Intersections is a news digest describing the People's Republic of China's (PRC's) technology acquisition and defense industrial base development efforts, US and partner nation responses, and critical and emerging technology risks with military implications. Issue 15 considers the military and security dimensions of China's export controls of rare earths and US advanced chip technology, PRC efforts to build out commercial satellite constellations to rival Starlink, and recent illegal activities that threaten US security interests.

This issue will be our last for now as we take a hiatus in publishing. We hope to bring you more updates on US-PRC technological and industrial base competition in the future. In the interim, please refer to previous issues here or in your browser.

THIS ISSUE'S CONTENTS

US AND CHINA EXCHANGE EXPORT CONTROLS

Trade tensions, trade restrictions, and export controls continue to be features of the US-China relationship. US-China trade tensions have entered a new phase, with each country issuing a tit-for-tat sequence of tariffs and other restrictions.[1] The US and China temporarily suspended tariffs on May 12 in preparation for more substantive trade discussions,[2] and during meetings on June 9, 10, and 27, officials from the two countries reaffirmed and built upon the agreement made in May.[3] On July 3, according to Reuters, the US "lifted restrictions on exports to China for chip design software" in exchange for "concessions from Beijing over rare earths."[4] The situation remains fluid, and US-China trade relations continue to evolve as of this issue's publication.

Each country has relative technological and industrial advantages, and each country (sometimes in concert with allies and partners) is trying to reduce the advantage of the other. In the following stories, we explore trade restrictions and efforts from the PRC, the US, and US partners to blunt their effects.

CHINA RESTRICTS EXPORTS OF RARE EARTH MINERALS

China's export controls on rare earth minerals threaten US defense supply chains. On April 4, 2025, China placed restrictions on the export of seven rare earth elements (see Table 1).[5] The new restrictions were issued shortly after the Trump Administration placed reciprocal tariffs on China. Any exports of the listed rare earths, or magnets made from them, would require a special export license.[6] China has allowed some shipments of the restricted rare earth elements to the US.[7] However, as noted by an unnamed Air Force official cited by the *New York Times*, the restrictions function as a "heads-up" shot, allowing China to demonstrate how it could harm US supply chains while also leaving room for escalation.[8]

The rare earth elements targeted by China are key inputs in multiple military systems. Magnets that contain rare earth materials subject to the new restrictions are used in fighter jets, precision-guided missiles, and drone motors.[9] According to commentary published by the Center for Strategic and International Studies, China has nearly monopolized production of the types of rare earth elements targeted by the new restrictions, specifically medium and heavy rare earths.[10] In fact, a 2022 supply chain assessment released by the Department of Energy assessed that China possessed around 58 percent of the world's rare earth mining capacity and roughly 89 and 90 percent of the world's rare earth separation and refining capacity, respectively.[11] Although the US domestically produces some rare earth minerals, it does not currently produce heavy rare earths. For example, as reported by the *Financial Times*, MP Materials, a prominent US rare earth mining company, has not yet been able to process the heavy rare earth elements dysprosium and terbium, which are needed for the high-performance magnets that go into F-35 fighter jets.[12] Dysprosium and terbium are among the rare earth elements subject to the new export restrictions.[13]

Although licensing requirements for some rare earth elements are new, China's strategy of restricting critical mineral exports is not (see Table 1 for a summary). As covered in *Intersections* Issues 5 and 6, in July 2023, China's Ministry of Commerce and its Customs Administration put licensing requirements on the export of gallium and germanium. By February 2025, China had put initial controls or outright bans on the export of at least seven additional minerals.

Table 1. PRC export controls on critical minerals

Item	Action	Date of Action	PRC Market Share*
Samarium	Initial controls	Apr. 4, 2025	Not specified
Gadolinium	Initial controls	Apr. 4, 2025	Not specified
Terbium	Initial controls	Apr. 4, 2025	Not specified
Dysprosium	Initial controls	Apr. 4, 2025	Not specified
Lutetium	Initial controls	Apr. 4, 2025	Not specified
Scandium	Initial controls	Apr. 4, 2025	Not specified
Yttrium	Initial controls	Apr. 4, 2025	94
Tungsten	Initial controls	Feb. 4, 2025	80
Tellurium	Initial controls	Feb. 4, 2025	67
Bismuth	Initial controls	Feb. 4, 2025	80
Molybdenum	Initial controls	Feb. 4, 2025	40–45
Indium-related items	Initial controls	Feb. 4, 2025	70
Gallium	Outright ban	Dec. 21, 2024	98
Germanium	Outright ban	Dec. 21, 2024	60
Antimony	Outright ban	Dec. 21, 2024	48
Graphite products	Initial controls	Oct. 20, 2023	77
Gallium	Initial controls	July 3, 2023	98
Germanium	Initial controls	July 3, 2023	60

Sources: Figures derived from the US Geological Survey's *Mineral Commodities Summary* or from the National Bureau of Asian Research's report *Charting China's Export Controls: Predicting Impacts on Critical US Supply Chains*.[14]
* PRC Market Share represents the estimated percentage of the global supply chain controlled by China. If no estimates were available, we wrote "not specified."
Note: See *Intersections* issues 5, 6, and 12 for discussions of previous export controls.

Australian company processes heavy rare earths outside of China. The Australian mining company Lynas announced on May 16 that it had produced the heavy rare earth dysprosium at a refinery in Malaysia for the first time. The announcement represents a milestone in efforts to build a critical minerals supply chain that avoids exposure to China. China is the primary commercial source of heavy rare earths, such as dysprosium, which are more difficult to process than light rare earths.[15] If Lynas successfully scales up production of dysprosium and other heavy rare earths, it could reduce China's supply chain dominance.

Lynas' success in refining heavy rare earths illustrates a major challenge China is facing in attempting to weaponize its supply chain dominance: despite their name, rare earths are not particularly rare. Instead, their global supply is limited by the difficulty in refining and processing them.[16] Although establishing non-PRC processing locations for rare earths is challenging, it is not impossible, and multiple countries are investing in rare earths processing. For example, the Department of Defense (DOD) has awarded millions of dollars to firms seeking to establish rare earth separating, refining, and processing facilities in the US.[17]

NEW US CHIP RESTRICTIONS TARGET AI CAPABILITIES

US increases restrictions on sales of Nvidia, AMD chips to China. On April 15, the US Department of Commerce issued new licensing requirements for artificial intelligence (AI) chips produced by Nvidia and AMD.[18] Among the chips subject to the new restrictions is Nvidia's H20 chip, which was designed as a less powerful version of the company's H100 chip. By reducing the performance of this and other chip designs,

Nvidia had been able to sell H20 chips to companies in China while still complying with Biden-era semiconductor restrictions, which were tied to performance thresholds.[19]

This increased stringency of chip export controls follows recent developments in China's AI capabilities. The most notable development, discussed in Issue 13 of *Intersections*, was the release of a new AI chatbot by the PRC AI start-up DeepSeek in January. It built this chatbot despite US efforts to restrict China's access to the necessary computing technology. In training its AI model, DeepSeek had access to Nvidia chips, including models subject to export controls and some chips exempted from restrictions.[20] As discussed in Issue 13, the People's Liberation Army (PLA) could apply the DeepSeek chatbot toward military ends, including generating wargame scenarios or augmenting autonomous and uncrewed systems.

HUAWEI, TENCENT, OTHER PRC FIRMS AIM TO CIRCUMVENT CONTROLS

In response to the US announcement of more stringent restrictions on AI chip exports, companies based in China and subject to chip export restrictions are seeking ways to lessen the effects of the restrictions. The following stories illustrate some of the strategies companies are using.

Huawei introduces a new AI server cluster that reportedly rivals Nvidia products. In mid-April, Huawei introduced a new AI server cluster, called the CloudMatrix 384 Supernode, built using the company's Ascend 910C chips.[21] Even though Ascend chips are not individually as powerful as comparable AI chips produced by Nvidia, the CloudMatrix 384 is reportedly able to meet and even exceed the computing power of Nvidia's GB200 NVL72 server cluster. To achieve this power, the CloudMatrix 384 has five times as many chips as the GB200 NVL72—a design solution that has the drawback of requiring much more power to operate.[22]

Although this effort was not a direct response to the most recent US export controls on chips, Huawei's CloudMatrix 384 demonstrates how companies in China are attempting to use innovative, if inefficient, solutions to achieve the technological outcomes that US export controls are intended to prevent. Of note, as covered in Issue 12 of *Intersections*, the yield rate of the Ascend 910C chips used in the CloudMatrix 384 is well below the threshold of commercial viability—a cost that the chips' manufacturer, Semiconductor Manufacturing International Corporation, may be able to bear partly because of government subsidies.[23]

Tencent, Alibaba, and ByteDance stockpile billions of dollars' worth of Nvidia AI chips. According to *Nikkei Asia*, Tencent, Alibaba, and ByteDance have all built up sizable reserves of Nvidia's H20 chips—one of the models that will be subject to new restrictions. Even though Tencent, Alibaba, and ByteDance will now face difficulties in sourcing supplies of high-performance AI chips, their current stockpiles will help them meet increasing demands for AI computing power in China.[24] Tencent has said that in addition to stockpiling high-end chips for use in training AI models, it is also exploring ways to optimize its software to make some AI processes more efficient, allowing the company to efficiently use the chips it has stockpiled.[25]

UPDATE: PRC COMMERCIAL SATELLITE EFFORTS

China's space architecture expands with more low-earth orbit (LEO) launches. China's state-owned and commercial space firms are pursuing LEO constellation projects in the hopes of competing with Starlink, as discussed in Issue 12. In late April, the Shanghai Academy of Spaceflight Technology announced the launch of a Long March 5B rocket that "launched a third batch of Guowang mega constellation satellites."[26] Guowang (国王), or SatNet, is the shorthand name for China Satellite Network Group, which has publicly acknowledged 29 current satellites in orbit[27] and hopes to launch 13,000 LEO satellites by 2034.[28]

China's other main aspiring LEO satellite constellation provider, Qianfan, encounters challenges. Qianfan (千帆, Thousand Sails), which is run by Shanghai Spacecom Satellite Technology and known in English as SpaceSail, has launched 90 satellites. However, not all of the satellites that Qianfan launched in its second batch last fall[29] reached "their target orbit height."[30] One problem with the batch may have been the use of "a different manufacturing supplier."[31] The manufacturer of the second batch of satellites, Shanghai Genesat (上海格思航天), is supported by a wide variety of investors, but it is a relatively new entrant to the commercial space market in China.

China's two emerging LEO constellations have different focuses. Guowang appears aimed at the domestic Chinese market and will likely support national security applications. In contrast, Qianfan/SpaceSail will focus on the international market. It has already signed deals to operate in Brazil, Malaysia, Kazakhstan, Oman, Pakistan, and Uzbekistan, and it plans to sign agreements with more countries.[32]

The PRC government is investing in LEO constellations partly because of its perception of US space architecture. According to a CNA *InDepth* article on China's space narrative, "Since 2014, the Chinese government has been placing greater attention on developing China's commercial space industry."[33] A separate study notes that PLA analysts assume "Starlink is the capability fulfilling US Space Force (USSF) requirements for resilient space architectures," and this perception has led some PRC experts to argue that China needs commercial space capacity.[34] As a result, some PRC observers have started referring to China's Guowang/SatNet as "China's Starlink."[35]

Space as a warfighting domain adds another dimension to US-China competition. Both US and PRC officials are increasingly considering the possibility of warfighting in space. China has designated space as a warfighting domain and referred to outer space as a "new commanding height of war."[36]

The USSF recognizes the need for "domain control," and the USSF's *White Paper on Competitive Endurance* states that the US must be able to protect US space assets and "deny an adversary the hostile use of its space capabilities."[37] In US doctrine, *domain control* is referred to as "space superiority," which is defined "as the ability to conduct all-domain operations at a given time and place without prohibitive interference from adversary space or counterspace forces."[38] In testimony given in April 2025, USSF Chief of Space Operations General B. Chance Saltzman stated that "space is a warfighting domain" and that the USSF will "defend US space assets…from space-enabled attack."[39]

ILLEGAL ACTIVITIES

As previously covered in *Intersections*, PRC individuals, groups, and organizations affiliated with the Chinese Communist Party and PLA continue to steal US defense technology, hack US government and DOD systems, and conduct espionage activities. This section provides an update on alleged illegal activities targeting the US military, economy, and society that have resulted in US Department of Justice (DOJ) charges.

In May, a PRC and a UK national were charged with smuggling US military technology to China. According to a DOJ press release, beginning in November 2023, two individuals—a UK citizen with US permanent residence and a PRC citizen—attempted to procure US defense articles including missiles, air defense radars, drones, and cryptographic devices.[40] These individuals also allegedly discussed ways to smuggle a cryptographic device to China, including concealing it within various consumer goods such as a blender. Of note, these two individuals were also charged with seeking to harass and intimidate a US resident who sought to protest Xi Jinping's appearance at the 2023 Asia-Pacific Economic Cooperation

Summit in San Francisco. The two individuals were ultimately arrested in Serbia after they fled the US. This case highlights how illegal PRC-directed activities can harm US national security interests.

In April, a US citizen pleaded guilty to engaging in fraudulent IT work that granted a PRC-based co-conspirator access to US government systems. Per the DOJ press release, a US citizen in Maryland pleaded guilty to wire fraud charges related to a scheme with unnamed co-conspirators based in Shenyang, China, who hired him to pose as a freelance software developer to gain employment at various US IT companies that have access to sensitive US government systems, including a Federal Aviation Administration (FAA) system used to manage sensitive information related to national defense.[41] The Maryland man successfully gained employment in IT positions open to only US citizens, and he acquired laptops and login credentials issued by these companies, which the co-conspirators in China then used (via remotely connecting to the US laptop) to access the FAA system data and other US government data related to national security.

In March, the US DOJ charged eight PRC technology firm employees and two officials from the PRC Ministry of Public Security (MPS) with hacking US targets, including the Defense Intelligence Agency and Department of Commerce. In March, according to a DOJ press release, 10 PRC nationals were charged with carrying out a "years-long hacking scheme" via the PRC company I-Soon, which developed and deployed sophisticated hacking software against targets worldwide. Its targets included the US Defense Intelligence Agency, the US Department of Commerce, US state governments, various foreign governments, and groups and individuals opposed to the PRC government.[42] From approximately 2016 through 2023, I-Soon, at the direction of China's Ministry of State Security (MSS) and MPS, hacked the targets' emails, cell phones, servers, and websites. I-Soon advertised various software products that enable hacking techniques, including phishing and password cracking, to the MSS and MPS, and it also trained MPS employees to carry out hacking on their own. This case highlights how a growing industry of PRC technology companies is collaborating with the PRC government to enable sophisticated hacking activities that target the US government and US national security interests.

NOTES

[1] Kenji Kawase, "Trump Administration Hits China with Slew of Tech Export Controls," *Nikkei Asia*, Mar. 26, 2025, https://asia.nikkei.com/Politics/International-relations/US-China-tensions/Trump-administration-hits-China-with-slew-of-tech-export-controls.

[2] Jamey Keaten, David McHugh, Elaine Kurtenbach, and Ken Moritsugu, "US and China Reach a Deal to Slash Sky-High Tariffs for Now, with a 90-Day Pause," Associated Press, May 12, 2025, https://apnews.com/article/china-us-switzerland-tariffs-negotiations-b3f5174d086e39b2522ab848ddad9372.

[3] Ana Swanson, Alan Rappeport, and Jonathan Swan, "Trump Hails Progress with China, but Details Are Sketchy," *New York Times*, June 10, 2025, https://www.nytimes.com/2025/06/10/business/economy/us-china-trade-deal.html; Paul Wiseman, "US, China Announce a Trade Agreement—Again. Here's What It Means," Associated Press, June 27, 2025, https://apnews.com/article/trump-china-trade-tariffs-rare-earth-minerals-cbd2482bd2b3a7ce8d47030c4ff1c3d4; Arendse Huld, "Breaking Down the US-China Trade Tariffs: What's in Effect Now?," China Briefing, June 30, 2025, https://www.china-briefing.com/news/us-china-tariff-rates-2025/; Jon Emont and Gavin Bade, "China's Lock on Rare Earths Dictated Path Toward Trade Truce," *Wall Street Journal*, June 11, 2025, https://www.wsj.com/world/asia/trump-china-rare-earths-0cbf3f3c?msockid=05b248d8f470680b1de05ed6f50e69b7.

[4] Karen Freifeld and Surbhi Misra, "As Trade War Truce with China Holds, US Lifts Curbs for Chip Design Software and Ethane," Reuters on MSN, July 3, 2025, https://www.msn.com/en-us/money/markets/as-trade-war-truce-with-china-holds-us-lifts-curbs-for-chip-design-software-and-ethane/ar-AA1HSAV9?ocid=BingNewsSerp.

[5] Kentaro Shiozaki, "China Approves Rare-Earth Exports to US: Report," *Nikkei Asia*, May 16, 2025, https://asia.nikkei.com/Business/Markets/Commodities/China-approves-rare-earth-exports-to-US-report; Gracelin Baskaran and Meredith Schwartz, "The Consequences of China's New Rare Earths Export Restrictions," Center for Strategic and International Studies, Apr. 14, 2025, https://www.csis.org/analysis/consequences-chinas-new-rare-earths-export-restrictions#:~:text=On%20April%204%2C%20China's%20Ministry,tariff%20increases%20on%20Chinese%20products.

[6] Shiozaki, "China Approves Rare-Earth Exports to US: Report"; Baskaran and Schwartz, "The Consequences of China's New Rare Earths Export Restrictions."

[7] Shaun Turton and Kenji Kawase, "Rare Earths Race Heats Up with US-Saudi Deal and Shenghe Acquisition," *Nikkei Asia*, May 15, 2025, https://asia.nikkei.com/Business/Markets/Commodities/Rare-earths-race-heats-up-with-US-Saudi-deal-and-Shenghe-acquisition; Shiozaki, "China Approves Rare-Earth Exports to US: Report"; Swanson, Rappeport, and Swan, "Trump Hails Progress with China, but Details Are Sketchy."

[8] Helene Cooper, "China's Halt of Critical Minerals Poses Risk for US Military Programs," *New York Times*, Apr. 14, 2025, https://www.nytimes.com/2025/04/14/us/politics/china-critical-minerals-risk-military-programs.html?searchResultPosition=94.

[9] Cooper, "China's Halt of Critical Minerals Poses Risk for US Military Programs."

[10] Baskaran and Schwartz, "The Consequences of China's New Rare Earths Export Restrictions."

[11] Braeton J. Smith, Matthew E. Riddle, Matthew R. Earlam, Chukwunwike Iloeje, and David Diamond, *Rare Earth Permanent Magnets: Supply Chain Deep Dive Assessment*, US Department of Energy, Feb. 23, 2022, https://www.osti.gov/biblio/1871577; Emma M. Rafaelof, Taylore Roth, Mykael SooTho, and John VerWey, *Charting China's Export Controls: Predicting Impacts on Critical US Supply Chains*, NBR, Special Report No. 115, Jan. 9, 2025, https://www.nbr.org/publication/charting-chinas-export-controls-predicting-impacts-on-critical-u-s-supply-chains/.

[12] Ryan McMorrow and Nian Lu, "US Rare Earth Champion Faces Trade War Test After Tariffs Halt China Sales," *Financial Times*, Apr. 17, 2025, https://www.ft.com/content/0ef4a333-245b-4f42-a026-e72dcd9240db.

[13] Baskaran and Schwartz, "The Consequences of China's New Rare Earths Export Restrictions."

[14] US Department of the Interior, US Geological Survey, *Mineral Commodity Summaries 2025*, Version 1.2, Mar. 2025, https://pubs.usgs.gov/periodicals/mcs2025/mcs2025.pdf; Emma M. Rafaelof, Taylore Roth, Mykael SooTho, and John VerWey, *Charting China's Export Controls: Predicting Impacts on Critical US Supply Chains*, National Bureau of Asian Research (NBR), NBR Special Report No. 115, Jan. 9, 2025, https://www.nbr.org/publication/charting-chinas-export-controls-predicting-impacts-on-critical-u-s-supply-chains/.

[15] Shaun Turton, "Australia's Lynas Makes Heavy Rare Earths Breakthrough in Malaysia," *Nikkei Asia*, May 16, 2025, https://asia.nikkei.com/Business/Markets/Commodities/Australia-s-Lynas-makes-heavy-rare-earths-breakthrough-in-Malaysia.

[16] Zeyi Yang, "Bad News for China: Rare Earth Elements Aren't that Rare," *Wired*, Apr. 23, 2025, https://www.wired.com/story/rare-earth-minerals-china-tariffs/.

[17] C. Todd Lopez, "DOD Looks to Establish 'Mine-to-Magnet' Supply Chain for Rare Earth Materials," US Department of Defense, Mar. 11, 2024, https://www.defense.gov/News/News-Stories/Article/Article/3700059/dod-looks-to-establish-mine-to-magnet-supply-chain-for-rare-earth-materials/; see also Baskaran and Schwartz, "The Consequences of China's New Rare Earths Export Restrictions."

[18] Tripp Mickle, "Nvidia Says US Will Restrict Sales of More of Its AI Chips to China," *New York Times*, Apr. 15, 2025, https://www.nytimes.com/2025/04/15/technology/nvidia-h20-chip-china-restrictions.html.

[19] Tripp Mickle, Ana Swanson, Meaghan Tobin, and Cade Metz, "Washington Takes Aim at DeepSeek and Its American Chip Supplier, Nvidia," *New York Times*, Apr. 16, 2025, https://www.nytimes.com/2025/04/16/technology/nvidia-deepseek-china-ai-trump.html?unlocked_article_code=1.AE8.VnX2.TkQKazALY1RG&smid=url-share.

[20] Mickle, Swanson, Tobin, and Metz, "Washington Takes Aim at DeepSeek and Its American Chip Supplier, Nvidia."

[21] Ann Cao, "Tech War: Huawei Launches New AI Architecture Said to Rival Nvidia's Products," *South China Morning Post*, Apr. 15, 2025, https://www.scmp.com/tech/tech-war/article/3306644/tech-war-huawei-launches-new-ai-architecture-said-rival-nvidias-products?module=inline&pgtype=article.

[22] Dylan Patel, Daniel Nishball, Myron Xie, Patrick Zhou, Ivan Chiam, AJ Kourabi, Christopher Seifel, and Doug OLaughlin, "Huawei AI CloudMatrix 384 – China's Answer to Nvidia GB200 NVL72," Semianalysis, Apr. 16, 2025, https://semianalysis.com/2025/04/16/huawei-ai-cloudmatrix-384-chinas-answer-to-nvidia-gb200-nvl72/.

[23] See Fanny Potkin, "Exclusive: Huawei Aims to Mass-Produce Newest AI Chip in Early 2025, Despite US Curbs," Reuters, Nov. 21, 2024, https://www.reuters.com/technology/artificial-intelligence/huawei-aims-mass-produce-newest-ai-chip-early-2025-despite-us-curbs-2024-11-21/; Che Pan, "Tech War: China Pumps Up State Subsidies for Chip Industry to Counter US Sanctions," *South China Morning Post*, Aug. 16, 2024, https://www.scmp.com/tech/tech-war/article/3274599/tech-war-china-pumps-state-subsidies-chip-industry-counter-us-sanctions.

[24] Cheng Ting-Fang, Lauly Li, and Cissy Zhou, "ByteDance, Alibaba and Tencent Stockpile Billions Worth of Nvidia Chips," *Nikkei Asia*, Apr. 23, 2025, https://asia.nikkei.com/Business/Tech/Semiconductors/ByteDance-Alibaba-and-Tencent-stockpile-billions-worth-of-Nvidia-chips.

[25] Cissy Zhou, "Tencent Says Chip Stockpile Can Power AI Training for 'Generations' Despite US Ban," *Nikkei Asia*, May 14, 2025, https://asia.nikkei.com/Business/Technology/Tencent-says-chip-stockpile-can-power-AI-training-for-generations-despite-US-ban.

[26] Andrew Jones, "China Launches Third Batch of Guowang Megaconstellation Satellites," Space News, Apr. 29, 2025, https://spacenews.com/china-launches-third-batch-of-guowang-megaconstellation-satellites/.

[27] Zeyi Yang, "China's Effort to Build a Competitor to Starlink Is Off to a Bumpy Start," *Wired,* May 28, 2025, https://www.wired.com/story/china-starlink-competitor-satellites/.

[28] Ling Xin and Victoria Bela, "China Launches First Satellites for GuoWang Project to Rival SpaceX's Starlink," *South China Morning Post*, Dec. 16, 2024, https://www.scmp.com/news/china/science/article/3290994/china-launches-firstsatellites-guowang-project-rival-spacexs-starlink?module=hp_section_china&pgtype=homepage.

[29] Shanghai Municipal Government, "垣信卫星千帆星座极轨02组卫星成功发射［Yuanxin Satellite Qianfan Constellation Polar Orbit 02 Satellites Successfully Launched]," Oct. 28, 2024, https://www.shanghai.gov.cn/nw31406/20241029/b4035ba0a5fe482984e88e88c7277b2f.html.

[30] Yang, "China's Effort to Build a Competitor to Starlink."

[31] Yang, "China's Effort to Build a Competitor to Starlink."

[32] Yang, "China's Effort to Build a Competitor to Starlink."

[33] Kevin Pollpeter, Timothy Ditter, Anthony Miller, and Brian Waidelich, *China's Space Narrative: Examining the Portrayal of the US-China Space Relationship in Chinese Sources and Implications for the United States*, CNA and China Aerospace Studies Institute, DES-2020-U-028472-Final, 2020, p. 29, https://www.cna.org/analyses/2020/10/chinas-space-narrative.

[34] Howard Wang, Jackson Smith, and Cristina L. Garafola, *Chinese Military Views of Low Earth Orbit: Proliferation, Starlink, and Desired Countermeasures*, RAND, 2025, https://www.rand.org/content/dam/rand/pubs/research_reports/RRA3100/RRA3139-1/RAND_RRA3139-1.pdf.

[35] Wang, Smith, and Garafola, *Chinese Military Views of Low Earth Orbit*.

[36] Pollpeter, Ditter, Miller, and Waidelich, *China's Space Narrative*, p. 55.

[37] US Space Force, *White Paper on Competitive Endurance: A Proposed Theory of Success for the US Space Force*, 2024, p. 1, https://csps.aerospace.org/sites/default/files/2024-01/%28U%29%20White%20Paper%20Summary%20of%20Competitive%20Endurance.pdf.

[38] US Space Force, *White Paper on Competitive Endurance*, p. 2.

[39] General B. Chance Saltzman, *The Rocket's Red Glare: China's Ambitions to Dominate Space*, US-China Economic and Security Review Commission, Apr. 3, 2025, p. 6, https://www.uscc.gov/hearings/rockets-red-glare-chinas-ambitions-dominate-space.

[40] "British and Chinese Nationals Indicted for Alleged Plot to Silence US Dissident and Smuggle US Military Technology to China," US Department of Justice, May 30, 2025, https://www.justice.gov/usao-cdca/pr/british-and-chinese-nationals-indicted-alleged-plot-silence-us-dissident-and-smuggle.

[41] "Maryland Man Pleads Guilty to Conspiracy to Commit Wire Fraud," US Department of Justice, Apr. 15, 2025, https://www.justice.gov/opa/pr/maryland-man-pleads-guilty-conspiracy-commit-wire-fraud.

[42] "10 Chinese Nationals Charged with Large-Scale Hacking of US and International Victims on Behalf of the Chinese Government," US Department of Justice, Mar. 4, 2025, https://www.justice.gov/usao-sdny/pr/10-chinese-nationals-charged-large-scale-hacking-us-and-international-victims-behalf.

Intersections is produced by CNA's China and Indo-Pacific Security Affairs Division. The division's team of approximately three dozen language-skilled regional specialists has provided sponsors and the public with the context to make informed, data-based assessments about this critical region since 1998.

For additional information, please contact INTERSECTIONS@CNA.ORG.

Approved July 2025: Maryanne Kivlehan-Wise, Research Program Director
China Studies Program, China and Indo-Pacific Security Affairs Division

This work was created in the performance of Federal Government Contract No. N00014-22-D-7001.

DISTRIBUTION STATEMENT A. Cleared for Public Release.

Public Release 7/23/2025

This document contains the best opinion of CNA at the time of issue. The views, opinions, and findings contained in this report should not be construed as representing the official position of the Department of the Navy.

CNA is a nonprofit research and analysis organization dedicated to the safety and security of the nation. It operates the Center for Naval Analyses—the only federally funded research and development center serving the Department of the Navy—as well as the Institute for Public Research. CNA is dedicated to developing actionable solutions to complex problems of national importance.

DNL-2024-U-039879-Final5 Subscribe or unsubscribe at intersections@cna.org