

INDSR Newsletter



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On the Sino-Russian “Zapad/Interaction-2021” Joint Exercise

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1. News Highlights

From August 9-13, 2021, China and Russia conducted the “Zapad/Interaction-2021” exercise at the PLA Army’s Qingtongxia Joint Tactical Training Base in Ningxia Hui Autonomous Region. The two sides participated in the drill with a total of 13,000 troops and about 500 units of various weapons and equipment. The Chinese PLA forces, consisting of ground troops and air force units, were mainly from the Western Theater, while the Russian side, consisting of tactical aviation units, motorized infantry units and special forces stationed in the Zabaykalsky Krai, was from the country’s Eastern Theater. The exercise saw a significant increase in hardware quality as newer equipment accounted for 81.6% of which were deployed. Both sides demonstrated their

direct and indirect firepower covering a wide spectrum of intensity and range for successful saturated attacks. The two countries also claimed that the exercise aimed to expand and strengthen their joint counter-terrorism capability as well as to assert their common determination on maintaining international and regional security.

Based on the idea of terrorist groups using armor, infantry and drones to launch attacks, the goal set for the exercise was to maintain regional security and stability through joint counter-terrorism operations that combine new forms of military force and asymmetric warfare to establish a joint combat capability. The new joint force constituted a three-level command system (Directorate - Joint Command - Participating Forces) implemented in two phases (Joint Planning and Land Attack). The highlight

of the exercise was the commissioning of a dedicated joint command information system that constituted a “one network with four chains” combat infrastructure orchestrating air force, army aviation, artillery, armor and infantry units. With the system, commanders from both sides could analyze the situation and identify targets on the spot, and then launch drones immediately to carry out precise strikes. In the exercise, Chinese and Russian officers practiced more than 20 joint courses such as air defense, barrier breaching and three-dimensional capture operations. After the exercise, both countries agreed that their military collaboration reached a new height.¹

2. Security Implications

2-1. Innovative Sino-Russian collaboration with limited improvement

The Zapad/Interaction-2021 exercise set a number of firsts: the first international exercise organized in China since the outbreak of COVID-19; the first time the Russian army participated in an exercise organized by China using Chinese equipment; and the first time China and Russia used a dedicated command information system for the exercise.

1. Lu Desheng and Zhang Xiaoyu, “Zapad/Interaction-2021” Exercise Officially Begins,” *PLA Daily*, August 10, 2021, p. 1; Lu Desheng, Zhang Xiaoyu, and Yang Xiaobo, “Zapad/Interaction-2021 Exercise Highlights — Interview with Li Shuyin, Researcher of Military Science Academy” , *PLA Daily*, August 12, 2021, p. 3; Лю Фан, “Синьхуа (Китай): учения «Запад/Взаимодействие — 2021» официально начались,” *ИноСМИ.ru*, 9 августа, 2021, <https://inosmi.ru/military/20210809/250279406.html>; “Цинтунсянская стратегическая операция. Россия и Китай укрепляют геополитический тандем на совместных маневрах,” *Коммерсантъ*, No. 140, 10 августа, 2021, стр. 6. For the actual progress of the exercise, see “Detailed Records of Actions in the Zapad/Interaction-2021 Exercise” by Lu Desheng, Zhang Xiaoyu, and Yang Xiaobo, *PLA Daily*, August 14, 2021, p. 4.

In addition to showing that their combat capabilities are unaffected by the pandemic, China and Russia are systematically increasing their familiarity with each other's equipment. In 2020, Chinese troops participating in the Kavkaz-2020 strategic exercise used Russian equipment for the first time, and the Russians continued the same training pattern in this exercise by using Chinese gears. At this point, the two armies have formally completed the exercise of using each other's combat equipment. But more importantly, the introduction of the bilingual Chinese-Russian command information system is significant, since it will be key to enhancing the joint warfare capabilities of the two armies. The new system has changed the pattern of previous “joint” exercises that involved only independently organized and planned Chinese and Russian forces. The change enables sharing of situational information and unification of operational rules to make the collaboration more efficient. The new system allows participants to build a smoother chain of command,

taking advantage of the information system. The system also allows them to establish internal connections to sub-level operational centers or to the operational group (team) command posts, and, if necessary, to the end terminals of the two armies' individual soldiers for true joint warfare.²

For over a decade, the Sino-Russian military exercises have been conducted under Russian military command codes and the Russian language as a tacit agreement. Today, the introduction of a bilingual command information system and the establishment of a Russian liaison unit in the joint command center not only allow both sides to involve and understand the entire mission, but also enable them to grasp the situation and work out solutions together. This is a large step forward, and it also brings the Chinese PLA out of its previously “passively cooperative” role.

As this exercise is only the first step for China and Russia to take a substantial step towards joint military operations, the

2. Lu Desheng, Zhang Xiaoyu, and Yang Xiaobo, “Zapad/Interaction-2021 Exercise Highlights—Interview with Li Shuyin, Researcher of Military Science Academy,” *PLA Daily*, August 12, 2021, p. 3.

completion of a round of exercise with each other's equipment is still far from seamless interoperability. It will still take considerable time and effort in future exercises for both countries to deepen the collaboration to become truly combat-ready.

2-2 Messages from counter-terrorism exercise

As the Taliban just took over Afghanistan, the Sino-Russian exercise taking place in the Ningxia Hui Autonomous Region with terrorist groups as the opposing force not only warns the Xinjiang independence activists from cooperating with “outside terrorist powers”, but also signals to the Taliban not to expand the battlefield to other foreign soil. Since the location of choice is quite far from Afghanistan, the tension can be avoided as well.

There have been several joint counter-terrorism exercises held by China and Russia respectively as well as multilateral exercises participated by other Central Asian countries. If terrorism were a real concern, it would be more meaningful to hold such exercises under the Shanghai Cooperation Organization (SCO), a

framework established with counter-terrorism considerations in mind; however, the two countries were organizing exercises seemingly unrelated to the SCO. Although the real strength of their joint combat capability remains unknown, the two countries deliberately publicized the exercises to stress their power against the US, their common adversary. China and Russia keep reiterating that their exercises are not aimed at any country, but it is clear that the US is still the target audience. As China and Russia are both facing the US on both sides of the Eurasian continent, the objective is more than obvious. Despite the fact that the Taliban regained control of Afghanistan with unexpected speed, the real priority of Sino-Russian exercises is mainly in their own interests rather than the advertised counter-terrorism.

3. Trend Observation

3-1. Sino-Russian military cooperation is promising in short term under US pressure

Exercises and arms sales are the two pillars of Sino-Russian military cooperation. The sales have been at a

decade-long standstill due to China's actions such as reverse engineering, intellectual property infringement and theft of trade secrets, but after the Ukrainian crisis in 2014, Russia decided to accelerate its “Pivot to the East” policy and relax restrictions on the sale and transfer of advanced weapons and technology to China. The level of military exercises was elevated and selection of the locations for their “Joint Naval Exercises” also became more sensitive. For instance, the “Joint Naval Exercise-2014” took place in the East China Sea, the first stage of “Joint Naval Exercise-2015” in the Mediterranean Sea and the first stage of “Joint Naval Exercise-2017” in the Baltic Sea.

The signing of “Sino-Russian Military Cooperation Roadmap for 2017-2020” in June 2017 set off another wave of Sino-Russian military collaboration, which is believed to be connected to the deterioration of Russian-US relations. Since 2018, China has been invited to participate in Russia's highest-level strategic exercises such as “Vostok-2018”, “Tsentr-2019” and “Caucasus-2020” that highly targeted “other major countries”, in which traditionally only the closest

military partners of Russia were issued invitation. This shocked the outside world and suggested that Sino-Russian military relations are stronger than ever. As China and Russia conducted their first joint strategic air patrol in the Asia-Pacific region in July 2019 and again in December 2020, they were clearly provoking the US and its allies. It's worth watching if such patrols will become routine and held again in 2021. Another important indication is Russia's assistance to China in building an early warning missile system in 2019. Since the system is the most important and sensitive mechanism in terms of strategic nuclear weapons control, this move is tantamount to pushing Sino-Russian military cooperation towards an even tighter alliance.

The changes show that the pressure from the West, especially the US, is the major external force to accelerate the development of Sino-Russian military cooperation. With no light at the end of the tunnel yet in the conflict between the US and China, the Sino-Russian military cooperation is promising in the short term, and early warning missile systems and cyberspace may become the two countries' new proving grounds in the future.

3-2 Conceptional differences between China and Russia are detrimental to future long-term military cooperation

The advancement of Sino-Russian military cooperation is directly proportional to external pressures, and the PLA can benefit from the Russian military's combat experience. However, the imbalance of military power still leads to Russia's domination. This can also be observed from Russian President Vladimir Putin's expedient interpretation on whether China and Russia are allies.

Likewise, the difference in cognition between China and Russia may be a potential variable in the future. Take this exercise, literally called “West/Joint 2021” by the Chinese side, as an example. “Zapad/Interaction-2021” in English and “Запад/Взаимодействие-2021” in Russian both mean “West/Interaction-2021”, in which the meanings of “interaction” and “joint” are quite different. A similar discrepancy in meaning can also be seen in the series of Sino-Russian “Joint Naval Exercises”, where the Russian word “морское взаимодействие” actually means “naval interaction” rather than “naval

joint”. It's possible that the Russians merely see the bilateral exercises as military exchanges and interactions, but China deliberately exaggerated them to make a bigger statement for itself. The discrepancy between their perceptions in this regard is indeed related to historical legacy. Although the Russians call their relationship with China “brotherhood”, they are still proud of themselves as “big brothers” and have not forgotten their assistance to the Chinese in the Soviet era. The author has also learned from interviews with Russians that they believe that the so-called strategic partnership and military exercises are in fact Russia's courteous response to China's needs. With such a mentality, even though China and Russia are united against the US, they may not see each other's geopolitical status as equals.

Chinese President Xi Jinping proposed a new type of “major power relationship” between China and the US in 2013 to share and manage global affairs with the US. Although the US has not responded, it has an implication that China considered itself to be on higher international footing than Russia. While Russia has not regained its former status

as a superpower after the Cold War, the country still considers itself to be on par with the US. Therefore, although China and Russia both advocate multipolar international relations, they do not necessarily see each other as equals.

The discrepancy between China and Russia’s interpretation of military exercises is to some extent related to their mutual perceptions, but also to their interpretation of each other’s international positioning. When faced with a common external threat, the two countries may be able to temporarily put aside their differences, but not after the threat has diminished or subsided. For long-term military cooperation between the two sides, this mentality may not be very conducive in the future.

Political and Military Challenges on the 70th Anniversary of Tibet's Annexation

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1. News Highlights

On August 19, 2021, the Chinese Communist Party (CCP) held the “70th Anniversary of the Peaceful Liberation of Tibet” in Tibet. Wang Yang, Chairman of the Chinese People’s Political Consultative Conference (CPPCC), went to the Potala Palace in Tibet to deliver a speech on behalf of the CCP and unveiled the “Building a Beautiful and Happy Tibet and Realizing the Dream of Great Revival” plaque inscribed by Chinese President Xi Jinping to create a harmonious, grand atmosphere for the celebration. Though such propaganda has its own political and military messages, it also reveals the challenges and hidden worries as discussed below.

2. Security Implications

2-1. Xi and Wang visited Tibet to emphasize legitimacy of CCP rulers

Prior to the celebration of the “70th liberation anniversary”, Xi made an early visit to Tibet from July 21-23 as warm up for the event. This was his first visit to Tibet since his inauguration as China’s president in 2012. Xi’s visit focused on promoting the Party’s “governing Tibet in the new era” policies formulated in September 2020, which emphasizes the legitimacy of the CCP leadership and calls for “continuous strengthening of all ethnic groups’ identification with the great motherland, the Chinese people, the culture, the CCP and socialism with Chinese characteristics”. He also inspected construction works such as railroads,

villages and temples as the propaganda materials for CCP achievements.¹

At the 70th anniversary ceremony, Wang Yang's speech echoed the key points of Xi's visit and declared, "The peaceful liberation of Tibet in 1951 was a major victory for the Chinese people and the unification of the motherland...We expelled the imperialist forces, started the great democratic reform, ended the secularism and divine ruling power, and established a democratic regime for the people."² Other parts of his speech mentioned GDP from the past to present, average life expectancy as well as transportation construction, and more, in an attempt to reiterate the legitimacy of

the CCP's rule over Tibet.

2-2. Official CCP media highlight importance of military affairs in Tibet

The first major category of recent Tibetan military news is about political warfare; from Tibetan locals joining the army to soldiers learning the army ideology that promotes the PLA spirit and patriotism. For example, on September 15, 2021, China's Ministry of Defense heavily publicized Xi's letter that encouraged the "model highland garrison battalion" and inspired faith and determination of the PLA to defend the country and the Tibetan border.³

1. "Xi Jinping Stressed During His Visit to Tibet That He Would Fully Implement CCP's Strategy for Governing Tibet in the New Era and Write A New Chapter of Long-term Stability and High-quality Development on the Snowy Plateau", *People's Daily Online*, July 24, 2021. <http://jhsjk.people.cn/article/32168440>.
2. Wang Yang, "Speech at the Celebration of the 70th Anniversary of the Peaceful Liberation of Tibet," *People's Daily Online*, Aug. 20, 2021. <http://politics.people.com.cn/n1/2021/0820/c1024-32200443.html>.
3. Lu Dongfang, "National Flag Flying in the 'First Village of Tibet Liberation,'" Ministry of Defense of China, August 19, 2021, http://www.mod.gov.cn/big5/education/2021-08/05/content_4891113.htm. Wang Ensheng and Ma Sancheng, "A Report on a Special Warfare Brigade of the Tibet Theater Learning from President Xi's 'July 1 Speech'," Ministry of Defense of China, August 19, 2021, http://www.mod.gov.cn/big5/education/2021-08/05/content_4891113.htm. He Yongmin and Zhu Yidan, "A Unit of Qinghai-Tibet Station in the Tibet Theater Utilizes Red Resources to Encourage Spirit Casting", *China Military Net*, August 22, 2021, http://www.81.cn/big5/yw/2021-08/22/content_10079508.htm. "President Xi's letter of reply to all officers and soldiers of the Model Plateau Garrison Battalion aroused strong reactions throughout the army," Ministry of Defense of China, September 15, 2021.

The second category is information about the increasing PLA armament and training in the Tibetan Theater, such as the first public unveiling in Tibet of the “Hongjian-12” missile system that can target tanks, fixed fortifications and low-flying aircraft.⁴ It’s also reported that a combined arms brigade in the Tibetan Theater conducted live fire exercises of various artillery guns in the south of the Nyenchen Tanglha Mountains range.⁵

These reports began to increase as the 70th anniversary of the “Tibet liberation” approached, exceeding the usual frequency of Tibet-related military news being reported. Only in July 2021 did Xinhua News Agency, an official Chinese media, suddenly disclose details of the 2020 Sino-Indian conflicts through a report honoring a fallen battalion commander.⁶ CCTV, another government

media, deliberately publicized the full-time, full-area, multi-unit “Snow Mission-2021” exercise taking place in Tibet on August 26 as a provocative signal to India.⁷ From the degree of publicity of recent military exercises in Tibet, we can see how China has attempted to promote patriotism and Tibetan defense as well as to warn India about the potential risk if it decides to confront China.

3. Trend Observation

3-1. Sino-India border confrontation will not be resolved soon

The Tibetan locations visited by Xi in July all had military significance. On July 22, Xi first visited Nyingchi, a southeastern Tibetan city close to the Indian state of Arunachal Pradesh and

4. Lai Jinhong, “Hongjian-12 anti-tank missiles deployed in Tibet for the first time, capable of shooting down helicopters,” *United Daily News*, July 26, 2021.

5. Liu Mengyuan, Li Shenglin and Xu Yong, “On a 4500m plateau! Combined Arms Brigade in Tibet Theater Organizes Live Fire Tests,” *China Military Net*, August 19, 2021.

6. “Chen Hongjun, a Hero Guarding the Country's Border: the Outstanding Representative of the Next-generation Soldiers”, *Xinhua Net*, July 17, 2021. http://www.xinhuanet.com/mil/2021-07/17/c_1211245126.htm.

7. “[Morning Defense News] ‘Snow Mission-2021’ Multi-Service Joint Warfare Exercise in Action”, *CCTV.com*, August 26, 2021. <https://tv.cctv.com/2021/08/26/VIDEZWNlanS8EQKdgOCtLCNs210826.shtml>.

was a major point of contention in the past Sino-Indian border conflict, so Xi's visit had a strong sense of declaration of sovereignty. Secondly, Xi took the Lhasa-Nyingchi Railway, the first electrified line in Tibet, to arrive in Lhasa. According to the Indian calculation, the old route would take 48 hours, while the new route from Chengdu, Sichuan, to Lhasa through Nyingchi now takes only 10 hours, which speeds up transportation of PLA personnel and supplies to Tibet significantly.⁸ Xi's trip not only carried military meanings, but he was also sending a warning message to India as the Chinese leader in terms of the border conflicts.

In contrast to the progress of Sino-Indian talks on the border conflicts since 2020, such as the July 14, 2021, meeting of the Chinese and Indian foreign ministers in Dushanbe, the differences between the two sides remain significant.

Indian Foreign Minister Subrahmanyam Jaishankar pointed out that the premise to lower tensions between the two countries is the withdrawal of Chinese troops, while Wang Yi on the Chinese side clearly refuted that "China won't take the responsibility". The disagreement continues to the current 12th round of Army Corps Commander-level talks between India and China on July 31. No final agreement has been reached to push for the withdrawal of Chinese troops from the eastern part of the Ladakh area along the actual control line in the western section of the Sino-Indian border.⁹ Apart from asserting sovereignty, Xi's gestures and the official CCP media propaganda on the military buildup in Tibet are of limited help in truly resolving the border confrontation, which still needs to be negotiated intelligently through diplomatic means.

8. Sunday Guardian, "Xi Tibet visit an expression of frustration, anxiety and arrogance," *Sunday Guardian Live*, July 24, 2021, <https://www.sundayguardianlive.com/news/xi-tibet-visit-expression-frustration-anxiety-arrogance>.

9. Mu Yao, "The 100-day talks ineffective, can China and India's 200,000 troops spend this summer in peace?" , *Hong Kong 01*, July 20, 2021, <https://reurl.cc/9rjX3Y>; "China and India hold 12th round of Corps Commander-level talks, no consensus on withdrawal of border troops" , *Central News Agency*, August 3, 2021. <https://www.cna.com.tw/news/aopl/202108030026.aspx>.

3-2. CCP' s Tibet governance is still condemned internationally

The CCP's governance of Tibet has been the source of social backlash and international condemnation. Some foreign media reported that during Xi's latest visit to Tibet, the CCP authorities requested that the personal social media accounts of many lama monks and other religious figures be closed. This interference to religious freedom caused another round of criticism. US Secretary of State Antony Blinken and Chargé d'affaires Atul Keshap recently met with Ngodup Dongchung, a representative of the Dalai Lama's Central Tibetan Administration, who revealed that "the US supports the religious freedom of the Tibetan people as well as preservation of their culture and language, and respects Dalai Lama's vision of equal rights for all".¹⁰

China's response has been tough

as always. In his speech at the "70th Anniversary of the Peaceful Liberation of Tibet", Wang Yang stated that "no external forces are qualified to dictate Tibetan affairs, and any attempt or ploy to split Tibet will end in failure." From the hardline speeches of the CCP leadership and the propaganda of national solidarity in various official media, it can be seen that they are mindful of whether the CCP, can establish the legitimacy and stability of its ruling as a "foreign regime" in Tibet. But due to the repeated Tibetan rebellions and the exile of the Central Tibetan Administration, the CCP has not been able to dispel this concern, but only try to convince people with the "people united" propaganda and political achievements. However, its hardline and disregard for human rights will continue to face international scrutiny and condemnation.

10. "Xi Jinping's Tibet Trip Reveals Signs of Strong Repression, Tibetan Buddhist Monastery Forced to Close as Monks in Death Struggle" , *Radio Free Asia*, August 2, 2021, <https://www.rfa.org/cantonese/news/tibet-08022021053058.html>; "US Chargé d'Affaires Meets Dalai Lama's Representatives, China Strongly Protests" , *Radio Free Asia*, August 12, 2021. <https://www.rfa.org/cantonese/news/dalai-08122021040005.html>.

US-Australia Biennial “Talisman Sabre 2021” Joint Exercise and Second Island Chain Security

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1. News Highlights

According to *Naval Technology*, the biennial “Talisman Sabre”,¹ a multinational military exercise organized by the US and Australia, was held in central and northeastern Queensland as well as off the eastern coast of Australia from July 14-31, 2021. This year, in addition to the US and Australia, Japan, the United Kingdom, Canada, New Zealand, South Korea (first participation)², India, Indonesia, Germany and France (the last four countries joined as observers)³ also participated in the exercise. Although

the exercise scale was reduced due to the COVID-19 pandemic, with only about 17,000 troops, it involved the largest number of countries ever. The strategic objective of this joint exercise was to impede China’s military expansion and ensure regional security. At the tactical level, the exercise is designed to enhance interoperability between the US and Australian forces with activities like readiness preparations, amphibious landings, ground force exercises, urban operations, air combats and naval operations.

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1. “Australia and the US begin joint military exercise Talisman Sabre 2021,” *Naval Technology*, July 15, 2021, <https://www.naval-technology.com/news/australia-us-talisman-sabre-2021/>.
 2. “Korean Forces to Participate in US-Australian ‘Talisman Sabre’ Joint Military Exercise for the First Time” , *Yonhap News Agency*, 28 June 2021. <https://cb.yna.co.kr/gate/big5/cn.yna.co.kr/view/ACK20210628001300881?section=politics/index>.
 3. “US Army tests Patriot Missiles during Talisman Saber 21,” *Army Technology*, July 20, 2021, <https://www.army-technology.com/news/us-army-patriot-missiles-talisman-saber-21/>.

2. Security Implications

The “Talisman Sabre” has been the largest military exercise jointly organized by the US and Australia since 2005 and is considered a symbol of the US-Australian military alliance. The exercise, which covered the eastern coast of Australia and surrounding waters in addition to Hawaii in the United States, is important to the defense of the second island chain in the Western Pacific. With China’s military influence expanding into the South Pacific region, Australia-China relations continue to deteriorate, while the Biden administration in the US maintains a hardline attitude toward China. As a result, this year’s “Talisman Sabre” exercise still aimed to counter China’s expansion into the South Pacific while safeguarding the second island chain. The implications for regional security are as follows:

2-1. US and Australia expressed their common “anti-China” attitude

Australia was sanctioned by China in April 2020 with banning imports of

commodities such as coal and agricultural products as a result of Australia advocating for an investigation into the source of the COVID-19 virus in China. In addition, China’s “One Belt, One Road” financial assistance to South Pacific island countries in exchange for rights to build military facilities has caused Australia to be concern about regional security. As a result, Australia has turned to strengthening its relationship with its democratic allies in order to expand the frameworks for containing China. At the same time, Australia has added more depth to the joint exercises with the US to demonstrate a strong stance against China’s military expansion into the South Pacific for the defense of regional security.

According to reports from the Australian Broadcasting Company (ABC), Australian Defense Minister Peter Dutton confirmed that the country’s military had spotted the PLA Navy Type 815 recon ship “Uranus” during its passage through the Torres Strait⁴ to Australia with its Emissions Control (EMCON) mode fully activated; the ship stealthily monitored the

4. The Torres Strait is an international water located between Australia and the island of Melanesia in New Guinea. The narrowest part of the Strait is about 150 km; the Cape York Peninsula (the northernmost part of Queensland, Australia) to the south and the Western Province of Papua New Guinea to the north.

entire exercise in the northeast Australian water. During the previous “Talisman Sabre” exercises in 2017 and 2019, a PLA Navy ship was also present.⁵ This shows that China keeps paying close attention to US-Australian military cooperation in the South Pacific.

Although Germany and France were only participating as observers in this year’s exercise, it shows that Europe is becoming more concerned about Indo-Pacific security in the face of China’s military expansion. Through their actions, these countries are showing China they are willing to participate in US-Australian cooperation.

2-2. Strengthening defense of second island chain and security of Australian mainland

China’s recent deterioration in relations with Australia, India, Japan, Taiwan and neighboring countries in the South China Sea has extended its military threat from the first island chain to the

second. Since Australia’s northeast Pacific coast defense is closely related to the security of the southern end of the second island chain (Papua New Guinea), the US-Australia military alliance is an important factor in Australia’s security and regional stability. Therefore, the area of this year’s exercise was focused on northeast Australia to strengthen the security of its mainland and the second island chain.

In the exercise, the US 38th Air Defense Artillery Brigade and 94th Army Air and Missile Defense Command used guided missiles to destroy drone targets in the Shoalwater Bay Training Area in Queensland, Australia. It was the first time the US launched the Patriot III (PAC-3) medium-range surface-to-air missile on Australian soil and the first launch of Patriot missiles in the southern hemisphere.⁶

In response to the threat of a possible invasion from the Pacific Ocean in

5. Andrew Greene, “Chinese spy ship returns to waters off Queensland ahead of Defence’ s largest war-fighting exercise,” *ABC News*, July 14, 2021, <https://www.abc.net.au/news/2021-07-14/chinese-spy-ship-returns-to-australian-waters/100289192>.

6. “US Army tests Patriot Missiles during Talisman Saber 21,” *Army Technology*, July 20, 2021, <https://www.army-technology.com/news/us-army-patriot-missiles-talisman-saber-21/>.

northeastern Australia (Queensland and Northern Territory), and to enable sea denial and control of the enemy, the US Marine Corps demonstrated the firepower of High Mobility Artillery Rocket Systems (HIMARS) during an exercise at the Shoalwater Bay Training Area by coordinating live fire with the USS Rafael Peralta (DDG-115) on July 18. At the same time, Royal Australian Air Force F/A-18 Hornets and Marine Corps UH-1 Huey helicopters also conducted joint live fire with AH-1 Cobra attack helicopters.⁷

It is worth noting that on July 31, the last day of the exercise, the Australian Army, the US Marine Corps, the British Marine Corps and the Japanese Amphibious Rapid Deployment Brigade conducted their first joint amphibious landing exercise in Ingham of northeast Queensland, Australia.⁸

3. Trend Observation

In observing the US-Australia “Talisman Sabre” military exercise, this article provides two trends for reference:

3-1. US and Australia to deploy advanced missile systems near second island chain

In August 2019, the US called on Australia to deploy new land-based long-range weapons to counter China’s growing military power, but Australians rejected the deployment of US medium-range missiles on its soil due to the possible tensions with its neighbors.⁹ However, as the perceived threat from China increases, the US and Australian forces completed the first PAC-3 anti-missile live fire in Australia during this exercise. The live fire covered key airfields and supply depots for the US for agile deployment in the South Pacific to intercept Chinese missile attacks in this area. This also validates the

7. Dzirhan Mahadzir, “Admiral: Talisman Sabre Proves U.S., Allies Can Create Pacific Naval Force in Days,” *USNI News*, July 29, 2021, <https://news.usni.org/2021/07/29/admiral-talisman-sabre-proves-u-s-allies-can-create-pacific-naval-force-in-days>.

8. Wu Cishan, “US, Japan, UK and Australia Jointly Practice Amphibious Landing for the First Time” , *Newtalk News*, July 31, 2021. <https://newtalk.tw/news/view/2021-07-31/613365>.

9. “Australia Rejects Deployment of US Intermediate-Range Missiles” , *Wall Street Journal*, August 5, 2019, <https://cn.wsj.com/articles/ 澳洲拒絕部署美國中程飛彈 -121564972810>.

intercept capability of the PAC-3 system in Australia.

According to the *Stars and Stripes* news, the US military is scheduled to conduct at least two large-scale missile defense exercises in the Pacific range near Hawaii with PAC-3 missiles and the Navy’s Standard 6 missiles starting from August this year. This fully validates the US’s current anti-missile capabilities to protect the west of Guam, the second island chain and the first island chain.¹⁰

3-2. Strengthening strategic defense link between second island chain and first

The Australian government has decided to strengthen its national defense capabilities in response to growing Chinese aggression and the COVID-19 impact on global supply chains. Australian Prime Minister Scott Morrison announced

a weapon development program on March 31 this year, citing the “changing global environment” and the need for enhanced defense capabilities. A\$1 billion will be invested in 10 years to produce new long-range hypersonic missiles in cooperation with the US defense industry.¹¹ Australia’s close military cooperation with the US will not only ensure that the military industry meets the technological needs of its own and the US, its “most important military partner,” but will also enhance its research and development capabilities and ensure that the supply chain is not interrupted by global changes in the event of war, so that Australia can have a large number of missiles ready in the face of military conflicts.¹²

In addition to protecting its own military industry, Australia’s development of advanced missile systems is in line

10. William Cole, “Pacific Missile Range Facility Plans Two Major Tests,” *Stars and Stripes*, July 23, 2021, https://www.stripes.com/theaters/asia_pacific/2021-07-23/pacific-missile-range-tests-kauai-2256217.html.

11. Nick Perry, “Australia to Build Guided Missiles to Boost Defense Capacity,” *AP News*, March 31, 2021, <https://apnews.com/article/world-news-australia-scott-morrison-new-zealand-114bfafef0d4d917792e0fa1f3f148a5>.

12. Zhou Hongwen, “Australia Announces Home-made Missiles to Counter China in Alliance with US” , *The Liberty Times*, April 1, 2021. <https://news.ltn.com.tw/news/world/paper/1440540>.

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with the US Indo-Pacific strategy and has two important long-term strategic considerations:

a. Securing second island chain

The development of a new missile system may help strengthen the security of the second island chain. On November 30, 2020, Australia and the US signed the 15-year “The Southern Cross Integrated Flight Research Experiment” (SCIFiRE) project to jointly develop a long-range, air-launched hypersonic weapon to enhance the Royal Australian Air Force’s long-range strike capability in response to possible military threats from China.¹³ The launch of US PAC-3 missiles in Australia during this “Talisman Sabre” exercise is just the beginning. Since Australia at the southern end of the second island chain is yet to have a US missile defense system deployed, its missile deterrence capability can be strengthened and expanded to

the second island chain if an advanced missiles system can be self-developed or obtained from the US.

In addition, because the southwestern islands of Japan range across about 1,200 kilometers and connect to the Philippines, the end of the first island chain, Japan’s Ministry of Defense intends to deploy the Ground Self-Defense Force missile units on Ishigaki Island, Okinawa Prefecture in 2022 with a force of about 500 to 600 troops to counter the expansion of the PLA Navy. This is the fourth island in the southwest of Japan to have missiles deployed after Amami Oshima of Kagoshima Prefecture, Okinawa main island and Miyakojima — all are quite close to Taiwan. The planned deployments of Australian advanced missile systems in the Northern Territory and Queensland¹⁴ will support the US and Japanese units in the first island chain, so then the missiles

13. Wang Guanglei, “Australia and US Jointly Develop Air-launched Hypersonic Missiles to Counter Russia and China, *Youth Daily News*, December 2, 2020.

<https://www.ydn.com.tw/news/newsInsidePage?chapterID=1293902>.

14. To expand mutual cooperation with the US military, Australia announced that it will spend A\$747 million to upgrade four military bases in the Northern Territory, including Robertson Barracks, Kangaroo Flats Training Area, Mount Bundey Training Area and Bradshaw Field Training Area. The upgrades also allow the Australian forces to conduct joint training exercises of larger scales with the US Marine Corps in Australia. Reference: “Australia to upgrade four northern military bases for strengthened joint combat capability with US”, *The Liberty Times*, April 28, 2021. <https://news.ltn.com.tw/news/world/breakingnews/351372>.

in the first and second island chains will be able to support each other in suppressing China’s military expansion in the Western Pacific.

b. Emphasis on first island chain defense

To Australia, the importance of stability in the Taiwan Strait and the security of the first island chain is more critical than ever. According to a report titled “Australia and the Growing Reach of China’s Military”, published on August 9 by the Lowy Institute, an Australian think tank, China’s medium- and long-range missile development will cause an imbalance of air and naval power in the Western Pacific. So Australia needs to strategically prepare for the worst-case scenario of China invading Taiwan and

gaining control of the first island chain, in which US allies in the Indo-Pacific, including Australia, would face direct Chinese military threats.¹⁵ Although there is no direct Chinese military threat to the Australian homeland, China is actively developing long-range missiles, long-range bombers and a blue-water navy that make Australia’s geopolitical advantage less dependable, and the threats would be much greater than the potential Japanese invasion in World War II. Therefore, Australia’s possession of a large number of advanced long-range missile systems not only ensures the security of its mainland and the second island chain, but also indirectly suppresses China’s attempts to control the first island chain.

15. Thomas Shugart, “Australia and the Growing Reach of China’s Military,” Lowy Institute, August 9, 2021, <https://www.lowyinstitute.org/publications/australia-and-growing-reach-china-s-military>.

Growing Air Domain Awareness of PLA in South China Sea

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1. News Highlights

On August 31, 2021, ImageSat International (ISI), an Israeli commercial satellite company, released recent satellite photos showing PLA activities in the waters around Zhubi Reef, also known as Subi Reef, in the Spratly Islands. Except for a Type 052 missile destroyer (“Qingdao” of the North China Sea Fleet) with hull code 113, all others in the images were military aircraft including a helicopter that appeared to be the destroyer’s on-board Z-9 (ISI believes it was a larger Z-8), a Y-9G (Gaoxin 11) electronic warfare aircraft and KQ-200

(Gaoxin 6), an anti-submarine warfare aircraft.¹ PLA aircrafts are becoming more active in the South China Sea. This article takes a look at the PLA’s air domain awareness in the area.

As defined by the US Department of Homeland Security, air domain awareness is the ability to detect, track and identify threats from the air by becoming conscious of any object crossing given airspace. The awareness is critical to the security and defense efforts of a wide area, especially in preventing and responding to potential intrusive activities.²

1. @ImageSatIntl, 10:08 PM, Aug 31, 2021, Twitter, <https://reurl.cc/GmzR5y>.

2. “Feature Article: S&T Collaborates with Federal Partners to Improve Air Domain Awareness at the Northern Border,” February 4, 2021, U.S. Homeland Security, <https://reurl.cc/1YnaKV>.

2. Security Implications

2-1. PLA raises air domain awareness in Spratly Islands

The development of the PLA's air domain awareness in the South China Sea was marked by a watershed in 2016. Before that, the awareness was still limited to the airspace over Guangdong, Hainan, Paracel Islands and the surrounding region. Due to factors such as the collision of US and Chinese military aircraft over Hainan Island in 2001; the long-range attack drills of the South China Sea Fleet Air Force's H-6 bombers; Chinese President Xi Jinping's plan to "reclaim the reefs to build islands"; the completion of the first cross-ocean bombing practice by eight planes of the South China Sea Fleet in 2014; and the PLA Air Force's first long-range training in the Western Pacific Ocean outside the first island chain in 2015, the PLA is gradually expanding its air domain awareness into other areas in the South China Sea.

Since 2016, the formation of the Southern Theater, the introduction of advanced fighter planes, the completion of runway extension projects on several islands and reefs, and the growth of the PLA Air Force toward a "modernized strategic force capable of full-range operations" under Xi's guidance³ have led the PLA to build a more comprehensive air domain awareness in the South China Sea. To achieve this, the PLA conducts combat patrols on individual islands and along the Nine-dash Line, improves the integration of Beidou navigation satellites with the ground and air C⁴ISR in the South China Sea, strengthens the ability to track and intercept foreign military aircraft, enables (partner) air refueling to expand the operational radius, and enhances the ability of smooth 24-hour anytime takeoff and landing aircraft operations on carriers and designated islands. The recent military aircraft activities in Zhubi Reef show that the PLA is indeed elevating its air domain awareness in the Spratly Islands.

3. "Chinese Air Force Moves Toward a Modern Strategic Power with Full-territory Operation Capability", *People's Daily Online*, November 10, 2017, <http://military.people.com.cn/BIG5/n1/2017/1110/c1011-29638966.html>.

2-2. PLA utilizes Spratly Islands to expand air domain awareness in South China Sea

Chinese military facilities in the South China Sea were constructed ostensibly for defending its sovereignty, but they are actually for collecting battlefield information in the area for possible future warfare. Since 2018, the PLA Air Force units based on the islands have begun transmitting real-time information via radars and communications systems to the PLA Navy hundreds of miles away.⁴ After 2020, China has been using the hangars and runways on the Spratly Islands more frequently to expand the range and patrol time of PLA aircraft in the South China Sea and even the Indian Ocean. As a result, the users of the Air Force facilities on the islands are no longer just the Navy and Coast Guard vessels, but the PLA Navy and Air Force aviation units using the islands frequently to expand their air

domain awareness of the South China Sea.⁵

3. Trend Observation

3-1. PLA's air domain awareness of South China Sea will sharply expand in 1-3 years

The PLA force in the South China Sea still consists of mostly aviation units from the islands and coastal bases in the Southern Theater, and PLA Navy ships cruising in the area even still rely on the escort and protection from these forces.⁶ But this situation is expected to change in the next 1-3 years. According to news reports, the Dara Sakor International Airport in Koh Kong Province, Cambodia is scheduled to be opened in mid-2022;⁷ if PLA airplanes are allowed to operate from the airport, they will pose a direct threat to the US bases and garrisons in Singapore

4. J. Michael Dahm, "Beyond "Conventional Wisdom" : Evaluating the PLA'S South China Sea Bases in Perational Context," War on the Rocks, MARCH 17, 2020, <https://reurl.cc/eE04lb>.

5. *Military and Security Developments Involving the People's Republic of China 2020*, Annual Report to Congress, U.S. Department of Defense, 2020, p.79, <https://reurl.cc/EnqMAR>.

6. See footnote 3.

7. "New! Cambodia's Dara Sakor International Airport will start its operations in mid-2022," *NetEase*, August 30, 2021.

and Thailand, and will extend the PLA Air Force's early warning airspace in the South China Sea westward to include the Gulf of Siam and the Andaman Sea. Secondly, China is now building a new aircraft carrier with electromagnetic catapult systems instead of a ski-jump deck. If the new carrier can increase the carrying capacity and deploy small- to medium-sized reconnaissance and early warning aircraft as well as more fighters on board, the PLA's airspace domain awareness in the South China Sea will be expanded even further.

3-2. More “underwater domain awareness” for PLA in South China Sea

The author observed that the PLA has been strengthening its air domain awareness of the South China Sea by deploying military aircraft on the three major Spratlys reef islands, Fiery Cross, Zhubi and Mischief, between April to June 2021. The first is the KQ-200 that appeared on Fiery Cross Reef in April 2021, followed by the KJ-500 that appeared on Mischief Reef from May to June, the KQ-200 and KJ-500 AEW&C that appeared on Fiery Cross Reef on June 9 (the Type 815 electronic reconnaissance

vessel that assists in anti-submarine operations is also present nearby), and even the Y-9 and Z-8 that appeared on Zhubi Reef in June and July. It is worth noting that the Z-9, Y-9G and KQ-200 that appeared at Zhubi Reef are all capable of anti-submarine operations, meaning that the PLA is increasing its “underwater domain awareness” in the South China Sea while escalating its air domain awareness.



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