

U.S. Naval War College

U.S. Naval War College Digital Commons

CMSI China Maritime Reports

China Maritime Studies Institute

1-2022

China Maritime Report No. 18: Chinese Special Operations in a Large-Scale Island Landing

John Chen

Joel Wuthnow

Follow this and additional works at: <https://digital-commons.usnwc.edu/cmsi-maritime-reports>



中国海事研究所
China Maritime Studies Institute



U.S. NAVAL WAR COLLEGE
Est. 1884
NEWPORT, RHODE ISLAND

Summary

PLA special operations forces (SOF) would likely play important supporting roles in an amphibious assault on Taiwan. Their capabilities and training are geared towards several missions undertaken during the preparatory and main assault phases of the landing, including infiltration via special mission craft and helicopter, reconnaissance and targeting, obstacle clearance, strikes and raids, and extraction missions. While PLA SOF have made progress in recent years, several longstanding challenges could affect their performance in an island landing: integrating advanced special mission equipment for complex and dangerous missions, coordinating their operations with non-SOF supporting and supported forces, and overcoming the Chinese military's penchant for centralized command. Even if PLA SOF are only partially effective, however, their support to the main assault force could diminish Taiwan's ability to defend itself from a large-scale invasion.

Introduction

One important but sometimes overlooked factor that will influence the success of a People's Liberation Army (PLA) attempt to seize Taiwan is special operations forces (SOF) support to the main assault force.¹ Special operations have contributed to amphibious assaults in several modern campaigns, including Normandy (1944), the Falkland Islands (1982), and Grenada (1983). U.S. joint doctrine for amphibious operations continues to assign SOF multiple roles, including military information support, civil-military operations, foreign humanitarian assistance, special reconnaissance, direct action, and preparation of the environment.² During the preparatory and primary landing phases of a Taiwan invasion, and even during a potential "mop up" campaign against resistance fighters, the PLA would likely utilize SOF for similar purposes.³ Depending on their performance, these forces could enable or frustrate the operations of conventional PLA units, or perhaps have no effect at all.

This report addresses the potential role of PLA SOF in a Taiwan campaign from three perspectives.⁴ First is doctrine. By analyzing authoritative PLA publications, including the *Lectures on the Science of Special Operations*, we find that PLA SOF are assigned three roles, including a primary role in special reconnaissance and secondary roles in strikes/raids on key targets and in information operations. Second is force structure and capabilities. The PLA Navy (PLAN), PLA Air Force (PLAAF), PLA Army (PLAA), and People's Armed Police (PAP) all possess SOF relevant to a Taiwan contingency, including some forces that have expanded in recent years. The PLA has also acquired special mission equipment relevant to amphibious missions, such as underwater personnel delivery systems. Third is training. Based on PLA print and television media reports, PLA SOF have focused on squad-level and individual skills training, but there is also evidence of SOF involvement in larger combined-arms exercises. However, we found that joint training is limited, and there is almost no open-source evidence of SOF actively preparing for information operations.

¹ The Office of the Secretary of Defense's Congressionally mandated report on the Chinese military, for instance, contains only scant references to SOF. The only allusion to SOF in an island landing is the statement that SOF could "infiltrate Taiwan and conduct attacks against infrastructure or leadership targets," an assessment that is brief and does not fully capture the range of SOF assignments. *Military and Security Developments Involving the People's Republic of China* (Washington, DC: Department of Defense, 2020), 113.

² JP 3-02, *Amphibious Operations*, January 21, 2021, VI-4.

³ For a general description of PLA concepts of island landing campaigns, see Michael Casey, "Firepower Strike, Blockade, Landing: PLA Campaigns for a Cross-Strait Conflict," in Joel Wuthnow et al., eds., *Crossing the Strait* (Washington, DC: NDU Press, forthcoming).

⁴ While the focus of this report is island landings, PLA SOF would also play a role in a blockade.

The PLA has worked steadily over the last decade to ready SOF for an island landing scenario by refining doctrine, bolstering capabilities, and improving training. However, there are several variables that will influence these units' performance, including their technical proficiency and potential greater use of unmanned systems, which could replace humans in some roles but increase technical proficiency requirements; degree of jointness, including the need for larger and more frequent exercises with non-SOF units and continued reforms to joint command structures at and below the theater level; and the degree to which commanders try to micromanage SOF activities on the battlefield, which could lead to suboptimal results if those forces hesitate to act without explicit approval. The Taiwan and U.S. defense establishments should work to evaluate these challenges and weaknesses and determine whether plans for Taiwan's defense adequately consider PLA SOF.



Exhibit 1. Members of the PLAA's "Flying Dragons of the East" conduct an air assault exercise.⁵

Doctrine

PLA sources have increasingly noted the importance of special operations in modern warfare.⁶ Both the 2013 Academy of Military Sciences (AMS) *Science of Military Strategy* and the 2020 National Defense University (NDU) *Science of Military Strategy* place SOF alongside other specialized capabilities, such as electronic warfare, aviation, missiles and missile defense, and information warfare, that the military needs to prevail in future wars.⁷ Other volumes describe SOF as integral to

⁵ "In the waters of southern Fujian, Members of the Special Forces Ace Card 'Flying Dragons of the East' Parachuted from the Sea for the First Time, Specializing in Beach Landings" [闽南海域，特战王牌“东海飞龙”首次海上跳伞 专攻抢滩登陆], Sohu, August 2, 2021, https://www.sohu.com/a/481002417_120823584.

⁶ For an earlier analysis, see Dean Cheng, "The Chinese People's Liberation Army and Special Operations," *Special Warfare*, (July-September 2012), www.soc.mil/SWCS/SWmag/archive/SW2503/SW2503TheChinesePeoplesLiberationArmy.html.

⁷ The lengthiest discussions are in sections on army strategy, but air and naval SOF are also noted. 军事科学院军事战略研究部 [Academy of Military Sciences Military Strategy Studies Department], 战略学 [Science of Military Strategy]

military operations other than war, including overseas counter-terrorism missions.⁸ The 2020 NDU *Science of Military Strategy* describes SOF as a form of “asymmetric warfare” that involves reconnaissance, sabotage, strikes, and “psychological operations involving all types of technologies and means.” The text encourages the PLA to build SOF capabilities in the areas of reconnaissance, strike, and survival behind enemy lines.⁹

SOF roles in an island landing scenario are discussed in various campaign-level PLA texts. The 2006 NDU *Science of Campaigns* assesses that special operations will be conducted in island landings to “isolate, split up, and collapse the enemy,” “weaken the enemy’s operational capabilities,” and “decrease the intensity of the enemy’s resistance.”¹⁰ A 2013 AMS teaching volume, *Lectures on Joint Battles*, notes that SOF would infiltrate behind enemy lines, destroy key targets, guide fire assaults, and capture key enemy personnel.¹¹ The most detailed descriptions are contained in another 2013 AMS teaching volume, *Lectures on the Science of Special Operations*. The authors begin their analysis of special operations in an island landing through a sketch of the role that British SOF played in the 1982 Falkland Islands campaign; those forces assisted the main landing force by gathering intelligence and conducting raids to “confuse and disrupt” Argentine forces, allowing the marines to land “with little resistance.”¹²

In Chinese operational concepts, SOF can play several distinct roles in an island landing. First and likely most prominent is reconnaissance and targeting.¹³ This includes monitoring weather or hydrological conditions; scouting enemy positions and movements, as well as enemy obstructions in the main landing approaches; tracking high-value enemy targets; identifying and illuminating targets for conventional precision-guided missile strikes; and conducting battle damage assessment.¹⁴ *Lectures on the Science of Special Operations* observes that British SOF landed on East Falkland island three weeks prior to the main assault, during which time they kept track of hydrological conditions, monitored enemy troop movements, and evaluated enemy fortifications to “ensure the smooth landing of the Marines and paratroopers.”¹⁵

Second are strikes and raids. *Science of Campaigns* describes SOF raids, including sabotaging airfields, naval port facilities and ships, radar stations, command posts, ammunition depots, and/or

(Beijing: Military Sciences Press, 2013), 205-6; 肖天亮 [Xiao Tianliang], ed., 战略学 [*Science of Military Strategy*] (Beijing: National Defense University Press, 2020), 265.

⁸ Kevin McCauley, “PLA Special Operations: Combat Missions and Operations Abroad,” *China Brief*, September 3, 2015, <https://jamestown.org/program/pla-special-operations-combat-missions-and-operations-abroad>.

⁹ Xiao, *Science of Military Strategy*, 355.

¹⁰ 张玉良 [Zhang Yuliang], ed., 战役学 [*Science of Campaigns*] (Beijing: National Defense University Press, 2006), 312.

¹¹ 陈荣弟 [Chen Rongdi], 联合战斗教程 [*Lectures on Joint Battles*] (Beijing: Military Sciences Press, 2013), 169.

¹² 郭明 [Guo Ming], 特种作战学教程 [*Lectures on the Science of Special Operations*] (Beijing: Military Sciences Press, 2013), 181. For a broader analysis of PLA lessons from this campaign, see Christopher D. Yung, “Sinica Rules the Waves? The People’s Liberation Army Navy’s Power Projection and Anti-Access/Area Denial Lessons from the Falklands/Malvinas Campaign,” in Andrew Scobell, David Lai, and Roy Kamphausen, eds., *Chinese Lessons from Other People’s Wars* (Carlisle, PA: U.S. Army War College Strategic Studies Institute, 2011), 75-114.

¹³ The 2011 PLA’s dictionary of military terminology notes in its definition of “special operations” (特种作战) that an alternative name for these activities is “special reconnaissance operations” (特种侦察作战). See 全军军事术语管理委员会 [All-Military Terminology Management Committee], 中国人民解放军军语 [*China People’s Liberation Army Military Terminology*] (Beijing: Military Science Press, 2011), 875.

¹⁴ Zhang, *Science of Campaigns*, 199; Guo, *Lectures on the Science of Special Operations*, 183; Chen, *Lectures on Joint Battles*, 76.

¹⁵ Guo, *Lectures on the Science of Special Operations*, 183.

coastal observation posts, as an enabler of both air and sea dominance during the initial phases of an island landing.¹⁶ During the landing phase, SOF would attempt to “pin down and scatter the enemy’s operational forces,” reducing their ability to concentrate on the main assault.¹⁷ *Lectures on the Science of Special Operations* also discusses raids against enemy political and civilian targets.¹⁸ The authors attribute the rapid U.S. success during the 1983 Grenada campaign to special operations that secured the governor general’s residence, government offices, television broadcast facilities, and key roads and other infrastructure in the capital of St. George’s.¹⁹ The volume describes raids to rescue captured air and naval personnel in a section on blockade operations, but this mission would also apply to an island landing.²⁰

Third are psychological warfare operations.²¹ *Science of Campaigns* assigns SOF a role of “disintegrating enemy resolve” through disinformation; it also describes a category of “special technical warfare” that includes infiltrating enemy networks or using enemy radio and television stations to disseminate one’s own propaganda.²² *Lectures on the Science of Special Operations* similarly asserts that special operations forces will help to shape the information battlefield during an island landing in at least two ways: seizure or destruction of enemy communications and broadcast networks, and psychological campaigns such as distributing propaganda materials in enemy-occupied areas, setting up wireless transmitters and receivers, and facilitating the broadcast of propaganda to weaken enemy resolve.²³

Notably, Chinese sources tend not to discuss the role of SOF in phases of an island landing beyond the initial assault. *Science of Campaigns* and other texts contain little analysis of the role that the military, including SOF units, would play in defeating a protracted counterinsurgency, perhaps indicating a conviction that enemy resistance would collapse following a successful decapitation strike.²⁴ Nevertheless, given expertise in counterterrorism or other operations in restive locations such as Xinjiang, it is possible that either PLA or PAP SOF could be utilized against resistance fighters following a Taiwan invasion campaign.

According to Chinese writings, one of the key requirements of success is a high degree of integration between SOF and other forces during the run up to and execution of an island landing. *Lectures on Joint Battles* describes special combat forces as one of six landing groups under a common joint

¹⁶ Zhang, *Science of Campaigns*, 316.

¹⁷ Ibid., 326.

¹⁸ Guo, *Lectures on the Science of Special Operations*, 183.

¹⁹ Ibid. Special operations did play a notable role in Operation Urgent Fury but in this respect their mission was quite different from what the PLA would be expected to accomplish in Taiwan. For instance, Navy SEALs rescued the governor-general whereas the PLA would be expected to capture or eliminate key Taiwanese political figures. See Ronald H. Cole, *Operation Urgent Fury—Grenada*, Joint History Office, 1997, https://www.jcs.mil/Portals/36/Documents/History/Monographs/Urgent_Fury.pdf, 29.

²⁰ Guo, *Lectures on the Science of Special Operations*, 188. A blockade would likely precede an island landing. SOF could also attempt to rescue Chinese personnel on land.

²¹ For more on information operations in a Taiwan campaign, see Fiona Cunningham, Testimony before the U.S.-China Economic and Security Review Commission, U.S.-China Economic and Security Review Commission, February 18, 2021, https://www.uscc.gov/sites/default/files/2021-02/Fiona_Cunningham_Testimony.pdf.

²² Zhang, *Science of Campaigns*, 199.

²³ Guo, *Lectures on the Science of Special Operations*, 183-4.

²⁴ However, PLA units have conducted urban warfare training. For a discussion, see Sale Lilly, “Killing Rats in a Porcelain Shop: PLA Urban Warfare Operations in a Taiwan Campaign,” in Joel Wuthnow et al., eds., *Crossing the Strait: China’s Military Prepares for War with Taiwan* (Washington, DC: NDU Press, forthcoming in 2022).

headquarters; the others include landing (ground), maritime, air, missile, and information groups.²⁵ *Lectures on the Science of Special Operations* describes the need to achieve close coordination between these types of forces: “special operations must work closely with other operations and pursue them in a unified manner. This puts high demands on the coordination of planning organizations and battlefield control.”²⁶ For instance, SOF would need to coordinate with air and missile forces in targeting, and with Strategic Support Force (SSF) psychological warfare and technical reconnaissance units in information operations. However, the previous command structure, in which the PLAAF, PLAN, and other forces were poorly integrated into the theaters, was not suited to a doctrine that called for close coordination.

Reforms undertaken during the Xi era alleviated this challenge by granting theater commanders authority over a wider range of forces, including PLAN SOF, and encouraging them to concentrate on joint training.²⁷ A 2018 *China Military Science* article by two staff officers from the Southern Theater Command confirms that theater commanders are responsible for planning and operational coordination for SOF, while the CMC’s responsibility is limited to providing overall guidance.²⁸ Nevertheless, the lack of recent campaign texts renders it difficult to evaluate how the system will operate at the tactical and operational levels. It is also worth noting that, in practice, the reforms did not create standing joint task forces that would encourage stronger peacetime coordination across the different services.²⁹ Moreover, as discussed below, the shift to a theater structure has not necessarily resulted in closer integration of SOF into joint training and some SOF, including those under the PAP and Airborne Corps, remain outside theater purview.

²⁵ Chen, *Lectures on Joint Battles*, 169. This mirrors the incorporation of SOF into joint constructs as depicted in other PLA writings. See Jeffrey Engstrom, *Systems Confrontation and System Destruction Warfare* (Santa Monica, CA: RAND, 2018), 35.

²⁶ Guo, *Lectures on the Science of Special Operations*, 183.

²⁷ For a general description of the new command structure, see Joel Wuthnow, “A Brave New World for Chinese Joint Operations,” *Journal of Strategic Studies*, 40:1-2 (2017), 169-195.

²⁸ 唐旻晖, 徐常 [Tang Minhui and Xu Chang], 站在新的历史起点, 加快推动我军特种部队建设转型 [“Reach a New Historical Starting Point and Accelerate the Transformation of the PLA’s Special Forces”], *中国军事科学* [*China Military Science*], no. 2 (2018), 54.

²⁹ The need for closer integration of force at the tactical and operational levels is a theme of recent PLA writings on joint operations. See Xiao, *Science of Military Strategy*, 264-7. See also Derek Solen, “Chinese Views of All-Domain Operations,” China Aerospace Studies Institute, August 31, 2020, www.airuniversity.af.edu/CASI/Display/Article/2310442/chinese-views-of-all-domain-operations/.



Exhibit 2. A member of the PLA Air Force “Thunder Gods” SOF brigade participates in a water-landing parachute drill.³⁰

Force Structure and Capabilities

Most PLA SOF are organized into brigades assigned to each of the five Theater Commands.³¹ According to authoritative and non-authoritative Chinese sources, each of the PLAA’s 13 Group Armies has a SOF brigade, and the PLA Air Force Airborne Corps, PLAN Marine Corps, and the PLA Rocket Force (PLARF) each has one SOF brigade apiece.³² Some of these SOF brigades are relatively new formations converted from conventional forces as part of an attempted expansion of SOF capabilities, and they are probably more similar in mission and force structure to the U.S. Army Rangers than the elite Delta Force.³³ These formations and their approximate geographic locations are depicted in Exhibit 3 (see Appendix for further details). Judging by location, the units most likely to support an amphibious assault on Taiwan are the five SOF brigades of the Eastern and Southern Theater Commands, along with the PLAN Marine Corps’ Sea Dragons brigade (蛟龙突击队), based in Hainan, and possibly the PLA Air Force’s Thunder Gods brigade (雷神突击队), located near the eastern

³⁰ 顾熙熙, 沈帅 [Gu Xixi and Shen Shuai], 想成为特种兵吗? 请收下这份指南 [“Want to Become a Special Forces Soldier? Please Accept This Guide”], 我们的天空微信公众号 [Our Sky WeChat Account], October 10, 2020, http://www.81.cn/tz/2020-10/10/content_9915940.htm.

³¹ For a pre-reform assessment of Chinese SOF, see Dennis J. Blasko, “Chinese Special Operations Forces: Not Like ‘Back at Bragg,’” *War on the Rocks*, January 1, 2015, <https://warontherocks.com/2015/01/chinese-special-operations-forces-not-like-back-at-bragg/>.

³² For a partial listing of PLA SOF from an unofficial source, see 21 支特战劲旅 磨砺反恐尖刀 [“21 Special Forces Contingents, Practiced Anti-Terrorism Daggers”], 大公报 [Takung Pao], September 2, 2019, www.takungpao.com/news/232108/2019/0902/343977.html; *The Military Balance* (London: International Institute for Strategic Studies, 2021), 249-255.

³³ For instance, one official source indicates that a motorized infantry brigade in the 81st Group Army (Central Theater Command) was converted to a SOF brigade in May 2017. See 创新人才培养, 加快新质战斗力生成 [“Innovate Personnel Training, Accelerate the Production of New Quality Combat Power”], 军事报道 [Military Affairs Report], May 10, 2020, <https://tv.cctv.com/v1/VIDEbuNXXK8M9UEC2gqI34Tk200510.html>.

seaboard in Hubei province. In addition, reconnaissance battalions assigned to the PLAA Group Armies and PLAN Marine Corps brigades are not explicitly designated as SOF but may also carry out special warfare missions in a Taiwan scenario.³⁴



Exhibit 3. PLA Special Forces Units and Locations³⁵

Most relevant to a large-scale island landing are the PLAA's SOF brigades. While their mission is distinct, their internal structure bears resemblance to other PLAA brigades in some respects. For instance, SOF brigades follow a standard "brigade-battalion-company-team" (旅-营-连-队组) hierarchy and their field command arrangements includes basic, reserve, and rear command posts.³⁶

³⁴ 吴登峰, 范旭东, 翟思宇 [Wu Dengfeng, Fan Xudong, and Di Siyu], 海军陆战队某旅侦察营: 锻造特种作战的利刃尖刀 ["Marine Corps Unidentified Brigade Reconnaissance Battalion: Forging The Blades and Daggers of Special Warfare"], 新华 [Xinhua News Agency], December 27, 2018, www.81.cn/jwgz/2018-12/27/content_9389652.htm.

³⁵ Peter Wood, Twitter post, January 5, 2020, 6:36 p.m., https://twitter.com/peterwood_pdw/status/1213967625849434112?lang=en. Used with permission of Peter Wood.

³⁶ 董伟, 王本胜 [Dong Wei and Wang Bensheng], 特种作战旅如何构建敏捷化指挥体系 ["How to Build an Agile Command System for a Special Operations Brigade"], 中国社会科学报 [Chinese Social Sciences Today], no. 1820 (2019), http://sscp.cssn.cn/xkpd/jsx_20175/201911/t20191121_5046131.html.

This structure more closely resembles the U.S. Army Rangers rather than Delta Force or SEALs, which delegate more authority to the team commander. Like army combined arms brigades, SOF brigades aspire to operate independently on the battlefield. This requires organic support capabilities such as unmanned aerial vehicle (UAV) reconnaissance battalions (无人机侦察营)³⁷ and fire support companies (火力支援连) with truck-mounted cannons, heavy mortars, and shoulder-fired surface-to-air missiles.³⁸ However, a 2018 *China Military Science* article suggests that more staff officers responsible for operations, intelligence, and coordination with other branches are needed for those battalions to be able to operate independently.³⁹

SOF brigades reportedly emphasize a “centralized command style” (集中式指挥) more common in conventional units rather than a flexible “task-oriented command style” (任务式指挥).⁴⁰ Centralized command is facilitated primarily by radio and satellite communications, which conventional units might also employ.⁴¹ However, SOF brigades apparently suffer from some of the same command and control problems that conventional PLA units of the same size might encounter. For instance, two scholars at the PLAA Command Academy noted in 2019 that down-echelon voice communications were difficult to maintain using comparatively slow, single-function, and limited bandwidth radios and satellite communications terminals. This meant that brigade, battalion, and company commanders did not have datalinks with each other, and SOF battalions, companies, and platoons did not have consistent access to the Integrated Command Platform or its command automation capabilities.⁴²

There is some evidence that SOF brigades have instituted arrangements to facilitate tactical and operational coordination with other services and branches. According to two PLA scholars, PLAA SOF brigades reportedly integrate personnel from other services by including liaison officers from relevant PLAN, PLAAF, PLAA aviation, and artillery units in the basic command post. A SOF brigade basic command post is “authorized to give priority to the support of intelligence, firepower, and other forces,” and fire support from naval, air force, or long-range artillery units can be guided through liaisons according to target detection and position information.⁴³ This structure is consistent with the emphasis of Chinese theorists on close coordination between SOF and supported units in reconnaissance, strike, and psychological warfare missions during an island landing campaign.

PLA SOF likely have priority access to modern equipment, such as individual soldier communications systems and night vision equipment. They are also likely to have access to special mission equipment that would be vital in an amphibious assault on Taiwan.⁴⁴ For instance, SOF have fielded UAVs of varying sizes, from hand-launched UAVs and micro-copters at the squad level to

³⁷ 微光作业 静谧夜空中敌情复杂险象环生 [“Shimmering Operations in the Quiet Night Sky in a Complex and Dangerous Enemy Situation”], 国防军事早报 [National Defense and Military Affairs Morning Report], July 27, 2020, http://www.js7tv.cn/video/202007_224641.html.

³⁸ 演兵 2020 陆军特种兵: 磨砺锻造新时代特战利箭 [“Army Special Warfare Exercises in 2020: Sharpen and Forge Special Warfare Weapons in the New Era”], 央视网 [CCTV], December 29, 2020, <https://tv.cctv.com/2020/12/29/VIDEvyusavi5RsJtaqQHpu4L201229.shtml>.

³⁹ Tang and Xu, “Reach a Historical Starting Point and Accelerate the Transformation of the PLA’s Special Forces,” 54.

⁴⁰ Dong and Wang, “How to Build an Agile Command System for a Special Operations Brigade.”

⁴¹ Ibid.

⁴² Ibid.

⁴³ Ibid.

⁴⁴ Much of this equipment is not necessarily exclusive to designated SOF, but is apparently distributed among both SOF units and smaller non-SOF reconnaissance formations.

medium-altitude BZK-005 vehicles as part of larger formations. In some instances, SOF units use commercially available off-the-shelf micro-UAVs for intelligence, surveillance, and reconnaissance ahead of assault drills.⁴⁵ As noted above, there are also dedicated UAV battalions in some Army SOF brigades; these field larger UAVs.⁴⁶ PLA SOF also claim to use various ground-based battlefield sensors and instruments. Recent Chinese media reports show members of one Eastern Theater Command Army SOF brigade using laser designators and troops from a reconnaissance company in a different theater setting up reconnaissance instruments and ground-based sensors.⁴⁷ PLA writings stress that SOF should gather technical signature intelligence using battlefield sensors, but little information on this hardware was available at the time of writing.⁴⁸

The most advanced equipment available to PLA SOF is likely used in clandestine maritime operations. This equipment includes undersea sensors, diver propulsion vehicles, and undersea personnel delivery systems, though the deployment and operational status of this equipment is unclear from open sources. For instance, undated screengrabs of official CCTV Military Report episodes showed PLA frogmen training with diver propulsion systems and a larger diver delivery submersible, and an unofficial source from 2015 posted pictures of PLAN frogmen using small diver propulsion vehicles and training to exit a submarine using torpedo tubes.⁴⁹ Chinese defense industry researchers have developed diver navigation aids, radios, and handheld direction-finding sonars for special operations in low-visibility underwater environments, though it is unclear which models have reached the force and in what numbers.⁵⁰ Such equipment would be critical in both reconnaissance and sabotage operations in the initial phases of an island landing.

Beyond the PLA, China's paramilitary force also has SOF capabilities that could be relevant during a Taiwan contingency. While the PAP maintains SWAT-like forces in each province that perform law enforcement functions on a local scale, it also has a few elite commando units that can be employed in more demanding circumstances farther from their home bases. Under a recent restructuring, these units were assigned to two national-level "mobile contingents" (机动总队) that do not have a fixed

⁴⁵ The example used here is a DJI Mavic Air model. See 直击演训场: 利刃出鞘 解放军特战旅年终大考战味十足! 换羽新飞 陆军合成营数字化装备全副武装跑出强军加速度! ["Go Straight to the Training Ground: The Sharp Edge of the Sword Is Out of the Sheath, PLA Special Operations Brigade End of the Year Assessment Has a Full War Flavor! Change of Feathers, New Flight, PLAA Combined Arms Brigade Digitized Equipment Accelerates the Strong Army"], 国防军事早报 [National Defense and Military Affairs Morning Report], November 25, 2020, <https://www.youtube.com/watch?v=5VLHZgDpf30>.

⁴⁶ "Shimmering Operations in the Quiet Night Sky in a Complex and Dangerous Enemy Situation." Of note, UAV availability is not unique to SOF units. Other reconnaissance units of Group Army brigades also use a variety of UAVs for airborne ISR.

⁴⁷ Of note, this equipment is not exclusive to SOF. See "Go Straight to the Training Ground;" 九九重阳送温暖 ["Sending Warmth on the Double Ninth Festival"], 军事报道 [CCTV Military Affairs Report], October 17, 2018, http://www.js7tv.cn/video/201810_161502.html.

⁴⁸ Dong and Wang, "How to Build an Agile Command System for a Special Operations Brigade."

⁴⁹ 为何中国官方突然高调展示蛙人艇? 专家称意在震慑越南勿轻举妄动 ["Why Did Chinese Officials Suddenly Display a Frogman Boat? Expert Says It Is to Convince Vietnam Not to Act Rashly"], Sina News, January 28, 2020, https://k.sina.com.cn/article_7094401811_1a6dbfb1300100pc4s.html?from=mil; H.I. Sutton, "Chinese Naval Special Forces Projects and Capabilities," *Covert Shores*, May 28, 2015, <http://www.hisutton.com/Chinese%20Naval%20Special%20Forces%20projects%20and%20capabilities.html>.

⁵⁰ For one example, see 白峻, 曾锋, 刘峰, 郭晓敏, 余俊 [Bai Jun, Zeng Feng, Liu Feng, Guo Xiaomin, and Yu Jun], 蛙人水下信息系统发展综述 ["A Summary of Frogman Information System Development"], 电声技术 [Electroacoustic Technology] 38 no. 9 (2014), 259-264.

geographic boundary.⁵¹ Both are large rapid reaction forces with mixed capabilities that can be deployed in major contingencies. Most relevant to a Taiwan scenario is the Second Mobile Contingent, whose headquarters is in Fuzhou (but subordinate units are scattered across southern China). This organization has two SOF detachments, one of which is believed to be the Snow Leopards commando unit (雪豹突击队). Founded in 2002, the Snow Leopards were based in Beijing but moved to Guangzhou as part of the restructuring.⁵² The unit focuses on counterterrorism and hostage rescue, and includes assault, reconnaissance, explosive ordnance disposal, and sniper teams.⁵³ Its members possess standard equipment for “close-range fire strikes,” including pistols and assault rifles, while some also operate crossbows, submachine guns, and heavy machine guns.⁵⁴ Its location, internal composition, and equipment would make it applicable to some aspects of a Taiwan contingency, including protecting critical infrastructure within China from sabotage and even conducting “political rendition”-type operations in Taiwan.⁵⁵



Exhibit 4. Members of the PAP “Snow Leopards” pose for a photo following a training exercise.⁵⁶

⁵¹ Joel Wuthnow, *China’s Other Army: The People’s Armed Police in an Era of Reform*, China Strategic Perspectives 13, Institute for National Strategic Studies, (April 2019), <https://inss.ndu.edu/Portals/82/China%20SP%2014%20Final%20for%20Web.pdf?ver=2019-04-16-121756-937>, 12-13.

⁵² One Chinese source associates the Snow Leopards with the 2nd Mobile Contingent 1st SOF Detachment, which is based in Guangzhou. 喜报！祝贺淮滨籍武警雪豹突击队员翁振华荣立二等功 [“Good News! Congratulations to Weng Zhenhua, Member of the Snow Leopards, for His Second Class Merit Award”], 河南日报 [Henan Daily], February 22, 2021, www.henandaily.cn/content/2021/0222/282452.html. The other SOF detachment is located in Huzhou, Zhejiang.

⁵³ Cortez A. Cooper, “Controlling the Four Quarters: China Trains, Equips, and Deploys a Modern, Mobile People’s Armed Police,” in Roy Kamphausen, David Lai, and Travis Tanner, eds., *Learning by Doing: The PLA Trains at Home and Abroad* (Carlisle: Army War College Press, 2012), 139.

⁵⁴ 雪豹突击队: “国字号”反恐精锐部队 [“Snow Leopard Commandos: ‘National Brand’ Anti-Terrorist Elite Force”], 中国军网综合 [China Military Online], February 6, 2015, http://www.81.cn/wj/2015-02/06/content_6342550.htm.

⁵⁵ Wuthnow, *China’s Other Army*, 22.

⁵⁶ 实战化的“味道”——走进武警雪豹突击队 [“Real Combat-Style ‘Flavor’—Inside the PAP Snow Leopards Detachment”], Xinhua, February 1, 2019, http://www.xinhuanet.com/politics/2019-02/01/c_1210053442.htm.

Training

SOF units practice a variety of skills relevant to an island landing, though Chinese sources describe difficulties that could diminish those forces' readiness for a Taiwan campaign. Army SOF, for instance, practice obstacle clearing, stealthy marches, survival behind enemy lines, direction-finding, nighttime reconnaissance, observational reporting, blocking maneuvers, and battlefield first aid.⁵⁷ The PLAN Marine Corps "Sea Dragons" commandos reportedly spend more than a year learning parachuting, rappelling, direction-finding, special vehicle-driving, search and seizure, demolition, and hand-to-hand combat skills, as well as reconnaissance skills like map identification, photo-taking and video recording, and encryption protocols for transmitting intelligence.⁵⁸ The PLAAF Airborne Corps "Thunder Gods" SOF brigade trains for high-altitude, high-opening and high-altitude, low-opening parachute jumps,⁵⁹ among other skills. SOF personnel also train to capture high value targets for intelligence purposes (捕俘) for a variety of campaigns, including an island-landing scenario.⁶⁰

Official Chinese media routinely refer to SOF units as "tri-ambiguous" (三栖) or "quad-ambiguous" (四栖), referring to their ability to operate from air, land, sea, and underwater.⁶¹ Army SOF units from the Eastern Theater Command practice combat swimming, paddling in small rubber boats, shooting from moving watercraft, and scuba diving.⁶² In a 2016 exercise, troops from a Southern Theater Command Army SOF brigade fast-roped from helicopters at 20 meters above water, then traveled 5km to a beach using surface and subsurface methods.⁶³ The Sea Dragons practice deploying rubber boats and fast-roping frogmen from helicopters into the water.⁶⁴ Likewise, the Thunder Gods held large training events in 2019 and 2020 where personnel parachuted into water, practicing extrication from parachute harnesses and the use of steerable parachutes.⁶⁵

⁵⁷ 武元晋 [Wu Yuanjin], 亮剑金陵展锋芒-陆军“精武-2018”军事比武竞赛掠影 [“Shining the Sword in the Metallic Forest: A Glimpse of the Army's 'Jinwu-2018' Military Battlefield Competition”], 解放军画报 [PLA Pictorial], October 2018 (2nd Half), http://www.plapic.com.cn/pub/2018-10/26/content_9323905.htm.

⁵⁸ 正午国防军事 [“Noon National Defense and Military Affairs Report”], CCTV-7, August 8, 2020, <https://tv.cctv.com/2020/08/08/VIDERUayVRIdhCZsfhoL8f3n200808.shtml?spm=C52346.Peju2R0pHxYA.S82959.86>.

⁵⁹ 超燃! 中国空降兵“雷神”突击队超严格选拔过程公开 淬炼“尖刀利刃”! [“Fast Burn! China's Airborne 'Thunder Gods' Special Forces Team's Ultra-Rigorous Selection Process Publicly Tempers the 'Sharp Blades and Knives!'”], 国防故事 [National Defense Stories], 军迷天下 [Army Fan World], February 25, 2021, <https://www.youtube.com/watch?v=KhOuRAtOFJU>.

⁶⁰ 范伟 [Fan Wei], 捕俘在岛屿特种作战的应用 [“Applied Research on Capturing Enemy Personnel In Island Special Operations”], 军事体育学报 [Journal of Military Physical Education], 35 no. 4 (October 2016), 38-39.

⁶¹ For one example of just such an appellation, see “Noon National Defense and Military Affairs Report.”

⁶² 武装泅渡 特战队员搏击风浪磨砺硬功 [“Armed Swimming, Special Operators Combat Wind and Waves to Sharpen Their Skills”], 军事报道 [Military Affairs Report], August 26, 2019, http://www.js7tv.cn/video/201908_191141.html.

⁶³ 刘莎莎, [Liu Shasha], ed., 我军展开海上特种训练, 蛙人负重 25 公斤定向潜水 [“Our Army Launches Special Training at Sea, Frogmen Carry 25 Kilograms Underwater”], 人民网 [People's Daily Online], December 8, 2016, http://www.js7tv.cn/news/201612_71325.html. This unit is now within the 74th Group Army, based in the Southern Theater Command.

⁶⁴ 海军陆战队某旅侦察营:“蛟龙”出击“夜枭”先行 [“Reconnaissance Battalion of a Marine Corps Brigade: 'Sea Dragons' Strike 'Night Lords' First”], 军事报道 [Military Affairs Report], December 28, 2018, http://www.js7tv.cn/video/201812_168543.html.

⁶⁵ 空降兵某旅: 多伞型超低空水上跳伞训练 [“An Airborne Brigade: Multi-Parachute, Ultra-Low-Altitude Above Water Parachute Training”], 军事报道 [Military Affairs Report], May 30, 2019, http://www.js7tv.cn/video/201905_182599.html; 空降兵某旅成建制完成水上跳伞 [“A Parachute Brigade Completes Above-Water Parachuting”], 国防军事早报 [National Defense and Military Affairs Morning Report], August 10, 2020,



Exhibit 5. Sniper affiliated with the PLAN “Sea Dragons” conducts a shooting drill.⁶⁶

SOF units have also demonstrated rapid extraction capabilities across multiple domains. In 2017 footage, PLAN Marine Corps frogmen practiced a diver extraction method where they boarded a passing motorized rigid inflatable boat from the water, while a 2020 image showed the Thunder Gods apparently practicing a rapid extraction using a helicopter rope suspension technique.⁶⁷ Other extraction training undertaken during combat search and rescue drills focuses on coordination between fire support elements to cover forces exfiltrating by truck.⁶⁸

Like their PLA comrades, elite PAP SOF units also aim to improve readiness through rigorous selection and training. The Snow Leopards, for instance, profess stringent selection standards, with 40-50 percent of recruits failing to pass initial screening.⁶⁹ Nevertheless, a senior officer described retention as a problem, with fewer long-serving members than comparable units in other countries.⁷⁰ The Snow Leopards’ annual “Devil Week” training simulates operations in “actual combat environments” including deserts, jungles, sea, air, and urban locations. Most of this training focuses on counterterrorism assignments, including water-to-shore training featured in the 2020 Devil

http://www.js7tv.cn/video/202008_226019.html; 空降兵某旅成建制完成水上跳伞 [“A Parachute Brigade Completes Above-Water Parachuting”], 国防军事早报 [National Defense and Military Affairs Morning Report], August 10, 2020, http://www.js7tv.cn/video/202008_226019.html.

⁶⁶ 罕见曝光！中国海军“蛟龙突击队”揭开神秘面纱 [“Rare Exposure! PLA Navy ‘Sea Dragons Commando Team’ Unveiled”], CCTV, December 23, 2017, <http://tv.cctv.com/2017/12/23/ARTIzhvzw8xe0Uh6OsfWT7tJi171223.shtml>.

⁶⁷ 峥嵘 90 年 为你守护” 海之骄子 [“90 Years of Greatness for Your Protection: Pride of the Sea”], 央视网 [CCTV Online], August 4, 2017, http://www.js7tv.cn/video/201708_106487.html; 顾熙熙，沈帅 [Gu Xixi and Shen Shuai], 想成为特种兵吗？请收下这份指南 [“Do You Want to Become a Special Operator? Please Accept This Guide”], 中国军网 [China Military Online], October 10, 2020, http://www.81.cn/tz/2020-10/10/content_9915940.htm.

⁶⁸ 蛟龙突击队：山岳丛林锻造全域作战的反恐尖刀 [“Sea Dragons Special Operations Force: Mountain and Jungle Training Creates a Multi-Operational Anti-Terrorism Knife”], 军事快报 [Military Affairs Digest], May 28, 2018, http://www.js7tv.cn/video/201805_146509.html.

⁶⁹ 雪豹突击队训 “生不如死” 反恐精英无所不能 [“Snow Leopard Training Is ‘Death Better Than Life,’ Counter-Terrorism Elites Are All Around”], 中国新闻周刊 [China News Weekly], July 18, 2017, <https://news.qq.com/a/20170718/008379.htm>.

⁷⁰ Ibid.

Week.⁷¹ The Snow Leopards and other PAP units have also regularly participated in international exercises and competitions, mostly focused on counterterrorism.⁷²

PLA training instructors stress that special operations are mostly squad-sized maneuvers, involving only 1-2 personnel at a time or 6-12 personnel at most⁷³ (similar to the size and scale of U.S. Green Beret detachments or some Navy SEAL teams). Having personnel with multiple skills is considered critical to survival and success in small-unit operations.⁷⁴ Small-unit maneuvers provide SOF with low-risk opportunities to practice skills relevant to an amphibious assault. In August 2020, for instance, members of a 72nd Group Army SOF brigade landed on a small, uninhabited, and unfamiliar island in the East China Sea, disembarked from small motorboats, and swam to the island to achieve surprise. Once ashore, they scaled cliffs and stormed a simulated rear command post (后备指挥所), quickly collected and processed intelligence through document exploitation, and used special communication protocols to report the information up echelon.⁷⁵

Beyond individual and small-unit drills, PLA SOF units also train in larger, more complex combined-arms formations that showcase likely SOF missions during an amphibious landing on Taiwan. In December 2020, PLAN Marine Corps SOF participated in a combined arms island landing and seizure exercise involving squad-sized (班组) mechanized infantry units. In the opening phase, SOF used mine-clearing line charges to destroy landing obstacles, while sniper teams simultaneously seized optimal sniping positions and began to ambush critical points on the enemy's frontline. Shortly thereafter, SOF troops fast-roped from helicopters onto high ground and began infiltration and attacks ahead of the main landing force. Assault vehicles then deployed smokescreens to cover infantry fighting vehicles carrying out suppressing fire, while SOF proceeded to destroy vital enemy targets one by one.⁷⁶ SOF have also trained at the national training range at Zhurihe, where satellite imagery has identified a mockup of Taiwan's presidential building. However, it is unclear how much they focus on preparing for a decapitation strike.⁷⁷

Some field exercises involving larger SOF units combine tactical and operational experimentation with validation of combat capabilities in a landing scenario. One complex three-day exercise in September 2020 paired Z-10 attack and Mil Mi-17 transport helicopters of a 73rd Group Army aviation brigade with troops from a 73rd Group Army SOF brigade. The helicopters proceeded to the landing zones after evading air defense radars and anti-aircraft fire, and the aviation brigade practiced

⁷¹ 雪豹突击队组合训练挑战极限 刷新综合战斗能力 [“Snow Leopard Commando Combination Training Challenges Limits, Refreshes Comprehensive Combat Capabilities”], 中国新闻网 [China News Service], June 24, 2020, <https://m.yunnan.cn/system/2020/06/24/030745347.shtml>.

⁷² Cooper, “Controlling the Four Quarters,” 139.

⁷³ “Noon National Defense and Military Affairs Report.”

⁷⁴ Ibid.

⁷⁵ 东南沿海, 特战队员连贯展开渡海登岛演练 [“On the Southeast Coast, Special Forces Continuously Carry Out Island Landing Training”], 军事报道 [Military Affairs Report], August 16, 2020, http://www.js7tv.cn/video/202008_226694.html.

⁷⁶ 多兵种协同 海军陆战队登岛夺控演练 [“Multi-Branch Coordination, Marines Conduct Island Seizure Exercise”], 军事报道 [Military Affairs Report], December 28, 2020, http://www.js7tv.cn/video/202012_237736.html.

⁷⁷ “Competition of PLA Special Operations Forces Concludes,” *China Military Online*, August 22, 2013, <http://en.people.cn/90786/8373495.html>; Joseph Trevithick, “China’s Largest Base Has Replicas of Taiwan’s Presidential Building, Eiffel Tower,” *The Drive*, May 27, 2020, <https://www.thedrive.com/the-war-zone/33591/chinas-biggest-base-has-huge-replicas-of-taiwans-presidential-building-and-the-eiffel-tower>. PLA media reports have not publicly associated SOF training at Zhurihe with that specific mockup.

low-altitude reconnaissance before landing SOF troops.⁷⁸ For their part, the SOF brigade experimented with up to eight fast-ropes from a single Mi-17, purportedly reducing disembarkation time by up to 50 percent.⁷⁹ Other larger SOF exercises closely resemble conventional combat operations involving organized command decision-making and coordination of fire support from artillery and aircraft. During a September 2020 exercise, personnel from a Southern Theater Command SOF brigade arrived in an unfamiliar area, set up a command post and corresponding communications, and rehearsed operational planning. Other troops proceeded to carry out different training activities in all-weather conditions against simulated opposing “Blue Team” forces, including hostage extraction, nighttime reconnaissance, and target designation for fire support.⁸⁰

Coordination between SOF and non-SOF forces mostly involves technologies and platforms that are not organic to PLA SOF units. The most frequently depicted examples show the use of Army and Navy rotary-wing aircraft for parachute jump training and troop transport.⁸¹ In a few publicly reported instances, Army SOF personnel train with attack helicopters from Army aviation brigades, in which these platforms scout landing zones.⁸² There is also likely direct integration of SOF reconnaissance elements with higher-echelon intelligence authorities in recent exercises. For instance, one winter 2020 exercise featured troops from a SOF brigade of the 82nd Group Army using Beidou positioning, navigation, and timing transmitters issued by the former General Staff Department Survey and Navigation Bureau to relay targeting information to a command post.⁸³

Despite apparent progress in training, SOF face several deficiencies in preparing for island landing operations. First, reports suggest that SOF have struggled with special mission equipment that would be vital for successful pre-landing operations. A 2015 article by PLAN Submarine Academy special warfare researchers published in an Army Special Forces Academy journal remarked that the limited oxygen supply, heavy weight, excessive cavitation, and complex battery charging and assembly of the main Chinese-built diver delivery vehicle meant that training programs for those vehicles should be carried out only in waters pre-cleared of obstacles and debris, with no explosives within three nautical miles of the training area for safety reasons.⁸⁴ It is unclear if more recent exercises have removed those restrictions.

⁷⁸ 陆航特战多方式机降突防 锻造精飞善战的空中利刃 [“Army Aviation and Special Forces Multi-Modal Airborne Penetration, Forging a Sharp Flying Sword”], 军事快播 [Military Affairs Digest], September 14, 2020, http://www.js7tv.cn/video/202009_229393.html; 多方式机降突防 锻造能飞善战的陆空铁拳 [“Multi-Modal Airborne Penetration, Forging a Sharp Iron Fist”], 军事报道 [Military Affairs Report], September 15, 2020, http://www.js7tv.cn/video/202009_229548.html.

⁷⁹ “Army Aviation and Special Forces Multi-Modal Airborne Penetration, Forging a Sharp Flying Sword.”

⁸⁰ 陆军第 75 集团军某特战旅: 破袭夺控 锤炼立体化渗透作战打赢能力 [“A 75th Group Army Special Operations Brigade: Breakthrough Attack to Seize Control, Refining the Ability to Win Three-Dimensional Infiltration Operations”], 军事快播 [Military Affairs Digest], September 26, 2020, http://www.js7tv.cn/video/202009_230429.html.

⁸¹ 陆军第 71 集团军某旅: 高空伞降 特战队员立体突袭 [“A 71st Group Army Brigade: High Altitude Parachute Landing, Special Forces Three-Dimensional Raid”], 军事报道 [Military Affairs Report], November 24, 2019, http://www.js7tv.cn/video/201911_199454.html.

⁸² 科尔沁草原 陆航特战联合跨昼夜伞降训练 [“Horqin Grasslands, Land and Air Special Forces Conduct Night and Day Parachute Training”], 军事报道 [Military Affairs Report], August 8, 2020, http://www.js7tv.cn/video/202008_225917.html.

⁸³ 朝闻天下演兵 2020 陆军特种兵: 磨砺锻造新时代特战利箭 [“Chaowen Tianxia 2020 Exercise Army Special Forces: Sharpening and Forging SOF Arrows in the New Era”], CCTV-13, December 29, 2020, <https://tv.cctv.com/2020/12/29/VIDEvyusavi5RsjaqQHpu4L201229.shtml>.

⁸⁴ 王涛, 于波杨, 王基山 [Wang Tao, Yu Boyang, and Wang Jishan], 国产蛙人运载器组训的重难点 [“The Important

Second is inadequate attention to technical reconnaissance. Two PLAA Command College scholars argue that SOF personnel are poorly trained to obtain and handle the intelligence collected by technical equipment, noting that SOF brigades “focused on armed reconnaissance training at the expense of technical reconnaissance,” resulting in “comparatively infrequent use of unmanned vehicles and battlefield television reconnaissance” and “low reconnaissance efficiency.”⁸⁵ A heavy emphasis on armed reconnaissance training also reportedly resulted in reduced attention to specialized skills like aerial imagery interpretation and target recognition and indication. As a result, “SOF officers and personnel have comparatively weak ability to obtain and handle intelligence.”⁸⁶

Third, PLA SOF do not appear to train for missions that could support offensive information warfare, including psychological operations or unconventional warfare. There is no public mention of any training with special mission aircraft or broadcast equipment, non-military assets, or interaction with local populations that could support offensive psychological operations. As a result, the role of PLA SOF in information operations would likely be limited to kinetic operations against critical information infrastructure like network management or data centers, computer server farms, or even undersea communications cables.⁸⁷ This may also involve simple operations to plug in devices on broadcasting antennas that would allow information operations personnel to access and exploit them.

Fourth is limited cross-service integration. There is little open-source evidence of SOF units from different services training together or with non-SOF units from different services, except for the occasional provision of PLAAF aircraft for Army SOF parachute jump training.⁸⁸ There is also no evidence that the Snow Leopards or other PAP SOF units have participated in joint exercises with PLA forces. Theater commanders have no de facto authority over PAP units (which report through their own headquarters); this reduces the theaters’ ability to incorporate PAP units into joint training and supervise them in a contingency.⁸⁹ Absent stronger coordination, it is unlikely that PAP SOF would be part of the initial landing, though these units could be called on once major operations are complete to assist in hunting down political figures.⁹⁰

Conclusion

PLA SOF would likely play important supporting roles in an amphibious assault on Taiwan. Their capabilities and training are geared towards several missions that would be undertaken during the preparatory and main assault phases of the landing, including infiltration via special mission craft and helicopter, reconnaissance and targeting, obstacle clearance, strikes and raids, and extraction missions. While not discussed in Chinese doctrinal sources, it is also likely that PAP or other special forces would remain on Taiwan following a successful landing to conduct counterinsurgency-type

and Difficult Points of Domestic Frogman Carrier Training”], 军事体育学报 [*Journal of Military Physical Education*], 34 no. 3 (July 2015), 40-41. The authors are SOF specialists from the Risk Prevention and Rescue Department of the Naval Submarine Academy (海军潜艇学院防险救生系).

⁸⁵ Dong and Wang, “How to Build an Agile Command System for a Special Operations Brigade.”

⁸⁶ Ibid.

⁸⁷ For an example of an expanded list of possible targets for special operations, see 陈志奇, 赵云峰 [Chen Zhiqi and Zhao Yunfeng], 信息化战争背景下联合特种作战任务新特点 [“New Specialties in Joint Special Operations Missions in the Context of Informatized Warfare”], 国防科技 [*National Defense Technology*], 40 no. 3 (June 2019), 65.

⁸⁸ 远程投送, 特种兵高空编队伞降 [“Long-Range Delivery, Special Forces High-Altitude Parachute Team Parachute Drop”], 军事报道 [*Military Affairs Report*], July 24, 2019, http://www.js7tv.cn/video/201907_187850.html.

⁸⁹ Joel Wuthnow, “Who Does What? Command and Control in a Taiwan Scenario,” Paper presented at the 2020 CAPS-RAND-NDU Conference on the PLA, November 20, 2020.

⁹⁰ On urban warfare in a Taiwan invasion scenario, see Lilly, “Killing Rats in a Porcelain Shop.”

missions. One area where doctrine may still be ahead of practice is information operations. It is unclear from open-source reports that SOF are preparing for on-island propaganda work, or are training with other relevant PLA units, including the SSF, for this mission.

While PLA SOF have made progress in recent years, several variables will influence their performance in an island landing. One is whether SOF can field and integrate better special mission equipment for complex and dangerous missions. While China's defense industry undoubtedly continues to improve manned special mission equipment for SOF, researchers have also stressed the utility of unmanned undersea and aerial vehicles for dangerous special operations like mine and obstacle clearing.⁹¹ Coordination and effective application of unmanned systems will call for more demanding training and recruitment requirements within PLA SOF.

Another variable is whether SOF can effectively coordinate their operations with non-SOF supporting and supported forces. How much coordination is necessary would likely vary by unit composition and mission type. SOF units with a diverse range of organic capabilities, specialized hardware, and dedicated support units may require less joint coordination than units tasked to accomplish special operations in which the mission rather than the unit is defined as "special." Elite commando units like the U.S. Navy's SEAL Team Six with dedicated transport and intelligence support units may require little interaction with main landing forces, but others, such as brigade-sized army units that would deploy alongside and directly support the main landing forces, may need to coordinate more extensively. In the latter case, which appears to describe the majority of the PLA's SOF units, the lack of permanent joint structures below the theater level could diminish the effectiveness of joint operations involving special forces, potentially leading to catastrophic results similar to the failed U.S. hostage rescue attempt in Iran during Operation Eagle Claw.⁹² Moreover, some relevant units, including from the SSF, PAP, and Airborne Corps, are outside the theater structure, leading to questions about joint command even at that level. Evidence that these potential shortcomings are being addressed would be inclusion of Airborne Corps and PAP SOF in theater command-led exercises; the establishment of permanent lower-level joint commands or liaison arrangements; and real-world operations, perhaps in counter-terrorism missions within China and farther from home, that would require SOF to learn lessons and adapt.

Chinese special operations would also have to reconcile the imperative for small, clandestine operations behind enemy lines with a desire for unified command under the joint command construct. Generally, there is a tension between the Leninist emphasis on centralization and the need to grant autonomy to lower PLA commanders. This could be especially problematic in special operations: centralized command could lead to poor performance if small units fail to act due to the lack of explicit authorization, or if they are forced to maintain radio communications and thus reveal their positions to the enemy. Evidence from training or updated doctrine could offer signs of whether SOF teams are given adequate autonomy in the field.

⁹¹ 孙成陆 [Sun Chenglu], 特种作战中无人机侦察力量的运用 ["Application of Unmanned Reconnaissance Vehicles in Special Operations"], 四川兵工学报 [Journal of Sichuan Ordnance], 32 no. 1 (January 2011), 44.

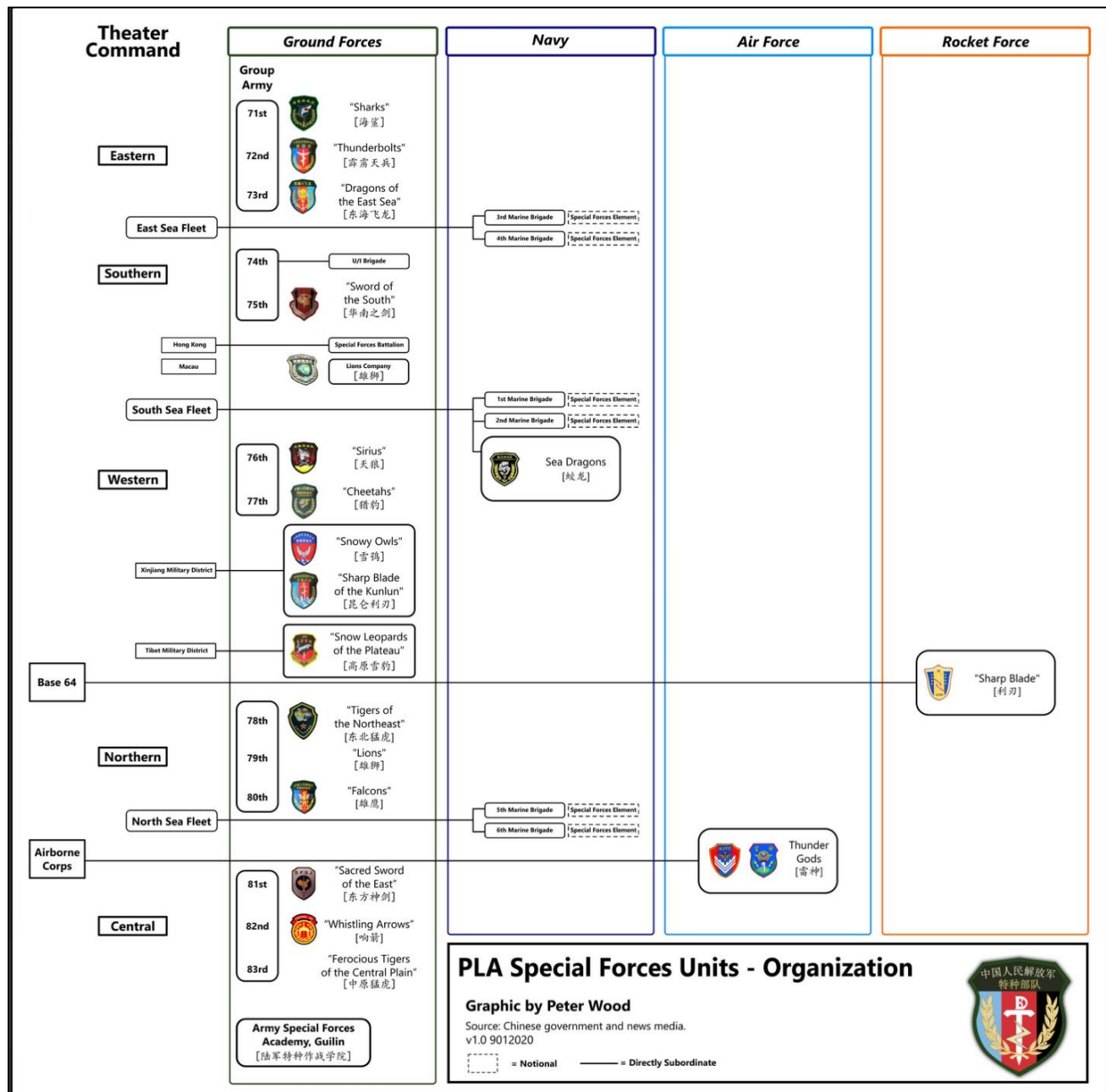
⁹² Operation Eagle Claw was an aborted attempt to rescue 52 hostages from the U.S. Embassy in Tehran in April 1980. One of the key findings from the official review was that planning and training for this operation suffered from limited interoperability between U.S. forces drawn from all four services. The panel suggested that a standing Joint Task Force construct would have reduced these problems. See Adm. James L. Holloway, "The Holloway Report," August 23, 1980, 60; see also Maj. William C. Flynt III, *Broken Stiletto: Command and Control of the Joint Task Force During Operation Eagle Claw at Desert One* (Fort Leavenworth: School of Advanced Military Studies, 1995).

Nevertheless, even partially effective special operations could diminish Taiwan's defenses and thus should be explicitly addressed in defensive concepts. Taiwan's articulation of a more "asymmetric and innovative" way of defeating an island landing, which has been discussed in recent years under the "overall defense concept" label, should explicitly acknowledge the threat posed by Chinese special operations forces preceding and during all phases of an island landing and determine whether additional changes to tactics and capabilities are needed.⁹³ Those approaches should also identify PLA weaknesses, such as lack of technical proficiency, limited jointness, and potential overreliance on radio communications for command and control, and tailor responses accordingly. It is also worth exploring whether, and how, U.S. SOF may work with their Taiwan counterparts to evaluate the dangers posed by PLA SOF, share best practices, and conduct joint training.⁹⁴

⁹³ Nevertheless, countering PLA SOF was not explicitly addressed in recent articulations. See, for example, Adm. (ret.) Lee His-min and Eric Lee, "Taiwan's Overall Defense Concept Explained," *The Diplomat*, November 3, 2020, <https://thediplomat.com/2020/11/taiwans-overall-defense-concept-explained/>; and 2021 Quadrennial Defense Review (Taipei: Taiwan Ministry of National Defense, 2021).

⁹⁴ Some unofficial media reports have suggested that there has already been a degree of cooperation between U.S. and Taiwan SOF. See, e.g., Joseph Trevithick, "Army Releases Ultra Rare Video Showing Green Berets Training in Taiwan," *The Drive*, June 29, 2020, <https://www.thedrive.com/the-war-zone/34474/army-releases-ultra-rare-video-showing-green-berets-training-in-taiwan>.

Appendix: PLA SOF Units by Service and Theater⁹⁵



⁹⁵ Peter Wood, "Chinese Special Forces," Ashtree Analytics, January 6, 2021, <https://www.ashtreeanalytics.com/posts/562>. Used with permission of Peter Wood.

About the Authors

John Chen is Chief of Data Solutions and a Lead Analyst at Exovera's Center for Intelligence Research and Analysis, where he works on foreign policy, national security, and S&T issues using Chinese-language sources. He is also a Nonresident Fellow at the Atlantic Council's Global China Hub. He holds degrees from Dartmouth College and Georgetown University.

Dr. Joel Wuthnow is a senior research fellow in the Center for the Study of Chinese Military Affairs within the Institute for National for Strategic Studies at NDU. His research areas include Chinese foreign and security policy, Chinese military affairs, U.S.-China relations, and strategic developments in East Asia. In addition to his duties in INSS, he also serves as an adjunct professor in the Edmund A. Walsh School of Foreign Service at Georgetown University.

Authors listed alphabetically. This essay reflects only the authors' views and not those of National Defense University, the Department of Defense, or the U.S. government. For helpful comments on earlier drafts, the authors thank Frank Miller and Phillip C. Saunders.