Afghanistan, Iraq and Syria, etc.

In the Exercise Pacific Griffin 2019 jointly conducted by the US and Singapore, the two parties, **for the first time**, introduced ASUW. In the first “Sinkex”, the Singapore Navy frigate cooperated with the US Navy’s P-8 Poseidon aircraft, the US Air Force B-52H bombers to bomb and sink the target, an ex-U.S. hulk, USS Ford (FFG 54).⁷

Intentions of the US are obvious by introducing new subjects into traditional drills, which are mainly of significant importance in wars, such as ASW, ASUS and air combat.

2. The US allies beyond the region were increasingly involved with a bigger role to play in the exercises

The Exercise Balikatan held in early April, an annual military exercise between the Philippines and the US, saw the participation of Australia **for the first time**.⁸ The Australian Defense Force dispatched a team with 50 members formed by special tasks soldiers, medical personnel, engineers and priests. It is justifiable to say that Australia participated in task force combat and battle field support subjects during the exercise. Japan participated in the US-Philippines Exercise Kamandag 3, where army forces from the three countries conducted an amphibious landing exercise. During the ship-to-shore maneuver, after the reconnaissance of the beach and perimeter alert building by the Philippines and the US, three country’s AAVs launching from the Amphibious Transport Ship BRP Davao (LD 602) and the Whidbey Island-class dock landing ship USS Germantown (LSD 42) came ashore, Philippine and US

Marines secured the objective, and JSDF led a medical evacuation disaster relief drill.⁹

Besides inviting solid allies to participate in traditional military exercises with ASEAN countries, the US also conducted bilateral drills in the South China Sea and neighboring areas to enhance their core combat capabilities. In May, when the French Navy deployed its carrier strike group led by Charles de Gaulle (R 91), a nuclear aircraft carrier, to the East Indian Ocean, the US Navy conducted the La Perouse Exercises with the French Navy. The US Navy attack submarine USS Hawaii (SSN-776) participated in the drill,¹⁰ followed by the US destroyer USS William P Lawrence (DDG 110), a missile destroyer, conducting a formation sailing with the Charles de Gaulle strike group. The US Navy conducted two joint drills with the Royal Navy in the South China Sea. In mid-January, the US Navy missile destroyer USS McCampbell (DDG 85) and the Royal Navy Type 23 frigate HMS Argyll (F231) conducted communication drills, division tactics and personnel exchange in the South China Sea.¹¹ In mid-February, the US Navy fleet replenishment oiler USNS Guadalupe (T-AO 200) and the Royal Navy frigate HMS Montrose (F236) conducted a replenishment drill.¹² In early November, the littoral combat ship USS Montgomery (LCS 8), the Royal Australian Navy Anzac-class frigate HMAS Stuart (FFH 153) and the fleet replenishment vessel HMAS Sirius (O 266) conducted joint operations and maritime replenishment drills.¹³ It was **the first time** that the US littoral combat ship received replenishments at sea from an allied navy vessel while underway, which reflected that the US and its allies are pursuing closer military cooperation in the South China Sea.

During the two Pacific Vanguard exercises in 2019, the US, Japan, Australia and South Korea brought together major surface ships to participate in surface warfare and anti-submarine drills. In both exercises, the US Navy dispatched EA-18G electronic warfare aircrafts from the Misawa Air Base, which simulated complex

electronic combat scenario for the exercise. **These exercises reflected that US and its solid allies are continuously enhancing their cooperation to elevate core combat capacities in the South China Sea and neighboring areas, and to enhance their interoperability under “emergent situations”.**

3. Cyberspace operations emerged as a new subject of the exercises

In 2019, the US conducted multiple military exercises involving cybersecurity operations, many of which were jointly held with countries in the Southeast Asia. In late July, the third annual Information System and Technology Exchange (ISTX) was held in Jakarta, Indonesia, by the Hawaii National Guard in cooperation with cybersecurity-related departments under the command of US Indo-Pacific Command, and Indonesian forces,¹⁴ aiming to assist in cybersecurity doctrine development, enhance the cybersecurity capabilities to effectively defend and protect critical cyber information infrastructure from malicious virus and cyber intrusions. During the Cobra Gold 2019, the Royal Thai Armed Forces and the U.S. Marine Corps and the Washington Air National Guard executed the first Cobra Gold Cyberspace Field Training Exercise (FTX) at the Royal Thai Air Force Headquarters in Bangkok, Thailand. The exercise focused on identifying and defending critical information and warfighting systems against a cyberspace attack.¹⁵

Besides Southeast Asian countries, in early November, the American Institute in Taiwan (AIT), which represents US interests on the island, co-hosted with the local government a week-long exercise, namely the Cyber Offensive and Defensive Exercises. AIT said the focus was threats posed by “North Korea and other actors”. Billed as **the first of its kind**, the joint drill of cybersecurity was described by the AIT’s acting director, Raymond Greene, as a “new frontier”¹⁶ in cyber-cooperation between Washington and Taipei. From June 21 to 28, the five members of the “Five Eyes” intelligence alliance including the US, the United

Kingdom, Australia, New Zealand and Canada, participated in the Cyber Flag 19-1,¹⁷ a week-long cyber exercise. The US Army Cyber Command directed the exercise and specifically built an industrial control system that might be used by a US-based port facility, which 20 multiagency and multinational teams worked individually to thwart malicious attacks and intrusions on this system.

4. Exercises would be more specialized and smaller as an important trend

HADR, battlefield medical care, peacekeeping operations, flight security, aircraft maintenance and other specialized exercises have become an important content of the military cooperation and exchanges between the US and ASEAN countries. These types of exercises are conducted between the US with Thailand, the Philippines, Singapore and other traditional allies in the region, as well as with relatively underdeveloped countries such as Vietnam, Cambodia and Bangladesh.

Specialized trainings and exercises are gradually become regular. In 2019, the US and Bangladesh conducted four exercises, most of which were about humanitarian assistance. For example, in the Disaster Response Exercise and Exchange (DREE) conducted at the end of October, the Oregon National Guard and the Bangladesh Armed Forces Division conducted an exercise simulating a large-scale earthquake response.¹⁸ In late September, the Idaho National Guard conducted a subject matter expert exchange on peacekeeping with members of the Royal Cambodian Armed Forces.¹⁹ Almost at the same time, the US and Vietnam held the ninth Airman-to-Airman Talks on flight safety.²⁰

Small-scale trainings and exercises have also become an important direction of cooperation between the US and other countries in the region. During the US-Indonesia Exercise Garuda Shield 2019 held in August, soldiers from the 1st

Battalion, 27th Infantry Regiment, 25th Infantry Division of the US Army, and the 16th Combat Aviation Brigade, and their Indonesia Armed Forces counterparts conducted platoon live-fire exercises. In the bilateral military training exchange in the same month, the US Marine Corps and the Indonesian Korps Marinir each sent a platoon of Marines to live and train together at the other's military base for three weeks.²¹ This type of small-scale trainings and exercises at the basic level have become an important content of military exercises between the US and other countries in the region.

5. The USCG and maritime law enforcement units are becoming new forces in military exercises

In 2019, the USCG deployed three coast guard vessels to the West Pacific region, namely USCGC Bertholf (WMSL-750), USCGC Stratton (WMSL-752) and USCGC Mellon (WHEC-717). The deployment of the USCGC Bertholf (WMSL-750) and the USCGC Mellon (WHEC-717) both involved the South China Sea, with the latter one amount to a military exercise.



The track is sorted by SCSPI according to the Automatic Identification System (AIS)
(as of September 1, 2019)

The USCG actively participated in maritime law enforcement, search and rescue drills. As a law enforcement unit, it is within the USCG's duty to participate in maritime law enforcement or maritime search and rescue operations. On May 14, the USCGC Bertholf (WMSL-750) was joined by the BRP Batangas (SARV 004) and the BRP Kalanggaman (FPB 2404), its Philippines counterparts, near the Huangyan Island for joint search and rescue exercise.²² On August 23, the USCGC Stratton (WMSL-752) completed joint law enforcement drills with Indian Coast Guard, and similar drills with Malaysia Coast Guard vessels during the Maritime Training Activity Malaysia 2019 as well as with Indonesian Coast Guard during CARAT.

The USCG is deeply integrated into the US' combat system and is gradually becoming an important participant in regional exercises. During its deployment

to the West Pacific, the USCGC Stratton (WMSL-752) visited Australia as its first stop, where it participated in the US-Japan-Australia Exercise Talisman Sabre 2019 and joined the Wasp Expeditionary Strike Group (ESG) forat-sea combat exercise.²³ In the following US-Malaysia exercise Tiger Strike 2019 and the US-Philippine MTA Sama Sama, the USCGC Stratton (WMSL-752) joined the US Navy vessels to participate in VBSS drills, division tactics, search and rescue exercise, helicopter deck landing qualifications, anti-air and surface warfare tracking, and vessel of interest tracking.²⁴ USCG has become an important member in the US' combat system in the Asia Pacific region.

IV. Conclusions and Outlook

In 2019, the US conducted plenty of military exercises that covered a broad range in the South China Sea and neighboring areas. These included iterations of traditional, annual large scale exercises, as well as innovations accordingly, routine exercises that aimed to involve countries outside the region, as well as new exercises that were held temporarily with countries in the region, exercises targeting emerging issues such as cybersecurity and other real threats, as well as non-warfare military actions such as HADR, maritime law enforcement, and peacekeeping operations. **No matter how innovative the contents were, their major purpose was to, by enhancing military cooperation with countries both in and beyond the region, to forge the US' core capabilities in anti-surface, anti-air, anti-submarine combats and air combats, enhance maritime domain awareness, interoperability and its military presence in the region to contain China from rising as a major sea power.** Military exercises and joint drills in the South China Sea and neighboring areas are an important way for the US to enhance its regional presence, elevate combat capability and strengthen deterrence ability. Against the background of strategic competition between major powers and under the voice featuring “preparing for war in the South China Sea”, in the future, the US military exercise in the South China Sea and neighboring areas are expected to exhibit the following trends:

1. Small, specialized and flexible arrangements will be more frequent

The characteristics of small, specialized exercises include short time of duration and strong flexibility. The US could decide the subjects of the exercise according to the counterpart countries and different levels of their bilateral cooperation. The US has highly specialized, systematic military deployment in the West Pacific, and

enjoys an advantage of fast deployment, which combined would enable it to select participants in exercises or exchanges accordingly. Currently, many small, specialized exercises conducted and organized in the South China Sea and neighboring areas are led by the US National Guard, which benefits from the State Partnership Program (SPP) pushed forward by the US National Defense and many states.²⁵ In the regions under the command of the US Indo-Pacific Command, the SPP has been carried out with the Philippines, Thailand, Mongolia, Indonesia, Bangladesh, Cambodia, Vietnam, Tonga, Fiji and Malaysia and is expected to be expanded to include more countries in the region. A new trend in 2019 is that every time an ally or partner of the US has its military force cross the South China Sea or conducts actions in the region, the US would seize the opportunity to perform some temporary exercises and training. In the future, this type of exercise might be further enhanced and relevant arrangements will become more flexible.

2. Large exercises will further expand and exhibit stronger significance for real war scenarios

In 2019, the **first** ASEAN-US Maritime Exercise (AUMX) was held with limited personnel and forces participated as it is the first exercise of its type. The US Navy only assigned the littoral combat ship USS Montgomery (LCS 8), guided-missile destroyer USS Wayne E. Meyer (DDG 108), three MH-60 helicopters, a P-8A Poseidon aircraft.²⁶ As this exercise becomes regular, the US is likely to assign more forces to participate in the exercise and may involve Japan and Australia or other countries to participate as well. In the US-Singapore Exercise Pacific Griffin 2019, the Singapore Navy **for the first time** engaged in ASUW exercise with the US Military. In the future, in similar exercises, they are likely to continue to conduct to enhance core combat capabilities, and elevate military cooperation with regional allies to respond to their so-called “regional security threats”.

3. The USMC and US Army will play a more important role in the South China Sea and neighboring areas

In 2019, during the exercises such as US-Philippines Exercise Balikatan 2019 and Exercise Kamandag 3, the USMC played a significantly important role. In the last two years, senior officers of the USMC have repeatedly talked about enhancing attention to the South China Sea.

The US Army shows no intention of being left behind and is working on new exercise plans. On September 17, Lt. Gen. James Pasqualette, the Army's G-8, said during an Association of the US Army breakfast that "Soldiers play a crucial part in the joint-service mission in the Pacific region", and "that role will become increasingly significant as the Defense Department continues to focus on potential threats by China in the region."²⁷ In 2019, the US Army will update its Pacific Pathways program launched in 2014 into a 2.0 version. More soldiers will be forward deployed to Asia Pacific region from 2020, increased to 5,000~10,000, for exercises lasting 10 months, up from previous 3 months.²⁸ Pacific Pathways 2.0 Countries next year will include Thailand, the Philippines and Australia. It is justifiable to say that the US Army will have more presence in the region.

Currently, the USMC and US Army are making every effort to implement the Multi-Domain Operations concept, with the former also testing a pair of related concepts, Expeditionary Advance Base Operations (EABO) and the overarching Littoral Operations in a Contested Environment (LOCE). It is safe to say that they will play a stronger role in the overall military actions in the South China Sea.

4. More targeted exercises in the South China Sea and neighboring areas will be conducted by multi-services and arms of the US military

In 2019, during the summer patrol of the aircraft carrier USS Ronald Reagan (CVN-76) Strike Group, the 69th Expeditionary Bomb Squadron of the US Air Force continuously sent B-52H Stratofortress from Andersen Air Force Base, Japan, to the South China Sea and the Philippines' airspace to join the strike ground in air-sea battle exercise. In early December, the amphibious assault ship USS America (LHA 6) was deployed to Japan to join the US' forward-deployed naval forces. In October, USS America (LHA-8) tested out the "Lightning Carrier" concept in the open waters near San Diego, California. It once carried 13 F-35B bombers, which was **the first time** that the US Navy ever used the amphibious assault ship in such a way. Therefore, in 2020, after USS America (LHA-8) is deployed to Japan, it might further test such concept in the South China Sea. It might even join the aircraft carrier USS Ronald Reagan (CVN-76) Strike Group for dual-carrier formation operations. Today, when the US Navy finds its aircraft carriers inadequate, it has no way but to rely on enhancing the deployment of amphibious assault ships to give partial play of its carriers. However, the combat capabilities of such arrangement shouldn't be taken lightly.

Appendix

**Table 2019 US Military Exercises in the South China Sea and Neighboring Areas
(not exhaustive)**

No.	Name	Date	Location	Participant	Troop	Subject
1	US-UK Tactics Exercise	Jan 11-16	South China Sea	US, UK	USS McCampbell (DDG 85), Royal Navy Type 23 frigate HMS Argyll (F231)	Communication drills, division tactics, and a personnel exchange
2	Sea Dragon Exercise	Jan 14-22	Waters off Guam	US, Australia	Four USS and one RAAF P-8A Poseidon aircrafts, one Los Angeles-class attack submarine	Joint anti-submarine training
3	SMEE	Jan 17	Lopburi, Thailand	US and Thailand	The 1st Battalion, 112th Aviation Regiment, 96th Aviation Troop Command, Washington National Guard and the Royal Thai Army	Exchange on aviation safety
4	Bilateral Air Contingent Exchange-Philippines (BACE-P)	Jan 20-Feb 1	Cesar Basa Air Base, the Philippines	US and the Philippines	The 121st Fighter Squadron (121 FS), a unit of the District of Columbia Air National Guard and the Philippine Air Force (PAF)	Exchanges on the drills of tactics, intelligence, flightline, and aircraft maintenance
5	Expeditionary strike training	Jan 26-Feb 6	Philippine Sea	US	The Marine Fighter Attack Squadron 121 (VMFA-121)	The F-35B aircraft performed sea strikes with ordnance fully-loaded
6	Hanuman Guardian 19	Jan 28-Feb 7	Thailand	US and Thailand	Approximately 800 US Army soldiers operating under the US Army 2nd Stryker Brigade Combat Team and	Aviation assets, CIED tactics and SMEEs

					approximately 900 Royal Thai Army soldiers under the Headquarters of 2nd Infantry Division and the 12 Infantry Regiment	
7	Exercise Cobra Gold 2019	Feb 12-22	Thailand	29 countries, including US, Thailand, Japan, Indonesia, Malaysia and Singapore	Approximately 4,500 US personnel from the Amphibious Transport Dock Ship USS Green Bay (LPD 20), the 31st MEU and the 35th Fighter Squadron	Cyber FTX, FTX, HADR
8	Cope North Exercise	Feb 18-Mar 8	Guam	US, Japan, Australia	Approximately 2,000 from the US army, 850 are Self Defense Force and Australian soldiers and nearly 100 military aircrafts	Air combat exercise
9	US-UK Maritime Security Drill	Feb 18	South China Sea	US, UK	US Navy fleet replenishment oiler USNS Guadalupe (T-AO 200) , the Royal Navy frigate HMS Montrose (F236)	Eplenishment drill
10	Subject matter expert exchange (SMEE)	Feb 24-27	Hawaii	US and the Philippines	Pilots from the US Air Force and the PAF	Exchange on aviation safety
11	Joint submarine training	Feb 26	Waters off Australia	US, Australia	The Los Angeles-class attack submarine USS Santa Fe (SSN-763), the submarine HMAS Collins (SSG 73), the submarine HMAS Farncomb (SSG 74), the submarine HMAS Dechaineux (SSG 76), the submarine HMAS Sheean	Underwater warfare

(SSG 77)						
12	Exercise Salaknib 2019	Mar 4-24	The Philippines	US and the Philippines	More than 1,600 soldiers from the Seventh Infantry Division of the US Army and the 7th Infantry Division of the Philippine Army	Jungle field training exercise (FTX), bilateral Command Post Exercise (CPX), various SMEEs, as well as Cooperative Health Engagements (CHE) and Humanitarian Civic Action (HCA) projects
13	The ASEAN Defence Ministers' Meeting-Plus Maritime Security Field Training Exercise	Mar-May	South East Asia countries	US, Australia, Canada, Japan, Philippines	US Destroyer Squadron 1	Communication and maneuvering drills
14	Keris Strike Joint Exercise	Mar 11-15	Malaysia	US, Malaysia	The Washington National Guard, the 25th Combat Aviation Brigade of the US Army and the 11th Infantry Brigade of Malaysian Army	SMEEs on anti-terrorism, military police, unmanned systems, civil affairs, nuclear, chemical and biological weapons, blasting, etc.
15	COPE Tiger Exercise	Mar 11-22	Thailand	US, Thailand, Singapore	The 14th Fighter Squadron of US Air Force, the Republic of Singapore Air Force, the Royal Thai Air Force	Air combat exercise and the suppression of enemy air defenses (SEAD)
16	US, Japan and UK	Mar 14	Philippine Sea	US, Japan and UK	The USS Patrol Squadron 16, one P-8A Poseidon aircraft, the HMS Frigate Montrose, the Japan Maritime Self-Defense Force (JMSDF)	Joint anti-submarine training

					destroyer Murasame, P-1 JMSDF maritime patrol aircraft, one submarine.	
17	Diamond Shield 2019 Joint Exercise	Mar 18	Darwin, Australia	US, Australia	B-52 Stratofortresses assigned to the 23rd Expeditionary Bomber Squadron (EBS)	Training for Australian air force cadets
18	SMEE	Mar 18-22	Thailand	US and Thailand	The US Army and the Royal Thai Army	A subject matter exchange on combat engineering
19	Tactics drill	Mar 19	South China Sea	US and the Philippines	The 7th Fleet flagship USS Blue Ridge (LCC 19) and the frigate BRP Ramon Alcaraz (FF 16)	Drills of communications, maneuver and operations
20	Bersama Warrior Command Post Exercise	Mar 20	Malaysia	US, Malaysia	The Washington National Guard and the Malaysian Army	Simulated peacekeeping operation in the command post
21	Balikatan	Apr 1- 12	The Philippines	US, the Philippines, Australia	The Amphibious Assault Ship USS Wasp (LHD 1), the 31st MEU with the PAF and the PMC	28 events including amphibious warfare, live fire exercise, urban operations, anti- terrorism operation
22	Guardian Sea 2019	Apr 7	Andaman Sea	US and Thailand	The Los Angeles- class attack submarine USS Louisville (SSN- 724), an underway replenishment oiler, two frigates, a corvette and a Sea Hawk helicopter from the Royal Thai Navy (RTN)	The exercise was organized in two phases with a shore phase and a subsequent sea phase that culminated with tracking a submarine. It marked the first time the RTN deployed a towed array sonar to execute anti-

						submarines missions.
23	US-India joint ASW exercise	Apr 15	Indian Ocean	US, India	The guided missile destroyer USS Spruance (DDG 111), P-8A Poseidon aircraft and the Indian Navy	Joint ASW training
24	Replenishment-at-sea training	Apr 16	South China Sea	US, Japan	The fleet replenishment oiler USNS Pecos and the JMSDF ship JS Suzutsuki (DD 117)	Replenishment-at-sea training
25	US-Sri Lanka CARAT	Apr 22	Indo-pacific	US, Sri Lanka	USS Spruance (DDG 111) , P-8A Poseidon aircraft , Sri Lankan Navy	Surface warfare maneuvering tactics, VBSS drills, mobile dive and salvage training, explosive ordnance disposal (EOD), minesweeping and maritime patrol operations.
26	Tactical training	May 2-8	South China Sea	US, India, Japan	The guided-missile destroyer USS William P. Lawrence (DDG 110), the Indian Navy destroyer INS Kolkata (D 63) and the tanker INS Shakti (A 57), the JMSDF helicopter-carrier JS Izumo (DDH 183), the JMSDF destroyer JS Murasame (DD 101), and the Republic of Philippine Navy patrol ship BRP Andres Bonifacio (PS 17)	Formation sailing and communication drills
27	“Diamond	May 6-	Darwin,	US,	The California Air	Cooperative

	Storm”Exercise	26	Australia	Australia	National Guard's 194th Expeditionary Fighter Squadron and the Royal Australian Air Force (RAAF)	combat
28	ASEAN Defence Ministers’ Meeting-Plus Exercise	Mar 13	South China sea	US, ASEAN member states	USS William P. Lawrence (DDG 110)	Information sharing, interoperability and multinational response to maritime security issues.
29	Joint search-and-rescue exercises	May 14	South China Sea	US and the Philippines	The US Coast Guard (USCG) Cutter Bertholf (WMSL 750), the Philippine Coast Guard patrol vessels BRP Batangas (SARV 004) and the BRP Kalanggaman (FPB 2404)	Joint search-and-rescue exercises
30	“La Perouse” Joint Anti-submarine Exercise	May 14	Indian Ocean	US, France	The Virginia-class submarine USS Hawaii (SSN 776), the French Marine Nationale aircraft carrier FS Charles de Gaulle (R 91) Strike Group	Joint ASW exercise
31	Tactical training	May 16	Indian Ocean	US, Australia, Japan, France	The guided-missile destroyer USS William P. Lawrence (DDG 110), the HMAS Toowoomba (FFH 156), the submarine HMAS Collins (SSG 73), the JMSDF helicopter-carrier JS Izumo (DDH 183), the JMSDF destroyer JS Murasame (DD	Naval formation and tactics exercise

					101), and the French Marine Nationale aircraft carrier FS Charles de Gaulle (R 91) Strike Group	
32	Tactical training	May 18	Strait of Malacca	US, Japan	The guided-missile destroyer USS William P. Lawrence (DDG 110), the JMSDF helicopter-carrier JS Izumo (DDH 183), the JMSDF destroyer JS Murasame (DD 101)	Communication drill
33	The first Pacific Vanguard exercise	May 22	Guam	US, Japan, Australia, South Korea	The 7th Fleet flagship USS Blue Ridge (LCC 19), the guided-missile cruiser USS Antietam (CG 54), guided-missile destroyer USS Curtis Wilbur (DDG 54), the fleet replenishment oiler USNS Rappahannock (T-AO 204), the dry cargo/ammunition ship USNS Richard E. Byrd (T-AKE 4), aircrafts from the "Scorpions" of Electronic Attack Squadron (VAQ 132) and the "Mad Foxes" of Patrol Squadron (VP 5), frigates HMAS Melbourne (FFG 05) and HMAS Parramatta (FFH 154), destroyers JS Ariake (DD 109) and JS Asahi	Joint tactical mobility, live fire exercise, anti-air warfare (AAW), antisubmarine warfare (ASW), replenishment-at-sea training

					(DD 119), the destroyer ROKS Wang Geon (DDH 978)	
34	US-Thailand CARAT	May 29-June 8	Thailand	US and Thailand	The guided missile cruiser USS Antietam (CG 54), the USS Patriot (MCM-7), the USS Pioneer (MCM-9), the USNS Millinocket (T-EPF-3), the Marine Rotational Force-Darwin Task Force, the US Navy Seventh Fleet Band, the Explosive Ordnance Disposal Mobile Unit (EODMU) 5 and the Naval Environmental Preventive Medicine Unit 6	Surface warfare maneuvering tactics, VBSS drills, mobile dive and salvage training, explosive ordnance disposal (EOD), minesweeping and maritime patrol operations. MDA, submarine warfare, tactics tabletop exercises, integrated dive team training, EOD, jungle survival training and medical casualty evacuation (CASEVAC) field training exercises
35	Tactical training	Jun 7	Andaman Sea	US, France	The USS Boxer (LHD 6) Amphibious Ready Group and the French Marine Nationale aircraft carrier FS Charles de Gaulle (R 91) Strike Group	Joint formation flight training
36	Tactical training	June 10-12	South China Sea	US, Japan	The aircraft carrier USS Ronald Reagan (CVN-76), the JMSDF helicopter-carrier JS Izumo (DDH 183), the JMSDF destroyer JS Murasame (DD 101), and the JS Akebono (DD-	Communication check, tactical mobility, liaison officer exchange, etc.

					108)	
37	Tactical training	June 13-July 15	Guam	US, Singapore	The 122nd Fighter Squadron from the 159th Fighter Wing of the New Orleans Air National Guard, Louisiana, 6 RSAF F-16 fighters from the RSAF 140 Squadron, an RSAF G550 Airborne Early Warning aircraft, and 150 RSAF aircrew.	Tactical training
38	Tactical training	Jun 14	The Indian Ocean	US, India	The Amphibious Transport Dock Ship USS John Patrick Murtha (LPD 260) and the destroyer INS Ranvijay (D 55)	Maritime training
39	Tactical training	Jun 16	Philippine Sea	US, Japan	The Amphibious Assault Ship USS Wasp (LHD 1), the amphibious Transport Dock USS Ashland (LSD 48), the Amphibious Transport Dock Ship USS Green Bay (LPD 20), the fleet replenishment oiler USNS Rappahannock (T-AO 204), the dry cargo and ammunition ship USNS Amelia Earhart (T-AKE 6), the JMSDF helicopter destroyer JS Ise (DDH 182), the JMSDF Amphibious	Formation sailing

					Transport Ship JS Kunisaki (LST 4003)	
40	Cope West 2019 Field Training Exercise	June 17-28	North Sulawesi, Indonesia	US and Indonesia	Six US Air Force F-16CM/DM aircrafts from the 14th Expeditionary Fighter Squadron and six F-16 aircrafts from the Indonesian Air Force	Aircraft maintenance techniques, close air support (CAS), air-to-air operation training and a SMEE
41	Tactical training	Jun 19-20	South China Sea	US, Japan	The aircraft carrier USS Ronald Reagan (CVN-76), the JMSDF helicopter-carrier JS Izumo (DDH 183), the JMSDF destroyer JS Murasame (DD 101), and the JS Akebono (DD-108)	Communication check, tactical mobility, liaison officer exchange, etc.
42	“Pacific Angel 19-1” Humanitarian Disaster Relief Exercise	June 22-28	Bangladesh	US, Bangladesh, Sri Lanka, Nepal	50 personnel from the US Air Force soldiers	Humanitarian disaster relief
43	Ship Anti-Submarine Warfare Readiness and Evaluation Measurement (SHAREM) 199	July 5-10	Southern coast of Guam	US	The P-8A Poseidon aircraft from VP-5 and VP-8 and the USS Milius (DDG 69)	ASW
44	Exercise Talisman Sabre 2019	Jul 7	Australia	US, Australia, Japan	The aircraft carrier USS Ronald Reagan (CVN-76) Strike Group, the USS Wasp (LHD 1) Amphibious Ready Group, the F-22 Raptor, etc.	Amphibious warfare, ASW
45	Marine Aviation Support Activity (MASA) 19.2	July 15-25	The Philippines	US and the Philippines	The Marine Medium Tiltrotor Squadron 262	Mutual defense, counterterrorism and HADR

					(VMM-262) and the 3rd Battalion, 6th Marine Regiment, USMC	
46	Information System and Technology Exchange (ISTX)	July 24-26	Indonesia	US and Indonesia	US and Indonesia service members specializing in cybersecurity	SSME on cybersecurity and protection
47	CARAT	Aug 1-7	Surabaya, Indonesia	US and Indonesia	Staff from CTF 73 and DESRON 7, the littoral combat ship USS Montgomery (LCS 8), the Spearhead-class expeditionary fast transport USNS Fall River (T-EPF 4), the Legend-class cutter USCG Stratton (VMSL 752), the MV Carolyn Chouest, the Navy Environmental and Preventive Medicine Unit 6, the US 7th Fleet Band and a P-8 Poseidon aircraft.	Evolutions included both shore-based and at-sea training, such as VBSS drills, mobile dive and salvage training, gunnery exercises, explosive ordnance disposal (EOD) drills, jungle warfare training and subject matter expert knowledge exchanges in MDA and other subjects
48	Bilateral Military Training Exchange between Marine Corps	Aug 6-29	Indonesia and Hawaii	US and Indonesia	The Alpha Company of the 1st Battalion of the 3rd Marine Regiment	Live-fire ranges, and integrated cultural events
49	Tactical training	Aug 12-14	South China Sea and Philippine Sea	US	The B-52H Stratofortress Bombers from the 69th Expeditionary Bomber Squadron and the aircraft carrier USS Ronald Reagan (CVN-76) Strike Group	Sea-air battles
50	Tactical training	Aug	Philippine	US, Japan	The aircraft carrier	Tactical training

		13-23	Sea			USS Ronald Reagan (CVN-76) Strike Group, the JMSDF destroyer Myoko (DDG 175)	
51	Maritime Training Activity Malaysia 2019	Aug 14-19	Malaysia	US, Malaysia		The USS Littoral Combat Ship (LCS) Montgomery, the Legend-class cutter USCG Stratton (VMSL 752), Salvage Ship Grasp, T-EPF Millinocket, the 1st Tactical Diving & Salvage Forces, one MH-60S Seahawk helicopter and one MH-65 Dolphin helicopter	Exercises were divided into shore-based and at-sea phases, including such subjects as riverside inspection, tactical diving and salvage, firearms exercises, maritime patrol and operations, replenishment-at-sea training, etc. During shore-based exercises, SMEEs were carried out around such topics as aviation, women's leadership, damage control, military law, public affairs and healthcare
52	"Hydra Crab" Joint Exercise	Aug 19-Sept 3	Guam	US, Australia, Canada, New Zealand		The EODMU 5, the Coastal Riverine Squadron 2, the III Marine Expeditionary Forces, the 36th Civil Engineering Squadron, the Helicopter Sea Combat Squadron (HSC) 25	Mainly focused on the training of EOD, VBSS, land and sea insertion techniques, joint demolition operation, small arm proficiency, CIED, anti-terrorism force protection (ATFP), diving operations
53	SEACAT	Aug 19	Singapore	US,		The Destroyer	Visit, board,

				Bangladesh, Brunei, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Sri Lanka, Thailand and Vietnam	Squadron 7, the P-8A Poseidon aircraft and the USCG	search and seizure (VBSS)
54	Garuda Shield 2019	Aug 19	Indonesia	US and Indonesia	The 1st Battalion, 27th Infantry Regiment and the 16th Combat Aviation Brigade	SMEEs and platoon live-fire exercises
55	Exercise Koolendong	Aug 21-29	Darwin, Australia	US, Australia	The US and Australian Marine Corps	Live fire exercise
56	USCG joint training	Aug 23	Chennai, India	US, India	the Legend-class cutter USCG Stratton (VMSL 752)	Joint training
57	SMEE	Aug 30	The Philippines	US and the Philippines	The USMC, the PN and the PMC	SMEE on amphibious assault vehicle (AAV)
58	AUMX	Sept 2-6	South China Sea	US and ASEAN member states	The littoral combat ship USS Montgomery (LCS 8), the guided-missile destroyer USS Wayne E. Meyer (DDG 108), three MH-60 helicopters, and a P-8A Poseidon aircraft	VBSS, MDA, division tactics and maritime asset tracking
59	Yudh Abhyas 19 Exercise	Sept 5-19	US Joint Base Lewis Mcchor	US, India	The US Army 7th Infantry Division and the Indian Army 99th Mountain Brigade	Expert academic exchange, HADR
60	SMEE	Sept 9-11	The Philippines	US and the Philippines	The medical personnel from the	SMEE on aeromedical

					US Pacific Air Forces and the PAF	evacuation
61	Tactical training	Sep 13	Australia	US, Australia	The submarine tender USS Emory S. Land (AS 39), and the submarine HMAS Sheean	Joint training
62	GEMA BHAKTI 19 (GB19) Staff Exercise (STAFFEX) (Echo of Good Deeds in Indonesian)	Sept 16-23	Indonesia	US and Indonesia	The Hawaii National Guard (HING) and the Tentara Nasional Indonesia (TNI, Indonesian Armed Forces)	Joint operational staff planning and processes
63	SMEE	Sept 16-20	Cambodia	US, Cambodia	The Idaho Army National Guard and the Royal Cambodian armed forces	SMEE on peacekeeping
64	Lifesaving First Aid Training	Sept 20-22	The Philippines	US and the Philippines	The US Army and the Philippine Army	Medical training known as Tactical Combat Casualty Care
65	Combined Airborne Operation	22-Sep	The Philippines	US and the Philippines	The 1st Battalion, 501st Infantry Regiment (Airborne), 4th Infantry Brigade Combat Team (Airborne), 25th Infantry Division, the Philippine First Scout Ranger Regiment and the Special Forces Regiment (Airborne)	Combined airborne training and the simulation of large-scale rapid deployment forces
66	SMEE	Sept 25-27	Vietnam	US, Vietnam	The US Air Force and the Vietnamese Air Force	Professional training for pilots
67	Pacific Griffin 2019 Joint Exercise	Sept 27- Oct 10	Guam	US, Singapore	The littoral combat ship USS Gabrielle Giffords (LCS 10),	Anti-surface warfare (ASUW), ASW

					destroyer USS Momsen (DDG 92), the Los Angeles-class submarine USS Key West (SSN 722), the dry cargo and ammunition ship USNS Amelia Earhart (T-AKE 6), several P-8A Poseidon aircrafts	
68	Tiger Strike 19 joint exercise	Sept 30-Oct 5	Malaysia	US, Malaysia	The USS Boxer (LHD 6) Amphibious Ready Group and the Legend-class cutter USCG Stratton (VMSL 752)	Jungle warfare, CAS
69	Tactical training	Oct 6	South China Sea	US	The aircraft carrier USS Ronald Reagan (CVN-76), the guided missile cruiser USS Antietam (CG 54), the guided missile cruiser USS Chancellorsville (CG 62), the guided missile destroyer USS Wayne E. Meyer (DDG 108) and the amphibious assault ship USS Boxer (LHD 6)	Formation sailing
70	“Maritime Warrior Cooperation 3” joint exercise	Oct 9-18	Luzon and Palawan in the Philippines	US, the Philippines, Japan	The Amphibious Transport Ship BRP Davao (LD 602), the Whidbey Island-class dock landing ship USS Germantown (LSD 42)	Amphibious warfare, live fire exercise, urban operations, air combat and anti-terrorism action, HADR exercises
71	SMEE	Oct 11	The 7th Fleet	US and Indonesia	The staff from the US Navy and the	Staff talks

			flagship USS Blue Ridge (LCC 19)		Indonesian Navy	
72	Maritime Training Activity (MTA) Sama Sama	Oct 14- 21	Puerto Princesa, Philippines	US, Japan and the Philippines	The littoral combat ship USS Montgomery (LCS 8), the Whidbey Island- class dock landing ship USS Germantown (LSD 42), the Spearhead-class expeditionary fast transport USNS Millinocket (T- EPF 3), the Safeguard-class salvage ship USNS Salvor (ARS 52), the Legend-class cutter USCG Stratton (VMSL 752) and a P-8A Poseidon aircraft	The exercise consisted of both shore-based and at-sea activities. Shore-based events included a series of SMEEs on a range of naval capabilities, including MDA, force protection, medical care, HADR, explosive ordnance disposal, dive and salvage operations, engineering, aviation, and VBSS operations. The at-sea phase included VBSS drills, division tactics, a search and rescue exercise, helicopter deck landing qualifications, anti-air and surface warfare tracking, and vessel of interest tracking.
73	US-Brunei CARAT Exercise	Oct 22	Brunei	US, Brunei	USS Harper's Ferry(LSD- 49),one P-8A Poseidon aircraft	The exercises consisted of amphibious assault, jungle warfare and combat medical training.
74	Joint medical outreach project	23-Oct	The Philippines	US and the Philippines	The US Special Operations	Battlefield first- aid services

					Command Pacific soldiers and soldiers from the Philippine National Police Special Action Forces 51st Special Action Company	
75	Tactical training	Oct 24 -Nov 2	Philippine Sea	US, Japan	The aircraft carrier USS Ronald Reagan (CVN-76) Strike Group, the JMSDF Escort Division 12	Tactical training
76	Disaster response training	Oct 27-31	Bangladesh	US, Bangladesh	The Oregon Army National Guard and the Bangladesh armed forces	Simulated earthquake disaster relief
77	Replenishment-at-sea training	1-Nov	South China Sea	US, India	The dry cargo/ammunition ship USNS Richard E. Byrd (T-AKE 4), the anti-submarine warfare corvette INS Kiltan (P 30)	Replenishment-at-sea training
78	US-Bangladesh CARAT Exercise	Nov 4-8	Bay of Bengal	US, Bangladesh	The USS Task Force 72 and 73, the USS Destroyer Squadron 7, the Mobile Diving and Salvage Unit (MDSU) 1, the USS Patrol Squadron (VP) 45 one P-8A Poseidon aircraft	Tactical diving and salvage, engineering, aviation, hydrogeography, MDA, maritime law enforcement, etc. Aviation exercises include air search and rescue and vessel of interest tracking
79	Pacific Reach exercise	4-Nov	Australia	US, Australia	The US and Australian Navy	Submarine rescue
80	Tactical training	Nov 6-12	South China Sea	US, Australia	The littoral combat ship USS Montgomery (LCS 8) and the frigate HMAS	Formation sailing and replenishment-at-sea training

					Stuart (FFH 153), and the fleet replenishment vessel HMAS Sirius (O 266)	
81	Ordnance handling training	11-Nov	The Philippines	US	The submarine tender USS Emory S. Land (AS 39) and the Los Angeles-class attack submarine USS Asheville (SSN 758)	Ordnance handling training
82	Dugong 2019 Mine Countermeasures (MCM) Exercise	Nov 11-15	Australia	US, Australia, UK, Canada, New Zealand	The Navy of the five countries	MCM operations
83	Joint “Tiger” amphibious exercises	Nov 13-21	India	US, India	The Whidbey Island-class dock landing ship USS Germantown (LSD 42) and the INS Jalashwa (L41)	VBSS, live fire exercise, ships mobility, Indian helicopters landing on US warships
84	The second Pacific Vanguard joint exercise	20-Nov	Guam	US, Canada, Australia, South Korea	The guided missile cruiser USS Chancellorsville (CG 62), the fleet replenishment oiler USNS Pecos (T-AO 197), the dry cargo/ammunition ship USNS Carl Brashear (T-AKE 7) and a submarine. Aircraft from the “Yellow Jackets” of Electronic Attack Squadron 138 and the “Red Lancers” of Patrol Squadron 10	ASW, formation exercises
85	Vigilant Guard 2020	21-Nov	Guam	US	The Hawaii National Guard	Disaster response exercise

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