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ABSTRACT: US Indo-Pacific Command should actively plan for operations to respond to and combat climate change because it will grow US influence in the region and provide a compelling alternative to China's influence. Combating climate change supports the primary objective of countering China, operationalizes climate change response for US commanders, and offers a less threatening means to develop partnerships. Through qualitative analysis of threats to US security, current policy analysis, and select case studies of humanitarian assistance and disaster-relief missions to operationalize climate change as a US military mission, this article will assist US military and policy practitioners in planning for climate change in Southeast Asia and future exercises in the region.

Keywords: climate change, Southeast Asia, China, INDOPACOM, humanitarian assistance and disaster relief (HA/DR)

Flash points between the United States and China include territorial acquisition in the South China Sea; military modernization; US technology and intellectual property theft; currency manipulation; the Uyghur genocide; and steel, aluminum, electronics, and clothing tariffs. Add to this list climate change—an emerging area for competition. Over the last two decades, the impact of climate change has become a key concern of Southeast Asian nations that must deal with the effects of rising sea levels, increasingly powerful typhoons, decreasing fish stocks, and escalating climatological variability.

Often perceived as an asymmetric threat by military powers, climate change and response to climatological, meteorological, agricultural, and human effects of climate change offer opportunities for competition and the wielding of US national power against China. US Indo-Pacific Command (INDOPACOM) should view climate change planning and response as a valid lever of soft power and use it as a means of increasing interoperability throughout Southeast Asia. Specifically, US Indo-Pacific Command can leverage climate change as an opportunity to increase joint exercises in foreign humanitarian assistance and foreign disaster relief, which have significant warfighting

applicability—mainly by building the architecture for interoperability, command-and-control structures, communications platforms, logistics networks, and trust.¹ Humanitarian assistance and disaster relief exercises have lower barriers to entry and pose less risk of disrupting existing economic and trade relationships with China or challenging the status quo while offering many of the same benefits of combat-focused multinational exercises.

Climate Change as a Nontraditional Threat

Traditional conceptions of national security, including the primacy of territorial sovereignty, threats from nuclear and ballistic missiles, and defense of natural resources, have shifted over the previous two decades to include threats to the population. Defense against terrorism and insurgency is now widely accepted as a valid use of military power, and policymakers are seeing a range of new threats from cyberattacks, viruses, online propaganda, shifting supply chains, and carbon emissions. How to think about and respond to these threats is unclear.² Climate change and its national security implications are some of the new threats planners and policymakers must consider.

More and more frequently, official government reports refer to climate change as a nontraditional threat to US national security. Beginning in the early 2000s, climate change and climate variability caused by man-made carbon emissions began appearing in national security documents as a destabilizing factor. In 2007, the Center for Naval Analyses Military Advisory Board released a report arguing climate change is a threat multiplier for instability in some of the most volatile regions of the world, exacerbating risks to national and regional US security interests. Subsequently, climate change was included in the 2008 Quadrennial Defense Review as a “direct outgrowth” of the Naval Analyses report.³ As worldwide climatological variability increases, storms get stronger, waves get higher, droughts become more severe, fish stocks become less stable, oceans acidify, and seas rise. As the inspector general of the Department of Defense noted in his report on the top management challenges of 2021, the changing climate and resulting extreme weather events can aggravate

1. Joint Chiefs of Staff (JCS), *Foreign Humanitarian Assistance*, Joint Publication (JP) 3-29 (Washington, DC: JCS, 2019), <https://www.jcs.mil/Portals/36/Documents>.

2. Hillary Clinton, “A National Security Reckoning: How Washington Should Think about Power,” *Foreign Affairs* (website), November/December 2020, <https://www.foreignaffairs.com/articles/unity-states/2020-10-09/hillary-clinton-national-security-reckoning>.

3. Ralph Espach, David Zvijac, and Ronald Filadelfo, “Impact of Climate Change on US Military Operations in the Western Pacific,” *MCU Journal 2016 Special Issue Climate Change & Policy* (2016): S99, <https://apps.dtic.mil/dtic/tr/fulltext/u2/1047830.pdf>.

geopolitical unrest as stresses on natural resources undermine the capacity of nations to govern themselves and increase the chance of conflicts. The results of climate change cause “forced migration, food insecurity, and the failure of governments to provide for basic needs,” which make populations “far more susceptible to extremism, political uprising, and wide-scale destabilization.”

Climate Change and Southeast Asian Nations

In the contested waters of the South China Sea (SCS) and throughout Southeast Asia, climate-change hazards and security risks are particularly apparent. From more powerful typhoons to ocean acidification, sea-level rise, and coral-reef bleaching with a resulting decrease in fishing stocks, climate change requires attention from navies operating in the region and civilian policymakers and diplomats. In the 2022 survey of the Association of Southeast Asia Nations (ASEAN) members, climate change ranked among the top three concerns of the region.⁴ The effects of climate change are projected to increase. The sixth assessment report of the UN Intergovernmental Panel on Climate Change documented the outsized impacts of climate change on the Asia-Pacific region: extreme coastal flooding, land erosion, decreased crop yields, and sea-level rise.⁵

Southeast Asia’s vast economic opportunities and critical international waterways make it a significant arena for US and Chinese great-power competition. Chinese military expansion has exacerbated tensions with SCS claimants Brunei, Indonesia, Malaysia, the Philippines, Taiwan, and Vietnam. The United States views China’s claims as a threat to freedom of navigation, the rule of law, and the US ability to operate safely in the region. While the South China Sea is a particular flash point in the American-Chinese relationship, broader Southeast Asia encompasses the SCS claimants and is subject to the same climate stresses and American-Chinese competition dynamic. Southeast Asia is the primary arena for American-Chinese competition. As the US Navy continues to focus on freedom of navigation within the South China Sea, security in broader Southeast Asia remains of critical strategic importance to

4. Sharon Seah et al., *The State of Southeast Asia: 2022 Survey Report* (Singapore: ISEAS-Yusof Ishak Institute, 2022), 8, https://www.iseas.edu.sg/wp-content/uploads/2022/02/The-State-of-SEA-2022_FA_Digital_FINAL.pdf.

5. David Dodman et al., “Cities, Settlements and Key Infrastructure,” in *Climate Change 2022: Impacts, Adaptation, and Vulnerability*, ed. H.-O. Pörtner et al. (New York: Cambridge University Press, 2022): 907–1040, https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FinalDraft_FullReport.pdf.

the United States. Climate change response is integral to the region's security environment.

Barriers to Cooperation

American policymakers are taking a more confrontational approach to Chinese actions in Southeast Asia. Beginning in summer 2020, Michael R. "Mike" Pompeo, the then US secretary of state, began calling for enforcing a harder line toward China. He declared Chinese island-building illegal and highlighted the importance of INDOPACOM activities, including freedom of navigation patrols, naval exercises, and continued persistent presence operations.⁶ Such hard-line rhetoric, and even open postulation about Chinese plans for invading Taiwan, has increased in the wake of China's support for the Russian invasion of Ukraine. This posturing invites binary side-taking and forces ASEAN nations to choose between the United States and China. Indonesian Foreign Minister Retno Marsudi expressed as much, stating, "ASEAN must always cooperate to maintain our regional peace and stability and not be dragged into the storm of geopolitical tension or be forced to choose sides." Similarly, Malaysian Minister of Foreign Affairs Hishammuddin Hussein asserted that Malaysia must ensure it is not "dragged and trapped" in a political tug-of-war between great powers.⁷

Given China's economic strength, military power, physical proximity, and increasing cultural sway, it is likely many Southeast Asian nations would ally with China if pressed.⁸ American hard-line diplomacy risks alienating Southeast Asian countries and weakening US influence in the region. Another gentler, and perhaps more persuasive, approach that may be more flexible than defense arrangements is to use the tools of soft power to influence and forge closer ties with nations. An as yet undeveloped

6. Michael R. Pompeo, "Secretary Michael R. Pompeo Remarks at the Richard Nixon Presidential Library and Museum: 'Communist China and the Free World's Future'" (speech, Richard Nixon Presidential Library and Museum, Yorba Linda, CA, July 23, 2020), US Embassy in El Salvador (website), <https://sv.usembassy.gov/secretary-michael-r-pompeo-remarks-at-the-richard-nixon-presidential-library-and-museum-communist-china-and-the-free-worlds-future/>; Edward Wong and Michael Crowley, "U.S. Says Most of China's Claims in South China Sea Are Illegal," *New York Times* (website), July 13, 2020, <https://nyti.ms/38T34XF>; and Michael R. Pompeo, "U.S. Imposes Restrictions on Certain PRC State-owned Enterprises and Executives for Malign Activities in the South China Sea" (press statement), August 26, 2020, US Embassy in Argentina (website), <https://ar.usembassy.gov/u-s-imposes-restrictions-on-certain-prc-state-owned-enterprises-and-executives-for-malign-activities-in-the-south-china-sea/>, as cited in Mary H. Robinson, "Playing the Long Game in the South China Seas: Long Term Strategies INDOPACOM Can Adopt for Strategic Success" (research paper, US Naval War College, Newport, RI, 2020), 15.

7. Mark Valencia, "Between Scylla and Charybdis: ASEAN and the US-China Contest for the South China Sea," CIMSEC (website), September 25, 2020, <http://cimsec.org/between-scylla-and-charybdis-asean-and-the-u-s-china-contest-for-the-south-china-sea/45917>.

8. Valencia, "Scylla and Charibdis"

tool for soft-power diplomacy is climate change response. Nations eager to maintain neutrality in the great-power competition between the United States and China may see engagement on the global threat of climate change as an opportunity to avoid taking a side and bypass thorny regional dilemmas.

Polling indicates most Southeast Asian nations do not care about the US-Chinese rivalry as much as they do about climate change, economic inequality, and societal recovery from the COVID-19 pandemic.⁹ As the competition between the United States and China plays out, Southeast Asian nations may be wary of taking a side. The United States would gain more trust in the region by advancing objectives that are “complementary without commitment.”¹⁰ By advancing goals that support regional interests in combating climate change without demanding a commitment, the United States could engender partnerships without overturning the delicate regional power dynamics.

American-Chinese Competition

American-Chinese competition is multipronged. As Kevin Rudd, China expert and former prime minister of Australia, notes, the United States and China compete in nearly every domain:

Washington and Beijing continue to compete for strategic and economic influence across the various regions of the world. They keep seeking reciprocal access to each other’s markets and still take retaliatory measures when such access is denied. They still compete in foreign investment markets, technology markets, capital markets, and currency markets. And they likely carry out a global contest for hearts and minds, with Washington stressing the importance of democracy, open economies, and human rights and Beijing highlighting its approach to authoritarian capitalism and what it calls “the China development model.”¹¹

9. Seah et al., *State of Southeast Asia*, 9.

10. Van Jackson, “America’s Indo-Pacific Folly: Adding New Commitments in Asia Will Only Invite Disaster,” *Foreign Affairs* (website), March 12, 2021, <https://www.foreignaffairs.com/articles/asia/2021-03-12/americas-indo-pacific-folly>.

11. Kevin Rudd, “Short of War: How to Keep US-Chinese Confrontation from Ending in Calamity,” *Foreign Affairs* 100, no. 2 (March/April 2021), 58ff, <https://heinonline.org/HOL/LandingPage?handle=hein.journals/fora100&div=39&id=&page=>.

Given the extent of this competition, finding ways to increase cooperation with Southeast Asian nations and counter China's narrative of ownership of the South China Sea is of strategic importance to military planners.

One significant means US Indo-Pacific Command uses to counter Chinese influence is enhanced partner relationships in the region. As Chairman of the House Armed Services Committee Representative Adam Smith noted in a March 2021 hearing on national security challenges and US military activities in the Indo-Pacific, "the most important thing we can do in the region is build partnerships."¹² Under the Indo-Pacific Maritime Security Initiative (started in 2015 and expanded in 2019), the United States hopes to improve the ability of the Philippines, Vietnam, and other Southeast Asian countries to maintain maritime domain awareness and patrol their exclusive economic zones. In support of this effort, the United States has "stepped up security cooperation with Japan, Indonesia, Malaysia, the Philippines, Singapore, and Vietnam; undertaken joint patrols in the South China Sea with other partners, including Japan, India, and Australia; and expressed support for other multilateral actions in the region."¹³ This approach attempts to counter the strong economic ties China is developing in the region through the Belt and Road Initiative—an uphill battle, since two-thirds of countries trade more with China than with the United States.¹⁴

How can the United States build resilient partnerships when nations are reluctant to choose between the United States and China and are not interested in the broader great-power competition? Given that climate change poses a global threat and is a top concern for ASEAN nations, the United States should reframe climate change as a primary mission. Nesting climate change within the framework of competing for influence in the region provides opportunities for engagement with countries

12. *National Security Challenges and US Military Activities in the Indo-Pacific: Hearings before the House Armed Services Committee*, 117th Cong. (2021) (opening statement by Adam Smith, Chairman of the House Armed Services Committee), <https://www.govinfo.gov/content/pkg/CHRG-117hhrg45064/html/CHRG-117hhrg45064.htm>.

13. Ben Dolven, Caitlyn Campbell, and Ronald O'Rourke, *In Focus – China Primer: South China Sea Disputes*, Congressional Research Service (CRS) Report IF10607 (Washington, DC: CRS, 2021), <https://crsreports.congress.gov/product/pdf/IF/IF10607>.

14. Roland Rajah and Alyssa Leng, "Chart of the Week: Global Trade through a US-China Lens," *Interpreter* (website), December 18, 2019, <https://www.lowyinstitute.org/the-interpreter/chart-week-global-trade-through-us-china-lens>; and Edward Alden, "Trump's Trade Wars, and Now COVID-19, Are Unraveling Trade as We Know It," *World Politics Review* (website), August 18, 2020, <https://www.worldpoliticsreview.com/articles/28998/the-trump-trade-wars-and-now-covid-19-are-unraveling-trade-as-we-know-it>.

reticent about closer military cooperation and sets competition with China in a positive and affirmative vision for the future.¹⁵

HA/DR Exercises versus Operations

In practice, nesting climate change within the framework of regional objectives means the United States should enhance response mechanisms to the effects of climate change. Foreign humanitarian assistance and foreign disaster relief are the military mission sets most closely aligned with climate change response.¹⁶ Humanitarian assistance and disaster relief operations are already an important component of the INDOPACOM workload.¹⁷ In many cases, the military is the only organization capable of quick response to more-frequent natural disasters on the scale necessary.¹⁸ As host nations and the United Nations build their response networks in the initial stages of disasters, they request the support of INDOPACOM transportation and logistics capabilities. The US Department of State and the Office of US Foreign Disaster Assistance within the US Agency for International Development (USAID) are the designated US government leads for the coordination of foreign disaster response. American military participation in humanitarian assistance and disaster relief is limited in scope and duration and designed to supplement or complement host-nation efforts.¹⁹

Although limited in scope, military airlift often plays a necessary role at the outset of HA/DR operations, as the first few days of response are critical in saving lives. The military provides the vital capabilities of delivering aid and personnel, transporting rescue teams, and providing airborne reconnaissance—specifically airborne intelligence, surveillance, and reconnaissance and imagery products. Airlift, one of the easiest means by which a country can support HA/DR efforts, requires a low level of commitment, as sustainment requirements are limited and the footprint of forces minimal.²⁰ Given the importance of rapid transport of supplies and personnel, US Air Force assets are the most requested resource,

15. *Prepared Testimony to the Senate Armed Services Committee Hearing on Global Security Challenges and Security*, 117th Cong. (2021) (testimony of Thomas Wright, senior fellow, Brookings Institution), https://www.armed-services.senate.gov/imo/media/doc/Wright_03-02-21.pdf.

16. JCS, *Foreign Humanitarian Assistance*.

17. Espach et al., “Impact of Climate Change,” 110.

18. Shirley V. Scott and Shahedul Khan, “The Implications of Climate Change for the Military and for Conflict Prevention, Including through Peace Missions,” *ASPJ Africa & Francophonie* 7, no. 3 (2016): 82–94, https://www.airuniversity.af.edu/Portals/10/ASPJ_French/journals_E/Volume-07_Issue-3/scottkhan_e.pdf.

19. JCS, *Foreign Humanitarian Assistance*, I-2.

20. Jennifer D. P. Moroney et al., *Lessons from Department of Defense Disaster Relief Efforts in the Asia-Pacific Region* (Santa Monica, CA: RAND Corporation, 2013), 124, https://www.rand.org/content/dam/rand/pubs/research_reports/RR100/RR146/RAND_RR146.pdf.

followed by rotary lift sea-based assets from a large-deck capability.²¹ A study conducted in 2011 observed the most common requests for HA/DR missions were cargo capacity, personnel transfer, freshwater production, search and rescue, and medical support.²² While the US military is not and should not be responsible for long-term rebuilding and disaster assistance, the military can and has provided critical, life-saving supplies, equipment, and resources in the early stages of disasters. The provision of this type of support, and training to conduct humanitarian assistance and disaster relief in the future, will build trust with regional partners.

Given its resources and suitability for the HA/DR role, Indo-Pacific Command should frame its HA/DR actions as competing for influence in the region and operationalizing the challenge of climate change. Humanitarian assistance and disaster relief is not a new mission for Indo-Pacific Command and does not ask it to take on more than its resources can support. Between 1991 and 2018, Indo-Pacific Command conducted 29 regional HA/DR missions, including the Indian Ocean earthquake and tsunami (2004), the earthquake and tsunami in Japan (2011), and Typhoon Haiyan in the Philippines (2013). Of the 29 missions, 8 were in the Philippines, the single largest recipient of US military humanitarian and disaster relief. Earthquakes, tsunamis, and tropical cyclones accounted for the majority of responses, followed by widespread flooding, which accounted for three HA/DR missions.²³ In the future, Indo-Pacific Command can expect HA/DR missions to entail a greater portion of actual operations due to increasing climate variability. Analysts at the Center for Naval Analyses estimate that even with more intense and frequent storms, floods, droughts, and other weather events, current INDOPACOM resources and capabilities for supporting HA/DR missions will likely be sufficient.²⁴

It is important to note the difference between HA/DR missions and HA/DR exercises, and planners and policymakers must take pains to avoid negative public perceptions of aid as foreign intervention. In research conducted by the RAND Corporation on the Indo-Pacific disaster response missions from 2008 to 2011, analysts found Indonesia,

21. For additional information on ship capabilities to support humanitarian assistance and disaster relief, see Moroney et al., *Disaster Relief Efforts*, 127.

22. Francis Gassert, Sharon Burke, and Rachel Zimmerman, "UPTEMPO: The United States and Natural Disasters in the Pacific," *New America* (website), n.d., last updated March 31, 2020, <https://www.newamerica.org/resource-security/reports/uptempo-united-states-and-natural-disasters/>.

23. Chris Zimmer, "Climate Security in Oceania: Perspectives on Chinese and American HADR in the Indo-Pac," *University of Texas at Austin* (website), March 8, 2022, <http://sites.utexas.edu/climatesecurity/2020/03/08/perspectives-on-chinese-and-american-hadr-in-the-indo-pacific-region/>.

24. Espach et al., "Impact of Climate Change," 110.

Japan, Myanmar, and Pakistan faced potential internal and external political repercussions from foreign humanitarian assistance missions and were sensitive to humanitarian assistance and disaster relief as a form of foreign intervention.²⁵ Foreign aid must always support and consider the affected country's effort. Additionally, the United States can expect partner countries with their own capabilities to seek targeted, rather than large-scale, assistance to fill capacity gaps. This concern with foreign humanitarian assistance strengthens the case for INDOPACOM planning and conducting HA/DR exercises to train partner militaries to conduct their own response efforts while building networks and connections that enable targeted responses. Conducting these focused exercises could cast a wider net for participation with fewer barriers to cooperation. These exercises are nonthreatening as they do not have an overt military mission. Analysts for the Center for Naval Analyses note:

Humanitarian Assistance and Disaster Relief response is a relatively uncontroversial way to develop bilateral ties with regional countries and participate in regional institutions. It is also an area where other governments and organizations can work with the United States without drawing the ire of certain domestic constituencies. In countries such as Indonesia and Malaysia, for example, where domestic currents are critical of the United States for a variety of reasons, there is appreciation for America's ability and willingness to assist in the case of natural disasters and other humanitarian needs.²⁶

In addition to developing nonthreatening bilateral ties, exercises focused on HA/DR strengthen regional institutions (namely, the Association of Southeast Asia Nations) and offer a counterpoint to Chinese influence. Specifically, "for Indonesia and Malaysia, founding members of ASEAN, the ability of that institution to offer public goods (such as HA/DR) is one way of demonstrating the 'centrality' of ASEAN to regional affairs and, by extension, enhancing their own influence."²⁷

25. Moroney et al., *Disaster Relief Efforts*, 118–19.

26. Espach et al., "Impact of Climate Change," 107.

27. Espach et al., "Impact of Climate Change," 107.

Benefits of Humanitarian Assistance and Disaster Relief for Indo-Pacific Command

The US Indo-Pacific Command would benefit in at least two ways from supporting and encouraging climate change response efforts in Southeast Asia. First, HA/DR exercises would increase soft power by building trust and expanding access. Second, they would build the necessary architecture for interoperability during a conflict since they require command-and-control structures, planning processes, communications platforms, logistics networks, and a whole-of-government approach.

The Typhoon Haiyan response in 2013 illustrates how humanitarian assistance and disaster relief can build trust and interoperability. During that response, Indo-Pacific Command collected and shared information with the Philippine government, foreign militaries, and nongovernmental organizations participating in the response effort. The typhoon hit the Philippines with sustained wind speeds up to 195 miles per hour and affected 14 million people across nine regions, with more than 6,000 lives lost and 28,000 people injured.²⁸ The US military response, Operation Damayan, focused on large-scale transportation and logistics operations. Eight days after the storm made landfall, a joint team of the Department of Defense, US Agency for International Development, and UN International Children's Emergency Fund helped rebuild Tacloban's municipal water system, restoring water service to 250,000 people. United States military aircraft personnel also performed needs and damage assessments with USAID and Office of US Foreign Disaster Assistance staff.²⁹ Indo-Pacific Command increased situational awareness by sharing information through All Partners Access Network, a centralized data network that provided responders immediate updates on events and reduced duplication of efforts.³⁰

The US Embassy in the Philippines noted the "fast bilateral teamwork between the Armed Forces of the Philippines and the US military was due to the Visiting Forces Agreement between the two countries. While other countries wanted to respond quickly to the disaster, many had to wait for legal agreements to be worked out

28. Simon Athawes, "Five Years On: How Haiyan Shocked the World," PreventionWeb (website), November 8, 2018, <https://www.preventionweb.net/news/five-years-how-haiyan-shocked-world>.

29. Alan Aoki, *USINDOPACOM Foreign Disaster Response in the Indo-Pacific: June 1991 – June 2019* (Joint Base Pearl Harbor-Hickam, HI: Center for Excellence in Disaster Management & Humanitarian Assistance, 2019), <https://www.cfe-dmha.org/LinkClick.aspx?fileticket=pPgPtXpb r3Y%3D&portalid=0>.

30. *PACOM Strengthens Relationships with Allies and Partners Using APAN* (report), USINDOPACOM (website), n.d., accessed May 3, 2022, <https://community.apan.org/support/m/info/168980/download>.

for their troops to work in the Philippines.”³¹ Existing relationships built through concerted engagement, exercises, and security cooperation resulted in increased interoperability and facilitated effective response. For the people of the Philippines, the US military’s rapid response reinforced the perception of the United States as a long-standing and trustworthy partner.³² Moreover, countries throughout the region noted the US military, “in addition to being an unmatched fighting force, also brings unmatched logistical capabilities.”³³ Such perceptions and partnerships are vital to advancing US goals in the region.

China and Humanitarian Assistance and Disaster Relief

According to the INDOPACOM Center for Excellence in Disaster Management and Humanitarian Assistance, China has also recognized the soft-power potential of humanitarian assistance and disaster relief. From 2002 to 2019, China conducted 13 HA/DR missions in the Indo-Pacific, compared to 29 missions conducted by the United States (see tables 1 and 2). In July 2019, China published a white paper, “China’s National Defense in the New Era,” which outlined a global defense strategy, enumerated China’s military contributions in domestic HA/DR missions, and highlighted key foreign disaster-assistance missions since Typhoon Haiyan in 2013. According to China, since 2012, it has deployed approximately 950,000 soldiers, 1,410,000 militia, 190,000 vehicles and other types of equipment and sortied 26,000 vessels and 820 aircraft in response to domestic disasters.³⁴ The paper “outlines China’s intention to create an expeditionary combat force that can conduct ‘far seas protection’ and ‘strategic projection’ and highlights its future intentions for the armed forces to be active participants in global humanitarian and disaster relief missions.”³⁵

China’s emerging HA/DR capability can be observed best in the two HA/DR exercises China conducted in 2019: “Peace Train” with Laos and “Mosi” with Russia and South Africa. According to the US secretary of defense’s annual report on China, while only 2 of China’s 19 military

31. Aoki, *Foreign Disaster Response*.

32. *Assessing the Response to Typhoon Yolanda/Haiyan: Hearing before the Subcommittee on East Asian and Pacific Affairs of the Committee on Foreign Relations*, 113th Cong. (2013) (statement of Scot Marciel, principal deputy assistant secretary, Bureau of East Asian and Pacific Affairs, US Department of State), accessed on May 9, 2022, <https://www.govinfo.gov/content/pkg/CHRG-113shrg86354/html/CHRG-113shrg86354.htm>.

33. *Typhoon Yolanda/Haiyan*.

34. “China’s National Defense in the New Era” (white paper), State Council Information Office of the People’s Republic of China (Beijing: Foreign Language Press Co. Ltd., 2019), <https://english.www.gov.cn/atts/stream/files/5d3943eec6d0a15c923d2036>.

35. Gassert and Burke, “UPTEMPO”; and Erikson, “China’s National Defense.”

exercises were HA/DR-oriented, the People’s Liberation Army Navy considers humanitarian assistance and disaster relief an area for future expansion.³⁶ The US Army conducts an annual small-scale disaster management exchange with China. This confidence-building event, which began in 2005, features disaster management–focused discussions, a tabletop exchange, and, sometimes, a limited practical field exercise.³⁷

Table 1: INDOPACOM HA/DR missions, 1991–2019

(Table from Chris Zimmer, “Climate Security in Oceania: Perspectives on Chinese and American HADR in the Indo-Pac,” University of Texas at Austin, March 8, 2020, <http://sites.utexas.edu/climatesecurity/2020/03/08/perspectives-on-chinese-and-american-hadr-in-the-indo-pacific-region/>, using data from the Center for Excellence in Disaster Management and Humanitarian Assistance, a direct reporting unit to the US Indo-Pacific Command and principal agency to promote disaster preparedness and societal resiliency in the Asia-Pacific region.)

US Military Response to Disasters in the Indo-Pacific: 1991–2019		
Country	Year	Reason
Philippines	1991	Volcanic Eruption
Bangladesh	1991	Cyclone
India	2001	Earthquake
Indian Ocean	2004	Tsunami
Pakistan	2005	Earthquake
Philippines	2006	Landslide
Indonesia	2006	Earthquake
Solomon Islands	2007	Tsunami
Bangladesh	2007	Cyclone
Myanmar	2007	Cyclone
China	2008	Earthquake
Philippines	2008	Typhoon
Taiwan	2009	Typhoon
Philippines	2009	Tropical Storm
Indonesia	2009	Earthquake
Philippines	2010	Typhoon

36. *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China – 2021* (Washington, DC: Department of Defense, 2021), 125, <https://media.defense.gov/2021/Nov/03/2002885874/-1/-1/0/2021-CMPR-FINAL.PDF>.

37. Oliver Schuster, “U.S.-China DME Participants Hold Virtual Expert Academic Exchange,” November 20, 2020, https://www.army.mil/article/241099/u_s_china_dme_participants_hold_virtual_expert_academic_exchange.

Table 1: INDOPACOM HA/DR missions, 1991–2019 (continued)

US Military Response to Disasters in the Indo-Pacific: 1991–2019		
Country	Year	Reason
Japan	2011	Tsunami, Nuclear Reactor Crisis
Thailand	2011	Floods
Philippines	2012	Typhoon
Philippines	2013	Typhoon
Malaysia	2014	Aircraft Disappearance
Philippines	2014	Typhoon
Nepal	2015	Earthquake
Myanmar	2015	Refugee Migration
Japan	2016	Earthquake
New Zealand	2016	Earthquake
Sri Lanka	2017	Floods
Thailand	2018	Cave Rescue
Indonesia	2018	Tsunami

Table 2: Chinese HA/DR response missions 2002–19. Of the 16 missions China conducted, 13 were within the Indo-Pacific. The United States conducted 29 HA/DR missions in the same period. (Table from Zimmer, “Chinese and American HADR.”)

Chinese HA/DR Responses Abroad: 2002–19		
Country	Year	Reason
Afghanistan	2002	Earthquake
Iran	2003	Earthquake
Indonesia	2004	Earthquake
Pakistan	2005	Earthquake
Indonesia	2006	Earthquake
Myanmar	2008	Cyclone
Mongolia	2010	Extreme Weather
Pakistan	2010	Flood
Pakistan	2011	Flood
Thailand	2011	Flood
Japan	2011	Tsunami, Nuclear Reactor Crisis
New Zealand	2011	Earthquake
Philippines	2013	Typhoon
Maldives	2014	Water Shortages
Malaysia	2014	Aircraft Disappearance
Nepal	2015	Earthquake

The US-China Disaster Management Exchange is evidence that engagement through HA/DR response is a low-risk means for nations to coordinate and communicate. It also illustrates the limited opportunity climate change may offer for cooperation between the United States and China.

China is an astute observer of American actions, and US goodwill diplomacy through humanitarian assistance and disaster relief will not go unnoticed. Given China’s growing capacity to conduct these missions and the Chinese Communist Party’s desire to be seen as a responsible power and an alternative to the United States, we should expect Chinese involvement and increasing presence in disaster-response missions.³⁸

38. Gassert and Burke, “UPTempo”; and Zimmer, “Chinese and American HADR.”

Humanitarian assistance and disaster relief is another area for competition and cooperation in the region. It is time we recognize it as such and prioritize it accordingly.

Recommendations for the Indo-Pacific Command

Indo-Pacific Command must be an efficient and trusted HA/DR provider and partner. It should focus on SCS claimants who are nonparticipants in bilateral and multilateral exercises and on strengthening regional coordination and response mechanisms, namely, the Association of Southeast Asia Nations. Remaining mindful of unwanted foreign intervention, the dilemmas posed by side-taking, and the primacy of improving host-nation response capabilities, Indo-Pacific Command should focus on increasing its efficiency as an HA/DR provider, encouraging international and interagency coordination and aligning security cooperation activities with regional climate change response and HA/DR initiatives.

As recommended in a larger study by RAND Corporation of the Department of Defense's disaster relief efforts, there are several personnel-specific efforts the US military can make to improve the quality of HA/DR exercise outcomes. Ensuring HA/DR exercise leaders have experience in previous HA/DR missions is key to improving partnerships, developing trust, and increasing interoperability with partner nations. While Indo-Pacific Command already has a robust HA/DR network and resources, exercises are often conducted with assets that may be unfamiliar with the mission rotating into theater. The USAID Joint Humanitarian Operations Course presents an excellent opportunity for HA/DR training for senior military leaders. Additionally, it is important to keep track of HA/DR expertise. The Department of Defense should ensure that officers going to billets in which they are expected to conduct humanitarian assistance and disaster relief have the appropriate additional qualification description code and have current and relevant training for the job rather than ad hoc or on-the-job training. The US Naval War College's Humanitarian Response Program offers multiple courses and events ranging from lectures and simulations for flag-level courses to workshops and tailored courses for US Navy Fleet headquarters and Carrier and Expeditionary Strike Group staffs to plan, execute, and assess

or act as liaison elements for HA/DR operations. These excellent programs are often overlooked in favor of more typical training for war.

Humanitarian Assistance and Disaster Relief exercises in Indo-Pacific Command should encourage coordination with the United Nations and nongovernmental organizations, be interagency, and—most importantly—be based on demand signals from the host nation. Exercises should stand up coordination centers and practice reporting, tracking, and oversight on both military-military and civil-military channels. Exercises need not be expansive in scope. Some nations may be resource-constrained or reluctant to stage larger-scale exercises with the United States. Shorter two- to three-day events may have the added benefit of incorporating resource-constrained partners and stretched nongovernmental organizations.

Security cooperation improves disaster response.³⁹ It is an excellent way to enhance interoperability and facilitate future HA/DR cooperation. Dialogue with Southeast Asian nations should include details of HA/DR assets, logistics networks, airlift options, and communications platforms. All nations have an interest in safeguarding the well-being of their citizens and strengthening crisis response capabilities. Security cooperation is an excellent means to build goodwill and is a precursor to trust and partnership.

Conclusion

Climate change offers the United States a unique opportunity to flex soft power in Southeast Asia. By incorporating climate change resilience and response into its operations with partner nations via HA/DR exercises, the United States can counter China's grip, increase US validity in the region, and strengthen regional organizations. To counter China's influence and grow US influence in the region, Indo-Pacific Command should actively plan for operations to respond to and combat climate change. Actions to engage in combating climate change are not just political offshoots secondary to primary objectives. These efforts support the primary objective of countering China, have broad support from Southeast Asian nations, and provide a nonthreatening way to develop partner capability. In addition, envisioning climate change within the framework of competing for influence in the region provides opportunities for engagement

39. Moroney et al., *Disaster Relief Efforts*, 117.

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with nations reticent about closer military cooperation and leverages US-Chinese competition for the betterment of the world.

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Select Bibliography

Aoki, Alan. *USINDOPACOM Foreign Disaster Response in the Indo-Pacific: June 1991 – June 2019*. Joint Base Pearl Harbor-Hickam, HI: Center for Excellence in Disaster Management & Humanitarian Assistance, 2019. <https://www.cfedmha.org/LinkClick.aspx?fileticket=pPgPtXpbr3Y%3D&portalid=0>.

Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2021. Washington, DC: Department of Defense, 2021. <https://media.defense.gov/2021/Nov/03/2002885874/-1/-1/0/2021-CMPR-FINAL.PDF>.

Assessing the Response to Typhoon Yolanda/Haiyan: Hearing before the Subcommittee on East Asian and Pacific Affairs of the Committee on Foreign Relations, 113th Cong. 2013. Statement of Scot Marciel, principal deputy assistant secretary, Bureau of East Asian and Pacific Affairs, US Department of State.

Espach, Ralph, David Zvijac, and Ronald Filadelfo. "Impact of Climate Change on U.S. Military Operations in the Western Pacific." *MCU Journal 2016 Special Issue Climate Change & Policy* (2016). <https://apps.dtic.mil/dtic/tr/fulltext/u2/1047830.pdf>.

Gassert, Francis, Sharon Burke, and Rachel Zimmerman. "UPTEMPO: The United States and Natural Disasters in the Pacific." *New America* (website). n.d. last updated on March 31, 2020. <https://www.newamerica.org/resource-security/reports/uptempo-united-states-and-natural-disasters/>.

Moroney, Jennifer D. P. et al. *Lessons from Department of Defense Disaster Relief Efforts in the Asia-Pacific Region*. Santa Monica, CA: RAND Corporation, 2013. https://www.rand.org/content/dam/rand/pubs/research_reports/RR100/RR146/RAND_RR146.pdf.

Scott, Shirley V., and Shahedul Khan. "The Implications of Climate Change for the Military and for Conflict Prevention, Including through Peace Missions." *ASPJ Africa & Francophonie* 7, no. 3 (2016). https://www.airuniversity.af.edu/Portals/10/ASPJ_French/journals_E/Volume-07_Issue-3/scottkhan_e.pdf.

Seah, Sharon et al. *The State of Southeast Asia: 2022 Survey Report*. Singapore: ISEAS-Yusof Ishak Institute, 2022. https://www.iseas.edu.sg/wp-content/uploads/2022/02/The-State-of-SEA-2022_FA_Digital_FINAL.pdf.