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### The PLA Is Mobilized for Flood Relief in Eastern China

By John Dotson

#### Introduction

Throughout June and July, much of the People's Republic of China (PRC) has experienced heavy rainfall from the annual late spring – early summer East Asian rainy season, a phenomenon sometimes called the "plum rain" (梅雨, *meiyu*). This year, the rainfall has brought severe flooding to vast areas of the central, eastern, and southern regions of the country—with the worst-affected regions including Jiangxi, Anhui, Hubei, and Hunan Provinces, as well as the municipality of Chongqing. Official PRC sources have cited this as China's worst flooding in more than two decades: per state media coverage on July 17, "Since June, 141

people have died or are missing, 37.89 million have been affected and over 2,246,00 relocated due to floods in 27 provincial-level regions in China, including eastern Anhui and Jiangxi provinces" (<u>CGTN</u>, July 17).

Some of the worst flooding has been seen on the upper reaches of the Yangzi River, in what PRC state media has termed the "Yangzi 2020 Number Two Flood" (长江2020年第2号洪水, Changjiang 2020 Nian Dierhao Hongshui) (Xinhua, July 17). One particularly hard-hit region has been Poyang Lake (鄱阳湖, Poyang Hu) in northern Jiangxi Province. The area of the lake averages approximately 1,385 square miles, although its size varies considerably from year-to-year based on rainfall and other factors; in 2019 the lake's size shrunk considerably due to drought, but this year's heavy rains have brought it to its highest water levels ever (NASA, July 14). Per official PRC figures, "Poyang Lake, the country's largest freshwater lake, saw its water level rise to 22.6 meters at 10 a.m. on [July 13], breaking the 22.52-meter record set in 1998" (CGTN, July 17). As of mid-July, fourteen flood levees in Poyang County had reportedly been breached (Xinhua, July 14).

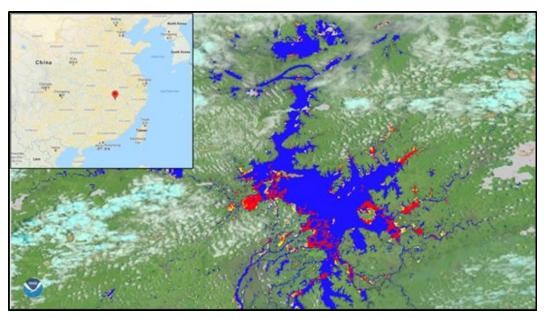


Image: A satellite image from the U.S. National Oceanic and Atmospheric Administration (dated July 14), which shows flooding at Poyang Lake in Jiangxi Province: flood-affected areas are shaded in yellow, and "severely flooded" areas are shaded in red. (Image sources: Google Maps and NOAA)

#### Asserting the Party's Leading Role in Disaster Relief Operations

Throughout the COVID-19 epidemic in Hubei Province, official PRC spokespersons and media outlets have taken great pains to depict the national-level authorities of the Chinese Communist Party (CCP) as directly engaged and concerned for the welfare of China's common citizens—and in particular, to depict the party center as giving firm direction to local officials (China Brief, February 28). Similar messaging has

accompanied the flood response effort, such as the reported admonitions made by Wang Yong (王勇), a PRC State Councilor and director of the State Flood Control and Drought Relief Headquarters, that local officials take "strict precautions against dike and reservoir breaches, torrential floods, [and] waterlogging," and that they "properly relocate affected people and promptly allocate relief supplies to ensure basic living standards of people hit by floods" (Xinhua, July 14).

The CCP Politburo Standing Committee reportedly held a meeting on July 17, which was dedicated to the flooding crisis. As has become *de rigueur* for reporting on Politburo meetings, state media indicated that CCP General Secretary Xi Jinping "chaired the meeting and delivered an important speech" (主持会议并发表重要讲话, *zhuchi huiyi bing fabiao zhongyao jianghua*). Per this coverage, Xi stated that, since heavy rains and flooding commenced in June, "Under the resolute leadership of the party center [and] party committees at various levels... the People's Liberation Army and People's Armed Police have brought into action shock teams, [and] bravely fought with the unity of cadres and the masses" in providing flood and disaster relief to affected areas (China Youth Daily, July 17).





Image left: A flooded community in Nanling, Anhui Province, July 6. (Image source: <u>BBC</u>)
Image right: Flood gates opened on the Three Gorges Dam, July 17. (Image source: <u>Xinhua</u>, July 17)

#### Mobilization of the PLA and PAP for Flood Control Operations

The People's Liberation Army (PLA) has traditionally played a leading role in civil defense and disaster relief operations, in a dual sense: it possesses manpower, logistical, and medical resources unmatched elsewhere in Chinese society, and its role as the "Party's army" also makes it a potent propaganda tool for the CCP amid domestic crisis situations. The PLA was front-and-center in relief efforts for this year's COVID-19 epidemic in Hubei Province, where it played major roles in providing augmentation medical personnel and

logistical support to civilian hospitals, as well as staffing new medical facilities rapidly constructed for coronavirus patients (China Brief, April 13).

The response to this summer's floods have been no exception. As of July 15, state media indicated that 29,000 troops from the PLA and the People's Armed Police (PAP), as well as 5,000 militia personnel, had been dispatched to "fight on the anti-flooding front lines" by reinforcing dikes, plugging levee breaches, and providing medical services. PLA Ground Force components under the Eastern Theater Command (东部战区, *Dongbu Zhanqu*) have had a particularly prominent role in these efforts, with the 71st, 72nd, and 73rd PLA Group Armies all receiving specific mention in state media coverage. For example, in mid-July the *PLA Daily* stated that:

A certain brigade of the 71st Group Army quickly assembled more than 1000 officers and men, and by motorized transport hurried to Anqing [安庆] City to throw themselves into relief operations. After receiving the mission, a certain brigade of the 73rd Group Army promptly activated its emergency plan, dispatching 3,700 officers and men hundreds of kilometers across provincial boundaries at top speed, rushing to the rescue of the Yugan [余干] region of Jiangxi. The Wuxi [无锡] Joint Logistics Center transferred 160 personnel from the Eastern Theater General Hospital, the Number 901 Hospital, and the Number 908 Hospital... sending them to Jiangxi and Anhui to join rescue and relief work (Peng Pai News, July 15).





Image left: PLA soldiers, reportedly from the PLA Ground Force 72nd Group Army, work to contain flooding in the vicinity of Tongling (Anhui Province) (undated, early-mid July). (Image source: China Military Online) / Image right: Trucks and personnel from the PLA Ground Force 73rd Group Army, based in Xiamen, deploy for flood relief operations. The sign on the lead truck declares that "The 73rd Army Has Arrived." (Image source: Phoenix News, July 15).

Such statements also hint at one of the less obvious advantages that such deployments hold for the PLA: the improvement of its own logistical and mobilization capabilities to function in wartime environments.

Improving transport and logistical capabilities across longer distances has become a focus of many recent PLA exercises, on both land and sea (China Brief, January 29; China Brief, April 13). Furthermore, the recent COVID-19 relief effort in Hubei Province provided the PLA with the opportunity to demonstrate previously untested logistical capabilities, such as the use of newer-model PLA Air Force heavy transport aircraft for the rapid movement of personnel and supplies (China Brief, April 13). Many of the skill sets needed for peacetime disaster relief overlap with those needed for logistical and civil defense operations in wartime.

#### Conclusion

Response to natural disasters has long been a focus of the senior leadership of the Chinese Communist Party (CCP)—and particularly in the era of CCP General Secretary Xi Jinping, active efforts have been made to leverage the propaganda value of disaster relief to build both the party's image and the cult of personality around Xi. The image of Xi and some other CCP senior officials may have taken a hit during the course of the COVID-19 epidemic (China Brief, February 13), but the flooding response effort has offered another opportunity for the CCP to seize proactive control of the narratives surrounding the state response to natural disasters. The PLA, as the armed branch of the CCP, may be expected to continue its vanguard role in disaster relief operations—both in terms of presence on the ground, as well as its propaganda value for the CCP in demonstrating the "unity of cadres and the masses."

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# Beijing Imposes Its New "National Security" Law on Hong Kong By Willy Lam

<u>Editor's Note:</u> This article was originally published as a Jamestown Early Warning Brief on <u>July 3</u>; it has since been updated and expanded for re-publication in this issue of China Brief.

#### Introduction

The central government of the People's Republic of China (PRC) has imposed sweeping new national security legislation on Hong Kong, which carries a maximum sentence of life imprisonment for the crimes of secession, subversion of state power, terrorism, and "collusion" with foreign forces to jeopardize state security. The "Law of the People's Republic of China on Safeguarding National Security in the Hong Kong Special Administrative Region" (中华人民共和国香港特别行政区维护国家安全法, Zhonghua Renmin Gongheguo Xianggang Tebie Xingzhengqu Weihu Guojia Anquan Fa) was unanimously passed by the Standing Committee of the National People's Congress (NPC), China's parliament, on June 30 (NPC, June 30).

#### New PRC Institutions to Operate in Hong Kong

The Hong Kong Special Administrative Region (HKSAR) legislature was not involved, and the bill was passed less than 30 days after it was first introduced at the full session of the NPC in late May (China Brief, May 26). There was no consultation by Beijing except with pro-establishment elements in the former British territory. While the majority of criminal cases under the new law will be handled by special courts set up by the HKSAR Government, a minority of particularly complex and sensitive ones will be dealt with by mainland judicial authorities. A new body to be set up in Hong Kong, called the Central People's Government (CPG) Office for Safeguarding National Security in the HKSAR (中央人民政府駐香港特別行政區維護國家安全公署, Zhongyang Renmin Zhengfu Zhu Xianggang Tebie Xingzhengqu Weihu Guojia Anquan Gongshu) (henceforward "CPG Office"), will handle "complicated situations" of interference by foreign forces; cases that the HKSAR government could not handle effectively; and cases in which national security would be under "serious and realistic threats." Such cases would be prosecuted by the PRC Supreme People's Procuratorate and put on trial in mainland courts, where the full force of PRC law will apply (China.org.cn, July 1; Xinhua, June 30). The CPG Office will be in charge of investigations and intelligence gathering, and its activities will be beyond the control of the HKSAR city administration (China News Service, July 1; Southcn.com, July 1).

The majority of the national security-related cases will be handled by another newly established organ called the Committee for Safeguarding National Security in the HKSAR (香港特別行政區維護國家安全委員會, Xianggang Tebie Xingzhengqu Weihu Guojia Anquan Weiyuanhui) (henceforward "HKSAR Committee"). The Committee will be chaired by HKSAR Chief Executive (CE) Carrie Lam, and will put into place national

security-related units in the Hong Kong police, the Department of Justice, and the judiciary. CE Lam will appoint a body of judges with specific responsibility for handling national security cases. Where "state secrets" or other matters of particular sensitivity are involved, there will be no trial by jury. Mainland authorities will appoint an advisor from Beijing to sit on the commission. Further, citizens cannot challenge the decisions of the commission by launching a judicial review. The CE can authorize phone tapping and other types of surveillance of suspects. Another disturbing thing about the new statute is that Beijing is empowered to station police and state security agents in Hong Kong, who will report to the CPG Office—and who will not be subject to most restrictions of Hong Kong laws.





Image Left: HKSAR Chief Executive Carrie Lam (center), flanked by HKSAR Secretary for Justice Teresa Cheng (left) and HKSAR Secretary for Security John Lee Ka-chiu (right), attends a July 1 press conference to promote the new Hong Kong National Security Law. (Image source: Xinhua, July 1) / Image Right: The ceremony for the official opening of the "Central People's Government Office for Safeguarding National Security in the Hong Kong Special Administrative Region" on July 8. Notable figures present included: office director Zheng Yanxiong (center); deputy director Li Jiangzhou (second from right); and second deputy director Sun Qingye (left). (Image source: Beijing Qingnian Bao, July 8)

The most eye-catching appointment to the HKSAR Committee is its advisor Luo Huining (骆惠宁), who is sometimes deemed even more powerful than CE Lam. Luo, a Chinese Communist Party (CCP) Central Committee member and former party secretary of Qinghai and Shanxi Provinces, was earlier this year appointed as Director of the Liaison Office of the Central People's Government in the HKSAR (henceforward Central Liaison Office), as well as a Deputy Director of the State Council's ministerial-level Hong Kong Macau Affairs Office (HKMAO). (Xinhua, July 3; HK01.com, July 3; BBC Chinese Edition, July 3). Given that Luo is in charge of the underground CCP in Hong Kong, he is also the *de facto* Party Secretary of Hong Kong.

Also in early July, Beijing authorities appointed the senior officials of the CPG Office, who will be stationed in Hong Kong. The office head is Zheng Yanxiong (郑雁雄), a former secretary-general of the CCP Committee

running Guangdong Province. Zheng, who speaks Cantonese (the main dialect used in Hong Kong) is noted as a tough enforcer—particularly in suppressing riots and demonstrations in Guangdong. Although Zheng is only vice-ministerial in rank, he will be instrumental in promoting synergy between the police and state-security personnel in Guangdong and those in the SAR. Zheng's first deputy, Li Jiangzhou (李江舟), earned his spurs in the Ministry of State Security, China's spy agency. Since 2016, he has been based in the Central Liaison Office in Hong Kong; his role is to promote liaison between mainland security and police forces and their counterparts in the SAR. Little is known about Sun Qingye (孙青野), the second deputy head of the PRC Office, except that he, too, built his career in the Ministry of State Security (Apple Daily [Hong Kong], July 3; Radio France International, July 3).

#### Overriding the Hong Kong Legal System

The NPC Standing Committee has ultimate powers over the interpretation of the new law, which will override all existing legislation in the HKSAR. Article 62 of the National Security Law says: "This Law shall prevail where provisions of the local laws of the Hong Kong Special Administrative Region are inconsistent with this Law." Questions of interpretation are important because the mainland does not follow Hong Kong's British common law system. Take the issue of "collusion," for which there is no definition in the existing Hong Kong legal system. Under Article 29 of the National Security Law, "a person who steals, spies, obtains with payment, or unlawfully provides State secrets or intelligence concerning national security for a foreign country or an institution, organization or individual outside the mainland, Hong Kong and Macao of the People's Republic of China shall be guilty of an offence [under collusion]" (Xinhua, June 30).

Similarly, a Hong Kong resident will be found guilty of collusion if he or she conspires with a foreign entity for the purpose of "provoking by unlawful means hatred among Hong Kong residents towards the Central People's Government or the Government of the Region, which is likely to cause serious consequences." Such concepts not only are alien to the Hong Kong tradition, but effectively set severe limits on interactions between Hong Kong residents and foreign organizations and NGOs. Article 54 also states that the CPG Office, alongside the Office of the Commissioner of the Ministry of Foreign Affairs in Hong Kong and the HKSAR government, must adopt measures to "strengthen the management" of Hong Kong-based foreign NGOs and media agencies. In a striking assertion of the law's international reach, the NSL goes so far as to say that foreigners living outside Hong Kong might be implicated: Article 38 states that "this law shall apply to offences... committed against the HKSAR from outside the Region by a person who is not a permanent resident of the Region" (Xinhua, June 30).

#### Changes to the Way That Hong Kong Is Ruled

Apart from legal issues, the passage of the legislation reflects subtle changes in the way that Beijing will be running Hong Kong. Members of the Hong Kong elite—business tycoons and senior civil servants, who were

highly respected by Deng Xiaoping—have been kept out of the loop. The drafting of, and deliberations over, the law have been tightly controlled by the newly-established Central Leading Group on Hong Kong and Macau Affairs (中央港澳工作领导小组, Zhongyang Gang-Ao Gongzuo Lingdao Xiaozu) (hereafter, "Leading Group") (Ta Kung Pao, June 4; Caixin, June 4). The Leading Group is headed by Chinese Communist Party (CCP) Politburo Standing Committee member Han Zheng (韩正)—and ultimately responsible to the supreme leader, CCP General Secretary Xi Jinping. The two sub-heads are Xia Baolong (夏宝龙)—the recently appointed Director of the Hong Kong and Macau Affairs Office (HKMAO), and a Xi protégé—and Minister of Public Security Zhao Kezhi (赵克志) (China Brief, February 21). In an internal speech in late May, Zhao caused a stir when he called on the mainland police to give "support and guidance" to their counterparts in the HKSAR (Radio French International, May 29; rthk.hk, May 29).

In post-National Security Law Hong Kong, HKSAR-based mainland cadres could be calling the shots above the heads of CE Lam and her ministers. Of particular importance is the Director of the CPG Office, Zheng Yanxiong (郑雁雄). Even more pivotal will be the role of Luo Huining, the mainland advisor sitting on the HKSAR Commission. "Since the National Security Legislation overrides all other laws in Hong Kong, the office overseeing its implementation will naturally assume a lot of authority," said veteran Sinologist and author Ching Cheong. "As for Carrie Lam's advisor on the HKSAR Commission, he will function as political commissar to ensure that everything is being done to the CCP's satisfaction" (HKC News, June 20).



Image: Demonstrators arrested by police at the Times Square Mall in Hong Kong, July 1. Hong Kong police moved immediately following the announcement of the National Security Law to crack down on protests in the territory. (Image source: <u>SCMP</u>, July 1)

#### Reactions in Beijing, Hong Kong, and Abroad

Mainland offices and cadres have praised the National Security Law for setting "one country, two systems" on the right path: "This law will be a sharp sword hanging over a minority of people who endanger national security," said the ministerial-level Hong Kong and Macau Affairs Office. For most HKSAR residents, it said, the law will be a "guardian angel that safeguards their rights, freedom and peaceful way of living" (South China Morning Post, June 30). Serious misgivings, however, have been expressed by Hong Kong's pro-democracy politicians, and members of the legal community. "The National Security Legislation has signed the death certificate for 'one country two systems'," said Civic Party legislator Tanya Chan. "It's now one country, one system." Eric Cheung Tat-ming, principal lecturer at the Hong Kong University Law School, spoke for many when he said that the legislation reflected the spirit and practice of the mainland legal system. "The role of Hong Kong courts in interpreting the law may be severely limited," he said (Ming Pao [Hong Kong], June 30; rthk.hk, June 30). The Hong Kong Bar Association has pointed out the conflict of interest involved in Chief Executive Lam appointing judges in her capacity as Chairman of the HKSAR Commission, and further lamented the lack of trial by jury in specific cases (BBC Chinese Service, July 1; Hong Kong Bar Association, June 23).

Internationally, the passage of the controversial legislation has had the effect of exacerbating China's differences with Western countries, particularly the United States. The reaction from the United States has been predictably strong. Both the House of Representatives and the Senate unanimously passed the *Hong Kong Autonomy Act*, which President Trump signed into law on July 14. The Act, together with an executive order issued by the U.S. president on the same day, essentially removed all the trade and other privileges accorded to Hong Kong as a special customs zone distinct from mainland China (White House, July 14).

Furthermore, unnamed PRC officials responsible for the NSL may be subject to sanctions: for example, multinational banks and other companies that do business with these mainland officials may be penalized. President Trump went so far as to assert that "actions taken by the PRC to fundamentally undermine Hong Kong's autonomy.... constitute an unusual and extraordinary threat" to American national security (Hong Kong Free Press, July 15; U.S. Consulate in Hong Kong, July 14). At this stage, however, it is unlikely that Washington would do anything to the Hong Kong dollar-U.S. dollar peg. However, a certain number of Chinese enterprises may be barred from the U.S. stock exchange, as well as the U.S. banking system.

In fact, what the CCP fears most—a united front among Western countries against China—seems to have formed due to the Hong Kong issue. The United States, United Kingdom, and Canada have suspended extradition treaties with Hong Kong. The British, Australian, and Canadian authorities have indicated they might consider accepting more immigrants from the HKSAR. The United Kingdom, Germany and France have decided to stop selling police equipment to the SAR Government. The German Federal President Frank-Walter Steinmeier has further stated that the NSL would cause a "lasting, negative" change to Western

perceptions of China. (<u>Taiwan News</u>, July 13; <u>Ming Pao [Hong Kong]</u>, July 9; <u>Radio France International</u>, July 2).

Earlier, both the leaders of the Group of Seven (G7) countries and the European Union issued statements condemning the diminution of the HKSAR's high degree of autonomy. The European Parliament has requested that EU authorities take the Hong Kong case to the International Court of Justice in the Hague (Channel News Asia, June 20; Deutche Welle Chinese, June 20). In Japan, Chief Cabinet Secretary Yoshihide Suga said on June 30 that the NSL was "regrettable;" and Foreign Minister Toshimitsu Motegi indicated he shared the "deep concern" of the international community and the Hong Kong people over the legislation (News Now [Hong Kong], June 30).

#### Conclusion

For the moment, PRC authorities seem satisfied with the intimidating effects of the draconian new law. Several radical groups advocating Hong Kong self-determination—including Demosisto, which is led by famous democracy advocate Joshua Wong—disbanded on June 30. While thousands of Hong Kong residents staged protests on July 1 (a HKSAR holiday marking the reversion of Hong Kong's sovereignty to China), the numbers were lower than expected. Three hundred seventy demonstrators were arrested, including 10 on charges relating to the National Security Law (Ming Pao, July 2; Hong Kong Free Press, June 30). Although HKSAR residents might be forced into acquiescence in the near term, a new and potentially deadly front of confrontation has been opened between Beijing and the 7 million HKSAR residents. Twenty-three years after Hong Kong became Chinese territory, the vaunted "Chinese model" has turned away more residents—even as the hardline authoritarian regime of Xi Jinping resorts to brute force to cow Hongkongers into subservience.

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# **European States Reappraise Their Diplomatic** and Investment Relationships with China

By Otto Tabuns

#### Introduction

As the European Union seeks to emerge from the COVID-19 pandemic that paralyzed much of its normal political agenda, some member states have also been seeking a way out of major Sino-European initiatives. For example, People's Republic of China (PRC) diplomats have invested considerable effort in promoting the "17+1" cooperation framework for Central and Eastern European countries (China Brief, February 15, 2019; China Brief, May 29, 2019). However, this initiative seems to be unraveling from the Baltic end: as argued by Sven Saakov, the head of the International Center for Defense Studies under the Estonian Ministry of Defense, Estonia should find a polite way out of the initiative and communicate this to the PRC via Brussels (ERR, 20 May). This builds upon concerns voiced earlier this year by Lithuanian President Gitanas Nauseda, who ruled out, on security grounds, Chinese investment in a project to dredge a deep-water port in Klaipeda between 2020 and 2023—even though there were no other investment offers for the project, estimated to cost up to 1.28 billion dollars (1.1 billion euro) (Dredging and Ports, 23 January). This represented a blow to regional hopes to reach the Arctic via existing infrastructure investment in Belarus, and proposed investment in a railway tunnel between the capitals of Estonia and Finland.



Image: A pier at the Klaipeda port facility in Lithuania. In July 2019, Lithuanian President Gitanas Nauseda ruled out, on national security grounds, Chinese involvement in a proposed expansion project for the port.

(Image source: Delfi.lt)

The Black Sea regional component of Beijing's 17+1 cooperation initiative does not appear to be faring much better. For example, a range of potential Chinese economic projects have been discussed in relation to Romania, to include upgrades to the nuclear power complex at Cernavodă and investments in 5G telecommunications infrastructure (China Brief, September 26, 2019). However, at the end of May 2020 the Romanian government asked its national nuclear company to stop its cooperation with Chinese representatives. The Cernavodă project, located on the strategically significant Danube-Black Sea Canal, was intended to build another two reactors at the nuclear power plant that already provides 20% of Romanian electricity consumption. The deal would give a PRC-based company a 51% majority stake in the deal (Balkan Insight, 27 May). This would allow the PRC to promote a green energy and job creation image similar to what Russia did with Rosatom investments in nuclear energy projects in Finland and Hungary (HybridCoE, October 2019), and would further allow Beijing to increase its influence and intelligence collection potential at a critical location within a Euroatlantic frontier country.

#### The European Union's Interests in Chinese Investment

Officials in both Beijing and Brussels have wanted to increase mutual economic engagement, albeit with different objectives in mind. Many of these initiatives primarily benefited the grand strategy of the PRC; while for their part, the economic interests of European partners were often supplemented by the wish to promote further democratization and a stronger rule of law in China, which in turn would make it easier both ethically and legally to do business in that country. Furthermore, Chinese overtures were neither forced nor unwelcome by the respective European partners, at least initially: in the period following the global financial crisis of 2008-2009, many European states had insufficient resources to execute certain anticipated projects, such as those in the fields of energy or transit infrastructure. Unfortunately for them, the European Union (EU) had little political will to spend or lend its money, while NATO was concerned that member states not borrow any funds from a geopolitical opponent such as the Russian Federation. The key moment for this was the Russian aggression against Ukraine in 2014, which made Moscow an untenable partner for the European bloc that aspired to the claim of being a normative superpower.

As a result, the PRC—as a large economy with a clear willingness to project global economic engagement, while seemingly still distant enough to not pose any meaningful political threat—seemed to many to be the best alternative to achieve stalled infrastructure objectives. Beijing has dramatically increased its presence and respective influence in the EU, augmenting direct investment from 2.32 billion dollars (2 billion euro) in 2010 to \$41.82 (36 billion euro) in 2016, including stakes in four airports and six maritime ports (BBC, 20 April 2019). Despite lacking a single unified political leadership, and despite demographic woes that put its long-term growth into question, the EU has remained the world's largest economic bloc.





The United States and the PRC each sponsor rival regional diplomatic frameworks for Central and Eastern Europe. Image top: Representatives attending the 2019 annual summit of the PRC-sponsored "17+1" Initiative, held in Dubrovnik, Croatia in April 2019. PRC Premier Li Keqiang (center, 9th from left) attended to represent China. (Image source: CGTN) / Image bottom: Representatives attending the 2019 annual summit of the U.S.-sponsored Three Seas Initiative, held in Ljubljana, Slovenia in June 2019. U.S. Energy Secretary Rick Perry (back row, 2nd from left) attended to represent the United States. (Image source: Estonian Ministry of Foreign Affairs)

#### **European States Weigh Competing U.S. and Chinese Influence**

Another major reason for Europe's reexamination of Chinese investment is the reasserted influence of the United States. Policy makers in Washington D.C. are making sure that, despite a pivot to Asia, America does not lose its imperfect yet durable ties with Europe. The United States is promoting "carrots" such as the Three Seas Initiative (TSI), a program of support for projects to connect transportation, energy, and digital sectors between the Baltic, Adriatic, and Black Sea regions. The TSI's 2017 summit in Warsaw was visited by President Donald Trump; while U.S. Secretary of Energy Rick Perry attended both the 2018 summit in

Bucharest, Romania and the 2019 summit in Lubljana, Slovenia, as well as visiting Lithuania and Latvia separately in October 2019 with a related agenda (<u>Estonian Ministry of Foreign Affairs</u>, undated; <u>U.S. Department of Energy</u>, October 4, 2019). The PRC has also sought to maintain high-level representation for its own (and rival) 17+1 framework: PRC Premier Li Keqiang attended the initiative's annual summit in Dubrovnik, Croatia in April 2019, and China reportedly planned to host the group's 2020 summit before it was postponed due to the COVID-19 epidemic (CGTN, April 7, 2020).

At the same time, Americans have not shied away from also using "sticks," reminding Eastern European officials of the general conditionality of the extensive bilateral support that Washington has provided in the last 30 years—which, for many Eastern European states, has offered more in moral and material terms than what they received from their Western European peers. For example, Lithuanian media has reported pressure applied by the United States in relation to the development of the Klaipeda port facility liquid natural gas terminal. This has been done to dissuade Lithuania from involving Huawei in the development of its 5G network—which U.S. interlocutors have reportedly said could compromise the security of the American military and economic presence in the country (LRT, 18 May). Romania would also be unlikely to compromise its hosting of the U.S. military-operated Terminal High Altitude Air Defense (THAAD) missile defense system, an arrangement that was concluded in 2019 despite strong protests from Moscow (TASS, April 26, 2019; U.S. Defense Logistics Agency, October 15, 2019).

Since 2019, Baltic national security services have advised public sector institutions against using "non-NATO" internet and telecommunications technologies. Although Russia would be the primary actor to come immediately to mind in such warnings, it is clear that more advanced PRC technologies are the real target of these statements. Chinese players such as Huawei have limited presence in the Baltic markets and have no part in the development of public telecommunications infrastructure, which is already close to cutting edge (e.g., Latvia enjoys an average internet speed in the global top 10). Therefore, Beijing has little leverage in these areas, and national security decision makers in the Baltic states may be reasonably expected to conclude that even the most sugar-coated deal with Huawei could be costly in terms of their long-term security and economic relationships with their strongest ally, the United States.

China certainly has the option to invest in any EU member state, yet this may become more difficult before a comprehensive trade and investment agreement is hammered out and ratified by all sides. In 2017-2018, a number of Western European states—to include the United Kingdom, France and Germany—toughened their regulations for foreign investment in strategic sectors (China Brief, January 18, 2019). Going forward, these restrictions may equally affect the United States and China. Further U.S. investments in Europe depend on breaking U.S.-EU trade talk deadlocks, something that appears unlikely in view of the retaliatory tariffs set following the Airbus-Boeing subsidies dispute (Wharton, October 14, 2019). As a result, China can be reasonably identified as the main target of regulations that restrict foreign investment.

#### Conclusion

The future of Sino-European cooperation regarding strategic infrastructure will depend on several factors. In the wake of the 2016 Brexit vote and the 2019 European Parliament elections, leaders in Brussels have to decide whether they are able to push for a comprehensive China policy across the EU, or whether they will rely on the compromises between like-minded internal regional blocs such as the Baltic-Nordic-Visegrad group (China Brief, 26 June 2019). In view of Trump Administration sanctions on the Nord Stream 2 Pipeline and the sudden announcement of the withdrawal of American troops from German soil, as well as its bearing the most significant impact in Europe of Euro-American trade disputes, Germany may consider playing the Huawei card. As Germany's Foreign Minister sees no near-term improvement in U.S.-German relations, even in the case that President Trump is not reelected (DW, June 28), friction with the United States may rub off on the common EU stance—and give Beijing an opportunity to stem the tide against it.

The PRC currently has an opportunity to strengthen bilateral ties, and to press its influence in regional groupings, to avoid a severe reduction of the influence it has built over the last decade. In the Baltic region, Beijing may employ the competition between Latvian and Lithuanian transit networks—for example, it might indicate that it favors the port of Latvia's capital Riga, rather than supporting the train tunnel from Estonia's capital Tallinn, to reach towards the Arctic via Scandinavia. In the case of Romania, China may benefit from a repeated non-confidence vote on the Ludovic Orban government, which fell for this reason once already in February (Euronews, February 5). The previous Romanian government led by the Social Democrats was more supportive of Chinese investment, and may opt to revive this issue if Orban's government loses a confidence vote once more.

If the United States leaves a gap in Europe—putting short-term economic gains ahead of long-term strategic partnerships—Washington will find European states less motivated to take into account American security considerations. By cordially resolving trade disputes, and consistently backing and strengthening the Three Seas Initiative, the United States could kill two birds with one stone: both limiting Chinese influence that Washington considers unwanted, as well as extending an economic presence that increases European perceptions of security.

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# The Impact of the COVID-19 Pandemic on the China-Pakistan Economic Corridor By Syed Fazl-e-Haider

#### Introduction

Since its advent in 2015, the China-Pakistan Economic Corridor (CPEC)—an ambitious program of infrastructure development projects primarily financed by Chinese capital and built by Chinese state-owned companies—has been a key component of China's larger Belt and Road Initiative (BRI) (China Brief, July 31, 2015; China Brief, December 10, 2019). Following a series of setbacks over the past two years, in June and July the Chinese and Pakistani leadership launched new projects that signaled a mutual commitment to revitalize a CPEC program hit hard by the COVID-19 pandemic and other factors.

On June 25 and July 6, representatives of Pakistan and the People's Republic of China (PRC) signed deals for two major hydropower generation projects under CPEC, at a reported total value of \$3.9 billion dollars: the Kohala project (\$2.4 billion) and the Azad Pattan project (\$1.5 billion), both to be constructed on the Jhelum River, located in the Muzaffarabad region of Pakistan-administered Kashmir (NDTV, 16 July; Economic Times (India), July 17). Furthermore, in early June the two governments agreed on a deal to upgrade the 1,872 kilometer-long railway lines between Karachi and Peshawar—a three-phase, six-year project valued at \$7.2 billion dollars (Belt and Road News, June 9).



Image: The July 6 signing ceremony for the reported \$1.5 billion Azad Pattan Hydropower Project, to be constructed in Pakistan-administered Kashmir by China Gezhouba Group. Pakistani Prime Minister Imran Khan (standing, center) was present to witness the signing. At the ceremony, PM Khan praised the China-Pakistan Economic Corridor (CPEC) as "the future of Pakistan." (Image source: CPEC Info. July 7)

These three major deals show a renewed commitment by both sides to CPEC, and bolster other initiatives taken this year during the COVID-19 pandemic. Chinese enterprises involved in CPEC projects have also made active contributions to the prevention and control of the virus in various locations in Pakistan, including donating supplies to local governments, schools and hospitals. Chinese technicians have returned to some project sites by chartered airplanes, due to the temporary interruption of normal flights between the two countries caused by the pandemic (Express Tribune (Pakistan), May 6).

#### **CPEC Project Delays Resulting from the COVID-19 Pandemic**

CPEC has experienced a number of setbacks over the past two years, to include delays under the administration of Prime Minister (PM) Imran Khan beginning in summer 2018 (China Brief, November 1, 2019), and attacks against Chinese expatriate workers and CPEC-related projects by insurgents of the Baloch Liberation Army (February 15, 2019). However, throughout the first half of 2020 the COVID-19 pandemic has been the biggest blow of all to CPEC and other BRI projects in South Asia. China's trillion-dollar BRI has been on virtual life support since the outbreak of the COVID-19 pandemic in Wuhan in December 2019—which brought a halt not only to CPEC, but also to a number of mega projects in other countries in South and Central Asia.

Among other complications, Chinese engineers and workers have faced travel restrictions to and from BRI countries since the outbreak of the pandemic (China Brief, March 16, 2020). Furthermore, the BRI runs through many of the regions of the world hardest-hit by COVID-19. Therefore, the infrastructure program faced suspension in a number of countries. Per the Chinese government's own accounting, an estimated 20 percent of BRI projects have been "seriously affected" by the coronavirus pandemic; 40 percent of projects have seen little adverse impact; and another 30-40 percent have been somewhat affected. Restrictions on travel and the flow of goods across borders, as well as local measures to combat COVID-19, were given as the main reasons for the negative impacts. [1]

The COVID-19 pandemic has had a particularly adverse impact on Pakistan's plans to build "Special Economic Zones" (SEZs), which are intended to boost the country's manufacturing and exports. Under Pakistan's Special Economic Zones Act, industries in the zones will enjoy a 10-year tax break and duty-free import of raw materials, machinery, and other equipment. This January, ground was broken for the first SEZ, titled Allama Iqbal Industrial City, in Faisalabad (Punjab Province). Before the pandemic, it had been expected that SEZs in other provinces—Balochistan, Sindh, and Khyber Pakhtunkhwa—would be inaugurated this year (Pakistan Observer, May 20). However, the SEZs plan faces delays, due in part to the fact that participating Chinese companies are expecting difficulties in managing human and material resources amid pandemic restrictions, resulting in production delays and higher costs (The News (Pakistan), April 25).

In facing such difficulties, Pakistan is not alone, and pandemic-related problems have caused delays and cost overruns with BRI projects elsewhere in South and Southeast Asia. For example, a \$6 billion dollar project in Indonesia, intended to build a 150-kilometer high-speed rail line linking the capital Jakarta with the mountain-fringed city of Bandung, has faced delays in the delivery of imported material from China. In Bangladesh, other BRI projects—including road, bridge, and power plant construction projects—are facing similar delays (SCMP, 26 April).

The COVID-19 pandemic has also affected work on regional transportation projects that connect to CPEC and the broader BRI. The PRC has started the construction of an airport on the Pamirs Plateau, which would be of immense geostrategic importance. Located at Taxkorgan in northwest Xinjiang—in an area that borders Pakistan, Afghanistan and Tajikistan—the planned airport is being constructed under the framework of the CPEC. Besides opening a new channel for air transit, the airport would further expand China's influence across South and Central Asia. Construction work has reportedly been delayed by COVID-19 pandemic complications, yet PRC media has asserted confidence that the airport project will be completed by the first half of 2022 (The Nation (Pakistan), April 28).



Image: PRC Foreign Ministry Spokesman Zhao Lijian speaking at a press conference on July 7. Zhao praised PM Khan's support for CPEC, and called the initiative "an important pilot program under the Belt and Road Initiative... [that] follows the principle of consultation and cooperation for shared benefits and aims to promote the common development of China and Pakistan."

(Image source: PRC Embassy in Pakistan, July 7)

#### The CPEC and Pakistan's Indebtedness to China

The reported \$11.1 billion in new CPEC infrastructure deals raises anew questions regarding Pakistan's indebtedness to China—questions that will be further raised by a reported \$1.3 billion Chinese loan announced on July 1, intended to increase Pakistan's foreign exchange reserves (<a href="Express Tribune">Express Tribune</a> (<a href="Pakistan">Pakistan</a>), July 1). The issue as to whether Chinese loans might represent predatory lending, leading to a "debt trap," figured prominently in criticisms of CPEC made in November 2019 by Alice Wells, then-Principal Deputy Assistant Secretary of State for South and Central Asia at the U.S. State Department (<a href="China Brief">China Brief</a>, January 17, 2020).

Presently, the PRC is the world's largest creditor to low income countries, with China's outstanding debt claims on the rest of the world having risen from \$875 billion in 2004 to over \$5.5 trillion in 2019—more than 6 percent of global gross domestic product (GDP). The COVID-19 pandemic is likely to impair the ability of regional economies to pay off and refinance debt, and some regional economies might increase their debt burden as a result. China's smaller banks have already shown signs of a ripple effect, as the central government had to step in last year to bail out a number of institutions (SCMP, May 19).

The PRC has received applications for debt relief from many high-risk countries that are part of the BRI, as the COVID-19 pandemic places financial strains on member states. Pakistan was among the first to approach China for relief: this was reportedly a key request made during the visit of Pakistan President Arif Alvi to Beijing in April, as Pakistan's capacity payments alone were estimated to be close to \$3.59 billion (600 billion Pakistani rupees) this year, and estimated to go beyond \$8.96 billion (1.5 trillion rupees) in a few years. Islamabad has reportedly requested to bring down the mark-up on its debt to London Interbank Offer Rate plus two (Libor + 2) percent from the existing average of about Libor + 4.5 percent. Second, the country has requested an extension in its debt repayments from the existing period of 10 years to 20 years. With the requested relaxations, Pakistan could save up to \$500-550 million in cash outflows per year (Dawn, May 1).

#### Conclusion

No propaganda campaign against China's BRI---which has expanded consistently since 2013---could damage it as much as the COVID-19 pandemic has done in just in few months. The pandemic has hit hard the economies of BRI participant countries, adversely affecting their ability to repay debt related to BRI projects. Suffering itself from the effects of the pandemic, the PRC may be unable to give the kind of relief demanded by the BRI countries. If Beijing cannot handle the debt relief problem of the participant countries efficiently and effectively, then the BRI could face further delays—and could potentially come to a halt in several countries. However, if the latest deals with Pakistan are any indication, both Islamabad and Beijing are intent on renewing and pressing forward with their investments to CPEC.

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#### **Notes**

[1] Wang Xiaolong, director-general of the PRC Foreign Ministry International Economic Affairs Department, speaking at a press briefing on June 19, 2020 (<u>Dawn</u>, June 19).

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# The Role of the Space Engineering University in the PLA Strategic Support Force

By Marcus Clay

#### Introduction

Almost five years after the establishment of the PLA Strategic Support Force (PLASSF) in December 2015 (China Brief, December 21, 2016; China Brief, May 29, 2019), many questions remain regarding the scope and strength of the force. However, publicly-available recruitment information and admission data released by the PLA Strategic Support Force Space Engineering University (中国人民解放军战略支援部队航天工程大学, Zhongguo Renmin Jiefang Jun Zhanlue Zhiyuan Budui Hangtian Gongcheng Daxue) or SEU, one of the two military academic institutions known to be directly subordinate to the PLASSF, offers useful insights (81.cn, June 13, 2019). [1] Examination of SEU's structure and programs offers insights into the academic and technical expertise, as well as military skills, that the SSF looks to cultivate in its future officer and non-commissioned officer (NCO) corps. This article provides an overview of the SEU and its relationship to the PLASSF, and calls for the PLA-watching community to continue monitoring how the PLA and PLASSF leverage their resources to facilitate China's broader military-civil fusion (MCF) goals (China Brief, October 8, 2019). [2]



Image: Space Engineering University cadets participate in a Model U.N. activity (undated). (Image source: PLASSF WeChat)

SEU (Ministry of Education code: 91036), located on three campuses in Beijing, is subordinate to the PLASSF Space Systems Department (81.cn, October 27, 2017). However, unlike almost all of the other military academies of the PLA, which have the service name in front of the institution name—as with Air

Force Aviation University—this subordination relationship is not always visible across its official logo, banners, or admissions materials. Instead, various sources have showed or referred to this corps deputy-leader grade military academic institution as the PLASEU—or simply, SEU.

To highlight its special status, Major General Zhou Zhixin (周志鑫), the commandant of the SEU since 2017, has described his university as a military institution established on "the decision of Chairman Xi Jinping and the Central Military Commission (CMC)." [3] It is perhaps no coincidence that Major General Zhou is a renowned Chinese Academy of Sciences (CAS) academician who pioneered China's remote-sensing technology and its satellite applications (PLA Daily, 14 January 2016). Prior to joining SEU in 2017, Zhou likely also served as the director of the Space Reconnaissance Bureau of the former General Staff Department's (GSD) Second Department (2PLA), which was transferred to the PLASSF in 2017 (Peng Pai News, 9 April 2016; Sohu, 8 October 2017; CTTIC, 22 February 2017; CSNC, undated).





Image left: Space Engineering University Commandant Major General Zhou Zhixin at a Harbin Institute of Technology (where he received his master's and PhD degrees) event in January 2020. (Image source: Harbin Institute of Technology official website) / Image right: Major General Zhou Zhixin at an exchange with Xi'an Jiaotong University in April 2019. (Image source: Xi'an Jiaotong University official website)

#### SEU as a Component of the National Defense "Special Innovation Zone" Program

Since 2019, SEU has hosted a designated "workstation" (工作站, *gongzuo zhan*) for the National Defense Science and Technology (S&T) Special Innovation Zone (国防科技创新特区, *Guofang Keji Chuangxin Tequ*) program (Shenzhen.gov.cn, April 16, 2020; Zhanlue Qianyan Keji WeChat, April 4, 2020). This is possibly a research funding program of the Science & Technology Innovation Bureau (科技创新局, *Keji Chuangxin Ju*) of the CMC Science & Technology Commission (军委科技委, *Junwei Kejiwei*) (Anhui University, July 2018). [4] It is unclear what the specific responsibilities of the workstation are, but it is most likely designed to facilitate targeted research on spatial information technology (空间信息技术, *kongjian xinxi jishu*) (Dalian University of Technology website,16 October 2019; Xinhua, 13 October 2019), which

covers pivotal technologies for modern military decision-making such as remote sensing and Geographic Information System (GIS) technologies. [5]

Dating back to at least 2017, a number of civilian universities have reportedly received significant funding from this Special Innovation Zone program to carry out both classified and unclassified research projects. [6] However, none of the other recipients appear to host such a "workstation" on campus. [7] Such a model suggests that a high degree of autonomy is awarded to the lab/workstation, which may be conducive to innovation.

SEU is also known to house at least two defense-related national key labs: the National Key Laboratory of Laser Propulsion and Applications (激光推进及其应用国家重点实验室, Jiguang Tuijin jiqi Yingyong Guojia Zhongdian Shiyanshi) and the National Laboratory of Electronic Information Equipment Systems (电子信息装备体系研究国防科技重点实验室, Dianzi Xinxi Zhuangbei Tixi Yanjiu Guofang Keji Zhongdian Shiyanshi) (PRC Government, 9 May 2012). [8] Nevertheless, it remains unclear how or if any connections exist between the key labs and the relatively new "innovation workstation."

#### SEU as a "Joint Construction" University for Military Research

Official descriptions of SEU presented in 2019 and 2020 mention another "new status" for the university: SEU as a "joint construction" (共建, *gongjian*) university" between the State Administration for Science, Technology and Industry for National Defense (国家国防科技工业局, *Guojia Guofang Keji Gongye Ju*) or SASTIND, and the PLASSF (81.cn, June 13, 2019; Central South University, April 2, 2020; Huangpu Yihao WeChat, June 3, 2020). Limited information is available about the details of this relationship. The purpose of such "joint construction" universities, according to SASTIND, is:

[T]o focus on the development of disciplines and specialties that are applicable to national defense, the construction of national defense key laboratories (国防重点学科实验室, guofang zhongdian keji shiyanshi), and the training of military talents; to take advantage of the "joint construction" universities' specialties and undertake military research tasks; encourage and support universities and military industrial enterprises to strengthen collaborative innovation in production, teaching, and research; actively promote joint construction of universities to build up world-class disciplines and become world-class academic institutions (Lanzhou Daily, August 2, 2018).

If similar "joint construction" relationships formed between SASTIND and a number of civilian academic institutions can be used as a reference, this likely also implies that SEU plays a significant role in implementing MCF in the realm of defense technologies.

#### SEU's Partnerships with Civilian Universities and Research Institutions

SEU has established formal faculty exchange programs with Beijing University and the Beijing University of Aeronautics and Astronautics, as well as guest lecture programs with CASC, CASIC, CAS, and the Chinese Academy of Engineering (CAE). Formal "strategic partnerships" have also been formed between SEU and the University of the Chinese Academy of Science, which allows curriculum sharing and credit transfers (PLASSF WeChat, June 14, 2018). [9]

Most notably, in April 2019 SEU also signed an official cooperation agreement with Xi'an Jiaotong University. Both parties pledged to cooperate in the areas of "talent cultivation, scientific research and academic affairs, talent recruitment, and admission promotions" (Xi'an Jiaotong University, April 20, 2019). The signing ceremony was held on SEU's Huairou campus in Beijing and was attended by key leaders from both universities, suggesting the potential significance of this partnership. The group picture taken after the ceremony provided a rare look at the key SEU leaders, including: Major General Zhou Zhixin, the Commandant; Major General Zhang Changsheng (张长生), the Political Commissar; Major General Zhao Hongli (赵洪利), Vice Commandant and Dean for Education; and Major General Zheng Huaizhou (郑怀洲), Vice Commandant. [10]

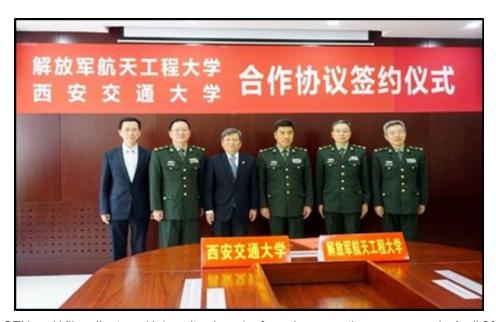


Image: SEU and Xi'an Jiaotong University signed a formal cooperation agreement in April 2019. The uniformed SEU personnel identified in this picture, from left to right, include: Major General Zhang Changsheng, Major General Zhou Zhixin, Major General Zhao Hongli, and Major General Zheng Huaizhou. (Image source: Xi'an Jiaotong University official website)

In addition to these formalized relationships, SEU also sponsors other mechanisms, such as the "Yanqi Space Forums" (雁栖太空论坛, *Yanqi Taikong Luntan*), to deepen its connections with experts and relevant

stakeholders in the space industry and academia, both inside and outside of the PLA (<u>PLA Daily</u>, October 13, 2019). To date, SEU has hosted two Yanqi Space Forums in 2018 and 2019; as a result of the COVID-19 pandemic, it remains unclear whether the third one will be held in the fall of 2020. It also remains to be seen whether SEU and the other organizers plan to open up the forum to foreign participants in the future.

SEU's international outreach programs are less clear. In 2019, through the PLA's civilian personnel (文职人员, wenzhi renyuan) recruitment efforts, it reportedly hired at least three instructors/staff who received their graduate degrees from foreign universities: Nanyang Technological University (Singapore), the University of London, and the University of Pennsylvania (PLASSF WeChat, March 7, 2018; PLA Daily, March 6, 2018). In an interview with the PLA Daily in 2019, Dong Zhenghong (董正宏), director of the Office of Scientific Research and Academic Affairs, revealed that he visited foreign countries without providing further details (PLASSF WeChat, February 25, 2019).

#### **Educating China's Future Space Soldiers**

What is the quality of the cadets enrolled at SEU, and what kind of education are they receiving? As the sole military academic institution responsible for educating China's future space fighters, SEU's curriculum prioritizes knowledge about space engineering and information countermeasures, as well as intelligence processing and analytical skills (PLA Daily Wechat, June 13, 2018). The curriculum has largely remained the same since SEU's founding in 2017. Cadets are offered abundant opportunities—through both required coursework and extracurricular activities—for receiving Science, Technology, Engineering and Math (STEM) education; however, what and how cadets are taught about leadership and command skills remains unclear.

When it comes to admissions through the Chinese *Gaokao*, or college entrance exam system, SEU, like other military academies (along with a handful of civilian universities attached to government agencies), is placed in the "Binding Early Decision" (提前批, *tiqian pi*) category. This is an effective way to ensure that such institutions receive a certain number of the "best and brightest" high school graduates, whose high *Gaokao* scores would otherwise qualify them to be admitted to more prestigious civilian universities. Using 2018 and 2019 admissions data in Beijing as a sample, the table below provides a rough comparison of the scores of admitted SEU students against those of peers admitted to Tsinghua University and the National University of Defense Technology (国防科技大学, *Guofang Keji Daxue*) (NUDT)—a top civilian and a top military academic institution, respectively, both of which are known for their STEM specialties. For simplicity's sake, considering that SEU's curriculum is heavily STEM-focused, this comparison only looks at the admission scores of the "science track" (理科, *li ke*) and does not take into consideration the "humanities track" (文科, *wen ke*). [11]

Table 1: Gaokao University Admission Exam Scores for SEU, NDUT, and Tsinghua Students

	2017		2018		2019	
	Highest	Average	Highest	Average	Highest	Average
SEU	606	590.8	619	594.6	619	575.5
NUDT	648	620	659	634	646	628
Tsinghua	671	N/A	685	N/A	681	N/A

Source: Data compiled by the author based on a variety of publicly-available Chinese sources, including: <a href="https://dxsbb;zhihu; Tsinghua.edu">dxsbb;zhihu; Tsinghua.edu</a>; China Education online; NUDT website.

This rough comparison by no means provides a conclusive assessment for the overall quality of the young cadets in the pipeline to become China's future space soldiers. It should also be noted that the size of SEU's student body is much smaller than those of either NUDT or Tsinghua. [12] However, this data does show that, despite the small increase in admission scores of its admitted students over the past three years, there remains a rather large gap between the young talents that SEU attracts and other top institutions. Although no official data on the admission rate is currently available, given its smaller size and relatively lower name recognition, SEU's admission ratio is also likely higher than the other universities, suggesting a less-selective admission process. It remains to be seen whether the upward trend in SEU's admission *Gaokao* scores continues in the coming years.

#### Conclusion

PLA-watchers who track and study China's military space programs, as well as the PLASSF, should pay close attention to the activities of the Space Engineering University. SEU is not only an academic institution through which the PLA trains its future space warfighters; it also functions, by design, as a center of space innovation and a hub of research and development for the PLASSF. More importantly, evidence gathered for this article suggests that SEU likely serves as a premier testing ground among PLA academic institutions for the concepts of military-civil fusion. The mechanisms through which SEU engages and mobilizes civilian space resources will likely serve as a model for other institutions.

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#### **Notes**

- [1] The other university is the SSF Information Engineering University (信息工程大学, *Xinxi Gongcheng Daxue*) [Ministry of Education code: 91037], which is subordinate to the PLASSF Network Systems Department.
- [2] For existing literature on the SEU in English, see: Ken Allen, *PLA Military Academic Institutions*, Section 6-36,CASI, 2020. Marcus Clay, *Supporting the Infinite Battlefield*, CASI, 2019. pp. 16-19. Also see: "Space Engineering University," <a href="https://unitracker.aspi.org.au/universities/space-engineering-university/">https://unitracker.aspi.org.au/universities/space-engineering-university/</a>, ASPI, 2019.
- [3] "Xi'an Jiaotong University and PLASEU Sign Cooperative Partnership Agreement" (西安交大与解放军航天工程大学签署合作协议) Xian Jiaotong University website (April 20, 2019). http://news.xjtu.edu.cn/info/1002/111642.htm.
- [4] There are at least three "rapid response small groups for defense innovation" (国防科技创新快速响应小组, *guofang keji chuangxin kuaisu xiangying xiaozu*)—in Dalian, Shenzhen, and Chongqing—that have been created to facilitate the agenda of the Special Innovation Zone and possibly other programs spearheaded by the S&T Innovation Bureau (<u>Dalian.gov</u>, 12 March 2020).
- [5] For a brief introduction to the applications of GIS technologies, see: <a href="https://www.esri.com/library/brochures/pdfs/gis-for-defense.pdf">https://www.esri.com/library/brochures/pdfs/gis-for-defense.pdf</a>.
- [6] To name a few, Anhui University (安徽大学), <a href="http://kjc.ahu.edu.cn/dd/ed/c12345a187885/page.htm">http://kjc.ahu.edu.cn/dd/ed/c12345a187885/page.htm</a>; College of Computer Science and Technology (计算机科学与技术学院), Jilin University (吉林大学), <a href="http://www.jiocalls.com/info/1261/11224.htm">http://www.jiocalls.com/info/1261/11224.htm</a>; College of Electronics Engineering (电子工程学院), Xi'an University of Posts and Telecommunications (西安邮电大学), <a href="http://news.xupt.edu.cn/info/1002/16734.htm">http://news.xupt.edu.cn/info/1002/16734.htm</a>. Hefei University of Technology (合肥工业大学), <a href="http://gfzby.hfut.edu.cn/2017/1114/c2118a105528/page.htm">http://gfzby.hfut.edu.cn/2017/1114/c2118a105528/page.htm</a>
- [7] To date, the only other known such "innovation workstation" was created at the Qian Xuesen Laboratory of Space Technology (钱学森空间技术实验室, *Qian Xuesen Kongjian Jishu Shiyanshi*) on January 29, 2018 (QXSLab, undated). This latter institution was housed within the China Academy of Space Technology (CAST), also known as the 5th Academy (五院, *Wu Yuan*) of China Aerospace Science and Technology Corporation (CASC). According to the lab, this workstation is a pilot project to test out new "management models for defense technology innovation" and its operations will be based on a new funding model of "overall investment, full trust, full authorization, independent management, flexible adjustment, [and] ex-post evaluation" (QXSLab, February 2, 2018).
- [8] For more on these two labs, see: <a href="https://web.archive.org/web/20191009035229/https://souky.eol.cn/news/takeinfo/935/53218.html">https://web.archive.org/web/20191009035229/https://souky.eol.cn/news/takeinfo/935/53218.html</a>.
- **[9]** The University of CAS (UCAS) was previously known as the Graduate School of CAS. It was renamed in 2012 before it expanded to recruit undergraduate students in 2014. For more details, see: <a href="http://english.ucas.ac.cn/index.php/about-ucas/history">http://english.ucas.ac.cn/index.php/about-ucas/history</a>.
- [10] Judging from their ribbons, all of the key leaders of SEU appear to hold the same rank of Major General (少将, *shao jiang*) and same grade of corps deputy leader (副军职, *fu junzhi*). It is an unusual setup, which likely results from the 2016 downgrading of the SEU/Equipment College from a corps leader grade (正军级,

zheng junji) to a corps deputy leader grade (副军级, fu junji) organization during the military reform. Major Generals Zheng and Zhao were likely already in the corps deputy leader grade before Major Generals Zhou and Zhang were assigned to SEU. On a day-to-day basis, the SEU leadership likely functions in accordance with their administrative positions, not their military grades.

[11] Admission cutoff scores in the *Gaokao* system vary by locality. For instance, for the same university and same major, a high school graduate from Beijing will be evaluated against a different score—usually set by government education commissions—from a student graduating from a high school in Hubei Province. Almost all Chinese high schools divide their students during junior year into either a "science track," with more emphasis on STEM-courses, or a "humanities track," which requires coursework on history, politics, and geography. Students then are required to take different subject tests for the *Gaokao*.

[12] As of 2020, there were a total of 16,037 (including 1,198 international students) students enrolled in Tsinghua's undergraduate programs (<a href="https://www.tsinghua.edu.cn/xxgk/tjzl.htm">https://www.tsinghua.edu.cn/xxgk/tjzl.htm</a>). In 2019, NUDT had roughly 8,400 undergraduate students, including 1,530 cadets (<a href="https://www.cingta.com/detail/11666">https://www.cingta.com/detail/11666</a>). However, SEU's 2019 admission data shows that it had an undergraduate student body of only 373 cadets (<a href="https://zhuanlan.zhihu.com/p/136156315">https://zhuanlan.zhihu.com/p/136156315</a>).

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