

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE (DD-MM-YYYY) 10-MAY-2023		2. REPORT TYPE FINAL		3. DATES COVERED (From - To) N/A	
4. TITLE AND SUBTITLE Cooperative Opportunity				5a. CONTRACT NUMBER N/A	
				5b. GRANT NUMBER N/A	
				5c. PROGRAM ELEMENT NUMBER N/A	
6. AUTHOR(S) LTC Robert N Adams				5d. PROJECT NUMBER N/A	
				5e. TASK NUMBER N/A	
				5f. WORK UNIT NUMBER N/A	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Writing & Teaching Excellence Center Naval War College 686 Cushing Road Newport, RI 02841-1207				8. PERFORMING ORGANIZATION REPORT NUMBER N/A	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A				10. SPONSOR/MONITOR'S ACRONYM(S) N/A	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S) N/A	
12. DISTRIBUTION / AVAILABILITY STATEMENT Distribution Statement A: Approved for public release; Distribution is unlimited.					
13. SUPPLEMENTARY NOTES A paper submitted to the faculty of the NWC in partial satisfaction of the requirements of the curriculum. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy.					
14. ABSTRACT United States (US) joint military doctrine describes competition between great powers as a continuum ranging from cooperation to competition to conflict. In most cases the US military thinks of and promotes cooperation with like-minded allies and partners against competitors. However, this paper seeks to answer what areas exist where the US could deescalate competitive tensions with the People's Republic of China (PRC) while creating avenues to keep communication open and reduce misunderstanding or miscalculation. This paper examines two areas of cooperation to potentially pursue on a course of engagement with the PRC. Mutually beneficial space exploration is a new area for cooperation with the PRC and climate change security is an area where some dialogue already occurs but should increase.					
15. SUBJECT TERMS (Key words) CHINA, PRC, US, COMPETITION, COOPERATION, CLIMATE CHANGE, SPACE, MISCALCULATION,					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT N/A	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON Director, Writing Center
a. REPORT UNCLASSIFIED	b. ABSTRACT UNCLASSIFIED	c. THIS PAGE UNCLASSIFIED			19b. TELEPHONE NUMBER (include area code) 401-841-6499

Cooperative Opportunity



Original Date Submitted: 14 OCT 2022

Revised: 10 MAY 2023

Word Count: 3,254

A paper submitted to the Faculty of the United States Naval War College, Newport, RI in partial satisfaction of the requirements for graduation.

DISTRIBUTION A. Approved for public release: distribution unlimited.

The contents of this paper reflect the author's own personal views and are not necessarily endorsed by the Naval War College, the Department of the Navy, or the Department of Defense.

Foundations for Cooperation

In August 2022, Chief of Naval Operations, Admiral Michael Gilday stated, “what is really influencing our decisions on the path that we’re taking [is] China...led the United States Navy to look at ourselves in terms of what would -- how would -- we face this adversary, not only to deter them, but if we potentially had to face them in combat.”¹ In recent years the rise of a more militaristic People’s Republic of China (PRC) in the South China Seas and Southeast Asia has led the United States (US) military to increasingly see and describe the PRC in adversarial terms. The logical conclusion of this trend manifested itself in the 2022 *National Defense Strategy* where the number one priority for the Department of Defense is homeland defense which is “paced to the growing multi-domain threat posed by China.”²

The vision for the global future, held by the US and its democratic-leaning allies, is at odds with the PRC’s vision. The US and its allies seek to maintain a rules-based international order, established in the wake of World War II, underwritten by the expansion of democratic institutions throughout the world and supported by principles of free trade and free access to the global commons. Meanwhile, the ruling Communist Party of China (CPC) seeks to reestablish the PRC as a regional power in the Western Pacific and bring governments of the region back into the orbit of imperial China from five centuries ago. These competing visions have led to an era in which the language of competition often characterizes the relationship between the US and the PRC.

¹ Michael Gilday, “CNO Speaks at the Heritage Foundation,” public remarks, August 25, 2022, <https://www.navy.mil/Press-Office/Press-Briefings/display-pressbriefing/Article/3161602/cno-speaks-at-the-heritage-foundation/>.

² Department of Defense, *National Defense Strategy*, (Washington, DC: Department of Defense, 2022), 7, <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

This competition, pitting the world's two largest economies against one another, could have devastating results to the global economy and international security if competition turned into conflict. With the ascendancy of Xi Jinping to the CPC chairmanship and presidency of the PRC in late 2012 and early 2013, the US and its allies were hopeful that with a new leader came continued reform by the PRC.³ The desire was that the PRC would take a position to affirm international norms of peace, stability, and free trade. However, indications over the ensuing decade appear to be opposite of that hope. President Xi and the CPC undertook actions to consolidate power internally and pursue a vision for regional security where Asians address the security matters of Asians without the "interference" of third-party powers.⁴ The entire world depends on the flow of trade through critical straights in Southeast Asia, an area which a future conflict between the US and the PRC would seriously disrupt. No one wants such a conflict to occur, but then one must ask what mechanisms exist to defuse the competitive tension.

US joint military doctrine presents competition with strategic actors as existing along a continuum which ranges from cooperation to competition to conflict.⁵ The notion of cooperation more often manifests itself in the US military in terms of interaction with like-minded allies and partners *against* a competitor or adversary. President Biden's *National Security Strategy* characterizes the PRC as "our pacing challenge," but it acknowledges, "[the] PRC also retains common interests with other countries, including the United States" in the form of shared global

³ John, Ruwitch, "Timeline - The Rise of Chinese Leader Xi Jinping," *Reuters.com*, March 16, 2018, <https://www.reuters.com/article/us-china-parliament-xi-timeline/timeline-the-rise-of-chinese-leader-xi-jinping-idUSKCN1GS0ZA>.

⁴ Jinping Xi, "New Asian Security Concept For New Progress in Security Cooperation," Speech at Fourth Summit of the Conference on Interaction and Confidence Building Measures in Asia, *Xinhua*, May 21, 2014. http://www.xinhuanet.com/world/2014-05/21/c_126528981.htm.

⁵ Joint Chiefs of Staff, *Joint Campaigns and Operations*, JP 3 (Washington, DC: Joint Chiefs of Staff, 2022), I-4,5.

challenges.⁶ This is a muted position by comparison to his interim guidance, which asserted, “strategic competition does not, and should not, preclude working with China when it is in our national interest to do so.”⁷ What these statements affirm is that the possibility exists, in the realm of discussing national interests, to understand and build cooperative links where possible with strategic actors like the PRC. However, when a US service chief publicly describes the PRC in adversarial terms, as Gilday did in August 2022, it seems to preclude the idea that cooperation has any part of the whole competition continuum.

The US should identify and reinforce areas of common interest for cooperation with the PRC to increase communications and reduce the chances for miscalculations. Space exploration and climate change security represent two potential areas of cooperation where the US and PRC could engage on matters of mutual or even global benefit. Space exploration represents a new area of cooperation between the two governments and climate change security represents an existing area of cooperation to reinforce. While these are not a panacea, they can be instructive as examples of cooperative potential for US policy makers and military planners to consider as part of a comprehensive approach to the continuum of competition a strategic actor like the PRC. Between the two World Wars, renowned international relations theorist Norman Angell highlighted the value of competitor nations pursuing cooperative engagement saying, “while maintaining our arms, we must maintain our efforts to create a new order based on the recognition of those mutual obligations between nations which are necessary for fruitful

⁶ White House, *National Security Strategy*, (Washington, DC: White House, 2022), 7, <https://www.whitehouse.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf>.

⁷ White House, *Interim National Security Strategic Guidance*, (Washington, DC: White House, 2021), 21, <https://www.whitehouse.gov/wp-content/uploads/2021/03/NSC-1v2.pdf>.

cooperation.”⁸ Cooperation has the potential to create chances for better understanding of each other and reduce the potential for harmful conflict.

Cooperative engagement is a familiar endeavor to some degree already for both the US and PRC. First, trade directly links the economies of the US and PRC as evidenced by the fact that the US is the PRC’s largest export partner and its fifth largest import partner. By comparison, the PRC is the third largest export partner for the US and its largest import partner.⁹ ¹⁰ Beyond the business world, it is important to note that the US also has a history of cooperation with the PRC in counter illegal, unreported, and unregulated, (IUU) fishing, counter piracy operations in the Gulf of Aden, and counter drug coordination. Often held up as an example of cooperation, is the PRC’s participation in the international response to the 2004 tsunami which devastated Indonesia. Similarly, academic research occurs among citizens of both countries, though there is some suspicion whether this is a vector for intellectual property theft. While limited in their direct relation to security matters, these areas of cooperation represent and confirm cooperation as a common concept to both nations.

Cooperation with a strategic actor considered an adversary is also familiar to the US government. The US and the Soviet Union recognized the threat of mutually assured nuclear destruction and cooperated in nuclear weapons policy, proliferation, and transparency throughout the Cold War. Both governments recognized the need for an agreement to cover engagement at sea after a series of unintended collisions occurred between their navies in the 1960s. The

⁸ Norman Angell, *The Great Illusion*, 1933 (New York: G.P. Putnam’s Sons, 1933), 247.

⁹ “United States: Economy,” Central Intelligence Agency, 2022, <https://www.cia.gov/the-world-factbook/countries/united-states/#economy>.

¹⁰ “China: Economy,” Central Intelligence Agency, 2022, <https://www.cia.gov/the-world-factbook/countries/china/#economy>.

agreement served to both enhance incident management and increase cooperation.¹¹ In the latter parts of the Cold War, the US and the Soviet Union cooperated in space exploration starting with the Apollo-Soyuz Project and culminating in building today's International Space Station (ISS). Cooperation at the ISS between the US and Russia continues even today, though the invasion of Ukraine seems to be putting the future of that cooperation in jeopardy. Cooperative engagement in space has been so successful and habitual that it extended beyond the Cold War to even sustain US manned flight to space when the space shuttle program came to an end in 2011.¹² Conflict prevention scholar Paul Stares describes the cooperative relationship between the US and Soviet Union as an example of success through "deliberately establishing informal rules of the road to stabilize their otherwise adversarial relationship and ultimately promote peaceful coexistence."¹³ It is evident, therefore, the case for cooperation with a competitor has historical precedent in US policy.

Cooperation In Space

The time is ripe for the US to find a new partner in space. Russia's invasion of Ukraine has resulted in their isolation from the international community due to punitive economic sanctions and international condemnation. In partial response to the on-going isolation, the head of the Russian space agency, Roscosmos, announced in July 2022 their intent to withdraw from the ISS by 2024.¹⁴ Following through with such a threat would end nearly 50 years of

¹¹ David Griffiths, *U.S.-China Maritime Confidence Building: Paradigms, Precedents, and Prospects* (Newport, R.I: China Maritime Studies Institute, U.S. Naval War College, 2010), 13.

¹² John Uri, "50 Years Ago: The United States and the Soviet Union Sign a Space Cooperation Agreement," National Aeronautics and Space Administration, last modified May 23, 2022, <https://www.nasa.gov/feature/50-years-ago-the-united-states-and-the-soviet-union-sign-a-space-cooperation-agreement>.

¹³ Paul Stares, *Preventative Engagement* (New York: Columbia University Press, 2017), 72.

¹⁴ Roscosmos, "Yuri Borisov about the ISS Project," press release, July 29, 2022, <https://www.roscosmos.ru/38035/>.

international space cooperation in total and over twenty years at the ISS. Meanwhile the PRC, a relative late comer to the international space exploration community, has been independently building its own space exploration capabilities and technologies. In a white paper published in early 2022, the PRC publicly announced their intent to increase exploration missions to the moon and other planets over the next five years.¹⁵ Space experts from the PRC even assess that their “taikonauts” could land on the moon by the 2030s.¹⁶ As a declining power and saddled with its own security baggage, Russia may no longer be the best cooperative partner for the US in space given the PRC’s ambitious trajectory.¹⁷ In light of Russia’s ISS threats, the US has an opportunity to engage with the PRC as a new space partner.

The trajectories of the US and PRC space programs may already be nearing a natural point of convergence. In their declared plans for space exploration, both the US and PRC publicly share similar goals for enhancing international norms in space, developing space stations, and reaching toward the moon.¹⁸ ¹⁹ In 2011 the China Manned Space Agency (CMSA) began space rendezvous and docking with its own precursor vehicles to their planned Tiangong space station. CMSA does not demonstrate any intent to slow its progress. The National Aeronautics and Space Administration’s (NASA) strategic plans, which recognize that international cooperation will be a critical component to achieving their goals in space in the

¹⁵ State Council Information Office of the People's Republic of China, "China's Space Program: A 2021 Perspective," news release, January 28, 2022, <https://english.news.cn/20220128/eb9fb038ebfe4a3d93887b9f120ef74a/c.html>.

¹⁶ Andrew Jones, “Chinese crewed moon landing possible by 2030, says senior space figure,” *Space News*, last modified November 15, 2021, <https://spacenews.com/chinese-crewed-moon-landing-possible-by-2030-says-senior-space-figure/>.

¹⁷ “Future Warfighting Symposium: Space Domain” (panel discussion, Spruance Auditorium, Naval War College, Newport, RI, August 4, 2022).

¹⁸ National Aeronautics and Space Administration, *NASA 2022 Strategic Plan* (Washington, DC: NASA, 2022), 5, https://www.nasa.gov/sites/default/files/atoms/files/fy_22_strategic_plan.pdf.

¹⁹ State Council Information Office of the People's Republic of China, "China's Space Program: A 2021 Perspective."

coming years, currently have no mention or acknowledgement of the PRC in them.²⁰ It was 2010 when NASA officials last visited the PRC to view its space facilities and understand the goals of their manned space program.²¹ In the intervening decade since, the only substantial declared engagement between NASA and the PRC has been an effort in 2016 to collaborate on air traffic management research.²² Such a lag in communication and official engagement leaves a gap for the US to fully understand the methods, technological advancements, and intentions of the CMSA and even more the PRC. Deliberate effort to cooperate in space exploration could provide an opportunity to close this gap in communication and converge on common goals.

There is no denying each nation recognizes the military benefits of space given the United States' establishment of the Space Force in 2019 and the PRC's establishment of the Strategic Support Force in 2015. Just as the US did with the Soviet Union over matters of engagement at sea, so too could the US and PRC collaborate to create terms of engagement in space. With increasing commercial access and activity in space, it is important that the leading space powers have regular communication and engagement for the sake of coordination and ensuring safe actions.²³ This would benefit the safety of space travelers, but also create a forum for cooperative engagement between the two nations. Steps in space cooperation could begin with mutually beneficial space-borne object tracking before extending into combined launches, space station building or combined exploration. With space as a growth area for the global community, having the two most prominent space programs cooperating would serve as an

²⁰ National Aeronautics and Space Administration, *NASA 2022 Strategic Plan*.

²¹ National Aeronautics and Space Administration, "NASA Administrator Statement on China Visit," news release, October 25, 2010, https://www.nasa.gov/home/hqnews/2010/oct/HQ_10-270_Bolden_China.html.

²² National Aeronautics and Space Administration, "NASA, China to Collaborate on Air Traffic Management Research," news release, September 28, 2016, <https://www.nasa.gov/press-release/nasa-china-to-collaborate-on-air-traffic-management-research>.

²³ Bin Li, "Space Won't Be Safe until the U.S. and China Can Cooperate," *Scientific American*, last modified, May 9, 2022, <https://www.scientificamerican.com/article/space-wont-be-safe-until-the-u-s-and-china-can-cooperate/>

example of leadership in space while also increasing their common communications amidst an environment of competitive tensions.

Cooperation on Climate Security

Climate change security may reflect one of the areas of greatest potential for cooperation between the PRC and US. The Paris Climate Accords formalized some of the most direct goals for governments to adopt in acting against harmful climate change. The US and PRC both assented to these proposals and have reaffirmed their mutual ambitions in publicized joint statements.²⁴ As two of the largest global carbon-dioxide emitters, two of the leading economies and with two of the three largest populations in the world, the US and PRC have a vested interest to address the impacts of climate change through cooperation.

Both nations recognize the impending potential impacts of an inhospitable climate and have set goals for change. The US and PRC demonstrate intent to lead in this area through public statements and declared policy. During President Xi's policy setting address at the 19th Party Congress, he made the claim that "Taking a driving seat in international cooperation to respond to climate change, China has become an important participant, contributor, and torchbearer in the global endeavor for ecological civilization."²⁵ President Biden's national security guidance recognizes climate as a matter of national security interest in which the US should take a leading role. However, the US and PRC goals are not currently aligned and are, in fact, decades apart for when they seek to achieve meaningful reductions in emissions pollution. The PRC seeks to peak

²⁴ Department of State, "U.S.-China Joint Statement Addressing the Climate Crisis,," media note, April 17, 2021, <https://www.state.gov/u-s-china-joint-statement-addressing-the-climate-crisis/>.

²⁵ Jinping Xi, "Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era," Speech at 19th National Congress of the Communist Party of China, Beijing, October 18, 2017, 4, http://www.xinhuanet.com/english/download/Xi_Jinping's_report_at_19th_CPC_National_Congress.pdf.

carbon emissions by 2030 and achieve carbon neutrality by 2060²⁶ while the US has said it desires to reach carbon free electric production by 2035.²⁷ Climate scientists argue for earlier and earlier solutions to curbing carbon emissions, but with the two largest economies and emitters well apart in their goals there is a need to close this gap.

The US should look to this area of global security as a challenge to meet along with the PRC. Climate change mitigation requires a great deal of funding which often comes short of its goals in the international arena each year.²⁸ Climate security challenges cannot be solved without the critical input, agreement and effort of both nations' governments given the size of their economies and emissions contributions. Both nations can take first steps by synchronizing goals, contributing to funding, and sharing technological advancements to reduce emissions. Being party to international agreements is an initial step, but action by both nations, together, is of greater impact. Cooperation in this area reinforces will reinforce a channel of communication between the US and PRC which, as competitors, is necessary for reducing misunderstanding and the chances for conflict.

Impediments to Cooperation

Some would argue that unassailable barriers are already in place to keep space and climate change security from being viable areas of cooperation between the United States and China. In 2011, the US Congress codified into law the Wolf Amendment to prevent the National Aeronautics and Space Administration (NASA) and the National Science Foundation (NSF)

²⁶ United Nations, "China headed towards carbon neutrality by 2060; President Xi Jinping vows to halt new coal plants abroad," press release, September 21, 2021, <https://news.un.org/en/story/2021/09/1100642>.

²⁷ Department of State, "U.S.-China Joint Glasgow Declaration on Enhancing Climate Action in the 2020s," media note, November 10, 2021, <https://www.state.gov/u-s-china-joint-glasgow-declaration-on-enhancing-climate-action-in-the-2020s/>.

²⁸ United Nations, *Climate Change 2022: Mitigation of Climate Change*, (Geneva: Intergovernmental Panel on Climate Change, 2022), 14-93, https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_Chapter_14.pdf.

from using appropriated funds to directly host or engage with officials from the PRC's space agency.²⁹ Similarly, the Fiscal Year 2000 NDAA prohibits the Department of Defense from conducting exchanges or having contact with the People's Liberation Army in several areas, to include military space operations, where exposure could create a national security risk.³⁰ Without significant lobbying to the Congress, it is unlikely that these laws will change, especially if an adversarial tone continues to be the way the US government characterizes the PRC. Space exploration, as an avenue for cooperative engagement, may be seen as a long shot and not worth the effort or payback for reducing misunderstanding and increasing communication. Resolving this apparent impasse would require political will, but a solution is at least possible.

Climate change dialogue has also been held at risk as a bargaining chip when the US government and the PRC are at odds on other policy matters. This could make climate security cooperation a potentially unstable area for consistent engagement. In August 2022 when House Speaker Pelosi visited Taiwan, the PRC reacted by "suspending" climate change security dialogues with the US along with other areas of regular mutual engagement.³¹ This reflects that despite grand policy statements the PRC does not necessarily see climate change security as an area of full cooperation. It seems they will more likely retain it within a portfolio of other levers to use when agendas do not align. This may mean that the US cannot rely upon cooperation in climate change security as a part of a strategy for increasing communication and reducing

²⁹ Department of Defense and Full-Year Continuing Appropriations Act, 2011, Pub. L. No. 112-10 § 1340(a), 125 Stat. 123 (2011). <https://www.congress.gov/bill/112th-congress/house-bill/1473/text>

³⁰ National Defense Authorization Act, 2000, Pub. L. No. 106-65 § 1201(ii), 113 Stat. 522 (2000). <https://www.congress.gov/112/plaws/publ10/PLAW-112publ10.htm>.

³¹ Tiezzi, Shannon, "China Suspends Military Dialogues, Climate Change Talks With US," *The Diplomat*, August 5, 2022, <https://thediplomat.com/2022/08/china-suspends-military-dialogues-climate-change-talks-with-us/>

misunderstanding. Engagement between the US and PRC on climate change security as a mechanism for reducing competitive tension may be a long shot, but it is not impossible.

Avoiding Missed Opportunity

Although the impediments for cooperation in space exploration and climate change security are significant, there is potential good for the US to gain by finding ways to overcome them. The laws against cooperation between US and PRC space agencies may intend to preserve national security and intellectual property advantage through limiting engagement. However, intellectual property theft does not inherently stop because space agency officials from the US and PRC do not meet each other in person. Effectively all these laws have done is to limit the human benefits of regular, face-to-face interaction with no real preservation of technological advantage. In a published legal review of the Wolf Amendment, Hannah Kohler assesses that, “Blocking the United States and NASA from cooperating with one of the major space powers of the world – a country with demonstrated ambition and an increasing capability to achieve dominance in space – may hobble us beyond recovery.”³² A Johns Hopkins Applied Physics Lab report, summarizing the past and assessing the future of space relations, suggests the US should re-evaluate its objectives in space exploration if it chooses not to cooperate with the PRC. One option may be to pursue technological primacy alone, in which case cooperation might be the less desirable effort. However, if the US wants to act as a global leader, cooperation with an emerging global power in space will become an increasing necessity.³³ The US should consider

³² Hannah Kohler, "The Eagle and the Hare: U.S.-Chinese Relations, the Wolf Amendment, and the Future of International Cooperation in Space," *Georgetown Law Journal* 103, no. 4 (April 2015): 1161, <https://heinonline.org/HOL/P?h=hein.journals/glj103&i=1156>

³³ Matthew Daniels, *The History and Future of US-China Competition and Cooperation in Space*, Report No. NSAD-R-20-060 (Baltimore, MD: Johns Hopkins University Applied Physics Laboratory, 2020), 17, <https://apps.dtic.mil/sti/pdfs/AD1116894.pdf>.

whether it is time for the Wolf legislation to change and re-open the doors for face-to-face cooperation on space.

It is important to note that while the PRC did suspend several engagement areas with the US in August 2022, they did not suspend any of the trade or economic negotiations. This indicates the PRC values economic engagement and trade most in their relationship with the US. If climate change is going to become a viable means of engagement and cooperation with the PRC in the spectrum of competition, linking it to economic matters and de-linking it from national security matters may be the best way to sustain it. When national security disagreements arise in the future, having climate security negotiations as an alternate channel to sustain dialogue would be valuable. It may also contribute to sustaining longer-term efforts to solve problems of climate security.

Choosing Cooperation

The potential benefits of cooperation, as a means of increasing communication and understanding while reducing the chances for misinterpretation, are worth consideration as part of a holistic strategy which considers the whole continuum of competition. In an examination of how the PRC views power, international studies scholar David Lampton, suggests that cooperating where necessary and possible, is the only sensible way forward under current and likely future conditions.³⁴ JP 3-0, which describes the continuum of competition also acknowledges that history has looked favorably on cooperation as an outcome although the benefits are not always immediately visible to the participants.³⁵ Industrial magnate Andrew

³⁴ David M. Lampton, *The Three Faces of Chinese Power: Might, Money, and Minds* (Berkeley: University of California Press, 2008), 273.

³⁵ Joint Chiefs of Staff, *Joint Campaigns and Operations*, V-5.

Carnegie's life provides another way to see the benefit of cooperation over competition. During battle for whose company would become the primary producer of passenger rail cars, Carnegie chose to enter a partnership with his chief rival, George Pullman, rather than continue down the destructive path of industrial conflict at his company's expense. He even went so far as to call the new car after the name of his former rival, creating what became famously known as the Pullman Palace Car.³⁶ While a historic business example may seem simplistic, it demonstrates the beneficial principle of choosing cooperation over conflict in human relationships. The US should consider cooperation among its options in addressing the PRC's rising influence in the world. It is a matter of preserving force, capital, and potentially human life. Our doctrine reflects that cooperation is a viable option, so it bears consideration as part of a strategy of competition.

³⁶ Dale Carnegie, *How to Win Friends and Influence People* (New York: Simon and Schuster, 1937), 108-9.

Bibliography

Angell, Norman. *The Great Illusion, 1933*. New York: G.P. Putnam's Sons, 1933.

Carnegie, Dale. *How to Win Friends and Influence People*. New York: Simon and Schuster, 1937.

Central Intelligence Agency. "China: Economy," 2022. <https://www.cia.gov/the-world-factbook/countries/china/#economy>.

Central Intelligence Agency. "United States: Economy," 2022. <https://www.cia.gov/the-world-factbook/countries/united-states/#economy>.

China-US Joint Working Group. *China-US Cooperation: Key to the Global Future*. Washington, DC: Atlantic Council, 2013. <https://www.cusef.org.hk/resources/publications/china-us-cooperation.pdf>

Daniels, Matthew. *The History and Future of US-China Competition and Cooperation in Space*. Report No. NSAD-R-20-060. Baltimore, MD: Johns Hopkins University Applied Physics Laboratory, 2020. <https://apps.dtic.mil/sti/pdfs/AD1116894.pdf>

Department of Defense. *National Defense Strategy*. Washington, DC: Department of Defense, 2022. <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

Department of State. "U.S.-China Joint Statement Addressing the Climate Crisis." Media note, April 17, 2021. <https://www.state.gov/u-s-china-joint-statement-addressing-the-climate-crisis/>

Department of State. "U.S.-China Joint Glasgow Declaration on Enhancing Climate Action in the 2020s." Media note, November 10, 2021. <https://www.state.gov/u-s-china-joint-glasgow-declaration-on-enhancing-climate-action-in-the-2020s/>

"Future Warfighting Symposium: Space Domain." Panel discussion at Spruance Auditorium, Naval War College, Newport, RI, August 4, 2022.

Gilday, Michael. "CNO Speaks at the Heritage Foundation," Department of the Navy. Last modified August 25, 2022. <https://www.navy.mil/Press-Office/Press-Briefings/display-pressbriefing/Article/3161602/cno-speaks-at-the-heritage-foundation/>

- Griffiths, David. *U.S.-China Maritime Confidence Building: Paradigms, Precedents, and Prospects*. Newport, R.I: China Maritime Studies Institute, U.S. Naval War College, 2010.
- Joint Chiefs of Staff. *Joint Campaigns and Operations*. JP 3-0. Washington, DC: Joint Chiefs of Staff, 2022.
- Jones, Andrew. "Chinese crewed moon landing possible by 2030, says senior space figure." Space News. Last modified November 15, 2021. <https://spacenews.com/chinese-crewed-moon-landing-possible-by-2030-says-senior-space-figure/>.
- Kohler, Hannah. "The Eagle and the Hare: U.S.-Chinese Relations, the Wolf Amendment, and the Future of International Cooperation in Space," *Georgetown Law Journal* 103, no. 4 (April 2015): 1135-[iii] <https://heinonline.org/HOL/P?h=hein.journals/glj103&i=1156>
- Lampton, David M. *The Three Faces of Chinese Power: Might, Money, and Minds*. Berkeley: University of California Press, 2008.
- Lewis, Joanna, "The U.S.-China Climate and Energy Relationship," *Parallel Perspectives on the Global Economic Order: A U.S.-China Essay Collection*. Edited by Danie Remler and Ye Yu, Washington, DC: Center for Strategic and International Studies, 2017. https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/170922_Remler_ParallelPerspectives_Web.pdf
- Li, Bin. "Space Won't Be Safe until the U.S. and China Can Cooperate." *Scientific American*. Last modified May 9, 2022. <https://www.scientificamerican.com/article/space-wont-be-safe-until-the-u-s-and-china-can-cooperate1/>
- National Aeronautics and Space Administration. "NASA Administrator Statement on China Visit." News release, October 25, 2010. https://www.nasa.gov/home/hqnews/2010/oct/HQ_10-270_Bolden_China.html.
- National Aeronautics and Space Administration. "NASA, China to Collaborate on Air Traffic Management Research." News release, September 28, 2016. <https://www.nasa.gov/press-release/nasa-china-to-collaborate-on-air-traffic-management-research>.
- National Aeronautics and Space Administration. *NASA 2022 Strategic Plan*. Washington, DC: NASA, 2022. https://www.nasa.gov/sites/default/files/atoms/files/fy_22_strategic_plan.pdf.
- Roscosmos. "Yuri Borisov about the ISS Project." Press release, July 29, 2022. <https://www.roscosmos.ru/38035/>

Ruwitch, John. "Timeline - The Rise of Chinese Leader Xi Jinping." Reuters. Last modified March 16, 2018. <https://www.reuters.com/article/us-china-parliament-xi-timeline/timeline-the-rise-of-chinese-leader-xi-jinping-idUSKCN1GS0ZA>.

Stares, Paul. *Preventive Engagement: How America Can Avoid War, Stay Strong, and Keep the Peace*. New York: Columbia University Press, 2017.

State Council Information Office of the People's Republic of China. "China's Space Program: A 2021 Perspective." News release, January 28, 2022. <https://english.news.cn/20220128/eb9fb038ebfe4a3d93887b9f120ef74a/c.html>

Tiezzi, Shannon. "China Suspends Military Dialogues, Climate Change Talks With US." *The Diplomat*, August 5, 2022. <https://thediplomat.com/2022/08/china-suspends-military-dialogues-climate-change-talks-with-us/>.

United Nations. "China headed towards carbon neutrality by 2060; President Xi Jinping vows to halt new coal plants abroad." Press release, September 21, 2021. <https://news.un.org/en/story/2021/09/1100642>

United Nations. *Climate Change 2022: Mitigation of Climate Change*. Geneva: Intergovernmental Panel on Climate Change, 2022. https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_Chapter_14.pdf

Uri, John. "50 Years Ago: The United States and the Soviet Union Sign a Space Cooperation Agreement." National Aeronautics and Space Administration. Last modified May 23, 2022. <https://www.nasa.gov/feature/50-years-ago-the-united-states-and-the-soviet-union-sign-a-space-cooperation-agreement>

White House. *Interim National Security Strategic Guidance*. Washington, DC: White House, 2021. <https://www.whitehouse.gov/wp-content/uploads/2021/03/NSC-1v2.pdf>.

White House. *National Security Strategy*. Washington, DC: White House, 2022. <https://www.whitehouse.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf>

Xi, Jinping. "Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era." Speech at 19th National Congress of the Communist Party of China, Beijing. October 18, 2017.

http://www.xinhuanet.com/english/download/Xi_Jinping's_report_at_19th_CPC_National_Congress.pdf

Xi, Jinping. "New Asian Security Concept For New Progress in Security Cooperation." Speech at Fourth Summit of the Conference on Interaction and Confidence Building Measures in Asia. *Xinhua*. Last modified May 21, 2014. http://www.xinhuanet.com/world/2014-05/21/c_126528981.htm.