

WORLDWIDE THREATS

HEARING

BEFORE THE

COMMITTEE ON ARMED SERVICES UNITED STATES SENATE

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FIRST SESSION

MAY 4, 2023

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CONTENTS

MAY 4, 2023

	Page
WORLDWIDE THREATS	1
MEMBER STATEMENTS	
Statement of Senator Jack Reed	1
Statement of Senator Roger F. Wicker	3
WITNESS STATEMENTS	
Haines, The Honorable Avril, Director of National Intelligence	4
Berrier, Lieutenant General Scott, Director, Defense Intelligence Agency	9
Questions for the Record	49
APPENDIX A	
Submitted Statement of The Honorable Avril Haines—Annual Threat Assessment of the U.S. Intelligence Community	56
APPENDIX B	
Senator Sullivan and Senator King Letter and CRS Report	96

WORLDWIDE THREATS

THURSDAY, MAY 4, 2023

UNITED STATES SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

The Committee met, pursuant to notice, at 9:30 a.m., in room G50, Dirksen Senate Office Building, Senator Jack Reed (Chairman of the Committee) presiding.

Committee Members present: Senators Reed, Shaheen, Gillibrand, Blumenthal, Hirono, Kaine, King, Warren, Peters, Manchin, Rosen, Kelly, Wicker, Fischer, Cotton, Rounds, Ernst, Sullivan, Cramer, Scott, Tuberville, Mullin, Budd, and Schmitt.

OPENING STATEMENT OF SENATOR JACK REED

Chairman REED. Good morning. Before we begin today, I would like to take a moment to acknowledge the passing of General Vincent Stewart this past weekend. General Stewart was an inspiring, trailblazing marine who served the Nation with honor for more than 4 decades, rising from a tank platoon leader all the way to director of the Defense Intelligence Agency (DIA).

He committed himself entirely to the defense of our Nation, and his leadership will continue to be felt throughout the Marine Corps and the DIA for years to come. My thoughts are with his wife, Phyllis, and his children and family.

Now turning to today's hearing, the Committee meets this morning to receive testimony on the worldwide threats facing the United States and our international partners. I would like to welcome Director of National Intelligence, Avril Haines, and Director of the Defense Intelligence Agency (DNI), Lieutenant General Scott Berrier.

Thank you both for joining us, and please convey the Committee's gratitude to the men and women of the Intelligence Community (IC) for their critical work. As the DNI's annual threat assessment makes clear, the United States faces threats from a number of State and non-State actors, as well as health and environmental security challenges.

Among these wide-ranging issues, there is a common understanding that the future of our national security is tied to the success of our strategic competition with China. This competition is occurring across every field of national power, military, economic, political, technological, and more.

Of course, every region of the world. For several decades, the People's Liberation Army (PLA) has studied the United States way of war and focused its efforts on countering our advantages. China

has invested in offsetting technologies like anti-access and area denial systems, artificial intelligence (AI), hypersonics and, of course, nuclear weapons.

Further, the PRC [People's Republic of China] has leveraged a combination of military and civil power against its neighbors, including statecraft, economic pressure, coercion, and deception. Beijing has sought ways to achieve its national objectives while avoiding a direct confrontation with the United States military.

As the Defense Department's new joint concept of competing puts it, China seeks to win without fighting. The strategy warns that if we do not adapt our approach to compete more effectively, the United States risks ceding strategic influence, advantage, and leverage, while preparing for a war that never occurs. Indeed, the document warns that the United States could lose without fighting.

Just as China's leaders have studied our way of war, we need to study theirs. With that in mind, I would ask our witnesses for their assessments of how China is evolving in competitive strategies and objectives.

I would also appreciate an update on what military and non-military factors are most likely to impact Chinese decisionmaking with respect to a potential coercive action against Taiwan and our other regional partners. Even as we compete with China, we must address Russia's violent destabilizing activities.

Ukrainians have fought with incredible courage and skill to repel Russia's assault, defending the same values and freedoms that we cherish. Ukraine has achieved some very notable successes, but there is hard fighting ahead.

Let there be no doubt the United States will continue to help Ukraine succeed on the battlefield. America's assistance to Ukraine is also an investment in our own national security. I want to commend the leaders of the Intelligence Community for their skillful release of intelligence throughout this conflict that has routinely exposed Russia's intentions and aided Ukraine's warfighters. Intelligence officials are understandably cautious about revealing hard won insights on adversaries, but this strategy has proven highly effective in strengthening the international community's response and creating dilemmas for Putin.

This is a great example of competing effectively in the information domain, and I hope we will continue to make use of this kind of creative tradecraft. With that in mind, Russia's initial strategy in Ukraine was an abject failure, and the Kremlin's objective seemed to be changing. Director Haines, General Berrier, I would ask for your assessment of the Ukraine conflict in the larger context of the evolving international order.

I hope you will also address the extent to which Russia and China are aligning under their so-called no limits partnership and potential implications for United States national security. Finally, nations like Iran and North Korea continue to push the boundaries of military brinksmanship and issues like terrorism and climate change remain persistent.

Iran has made concerning advances in its nuclear programs and is reportedly seeking Russia's help to make even further gains. Its proxies continue to mount drone and rocket attacks throughout the

Middle East, including against bases in Iraq and Syria with a United States Military presence.

North Korea has conducted nearly two dozen missile tests this year, including ICBMs [Intercontinental Ballistic Missiles] and cruise missiles, and has reportedly stopped its routine military to military communications with South Korea.

I understand it is the Intelligence Community's view that climate change will continue to exacerbate risks to U.S. national security as issues like rising temperatures, poor water governance, pollution, changing precipitation patterns, and other climate effects are likely to lead to an array of human challenges such as food and water insecurity, and threats to human health.

I would appreciate our witnesses' perspectives on each of these complex challenges. Thank you again for your participation, and I look forward to your testimony. As a reminder for my colleague, there will be a closed session immediately following this hearing in room. SVC-217. Now let me turn to the Ranking Member, Senator Wicker. Senator.

STATEMENT OF SENATOR ROGER WICKER

Senator WICKER. Thank you, Mr. Chairman. I want to congratulate you on your statements concerning the threat we see from China and Russia. Also, I want to join you in observing and memorializing the life of General Vincent Stewart and his untimely death, and I want to thank our witnesses for being here today. It comes at a pivotal time.

The United States is confronted with the most complex and dangerous global security environment since the Second World War. Our adversaries are growing in their military capabilities and engaging in provocative and destabilizing behavior across the spectrum of competition and conflict.

They are actively trying to displace the United States as the global leader and weaken longstanding and critical alliances and partnerships. We are at an inflection point. The decisions we make this year will have far reaching implications for the United States military, whether it is properly positioned and equipped to deter our adversaries, and if necessary, to defeat them in conflict.

Regrettably, the President's Budget Request lacks the urgency this moment requires and fails to make the necessary investments in our Nation's defense. For the third year in a row, the budget request cuts defense spending. Make no mistake, our adversaries are taking notice, and I do believe on a bipartisan basis, we will rectify this failure.

Our foremost adversary, the Chinese Communist Party (CCP), is in the midst of an unprecedented buildup of its conventional, strategic, and asymmetric military capabilities, under the direction of its most powerful and ruthless leader since Chairman Mao. At the same time, Vladimir Putin's brutal and unprovoked attack against Ukraine has entered its second year and has upended global security, caused untold loss of life, and further isolated his autocratic regime.

Now is not the time to question our commitment to Ukrainian partners. To protect United States interests, we need to provide Ukraine with the tools it needs to bring this war to a successful

conclusion. Not to be outdone, North Korea may now possess enough missiles to overwhelm our Homeland missile defenses, and Iran inches closer to developing a nuclear weapon of its own while it continues to sow chaos across the Middle East through its terrorist proxy network.

Additionally, President Biden's disastrous and chaotic withdrawal from Afghanistan has emboldened terrorist networks around the world. ISIS [Islamic State of Iraq and Syria] and al Qaeda affiliates across the Middle East, Africa and South Asia are re-constituting their capabilities and remain intent on killing Americans.

I am deeply disturbed by the scope and severity of the recent disclosure of classified materials and the impact such disclosure has on military operations, intelligence collection, and cooperation with key allies.

Although I understand multiple investigations are ongoing, I expect this Committee will be kept fully informed when details become available and corrective—as a corrective actions are taken. This Committee deserves answers on how such a junior service-member in a support role was able to access, print, and post online highly classified documents for over a year without detection—for over a year.

We need to understand whether the Department of Defense's (DOD) insider threat and security procedures failed or simply were not followed. Again, I thank the witnesses for being here. I thank you, Mr. Chairman, and look forward to a very important discussion.

Chairman REED. Thank you, Senator Wicker. Thank you very much, and let me now recognize Director Haines.

**STATEMENT OF THE HONORABLE AVRIL D. HAINES,
DIRECTOR OF NATIONAL INTELLIGENCE**

Director HAINES. Thank you very much, Chairman Reed, Ranking Member——

Chairman REED. Could you bring that microphone close as possible?

Director HAINES. Is that better?

Chairman REED. That is.

Director HAINES. Okay. Good deal. Sorry about that. No, and thank you very much for your kind words about General Stewart, who really was just an extraordinary leader in the Intelligence Community and somebody who has inspired a lot of our folks over the years and brings together sort of integrity and skill in a way that's quite rare and extraordinary.

I am thank you for the opportunity to be here today alongside my wonderful colleague, General Berrier, and for your steadfast support for the men and women of the Intelligence Community who serve our country. I am grateful for the opportunity to present the annual threat assessment, and we just want to acknowledge the many people who have contributed to this work, from the collector to the analysts to everyone in between.

This assessment is a product of their effort, and they have our gratitude. This year's report notes that during the coming year, the United States and its allies will face an international security envi-

ronment dominated by two strategic challenges that intersect with each other and existing trends to intensify their national security implications.

First, great powers, rising regional powers, and an evolving array of non-State actors are vying for influence and impact in the international system, including over the standards and rules that will shape the global order for decades to come.

Second, challenges that transcend borders, including climate change, transnational criminal activity, health and human security, and economic needs made worse by energy and food insecurity, as well as Russia's invasion of Ukraine, are intensifying as the planet emerges from the COVID-19 pandemic.

Further, compounding this dynamic is the impact that rapidly emerging technologies are having on governance, economies, communities around the world. The intersection of these challenges underscores the importance of working together with partners and allies to address the threats we face, and how critical it is to counter efforts to undermine the global norms, principles and mechanisms that promote and underpin national—transnational cooperation, which is an implicit theme in this year's threat assessment.

The report starts with the People's Republic of China (PRC), as it is increasingly challenging the United States economically, technologically, politically, militarily, and from an intelligence standpoint around the world.

I will spend most of my time on China and Russia, which are among our top priorities, and focus on updating our views with the latest rather than repeating what is in the annual threat assessment. We assess that the Chinese Communist Party, or CCP, under President Xi Jinping, will continue efforts over the next year to achieve Xi's vision of making China the preeminent power in East Asia and a major power on the world stage.

What is perhaps most concerning is that the CCP is increasingly convinced that it can only fulfill Xi's vision at the expense of United States power and influence, and through tools of coercion, using demonstrations of strength, as well as economic and political coercion, to compel governments to acquiesce to the CCP's preferences, including the land, sea, and air claims in the region and its assertions of sovereignty over Taiwan.

The relationship between the United States and China has consequently become more challenging. Xi's public reference to America's suppression of China in March of this year reflects his longstanding distrust of United States goals and his belief that the United States seeks to contain China.

Xi's speech was the most public and direct criticism that we have seen from him to date, and probably reflects growing pessimism in Beijing about China's relationship with the United States, as well as his growing worries about the trajectory of China's domestic economic development and indigenous technology innovation, which he now seeks to blame on the United States.

Even as the rhetoric has become more heated, we continue to assess that Beijing wants to preserve stability and avoid triggering additional technology restrictions or sanctions from the United States and our partners, as they seek to narrow the gap in their economic and technological competition with us.

Perceiving the United States as a threat, the PRC seeks to undercut United States influence, and is looking to portray the United States as the root of global problems. China seeks to divide us from our allies and partners, frame United States actions as provocations that provide a basis for planned PRC aggression, which they then claim are simply responses, such as China's expansion of its military presence surrounding Taiwan, which the PRC asserted was in response to President Tsai's recent transit through the United States, as well as her meetings with two speakers of the House over the past year. China's leaders are focused on spurring domestic economic growth this year, but in the long run, spurring indigenous technology innovation is paramount.

President Xi remains confident that Beijing can innovate its way to the technological frontier, regardless of United States and allied restrictions, and that doing so will give China the competitive advantage that is crucial to achieving his vision for China as a world power.

Nonetheless, we are likely to see more dissonant messaging and actions coming out of Beijing, such as the recent charm offensive by Premier Li Keqiang, welcoming foreign direct investment at the China Development Forum juxtaposed against Beijing's pressure on foreign firms and executives, including investigations of United States firms and a clampdown on previous non-sensitive data flows out of China.

The IC [Intelligence Community] assesses that China's long term economic growth will continue to decelerate, because China's era of rapid catch-up growth is ending, and structural issues such as debt, demographics, inequality, overreliance on investment, and inadequate domestic consumption remain.

Although the CCP may find ways to overcome its structural challenges over the long term, in the short term, it continues to take an increasingly aggressive approach to external affairs, often to bolster its domestic agenda.

China's leaders are increasing their investment in a world-class military. Expanding their country's nuclear arsenal and cyber threat capacity, pursuing counterspace weapons capable of targeting United States and allied satellites. Forcing foreign companies and coercing foreign countries to allow the transfer of technology and intellectual property in order to boost indigenous capabilities. Continuing to increase global supply chain dependencies on China with the possibility of using such dependencies to threaten and cutoff foreign countries during a crisis.

The CCP is also seeking to reshape global governance in line with Xi's preferences and governance standards that support the monopoly of power within China, and expanding influence operations, including through the export of digital repression technologies.

Furthermore, we have observed the expanding strategic ties between China and Russia. As mentioned by the Chairman, another critical priority for the IC, which has been strengthened by the conflict in Ukraine.

We are now over a year into the war, which is reshaping not only Russia's global relationships and strategic standing, but also our own. Strengthening our alliances and partnerships in ways that

President Putin almost certainly did not anticipate. Often precipitating the very events he hoped to avoid, such as Finland's accession to NATO and Sweden's petition to join, while also increasing Xi's leverage over Putin.

On the battlefield, the fighting is principally focused on the East around Bakhmut and Avdiikva and remains a brutally grinding war of attrition, in which neither military has a definitive advantage with day to day fighting over hundreds of meters. Russian forces gained less territory in April than during any of the three previous months, as they appear to transition from offensive to defensive operations along the front lines.

Russian forces are facing significant shortfalls in munitions and are under significant personnel constraints but continue to lay minefields and prepare new defensive positions in occupied Ukrainian territory. Both sides are focusing on preparations for a potential Ukrainian counteroffensive this spring or summer designed to push Russia out of illegally annexed territory.

The Ukrainian armed forces are still finalizing the specific priorities, timing, and scale of the offensive, and Western assistance will be crucial in preparing both plans and forces. With the support of the Congress, the United States is doing a great deal to bolster Ukraine's chances for success. But even if Ukraine's counteroffensive is not fully successful, the Russians are unlikely to be able to mount a significant offensive operation this year.

In fact, if Russia does not initiate a mandatory mobilization and secure substantial third-party ammunition supplies beyond existing deliveries from Iran and others, it will be increasingly challenging for them to sustain even modest offensive operations.

At the same time, of course, Ukraine remains heavily dependent on external military aid and would likely be unable to counter Russia's natural relative manpower and resource advantages if most Western military aid ceased.

Furthermore, while we continue to assess that Putin most likely calculates the time works in his favor and that prolonging the war may be his best remaining pathway to eventually securing Russia's strategic interests in Ukraine. We assess that Putin probably has scaled back his immediate ambitions to consolidate control of the occupied territory in Eastern and Southern Ukraine and ensuring that Ukraine will never become a NATO ally.

Putin's willingness to consider a negotiated pause may be based on his assessment that a pause would provide a respite for Russian forces, as they could try to use that time to regain strength before resuming offensive operations at some point in the future. While buying time for what he hopes will be an erosion of Western support for Ukraine.

Yet he may be willing to claim at least a temporary victory based on roughly the territory he is occupying. The challenge is that even as Putin may be scaling back his near-term ambitions, the prospect for Russian concessions to advance negotiations this year will be low unless domestic political vulnerabilities alter his thinking. Of course, as the conflict continues, the human toll is only getting worse.

In addition to the many tens of thousands of casualties suffered by Ukrainian and Russian militaries, more than 8 million people

have been forced to flee Ukraine since Russia invaded. Moreover, in addition to Moscow's continued assault on Ukraine's civilian infrastructure, particularly its energy facilities and electrical grid, there is widespread reporting of atrocities committed by Russian forces.

Russia and its proxy groups are using so-called filtration operations to detain and forcibly deport tens of thousands of Ukrainian civilians to Russia. The IC is engaged with other parts of the United States Government to document and hold Russia and Russian actors accountable for their actions.

Moscow has suffered military losses that will require years of rebuilding and leave it less capable of posing a conventional military threat to Europe and operating assertively in Eurasia and on the global stage. But as a result, Russia will become even more reliant on asymmetric options, such as nuclear, cyber, space capabilities, and in China. Our annual assessment also covers Iran, North Korea, the many regional challenges we face, including in Africa, where, of course, we have seen a recent outbreak of fighting in Sudan, which is no stranger to conflict.

The fighting in Sudan between the Sudanese armed forces and the rapid support forces is, we assess, likely to be protracted, as both sides believe that they can win militarily and have few incentives to come to the negotiating table.

Both sides are seeking external sources of support, which, if successful, is likely to intensify the conflict and create a greater potential for spillover challenges in the region. But even so, the fighting is exacerbating already dire humanitarian conditions in Sudan, forcing relief organizations to curtail operations, raising the specter of massive refugee flows and aid needs in the region.

Even before the fighting started, roughly one-third of the population, or approximately 15.8 million people, required immediate assistance because of disease outbreaks, inflation, localized conflicts, internal displacement, and weather-related food insecurity.

Throughout the world, as I noted at the outset, the State actors challenges we inventory are undermining our capacity to work together with other countries to address what are utterly critical transnational threats such as climate change, public health challenges, such as the current COVID-19 pandemic, the threat from illicit drugs terrorism, irregular migration.

Before concluding, I just want to raise with you a legislative authority of fundamental importance to the Intelligence Community and the work we do, which will expire at the end of this year if Congress does not act. I am referring to section 702 of the Foreign Intelligence Surveillance Act, and I can tell you without hesitation that section 702 was relied upon in gathering some of the intelligence that form the basis of this assessment, as it is hard to overestimate the importance of this authority to our work more generally.

FISA [Foreign Intelligence Surveillance Act] Section 702 allows the Intelligence Community to collect on the communication of specifically targeted foreign persons who are located outside the United States. In doing so provides unique intelligence on foreign intelligence targets at a speed and reliability that we just simply cannot replicate in any other authority.

Section 702 was originally enacted to enable the U.S. Government to quickly collect on the communications of terrorists located abroad, by allowing the IC to acquire foreign intelligence from non-U.S. people located outside of the United States who are using U.S. electronic communication service providers.

Section 702 is still vital to our counterterrorism (CT) mission. But now it is also principally relied upon for key insights across a range of our highest priority threats. In fact, 702 acquired information has been used to protect against a series of conventional and cyber-attacks posed by China, Russia, Iran, and North Korea.

For example, I can tell you that 702 acquired information enabled the United States to gain insights into the PRC's efforts to monitor, track, and persecute Chinese nationals believed to be dissidents. Section 702 acquired information has also been used to identify multiple ransomware attacks against U.S. critical infrastructure. Allowing the U.S. Government to respond to, mitigate, and in some cases prevent attacks.

Section 702 acquired information has been used to prevent components for weapons of mass destruction from reaching foreign actors. Section 702 acquired information has resulted in the identification and disruption of hostile foreign actors' attempts to recruit spies in or send their operatives to the United States.

I realize that 702 is a powerful authority. It is incumbent on all of us in the Intelligence Community to ensure the privacy and civil liberties of Americans are built into its design and implementation at every level.

Over the last many years, we have significantly expanded oversight and dedicated resources to compliance in order to do just that. We welcome the opportunity to help you understand better the oversight framework we have built, as we work to authorize this critical authority. So, thank you so much for your patience and I look forward to your questions.

[The prepared statement of Director Avril D. Haines follows:]

Director Haines' statement can be found in Appendix A on page 56.

Chairman REED. Thank you very much, Director Haines. General Berrier, please.

**STATEMENT OF LIEUTENANT GENERAL SCOTT D. BERRIER,
USA, DIRECTOR OF DEFENSE INTELLIGENCE AGENCY**

Lieutenant General BERRIER. Chair Reed, Ranking Member Wicker, distinguished Committee Members, thank you for the opportunity to discuss the DIA's assessment of the global security environment.

Before I begin, I too would like to take a moment to recognize and honor Lieutenant General Vince Stewart, DIA's 20th Director. Vince passed away in his sleep last Friday. We lost a giant, an intellectual giant, a trailblazer, and a really good friend. Vince was a gifted and talented marine intelligence officer who positively touched the lives of many in every organization he served in or led. We mourn his loss. We grieve with his family, and we honor his memory.

I am pleased to join Director Haines today to discuss the complex threat landscape and our work to provide timely, insightful, and

rigorous intelligence. DIA and the Defense Intelligence Enterprise are transforming our approach to meet threats to our Nation posed by strategic competition with China, Russia, and other foreign nations.

With your continued support, DIA and the DIE will continue to excel in providing all sorts of analysis, HUMINT [human intelligence] and technical collection, open-source collection, material exploitation, modeling and simulations, and other unique mission sets.

This will most likely be the last time I testify before this Committee as I approach my 39th year of service in our Army, and pending retirement. I become somewhat reflective on how the threat landscape has changed.

In 1984, it was a bipolar world. The United States and our partners in a cold war with the USSR [Union of Soviet Socialist Republics]. In my first assignment, I served as an infantry battalion intelligence officer or an S2 in Alaska. One of our missions was to protect critical oil infrastructure in the high North from a Spetsnaz attack.

My 23-year-old self didn't think much of that mission at the time, wasn't very exciting, but in retrospect it was an important mission then, and protecting critical infrastructure is a really important mission today.

The difference is the threat landscape is exponentially more dangerous today than it was in 1984. We are now in a multipolar world with strategic competition at the forefront. The events of the past year clearly demonstrate that our competitors are emboldened and that they are attempting to forcefully recast the rules based international order and challenge U.S. interests.

From Russia's unprovoked and unjustified, full scale invasion of Ukraine, to China's military assertiveness in the Indo-Pacific region, to an unprecedented number of North Korean missile launches, to Iranian directed action against United States Forces in the Middle East. The United States now faces a multifaceted security environment in which authoritarian regimes are testing our resolve through their provocative military actions, developing capabilities to hold the Homeland at risk, and showing greater risk tolerance for potential escalation.

Like you, I am very concerned about ongoing threats from China, Russia, North Korea, Iran, and violent extremist organizations, but China is our pacing challenge and DIA's top priority. Beijing is expanding its global influence and stepping up its multi-domain pressure campaign against Taiwan, as observed by sharply increased rhetoric and military activity over the last year.

Xi Jinping's attainment of a third term as a General Secretary of the Chinese Communist Party positions Beijing for further progress on military modernization and operational goals that will challenge the United States during the next year and beyond. The war in Ukraine is also a priority for DIA, and for the Russian military, 2022 is not a good year.

The new look army is gone, and in my view, we are at a particularly dangerous place with Russia. Putin is not seeking an off ramp and Moscow has asserted publicly that it remains committed to achieving its objectives in Ukraine through military force. China

and Russia are seeking to incorporate advanced technologies to erode our United States technological advantage.

China is pursuing a whole of nation approach to technology development. The PLA believes that integrating future technologies, especially AI and quantum, will constitute a major revolution in military affairs. As Director, I have pressed agency leaders to up our game, relook business operations and transform our missions to meet customer needs, and to address unprecedented national security challenges.

Transformation and change are imperatives, and I am pleased that DIA is making real more progress on our mission sets. DIA has exceptional expertise, responsibilities, and missions that you trust us to lead. As such, foundational military intelligence, defense, human, and counterintelligence, measurement and signature intelligence, or MASINT and JWICS [Joint Worldwide Intelligence Communication System].

Our strategic, operational, and tactical defense intelligence supports warfighters, defense planners, policymakers, and the acquisition community. I look forward to discussing real world examples of our progress. One final area I would like to highlight is the workforce of DIA.

As you know, our workforce spans the globe with innovative and forward leaning officers, and these talented and dedicated experts are making strides to defend the United States and our allies. From our defense attachés to analysts, to technical collectors, to our enabling force. These professionals are mission focused and working tirelessly behind the scenes for our Nation.

DIA is investing in the workforce and the infrastructure that supports their behind-the-scenes work. Bringing together talented officers with varied experiences and giving them the tools and authorities to conduct the intelligence that is at the core, and investing in our people is a critical step to modernizing the next generation of intelligence capabilities.

I am proud to represent a workforce that provides intelligence on foreign actors to prevent and win wars, and to illuminate opportunities to enable the United States to outpace our strategic competitors. I welcome your questions on the global threat environment and thank you for your continued support and opportunity to testify today.

[The prepared statement of General Berrier follows:]

PREPARED STATEMENT BY LIEUTENANT GENERAL SCOTT BERRIER

Chairman Reed, Ranking Member Wicker, and distinguished Committee Members thank you for the opportunity to discuss the Defense Intelligence Agency's (DIA's) assessment of the global security environment.

Before I begin, I would like to take a moment to recognize and honor the 20th DIA Director Lieutenant General Vince Stewart. Vince passed away in his sleep last Friday-we lost a friend, an intellectual giant, and a trailblazer. Vince was a gifted and talented Marine Intelligence Officer who positively touched the lives of many in every organization he served or led. We mourn his loss, grieve with his family, and honor his memory.

I am pleased to join DNI Director Haines today to discuss the complex threat landscape, and our work to provide timely, insightful, and rigorous intelligence. DIA and the Defense Intelligence Enterprise (DIE) are transforming our approach to meet threats to our Nation posed by strategic competition with China, Russia, and other foreign nations. With your continued support, DIA and the DIE will continue to excel in providing all-source analysis, HUMINT and technical collection, Open

Source collection, material exploitation, modeling and simulation, and other unique mission sets.

This will most likely be the last time I testify before this Committee as I approach my 39th year of Service in our Army and pending retirement. It has been a high honor and privilege, and with my tenure at DIA winding down, I have become somewhat reflective on how the threat landscape has changed. In 1984, it was a bi-polar world; the United States and our partners in a cold war with the USSR. In my first assignment, I served as an Infantry Battalion Intelligence Officer—S2-in Alaska. Our mission was to protect critical infrastructure in the High North-and the Alyeska Pipeline-from a potential Spetznaz attack. My 23-year-old-self did not think much of that mission. In retrospect, that was an important mission then, and protecting critical infrastructure is an important mission today. The difference is the threat landscape is exponentially more dangerous today than 1984. We are now in a tri-polar world with strategic competition at the forefront. The events of the past year clearly demonstrate that our competitors are emboldened, and that they are attempting to forcefully recast the rules-based international order and challenge U.S. interests. From Russia's unprovoked and unjustified full-scale invasion of Ukraine, to China's military assertiveness in the Indo-Pacific region, to an unprecedented number of North Korean missile launches, to Iranian-directed action against United States Forces in the Middle East. The United States now faces a multifaceted security environment in which authoritarian regimes are testing our resolve through their provocative military actions, developing capabilities to hold the Homeland at risk, and showing greater risk tolerance for potential escalation.

Like you, I am very concerned about the ongoing threats from China, Russia, North Korea, Iran, and violent extremist organizations, but China is our pacing challenge and DIA's Top Priority. Beijing is expanding its global influence and stepping up its multi-domain pressure campaign against Taiwan, as observed by its sharply increased rhetoric and military activity over this past year. Xi Jinping's attainment of a third term as General Secretary of the Chinese Communist Party positions Beijing for further progress on military modernization and operational goals that will challenge the United States during the next year and beyond.

The war in Ukraine is also a priority for DIA; and for the Russian military, 2022 was not a good year. The Russian "New Look Army" is gone, and, in my view, we are at a particularly dangerous place with Russia. Putin is not seeking an off-ramp, and Moscow has asserted publicly that it remains committed to achieving its objectives in Ukraine through military force.

China and Russia are seeking to incorporate advanced technologies to erode United States technological advantage. China is pursuing a whole-of-nation approach to technology development, and the PLA believes that integrating future technologies—especially AI and quantum-will constitute a major revolution in military affairs.

As Director, I have pressed Agency leaders to up our game, relook business operations, and transform our missions to meet customer needs and address the unprecedented national security challenges. Transformation and change are imperatives, and I am pleased that DIA is making real-world progress on our mission sets. DIA has exceptional expertise, responsibilities, and missions that you trust us to lead—such as foundational military intelligence, Defense HUMINT and Cover, Measurement and Signature Intelligence (or MASINT), and JWICS.

Our strategic, operational, and tactical defense intelligence supports warfighters, defense planners, policymakers, and the acquisition community, and I look forward to discussing real-world examples of our progress.

One final area I would like to highlight is the workforce at DIA. As you know, our workforce spans the globe with innovative and forward-leaning officers, and these talented and dedicated experts are making strides to defend the United States and our allies. From our Defense Attaches to analysts and technical collectors, these professionals are mission-focused and working tirelessly behind-the-scenes for our Nation. DIA is investing in the workforce and the infrastructure that supports their behind-the-scenes work. Bringing together talented officers, with varied experiences, and giving them the tools and authorities to conduct intelligence is at DIA's core, and investing in our people is a critical step to modernizing the next generation of intelligence capabilities.

I am proud to represent a workforce that provides intelligence on foreign actors to prevent and win wars, and to illuminate opportunities to enable the United States to outpace our strategic competitors. I welcome your questions on the global threat environment, and thank you for your continued support and the opportunity to testify today.

Chairman REED. Thank you very much, General. Thank you both for your detailed and thoughtful testimony. Director Haines, Secretary Yellen indicated that we will exceed the debt limit by June 1st, requiring action before that. Have the Intelligence Community assessed the international consequences of default on our debt?

Director HAINES. Thank you, Chairman. So, we don't have certainty on the outcome of the financial markets nor countries' opinions of sort of economic and political leadership that might be affected by a default on the debt.

But I would say that what our assessment is, is that regardless of a default's duration, almost certainly it would create global uncertainty about the value of the U.S. dollar and U.S. institutions and leadership, leading to volatility in currency and financial markets and commodity markets that are priced in dollars. That is basically as far as our analysts are able to provide.

Chairman REED. Let me followup—and you might want to take this for the closed session also but, our adversaries, I presume, would want to exploit any type of difficulty that we have. Do we have any indications that China in particular is preparing for exploitation of this via through disinformation in the United States or through financial or other moves?

Director HAINES. We don't have any information that suggests that they are planning for that. But I think our analysts would agree with you that it would be almost a certainty that they would look to take advantage of the opportunity.

They generally, both Russia and China, would look to perceive sort of narrate through information operations, such an event as demonstrating the chaos within the United States, that we are not capable of functioning as a democracy, and sort of the governance issues associated with it. They have done that on a range of things.

Chairman REED. Thank you. General Berrier, we had General Cavoli here, who is doing a superb job, and he indicated that Russia remains a formidable force despite their significant losses in personnel in Ukraine. Because air, maritime, space, cyber and strategic forces have not really been committed to that effort. What is DIA's assessment of Russia's capacity?

Lieutenant General BERRIER. Very similar. Still an existential threat with a nuclear arsenal that they have. General Cavoli is correct, that their strategic forces have largely been untested here and still formidable.

Chairman REED. So that the significant—we just—our forces out of Europe, which will be a challenge because of their existing capacities.

Lieutenant General BERRIER. I think from a deterrence standpoint, Russia fears strength. So even though their ground forces are degraded right now, they will quickly build those back.

Chairman REED. Thank you. Director Haines, as I said in my statement, the Intelligence Community has done some remarkable work with respect to Russia and Ukraine by exposing activities that the Russians were contemplating before they could do it. Not only embarrassing them, but in many cases frustrating their ability to do it.

Are we ready to use that same approach to other adversaries such as China in terms of strategically using intelligence to disrupt their operations?

Director HAINES. Thank you, sir. I think we can talk about this also in closed session a bit more. But as a general matter, we have learned some techniques and mechanisms that will not be forgotten coming out of the conflict with Ukraine that I think we can deploy in other scenarios which have allowed us to do more sharing and downgrading of information. Kind of working as a team across the IC to try to preserve sources and methods in that process.

I think we will look to do that. But I think it will be more challenging in different areas depending on what those sources and methods are, and how we can manage that concern as we move forward.

Chairman REED. Just quickly, from both of you, we have had this incident with the Air National Guardsmen, Teixeira, years before that, Snowden. So, this is not really new. We thought and we think every time this happens, we put in place things like keystroke logging, more restrictive controls, but we are still having problems. So just quickly, Director Haines, what can we do to make sure we have more appropriate controls?

Director HAINES. Yes. Thank you, sir. It has been absolutely extremely frustrating, obviously, and demoralizing for folks in the Intelligence Community who work so hard, frankly, to put together the kind of intelligence that then gets disclosed in leaks. The damage that it does to our national security is just unacceptable on every level, obviously. I appreciate the support.

I think what I can tell you at this stage is only an interim answer because we are still getting the information from the investigation as to what exactly happened. To understand that is obviously then, to have greater confidence in saying that the things that we are doing are going to make a difference to ensure that this doesn't happen again.

Right now, what we are doing is looking to ensure that we, in fact, have the best user activity monitoring, other techniques that we use. That we are, again, scrubbing and reviewing our processes for ensuring that there is only information provided on a need-to-know basis. That when there is user privileges, that they are appropriately granted. That we have additional controls around these issues, and we can obviously talk about this more in closed session.

Chairman REED. Thank you. Senator Wicker, please.

Senator WICKER. Thank you, Mr. Chairman. Director Haines, I don't want to get into a long discussion about the debt limit, but it is a fact, is it not, that the House of Representatives has passed a bill that would raise the debt limit. If it were passed by the Senate and signed into law by the President, a default would be avoided. That is correct, is it not?

Director HAINES. Sir, I will confess that I am not tracking the puts and takes of this, but I absolutely—I am sure you are right.

Senator WICKER. Well, I just wanted to point that out, that the House has done its work and the Senate now needs to pass a bill and get it to the President's desk. But let me ask you this, Director Haines, the General said since he was a young officer, that the threat has changed, the threat has exponentially increased. Do you

agree that this is the most complex and dangerous threat environment since World War II? I will ask that to both of you. Director Haines first.

Director HAINES. Sure. Thank you, sir. I feel as if you always feel, as if the time that you are in, is the most complex and most challenging. I do feel that way, but I am a little bit conscious of the sort of cognitive bias that is associated with time. But I think it is, as our annual threat assessment—

Senator WICKER. Well, this is a very complex and dangerous threat environment, is it not? General, is this the most complex and dangerous threat environment since World War II?

Lieutenant General BERRIER. Senator, I believe it is. When you consider the advances in technology, the precision of weapons, the globalization information, the rise of China, along with what Russia has been up to. Then you consider dangerous regional actors like Iran, North Korea, and the continued threat of violent extremist organizations, it seems like the most complex—

Senator WICKER. Do you then agree, General, that the authorization bill and the appropriation bills that Congress passes this year should represent acting accordingly to address this greatest threat?

Lieutenant General BERRIER. Senator, there is a threat there. I support the President's Budget and that is all—I will just leave it there.

Senator WICKER. Okay. I think that answer speaks loudly. China gives us a figure, General Berrier, about how much they spend. They say \$224 billion annually on their military. Do you agree that China spends significantly more than they publicly admit? What is your best estimate of how much their annual defense spending is?

Lieutenant General BERRIER. Senator, there are a number of factors that go into that estimate. I would be more comfortable in a closed session to discuss that.

Senator WICKER. Director Haines, I guess you don't want to discuss that publicly also. Well, let's then let both of you discuss what this Ukraine war has done to Russia's military capability, not only today, but over the next 10 to 15 years. General.

Lieutenant General BERRIER. A number of factors as well. Senator, just the combat losses, and I spoke of this in my opening statement about the new look army. The reorganization that the Russian military took in the early 2000's meant that they would be better, faster, smaller, if you will, from what they were in the Soviet era.

That army largely is gone, and they are relying on reserves and reserve equipment, older Soviet era kinds of kit. It is going to take them a while to build back to more advanced kit. The estimates go from 5 to 10 years based on how sanctions affect them and their ability to put technology back into their force.

So, I think they have had a setback in the ground forces, but still very, very capable in their strategic forces.

Senator WICKER. Director Haines, the next 10 to 15 years, based on what has happened to the Russian conventional military capability so far.

Director HAINES. Yes, I mean, I absolutely agree with General Berrier. There is no question and I think unanimity in the Intel-

ligence Community, it will take years for the Russians to build back up their ground forces.

They have really significantly degraded them, but they nevertheless have, as indicated, strategic force, other forces, and that doesn't mean that they are not a powerful military force.

Senator WICKER. Okay. Well, then let me just say this with regard to my previous question, there is an unclassified Department of Defense annual China military power report. That is not secret. It doesn't need to be said, done in the schif.

It states that China's "actual military related spending is likely significantly higher than what it states in its official budget." You don't disagree with that, Director Haines, do you?

Director HAINES. No. I think one aspect of it is the civil military fusion that we see in China. Where so much of, in fact, their civilian industry is actually adapted and used by their military. When you consider that, it is a significant—

Senator WICKER. Thank you. Thank you very much.

Chairman REED. Thanks, Senator Wicker. Senator Shaheen, please.

Senator SHAHEEN. Thank you both for being here and for your service to the country. Director Haines, I want to go back to your comments about the 702 reauthorization, because I returned from, along with a number of my colleagues, including Senator Budd, we returned from South America a couple of weeks ago. Where we visited four countries, and the 702 really came up, or at least the ability of the intel community to use those authorizations to address the challenges facing the country.

I was particularly interested in the counternarcotics effort because we continue to have a huge issue in New Hampshire with the opioid epidemic. So, I do think it is very important for us to continue to have those authorities.

But there are also some very real concerns about privacy that we have heard. So, can you talk to how important it is for these authorities to help us continue with counter-narcotics efforts and also what we are doing in terms of addressing the privacy concerns?

Director HAINES. Yes, absolutely, I think this is one of the challenges for us, has been in the Intelligence Community, frankly, trying to declassify examples of how it is that we have used 702 so that the public has a better understanding of the value of this authority and the collection that we have.

But also, as a general matter, it has been an important authority for use for in the context of countering narcotics trafficking. In many respects used to help support our foreign partners in interdictions as a general matter, and that is something that has been critical.

In terms of the privacy and civil liberties pieces of this, what I would say is, we have a number of things that we do in order to try to monitor and assess our compliance, and then to ultimately design the system in such a way as to incentivize and promote compliance. Making it, in other words, technically hard to do things that are non-compliant.

Then ultimately have increased extraordinary investments into training of folks who would use the system and then to making adjustments as we go through the process where we see something

goes wrong and then actually addressing it, and also holding people accountable in the context of any compliance violations.

Just to give you a couple of things. On an annual basis, the entire program is reviewed and recertified by the foreign intelligence court (FISC), essentially, as one piece. Also, we do semiannual compliance reports to Congress. We have a joint 60-day review, my office and the Department of Justice, of targeting decisions of any U.S. person queries, if they are done through the data bases that exist and dissemination.

We have targeting and minimization procedures for each element that are not just reviewed by the Attorney General but go to the FISC court. Again, we go through a variety of ways in which to try to ensure that we have created, in effect, a virtuous cycle where we can ensure that everything that we are doing is, in fact, promoting compliance, and then monitoring it to see if that is, in fact, what is happening. Then addressing challenges as they come and move forward.

Then we also have been providing reports publicly about non-compliance incidents so that we can show the American people, we can have all of you and your constituents look at what is happening, and see where we make progress, where we make mistakes, how we address it. Then, how we move forward on it so that we can actually build the trust that is necessary. Thank you.

Senator SHAHEEN. Good. Thank you. You both mentioned cyber in your—I think you both mentioned cyber in your remarks, but I didn't hear either of you talk about the efforts to address disinformation.

One of the places where our adversaries have certainly been very effective. I think more effective than we have been in responding in many cases, has been in the disinformation arena.

Can you speak to what we are doing and how we are coordinating with other operations like the Global Engagement Center at the State Department?

Director HAINES. Sure. I will start and General Berrier, if you want to add to this. But Congress put into law that we should establish a foreign malign influence center in the Intelligence Community.

We stood that up and it encompasses our election threat executive work, essentially looking at foreign influence and interference in elections. But it also deals with disinformation more generally.

What we have been doing is effectively trying to support the global engagement center, others throughout the U.S. Government, in helping them to understand what are the plans and intentions of the key actors in this space. China, Russia, Iran, et cetera, and then, give them a sense of what it is that we are seeing in terms of the techniques that they use. How they go about this, and provide that for policymakers so that they are able to take that information and hopefully counter it and address it.

Senator SHAHEEN. Thank you.

Lieutenant General BERRIER. I think DIA's perspective on this, Senator, is really speed. We want to be able to detect that. It is really with our open-source collection capability, working with our combatant command partners where this is happening all over the world. Then the ability to turn something quickly with them under

the right authorities to counter that disinformation or misinformation.

Senator SHAHEEN. Thank you both.

Chairman REED. Thank you. Senator Fischer, please.

Senator FISCHER. Thank you, Mr. Chairman, and thank you both for being here today. Director Haines, last year you testified that, “China will continue to essentially expand their nuclear arsenal and diversification for a period of time.? Has that assessment changed or does the Intelligence Community still maintain it?

Director HAINES. That assessment has not changed.

Senator FISCHER. In public reports, we have seen that the DIA has assessed that China will deploy 1,500 warheads by 2035. STRATCOM Commander General Cotton, has also publicly confirmed that China has now surpassed the United States in the number of fixed and mobile land-based launchers for ICBM. General Berrier, do you agree with that assessment still?

Lieutenant General BERRIER. I do agree.

Senator FISCHER. Thank you. Director Haines, does the Intelligence Committee assess that China has any interest in pursuing arms control agreements that would restrict their development of nuclear weapons?

Director HAINES. No. As a general matter, we have not seen China express interest in arms control agreements in this area.

Senator FISCHER. General Berrier, we have seen reports that Russia is providing China with plutonium for Chinese fast breeder reactors. In fact, it was reported by a UK think tank. They noted that between September and December 2022, Russia provided seven times more highly enriched uranium to China than the United States and the International Atomic Energy Agency have secured over the past 30 years. What are the implications of that increased level of cooperation of their nuclear programs?

Lieutenant General BERRIER. The layers of cooperation between China and Russia go very, very deep. I cannot speak to the specifics of the uranium aspect of that. If true, it is an acceleration of programs in development and technology transfer.

Senator FISCHER. Director Haines, do you have anything to add to that?

Director HAINES. No.

Senator FISCHER. Is there any movement within the Administration to look at—first of all, to set up agreements again with Russia? Is there any, I would say, false hope by this Administration to believe that they could pull in Russia, let alone trying to pull in China in those talks?

Director HAINES. I couldn’t speak to that just because it is obviously in the policy community and I am not sure I would know, frankly, what it is that they are looking at.

Senator FISCHER. Okay. Thank you. Also, Director Haines, looking at Afghanistan, do you assess that ISIS-K [Islamic State of Iraq and Syria-Khorasan] still seeks to conduct external operations against the United States, our Forces, and our allies and partners?

Director HAINES. Yes.

Senator FISCHER. Do you agree with the assessment that we had in March from General Kurilla about how long it would take ISIS-K to generate the capability to conduct external operations? He told

us at that time, that any operation against the United States and Western interests abroad could happen within 6 months with little or no warning. Would you agree with that?

Director HAINES. I would have to take that back, to be honest. There has been a number of developments, even since General Kurilla apparently testified on this issue, of taking out key external ops folks within ISIS-K and I think that might affect the timeline. But I would be happy to take that for the record.

Senator FISCHER. Do you feel that we have lost information gathering capabilities and also CT operations in Afghanistan since our withdrawal?

Director HAINES. We certainly, the Intelligence Community has been clear about the fact that we are not able to collect as much information today as we were, obviously, when the troops were in Afghanistan.

Senator FISCHER. How would you, I guess, rate the amount of intelligence that we are able to gather in Afghanistan? Because it is my understanding our CT operations are basically nil. We are looking at hardly anybody on the ground to be able to help.

So how do you rate what we are able to get when we are looking at a threat against not just United States interests and persons, but also our Western allies, the growing threats that we are facing there?

Director HAINES. To be specific, we would have to do this, I think, in closed session. But as a general matter, what we have sought to do is to try to—trying to think how to do this in an unclassified way but develop enough collection opportunities so that we can monitor the threat. It is definitely, as you indicated, degraded from what we had previously, and we can discuss the details in the closed session.

Senator FISCHER. Thank you. Thank you, Mr. Chairman.

Chairman REED. Thank you, Senior Fischer. Senator Gillibrand, please.

Senator GILLIBRAND. Director Haines, the DOD and the IC are engaged in cyber operations against our adversaries every day and gain intelligence about how these adversaries operate and intend to operate in the cyber domain. However, in the event of a large-scale cyber-attack on the Homeland, CISA [Cybersecurity and Infrastructure Security Agency] is in the leading role. How much of your intelligence on, for example, the PRC cyber threat, are you able to share with CISA, and how much must remain inside the DOD and the IC?

Director HAINES. We share almost everything with CISA, honestly. They get our analysis on these issues. They see the raw intelligence. We have overlap in terms of even intelligence that we get from commercial threat indexes and so on. So, it is quite open sharing in that respect.

Senator GILLIBRAND. When we rely on allies across the globe for operations and assistance, are we able to leverage our efforts with what we do with CISA, with those allies?

Director HAINES. Yes, it is a great question. In fact we have talked to allies about, for example, recognizing that so much of the critical cyber threat information exists in the commercial sector,

because we are trying to see how it is that adversaries are attacking them.

We have talked to allies about working together in order to obtain and leverage each other's commercial threat information, where that is permitted based on the agreements that we have with the commercial sector.

Working with CISA to ensure that they have access to that information. That is an example of working with allies and partners in a way that can help CISA to better have the landscape and the picture that they need for the work that they do.

Senator GILLIBRAND. In the event of a substantial cyber-attack by China on our domestic infrastructure, what would the chain of command look like in terms of defense and response?

Director HAINES. I think it would depend on—this probably is not the best question for me, but I think it would depend on where the response is being conducted and how they are approaching it. Obviously, the President is the final authority in any event. But how it would work through the system, I suspect might have some differences.

Senator GILLIBRAND. Lieutenant General Berrier, on the same question.

Lieutenant General BERRIER. Nothing to add to that, ma'am.

Senator GILLIBRAND. Our Government often talks about how our allies and partners are our strategic advantage. From the perspective of China, Russia, and Iran, who are the allies and partners they are most concerned about building closer relationships with, and how would building closer relationships with those countries impact regional deterrence?

As context, I recently took a trip to the Middle East to study the impact of the Abraham Accords on UAE [United Arab Emirates], on Morocco, Bahrain, and Israel. With regard to that, obviously there was concern when Saudi Arabia decided to engage China in their negotiations with Iran.

What is the impact of being able to bring Saudi Arabia into the Abraham Accords, in the context of the larger question?

Director HAINES. Senator Gillibrand, forgive me. At the very—I missed the very first part of your question. Can you just repeat the first sentence—?

Senator GILLIBRAND. Just that we often talk about how our allies and partners are our strategic advantage. So, from the perspective of China, Russia, Iran, who are they most concerned about?

Then as an example, the Abraham Accords, I think, is a very strategic partnership for us that should be seen as very powerful. How did the recent efforts by China to negotiate with Saudi Arabia and Iran affect that strategic alliance.

Whether that was a powerful strategic alliance we should have been pushing for?

Director HAINES. Yes. So, I think what our analysts would point to as a general matter would be a whole series of key countries that are sometimes referred to as hedging states that are in the space between, as you indicated, UAE is an example of this in a sense.

There may be others. It is probably easier to talk about this in a closed session. But there are a variety of countries where, in ef-

fect, they are looking at the United States and China and Russia on the other side, in effect, and trying to diversify their relationship in a way that allows them to maximize their interests. While at the same time pursue sort of economic and other security strategies in each of these bases.

I would say with Saudi Arabia in particular, and the Abraham Accords more generally, that we do think there has been kind of a value of bringing these countries together under certain circumstances. In that, that interaction has provided some security benefits to the United States and to others.

But I think each case would have to be looked at on a case-by-case basis in order to sort of identify what are some of the pros and cons. Not sure that was very helpful. Apologies.

Lieutenant General BERRIER. Senator, I would say that your question is a bullseye on the discussion of strategic competition and what strategic competition is. We know that China and Russia are seeking partnerships with countries that have historically been United States partners.

This is the nature of the changing landscape and the complexity of the environment that I described in my opening statement. We have to be there, and we have to be a better a better solution, whether that is through intelligence sharing or other partnerships.

I don't think it is a lost cause. I think there is a lot we can do, and I think people see the goodness in what the United States brings, and we have to go forward with that.

Chairman REED. Thank you, Senator Gillibrand. Senator Cotton, please.

Senator COTTON. Thank you both for your appearance. I would extend my condolences as well to the family of General Stewart, who was a trailblazing marine. I am surprised it has gotten to me, the seventh questioner and no one has raised the fact that Russia's government has accused Ukraine of trying to assassinate President Putin, and saying that the United States goaded them into it. Seems like kind of a big deal. Big if true, as the kids say today. Dr. Haines, what do you have to say about these claims from Russia's government?

Director HAINES. Well, obviously, you have seen the Ukrainian Government deny their—you know, having engaged in this. At this stage, we don't have information that would allow us to provide an independent assessment on this.

Senator COTTON. Okay. General Berrier.

Lieutenant General BERRIER. I think it gets after Senator Sheehan's comment about misinformation.

Senator COTTON. Perhaps some grounds to think that maybe these claims are exaggerated. One, do we know that Vladimir Putin doesn't spend the night at the Kremlin all that much? Is that correct, Director Haines?

Director HAINES. Yes.

Senator COTTON. The Kremlin is not like the White House, in other words. Is not the primary residence of the President of Russia. Even if you were there, these drones from the videos I have seen, they do not appear to be the kind of the size of weapons that could do significant damage to the Kremlin. Is that correct?

Lieutenant General BERRIER. That is correct.

Senator COTTON. They also appear to be the kinds of drones that would require relatively close line of sight control, which means someone on the ground in Moscow, which is not known as an open and friendly city to people who are hostile to the Russian Government. Is that correct, General Berrier?

Lieutenant General BERRIER. Potentially from the photos that I have seen, yes.

Senator COTTON. In most attacks on Russian soil, Ukraine's government has been ambiguous or silent about responsibility for the attacks. Yet in this case, they have explicitly disclaimed any responsibility. Is that correct, Director Haines?

Director HAINES. Yes.

Senator COTTON. All right. General Berrier, I think you might have been on to something when you said that this sounds like misinformation. I want to move on to another matter, Director Haines, about Mexican drug cartels. They are causing now more deaths in America than we lost every year in the Vietnam War, or every year in America than the entire Vietnam War. In fact, almost twice what we lost in the Vietnam War due to fentanyl alone. Has the Intelligence Community produced a national intelligence estimate on the threat that the cartels pose to America?

Director HAINES. No, we have not, sir.

Senator COTTON. So, the NIE [National Intelligence Estimates] is the most authoritative written judgment on national security matters. Is that correct?

Director HAINES. It is authoritative. I suspect it would be—yes.

Senator COTTON. Do you have any plans to produce an NIE on the threat that cartels pose to America?

Director HAINES. We do actually have something on our calendar that is on transnational criminal organizations, including the cartels in this space.

Senator COTTON. Thank you. I think that is warranted, and I look forward to seeing it. Director Haines, you mentioned earlier that it will take Russia years to rebuild its ground forces. I believe you were saying that to express agreement with General Berrier. Is that correct?

General Berrier, you believe it will take years for Russia to rebuild its ground forces?

Lieutenant General BERRIER. I do.

Senator COTTON. Most intelligence agencies inaccurately judged the early days of the war. They thought that Russia would roll into Kyiv very quickly and conquer most, not all, of Ukraine. General Berrier, was that a result of our intelligence agencies underestimating the Ukrainians or overestimating the Russians?

Lieutenant General BERRIER. Senator, I think it was a combination of both.

Senator COTTON. Okay. When you are making your own operational plans, you have to make assessments about the adversary, correct?

Lieutenant General BERRIER. Correct.

Senator COTTON. Okay, and that is true where they operating at the platoon level or at the national strategic level.

Lieutenant General BERRIER. Yes.

Senator COTTON. So, it is fair to say, based on the fact that we now know we overestimated Russia's capabilities as of last February, and we have seen their forces degraded to the point it will take years to rebuild them, that they are a much weaker fighting force than we thought 14 months ago, right?

Lieutenant General BERRIER. That is what we currently assess, yes.

Senator COTTON. Shouldn't our operational plans about a potential war with Russia in Europe then be changed to reflect that new understanding?

Lieutenant General BERRIER. I think in the purview of United States European Command and the Department of Defense, they are looking at all that, Senator.

Senator COTTON. Yes. They need to urgently because one of the reasons we have heard on this Committee about the slow pace at which we are delivering certain weapons is that our operational plans require it.

If our operational plan in Europe is based on what we thought Russia was capable of 14 months ago versus what they are capable now, it badly needs to be revisited. Director Haines, one final line of questions about Russia. They have gotten a lot more aggressive toward the United States recently.

We all remember the Black Sea incident in one of their aircraft downed, an MQ-9 drone. The head of United States Air Force's Central Command recently said that Russia is, "increasingly belligerent toward American aircraft in Syria," suggesting they even are looking for a fight—they are spoiling for a dogfight.

In third, the head of European Command, General Cavoli, recently noted that Russian submarines have gotten more active in the Atlantic than they have been in years. One, are there other instances of growing Russian aggression?

Two, what is the Intelligence Community's assessment for why Russia has grown increasingly aggressive in these ways?

Director HAINES. Can we address this in closed session?

Senator COTTON. Sure.

Director HAINES. Okay. Thank you.

Chairman REED. Thank you, Senator Cotton. Senator Kaine, please.

Senator Kaine. Thank you to our witnesses. Director Haines, in your opening testimony, you said that the Chinese are growing more and more pessimistic about the United States-China relationship. What is the source of that growing pessimism?

Director HAINES. I would say that there is a number of factors that are leaning in that direction in the sense that—we can maybe do a little more in closed session to get to what the root of this is—but I think they are increasingly perceiving the sort of zero sum game that I mentioned effectively in the opening testimony. Where in essence we have always understood that they perceive themselves, or for the last few years now, as being on the rise and they perceive the United States as being on the decline. They ultimately are concerned about the potential for conflict as we pass each other, or sort of the classic frame through which they piece this. The—

Senator Kaine. Is some of the pessimism related to their perceptions of statements by American political figures?

Director Haines. Sure. I mean, but it is all of the larger piece, which is to say that I think that they continue to perceive that they can't do what they want to do without essentially pushing back on the United States and ultimately countering us in ways that, you know—and our allies, frankly, in a variety of different—

Senator Kaine. A great President once said, speak softly and carry a big stick. I will let my colleagues—we all have our own judgment about the size of the stick we are carrying or should. I have noticed on the speak softly side of the Roosevelt maximum, we have been getting louder and louder with respect to China concerns.

We had the hearing with the INDOPACOM leadership recently, and the opening statement is a boilerplate at that hearing. War with China is neither inevitable or necessary, but then the remaining hours of the hearing was just one statement after the next that someone trying to perceive what the intentions were here might well lead to the conclusion of, wow, you know, we are more pessimistic because of statements that are being made.

How did, from an intelligence standpoint—I was concerned at the news that during the Chinese balloon incident, Secretary Austin tried to call his counterpart and the Chinese counterpart would not answer the phone. Is that—that was publicly reported. Is that accurate?

Director Haines. I believe it is. I will tell you that as a general matter, the Chinese typically clamp down in a crisis and they don't engage, and that is a classic paradigm.

Senator Kaine. That is a little bit different than Russia, correct? That even in tough times, at least the lines of communication between the military to hopefully de-escalate generally remain open with Russia. Isn't that also the case?

Director Haines. Yes.

Senator Kaine. We want to try to be very strong to deter war. We want to be prepared to win any war we should need to. But we would also want to avoid wars based on bad intel. We have a recent history of getting into a war against Iraq based on bad intel regarding Iraq's non-existent weapons of mass destruction program.

But we would also want to do everything we could to avoid wars based on miscommunication, misunderstanding, unnecessary escalations. Is that correct?

Director Haines. Yes.

Senator Kaine. As the DNI, what is your current level of concern about the prospect of getting into unnecessary military action based upon a miscommunication or unnecessary escalation? Is that a small concern or is that a concern that worries you?

Director Haines. Absolutely worries me. I mean, I think, that is part of the job, right, is that we need to be as vigilant as we possibly can in order to be able to help our policymakers, our decision-makers, all of you have a better understanding of what is actually happening so that there isn't that kind of unintended escalation or miscalculation.

I think one of the challenges that we all recognize in the context of our relationship with China is that because there is that kind of clamp down during crises that we were just talking about, it puts an extraordinary premium on our capacity to be able to provide insight on what is happening in those moments.

Senator KAINE. I think that is a wise concern to have. Last thing I will just say is the unclassified annual threat assessment that you shared with the Committee was 40 pages long. Two pages were pertaining to the Western Hemisphere.

I also recently returned from a trip into the Americas, and the issues there, whether it is fentanyl, whether it is immigration challenges, whether it is political instability. But also the fact that our adversaries are investing so heavily in the Western Hemisphere suggests to me that we ought to be paying more attention.

Both the SOUTHCOM budget and some other budgetary items suggest that we are really under-resourcing the region, and that is something that I will try to work with my colleagues on. But thanks to the witnesses for your testimony and your service.

Chairman REED. Thank you, Senator Kaine. Senator Rounds, please.

Senator ROUNDS. Thank you, Mr. Chairman, and let me begin by thanking both of you for your service to our country. General Berrier, really appreciate 39 years, and especially to your family. This is a lot of deployments, a lot of time away from home, and it is truly deployments that are handled not just by you but by your family as well, and we thank you for that.

Let me begin with Director Haines. I think Senator Shaheen began a series of questions regarding 702 and asking for an explanation really about how it works and so forth. I am just curious, with regard to our adversaries, do you think that they believe that there is an opportunity to manipulate or provide misinformation about some of the programs that we have in this country?

Has there been evidence that they have tried to manipulate public information or provide misinformation concerning some of our more capable programs?

Director HAINES. I am trying to think of a specific instance. There is—

Senator ROUNDS. I prefer not to use a specific, just not—because we are in an unclassified discussion, but just in general, do you think that they believe that they can influence political decisions here by providing misinformation publicly?

Director HAINES. Yes, absolutely. They have typically engaged in such activities in order to try to influence public debate on issues that are of importance to them.

Senator ROUNDS. Section 702 might be one of those as an example.

Director HAINES. Could be. I don't have particular information that indicates that that is happening.

Senator ROUNDS. But General Berrier, would there be assessments made that our adversaries attempt to manipulate or to influence political decisions with misinformation or propaganda being provided?

Lieutenant General BERRIER. I think it is clear that they have participated in that activity, and they would take advantage of any opportunity that might present itself, yes.

Senator ROUNDS. Section 702 might be one of those programs that they would provide—

Lieutenant General BERRIER. Potentially, yes.

Senator ROUNDS. Potentially. How about with regard to some of our military capabilities and some of the challenges that we sometimes have? It wouldn't be beneath them to try to manipulate decisions on a public level that would influence our ability to defend our country, if we had the opportunity. Fair enough?

Lieutenant General BERRIER. I agree with that.

Senator ROUNDS. Lately, I have been really kind of following up on the issue of the sharing of spectrum with regard to areas, particularly in the 3.1 to 3.45 gigahertz area. This is the S-band, and I am just kind of curious. We have a number of different very, very important missions that rely on that portion of the S-band. Would that be a fair statement, General Berrier?

Lieutenant General BERRIER. It would be, yes.

Senator ROUNDS. Are you aware of any of the more capable—defensive capabilities that we have that rely specifically on radars, communications in that area?

Lieutenant General BERRIER. Generally speaking, yes, but I am not a technical expert.

Senator ROUNDS. Okay. Fair to say that the *Aegis* destroyer systems that we rely on for protecting against air attacks along our coastlines utilize—I think publicly we have talked about it already, about the fact that our radars are in that region.

Lieutenant General BERRIER. I think that is fair.

Senator ROUNDS. Okay. Not just the East Coast and the West coast of the United States, but Alaska and Hawaii as well.

Lieutenant General BERRIER. Yes.

Senator ROUNDS. But we spent a lot of money specifically in that particular area. Our adversaries know that. It is a matter of public discussion. Fair enough.

Lieutenant General BERRIER. Fair enough.

Senator ROUNDS. Right now, there is public discussion about sharing a large amount of that area, or a discussion about trying to share or take from the Department of Defense portions of that spectrum.

Would that be an item of interest for our adversaries, and would there be an advantage to our adversaries if for any reason we were to lose that part of the spectrum for defensive purposes?

Lieutenant General BERRIER. I think that would be an item of interest for our adversaries, and I could see them potentially trying to take advantage of that discussion.

Senator ROUNDS. Director Haines, would you agree with that?

Director HAINES. Yes.

Senator ROUNDS. Thank you. Let me turn one other area, Africa. Just really curious. I know that right now China has been looking at the possibilities of bases in Africa, along the Atlantic coast of Africa.

What would happen if China were to be able to establish a base of operations, or for that matter Russia, along the Atlantic coast of Africa? What would that do in terms of defending our Homeland?

Lieutenant General BERRIER. Senator, I think permanent bases there would give them more reach and more access. As I think about strategic competition, it is one of those things that we watch. It is really DIA's job to keep an eye on that and alert the department if we see that happening.

Senator ROUNDS. Do you see it happening?

Lieutenant General BERRIER. We do see China trying to make inroads into Africa for sure. We know that they would like to expand their global bases.

Senator ROUNDS. Thank you. Thank you, Mr. Chairman.

Chairman REED. Thank you, Senator Rounds. Senator King, please.

Senator KING. Thank you, Mr. Chairman. First, Mr. Chairman, I would like to ask unanimous consent that a response from the Congressional Research Service to a letter that Senator Sullivan and I sent to them be included in the record.

The research service provided an exhaustive report to us in response to questions we had on how China invests in national security, examining the investments of the PRC that most contribute to the country's power and influence.

I want to thank the CRS team for the work on this. This is a very informative report. I hope it can appear in the Committee's records.

Chairman REED. Without objection.

[The information referred to follows:]

[The letter and CRS report can be found in Appendix B on page 96.]

Senator KING. Thank you. Director Haines, I want to talk about allocation of intelligence resources. Since we have been sitting here this morning, about 15 people have died in this country from drug overdoses, just in the last hour and a half. In about a week and a half, as many as were killed on September 11th.

We are under attack and yet we are not really responding. We are sort of numb to it, and particularly we had testimony in a previous hearing that between one and 2 percent of the ISR resources globally under our control are involved in looking at the drug importation problem from South of our country.

I think that is a gross misallocation of resources. If this were a terrorist attack killing 110,000 people a year, we would be turning this country upside down to counteract it, and to not be allocating the most basic, important intelligence resources of ISR in this fight, I think is unconscionable.

I hope that you will go back to the Administration, and particularly to the Intelligence Community, and say this is a worldwide threat that is the most immediate threat to American lives. Can you make that commitment to me?

Director HAINES. Yes, absolutely, Senator. I think you know that, and we have indicated this in other testimony, but the leaders of the Intelligence Community completely agree with you that this is absolutely critical. We are each of us involved in a whole series of efforts to try to expand effectively our collection and our—

Senator KING. Well, I have been asking these questions for years, and everybody agrees, but I keep saying 1 or 2 percent, so——

Director HAINES. Insufficient.

Senator KING.—I am looking for action rather than simply expressions of concern. General Berrier, do we have any information that you can share in open session about Chinese provision of munitions to the Russians in the Ukraine war? Because in my view, that would change the calculus if suddenly Russia had an infusion of ammunition and other munitions in order to counteract the actions of the Ukrainians.

Lieutenant General BERRIER. Senator, we watch this very, very carefully, and publicly, China has said that they would remain neutral in this conflict. We continue to watch them, and we can discuss it more in the closed session.

Senator KING. Thank you. You mentioned in your testimony, and I notice there is a little subtlety where you said this has been a bad year for Russia and Ukraine. But then I think in the next phrase you said, but Russia is very dangerous. What is the analysis of the likelihood of Putin using nuclear weapons? What would trigger it and how likely is it?

Lieutenant General BERRIER. Senator, there are a number of scenarios that we have thought through, and I would be happy to discuss those in a closed session.

Senator KING. Well, I think in an open session, though, can you tell me that whether you think there is some likelihood or possibility of nuclear weapons being used?

Lieutenant General BERRIER. I think, you know, in the nature of conflict, there is always that possibility. Right now, I would say we think it is unlikely.

Senator KING. Unlikely is good. I would rather hear not happen, but we can discuss this further in a closed session.

Director HAINES. Can I?

Senator KING. Yes, go ahead, please.

Director HAINES. I think from the IC perspective, it is very unlikely is our current assessment.

Senator KING. Thank you. We can discuss that further in a closed session. Director Haines, yes or no question, would the expiration of section 702 be a major compromise of national security?

Director HAINES. Yes.

Senator KING. I think you have testified about how important it is, but I don't think it really comes across that this is one of the crown jewels of our intelligence capability, is it not?

Director HAINES. Yes. As an example of this, 59 percent of every PDB, our President's daily brief articles, are sourced to 702 information. It gives you a sense of just how critical this is. It is utterly fundamental. I could not overstate, frankly, the value of it.

Senator KING. I know you struggled with this in your opening statement, but the problem is the importance of it is hard to demonstrate to our membership without compromising classified material. That is the dilemma. I think we have to accept your representation, which I understand you are talking for the entire Intelligence Community. This is an essential element of our ability to protect this country. Is that true?

Director HAINES. Yes, absolutely.

Senator KING. Thank you. Thank you, Mr. Chairman.

Chairman REED. Thank you, Senator. Senator Ernst, please.

Senator ERNST. Thank you, Mr. Chair, and I also would like to express my condolences to the family and the friends of the late General Stewart. So good morning to our witnesses and thanks for the testimony today. The greatest military challenge that we face is a really a two-front competition, as you have laid out so well this morning, between China and Russia.

So, I do agree with your judgment that China and Russia will maintain their strategic ties, which does create great potential threats. Let's be clear, we have heard you state over and over again, as we have seen China and Russia advancing, they are clearly encircling us around the globe. So, China proclaimed a no limits partnership on the eve of Russia's invasion. Xi just went to Moscow and affirmed that commitment, and we watched all of that unfold on our television sets. Director Haynes, first to you. How has Beijing's assessment of its junior partner in Moscow changed since the invasion?

Then to you, General Berrier, do the recent joint military exercises suggest a deeper or deepening military commitment between the two countries?

Director HAINES. Thank you, Senator. So, in terms of how the relationship has changed, and in particularly China's perception of it since the invasion of Ukraine. I will say that even before the invasion of Ukraine, we recognized that China and Russia were getting increasingly closer and that we were seeing cooperation across all different sectors.

But to your point, since the invasion, that closeness has accelerated to some extent, and in part this is due to the fact that Russia is increasingly beholden to and needs China. China perceives Russia increasingly as a country that was already in the sort of little brother role is often how it is described, but nevertheless is now even more beholden and therefore they have greater leverage.

That can sort of manifest itself in the context of various aspects of the relationship, such as in the Arctic, where they actually have differing interests, where China is not an Arctic country but wants to be in effect, and wants to have more power and authority in that area.

Russia recognizes that they are going to need China and their investment in order to get to some of the resources that they are interested in the Arctic. As a consequence, that China sees an opportunity and an increasing one in light of the current scenario with Russia.

So, we see them now at sort of the peak of their economic trade, continuing military exercises and other types of collaboration and political and technical. It is moving even as we continue to assess from an Intelligence Community perspective that there are limits ultimately, that they are unlikely to get to the point of being like NATO allies, for example, as we see them.

Senator ERNST. Great. Thank you. General Berrier.

Lieutenant General BERRIER. Senator, I would describe it as deepening and it has been gradual, but the complexity, the scope, and the tempo of these joint exercises is increasing mostly in the air domain, in the naval domain. We don't have a lot of insight into

more sensitive activities, but I do believe that it is deepening and growing.

Senator ERNST. Thank you, and to both of you as well, with this partnership and the deepening of their military commitment through exercises and so forth, how can we find a wedge and really divide the two countries by driving a wedge between them? What can we find as a strategy to separate those two powers?

Director HAINES. Yes, it is a great question. We have done some analysis and we can get you a more thorough explanation rather than my quick remarks. But I would say that we do see some challenges for them in getting, you know, as they get closer and closer.

Largely, one can recognize that there is a tension where there is such an asymmetry in the power of the relationship, where you can actually use that to some extent to exploit some of the challenges.

I think that it is unlikely that we will take them really off the trajectory of continuing to get closer in the coming years.

Lieutenant General BERRIER. Senator, I believe it is a really tough problem and it is a great question. In a closed session, there would be some things that we could discuss.

Senator ERNST. Okay, excellent, and with that, I will yield my remaining time. Thank you.

Senator HIRONO. Thank you. On behalf of the Chairman, I recognize myself for 5 minutes. Dr. Haines, I do recognize the importance of the FISA Section 702 authorization. As you noted, 59 percent or so of the information given to the President daily is sourced to 702. However, Americans do have a Constitutional right to not be searched without a warrant.

So, despite the efforts of Congress, there have been reported examples of the Intelligence Community using 702 to target U.S. citizens. That is not supposed to happen. So, your own office's annual transparency report estimates that in 2021, the FBI conducted approximately 3.4 million queries of section 702 acquired data on U.S. citizens.

Clearly, existing safeguards are not enough. I have a series of quick questions I would like to ask for your responses. Director, would imposing a warrant requirement before the Government searches section 702 acquired data for Americans' communications hamper your intelligence gathering against malign foreign actors?

Director HAINES. Thank you, Senator. So, a few things. One is 702 is an authority that only permits the targeting of foreign persons outside of the United States. So just to be clear, if a U.S. person were to be targeted under 702, that would be unlawful, and that is something that is noncompliant.

When you talk about the 3.4 million searches that the FBI did, that is not where they are targeting U.S. persons. So, what is happening there, is there is about—it is a less than 4 percent of the data that is brought in from FISA that the FBI is able to search. When they are doing searches, often what they are looking for is connections that allow them to identify victims of, for example, cyber-attacks or other things like that.

So, they are searching through an existing data base to see if there is a connection that ultimately would allow them to make that connection. We can talk about this more in private—in the closed session to give you greater detail. But for example, within

the 3.4 million, 1.9 million was related to a particular cyber-attack. So, it just gives you a sense of the difference.

That is not something that is necessarily—in other words, it is not something that is subject to a warrant, nor would it be subject to a warrant per se. But as a general matter, if we had to seek a warrant for every target of a foreign person abroad, there is no question it would have an enormous impact on our work and make it much more challenging.

Senator HIRONO. Yes, but with 3.4 million inquiries based on data collected through an appropriate 702 inquiry of foreign citizens outside of the U.S. I think there is—there are concerns.

So, my next question is, would statutory limits and judicial oversight to prevent the collection and the use of American's communications and other Fourth Amendment protected information, hamper your intelligence gathering efforts against malign foreign actors?

Director HAINES. Make sure that I am understanding you correctly, if you are asking us what are additional reforms that we would be willing to make? We are absolutely open to considering reforms. Attorney General and myself wrote a letter to Congress letting you know that, that is something we would be happy to discuss.

I mentioned that we have engaged in a number of reforms in the last few years to try to promote additional oversight, and we would be happy to talk about whether or not those should be—

Senator HIRONO. I am running out of time. So, there are concerns about limiting the permissible pool of section 702 targets and also perhaps removing barriers to existing judicial review.

So, yes, I look forward to working with you. You did mention in your testimony that you have the foreign malign influence center, and you noted that China, Russia, and Iran may be doing things that will interfere with our upcoming elections.

Can you just give us like an example of the kinds of tools that would use? Then how do you alert our elections officials to this kind of interference?

Director HAINES. Yes, absolutely, and we actually we do and did relatively recently an Intelligence Community assessment on election influence and interference. There is a version of it that is unclassified that we can—you know that we have made public as well.

The kinds of things that we look at are, in fact, efforts by adversaries, including Russia, obviously engaging in information campaigns or in other types of disinformation work to try to undermine, for example, candidates or positions or things along those lines.

We absolutely do share that information both with the Department of Homeland Security, with FBI, with—and they tend to be the ones to make the connection directly to the election officials within the United States. There is a fairly robust, sort of network that has been developed in order to provide this kind of information.

Senator HIRONO. Thank you. General, thank you very much for your 39 years of service. I did have some questions for you that I will submit for the record. I call on Senator Cramer.

Senator CRAMER. Thank you, Senator Hirono. Thank you both for being here and for your service. I had to step out for a while to take a phone call from a reporter in Grand Forks, North Dakota.

The reason for the question was, as you know, the Administration yesterday announced an expansion of scrutiny over land purchases around military bases. They added, I think, eight or nine bases in states like North Dakota, South Dakota, Texas, Iowa, to the 100-mile radius as a highly sensitive base. In other words, it was given CFIUS [Committee on Foreign Investments in the United States] jurisdiction within 100 miles of these bases.

One of them is the Grand Forks Air Force Base, another the Minot Air Force base. You may recall there was, we had quite a year last year dealing with a Chinese purchase of some land near Grand Forks for a wet corn mill facility.

Anyway, all of that, finally, the Air Force said, bad idea, let's not do it. CFIUS didn't have jurisdiction because it was only 12 miles from the base. My question isn't to comment specifically on Grand Forks and cities, but rather is there an increased intelligence involvement or scrutiny of land purchases by foreign entities, particularly adversarial foreign entities?

Director HAINES. Yes is the simple answer, in the sense that over the last many years now, just as a broader context, and I suspect you already know this, but basically, as we have enacted tools such as CFIUS, for example, using the Chinese as an example, they have figured out ways to get around some of these issues in order to still try to achieve the results that they are looking to achieve.

We have seen in the mechanisms that on a bipartisan basis, Administrations have enacted, I think expanding from the CFIUS statute, for example, to an executive order that allows for the review of transactions where telecom companies, for example, are purchasing land and then selling telecom services to U.S. citizens where that information may be then taken and misuse.

So, there is a variety of examples, I think, of scenarios in which that issue at least has come up.

Senator CRAMER. No, well said. I appreciate it. General, anything you would want to add to that?

Lieutenant General BERRIER. Clearly, a counterintelligence threat. Senator, you lay that out, and the purview of the DOJ and the FBI here in CONUS. But from a foreign perspective, we see this behavior and activity in other countries around the world. Clearly a huge counterintelligence threat.

Senator CRAMER. Great. Thank you. With regard—I want to comment on Senator King's questions about ISR and the 1 to 2 percent dedicated to specifically to drug trafficking. Is that a priority—simply a prioritization issue, or do we just need more capacity to do really good ISR? Because I want to be fair that 1 to 2 percent isn't very much but do, we have enough in general to cover all of the things that you have to watch.

Lieutenant General BERRIER. Senator, every combatant commander that speaks before this Committee will say the same thing, that they don't have enough ISR. I think it is a capacity issue. Certainly, technology can help, advances in space, and other sorts of sensing capabilities. But it is a really difficult conversation with our SOUTHCOM partners on how bad this problem is.

Senator CRAMER. Yes. Great. Thank you. I suspected as much, and you are right, it is unanimous among the combatant commanders. So, Director Haines, I am going to really shift gears here a little bit because we are talking about worldwide threats, and it is easy to keep—to talk about the big ones that are obvious and always in front of us.

But there are other smaller skirmishes here and there that I think may not be as significant but still significant. I would like your take on one in particular, and that is what is going on in Haiti.

I have a number of friends that are involved in charitable work. In fact, I am kind of stunned how many friends I have involved in charitable work, and they are just distraught about what is going on in Haiti.

Now, Haiti, I don't have to tell you where it is in its proximity, and it is—maybe you could just tell me a little bit about what you were seeing in Haiti? What—to the degree you are able to tell me what you think—what is being done and what can be done.

These are policy questions, I understand that, but I think we need to engage a little bit and not just let it fall because—for obvious reasons. Maybe just expand to the last 30 seconds of my time on that.

Director HAINES. Yes. Thank you. I couldn't agree more with the fact that this is a really vexing issue and one that should be focused on.

I can tell you that from an Intelligence Community perspective, we have been looking to try to find ways to support, in effect, what I understand the policy community is looking at, which is a multinational force that would try to address the situation both from the perspective of training police and also to sort of try to manage the violence that has erupted and the gang control of territory in this area.

I will say briefly that, first of all, we have a lot of analytic products. I am happy to provide you what I think is the best that we have on this. But it is—none of it is optimistic, which is to say that this is a really challenging situation and it does not look as if it is going to get better any time soon.

Senator CRAMER. So, if I might, General, I mean, are there security concerns in addition to just the moral and ethical concerns?

Lieutenant General BERRIER. I think there are security concerns, and moral and ethical concerns. When I look at it, it is sort of the loss of credibility in the government and government's institutions, their ability to provide services, a terrible economy, a population at risk.

Then and at the same time, this rise of these organized criminal elements that seem to be taking over and challenging the security forces. So really a perfect storm, and I think in our hemisphere, we are paying attention to that.

Senator CRAMER. Thank you both.

Chairman REED. Thank you, Senator Cramer. Senator Warren, please.

Senator WARREN. Thank you, Mr. Chairman. So, cryptocurrency is now the method of choice for countries to evade sanctions so that

they can fund weapons programs, support spying, and promote cyber-attacks.

Crypto crime is hidden, but we know that in 2022 alone, there was over \$20 billion in illicit transactions. We also know that Russia, Iran, and North Korea moved around at least \$8 billion using crypto.

So, let's focus for just a minute on North Korea. This one country stole a record breaking \$1.7 billion. According to the U.N. Security Council, North Korea uses its crypto crime to fund its nuclear weapons development.

General Berrier, you lead the Defense Intelligence Agency, which collects intel on foreign militaries, including on North Korea. When North Korea launders billions of dollars' worth of crypto and funnels it into its nuclear program, does that threaten our national security?

Lieutenant General BERRIER. Certainly, Senator, as North Korea steals that money and then tries to turn it into a legal tender, which at great cost, as you know. That is helping them build their nuclear capacity and that is a threat that we recognize.

Senator WARREN. Thank you. So, Director Haines, earlier this year, the United States Intelligence Community, which you lead, put out its annual threat assessment in which you identified North Korean cryptocurrency heists as part of, and I am going to quote you here, "sophisticated and agile espionage, cybercrime, and attack threat." So, let me ask you, does a sophisticated and agile espionage, cybercrime, and attack threat undermine our national security?

Director HAINES. Yes, absolutely, and just to pull it apart, to say that it is not just—although obviously the funding is critical. It is not just the funding of essentially nuclear programs that the DPRK [Democratic People's Republic of Korea] may have involved in, but it is also posing a cyber-threat to important networks. That is part of what it is that we see as a national security threat.

Senator WARREN. Thank you. So, let's move to another example. A 2021 study found that nearly 5 percent of the world's Bitcoin mining takes place in Iran. The biggest crypto mine in the country is run by the Islamic Revolutionary Guard Corps and is backed by Chinese investment. How much sanctions evasion are we talking about here? Well, one crypto exchange alone, Binance, has processed \$8 billion worth of Iranian transactions since 2018. So General Berrier, when the Islamic Revolutionary Guard Corps uses crypto mining to replace revenue that they lose through sanctions, does that threaten our national security?

Lieutenant General BERRIER. Senator, I think it certainly threatens our U.S. Forces in the region. Cryptocurrency, Bitcoin is one method of how they finance their operations, so I think it is certainly a component of that, yes.

Senator WARREN. Okay. Thank you, and I am going to do one more and get one more example in here, and that is Russia, because Russia is ransomware central. The most prolific and dangerous ransomware gangs are thought to be run by criminals in Russia.

Russia affiliated ransomware gangs have stolen from American schools, American hospitals, American power stations, and Amer-

ican businesses. Director Haines, do you know what portion of ransomware is paid in crypto?

Director HAINES. So, we assess that the vast majority of modern ransomware operators demand cryptocurrency, and when those demands are met, they probably are paid in that form.

But part of the challenge for us in terms of identifying specifically how much is being used—you know, is using cryptocurrency, is that we just—all ransomware incidents or payments aren't reported or documented—

Senator WARREN. Fair enough, fair enough. But when the HSGAC Committee, Homeland Security Committee, put out its report, it said basically it is 100 percent. Does that sound about right to you? This is a business model built on crypto, is it not?

Director HAINES. Yes, I mean—the vast majority, I think over 90 percent, is perfectly reasonable.

Senator WARREN. Okay, and then, General Berrier, does the fact that ransomware gangs in Russia and around the world are using crypto to demand ransoms from American hospitals and schools and power stations and businesses, does that threaten our national security?

Lieutenant General BERRIER. I believe it does, Senator, yes.

Senator WARREN. You know, I appreciate this. I appreciate your answers. You know, just think about what we are talking about here. North Korean nuclear weapons. Iranian sanctions. Russian ransomware. Drug trafficking. Human trafficking. Some of the major threats to our national security are facilitated by crypto.

That is why Senator Roger Marshall, and I will soon reintroduce our bill to crack down on illicit crypto activity. Our bill is not about SEC [Securities and Exchange Commission] regulation or cracking down on crypto investor scams, although I think we need to do that.

Our bill is about law enforcement and national security and keeping our country safe. Thank you, Mr. Chairman.

Chairman REED. Thank you, Senator Warren. Senator Scott, please.

Senator SCOTT. Thank you, Chairman. Thanks, both of you for being here. Xi, in the last 12 months, has given a variety of speeches that he is preparing the Chinese population for war. What should we take from that? How do you each of you assess that?

Lieutenant General BERRIER. So, as we listen to Xi Jinping and his style of communication, he has been on a long-term campaign to oversee China's rise. Now that he is in his third term, we see his rhetoric picking up. I believe that there are a number of dates out there that mean different things to different people. We have talked about 2025, 2027, 2035 and 2049. I think the bottom line is he has told his military to be ready. For what, we are not sure. When, we are not sure. DIA watches this very, very closely and we evaluate closely every word that he says and where he goes in his speeches.

Director HAINES. Thank you. Just to add, but certainly agree with everything that General Berrier said. I think we continue to assess that he would prefer to achieve unification of Taiwan through peaceful means, but the reality is that he is and has di-

rected his military to provide him with the military option, essentially, to be able to take it without concern of our intervention.

That is something that will have a meaningful impact on his capacity to do so and also his decisionmaking, presumably.

Senator SCOTT. Do you assess the position the American economy would be in with our dependance on communist China if they did decide to invade Taiwan and we decided to come to Taiwan's aid? What impact would that have on our economy?

Director HAINES. Yes. So, obviously we can't provide precision because the scenario will matter when it happens. All of those kinds of things would be critical to actually providing an assessment.

But it is without question, and there have been studies done by external think tanks and others on the impact, the economic impact that an invasion of Taiwan would have on the global financial economy.

I will say that because TSMC [Taiwan Semiconductor Manufacturing Company], the manufacturer of semiconductor chips on Taiwan, if that is blocked, it will have an enormous global financial impact that I think runs somewhere between \$600 billion to over \$1 trillion on an annual basis for the first several years on the global financial economy is the general estimate.

Because those chips, those advanced chips are—and over 90 percent come from Taiwan and they are in almost every category of electronic device around the world, and so therefore, until we would be able to sort of make up the difference, they would have this enormous impact.

It will also have an impact on our GDP [Gross Domestic Product] if there were such an invasion of Taiwan and that was blocked. It would also have an impact if they start making chips on China's economy, and I think that is another aspect of this and in fact a more significant impact on their GDP if they were unable to get those.

Senator SCOTT. You want to add anything?

Lieutenant General BERRIER. Just that I think watching the impact that—the economic impact on Russia as they have invaded Ukraine with the sanctions. Not an exact an comparison, maybe apples and oranges, but I think it gives us an idea of how to model this when it happens or if it happens.

Senator SCOTT. What is your assessment of risk in Latin America? Senator Cramer talked about Haiti, but we know Cuba is a State sponsor of terrorism, and they have allowed our adversaries to be in Cuba.

Maduro is doing the exact same thing in Venezuela. So, what is your assessment of the risk of bad actors being in Latin American? What is the risk that Communist China is going to be able to open up military bases in Latin America?

Lieutenant General BERRIER. For the time being, I would say the risk is moderate. We do see Chinese and Russian actors in Central and South America, something that we watch very, very carefully. We have a consistent messaging campaign through our defense attaché network in Central and South America to talk about why this is a bad deal for them. We watch it carefully. I don't think they are very, very close to acquiring full up operational bases in Central or South America right now.

Senator SCOTT. Anything you want to add? All right. What is your assessment of the commitment that Germany has to make sure that—they will do everything under their power to make sure Ukraine succeeds in a war against Russia?

Director HAINES. I think, honestly, that Germany has exceeded our analysts' expectations prior to the war, for example, in terms of its commitment to providing support to Ukraine. We have seen them be actually a stalwart ally on this issue, and yes, moving forward.

Lieutenant General BERRIER. Nothing that on that.

Senator SCOTT. All right. Thank you.

Chairman REED. Thank you, Senator Scott. Senator Peters, please.

Senator PETERS. Thank you, and thank you, Mr. Chairman. Thank you to both of you for your testimony here today and for your service to our country.

Director Haines, the proliferation of cameras, commercial satellite imagery, and social media have helped create an environment where open-source intelligence is often one step behind, but sometimes a step ahead from traditional intelligence gathering efforts.

The buildup of Russian forces as they prepared to invade Ukraine was well documented. With both domestic and foreign observers able to confirm troop and vehicle movements, even identify entire units who were moving to the front.

I was also taken by article by the Modern War Institute at West Point that talked and some quotes from some intelligence operators. They were talking about, of course, the intense need for intelligence as this war was progressing, and in this saying, "we were collecting only a fraction of what was needed."

This was not a surprise with the largest war in Europe since World War II occurring. Intelligence capabilities were in high demand. This did not, however, diminish the frustration of walking out of the scif, turning on our phones, and gaining access to more and more relevant open-source content than we had actually at our workstations."

Open-source intelligence has uncovered fields of Chinese nuclear silos, new PRC shipyard activity, the buildup of PRC troops along the front in India. In short, open-source intelligence seems to be democratizing the intelligence field, and I want to make sure that we are adequately prepared to harness this activity.

So, my question for you, and General, if you have comments on those too, is what changes must the IC community make to ensure that the United States is maintaining a strategic advantage in espionage and intelligence gathering, particularly as these new technologies are coming on board and are democratized, and our adversaries and others have access to this information as well. How are we thinking this problem set through?

Director HAINES. Yes, it is a multi-dimensional issue, right? This is something that has been a big focus. I know General Berrier will have a lot to say because the Defense Intelligence Agency does a lot in the open-source sort of space for the Intelligence Community. But first of all, we are in a position where really every element has a version of open source that they are working on.

However, we are not in a position where we feel as if the entire Intelligence Community is leveraging sort of the best of what we can do in this space yet, and that is something that we have been focused on.

We have done a study to look at how we can improve our efforts, how we can leverage each other's efforts in this space, and you will hear from General Berrier about what DIA does. But also, how we can invest in it in a way that supports essentially what we collect clandestinely and, you know, allow us to bring together the two sources of information so that we can provide a complete picture that is more insightful than what you might get from open source.

But at the same time to recognize that there is value in actually using open source to help to reveal a picture of what is happening in different places and share that with the world. At the same time, on the flip side, and just mentioned two things that I think are worth noting is that we are very conscious of the fact that in this area we have to be extremely careful about how we approach privacy and civil liberties issues.

One of the issues that we know has been of concern for many Members of Congress is how we deal with, for example, commercially available information. That is, for example, information that we may purchase as part of our efforts to engage in open source, and trying to make sure that we are developing sophisticated policies and frameworks to ensure that we are handling that information appropriately.

When we collect it, collecting it appropriately in these places. Finally recognizing that spyware and our adversaries' access to open-source information also makes them far more sophisticated in their capacity to target and to from a counterintelligence perspective affect us. That is something we are also looking to try to manage and to counter appropriately.

Senator PETERS. Great. Limited time, General, but I want to hear your thoughts.

Lieutenant General BERRIER. Yes. Just briefly. Senator, I think open source is kind of the new frontier for the Intelligence Community, but it is also a bit of a wild, wild west. So, in my role as the intelligence enterprise manager for the Department of Defense on open source, what I have to make sure is that the DOD entities that are doing open-source collection and analysis are not getting ripped off from the data sources and how much they pay.

That we have the right tools and right training, the right tradecraft so that we can go forward to make sure that open source and its richness augments everything that we do on the sensitive side for a more fulsome picture of what is happening out there in the world. I appreciate that question. Thank you.

Senator PETERS. Thank you, General.

Chairman REED. Thank you, Senator Peters. Senator Tuberville, please.

Senator TUBERVILLE. Thank you very much. Director Haines, what is your assessment of Iran's seasoned its second tank, oil tanker in a week in international waters?

Director HAINES. Sir, can we take that in closed session? I think there is something to be said, but—yes.

Senator TUBERVILLE. Thank you very much. General Berrier, SOUTHCOM Commander has been stating for years that Chinese influence in Central and South America is increasing and we are at risk of losing our status as a partner of choice for many critical allies in the region. I just spent a lot of time down in Panama. Do you agree with this assessment? If so, what impact would this loss of status have on the safety and defense of the Homeland?

Lieutenant General BERRIER. I do agree with General Richardson, and I believe that we should be doing everything that we can to talk to our partners and allies down in Central and South America about the value that the United States brings.

Senator TUBERVILLE. Director Haines?

Director HAINES. Completely agree.

Senator TUBERVILLE. Same thing. Do we see an imminent threat in that area?

Lieutenant General BERRIER. Not an imminent military threat, but I think there is a reputational threat. There is an economic threat because they bring their resources quickly. I think we have to be insightful in thinking through how we beat that.

Senator TUBERVILLE. All right. Direct Haines, I am concerned about—we are all concerned about the rise threat of terrorism, especially since the debacle in Afghanistan. In March, General Kurilla told this Committee that in his estimation, ISIS-K could do an external operation against the United States or Western interests abroad in under 6 months with little or no warning. Do you agree with this assessment?

Director HAINES. Yes. One of your colleagues raised this earlier. I would have to check with our analysts to see if they still agree with that. There have been some developments, that we can talk about in closed session, since that statement was made that I think could affect the timeline. But I agree that ISIS-K remains intent on looking to do external attacks.

Senator TUBERVILLE. General?

Lieutenant General BERRIER. Senator, I think our line is something like 6 to 12 months. I am not disagreeing with General Kurilla's analysis or his team down at CENTCOM. Sometimes at different points we might see it slightly different, depending on where we are at and what we are looking at.

Senator TUBERVILLE. Thank you. I yield my time.

Chairman REED. Thank you, Senator Tuberville. Senator Rosen, please.

Senator ROSEN. Well, thank you, Mr. Chairman, and thank you both for being here today. Good to see you here and the really thoughtful answers. I want to build a little bit on what Senator Scott was talking about in countering the rising Chinese influence. So, Director Haines, of course, we know in recent months, China has rapidly increased its engagement around the world.

This includes brokering, actually trying to broker troubling agreements between—to reestablish diplomatic ties between Iran and Saudi Arabia, offering to broker peace deals between Ukraine and the Russian aggressors. So, these incidents, they highlight China's persistent presence and intention to exert its influence and match the United States as a global power.

So how can the United States address China's increasing involvement in global diplomatic matters? Can we expect to see more countries try to turn to China as a mediator? What do you think the implications of this pivot would mean to us?

Director HAINES. Thank you, Senator. It is very thoughtful question. I think, obviously, China's engaging in international fora in and of itself is not a challenger problem. It is how they engage and the way in which they use that engagement to actually undermine, for example, global norms and the international order in the way that we have designed it.

We have spent quite a bit of time in the Intelligence Community trying to map out how they are approaching their engagement in international fora in order to do just that.

I would say that this is a place where we have been looking at their efforts to essentially sort of garner influence and change the direction of international organizations so as to support their particular approach to global norms, which is more aligned with an authoritarian system.

You look at organizations such as the ITU or the International Telecommunications Union, and other places where I think there have been concerns about China's influence and efforts in those spaces.

That is something I know the policy community is focused on trying to manage. I think another aspect of it is, as you rightly point out, their effort to try to create coalitions. I would have to say that in that area we have seen them have mixed success.

You know, there is sort of things like the 17+1 forum and other things like that that they have tried to do, where because they took quite a bullying approach to trying to get other countries to do what they wanted to do, it actually backfired to some extent on them, and they weren't able to engage in as much influence as we thought. There are yet other variations on the theme that I think are important to our work moving forward. Maybe General Berrier has more.

Senator ROSEN. Yes.

Lieutenant General BERRIER. I believe China is trying to enhance its reputation on the global stage. When I look at the examples that you gave, we are a key security partner with the Kingdom, and we are a key security partner with Ukraine.

We also have influence, and we are in discussions with those partners every single day on really tough issues. I think whether those are military diplomats and the defense attaché service, or the work that our State Department is doing, we have got a great message.

Senator ROSEN. Well, I want to build on this because China's gaining a hold in the Middle East. They want to gain a hold there. Our partners in the region, they want to hedge—they may want to hedge what they could perceive as America's diminishing global engagement.

So, building on what you are talking about, how does the United States, how do we reassure our allies and partners in the Middle East, but more broadly, that we will remain a force for stability and security and steadfast with them in the region?

Lieutenant General BERRIER. Even though our military commitments have come down in the central region, U.S. Central Command is still very active in this area. We have a forward headquarters in Qatar.

We have deployed forces there still, and it is not a large number, but they are they are actively there. We have longstanding relationships with these partners, and so, it is our ability to continue to communicate with them, to demonstrate American resolve in the region, and to bring what it is that the U.S. brings.

Senator ROSEN. Director, anything? No. Yes, we had a recent trip there, and I think that was the biggest concern from at least the Abraham Accord countries that we visited, that we would remain steadfast in the region.

Speaking of the region, I only have 33 seconds left, so I will just ask this for the record, but I really want to talk about Iran and Russia, their defense cooperation, how concerned we are about the sale of Russian aircraft and air defense systems to Iran.

I will take that off the record as I only—unless you can answer in about 30 seconds, I will just—we know what Iran is seeking from Russia.

Lieutenant General BERRIER. Certainly. I think this is a relationship of convenience at the moment, and I think the Iranians are gaining some benefit for providing munitions, UAVs [Unmanned Aerial Vehicles], and such to the Russians. We are watching it very, very carefully, and we will see where this relationship goes.

Senator ROSEN. Thank you.

Chairman REED. Thank you, Senator Rosen. Senator Mullin, please.

Senator MULLIN. Thank you, Chairman. Thank you, Director Haines and General, for being here. I am going to—I am just going to make a quick question about, I believe it is pronounced Wagner, but I believe the media pronounces Wagner Group all the time. I am going to hold out most of these questions for actually the closed session.

But right now, we see—I mean, in my opinion and I would like to get your opinion. In my opinion, Putin is using the Wagner group to kind of do his bidding around, literally around the world.

They are—and in my opinion, truly my opinion, they are acting more like a terrorist organization than they are a malicious group or a contracting group when they are in sowing instability, supporting groups, spreading lies, exporting critical minerals around the world, pressuring governments to distance themselves from us.

Would you describe their behavior as more acting, more like a terrorist group, Director Haines?

Director HAINES. Yes, I would absolutely support the perspective that Wagner is actively working in ways that is actually driving tourism, particularly in the continent of Africa, for example. That is an example of what you are describing.

Senator MULLIN. General.

Lieutenant General BERRIER. It is a really interesting question. When you look at their business model, how they try to build security in nations and conduct paramilitary operations and support those nations, there are some atrocities that have been reported

and committed. I don't know that I would go as far as calling them a terrorist organization right now. I would have to——

Senator MULLIN. No, I wouldn't—I am not, I am saying acting. I was very careful in saying acting. I am not calling them a terrorist organization. I am saying acting more like that——

Lieutenant General BERRIER. Certainly, you could draw a conclusion like that, yes.

Senator MULLIN. So, and we see, their behavior is they typically go into these countries that are in disarray and they offer to provide security for organizations. Would you agree that is kind of how they get their footing in these countries, a lot of times?

Lieutenant General BERRIER. Certainly, along with business opportunities to be developed.

Senator MULLIN. Right. Now, I want to switch my gears real quick to China. According to some open sources, China now is controlling the inner river that runs through Argentina in South America, and is charging tariffs, taxes in the name of the PRC for goods being shipped in and out. We also see that they have influence basically in all of South America except one country. General, you said that we are fighting back with information.

But it seems like those countries are in more need of infrastructure in dollars, which is what China is investing. Are we winning or losing in South America with information, technology, and providing the good deeds that Oklahoma does—not Oklahoma, but the United States does?

Lieutenant General BERRIER. Well, certainly, I know that we are talking to our partners about this issue every day. Whether we are winning or losing, hard for me to judge that. I am not tracking this river in Argentina where they are collecting taxes, but I do know where there is infrastructure, ports, airfields that they can build upon, that they will take advantage of that business enterprise.

Senator MULLIN. So, are you familiar with the influence that they have, the strong influence that has grown over the last 10 years in Central and South America?

Lieutenant General BERRIER. Yes, I am.

Senator MULLIN. Are you familiar with the only country that they are currently don't have a foothold in South America? I find it—and I am not—General, I am not—this isn't an, I got you, question because I honestly feel like you and I have been developing a friendship over the last couple of years.

But I do find it somewhat concerning because that information is not hard to find and it is nothing that requires being read in on. It is concerning to me when I have such a strong influence in Central America, which is growing, but in South America, we are losing.

I would say we are not too far off from losing control of the Panama Canal, too. I believe you would probably agree with that in some sense. If course doesn't correct pretty quick, they are going to control the main shipping lanes through there. Would you agree?

Lieutenant General BERRIER. I would say that that certainly requires U.S. attention for sure, yes.

Senator MULLIN. That would play right into the role of the Belt and Road Initiative, to which China is trying to get all the world depended on.

Lieutenant General BERRIER. Yes.

Senator MULLIN. So, is information enough or should we be looking at this in a different strategy to correct course?

Lieutenant General BERRIER. Ranging into the policy sector there. Certainly, the more that we can bring, the better, for sure.

Senator MULLIN. Well, we need that information. I think the American people need to know what threat is really knocking on our back door and why it is a threat. It is not just rhetoric. It is something that—extreme concern. I would say China is trying to fulfill what Stalin said, trying to destroy America from within, and that slowly, slowly choking us out. With that, I yield back.

Chairman REED. Thank you very much, Senator Mullin. Senator Budd, please.

Senator BUDD. Thank you, Chairman. General, Director, thank you both for being here and for your service as well. I would like to focus on the INDOPACOM AOR [area of responsibility] for just a little bit. Director Haines, in this year's annual threat assessment, it states expanded military postures by both India and China along their disputed border elevates the risk of armed confrontation between two nuclear powers. What do you assess is the risk of India and China's border dispute erupting into a conflict?

Director HAINES. It is not insignificant, and this is on the line of actual control between—

Senator BUDD. Correct.

Director HAINES.—Indian and the Chinese border, as you indicate. China has been building up its infrastructure along the border and continuing to increase their presence. We have seen, eruptions at different times, but we have obviously been working with India in order to try to ensure that we are supporting them and their efforts to manage this.

Senator BUDD. Thank you. General, the buildup that the Director just referred to along the line of actual control. What assistance, if any, is DIA providing to our Indian partners?

Lieutenant General BERRIER. We have, through USINDOPACOM, joint intelligence team there, have reached out to our Indian partners. We have a relationship with them, and we are attempting to support their needs.

Senator BUDD. Thank you. Director, just last week, the Chinese accosted a Philippine Coast Guard ship, as many of us are aware of. I mean, it appears that these are becoming more and more frequent. So, are these negligent or intentional encounters? What is the IC's assessment of the purpose of China doing this?

Director HAINES. Yes. We actually have some very good products on this that if you are interested, we should get to you. But this is—

Senator BUDD. If you would, please.

Director HAINES. What we have seen with China is they have expanded significantly their coast guard over the last many years. They have also begun to use their coast guard in new ways. So, in other words, they pass laws that allow them to use their coast

guard to police, in effect, what they perceive as being their rightful waters, and to use even force under certain circumstances.

So, no, I do see this as part of a larger comprehensive effort that they have engaged in. There are sort of three different pieces to it. There is the ships that they use that are part of militia that are not actually part of the coast guard or the PLA.

Then there is the coast guard, and then there is the PLA, and the relationship that they have with each of these different sort of forces is related and sometimes intersects.

Senator BUDD. Thank you, and a question for both of you, if you would. Director, we will start with you. What is your assessment of the Chinese military's ability to conduct a cross-strait amphibious assault of Taiwan? They have now effectively practiced a blockade, but are they ready for a major amphibious landing? Director first.

Lieutenant General BERRIER. Senator, we can—

Senator BUDD. Director first, and then if you are referring us to the closed session—if there is anything you can share in this setting, please do.

Senator BUDD. Yes, I would honestly defer to General Berrier on their capacity and probably would do it in a close session.

Senator BUDD. Understood. Director, any comments on that?

Lieutenant General BERRIER. I would just say a very, very complicated military operation. We have we have observed exercises where they review the points on an operation like this, and we can provide more detail in a closed session.

Senator BUDD. Thank you, and one final question for you, General. So, DIA's China military power report came out in 2019, so it is 4 years old now. If a new version was published today, what would the top line changes be? How has the military balance of power changed in Asia over the last 4 years?

Lieutenant General BERRIER. I think we would probably start describing the advances that they have made in every domain of their military capability in the short 4 years. They have really advanced some of those capabilities.

We talk about space. We talk about their nuclear—expanded nuclear capacity, and we would probably also talk about their expanded reach throughout the Indo-Pacific and some of those things that we were talking about before, like the maritime fishing police and the coast guard, and those actions.

Senator BUDD. Thank you, both, again for your time and for your service. Chairman.

Chairman REED. Thank you, Senator Budd. Senator Schmitt, please.

Senator SCHMITT. Thank you, Mr. Chairman. Director Haines, I want to ask you, the CBP has reported that thousands of Chinese nationals have come across the Southern border. An increase of about 800 percent, I think is the most recent estimate. I guess the question for you is, what are some of the factors causing this?

Director HAINES. Thank you, Senator. I don't have a full answer to that. Why don't I get you that in writing, in response?

Senator SCHMITT. Okay. I am not trying to trip you up here, my hope would be that the Intelligence Community has some idea why we are seeing this increase.

Director HAINES. Yes, we have done some analysis on this. I have taken a look at it. They went back to look at more questions and I would rather give you a full answer on that.

Senator SCHMITT. Okay. That is fair, and so, I guess I will ask you, and if it is the same answer, I understand. But do you expect or are you anticipating an increase in the number of Chinese nationals seeking to cross the Southern border?

Director HAINES. Yes. I would rather give you the full—what I have seen is that it went up in than it seems to have gone down a little bit is my recollection, and so unclear what the trajectory is, and I think we should give you something—

Senator SCHMITT. Okay. My concern obviously with Title 42 expiring, has accounted for about 50 percent of all the expulsions I think, is very concerning if this is an intentional effort by the CCP to send assets across our Southern border.

I think the American people deserve to know what is happening and I don't think we do. It is a very concerning development, and it is ongoing, and we have seen an increase. My concern is again, giving one of the tools that has been useful in sending people back is going away and we need to be prepared for that.

I guess switching gears, and this could be for either one of you, but I will start with you, Director Haines. During the disastrous withdrawal from Afghanistan, billions of dollars' worth of valuable equipment were lost or left behind, I should say, in addition, of course, to the brave servicemen who lost their lives.

But just to put that in perspective, there was \$48 million worth of ammunition, 80 aircraft, 23,000 Humvees, 250,000 automatic rifles, 95 drones, 42,000 pieces of sensitive military equipment, including night vision goggles. How have the Taliban utilized this? What do we know? Have they been selling this to adversaries? Where is all this equipment and how is it being used?

Lieutenant General BERRIER. Largely our understanding is that the Taliban have organized their security forces, that they have fallen in on this equipment. I haven't seen a lot of reporting that would indicate that they are selling it. I think they are trying to incorporate it into whatever security force they develop.

Senator SCHMITT. Do you have anything to add to that, Director Haines? Okay. I do want to ask about an after-action report on the withdrawal from Afghanistan that obviously was a total mess.

What are your plans to provide an unclassified after-action report here? I think there are only some Senators who have been able to see it, but I think that given the nature of this—and there has been some public reporting that—about what is out there, that seems to just sort of blame the previous Administration.

I mean, I think this was one of the more disturbing failures in at least modern history. What are your plans to have sort of an accounting of this, of what went wrong, and make sure this never happens again? Or do you have plans to do that?

Director HAINES. Not from the Intelligence Community. We don't have any plans to provide an unclassified after-action report on Afghanistan. I don't—I can't speak—

Senator SCHMITT. Well, I guess, and I will just close with this, and I don't—this is not a partisan statement. I just—the idea that what happened in Afghanistan, the fact that the American people

have not, to this point, gotten an actual thorough review of an after-action report of what went wrong and how we can make sure this never happens again is deeply concerning.

So, this question isn't just for you. It is being asked of other people and we will continue to do that. But I just think for the memory of the men and women who were lost, all of the equipment that I mentioned, it was just a total debacle and we have got to do better, and make sure it never happens again.

So, I suppose we will be working with you to figure out what information you can provide to more fully inform the American people. Thank you.

Chairman REED. Thank you very much. I have been informed that Senator Sullivan is en route. So, I will take the opportunity to further ask a few questions and give him the opportunity to get here, but it won't be indefinite.

One of the issues that we are facing is the, as was mentioned before, the proliferation of media, virtual media, and now what is approaching is the next great step, AI. Do you have any concerns that AI will disrupt our life dramatically, and that there are steps that we should start contemplating now?

I know the Administration has announced yesterday that they are taking steps to protect AI. In terms of the Intelligence Community, how are you doing this, Director Haines?

Director HAINES. Yes, thank you very much, Senator. I do, I think you are wise to be focused on this and that it will have disruptive impact. We have been writing some analysis to try to look at what the potential impact is on society in a variety of different realms, and obviously see some impact in intelligence activities that we would be happy to talk to you in closed session on.

But what we also recognize is that we do not yet have our hands around what the potential is, and what we have been doing in the Intelligence Community, there have been many elements have themselves put together task forces, experts who are looking at these issues, who are trying to understand in particular the impact of generative AI, as you have noted it.

We have been trying to facilitate groups of experts in the IC to essentially connect with those in the private sector who are on the cutting edge of some of these developments so that we can make sure that we understand what they see as potential uses and developments in this area as well.

Chairman REED. Thank you very much. Just a quick question, listening to the discussion about the withdrawal of Afghanistan. Most of that equipment and supplies were committed to the Afghan army, and that was a planned commitment. That was not leaving, deliberately leaving equipment behind. That was the tactical equipment for the Afghan army, which we all hoped would continue to function. Is that correct?

Lieutenant General BERRIER. That was always the plan at those Afghan cores that we stood up and trained—

Chairman REED. That plan was developed in the Trump Administration after the Doha agreement?

Lieutenant General BERRIER. That is correct.

Chairman REED. Then also in terms of—I think I agree, obviously, that it has to be public, but we should all be aware that the

Congress and this Committee authorized a commission to study the entire situation in Afghanistan over the 20-year period.

That commission is at work today and it will publish the results and those results will be available to the public. There might be some classified material, but it will be available to the public. So, thank you. Senator Sullivan, please.

Senator SULLIVAN. Thank you, Mr. Chairman. Thank you for holding this open. Appreciate the witnesses being here. DNI Haines, I want to just follow up a little bit first, quickly, on the AI piece. Did you happen to read the very long and insightful piece by Henry Kissinger and Eric Schmidt, the Google founder and senior MIT professor on AI? Did you read that?

Director HAINES. I know exactly what you are talking about, and it is on my pile, but I have not yet read it, so I apologize.

Senator SULLIVAN. Yes, I would strongly recommend, take a look. I think it is such a big topic. The Economist has a whole focus on it today. There is all these great opportunities. You know, Henry Kissinger still going at it. I think he turned 100 or he is turning 100 here very soon. Incredible mind. He brings some insights that are very chilling to the uses of AI and what it could mean, particularly on the national security front.

I think it would be good for you guys to do a deep dive on this and come back to the Committee. We are all trying to figure it out. You have tech companies saying it is the best thing since sliced bread. You have other people saying it is going to doom the world.

But I think putting the tech companies fully in charge, I don't think it is a good idea either. So, we really need your guy's insight, and I think it would be good if you can come back to the Committee, either classified or unclassified on that topic.

Take a look at that piece. So, it is really well written and pretty scary, to be honest, and these aren't people who are prone to be Pollyannish. Let me turn to my—

Director HAINES. I will do that.

Senator SULLIVAN. Thank you. Let me turn to my favorite topic, energy. I always like to recount this story. It is now quite a sad story because some—I am sure you know, Vladimir Kara-Murza was in jail for 25 years, unjustly sentenced. I hope we can keep beating the drums to tell Putin to let them out. All he was doing was speaking the truth about democracy and freedom in Russia.

A very courageous man. I was in a meeting with him a number of years ago. Just me, him, and Senator John McCain. I asked him what was the most important thing we could do to undermine the Putin regime, the kind of mafia grip that he has on his society, and the danger he presents to the world. Vladimir Kara-Murza looked at me and said, it is easy, Senators, it is an easy answer, produce more American energy—produce more American energy.

That is what Russia fears. So, can you talk about two things? One, is Russia's attempt to use energy as a weapon—they are pretty good at it. Now, we have blunted it to some degree, and then two, on the flip side, I read the Intel a lot about what the Chinese leadership thinks, what Xi Jinping thinks. They are very scared of American energy dominance. Very scared. So, can you talk about that as well?

I know, I think it is some of the products you guys have produced, and then maybe I know you don't provide policy, but, you know, we do have this kind of element in American society, and to be honest, in the Biden administration, and some of my colleagues in the Senate who are like, oh my God, we can't produce any more oil and gas. That is horrible, climate bomb. No offense, it is ridiculous, right.

We need oil and gas for decades to come. Places like my State, Alaska, have the highest standards in the world aren't producing it. If we are going to need it, we should produce it, not let Russia and Venezuela and hell Saudi Arabia.

So, any thoughts on that, too? I am talking all energy. I love renewables, but we need oil and gas. Now, people close their eyes and scream climate bomb, and we can't produce in Alaska.

They have no idea what they are talking about, and you guys do. So please enlighten us because, and don't be political here. I know the Biden administration—you are an independent operator. John Kerry, and everybody, they go around the world, oh, my God, quit by an American LNG. These people are idiots, and they are undermining our national security.

The facts are there. China is fearful of American energy dominance. Putin wants to use energy as a weapon, and the best way to do it as Vladimir Kara-Murza's advice to me and John McCain, produce more American energy.

That is how you undermine Putin and scare the Chinese. What are your thoughts on all of those very important topics that the media gets wrong, the far left puts its head in the sand on? We need factual analysis on this really important topic from you.

Director HAINES. Thank you, sir. I know how passionate you are on these issues and knowledgeable. So, I won't be political, that is for sure. But I also won't touch on policy.

Senator SULLIVAN. Okay. You don't have to.

Director HAINES. It is not my role.

Senator SULLIVAN. That is not your role.

Director HAINES. But I will say, absolutely. The Intelligence Community believes that Russia uses energy as a weapon. I know that doesn't come as a surprise to you. That is something they have continued to try to do during the course of the conflict. In fact, you know, is part of their calculation for invading Ukraine.

One of the things that we know that they were focused on were the high energy prices for Europe and how that would affect essentially, in their view, Europe's calculation on sanctions. They turned out to be wrong, which I am quite glad about. In any event, that is certainly a part of the picture, I think.

From the Chinese perspective, I would tell you that an area that we have spent a lot of focus on is on actually China's efforts to try to control global supply chains that relate to clean energy production and work. That is a place where we see them very consciously looking to try to control the global supply chains related to the critical minerals that are relevant to clean energy work. We have some really interesting analysis on that and happy also to provide that to you, if it is useful. Maybe leave it at that, and I don't know—

Senator SULLIVAN. Yes, and General, if you don't mind. Sorry, Mr. Chairman, just a follow-on question. It is related. We did ask

in the NDAA last year our military to look at options, in the event of a conflict with China to choke off oil and gas supplies to them. Our navy could do that, and if you have any thoughts on that, or maybe we should talk about it in a classified setting.

Lieutenant General BERRIER. I do have thoughts, Senator. To start on Russia weaponizing energy, I think they have used it as a carrot and stick, right. So, they have really made it painful for our European partners early in the war.

Then they offered it to other partners, nefarious partners, for nefarious reasons, to acquire more military hardware. So, your comment about weaponization, I think, is really, really accurate. I don't disagree with you that China fears us, about our potential for energy production increase.

I think they fear a lot of our economic power all the time. To the point in the NDAA, I think those really are in the purview of the INDOPACOM team and their planning efforts as those proceeds, and then we can talk more in the closed session.

Chairman REED. Thank you, Senator Sullivan.

Senator SULLIVAN. Okay. Thank you, Mr. Graham.

Chairman REED. We have a vote going on, for the benefit of my colleagues. I would suggest that we reconvene in SVC-217 at 12:15 p.m., giving an opportunity to reorganize a bit. I will at this point adjourn the open session and we will reconvene at 12:15 p.m. Thank you very much.

[Whereupon, at 11:58 a.m., the Committee adjourned.]

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR MAZIE HIRONO

EXTREMISM'S ROLE IN UNAUTHORIZED DISCLOSURES

1. Senator HIRONO. Director Haines and Lieutenant General Berrier, Federal investigators found Airman Teixeira, who is accused of posting highly classified documents online, has a deeply troubling history of racist and violent remarks. Though certainly not the norm, it is an example of the devastating consequences unaddressed extremism in the military can have on our national security and our global alliances. It is clear we must do more to counter the threat of extremism within our Armed Forces. What is the threat domestic extremism poses to national security?

Director HAINES. [Deleted.]

Lieutenant General BERRIER. The Defense Intelligence Agency (DIA) has a foreign intelligence mission and analyzes domestic extremism threats in very narrow circumstances where there is a foreign connection or the DIA Director—or one of the four Deputy Directors to whom the Director has delegated this authority—has determined that there is an imminent threat to a person's life or physical safety. Even when there is an imminent extremist threat or nexus to DOD inside the U.S. homeland, DIA analyzes the threat jointly with the Federal Bureau of Investigation (FBI). Given DIA's very limited authorities regarding assessing the threat posed by purely domestic extremism, we defer to the FBI and the Department of Homeland Security for an assessment as to the threat such activity poses to our broader national security.

SECTION 702

2. Senator HIRONO. Director Haines, would imposing a warrant requirement before the government searches Section 702-acquired data for Americans' communications hamper your intelligence gathering against malign, foreign actors?

Director HAINES. [Deleted.]

3. Senator HIRONO. Director Haines, would statutory limits and judicial oversight to prevent the collection and use of Americans' communications and other Fourth

Amendment Protected information, hamper your intelligence gathering efforts against malign, foreign actors?

Director HAINES. [Deleted.]

4. Senator HIRONO. Director Haines, would limiting the permissible pool of Section 702 targets to those who might reasonably have information about foreign threats stop you from your intelligence gathering efforts against malign, foreign actors?

5. Senator HIRONO. Director Haines, would removing barriers to existing judicial review mechanisms, already established by Congress, prevent you from conducting your intelligence gather against malign, foreign actors?

Director HAINES. [Deleted.]

PACIFIC INTELLIGENCE NEEDS

6. Senator HIRONO. Director Haines, there are enormous Intelligence Community workforce needs in Hawaii. For one example, the Army has a PED Center on Oahu that needs to hire approximately 700 professionals. This is why Private Public Partnership Programs to develop on island cyber and intelligence talent is so important. How is the Intelligence community working with INDOPACOM to meet the intelligence needs of the priority theatre?

Director HAINES. [Deleted.]

7. Senator HIRONO. General Berrier, how is the Defense Intelligence Agency using artificial intelligence and machine learning to make this intelligence collection and analysis more efficient?

Lieutenant General BERRIER. [Deleted.]

UNIDENTIFIED ANOMALOUS PHENOMENA (UAPS) OVER HAWAII

8. Senator HIRONO. General Berrier, Hawaii is physically closer to many of our adversaries than the continental United States is, and in a small geographic area, houses some of the Nation's most critical military infrastructure. This makes Hawaii a unique target for foreign surveillance—from satellites, surveillance balloons, and so called unmanned anomalous phenomena, or UAPs. Are these UAPs a fairly common occurrence, and do they pose a surveillance threat?

Lieutenant General BERRIER. There is no question Hawaii and the state's national security and military infrastructure—is a priority for foreign intelligence and surveillance activity. However, Hawaii currently has less UAP activity compared to other locations in the United States because of Hawaii's relative geographic isolation. The airspace over Hawaii is "less-cluttered." In Hawaii, military, Federal, and State agencies partner to monitor all aerial and space-based activity including UAPs near the State and traversing U.S. territories.

DAMAGE OF AGGRESSIVE RHETORIC ON CHINA

9. Senator HIRONO. Director Haines, Chairman Milley, in his testimony expressed his concerns about "overheated" rhetoric with respect to China and the potential for war over Taiwan. I share the Chairman's concerns. War is not inevitable. Do you agree with General Milley that we need to be disciplined in our messaging with respect to China and, especially, Taiwan?

Director HAINES. [Deleted.]

10. Senator HIRONO. Director Haines, how does China react to such rhetoric?

Director HAINES.

CLIMATE CHANGE AND ENVIRONMENTAL DEGRADATION

11. Senator HIRONO. Director Haines, it is clear climate change contributes to global instability. Environmental disasters can weaken government institutions, cause migration, and force communities to turn to illegal activities to survive. As climate change intensifies, what additional national security challenges do you see it causing for the U.S.?

Director HAINES. [Deleted.]

CHINA'S ATTEMPTS AT INFLUENCE IN THE PACIFIC

12. Senator HIRONO. Director Haines, your annual threat assessment states "China faces a myriad—and in some cases growing—domestic and international challenges that probably will hinder CCP leaders' ambitions. These include an aging

population, high levels of corporate debt, economic inequality, and growing resistance to “heavy handed tactics in Taiwan and other countries.” How do you believe these challenges will affect China’s military buildup in the coming years?

Director HAINES. [Deleted.]

13. Senator HIRONO. Our network of allies and partners is the greatest asymmetric advantage we have in the long-term strategic competition with China. This network is sustained by mutually beneficial cooperation on issues not merely pigeonholed to defense. How have the Chinese reacted to these initiatives?

Lieutenant General BERRIER. [Deleted.]

QUESTIONS SUBMITTED BY SENATOR TAMMY DUCKWORTH

ABA-COMPLIANT SCIFS

14. Senator DUCKWORTH. One challenge Americans may face when working in the Intelligence Community is the inaccessibility of sensitive compartmented information facilities or SCIFs. In last year’s NDAA, I secured report language that asked the Department of Defense to report on the remediation of those SCIFs to achieve compliance with the Architectural Barriers Act (ABA), improve worker safety, and fully capitalize on the talent and crucial warfighting skills resident across the full spectrum of American society. Can you comment on how important it is to design and build SCIFs that are ABA compliant and why is it important for the Intelligence Community to include Americans of all abilities?

Director HAINES. [Deleted.]

Lieutenant General BERRIER. DIA is committed to accessibility and safety for all, and DIA always strives for excellence in SCIF design, development, and construction for our global and diverse workforce. DIA actively seeks to create and advance a safe, compliant, inclusive and accessible work environment, and improve DIA SCIFs across the globe. DIA’s Inclusive, Diversity, Equity, and Accessibility strategic plan specifically addresses the requirement to have an accessible, physically, and psychologically safe workplace for officers with disabilities. Designing and building accessible SCIFs ensures that DIA can attract, recruit, accommodate, and retain employees with critical skills-vital to DIA’s mission success. DIA also seeks to attract individuals with disabilities to join the agency, and SCIF and technology improvements are essential to accommodate talent resident across the full spectrum of American society.

- DIA continues to expand physical and information technology accessibility to address the expected 2–4 percent annual increase of persons with disabilities and/or persons with targeted disabilities. Buildings that are accessible allow for more equal, and hopefully equitable, access for officers with various abilities.
- DIA strives for facilities that are flexible and adaptable, providing employees and visitors with disabilities equal opportunities. Inaccessible facilities can profoundly impact individuals with disabilities; limiting their ability to access information, engage on various platforms, and participate fully in the work environment.

DIA also is increasing efforts to attract neuro-diverse officers which may require facility and workspace adjustments. DIA is adopting industry lessons learned to improve the employee experience of recently onboarded neuro-diverse officers. Our facilities, engineering, IT, and human resource experts also are working with other IC partners to develop an optimal employee experience and to promote retention of officers with disabilities. So far, our experience demonstrates that some neuro-diverse officers need such things as isolated workspaces and adjusted lighting for optimal performance.

15. Senator DUCKWORTH. Please describe any efforts currently underway to ensure current SCIFs are ABA compliant and future SCIFs are designed with ABA-compliant features.

Director HAINES. [Deleted.]

Lieutenant General BERRIER. DIA’s Office of Facilities and Services oversees all new construction and renovated spaces and guarantees that the DIA workspace meets the proper specifications and equipment (such as, clearances, turn radius, hallways widths, furniture sizes, lighting, etc.) required for personnel with and without disabilities. DIA is committed to Occupational Safety and Health Act (OSHA), Americans with Disabilities Act (ADA), and ABA compliance as fundamental to workforce needs and safety. Each year, DIA’s congressionally funded resources for facilities and logistics is required to maintain, update, and replacing

aging facilities, ensure Federal compliance, and renovate workspaces for safety and accessibility. Our commitment to excellence also requires facility, engineering, IT, security and human resources experts to collaborate on new construction as well as refurbish exiting workspaces to meet employee and mission needs.

- New facilities projects and construction I All DIA new facility projects-including furniture reconfiguration and major or minor construction-are designed to meet ADA and ABA requirements.
- DIA architects, engineers, and facilities experts also review, consider, and include workforce accommodation requirements during both the design and construction phases.
- DIA's Fiscal Year 2024 Military Construction Project (MILCON) request for DIA Headquarters Annex at Fort Belvoir recently incorporated accessible phone booths for officers with disabilities. DIA's Ombuds Office—in partnership with human resources and diversity and inclusion experts-are working with the DIA MILCON leads to consider other workspace and accessibility needs at the future DIA facility.
- DIA is attuned to current and future workforce needs, and we expect modifications to aging and existing facilities to increase. Employees also can request additional workspace requirements-beyond standard ADA and ABA code. DIA is responsive to these additional requests identified by our DIA Equal Opportunity and Diversity experts. In these cases, the modifications-including construction and equipment-are eligible for special funding and independent, ad hoc renovation.

QUESTIONS SUBMITTED BY SENATOR JACKY ROSEN

HUAWEI

16. Senator ROSEN. There have been news reports in the past year highlighting efforts by Huawei and foreign government-owned companies to build telecommunications infrastructure near ICBM fields and United States military installations and training ranges, for collection purposes, which may possibly pose a threat to U.S. Forces, tactics, and systems.

Director Haines, can you discuss the threat this infrastructure poses and how you are mitigating these threats?

Director HAINES. [Deleted.]

QUESTIONS SUBMITTED BY SENATOR JONI ERNST

CHINA-RUSSIAN RELATIONSHIP SURFACES AND GAPS

17. Senator ERNST. Director Haines, what are the friction points between China and Russia? Please provide an unclassified answer to the extent possible; please provide an additional classified answer if necessary.

Director HAINES. [Deleted.]

18. Senator ERNST. Director Haines, how can the United States exploit these friction points? Please provide an unclassified answer to the extent possible; please provide an additional classified answer if necessary.

Director HAINES. [Deleted.]

RUSSIAN FORCES IN THE EAST

19. Senator ERNST. General Berrier, has the war in Ukraine weakened Russia's ability to defend its borders? Please provide an unclassified answer to the extent possible; please provide an additional classified answer if necessary.

Lieutenant General BERRIER. The Russian military's ability to rapidly respond to multiple simultaneous threats on its borders probably has degraded because of personnel and equipment losses in Ukraine. Moscow is likely to need to reconstitute its ground forces. During the Ukraine conflict, Russian ground forces have suffered a significant number of casualties, with at least 50,000 killed and 180,000 wounded. These figures include airborne troops' attrition-a key force for quick reaction operations to suppress border instability. Additionally, Russia has suffered over 10,000 vehicle losses, forcing Moscow to use older and less modern variants.

- Conventional Weapons. Russia maintains conventional air-, sea-, and ground—launched cruise missiles as part of its escalation management strategy to de-

fend its borders, along with its capable integrated air defense system. However, Russia has likely employed much of its pre-war inventory of cruise missiles over the course of the war in Ukraine.

- **Vagner Insurrection.** On June 23 and 24, several thousand Vagner private military company (PMC) armed convoys and personnel crossed from bases in Ukraine into Russia, meeting minimal resistance from Russian border guards—demonstrating vulnerabilities in Russia’s border security. The Vagner forces subsequently took control of the Southern Military District headquarters in Rostov-on-Don and advanced within 200km of Moscow before Vagner owner Yevgeniy Prigozhin ordered his forces to halt.
- **Internal Security Forces and Border Security.** Russia retains its internal security forces and their capabilities—such as the Border Service and the National Guard—to maintain Russian borders. These forces are responsible for and capable of responding to most traditional cross-border threats. However, Russia’s security forces alone probably are unable to repel a heavily armed conventional force, based on the recent successful Ukrainian cross-border operations into Russia.
- **Nuclear Capabilities.** Russian nuclear doctrine allows for Moscow to use nuclear weapons if the regime faces an existential threat—e.g. jeopardizing the Russian state’s existence and threatening the regime’s survival. This situation could arise if a conflict escalated and Moscow perceived its adversaries seek to inflict unacceptable damage on Russia.

20. Senator ERNST. General Berrier, does Russia’s ability to defend its borders make them insecure about Chinese border aggression? Please provide an unclassified answer to the extent possible; please provide an additional classified answer if necessary.

Lieutenant General BERRIER. [Deleted.]

MILITARY LESSONS LEARNED

21. Senator ERNST. General Berrier, what are the most important military lessons China has learned through observations of modern war tactics employed in Ukraine? Please provide an unclassified answer to the extent possible; please provide an additional classified answer if necessary.

Lieutenant General BERRIER. Beijing almost certainly has strategic, operational, and tactical lessons from its observations of Russia’s war in Ukraine, which Chinese government and military commentators have discussed publicly. For example, in May, Peoples’ Liberation Army’s (PLA) Western Theater Commander General Wang Haijiang, told a PLA newspaper that the Ukraine war showcases that modern warfare is a contest of overall national strength. General Wang Haijiang further explained the view that the military domain is intertwined with “battles in political, financial, technological, cyberspace, and cognitive areas.” PLA observations of Russian failures in Ukraine probably have reinforced China’s existing tactical and operational concerns about the PLA’s capabilities.

Beijing’s military campaign planning—including a Taiwan scenario—probably has assisted leaders in seeing the critical need to enhance secure communications and increase stockpiles of precision—guided missiles and drones.

22. Senator ERNST. General Berrier, have any of these lessons learned affected China’s planning for an invasion of Taiwan? Please provide an unclassified answer to the extent possible; please provide an additional classified answer if necessary.

Lieutenant General BERRIER. The PLA almost certainly is seeking to apply lessons learned from the Russia-Ukraine conflict to a potential Taiwan campaign. PLA texts have acknowledged publicly that a Taiwan invasion could become a protracted conflict, a concern which Russia’s Ukraine invasion could exacerbate. The protracted Ukraine conflict almost certainly conflicts with Beijing’s desire to force quickly Taiwan’s capitulation and minimize the invasion’s cost. Beijing also is concerned that military opposition as well as economic and diplomatic repercussions, could jeopardize unification or China’s regime stability.

23. Senator ERNST. Director Haines and General Berrier, has China’s replication of Russian influence operations, especially in their use of online personas, been assessed to be a purposeful assumption of their tactics, techniques, and procedures?

Director HAINES. [Deleted.]

Lieutenant General BERRIER. [Deleted.]

DETECTING CHINA

24. Senator ERNST. Director Haines, has the West's response to the War in Ukraine given China pause about invading Taiwan?
Director HAINES. [Deleted.]

25. Senator ERNST. Director Haines, how does Ukraine's fate affect China's political calculations to invade?
Director HAINES. [Deleted.]

CHINESE MAP UPDATES

26. Senator ERNST. Director Haines, the Economist recently reported that the Chinese Ministry of National Resources has re-issued an order to add the Chinese names to eight Russian locations on Chinese maps, including the city of Vladivostok. Do you believe that the re-issuing of this order is intended to signal Chinese re-interest in this lost territory?
Director HAINES. [Deleted.]

27. Senator ERNST. Director Haines, do you believe that the timing of this re-issued order is significant?
Director HAINES. [Deleted.]

QUESTIONS SUBMITTED BY SENATOR DAN SULLIVAN

PEOPLE'S LIBERATION ARMY'S LACK OF JOINT EXPERIENCE

28. Senator SULLIVAN. General Berrier, late last year the National Defense University published a study that examined the backgrounds of more than 300 senior People's Liberation Army officers. It identified a complete lack of joint military experience amongst those officers. The study suggested that the lack of perspective beyond that of their own service could make these officers less effective when conducting joint operations. Chinese military modernization includes a focus on conducting joint operations but it seems their senior military leadership does not have joint experience as we would define it. What are your thoughts on how a lack of joint experience amongst the PLA's senior leaders might impact its ability to conduct joint operations in a conflict?

Lieutenant General BERRIER. As of summer 2023, the PLA conducting joint military operations in a real-world conflict has not been observed. China's top military command is composed of current or former army officers, and only a third of these individuals have prior joint command experience. The PLA is developing joint command capabilities, with a focus on military modernization and refining command and control systems. Since 1999, Beijing has prioritized PLA joint capabilities through large-scale force structure reforms-including the Joint Operations Command Centers establishment and professional military education enhancements. The PLA also has implemented cross-theater training initiatives and exercises with foreign partners. The PLA also is expanding joint duty rotations for its officers, even though most of these opportunities occur relatively late in their careers. PLA officers, without sufficient joint experience, are likely to be less adept at planning and executing service-level maneuvers and joint operations to achieve integrated operations and objectives. We expect the PLA's joint experience to advance as bureaucratic acceptance increases, with personnel transitions, and as joint doctrine is refined.

RUSSIA AND CHINA'S WEAPONIZATION OF ENERGY

29. Senator SULLIVAN. Director Haines, Russia's failed attempt to weaponize Europe's reliance on Russian energy exports to coerce our partners into loosening its support for Ukraine has pushed it closer to its "no limits" partner, the PRC. Before the war, Russia monitored PRC investments in its country out of fear its participation in the Belt and Road Initiative (BRI) would supplant its own led "Eurasian Economic Union." Now, Russia is welcoming Chinese investment in ports and energy projects along the Northern Sea Route. Chinese financiers provided up to 60 percent of the capital for Russia's Yamal liquefied natural gas project terminating in the port city of Sabetta on Russia's northern coast. The project is considered the "crown jewel" of Russia's investments in the Northern Sea Route and could produce up to 926 billion cubic meters of liquefied natural gas from the South Tambey field. In the last year, the PRC has become the largest importer of Russia oil. Last month,

the PRC imported a record high quantity of oil from Russia's Arctic. Do you see Russia and China continuing to deepen ties on Russian energy exports to China?

Director HAINES. [Deleted.]

30. Senator SULLIVAN. Director Haines, do you see Russia and China deepening ties on Chinese investment in port and energy infrastructure projects along the Northern Sea Route?

Director HAINES. [Deleted.]

31. Senator SULLIVAN. Director Haines, how might Russia and China's deepening economic ties impact our security interests in Europe and the Indo-Pacific?

Director HAINES. [Deleted.]

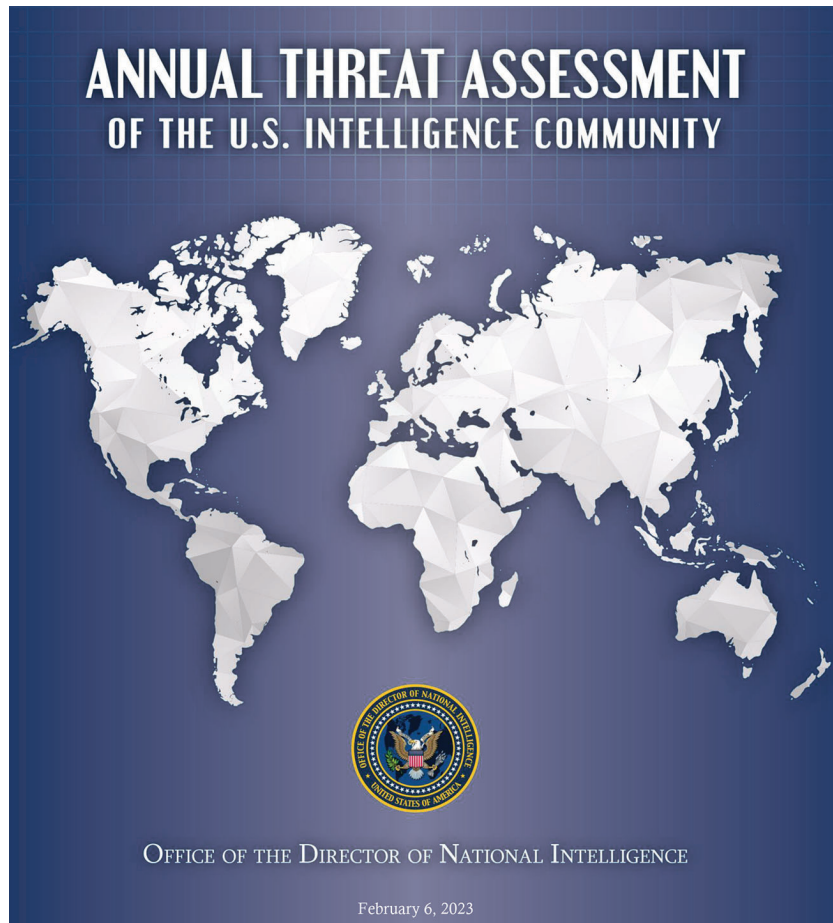
32. Senator SULLIVAN. Director Haines, Russia relies heavily on revenues from oil and natural gas, which in 2021 made up 45-percent of the country's national budget. Since February 2022, Russia has unsuccessfully sought to weaponize its energy industry to erode our European partners' support for Ukraine. This failure is in a large part due to United States companies boosting shipments to Europe by 137 percent in 2022 and providing 50-percent of Europe's liquefied natural gas supplies along with 12-percent of its oil. Can you describe the national security implications had the United States been unable to help offset European energy needs formerly supplied by Russia?

Director HAINES. [Deleted.]

33. Senator SULLIVAN. Director Haines, would Russia have had significant leverage over Europe and forced our NATO allies to make some hard choices for their citizens if the United States was unable to increase energy exports to Europe after February 2022?

Director HAINES. [Deleted.]

APPENDIX A



ANNUAL THREAT ASSESSMENT OF THE U.S. INTELLIGENCE COMMUNITY

February 6, 2023

INTRODUCTION

This annual report of worldwide threats to the national security of the United States responds to Section 617 of the FY21 Intelligence Authorization Act (Pub. L. No. 116-260). This report reflects the collective insights of the Intelligence Community (IC), which is committed every day to providing the nuanced, independent, and unvarnished intelligence that policymakers, warfighters, and domestic law enforcement personnel need to protect American lives and America's interests anywhere in the world.

This assessment focuses on the most direct, serious threats to the United States during the next year. The order of the topics presented in this assessment does not necessarily indicate their relative importance or the magnitude of the threats in the view of the IC. All require a robust intelligence response, including those where a near-term focus may help head off greater threats in the future.

Information available as of 18 January was used in the preparation of this assessment.

CONTENTS

INTRODUCTION	2
FOREWORD.....	4
CHINA	6
RUSSIA	12
IRAN	17
NORTH KOREA	20
CLIMATE CHANGE AND ENVIRONMENTAL DEGRADATION	22
HEALTH SECURITY	24
Infectious Diseases and the Impact of the COVID-19 Pandemic.....	24
Our Assessment of the Origins of COVID-19.....	25
Biological Weapons.....	25
Anomalous Health Incidents.....	25
ADDITIONAL TRANSNATIONAL ISSUES	26
Preface.....	26
Developments in Technology.....	26
Trends in Digital Authoritarianism and Malign Influence	27
Nuclear Proliferation	28
Global Economic Consequences of Russia–Ukraine War	28
Migration.....	29
Transnational Organized Crime	30
Global Terrorism.....	31
CONFLICTS AND FRAGILITY	34
Preface.....	34
Potential Interstate Conflict	34
Internal Strife	35
Governance Challenges	37

FOREWORD

During the coming year, the United States and its allies will confront a complex and pivotal international security environment dominated by two critical strategic challenges that intersect with each other and existing trends to intensify their national security implications. First, great powers, rising regional powers, as well as an evolving array of non-state actors, will vie for dominance in the global order, as well as compete to set the emerging conditions and the rules that will shape that order for decades to come. Strategic competition between the United States and its allies, China, and Russia over what kind of world will emerge makes the next few years critical to determining who and what will shape the narrative perhaps most immediately in the context of Russia's actions in Ukraine, which threaten to escalate into a broader conflict between Russia and the West. Second, shared global challenges, including climate change, and human and health security, are converging as the planet emerges from the COVID-19 pandemic and confronts economic issues spurred by both energy and food insecurity. Rapidly emerging or evolving technologies continue to have the potential to disrupt traditional business and society with both positive and negative outcomes, while creating unprecedented vulnerabilities and attack surfaces, making it increasingly challenging to predict the impact of such challenges on the global landscape.

These two strategic challenges will intersect and interact in unpredictable ways, leading to mutually reinforcing effects that could challenge our ability to respond, but that also will introduce new opportunities to forge collective action with allies and partners, including non-state actors. The 2023 Annual Threat Assessment highlights some of those connections as it provides the IC's baseline assessments of the most pressing threats to U.S. national interests. It is not an exhaustive assessment of all global challenges. This assessment addresses both the threats from U.S. adversaries and functional and transnational concerns, such as weapons of mass destruction and cyber, primarily in the sections regarding threat actors, as well as an array of regional issues with larger, global implications.

Russia's unprovoked full-scale invasion of Ukraine has highlighted that the era of nation-state competition and conflict has not been relegated to the past but instead has emerged as a defining characteristic of the current era. While Russia is challenging the United States and some norms in the international order in its war of territorial aggression, China has the capability to directly attempt to alter the rules-based global order in every realm and across multiple regions, as a near-peer competitor that is increasingly pushing to change global norms and potentially threatening its neighbors. Russia's military action against Ukraine demonstrates that it remains a revanchist power, intent on using whatever tools are needed to try to reestablish a perceived sphere of influence despite what its neighbors desire for themselves, and is willing to push back on Washington both locally and globally. Besides these strategic competitors, local and regional powers are seeking to exert their influence, often at the cost of neighbors and the world order itself. Iran will remain a regional menace with broader malign influence activities, and North Korea will expand its WMD capabilities while being a disruptive player on the regional and world stages.

At the same time, as the nations of the world strive to recover from the COVID-19 pandemic, they are beset by an array of shared, global issues. The accelerating effects of climate change are placing more of the world's population, particularly in low- and middle-income countries, under threat from extreme weather, food insecurity, and humanitarian disasters, fueling migration flows and increasing the risks of future pandemics as pathogens exploit the changing environment. Efforts by Russia, China, and other countries to promote authoritarianism and spread disinformation is helping fuel a larger competition between

democratic and authoritarian forms of government. This competition exploits global information flows to gain influence and impacts nearly all countries, contributing to democratic backsliding, threats of political instability, and violent societal conflict through misinformation and disinformation.

Regional and localized conflicts and instability will continue to demand U.S. attention as states and non-state actors struggle to find their place in the evolving international order, attempt to navigate great power competition, and confront shared transnational challenges. Regional challengers, such as Iran and North Korea, will seek to disrupt their local security environment and garner more power for themselves, threatening U.S. allies in the process. In every region of the world, challenges from climate change, demographic trends, human and health security, and economic disruptions caused by energy and food insecurity and technology proliferation will combine and interact in specific and unique ways to trigger events ranging from political instability, to terrorist threats, to mass migration, and potential humanitarian emergencies.

The 2023 Annual Threat Assessment Report supports the Office of the Director of National Intelligence's transparency commitments and the tradition of providing regular threat updates to the American public and the United States Congress. The IC is vigilant in monitoring and assessing direct and indirect threats to U.S. and allied interests. As part of this ongoing effort, the IC's National Intelligence Officers work closely with analysts from across the IC to examine the spectrum of threats and highlight the most likely and impactful near-term risks in the context of the longer-term, overarching threat environment.

The National Intelligence Council stands ready to support policymakers with additional information in a classified setting.

CHINA

REGIONAL AND GLOBAL OBJECTIVES AND ACTIVITIES

China's Communist Party (CCP) will continue efforts to achieve President Xi Jinping's vision of making China the preeminent power in East Asia and a major power on the world stage. As Xi begins his third term as China's leader, the CCP will work to press Taiwan on unification, undercut U.S. influence, drive wedges between Washington and its partners, and foster some norms that favor its authoritarian system. At the same time, China's leaders probably will seek opportunities to reduce tensions with Washington when they believe it suits their interests. China's leaders probably will maintain their statist economic policies because they see state direction as necessary to reduce dependence on foreign technologies, enable military modernization, and sustain growth—ensuring CCP rule and the realization of its vision for national rejuvenation—even as the same policies risk undermining China's private sector and inhibiting greater growth in household incomes.

- Beijing sees increasingly competitive U.S.–China relations as part of an epochal geopolitical shift and views Washington's diplomatic, economic, military, and technological measures against Beijing as part of a broader U.S. effort to prevent China's rise and undermine CCP rule.
- Beijing is increasingly combining growing military power with its economic, technological, and diplomatic influence to strengthen CCP rule, secure what it views as its sovereign territory and regional preeminence, and pursue global influence. The Government of China is capable of leveraging its dominant positions in key global supply chains in an attempt to accomplish its goals, although probably not without significant cost to itself.
- However, China faces myriad—and in some cases growing—domestic and international challenges that probably will hinder CCP leaders' ambitions. These include an aging population, high levels of corporate debt, economic inequality, and growing resistance to the People's Republic of China's (PRC) heavyhanded tactics in Taiwan and other countries.

The PRC uses coordinated, whole-of-government tools to demonstrate strength and compel neighbors to acquiesce to its preferences, including its land, sea, and air claims in the region and its assertions of sovereignty over Taiwan.

- In 2023, Beijing will continue to apply pressure and possibly offer inducements for Taiwan to move toward unification and will react to what it views as increased U.S.–Taiwan engagement. Beijing claims that the United States is using Taiwan as a “pawn” to undermine China's rise, and will continue to take stronger measures to push back against perceived increases in support to Taiwan. Beijing may build on its actions from 2022, which could include more Taiwan Strait centerline crossings or missile overflights of Taiwan.
- Beijing's control over Taiwan, if it succeeded in accomplishing its goal, probably would have wide-ranging effects, including disruption to global supply chains for semiconductor chips because Taiwan dominates production of cutting-edge chips.
- In the South China Sea, Beijing will continue to use growing numbers of air, naval, coast guard, and militia forces to intimidate rival claimants and to attempt to signal that China has effective control over contested areas. Similarly, China is pressuring Japan over contested areas in the East China Sea.

Beijing will try to expand its influence abroad and its efforts to be viewed as a champion of global development via several initiatives—including the Belt and Road Initiative (BRI) and Xi's new flagship policies—the Global Development Initiative and the Global Security Initiative. Beijing has attempted to use these programs and initiatives to promote a China-led alternative to often U.S. and Western-dominated international development and security forums and frameworks. The IC assesses that the Government of China will use these programs and initiatives to promote modifications to international norms to favor state sovereignty and political stability over individual rights.

- Beijing will continue to promote the BRI while adjusting its response to public criticism and sustainability challenges by pledging deeper cooperation on clean energy, electric vehicles, and climate change. It will diversify project selection in an attempt to improve the initiative's brand and minimize international criticism.

Despite global backlash over Russia's invasion of Ukraine, China will maintain its diplomatic, defense, economic, and technology cooperation with Russia to continue trying to challenge the United States, even as it will limit public support.

MILITARY CAPABILITIES

The Government of China will continue pursuing its goal of building a world-class military that will enable it to try to secure what it views as its sovereign territory, attempt to establish its preeminence in regional affairs, and project power globally while offsetting perceived U.S. military superiority.

- Beijing is accelerating the development of key capabilities that it believes the People's Liberation Army (PLA) needs to confront the United States in a large-scale, sustained conflict.
- Beijing continues to bolster its domestic defense production capabilities for WMD and advanced conventional weapons using import substitution strategies.

Beijing is working to meet its goal of fielding a military by 2027 designed to deter U.S. intervention in a future cross-Strait crisis. The PLA Navy and Air Force already are the largest in the region and continue to field advanced platforms that improve China's ability to try to establish air superiority and project power beyond the first island chain. The PLA Rocket Force's (PLARF) short-, medium-, and intermediate-range conventional systems probably already can hold U.S. forces and bases in the region at risk.

- The PLA will continue to pursue the establishment of overseas military installations and access agreements in an attempt to project power and protect China's interests abroad. While the PLA is making uneven progress toward establishing overseas military facilities, the PLA probably will continue to use tailored approaches to address local concerns as it seeks to improve relations with amenable countries and advance its overseas basing goals. In addition to continuing to develop its existing military base in Djibouti, Beijing reportedly is pursuing potential bases in Cambodia, Equatorial Guinea, and the UAE.

WMD

China is reorienting its nuclear posture for strategic rivalry with the United States because its leaders have concluded that their current capabilities are insufficient. Beijing worries that bilateral tension, U.S. nuclear modernization, and the PLA's advancing conventional capabilities have increased the likelihood of a U.S.

first strike. Beijing is not interested in agreements that restrict its plans and will not agree to negotiations that lock in U.S. or Russian advantages. Beijing's heightened confidence in its nuclear deterrent is likely to bolster its resolve and intensify conventional conflicts.

- China is building hundreds of new ICBM silos.

SPACE

China is steadily progressing toward its goal of becoming a world-class space leader, with the intent to match or surpass the United States by 2045. Even by 2030, China probably will achieve world-class status in all but a few space technology areas. China's space activities are designed to advance its global standing and strengthen its attempts to erode U.S. influence across military, technological, economic, and diplomatic spheres.

- China's space station began assembly and crewed missions in 2021, and reached full operational capability in 2022. Beijing plans to conduct additional lunar exploration missions, and it intends to establish a robotic research station on the Moon and later, an intermittently crewed lunar base.
- The PLA will continue to integrate space services—such as satellite reconnaissance and positioning, navigation, and timing—and satellite communications into its weapons and command-and-control systems in an effort to erode the U.S. military's information advantage.

China's commercial space sector is growing quickly and is on pace to become a major global competitor by 2030. Beijing's policies to encourage private investment in space activities have influenced a broad range of firms to enter the commercial market. State-owned enterprises and their subsidiaries will remain the primary players in the Chinese commercial space sector, which also includes research and development spinoffs, established companies, and a growing number of startups.

- Some Chinese commercial space companies will attempt to compete by providing services in niche markets with little or no global competition, such as hyperspectral imaging, and also will continue attempts to undercut the price of Western firms in more competitive markets.

Counterspace operations will be integral to potential PLA military campaigns, and China has counterspace-weapons capabilities intended to target U.S. and allied satellites. The PLA is fielding new destructive and nondestructive ground- and space-based antisatellite (ASAT) weapons.

- China already has fielded ground-based counterspace capabilities including electronic warfare systems, directed energy weapons, and ASAT missiles intended to disrupt, damage, and destroy target satellites. China also has conducted orbital technology demonstrations, which while not counterspace weapons tests, prove China's ability to operate future space-based counterspace weapons.

TECHNOLOGY AND ECONOMICS

China will remain the top threat to U.S. technological competitiveness, as Beijing targets key sectors and proprietary commercial and military technology from U.S. and allied companies and institutions. The Government of China is doubling down on efforts to boost indigenous innovation and to become self-sufficient. China uses access to its vast market and control over critical supply chains as tools to force foreign companies and to coerce foreign countries to allow the transfer of technologies and intellectual property.

- Beijing uses a variety of tools, from public investment to espionage to try to advance its technological capabilities, protect domestic firms from foreign competition, and facilitate these firms' global expansion. Beijing's willingness to use espionage, subsidies, and trade policy to try to give its firms a competitive advantage represents not just an ongoing challenge for the U.S. economy and its workers, but also advances Beijing's attempts to assume leadership of the world's technological advancement and standards.
- China will persist with efforts to acquire foreign science and technology information and expertise, making extensive use of foreign scientific collaborations and partnerships, investments and acquisitions, talent recruitment, economic espionage, and cyber theft to acquire and transfer technologies and technical knowledge.
- A slowing economy probably will begin to force Beijing to start making "guns versus butter" choices in allocating resources to technology development and industrial policy. These choices mostly will be on the margins of its priorities because the size and scope of the economy means Beijing still has the ability to marshal considerable state resources toward any specific priority. While we have yet to see Beijing forced to make such trade-offs in technology, it appears to be making some similar calculations with the BRI. New BRI lending commitments have declined for the past five years, but new loans and project financing remain available for China's priorities and priority partners.

China is central to global supply chains in a range of technology sectors, including semiconductors, critical minerals, batteries, solar panels, and pharmaceuticals. In a speech in April 2020, Xi noted his intentions to increase global supply chain dependencies on China, with an aim of controlling key supply chains and being able to use those supply chain dependencies to threaten and cut off foreign countries during a crisis. *China's dominance in these markets could pose a significant risk to U.S. and Western manufacturing and consumer sectors if the Government of China was able to adeptly leverage its dominance for political or economic gain.*

- China is leading the world in building new chip factories, with plans to build dozens of semiconductor factories by 2024, most of which will be dedicated to producing older, more mature technologies. While China only accounted for 11 percent of worldwide semiconductor fabrication capacity in 2019, it is forecasted to reach 18 percent in 2025. Because of the difficulties China is facing from export controls by Western nations, it is focusing on lower-capability, commodity chip technology, and China could become a powerhouse in that segment, which could eventually make some buyers more reliant on China.
- China's dominance in the mining and processing of several strategic materials, including rare-earth elements, presents a major vulnerability to the United States. China could use its control of these critical minerals markets to restrict quantities for commercial advantage or as a tool in a political or trade dispute. A prolonged disruption in supplies controlled by China would result in shortages that could affect output in civilian and defense manufacturing in the United States and the West. However, restrictions on critical minerals exports probably would accelerate efforts and coordination worldwide to develop non-China-based alternative sources or substitutes.
- Some other areas of concern are the battery, pharmaceutical, and solar panel manufacturing sectors. For example, PRC-based firms are on track to control 65 percent of the lithium-ion battery market by 2025, with the PRC dominant in all parts of the supply chain; China produces 40 percent of the world's active pharmaceutical ingredients (APIs), the key ingredients in medicinal drugs; and China's global

share across all the manufacturing stages of solar panels now exceeds 80 percent and is set to rise to more than 95 percent during the coming years.

CYBER

China probably currently represents the broadest, most active, and persistent cyber espionage threat to U.S. Government and private-sector networks. China's cyber pursuits and its industry's export of related technologies increase the threats of aggressive cyber operations against the U.S. homeland, suppression of the free flow of information in cyberspace—such as U.S. web content—that Beijing views as threatening to the CCP's hold on power, and the expansion of technology-driven authoritarianism globally.

If Beijing feared that a major conflict with the United States were imminent, it almost certainly would consider undertaking aggressive cyber operations against U.S. homeland critical infrastructure and military assets worldwide. Such a strike would be designed to deter U.S. military action by impeding U.S. decisionmaking, inducing societal panic, and interfering with the deployment of U.S. forces.

- China almost certainly is capable of launching cyber attacks that could disrupt critical infrastructure services within the United States, including against oil and gas pipelines, and rail systems.

China leads the world in applying surveillance and censorship to monitor its population and repress dissent. Beijing conducts cyber intrusions that are targeted to affect U.S. and non-U.S. citizens beyond its borders—including journalists, dissidents, and individuals it views as threats—to counter views it considers critical of CCP narratives, policies, and actions.

- China's cyber espionage operations have included compromising telecommunications firms, providers of managed services and broadly used software, and other targets potentially rich in follow-on opportunities for intelligence collection, attack, or influence operations.

MALIGN INFLUENCE OPERATIONS

Beijing will continue expanding its global intelligence and covert influence posture to better support the CCP's political, economic, and security goals. China is attempting to sow doubts about U.S. leadership, undermine democracy, and extend Beijing's influence, particularly in East Asia and the western Pacific, which Beijing views as its sphere of influence. Beijing largely concentrates its U.S.-focused influence efforts on shaping U.S. policy and the U.S. public's perception of China in a positive direction, but has shown a willingness to meddle in select election races that involved perceived anti-China politicians.

- Beijing uses a sophisticated array of covert, overt, licit, and illicit means to try to soften U.S. criticism, shape U.S. power centers' views of China, and influence policymakers at all levels of government. PRC leaders probably believe that a U.S. bipartisan consensus against China is impeding their efforts to directly influence U.S. national-level policy regarding China. Beijing has adjusted by redoubling its efforts to build influence at the state and local level to shift U.S. policy in China's favor because of Beijing's belief that local officials are more pliable than their federal counterparts. PRC actors have become more aggressive with their influence campaigns, probably motivated by their view that anti-China sentiment in the United States is threatening their international image, access to markets, and technological expertise. Beijing's growing efforts to actively exploit perceived U.S. societal divisions using its online personas move it closer to Moscow's playbook for influence operations.

- Beijing is intensifying efforts to mold U.S. public discourse—particularly by trying to shape U.S. views of sensitive or core sovereignty issues, such as Taiwan, Xinjiang, Tibet, and Hong Kong—and pressure perceived political opponents. As part of efforts to stifle anti-Beijing criticism, the PRC monitors overseas Chinese students for dissident views, mobilizes Chinese student associations to conduct activities on behalf of Beijing, and influences research by U.S. academics and think tank experts. These activities have included pressuring family members in China, denying or canceling visas, blocking access to China's archives and resources, and disrupting or withdrawing funding for exchange programs.
- China is rapidly expanding and improving its artificial intelligence (AI) and big data analytics capabilities, which could expand beyond domestic use.

RUSSIA

REGIONAL AND GLOBAL OBJECTIVES AND ACTIVITIES

Russia's unprovoked war of aggression against Ukraine is a tectonic event that is reshaping Russia's relationships with the West and China, and more broadly in ways that are unfolding and remain highly uncertain. Escalation of the conflict to a military confrontation between Russia and the West carries the greater risk, which the world has not faced in decades. Moscow will remain a formidable and less predictable challenge to the United States in key areas during the next decade but still will face a range of constraints. Russia will continue to pursue its interests in competitive and sometimes confrontational and provocative ways, including by using military force as it has against Ukraine and pressing to dominate other countries in the post-Soviet space to varying extents.

- Russia probably does not want a direct military conflict with U.S. and NATO forces, but there is potential for that to occur. Russian leaders thus far have avoided taking actions that would broaden the Ukraine conflict beyond Ukraine's borders, but the risk for escalation remains significant.
- There is real potential for Russia's military failures in the war to hurt Russian President Vladimir Putin's domestic standing and thereby trigger additional escalatory actions by Russia in an effort to win back public support. Heightened claims that the United States is using Ukraine as a proxy to weaken Russia, and that Ukraine's military successes are only a result of U.S. and NATO intervention could presage further Russian escalation. Russia's officials have long believed that the United States is trying to undermine Russia, weaken Putin, and install Western-friendly regimes in the post-Soviet states and elsewhere, which they conclude gives Russia leeway to escalate or widen the war if it chooses.

Moscow will continue to employ an array of tools to advance what it sees as its own interests and try to undermine the interests of the United States and its allies. These are likely to be military, security, malign influence, cyber, and intelligence tools, with Russia's economic and energy leverage probably a declining asset. We expect Moscow to insert itself into crises when it sees its interests at stake, the anticipated costs of action are low, it sees an opportunity to capitalize on a power vacuum, or, as in the case of its use of force in Ukraine, it perceives an existential threat in its neighborhood that could destabilize Putin's rule and endanger Russian national security. Russia probably will continue to maintain its global military, intelligence, security, commercial, and energy footprint, although possibly in a reduced role, and build partnerships aimed at undermining U.S. influence and boosting its own.

- In the Middle East and North Africa, Moscow will continue to use its involvement and the activities of the private security company Vagner in the Central African Republic, Libya, Mali, and Syria to increase its influence; try to undercut U.S. leadership; present itself as an indispensable mediator and security partner; and gain military access rights and economic opportunities. Moscow's ties to Tehran probably will improve politically and economically as both countries seek ways to circumvent sanctions, and advance closer bilateral economic and defense cooperation.
- In the Western Hemisphere, Moscow will seek to maintain its influence by continuing its diplomatic overtures and economic engagements mostly with the countries that it sees as key players or close partners, including Argentina, Brazil, Cuba, Nicaragua, and Venezuela.

- In the post-Soviet states, Moscow is less capable of intervening in Belarus, Central Asia, and the South Caucasus than it was in 2020 in Belarus and in 2022 in Kazakhstan—in both cases to prevent expressions of popular dissatisfaction with the government from leading to regime change. Russia's deployment of much of its ground forces and associated security personnel to Ukraine this past year probably has reduced the likelihood of Russian military intervention in other post-Soviet states.
- China and Russia will maintain their strategic ties driven by their shared threat perceptions of the United States, which create potential threats in areas such as security collaboration, specifically arms sales and joint exercises, and diplomacy, where each country has used its veto power on the UN Security Council against U.S. interests.

Russia will continue to use energy as a foreign policy tool to try to coerce cooperation and weaken Western unity on Ukraine, although sanctions resulting from the war are reshaping Russian energy relationships in both predictable and unpredictable ways. Russia's state-owned exporter Gazprom cut off gas to a number of European countries after they supported sanctions on Russia, contributing to soaring natural gas prices.

- Likewise, Russia has used food as a weapon by blocking or seizing Ukrainian ports, destroying grain infrastructure, occupying large swaths of agricultural land thereby disrupting the yields and displacing workers, and stealing grain for eventual export. These actions exacerbated global food shortages and price increases. Russia has used its capabilities in COVID-19 vaccine development and the nuclear power export industry as foreign policy tools.

Russia plays upon corruption in other countries to help advance its foreign policy goals and buy influence. However, widespread corruption within Russia itself represents a long-term domestic vulnerability as well as a drag on Russia's economic performance and ability to attract investment.

- Russia has used corruption to help develop networks of patronage in countries, including in Belarus and Ukraine, to try to influence decisionmaking and help carry out Russia's foreign policy objectives.
- Russians regularly identify corruption as one of the country's biggest problems, which has been a recurrent cause of public protests and a key theme of opposition figure Aleksey Navalnyy, who remains imprisoned.
- Even if international sanctions were eased or lifted, Russia probably would need to reduce corruption and state control of the economy, and improve the rule of law, to attract investment and expand economic growth.

UKRAINE

Russia's so-called special military operation against Ukraine has not yielded the outcome that Putin had expected.

After its initial large-scale invasion of Ukraine on three fronts on 24 February 2022, Russia abandoned its efforts to capture Kyiv, withdrew from much of northern Ukraine, and focused on the Donbas region and other parts of southern Ukraine.

- Putin probably miscalculated the ability of the Ukrainian Armed Forces and the degree to which it would have some success on the battlefield. The Russian military has and will continue to face issues of attrition, personnel shortages, and morale challenges that have left its forces vulnerable to Ukrainian counterattacks. Putin's announcement of a partial mobilization of mostly untrained and unprepared

reservists will alleviate personnel shortage in the near term, but risks undermining Russian domestic support for the conflict.

- The full effects of Russian partial mobilization will only begin to be felt into the spring and summer. Although Russian forces continue to concentrate on the Donbas, they probably will not be able to take all of it in 2023.
- Evidence of atrocities committed by Russian forces against Ukrainian military personnel and civilians will continue to emerge as Ukrainian forces retake territory.

MILITARY CAPABILITIES

Moscow's military forces have suffered losses during the Ukraine conflict that will require years of rebuilding and leave them less capable of posing a conventional military threat to European security, and operating as assertively in Eurasia and on the global stage. Moscow will become even more reliant on nuclear, cyber, and space capabilities as it deals with the extensive damage to Russia's ground forces.

- Heavy losses to its ground forces and the large-scale expenditures of precision-guided munitions during the conflict have degraded Moscow's ground and air-based conventional capabilities and increased its reliance on nuclear weapons.
- The war has forced Moscow to reduce its ground forces deployed in the post-Soviet states and its private security company assets operating abroad. Moscow retains the ability to deploy naval, long-range bomber, and small general purpose air and ground forces globally, and Wagner and other private security companies maintain a presence in areas such as the Central African Republic and Mali.

WMD

Russia maintains the largest and most capable nuclear weapons stockpile, and it continues to expand and modernize its nuclear weapons capabilities. Russian nuclear material security also remains a concern, despite improvements to material protection, control, and accounting at Russia's nuclear sites since the 1990s.

- Throughout its invasion of Ukraine, Moscow has continued to show that it views its nuclear capabilities as necessary for maintaining deterrence and achieving its goals in a potential conflict against the United States and NATO, and it sees its nuclear weapons arsenal as the ultimate guarantor of the Russian Federation.
- After Russian military losses during Ukraine's counteroffensive in late summer 2022, Putin publicly warned the West that he was ready to use nuclear weapons to defend Russia.

Moscow continues to develop long-range nuclear-capable missile and underwater delivery systems meant to penetrate or bypass U.S. missile defenses. Russia is expanding and modernizing its large, diverse, and modern set of nonstrategic systems, which are capable of delivering nuclear or conventional warheads, because Moscow believes such systems offer options to deter adversaries, control the escalation of potential hostilities, and counter U.S. and allied conventional forces.

CYBER

The Ukraine war was the key factor in Russia's cyber operations prioritization in 2022. Although its cyber activity surrounding the war fell short of the pace and impact we had expected, Russia will remain a top cyber threat as it refines and employs its espionage, influence, and attack capabilities. Russia views cyber disruptions as a foreign policy lever to shape other countries' decisions.

- Russia is particularly focused on improving its ability to target critical infrastructure, including underwater cables and industrial control systems, in the United States as well as in allied and partner countries, because compromising such infrastructure improves and demonstrates its ability to damage infrastructure during a crisis.

MALIGN INFLUENCE OPERATIONS

Russia presents one of the most serious foreign influence threats to the United States, because it uses its intelligence services, proxies, and wide-ranging influence tools to try to divide Western alliances and increase its sway around the world, while attempting to undermine U.S. global standing, sow discord inside the United States, and influence U.S. voters and decisionmaking. Moscow probably will build on these approaches to try to undermine the United States as opportunities arise. Russia and its influence actors are adept at capitalizing on current events in the United States to push Moscow-friendly positions to Western audiences. Russian officials, including Putin himself, and influence actors routinely inject themselves into contentious U.S. issues, even if that causes the Kremlin to take a public stand on U.S. domestic political matters.

- Moscow views U.S. elections as opportunities for malign influence as part of its larger foreign policy strategy. Moscow has conducted influence operations against U.S. elections for decades, including as recently as the U.S. midterm elections in 2022. It will try to strengthen ties to U.S. persons in the media and politics in hopes of developing vectors for future influence operations.
- Russia's influence actors have adapted their efforts to increasingly hide their hand, laundering their preferred messaging through a vast ecosystem of Russian proxy websites, individuals, and organizations that appear to be independent news sources. Moscow seeds original stories or amplifies preexisting popular or divisive discourse using a network of state media, proxy, and social media influence actors and then intensifies that content to further penetrate the Western information environment. These activities can include disseminating false content and amplifying information perceived as beneficial to Russian influence efforts or conspiracy theories.

SPACE

Russia will remain a key space competitor, but it may have difficulty achieving its long-term space goals because of the effects of additional international sanctions and export controls following its invasion of Ukraine, a myriad of domestic space-sector problems, and increasingly strained competition for program resources within Russia. Moscow probably will focus on prioritizing and integrating space services—such as communications; positioning, navigation, and timing; geolocation; and intelligence, surveillance, and reconnaissance—deemed critical to its national security.

- Moscow is capable of employing its civil and commercial remote sensing satellites to supplement military-dedicated capabilities that reduce the U.S. ability to perform sensitive military activities

undetected. In addition to improving its launch capability, it is working to support human spaceflight and future deep space missions.

- Russia warned during a UN meeting in October 2022 that commercial infrastructure in outer space used for military purposes “can become a legitimate target for retaliation.”

Russia continues to train its military space elements, and field new antisatellite weapons to disrupt and degrade U.S. and allied space capabilities. It is developing, testing, and fielding an array of nondestructive and destructive counterspace weapons—including jamming and cyberspace capabilities, directed energy weapons, on-orbit capabilities, and ground-based ASAT capabilities—to try to target U.S. and allied satellites. *Similar to the space sector, resource and technology challenges could have an impact on the quality and quantity of Russia’s future counterspace capabilities.*

- Russia is investing in electronic warfare and directed energy weapons to counter Western on-orbit assets. These systems work by disrupting or disabling adversary C4ISR capabilities and by disrupting GPS, tactical and satellite communications, and radars. Russia also continues to develop ground-based ASAT missiles capable of destroying space targets in low Earth orbit.

IRAN

REGIONAL AND GLOBAL OBJECTIVES AND ACTIVITIES

Iran will continue to threaten U.S. interests as it tries to erode U.S. influence in the Middle East, entrench its influence and project power in neighboring states, and minimize threats to the regime. Tehran will try to leverage diplomacy, its expanding nuclear program, its conventional, proxy, and partner forces, and its military sales and acquisitions to advance its goals. The Iranian regime sees itself as locked in an existential struggle with the United States and its regional allies, while it pursues its longstanding ambitions for regional leadership.

- The regime engaged in detailed talks throughout last year toward the renewal of the 2015 Joint Comprehensive Plan of Action (JCPOA), but Iran's hardline officials' distrust of Washington and doubts that the United States would deliver or sustain any benefits of a renewed JCPOA have stood in the way of finalizing a deal. In addition, Iran has demanded resolution of the "Safeguards" issue, which concerns unexplained nuclear activity at several additional Iranian sites, as a primary condition for renewing the nuclear agreement.
- In late 2022 and early 2023, the Iranian regime faced some of the most widespread and prolonged protests since the 1979 revolution. These protests were sparked by a cultural issue—rather than an economic or political one—but have since grown to encompass overall grievances with the Islamic Republic and have included a wide swath of society.
- Iranian officials are concerned about the protracted protests and perceive that foreign meddling is prolonging the unrest.
- Even if Iran has contained this round of protests through violence and intimidation, compounding crises in the coming year probably will further challenge the regime's legitimacy and staying power. With Iran's depreciating currency and annual inflation rates of almost 50 percent in late 2022, Tehran probably faces an economic downturn that the IC assesses could prolong or reignite unrest and result in greater instability.

Iran will continue to threaten U.S. persons directly and via proxy attacks, particularly in the Middle East. Iran also remains committed to developing surrogate networks inside the United States, an objective it has pursued for more than a decade. Iranian-supported proxies will seek to launch attacks against U.S. forces and persons in Iraq and Syria, and perhaps in other countries and regions. Iran has threatened to target former and current U.S. officials as retaliation for the killing of Islamic Revolutionary Guard Corps-Qods Force (IRGC-QF) Commander Qasem Soleimani in January 2020, and has previously attempted to conduct lethal operations in the United States.

Iran remains a threat to Israel, both directly through its missile and UAV forces and indirectly through its support of Lebanese Hizballah, and other partners and proxies.

Iran will remain a source of instability across the region with its backing of Iraqi Shia militias, which pose the primary threat to U.S. personnel in Iraq. Iran's economic and military backing for the regime of Bashar al-Assad in Syria and support to the Huthis in Yemen—including provision of a range of advanced military systems—pose a threat to U.S. partners and interests, including Saudi Arabia.

MILITARY CAPABILITIES

Iran's hybrid approach to warfare—using both conventional and unconventional capabilities—will pose a threat to U.S. interests in the region for the foreseeable future. The IRGC will remain central to Iran's military power.

- Iran probably will seek to acquire new conventional weapon systems, such as advanced fighter aircraft, trainer aircraft, helicopters, air defense systems, para-naval patrol ships, and main battle tanks. However, budgetary constraints and fiscal shortfalls will slow the pace and breadth of acquiring these systems.
- Iran's missile, UAV, and naval capabilities will continue to threaten U.S. and partner commercial and military assets in the Middle East.
- Iran's unconventional warfare operations and network of militant partners and proxies enable Tehran to try to advance its interests in the region and maintain strategic depth.

Iran's ballistic missile programs, which already include the largest inventory of ballistic missiles in the region, continue to pose a threat to countries across the Middle East. Iran has emphasized improving the accuracy, lethality, and reliability of its missiles. Iran's work on space launch vehicles (SLVs)—including its Simorgh—shortens the timeline to an ICBM if it decided to develop one because SLVs and ICBMs use similar technologies.

NUCLEAR ISSUES

Iran is not currently undertaking the key nuclear weapons-development activities that would be necessary to produce a testable nuclear device. Since the assassination in November 2020 of nuclear scientist Mohsen Fakhrizadeh, Iran has accelerated the expansion of its nuclear program, stated that it is no longer constrained by any JCPOA limits, and undertaken research and development activities that would bring it closer to producing the fissile material for completing a nuclear device following a decision to do so. If Tehran does not receive sanctions relief, Iranian officials probably will consider further enriching uranium up to 90 percent.

- Iran consistently has cast its resumption of nuclear activities that exceed JCPOA limits as a reversible response to the U.S. withdrawal from the agreement. Iran continues to message that it would return to full compliance if the United States provided sanctions relief and fulfilled its JCPOA commitments, and if the IAEA closed its safeguards investigations related to three undeclared nuclear sites.
- In 2021, the IAEA verified that Iran conducted research on uranium metal production and has produced small quantities of uranium metal enriched up to 20 percent. While Iran made this enriched uranium metal as part of its research and development for a new type of reactor fuel, the production of uranium metal was prohibited under the JCPOA as a key capability needed to produce nuclear weapons.
- Iran continues to increase the size and enrichment level of its uranium stockpile beyond JCPOA limits. Iran continues to exceed JCPOA restrictions on advanced centrifuge research and development, and continues uranium enrichment operations at the deeply buried Fordow facility, which was prohibited under the JCPOA. Iran has been enriching and accumulating uranium hexafluoride (UF₆) up to 60 percent U-235 since April 2021, and continues to accumulate UF₆ enriched up to 20 percent.

- Tehran has taken steps to put diplomatic pressure on the United States and other JCPOA signatories, and to try to build negotiating leverage.

CYBER AND MALIGN INFLUENCE OPERATIONS

Iran's growing expertise and willingness to conduct aggressive cyber operations make it a major threat to the security of U.S. and allied networks and data. Iran's opportunistic approach to cyber attacks makes critical infrastructure owners in the United States susceptible to being targeted by Tehran, particularly when Tehran believes that it must demonstrate it can push back against the United States in other domains. Recent attacks against Israeli targets show that Iran is more willing than before to target countries with stronger capabilities.

NORTH KOREA

REGIONAL AND GLOBAL OBJECTIVES AND ACTIVITIES

North Korean leader Kim Jong Un is continuing efforts to enhance North Korea's nuclear and conventional capabilities targeting the United States and its allies, which will enable periodic aggressive actions to try to reshape the regional security environment in his favor. Kim probably is attempting to secure North Korea's position in what he perceives to be an international environment conducive to his brutal authoritarian system, as demonstrated by North Korea's repeated public support for Beijing and Moscow's foreign policy priorities.

- Kim almost certainly views nuclear weapons and ICBMs as the ultimate guarantor of his autocratic rule and has no intention of abandoning those programs, believing that over time he will gain international acceptance as a nuclear power. In 2022, Kim reinforced that position by testing multiple ICBMs intended to improve North Korea's ability to strike the United States and revising his country's nuclear law, underscoring the nuclear forces as the backbone of North Korea's national defense.
- North Korea is using its nuclear-capable missile program to try to establish strategic dominance over South Korea and U.S. forces in the region by pursuing missiles probably aimed at defeating missile defenses on the peninsula and the region and issuing threats to militarily respond to any perceived attacks against its sovereignty.
- Since September 2022, North Korea has timed its missile launches and military demonstrations to counter U.S.–South Korea exercises probably to attempt to coerce the United States and South Korea to change their behavior and counteract South Korean President Yoon's hardline policies toward the North. Pyongyang probably wants the alliance to decrease the pace and scale of the exercises with the ultimate goal of undermining the strength of the alliance.
- North Korea increasingly will engage in illicit activities, including cyber theft and exporting UN-proscribed commodities, to fund regime priorities such as the WMD program.

MILITARY CAPABILITIES

North Korea's military will pose a serious threat to the United States and its allies by continuing to invest in niche capabilities designed to provide Kim with a range of options to deter outside intervention, offset enduring deficiencies in the country's conventional forces, and advance his political objectives through coercion.

- North Korea's COVID-19 restrictions and reliance on the Korean People's Army (KPA) to enforce and execute some pandemic countermeasures probably have caused overall KPA combat readiness to decline in the near term, but key units probably will remain capable of executing their wartime missions.

Kim is continuing to prioritize efforts to build an increasingly capable missile force designed to evade U.S. and regional missile defenses. Kim probably will continue to order missile tests—from cruise missiles through ICBMs, and HGVs—to validate technical objectives, reinforce deterrence, and normalize Pyongyang's missile testing. To support development of these new missile systems, North Korea continues to import a variety of dual-use goods in violation of UN sanctions, primarily from China and Russia.

WMD

Kim remains strongly committed to expanding the country's nuclear weapons arsenal and maintaining nuclear weapons as a centerpiece of his national security structure. Public statements have reinforced North Korea's intent to enhance its ability to threaten both South Korea and the U.S. homeland.

- North Korea probably is preparing to test a nuclear device to further its stated military modernization goals to facilitate “tactical nuclear operations.” In September 2022, North Korea codified a law reaffirming its self-proclaimed status as a nuclear power, establishing open-ended conditions for nuclear use, command and control, and rejecting denuclearization.

North Korea's CBW capabilities remain a threat, and the IC is concerned that Pyongyang may use such weapons during a conflict or in an unconventional or clandestine attack.

CYBER

North Korea's cyber program poses a sophisticated and agile espionage, cybercrime, and attack threat. Pyongyang's cyber forces have matured and are fully capable of achieving a range of strategic objectives against diverse targets, including a wider target set in the United States.

- Pyongyang probably possesses the expertise to cause temporary, limited disruptions of some critical infrastructure networks and disrupt business networks in the United States.

North Korea's cyber program continues to adapt to global trends in cybercrime by conducting cryptocurrency heists, diversifying its range of financially motivated cyber operations, and continuing to leverage advanced social engineering techniques.

- In one heist in 2022, Pyongyang stole a record \$625 million from a Singapore-based blockchain technology firm.

Beyond Pyongyang's cybercrime efforts, cyber actors linked to North Korea have conducted espionage efforts against a range of organizations, including media, academia, defense companies, and governments in multiple countries. North Korea continues to conduct cyber espionage to obtain technical information almost certainly intended to advance Pyongyang's military and WMD programs.

CLIMATE CHANGE AND ENVIRONMENTAL DEGRADATION

Climate change will increasingly exacerbate risks to U.S. national security interests as the physical impacts increase and geopolitical tensions mount about the global response to the challenge. The increasing physical effects of climate change also are likely to intensify or cause domestic and cross-border geopolitical flashpoints.

- As temperatures rise and more extreme climate effects manifest, there is a growing risk of conflict over resources associated with water, arable land, and the Arctic. Additional factors, such as migration, some of which will be exacerbated by climate and weather events, will heighten these risks. Contested economic and military activities in the Arctic have the potential to increase the risk of miscalculation, particularly while there are military tensions between Russia and the other seven Arctic countries following Russia's invasion of Ukraine in early 2022.
- Geopolitical tensions between countries about how to accelerate reductions in greenhouse gas emissions are likely to grow, and states will compete to try to control resources and dominate the new technologies needed for a global transition to low-carbon energy.

Tensions also are rising between countries over climate financing. High-and middle-income countries still have not met their 2015 Paris Agreement pledges to provide \$100 billion per year to low-income countries by 2020, and low-income countries want more assistance with adapting to climate effects.

- The extent of damage and human displacement in Pakistan that resulted from flooding in mid-2022, which is partially attributed to climate change, has led to more calls for high-income countries to pay low-income countries for losses they perceive are a result of climate change. Small island states have been advancing their efforts to bring cases before international judicial bodies to hold the United States and other top greenhouse gas emitters accountable for the effects of climate change.
- Climate-related disasters in low-income countries will deepen economic challenges, raise the risk of inter-communal conflict over scarce resources, and increase the need for humanitarian and financial assistance. The growing gap between the provision of basic needs and what governments and the international community can provide raises the likelihood of domestic protests, broader instability, extremist recruitment, and migration.
- More intense and frequent impacts from climate change also threaten to degrade high-income economies, hamper global trade, and strain financial systems. Droughts in 2022 decreased shipping capacity and energy generation in China, Europe, and the United States, and insured losses from catastrophes have increased 250 percent during the past 30 years.

China and India will play critical roles in determining the trajectory of temperature rise. They are the first and third largest emitting countries, respectively. Both are growing their total and per capita emissions, largely because of their reliance on cheap electricity generation from coal for economic growth, and because of their efforts to appease domestic constituencies who rely on the coal industry for jobs.

Intensifying effects from climate change are likely to exacerbate risks to human health, primarily but not exclusively, in low- and middle-income countries. Rising temperatures, changing precipitation patterns, and

increased frequency and severity of weather events are likely to intersect with environmental degradation, pollution, and poor water governance to exacerbate food and water insecurity, malnutrition, and overall burden of disease.

- Extreme heat, population pressures, and changes in rainfall because of climate change are negatively affecting agricultural and food production in many areas of the world.

Illegal, unreported, and unregulated (IUU) fishing practices, globally, are contributing to the decline of marine fisheries—eroding food and economic security in coastal areas, particularly in Africa and Asia. Eighty-five percent of worldwide fish stocks are fully exploited, overexploited, depleted, or recovering from depletion. Overfishing, habitat degradation, and climate-driven ocean changes will continue to harm fisheries.

- China's fleet of distant water fishing vessels—which often engages in IUU fishing—has contributed to overfishing more than any other nation. IUU fishing by vessels from China often crowds out local fishing, threatens food security, and drives instability in low-income countries and some coastal regions.

HEALTH SECURITY

INFECTIOUS DISEASES AND THE IMPACT OF THE COVID-19 PANDEMIC

Now entering its fourth year, the COVID-19 pandemic remains one of the most significant threats to global public health, at a cost of more than 6.5 million lives lost and trillions of dollars in lost economic output to date. Despite the gradual decline of the most severe health effects of COVID-19 because of the greater availability of vaccines globally, increased natural immunity, and better treatments, significant challenges remain as countries now are responding to new variants, waning vaccine protection, gaps in vaccine coverage, challenges in management of public health safety measures, and growing misinformation campaigns aimed at sowing doubt and discrediting public health institutions worldwide. *In addition to direct effects of the pandemic, resultant economic, human security, political, and national security implications of COVID-19 continue to strain recovery efforts, presenting both known and unforeseen challenges that probably will ripple through society and the global economy during the next year and for years to come.*

- During the next year, pandemic-related higher debt burdens, constrained government spending, and ongoing employment disruptions and insecurity are expected to heighten the risk of financial instability and poverty, particularly in low-income countries and those recovering from the most severe economic effects of COVID-19.
- The combination of economic and human security challenges resulting from COVID-19 probably will further strain capacities of governments to meet public demands during the next year and for years to come, particularly when combined with the need to address similar challenges arising from climate change. The potential for public discontent and societal divisions will grow, and risks to democratic governance, political stability, and migration fluctuations in some countries will increase.
- Despite some improvement during the last year, pandemic effects continue to challenge the delivery of essential health services—in some cases because of healthcare worker shortages, delays in non-emergency procedures, or avoidance to seek healthcare because of misinformation or fears of becoming infected with COVID-19. The factors probably will continue to contribute to poor health outcomes and hamper countries' abilities to control disease, particularly low- and middle-income countries.

Countries globally remain vulnerable to the emergence or introduction of a novel pathogen that could cause a devastating new pandemic. Drivers for disease emergence persist and are on the rise, including climate change, deforestation, human encroachment into previously undisturbed habitats, wildlife harvesting and trade, mass food production, and lack of international consensus on biosafety norms. These drivers are compounded by factors that facilitate global spread, such as international travel and trade, inadequate global disease surveillance and control, distrust of public health authorities, health disinformation, and health system strain brought on by the COVID-19 pandemic. Emerging agricultural and livestock diseases and antimicrobial resistance—although not necessarily involving pathogens of pandemic concern—threaten to cause immense economic damage and disruption to food supplies if they spread globally or into new regions.

- A lack of global field biosafety standards and protective measures continues to raise concerns of viral spillover worldwide. Increased interest in field sampling and advanced biological research since the onset of the COVID-19 pandemic, poor training, and lack of international inspection and standardized

regulatory requirements have all been implicated in contributing to the risk of contamination and/or breaches in biocontainment.

Our Assessment of the Origins of COVID-19

The IC continues to investigate how SARS-CoV-2, the virus that causes COVID-19, first infected humans, maintaining a Community of Interest across agencies. All agencies assess that two hypotheses are plausible explanations for the origin of COVID-19: natural exposure to an infected animal and a laboratory-associated incident.

- Beijing continues to hinder the global investigation, resist sharing information, and blame other countries, including the United States.

BIOLOGICAL WEAPONS

Global shortcomings in preparedness for the COVID-19 pandemic and concerns with biosecurity, fabricated public claims about U.S. biological weapons development fueled by U.S. adversaries, as well as continued questions surrounding the origins of the COVID-19 virus, may inspire some adversaries to consider options related to the development of biological weapons.

- China, Iran, North Korea, and Russia continue to publicly push false narratives that may drive global threat perceptions of biological weapons, including linking U.S. laboratories abroad to COVID-19 origins, breaches in biosafety, untrustworthy vaccines, and biological weapons. Russia's false messaging about alleged U.S. biological weapons work has been amplified in the aftermath of Russia's invasion of Ukraine—leading up to its invocation of Article V at the Biological and Toxin Weapons Convention in 2022—and will persist as Russia pushes its false narratives across international venues.
- Rapid advances in dual-use technology, including bioinformatics, synthetic biology, nanotechnology, and genomic editing, could enable development of novel biological weapons that complicate detection, attribution, and treatment.

ANOMALOUS HEALTH INCIDENTS

We continue to closely examine Anomalous Health Incidents (AHIs) and ensure appropriate care for those affected. IC agencies assess with varying levels of confidence that most reported health incidents can be explained by medical conditions, or environmental or technical factors, and that it is unlikely that a foreign actor—including Russia—is conducting a sustained, worldwide campaign involving hundreds of incidents without detection. This finding does not change the fact that U.S. personnel are reporting real experiences, nor does it explain every report. The IC continues to actively investigate the AHI issue, focusing particularly on a subset of priority cases for which it has not ruled out any cause, including the possibility that one or more foreign actors were involved.

ADDITIONAL TRANSNATIONAL ISSUES

PREFACE

While climate change and the COVID-19 pandemic highlight the challenges that a wide range of transnational issues pose to U.S. national security, we will now address several other priority issues. Some have a direct and immediate impact on U.S. interests, such as narcotics trafficking and terrorism. Others seem to be building, or pose chronic, indirect challenges such as vulnerabilities in our supply chain, Internet governance, and global economic shocks. These issues also vary in the scope of the consequences they pose, having broad, global impact or causing local, even individual effects.

Transnational threats interact in a complex system along with more traditional threats such as strategic competition, often reinforcing each other and creating compounding and cascading risks to U.S. national security. Increasing interconnections among countries—ranging from supply chains to social media—also have created new opportunities for transnational interference and conflict.

Several transnational challenges stand out for the clear and direct threats they will pose to U.S. interests during the coming years. Among these are the rapid development of technologies, the spread of digital repression on the Internet, the threats posed by transnational organized crime and terrorism, and the societal effects of international migration.

DEVELOPMENTS IN TECHNOLOGY

New technologies—particularly in the fields of AI and biotechnology—are being developed and are proliferating faster than companies and governments can shape norms, protect privacy, and prevent dangerous outcomes. The convergence of emerging technologies is likely to create potentially breakthrough technologies not foreseeable by examining narrow science and technology areas, which could lead to the rapid development of asymmetric threats to U.S. interests.

- The convergence of capabilities in high-performance computing, big data, and machine learning—each a critical enabler across multiple domains—could have broad yet unidentified consequences across military, commercial, and basic research applications with relevance to national defense, economic security, and political stability.
- Large-scale simulation and the accumulation and analysis of massive amounts of data are revolutionizing many areas of science and engineering research with the potential to influence the future battlefield and shape political discourse through disinformation operations. Our adversaries increasingly view data as a strategic resource. They are focused on acquiring and analyzing data—from personally identifiable information on U.S. citizens to commercial and government data—that can make their espionage, influence, kinetic and cyber attack operations more effective; advance their exploitation of the U.S. economy; and give them strategic advantage over the United States.
- Foreign intelligence services are adopting cutting-edge technologies—from advanced cyber tools to unmanned systems to enhanced technical surveillance equipment—that improve their capabilities and challenge U.S. defenses. Much of this technology is available commercially, providing a shortcut for previously unsophisticated services to become legitimate threats.

The global pandemic, which spurred unprecedented collection of genetic and health data worldwide, along with technological advances in genetic engineering, genome sequencing, and DNA modification, are driving new lines of effort in biotech research.

- Several countries, universities, and private companies have or are creating centralized genetic or genomic databases to collect, store, process, and analyze genetic data, albeit at the risk of potentially compromising health and genetic data privacy, and are ripe targets for cyber attack and theft.
- China has been collecting genetic and health data from its entire population, bolstering the state's surveillance and security apparatus, and its ability to try to monitor, manage, and control society in real-time. Beijing also has collected U.S. health and genomic data through its acquisitions and investments in U.S. companies, as well as cyber breaches.

Advances in semiconductors and high-performance computing are driving military and technological breakthroughs, but also are heightening the risk of technology surprise because high-performance computers will help address longstanding research and development hurdles. Our adversaries' advances in semiconductors and high-performance computing could result in future challenges to our military and technological sectors.

- China may now have two exascale systems using older generation, domestically designed processors—neither of which have been officially acknowledged or subject to independent benchmarks—and plans to build more by 2025. Exascale computers are capable of solving massive scientific challenges that would have been impossible with previous generation supercomputers.
- As of June 2022, China had 173 of the world's most powerful supercomputers, a third more than the United States, which accounted for 128 supercomputers.

TRENDS IN DIGITAL AUTHORITARIANISM AND MALIGN INFLUENCE

Globally, foreign states' malicious use of digital information and communication technologies will become more pervasive, automated, targeted, and complex during the next few years, further threatening to distort publicly available information and probably will outpace efforts to protect digital freedoms. The exploitation of U.S. citizens' sensitive data and illegitimate use of technology, including commercial spyware and surveillance technology, probably will continue to threaten U.S. interests.

Authoritarian governments usually are the principal offenders of digital repression, but some democratic states have engaged in similar approaches, contributing to democratic backsliding and erosion. Many foreign governments have become adept at the tools of digital repression, employing censorship, misinformation and disinformation, mass surveillance, and invasive spyware to suppress freedom. During the next several years, governments are likely to grow more sophisticated in their use of existing technologies, and learn quickly how to exploit new and more intrusive technologies for repression, particularly automated surveillance and identity resolution techniques.

- Digital repression is occurring against the backdrop of broader digital influence operations that many autocrats are conducting globally to try to shape how foreign publics view their regimes, create social and political upheaval in some democracies, shift policies, and sway voters' perspectives and preferences.

Various technologies now constitute an important component of many governments' repressive toolkits, extending states' power to stifle dissent beyond traditional means—such as censoring print media or physically harming dissidents—which repressive regimes continue to employ. Firms around the world sell capabilities and expertise that facilitate governments' internal and extraterritorial monitoring and repression.

- The commercial spyware industry—which makes tools that allow users to hack digital devices such as mobile telephones to surveil users—grew rapidly during the past decade and is now estimated to be worth \$12 billion. While some states use such spyware tools and lawful intercept programs to target criminals and terrorists, governments also are increasingly using spyware to target political opposition and dissidents.
- Authoritarian states use spyware and other digital means to conduct transnational repression against individual critics and diaspora communities to limit their influence over domestic audiences. Monitoring and threats against these communities limit freedom of speech wherever they reside, including in the United States and other liberal democracies.
- Beijing has demonstrated its willingness to enlist the aid of China-based commercial enterprises to help surveil and censor PRC critics abroad, and China's technology industry is a key global supplier of advanced surveillance technologies to foreign governments.

NUCLEAR PROLIFERATION

The expansion of nuclear weapons stockpiles and their delivery systems, coupled with increasing regional conflict involving nuclear weapons states, pose a significant challenge to global efforts to prevent the spread and use of nuclear weapons. Arms control efforts through 2035 probably will change in scope and complexity as the number of strategic technologies and the countries that have them grow.

- China and Russia are seeking to ensure strategic stability with the United States through the growth and development of a range of weapons capabilities, including nontraditional weapons intended to defeat or evade U.S. missile defenses. Consequently, these new technologies probably will challenge the way states think about arms control, and we expect it will be difficult to achieve agreement on new weapon definitions or verification measures, particularly at the multilateral level.

GLOBAL ECONOMIC CONSEQUENCES OF RUSSIA–UKRAINE WAR

Russia's aggression against Ukraine has aggravated COVID-19-related fragilities in the global economy, raised commodity prices, fueled market volatility, and contributed to food insecurity and financial instability, particularly in low-income countries. The multiplicity of reinforcing fragilities suggest that these trends will continue this year as governments struggle to insulate their populations from eroding living standards linked to inflation and low economic growth.

- No country has been immune to these effects. European economies, which together account for one-fifth of global GDP, face multiple headwinds from spillover effects from the conflict. Europe's energy supplies are likely to remain tenuous and its energy prices high and volatile, because of its longstanding reliance on oil and gas supplies from Russia, and the prospect that these will now be unavailable to an unprecedented degree. Europe is facing historically high inflation rates, largely because of the shock to energy supplies, with some countries experiencing their highest inflation in 40 years.

- Many low-income countries already have depleted foreign reserves and little fiscal space to weather the fallout from Russia's invasion of Ukraine. Consequently, as central banks raise interest rates to manage higher inflation, higher debt servicing costs will limit many countries' capacity to fund government spending for their populations and maintain affordable food supplies.
- The conflict in Ukraine and uncertainty in markets, combined with rising interest rates, have led investors to the safety of U.S. assets and contributed to an appreciation of the dollar in 2022, resulting in the weakening of other currencies. These dynamics will make access to global credit more difficult particularly for low-income economies and raise the risk of debt defaults.

The combination of elevated energy and food prices has increased the number of individuals facing extreme poverty and food insecurity, particularly in low-income countries, and these countries will struggle to reverse these trends through 2023, even if global food prices stabilize. High food prices predate Russia's invasion of Ukraine and the resulting reductions in grain exports have reduced the purchasing power of millions of households and limited their ability to absorb new price hikes.

- Russia and Ukraine are among the most important producers of agricultural commodities in the world. Both countries are net exporters of agricultural products and fertilizers to global markets, where exportable supplies often are concentrated in a handful of countries.
- Before the war, more than 25 countries were dependent on Russia and Ukraine for more than 50 percent of their wheat imports.
- Poor households globally spend more than 40 percent of their incomes on food, compared with about 10 percent in high-income countries, making these populations particularly vulnerable to persistently high food prices.

MIGRATION

In the Western Hemisphere, push and pull factors that drive migrants from Latin America and the Caribbean to the United States—such as deteriorating socioeconomic and security conditions in certain countries, misperceptions of U.S. policies, and employment opportunities in the United States—probably will persist through 2023.

- Factors including high-crime rates, violence, political repression, corruption, weak job markets, and poor living conditions remain among the primary push factors for U.S.-bound migration from Colombia, Cuba, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, and Venezuela because origin countries lack the resources or willingness to address these challenges.
- Since 2020, increased migrant outflows from Haiti and Venezuela to Latin American and Caribbean countries have imposed economic costs on and heightened xenophobia within the recipient countries, decreasing their willingness to receive these migrants. Increased obstacles to remaining in nearby countries could lead more Haitian and Venezuelan migrants to view migration to the United States as an attractive goal.
- Latin American and Caribbean governments are struggling to manage the sustained high flow of migrants to the U.S. border from across the region. The measures most governments are willing to take could slow down some migrants heading to the U.S. border, but probably will do little to change the dynamics behind sustained high levels of irregular migration to the United States.

Transnational criminal organizations (TCOs) exploit migrants through extortion, kidnapping, and human trafficking—including sex trafficking and forced labor.

Worldwide, the number of people displaced by conflict, violence, and natural disasters within their own national borders and into other countries continues to increase, straining governments' abilities to care for domestic populations and mitigate any associated public discontent. Meanwhile, a growing gap between humanitarian needs and the provision of international financial assistance has the potential to exacerbate migration flows.

- Russia's invasion of Ukraine has prompted the largest flow of refugees into European countries since World War II, with more than four million Ukrainians registering for protections under the EU Temporary Protection Directive—including more than one million in Poland. European public support for Ukrainian refugees has been strong since the beginning of the war. Over time, though, Europe's domestic economic challenges, including inflation and soaring energy costs, might soften Europeans' level of support for hosting refugees. Long-term housing for Ukrainian refugees may become an issue in some EU member states because many refugees are staying in hosted accommodations rather than renting their own housing.
- Scientific projections of below-average rain and droughts in parts of the Horn of Africa and South America, as well as flooding in other regions during the coming year probably will lead to more migration events even as countries such as Pakistan are recovering from natural disasters that occurred in 2022.

TRANSNATIONAL ORGANIZED CRIME

TCOs threaten U.S. and allied public safety, undermine the integrity of the international financial system, and erode the rule of law in partner nations. These challenges directly impact U.S. national security by driving irregular migration issues, spurring criminality and violence, and advancing the interests of some U.S. adversaries. TCOs engage in illicit drug production and trafficking, human trafficking, human smuggling, money laundering and financial crimes, and cybercrime that directly impacts the United States.

- TCOs view human trafficking, including sex trafficking and forced labor, and smuggling as low risk crimes of opportunity motivated by financial gain.

Foreign Illicit Drugs

Western Hemisphere-based TCOs involved in illicit drug production and trafficking bound for the United States endanger the health and safety of millions of U.S. citizens and drive crime and corruption. U.S. law enforcement is seizing increased quantities of fentanyl, and the majority of the more than 100,000 annual deaths from drug overdoses in the United States stem from fentanyl.

- Mexican TCOs are the dominant producers and suppliers of illicit drugs to the U.S. market, including fentanyl, heroin, methamphetamine, and South American-sourced cocaine. Mexican TCOs have flooded the United States with cheap counterfeit pills containing fentanyl, some in different shapes and rainbow colors, a contributing factor to the sharp increase in U.S. teen overdose deaths since 2019.

- Mexican TCOs obtain the majority of precursor chemicals needed to produce fentanyl from China through mostly Chinese and Mexican chemical brokers and are able to circumvent international controls through mislabeled shipments and buying unregulated dual-use chemicals.
- Mexican TCOs engage in violent territorial disputes with rivals over drug and migrant smuggling routes. Colombia, the world's leading producer of cocaine, is experiencing an increase in homicides, partially fueled by TCOs involved in the drug trade.

Money Laundering and Financial Crimes

TCOs threaten the integrity of the U.S. and international financial system, laundering billions of dollars of illicit proceeds through the United States and other financial institutions. TCOs regularly use shell companies to disguise their identity and may rely on professional money launderers or gatekeepers, such as accountants, lawyers, notaries, and real estate brokers, to gain access to the legitimate financial systems. TCOs move and launder illicit proceeds through bulk cash smuggling, exploitation of legitimate remittance channels, purchase of U.S. real estate, structured deposits, trade-based money laundering, and wire transfers.

Cybercrime

Transnational organized ransomware actors continue to improve and execute high-impact ransomware attacks, extorting funds, disrupting critical services, and exposing sensitive data. While important services and critical infrastructure such as health care, schools, and manufacturing continued to experience attacks—with a large portion occurring in the United States—an increasing number of ransomware attacks observed in 2022 also targeted governments worldwide.

- Major cybercrime groups have diversified ransomware business models, including new forms of extortion, such as threats to release captured data alongside encryption of data, and have improved the ability of their malware to affect a wider range of technical targets such as virtual machine hosts and network storage devices.

Ransomware groups sometimes cease operations in response to high-profile attention, law enforcement action, or disruption of infrastructure, although group members also find ways to later rebrand, reconstitute, or renew their activities following these disruptions. They also may question or curb attacks against target sets that prove most resilient in refusing to pay the demanded ransoms.

GLOBAL TERRORISM

U.S. persons and interests at home and abroad will face a persistent and increasingly diverse threat from terrorism during the next year. Individuals and cells adhering to ideologies espoused by ISIS, al-Qa'ida, or the transnational Racially or Ethnically Motivated Violent Extremists (RMVE) movement pose a significant terrorist threat to U.S. persons, facilities, and interests. Iran and Lebanese Hizballah remain committed to conducting terrorist attacks and could seek to do so on U.S. soil. While ISIS and al-Qa'ida suffered major leadership losses in 2022, degrading external operations and capabilities, both organizations' offshoots continue to exploit local conflicts and broader political instability to make territorial and operational gains.

ISIS

Even following the loss of several key ISIS leaders in 2022, ISIS's insurgency in Iraq and Syria will persist as the group seeks to rebuild capabilities and replenish its ranks. The threat from ISIS against U.S. persons, facilities, and interests probably will remain greatest in regions where the group has an operational presence. ISIS's ideology and propaganda, however, almost certainly will continue to inspire attacks in the West, including in the United States.

- In Iraq and Syria, ISIS has slowed its operational tempo relative to when it controlled physical territory from 2014–19, probably because of logistical, financial, personnel, and leadership shortfalls.
- ISIS's threat to U.S. persons and interests is greatest in regions where ISIS possesses a dangerous affiliate such as Africa, Central and South Asia, and the Middle East.
- In Afghanistan, ISIS–Khorasan will maintain its campaign against the Taliban and religious minorities with deadly repercussions for the country's civilians. ISIS–Khorasan almost certainly retains the intent to conduct operations in the West and will continue efforts to attack outside Afghanistan.

Al-Qa'ida

Al-Qa'ida viewed the Taliban's seizure of power as a victory for the global jihad, but the death of overall Emir Ayman al-Zawahiri in 2022 will disrupt the group's plans in Afghanistan. The group will rely on its regional affiliates to sustain the organization as some al-Qa'ida leaders seek to maintain safe haven in Iran while adapting to Taliban restrictions in Afghanistan.

- Al-Qa'ida probably will gauge its ability to operate in Afghanistan under Taliban restrictions and will focus on maintaining its safe haven before seeking to conduct or support external operations from Afghanistan.
- The threat from al-Qa'ida in Afghanistan will depend on the Taliban, the appeal of Afghanistan relative to other geographic areas, and leadership focus.

Al-Qa'ida remains committed to attacking U.S. interests, although the threat is greatest in the regions where its affiliates operate rather than in the U.S. homeland. Al-Qa'ida's affiliates in East and West Africa and Yemen pose the greatest threat to U.S. persons, facilities, and interests in their respective regions. Affiliates' confidence in their external attack capabilities, risk calculus, and perception of the threat that the United States poses to the groups' local goals will influence the priority they place on attacking U.S. interests.

- Al-Qa'ida's affiliates in Africa such as Al-Qa'ida in the Lands of the Islamic Maghreb (AQIM) and al-Shabaab exploit instability in Burkina Faso, Ethiopia, and Mali, and weak border security in West Africa to expand territorial control and challenge local security forces.

Hizballah

Lebanese Hizballah will continue to develop its global terrorist capabilities as a complement to the group's growing conventional military capabilities in the region.

- Hizballah seeks to reduce U.S. influence in Lebanon and the broader Middle East, and maintains the capability to target U.S. persons and interests in the region, worldwide, and, to a lesser extent, in the United States. Iran could benefit strategically if Hizballah were to conduct terrorist activity on U.S. soil.

Transnational Racially or Ethnically Motivated Violent Extremists

Transnational RMVEs continue to pose the most lethal threat to U.S. persons and interests, and a significant threat to a number of U.S. allies and partners through attacks and propaganda that espouses violence. Transnational RMVEs are largely a decentralized movement of adherents to an ideology that espouses the use of violence to advance white supremacy, neo-Nazism, and other exclusionary cultural-nationalist beliefs. These actors increasingly seek to sow social divisions, support fascist-style governments, and attack government institutions. The transnational and loose structure of RMVE organizations challenges local security services and creates a resilience against disruptions.

- Transnational RMVEs capitalize on societal and political hyperpolarization to try to legitimize their aims and mainstream their narratives and conspiracy theories into the public discourse. These RMVEs believe that recruiting military members will help them organize cells for attacks against minorities or institutions that oppose their ideology.
- Transnational RMVEs have plotted attacks and encouraged violence against government officials in Australia and throughout Europe, including in Belgium, France, Germany, and Iceland. Transnational RMVEs often call for attacks in the United States and allied countries, and some RMVE attacks in the United States have been partly inspired by foreign RMVE attacks overseas and transnational RMVE narratives, but we lack information that foreign RMVEs directly assisted any attacks in the United States.
- Terrorgram, a loosely connected network of channels on the messaging application Telegram, has circumvented multiple efforts to moderate content. Terrorgram serves as a transnational forum for RMVEs to share propaganda, exchange operational guidance, and valorize the perpetrators of previous terrorist attacks.

A prolonged conflict in Ukraine could provide foreign RMVEs with opportunities to gain access to battlefield experience and weapons. Ukraine featured heavily in online discussions among foreign RMVEs in the immediate aftermath of Russia's invasion of Ukraine, although the total number of foreign violent extremists traveling to Ukraine has been limited.

CONFLICTS AND FRAGILITY

PREFACE

Interstate conflict, state instability, and other governance challenges pose direct and indirect challenges to U.S. interests at home and abroad, and to our allies and partners. Rising tensions underpinned by intensifying strategic competition present numerous consequences for U.S. and partners' national security. For instance, countries' increased military operations across a number of geographic hotspots risk the possibility of inadvertent escalation and the potential for interstate conflict. Russia's war in Ukraine coupled with the COVID-19 pandemic has increased poverty, hindered economic growth, and widened inequality, raising the conditions that are ripe for domestic unrest, insurgencies, democratic backsliding, and authoritarianism.

POTENTIAL INTERSTATE CONFLICT

The war in Ukraine has demonstrated how interstate conflict affects not only the parties directly involved, but can have broader cascading security, economic, and humanitarian implications on a regional—and even global—scale. The following are a few of the potential conflicts between states that could spillover with repercussions that may require immediate U.S. attention.

India–China

While India and China have engaged in bilateral border talks and resolved border points, relations will remain strained in the wake of the countries' lethal clash in 2020, the most serious in decades. The expanded military postures by both India and China along the disputed border elevate the risk of armed confrontation between two nuclear powers that might involve direct threats to U.S. persons and interests, and calls for U.S. intervention. Previous standoffs have demonstrated that persistent low-level friction on the Line of Actual Control (LAC) has the potential to escalate swiftly.

India–Pakistan

Crises between India and Pakistan are of particular concern because of the risk of an escalatory cycle between two nuclear-armed states. New Delhi and Islamabad probably are inclined to reinforce the current calm in their relationship following both sides' renewal of a cease-fire along the Line of Control in early 2021. However, Pakistan has a long history of supporting anti-India militant groups, and under the leadership of Prime Minister Narendra Modi, India is more likely than in the past to respond with military force to perceived or real Pakistani provocations. Each side's perception of heightened tensions raises the risk of conflict, with violent unrest in Kashmir or a militant attack in India being potential flashpoints.

Azerbaijan–Armenia

Relations between Armenia and Azerbaijan are likely to remain tense and occasionally volatile in the absence of a peace treaty, given the proximity of military forces at the interstate border, the lack of a cease-fire enforcement mechanism, and Azerbaijan's readiness to use calibrated military pressure to advance its goals in talks with Armenia. The continued presence of military forces in close proximity along the delimited border elevates

the risk of armed confrontation between Armenia and Azerbaijan, although such confrontations are likely to be limited in duration and intensity.

- Since May 2021, military clashes have occurred regularly at the interstate border and around the Nagorno-Karabakh region. The most intense flare-up took place in September 2022, when Azerbaijani forces launched a coordinated attack at multiple locations along the border, seizing some Armenian territory and resulting in nearly 300 military deaths.
- Peace talks have made some progress, but the most challenging issues—related to state borders and the future of Nagorno-Karabakh—are far from being resolved.

INTERNAL STRIFE

Domestic unrest—whether grounded in social divisions, competitive political ideologies, or an inability of the state to deliver on basic human services—can fuel cycles of violence, insurgencies, and internal conflict. The consequences often are felt beyond the borders of the affected area, sometimes spreading discord to other countries, and expanding the scope and scale of the security challenges. Whether these are bouts of violence or long-term insurgencies and civil wars, these instances of internal strife can erode governing institutions, entrench internal divisions, and deplete state resources, as well as challenge the United States' and Allies' ability to effectively partner with these nations. Below we highlight a few of the countries and regions struggling with violence, unrest, and insurgencies.

Iraq

Iraq's stability will depend on whether the new government is able to provide public services, address widespread grievances over corruption, and maintain security operations to prevent an ISIS resurgence. Iraqi Shia militias almost certainly will continue to pose a credible threat to U.S. forces in Iraq and the region.

- After a year of political stalemate and heightened intra-Shia violence following the elections in October 2021, the Iran-aligned Coordination Framework elected a new president and designated a prime minister in October 2022. Shia cleric Muqtada al-Sadr has vowed not to participate in the new government.

Burma

Protracted violence between the Burmese junta and its prodemocracy opponents probably will sharpen as neither side has the military capability to win outright in the near future, and both sides increasingly see their conflict in existential terms, effectively precluding compromise. A breakdown in military cohesion or significant changes in external support to either side—particularly to the anti-regime forces—probably are needed to produce the conditions required for a military victory or a political agreement.

- Ongoing violence, combined with a deteriorating economy, is likely to continue the ongoing humanitarian and human rights crisis, with implications for Burma's cohesion as well as regional security.

East Africa

In East Africa, prolonged internal conflicts are straining regional capacity and creating openings for increased involvement by external actors. This includes civil conflicts in Ethiopia, a growing insurgency in the Democratic Republic of the Congo (DRC), and continued instability in Somalia. Persistent internal conflicts in two of the largest countries in the region, Ethiopia and the DRC, are eroding trust between leaders and the public, and driving inter-ethnic tensions. Regional diplomatic and security initiatives to resolve these conflicts have drawn in additional African countries, particularly Angola, Kenya, and South Africa.

- We are concerned that the continued presence of Eritrea and allied militias in Ethiopia following a cessation of hostilities agreement between the government and Tigrayans continues to raise the risk of atrocities against the civilian population in Tigray. Moreover, an escalation in attacks by the Oromo Liberation Front has ratcheted up tensions between the Oromo and Amhara—the two largest ethnic groups in the country—and led to increased violence against civilians and between the group and government security forces.
- In eastern DRC, fighting between the DRC military and Rwanda-backed rebel group, known as “March 23,” has contributed to the largest internal displacement situation in Africa. Rwanda has a long history of intervening in eastern DRC and views Kinshasa’s inability to root out anti-Rwandan rebel groups as a threat to its stability. Hate speech and violence against ethnic Rwandans in eastern DRC is on the rise.
- In Somalia, al-Shabaab has scaled up attacks in response to offensives against the group by the federal government, allied with local clan militias and partner forces, in central Somalia since mid-2022. In tandem with this campaign, President Hassan Sheikh Mohamud is working to mend ties with federal member states, a fraught relationship that has contributed to chronic poor governance and lack of service delivery to the Somali population.

Western Hemisphere

Across the Latin American and Caribbean region, electorates’ growing frustration with their governments’ inability to improve living standards will fuel continued anti-incumbency protests and even spurts of unrest through 2030. For instance, Haiti’s ineffective government, ongoing gang-driven violence, political volatility, faltering economy, and health challenges have fueled domestic insecurity and outbursts of violence, which has become increasingly unpredictable, complicating an already precarious humanitarian situation.

Afghanistan

The Taliban regime will continue to prioritize enforcement of theocratic rule and consolidating power over building a modern state, contributing to Afghanistan's structural economic weaknesses and persistent humanitarian crisis.

- The Taliban is unlikely to increase the regime's inclusivity in any meaningful way. It currently includes few ethnic minorities and no women in senior-level positions. Taliban-linked religious scholars probably will continue to use their influence to steer the regime's policy interpretation of sharia through disseminating and clarifying Taliban guidance.
- Across the country, most girls' secondary schools remain closed, and women are prevented from working in many sectors, attending university, and traveling long distances independently. In many areas, public punishments have returned, along with media controls and crackdowns on protests. However, near-term prospects for regime-threatening resistance are low because large swathes of the Afghan public are weary of war and fearful of Taliban reprisals, and armed remnants lack strong leadership and external support.
- Taliban leaders lack the resource base and technical capacity to foster a sustained recovery of the Afghan economy, which has contracted by 30 percent since the Taliban takeover. They probably will rely on humanitarian aid to sustain some basic services and would rather preside over a more rudimentary economic system than accept international conditions to access additional assistance.
- A majority of Afghans are suffering food insecurity because of the effects of conflict, drought, and natural disasters. Further economic deterioration could increase Afghans' desire and attempts to migrate to neighboring countries.
- Regional powers will continue to narrow their interests largely to keeping problems contained in Afghanistan and seek to develop transactional arrangements with the Taliban while proceeding cautiously with formal recognition. These governments have been frustrated with the Taliban regime over issues including border security and water rights.

GOVERNANCE CHALLENGES

Throughout the world, countries are struggling to maintain democratic systems and prevent the rise of authoritarian regimes, in some cases because authoritarian regimes such as Russia and China are helping autocrats rise to power and remain there. The challenges often are intertwined with diminished socioeconomic performance, endemic corruption, pressures from climate change, and the spread of extremists' ideologies from terrorist and insurgent groups. During the past decade, an erosion of democracy around the world, strains in U.S. alliances, and challenges to accepted, international norms have made it more difficult for the United States and its Allies to tackle transnational challenges such as climate change and the pandemic, while creating greater opportunities for rogue governments and groups to operate with impunity. Below we highlight a few of the regions and countries that will struggle with democratization and governance.

Africa

Across the continent, governments will face difficulties in meeting public demands amid food shortages, commodity price spikes, declining socioeconomic conditions, and stresses of extreme weather events and insecurity. In addition, the prevalence of ageing autocrats, disruptions to fragile ethnic power balances, and protracted transitions from post-coup military regimes to civilian rule are likely to undermine prospects for stable governance in more than a dozen countries.

- In West Africa, a volatile mixture of democratic backsliding, states' inability to provide security, and terrorist expansion will continue to threaten the region's stability. West African publics have become disillusioned with how elected leaders have governed, particularly their failure to adhere to democratic governance norms and manipulation of institutions, which could lead to increased protests absent government reforms.
- In East and Central Africa, climate-related conditions such as drought, flooding, and persistent food insecurity risk undermining efforts by leaders to improve governance and the economy.

Europe

Populist parties across the political spectrum probably will take advantage of inflation and high energy prices to increase their support in at least some national and subnational elections during the coming year and make governments—even those in which they are not represented—more cautious about liberalizing migration or trade. Populist parties that oppose immigration and deeper EU integration using antiestablishment rhetoric constitute the largest share of this group and have channeled voters' frustration with mainstream leaders' handling of successive crises and the perceived erosion of national culture and sovereignty. European governments' differing views on key policies, in some cases because of concerns about domestic blowback, have hampered deeper EU political and economic integration and contributed to some transatlantic trade tensions.

- In some Central European countries, populist leaders have begun to erode democratic practices by using state power to gain unfair political advantage. These leaders have enacted policies that undermine press freedom, weaken independent judiciaries, disproportionately benefit their own parties, and entrench corruption and poor accountability.
- If Europe's ongoing energy crisis develops into an extended economic downturn, prolonged economic difficulties almost certainly would prompt public discontent—potentially including increased mass public protests—and undermine backing for mainstream European governments while increasing support for populist and extreme parties. Mainstream parties' efforts to win back support by adopting populist policies have been generally unsuccessful and also may undermine the quality of democracy.

Western Hemisphere

Persistent economic weakness, compounded by the damaging effects of the COVID-19 pandemic, insecurity, and corruption are fueling public frustration and anti-status quo pressures that very likely will present governance challenges to Latin American and Caribbean leaders through at least 2030. Faced with competing demands to reinvent growth while addressing public demands for lasting reforms, Latin American leaders probably

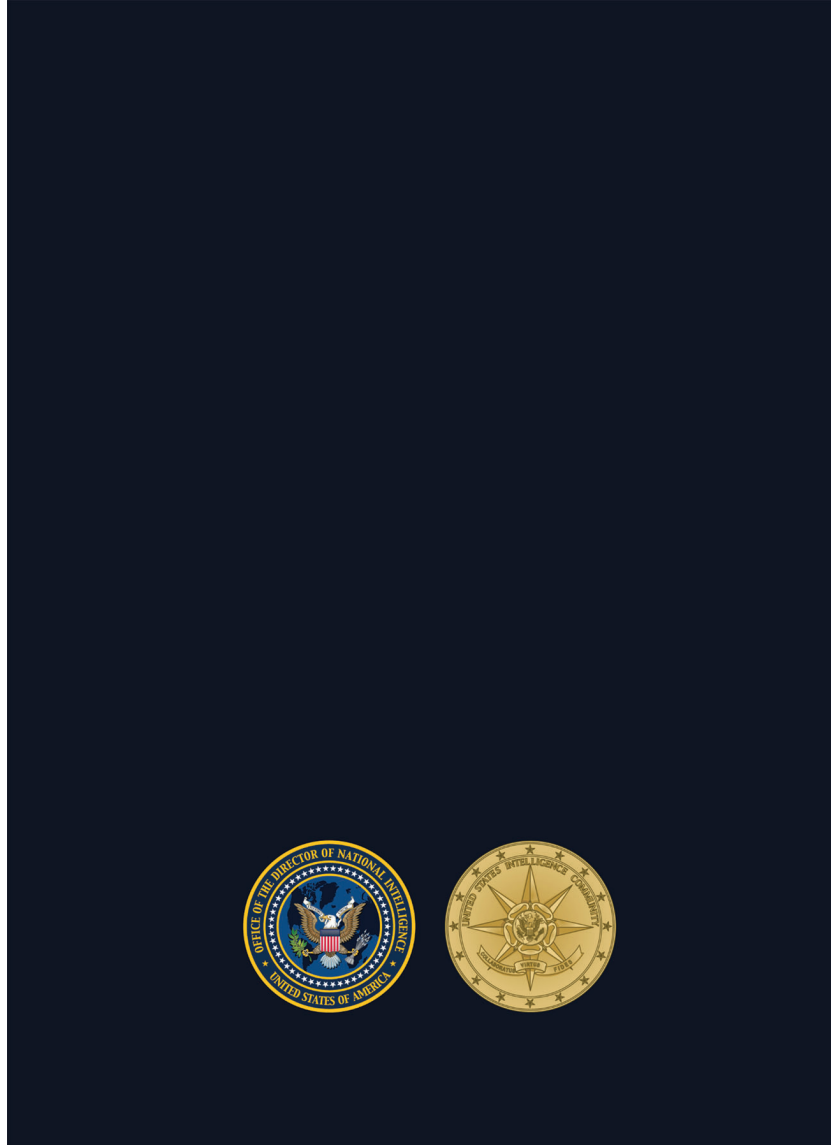
will have little flexibility to adjust budget priorities or borrow funds to meet key goals. Regional leaders most likely will prioritize quick economic fixes over difficult reforms to secure some policy successes.

- Severe shortages of essential goods, high inflation, and a lack of reliable electricity are fueling a record wave of migration to the United States.
- Venezuela faces poor prospects for economic recovery, which probably would take decades to improve if the current regime departed. Venezuela is unlikely to see a full restoration of democracy in the near future.

Tunisia

Tunisia's deteriorating economic situation coupled with President Kais Saied's ongoing consolidation of governing authority increase the risk for a serious breakdown in stability. Plausible but unlikely scenarios stemming from severe economic breakdown include an irregular leadership transition prompted by a popular uprising or, less likely, state collapse or a coup.

- Saied has prioritized advancing his political reform plan over addressing poor economic conditions that have historically driven unrest in Tunisia.
- Tunisia faces worsening shortages and inflation as it awaits an IMF loan and other external financing that would help the government avoid further economic decline.



APPENDIX B



February 8, 2022

Dr. Mary Mazanec, Director
Congressional Research Service
101 Independence Ave., SE
Washington, DC 20540

Dear Congressional Research Service,

We appreciate Congressional Research Service's (CRS) efforts to assess the People's Republic of China's (PRC) growing military, economic, and diplomatic capabilities and influence, and to support Congress' efforts to understand and address these challenges. However, China continues to evolve and grow in global influence. As we continue to evaluate and refine U.S. national security priorities, we request assistance in understanding how the PRC resources China's national security. We want your help to reduce the opacity surrounding PRC national security decision making and expenditures.

We request a memorandum, with appropriate charts or graphs, examining the tangible military, economic, technological, diplomatic, and other investments that most contribute to Chinese national power and influence. As part of this effort, we request that this memorandum identify critical gaps in our understanding of China's national security priorities and expenditures, key differences between China's and the United States' approach to national security, including total defense spending, and the implications these differences may present for the United States as Congress seeks to protect our national security and maintain our global competitiveness. This information can help us ask the right questions, better understand China's priorities, focus on the right U.S. investments, and ensure the United States remains competitive well into the future. This memorandum may very well be the beginning of this effort, setting the stage for more targeted questions and inspiring future studies.

Thank you for your continued passion and dedication to objective, impartial analysis and research—which remains imperative to answer the most complex policy problems that best support and defend the American people. We request the report's completion no later than March 1, 2023.

Sincerely,

A handwritten signature in blue ink, appearing to read "Angus King".

ANGUS S. KING, JR.
United States Senator

A handwritten signature in blue ink, appearing to read "Dan Sullivan".

DAN SULLIVAN
United States Senator

Cc: Congressional Budget Office



March 9, 2023

The Honorable Angus S. King, Jr.
United States Senate
133 Hart Senate Office Building
Washington, DC 20510

Dear Senator King:

Thank you for your letter dated February 8, 2023 requesting a Congressional Research Service (CRS) analysis of China's national security priorities and expenditures. The Foreign Affairs, Defense, and Trade (FDT) Division of CRS has conducted the analysis you requested, enclosed herewith.

As you know, the role of CRS is to provide authoritative, timely, objective, and nonpartisan research and analysis to Members and committees of the U.S. Congress. I appreciate that you have placed your trust in us to support your examination of this issue.

Thank you for your continued support of CRS.

Sincerely,



Mary B. Mazanec
Director

Enclosure

**MEMORANDUM**

March 9, 2023

To: Senator Angus King and Senator Dan Sullivan
Attention: Nick Oltman

From: Caitlin Campbell, Coordinator, Analyst in Asian Affairs, ccampbell@crs.loc.gov, 7-1987
Ricardo Barrios, Analyst in Asian Affairs, rbarrios@crs.loc.gov, 7-1165
Cory R. Gill, Analyst in Foreign Affairs, cgill@crs.loc.gov, 7-0093
Susan V. Lawrence, Specialist in Asian Affairs, slawrence@crs.loc.gov, 7-2577
Karen M. Sutter, Specialist in Asian Trade and Finance, ksutter@crs.loc.gov, 7-8638

Subject: **Resources Contributing to PRC Power and Influence**

This memorandum responds to your request for an examination of the investments by the People's Republic of China (PRC or China) that most contribute to the country's power and influence. It discusses assessments of China's national security priorities and expenditures; key differences between U.S. and PRC approaches to national security; and implications for the United States. Language in this memorandum may be used in other CRS products. Your confidentiality as a requestor will be maintained in any case. Please feel free to contact the coordinator if you require additional information.

Introduction

Measuring national power and influence necessarily involves both objective and subjective judgments. In this memo, the authors examine statements of national policy, evolving defense budgets and programs, and economic and diplomatic trends using Chinese government statements and documents, academic studies and other sources.

In China, for decades after the 1976 death of the PRC's founding leader, Mao Zedong, China's leaders emphasized gross domestic product (GDP) growth rates as a measure of both absolute and relative national strength. Military might was the fourth of the "four modernizations" that PRC leader Deng Xiaoping set in motion in 1978. At least since 2006, however, PRC leaders also have increasingly identified and developed metrics beyond GDP growth rates.¹ Current leader Xi Jinping has spoken more explicitly than his predecessors about seeking power and influence for China in the world, and linked that goal to a broad vision of "holistic national security." This memorandum discusses Xi's "holistic national security" concept and debates in China about how to measure what Xi has referred to as "composite national strength," and then examines China's power in three realms: military, economic, and diplomatic.

¹ For discussion of how performance metrics for Communist Party cadres in China has evolved over the decades, from "blind pursuit of GDP" to an effort "to reduce the emphasis on GDP indicators," see Rui Qi, Chechen Shi, and Mark Wang, "The Over-Cascading System of Cadre Evaluation and China's Authoritarian Resilience," *China Information*, 2021, Vol. 35(1) pp 67-88, at <https://journals.sagepub.com/doi/pdf/10.1177/0920203X20920514>.

China's "Holistic" Approach to National Security

Xi became Communist Party of China (CPC) General Secretary in 2012. A year later, he presided over a meeting of the Party's Central Committee that approved, among other things, the establishment of a National Security Commission to provide what Xi later described as "centralized, integrated, highly efficient, and authoritative" leadership over national security matters, with Xi in charge.² At the commission's first meeting on April 15, 2014, Xi unveiled his "holistic national security concept," which has guided the Party's national security work ever since.³ The PRC enshrined the concept in law in 2015, in the *National Security Law of the People's Republic of China*, which also made April 15 of each year "national security education day."⁴ China has passed a suite of other national security-related legislation since.⁵ The Party incorporated the holistic national security concept into its Party charter in 2017.⁶

The concept incorporates internal and external security, traditional and non-traditional security, and what China calls "self-security and common security."⁷ Xi's initial presentation of the concept mentioned 11 elements.⁸ By September 2022, the Party had expanded the concept to encompass 20 kinds of security: political, military, homeland, economic, financial, cultural, social, scientific and technological, cyber, grain, ecological, resource, nuclear, overseas interests, space, deep sea, polar, biological, artificial intelligence, and data security.⁹ The Party refers to "people's security" as the "ultimate goal"; political security—meaning regime security—as the "fundamental task"; economic security as the "foundation"; military, cultural and public security as "guarantees"; and international security as a "support."¹⁰

² Shen Dingli, "Plenum Focus on National Security," *China Daily*, November 26, 2013, at https://www.chinadaily.com.cn/opinion/2013-11/26/content_17130943.htm; "A Holistic View of National Security," Xi Jinping's remarks at the first meeting of the National Security Commission on April 15, 2014, *Qiushi*, December 4, 2020, at http://en.qstheory.cn/2020-12/04/c_607611.htm; "Xi Jinping to Lead National Security Commission," *Xinhua* via *China Daily*, January 24, 2014, at https://www.chinadaily.com.cn/china/2014-01/24/content_17257409.htm.

³ "Xi Stresses Importance of National Security," *Xinhua* via *China Daily*, April 15, 2014, at https://www.chinadaily.com.cn/china/2014-04/15/content_17436440.htm; "A Holistic View of National Security," Xi Jinping's remarks at the first meeting of the National Security Commission on April 15, 2014, *Qiushi*, December 4, 2020.

⁴ For unofficial English translations of the National Security Law of the People's Republic of China, see translation by China Law Translate at <https://www.chinalawtranslate.com/en/2015nsl/> and translation by Rogier Creemers of DigiChina at <https://digichina.stanford.edu/work/national-security-law-of-the-peoples-republic-of-china/>. The Chinese-language text of the law is available at http://www.gov.cn/zhengce/2015-07/01/content_2893902.htm.

⁵ New PRC laws that state media present as national security-related include the *National Security Law* (adopted 2015, effective July 1, 2015), *Counter-Terrorism Law* (2015, effective January 1, 2016; amended April 28, 2018), *Law on the Administration of Activities of Overseas Non-Governmental Organizations within the Territory of China* (2016, effective January 1, 2017), *Defense Transportation Law* (2016, effective January 1, 2017), *Cybersecurity Law* (2016, effective June 1, 2017), *National Intelligence Law* (2017, effective June 28, 2017; amended April 27, 2018), *Nuclear Safety Law* (2017, effective January 1, 2018), *Foreign Investment Law* (2019, effective January 1, 2020), *Law on Safeguarding National Security in the Hong Kong Special Administrative Region* (2020, effective June 30, 2020), *Biosecurity Law* (2020, effective April 15, 2021), *Anti-Foreign Sanctions Law* (2021, effective June 10, 2021), and *Data Security Law* (2021, effective September 1, 2021).

⁶ The State Council of the PRC, "Full Text of Resolution on Amendment to CPC Constitution," October 24, 2017, at http://english.www.gov.cn/news/top_news/2017/10/24/content_281475919837140.htm.

⁷ Chen Xiangyang, "Xi's Speech a Rallying-Call for National Security," *China-U.S. Focus*, April 30, 2014, at <https://www.chinausfocus.com/peace-security/xis-speech-a-rallying-call-for-national-security>.

⁸ They were political, homeland, military, economic, cultural, social, science and technology, information, ecological, resource, and nuclear security.

⁹ Jin Xin, "全面落实总体国家安全观" ("Fully Implement the Holistic National Security Concept"), *People's Daily*, September 20, 2022, <http://politics.people.com.cn/n1/2022/0920/c1001-32529652.html>.

¹⁰ "A Holistic View of National Security," Xi Jinping's remarks at the first meeting of the National Security Commission on April 15, 2014, *Qiushi*, December 4, 2020, at http://en.qstheory.cn/2020-12/04/c_607611.htm. The same formulation appears in Article 3 of the 2015 *National Security Law*, and in Xi's report to the Communist Party's 20th National Congress in October 2022. Xi Jinping, "Hold High the Great Banner of Socialism with Chinese Characteristics and Strive in Unity to Build a Modern

China's 2021 National Security Strategy

In November 2021, China's second-most senior decision-making body, the 25-person Party Politburo, approved China's first national security strategy, covering the years 2021-2025. The Party has not released the text of the strategy. China's state news agency, Xinhua, reported that the Politburo meeting that approved the strategy emphasized the need to "resolutely safeguard regime security, system security, and ideological security, and strictly guard against and resolutely crack down on various infiltration, subversion and sabotage activities."¹¹

According to Xinhua, the meeting also emphasized a) enhancing industry's resilience and ability to withstand shocks; b) preventing systemic financial risks; c) ensuring food security, energy and mineral security, and major infrastructure security; d) strengthening security for China's overseas interests; e) boosting "self-reliance and self-improvement" in science and technology; f) reducing "societal conflicts"; g) preventing industrial accidents; h) improving the safety and security of food, drugs, and other products and services related to people's health; i) improving China's "governance capabilities" in such areas as biosecurity, network security, data security, and artificial intelligence security; j) actively creating a good external environment; k) safeguarding national sovereignty, security, and development interests; l) establishing a "common, comprehensive, cooperative, and sustainable global security concept" (later introduced as China's "Global Security Initiative").¹²; m) expanding cooperation with other countries on security matters and maintaining "global strategic stability"; and n) working with other countries to address global challenges and build what China calls "a community with a shared future for mankind."¹³ The Politburo also stated that China should maintain its independence and never compromise on its core national interests or matters of "national dignity."¹⁴

Because China has not released the text of the national security concept, it is possible that it includes elements that Xinhua did not disclose. Among the unknowns about China's approach to national security is precisely what role the national security strategy plays in guiding China's national security work. Also poorly understood is how China's National Security Commission operates, including how it interacts with other CPC bodies and with China's state bureaucracy.¹⁵

Socialist Country in All Respects," report to the 20th National Congress of the Communist Party of China, October 16, 2022, p. 45, at <https://english.news.cn/20221025/8eb6f5239f984f01a2bc45b5b5db0c51/c.html>. The English translation of these terms varies, but the Chinese terminology has remained consistent.

¹¹ "中共中央政治局会议审议《国家安全战略（2021—2025年）》《军队功勋荣誉表彰条例》和《国家科技咨询委员会2021年咨询报告》" ("CPC Central Committee Politburo Meeting Reviews 'National Security Strategy (2021-2025)', 'Military Meritorious Honor Recognition Regulations,' and the '2021 Advisory Report of the National Science and Technology Advisory Commission'"), Xinhua, November 18, 2021, at http://www.gov.cn/xinwen/2021-11/18/content_5651753.htm; "CPC Leadership Reviews Documents on National Security Strategy, Military Honors Regulations, Sci-Tech Advisory Report," Xinhua, November 18, 2021, at http://www.news.cn/english/2021-11/18/c_1310319224.htm.

¹² Ministry of Foreign Affairs of the PRC, "The Global Security Initiative Concept Paper," February 21, 2023, at https://www.fmprc.gov.cn/mfa_eng/wjbxw/202302/t20230221_11028348.html.

¹³ See Andrew J. Nathan and Boshu Zhang, "'A Shared Future for Mankind': Rhetoric and Reality in Chinese Foreign Policy under Xi Jinping," *Journal of Contemporary China*, 2022, Vol. 31, No. 133, pp. 57-71, at <https://www.tandfonline.com/doi/full/10.1080/10670564.2021.1926091>.

¹⁴ "中共中央政治局会议审议《国家安全战略（2021—2025年）》《军队功勋荣誉表彰条例》和《国家科技咨询委员会2021年咨询报告》" 习近平主持 ("CPC Central Committee Politburo Meeting Reviews 'National Security Strategy (2021-2025)', 'Military Meritorious Honor Recognition Regulations,' and the '2021 Advisory Report of the National Science and Technology Advisory Commission'"), Xinhua, November 18, 2021, at http://www.gov.cn/xinwen/2021-11/18/content_5651753.htm.

¹⁵ For PRC Party and government organization charts, see CRS Report R46977, *China's Political System in Charts: A Snapshot Before the 20th Party Congress*, by Susan V. Lawrence and Mari Y. Lee.

“Composite National Strength”

In his report to the CPC’s 20th National Congress in October 2022, Xi three times used the term “composite national strength.” He said the Party sought to “significantly increase. . . composite national strength” by 2035, build China into a country “that leads the world in terms of composite national strength and international influence” by mid-century, and “strive to strengthen China’s voice in international affairs so it is commensurate with our composite national strength and international status.”¹⁶

China’s leaders do not appear to have publicly detailed what factors they consider to comprise “composite national strength.” As part of a Communist Party Central Committee-supported research project, one PRC scholar, a professor in the Marxism Institute at China’s prestigious Tsinghua University, notes a range of views on what elements should be included. Such elements included economic power, national morale, public finance strength, resource capabilities, military strength, and industrial capabilities, among other things.¹⁷ The scholar goes on to offer his own definition, arguing that “composite national strength” should be understood to include three kinds of hard power (economic strength, scientific and technological strength, and military strength), and three kinds of soft power (political leadership power, cultural soft power, and international influence).¹⁸

Differences in U.S. and PRC Approaches to National Security

Several factors contribute to differences between U.S. and PRC approaches to national security.

Decision Makers and Stakeholders. The CPC has identified regime security as the “fundamental task” of its pursuit of national security. China’s military, the People’s Liberation Army (PLA), is first and foremost a Party army serving the CPC, not the PRC. China’s security policies and the activities of the PLA and other security entities are accountable to the Party, and unlike in the United States, not the state or PRC citizens. These conditions could shape threat perceptions and tolerance for risk in ways U.S. strategists might not accurately comprehend or anticipate.

In the PRC, ultimate decision-making authority resides in the CPC’s Politburo Standing Committee, with support from offices and departments in the CPC and ministries in the State government bureaucracy. Since Xi Jinping became CPC General Secretary, State President, and Chairman of the Central Military Commission in 2012-2013, he has concentrated this authority even further, moving away from collective decision making and consolidating his personal power and authority over all policy matters, including those related to national security.¹⁹ Some experts have raised concerns about the apparent prevalence of group-think in Xi’s inner circle.²⁰ Among other things, this raises questions about whether the United States has accurate insights into his priorities, threat perceptions, and likely actions. In the United States, some Members of Congress and other stakeholders have raised concerns regarding what they perceive as

¹⁶ Xi Jinping, “Hold High the Great Banner of Socialism with Chinese Characteristics and Strive in Unity to Build a Modern Socialist Country in All Respects,” report to the 20th National Congress of the Communist Party of China, October 16, 2022, at <https://english.news.cn/20221025/8eb6f5239f984f01a2bc45b5b5db0c51/c.html>. The Chinese term for “composite national strength” is 综合国力 (*zōnghé guólì*). It is sometimes translated as “comprehensive national power.”

¹⁷ Dai Mucai, “论社会主义现代化强国建设的要素” (“On the Structural Elements of a Great Modern Socialist Country”), *Studies on Marxism*, No. 9, September 25, 2022.

¹⁸ Dai Mucai, “论社会主义现代化强国建设的要素” (“On the Structural Elements of a Great Modern Socialist Country”), *Studies on Marxism*, No. 9, September 25, 2022. Dai’s study was part of a major research project funded by China’s National Social Science Fund, under the Communist Party of China’s National Office for Philosophy and Social Sciences.

¹⁹ Yun Sun, *Statement before the U.S.-China Economic and Security Review Commission*, January 27, 2022.

²⁰ Richard C. Bush et al., “Around the Hals: The Outcomes of China’s 20th Party Congress,” *Brookings Institution*, October 25, 2022.

the executive branch's consolidation of national security and foreign affairs authority at Congress's expense. Some observers assign some blame to Congress itself for refraining to more stridently exercise the constitutional authorities at its disposal, including the power of the purse and authorizing the use of military force.²¹ Congress continues to meaningfully exercise these authorities and conduct oversight of the executive branch's national security and foreign policy activities to a degree that has no comparison in the PRC's governing structure.

Internal vs. External Focus. A significant difference between U.S. and PRC approaches to and understandings of national security is each country's perceived relationship with the world beyond its national borders. The United States has been a dominant global military power since World War II, and has long seen its economic and national security as contingent on external conditions. Several generations of U.S. policymakers have adopted this assumption and used a range of economic, military, and other means to shape such conditions. The PRC, by comparison, did not task the PLA with global operations until the mid-2000s. While the PLA now aspires to be a globally-active military, the PRC's most urgent national security tasks continue to be local: PRC leaders, perceiving significant internal threats to regime security, expend considerable resources on public security and "stability." Related priorities include resolving sovereignty and territorial claims, including over Taiwan and in the East and South China Seas. In this respect, China's current national security efforts are largely preoccupied with "internal" threats and challenges; the PRC does not yet have the ability to maintain a significant global military footprint, let alone military primacy, beyond its borders.

Military Power

Mao Zedong famously said that "political power grows out of the barrel of a gun."²² This sentiment illustrates the CPC's long-held view that military power is a direct enabler and enforcer of political power. The CPC sees the PLA an important guarantor of several elements of national security, including regime security, military security, homeland security, and others. To these ends, China leverages significant economic, scientific, and human resources to fuel the modernization of the PLA.

China's Military Expenditures

China has the second-largest officially reported defense budget in the world, after the United States.²³ It has increased its defense spending every year for more than three decades.²⁴ On March 5, 2023, the PRC Ministry of Finance announced a draft central defense budget of RMB1.55 trillion (about \$225 billion), a 7.2% increase from the previous year and the fastest rate of increase in the past four years.²⁵

²¹ For example, see Tom Malinowski, "Congress Has Willfully Abdicated Its Responsibility Over War," *Foreign Policy*, April 20, 2018 and Senator Rand Paul, "The Case for Conservative Realism," speech, October 23, 2014.

²² *Quotations from Mao Tse-Tung*, 1964.

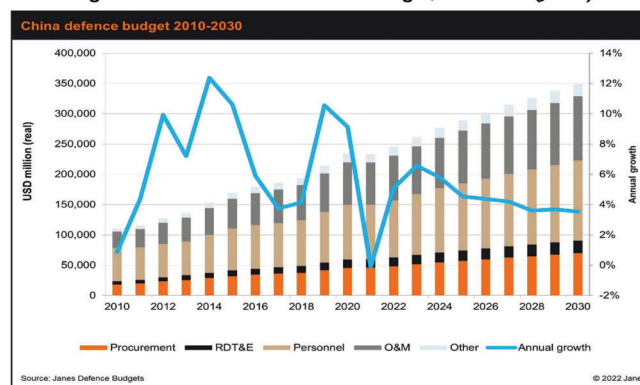
²³ China's most recent defense white paper, published in 2019, stated that increases in China's military budget since 2012 are attributable to the following: (1) increasing compensation and quality of resources for military personnel; (2) integrating modern equipment into the force while phasing out old equipment; (3) reforming and reorganizing the PLA; (4) enhancing the quality and sophistication of training; and (5) supporting "diverse military tasks" such as U.N. peacekeeping operations and other regional and global military activities. The 2019 paper assessed that military spending at the time was insufficient to meet China's defense needs. PRC State Council Information Office, *China's National Defense in the New Era*, July 2019.

²⁴ Janes, "China – Defense Budget," January 6, 2023.

²⁵ PRC Ministry of Finance, *Report on the Execution of the Central and Local Budgets for 2022 and on the Draft Central and Local Budgets for 2023*, March 5, 2023, p. 42; Jon Grevatt and Andrew MacDonald, "China Raises Defence Budget to USD225 Billion," *Janes Defense Weekly*, March 6, 2023.

The pace of the PRC's defense budget growth has largely been in line with China's economic growth in recent decades, accelerating to double-digit growth during periods of rapid economic expansion, and slowing to single-digit growth in the past seven years.²⁶ According to one U.S. think tank analysis, the PRC defense budget as a share of gross domestic product (GDP) has hovered below 2% since at least 2000, and has decreased as a share of government spending from around 11% in 2000 to 5%-6% since 2010.²⁷ Experts expect China's defense budget to continue growing, albeit at slower rates, in the coming years (see **Figure 1**).

Figure 1. Estimated PRC Defense Budget, 2010-2030 (Janes)



Source: Janes Defence Budgets, 2022.

Notes: This figure reflects estimates of PRC defense budgets by Janes rather than PRC announced budgets. See Janes, "China – Defense Budget," updated January 6, 2023, for a discussion of methodologies used to assess PRC defense budgets. RDT&E refers to research, development, testing, and evaluation; O&M refers to operation and maintenance.

The Challenge of Measuring China's Military Expenditures

China's announced budget figures lack detail—China generally only publishes a single top-line budget number.²⁸—and appear to omit some defense-related expenditures, such as some paramilitary spending, some personnel compensation costs, and some defense-related research, development, testing, and evaluation expenditures.²⁹ A lack of transparency in China's governance system in general, and in its

²⁶ Xinhua, "Explainer: Prudent Chinese Defense Budget Growth Ensures Broad Public Security," March 5, 2022.

²⁷ By comparison, U.S. defense spending as share of GDP has ranged from around 3.5%-5% from 2000-2021, and U.S. defense spending as a share of government spending ranged from 8.3% to 12.4% during that time period. CSIS ChinaPower, "What Does China Really Spend on its Military?" updated June 29, 2022.

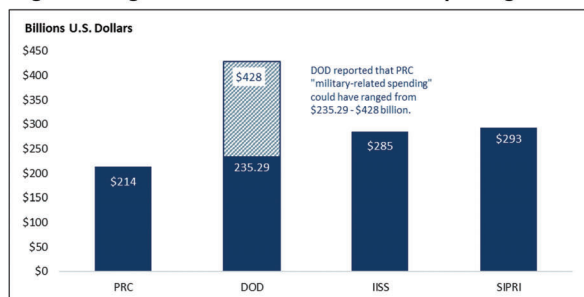
²⁸ The PRC submitted slightly more detailed defense expenditure figures to the United Nations' Office for Disarmament Affairs for the years 2008, 2009, 2010, 2017, and 2020. The PRC's submission to the U.N. for military expenditures for fiscal year 2020 included RMB 383m for personnel, RMB 428m for training and maintenance, and RMB 480m for equipment, accounting for 30%, 33%, and 37% of the total expenditure, respectively. United Nations Office for Disarmament Affairs, *China*, at <https://milex.un-arm.org/country-profile/CHN>.

²⁹ Tai Ming Cheung, "Keeping Up with the Jundui," in *Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms* (Washington, DC: National Defense University Press, 2019), p. 586; Frederico Bartels, "China's Defense Budget in Context:

defense bureaucracy in particular, contributes to the challenge. Drawing conclusions about relative military power through comparative assessments of China's and other countries' defense expenditures presents additional challenges. For example, per capita personnel costs for the U.S. military are significantly higher than for the PLA. It is not clear how the PLA's relative under-investment in personnel vis-a-vis the U.S. military influences its power and capabilities.

International observers, including the U.S. Department of Defense (DOD), estimate that China's defense spending is greater than the PRC government officially acknowledges.³⁰ China's announced defense budget (and reported expenditure) for 2021 was approximately \$213.9 billion, but DOD reported that "in 2021, according to public research institutions, the PRC's actual military-related spending could be 1.1 to 2 times higher than stated in its official budget."³¹ The International Institute for Strategic Studies (IISS) estimated that China's total defense expenditure for 2021 was close to \$285 billion (133% of its official announced budget), and the Stockholm International Peace Research Institute (SIPRI) estimated it was \$293 billion (137% of China's official announced budget).³² Figure 2 illustrates the range of these estimates.

Figure 2. Range of Assessments of PRC Defense Spending for 2021



Source: CRS with data from U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2021*, November 2021, p. 142; International Institute for Strategic Studies Military Balance Plus database, accessed January 2023; Diego Lopes Da Silva et al., *Trends in World Military Expenditure, 2021*, Stockholm International Peace Research Institute, April 2022, p. 3.

Military-Civil Fusion

The consensus among PRC military scholars and leaders, informed in part by observations of U.S. military operations and technological development, is that military superiority in the 21st century hinges

How Under-Reporting and Differing Standards and Economies Distort the Picture," The Heritage Foundation, March 25, 2020.

³⁰ For an exploration of the challenges of and methodologies for calculating China's defense budget, and a case study on how one organization—the Stockholm International Peace Research Institute—went about revising its approach to measuring China's military expenditure, see Nan Tian and Fei Su, "A New Estimate of China's Military Expenditure," Stockholm International Peace Research Institute, January 2021; Meia Nouwens and Lucie Béraud-Sudreau, "Assessing Chinese Defense Spending: Proposals for New Methodologies," International Institute for Strategic Studies, March 31, 2020.

³¹ U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2021*, November 2021, p. 142.

³² International Institute for Strategic Studies Military Balance Plus database, accessed January 2023; Diego Lopes Da Silva et al., *Trends in World Military Expenditure, 2021*, Stockholm International Peace Research Institute, April 2022, p. 3.

on the ability to harness civilian science and technology resources and integrate them into military operations.³³ A sprawling and ambitious initiative, previously called civil-military integration and now championed by Xi as “military-civil fusion,” has taken on greater resonance as the PLA seeks to leverage advanced and emerging technologies and manufacturing capabilities to build a fully “informatized” force.³⁴ PRC scholars argue that China’s defense budget will need to expand to unsustainable levels for the PLA to replace legacy systems with more modern and expensive ones.³⁵ For this reason, they argue, the task of resourcing the PLA should be shouldered by both the defense budget and various civilian sources. PRC strategists also deem military-civil fusion prudent given that much of modern technology has both civilian and military applications.³⁶ This approach informs foreign acquisition and technology transfer as well; many PRC state-owned defense firms serve both commercial and military roles, potentially facilitating such transfers and synergies. One PRC scholar of military-civil fusion notes:

In the information era the lines are increasingly blurred between concepts like security and development, economic and military development, civil and military, peacetime and wartime, frontlines and rear areas, and military-use versus civilian use. These concepts are being increasingly fused together.³⁷

The PRC has established and invested in several programs and processes to advance its military-civil fusion goals. These include an oversight commission chaired by Xi and populated by other top-level Party leaders; a centralized online procurement information network to facilitate greater civilian company participation in military procurement; more than 100 “zones” for the development and testing of dual-use technology; requirements that state-owned companies invest in certain new technologies; the declassification and release of military patents to encourage private companies to develop spin-off technologies; and several “civil-military fusion strategic projection bases” that seek to facilitate military use of civilian road, rail, aviation, and other logistics services and assets, among other things.³⁸

The outputs of these efforts are difficult to quantify, and it remains to be seen how China’s top-down military-civil fusion campaign compares in effectiveness to the U.S. model of defense innovation.³⁹ Some observers have raised “questions about potential exaggeration of the size of funds being devoted [to military-civil fusion] and the effectiveness of such initiatives in bringing about change.”⁴⁰ The highest

³³ Elsa Kania, “In Military-Civil Fusion, China Is Learning Lessons from the United States and Starting to Innovate,” *Strategy Bridge*, August 27, 2019, at <https://thestrategybridge.org/the-bridge/2019/8/27/in-military-civil-fusion-china-is-learning-lessons-from-the-united-states-and-starting-to-innovate>.

³⁴ Elements of military-civil fusion appear in China’s industrial policies, such as “Made in China 2025.” For details, see CRS In Focus IF10964, “*Made in China 2025*” *Industrial Policies: Issues for Congress*, by Karen M. Sutter.

³⁵ Brian Lafferty, “Civil-Military Integration and PLA Reforms,” in *Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms* (Washington, DC: National Defense University Press, 2019), pp. 630-631.

³⁶ According to one observer, PRC scholars of military-civil fusion “regularly claim that over 80 percent of technologies used by leading military powers are dual-use.” Brian Lafferty, “Civil-Military Integration and PLA Reforms,” in *Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms* (Washington, DC: National Defense University Press, 2019), pp. 634-635.

³⁷ Jiang Luming, “Why Civil-Military Integration Has Been Raised to a National Strategy,” *PLA Daily*, February 3, 2017, as translated by and cited in Brian Lafferty, “Civil-Military Integration and PLA Reforms,” in *Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms* (Washington, DC: National Defense University Press, 2019), pp. 636-637.

³⁸ Courtney Weinbaum et al., *Assessing Systemic Strengths and Vulnerabilities of China’s Defense Industrial Base*, RAND Corporation, 2022, p. 35; Lucie Béraus-Sudreau and Meia Nouwens, “Weighing Giants: Taking Stock of the Expansion of China’s Defence Industry,” *Defense and Peace Economics* vol. 32 no. 2 (2021): 162-163; Brian Lafferty, “Civil-Military Integration and PLA Reforms,” in *Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms* (Washington, DC: National Defense University Press, 2019), pp. 636-637.

³⁹ Elsa B. Kania and Lorand Laskai, “Myths and Realities of China’s Military-Civil Fusion Strategy,” Center for a New American Security, January 28, 2021.

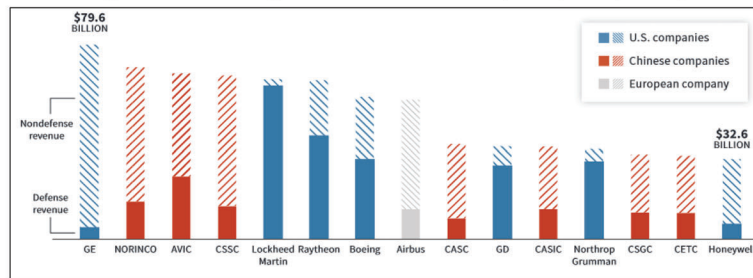
⁴⁰ Courtney Weinbaum et al., *Assessing Systemic Strengths and Vulnerabilities of China’s Defense Industrial Base*, RAND Corporation, 2022, p. 17.

levels of the PRC leadership does not yet appear to have sufficient political will to realign the myriad military, commercial, academic, and other systems necessary to create new synergies and cost-savings between the civilian and military sectors. A number of factors have contributed to uneven progress, including entrenched interests; lack of initiative by industry and military actors at local levels; the tension between the military bureaucracy's imperative of military secrecy and the importance of transparency for innovation; and the sheer enormity of the effort.⁴¹

China's Defense Industrial Base

China's defense industrial base—largely resident in eight major state-owned defense conglomerates—is a major contributor to China's military power. In recent years, China's defense companies have become globally competitive (see **Figure 3**). Revenues in 2021 for China's top defense companies totaled more than \$117 billion. According to a *Defense News* ranking, PRC state-owned defense companies comprised 6 of the 15 largest defense companies in the world in 2022 (by reported defense revenue).⁴² One analysis finds “empirical evidence that Chinese defense companies now operate on a similar level to the most important defense manufacturers in the world,” although they suffer from a relative lack of domestic competitiveness and innovation.⁴³

Figure 3. World's Largest Defense-Related Companies, 2021 (RAND)



Source: RAND Corporation Research Brief, *Assessing Systemic Strengths and Vulnerabilities of China's Defense Industrial Base*, 2022, p. 2.

The PRC government controls China's defense sector to a significant degree, shaping the industry and individual companies through long-term strategic plans and guidance, subsidies, financing and direct payments, tax breaks and other incentives, and initiatives like military-civil fusion. A RAND analysis estimated that as of 2020 PRC central and local governments managed \$500 billion in “government guidance funds” for companies to develop specific, often dual-use, technologies, “representing a major

⁴¹ Zi Yang, “Opening Up While Closing Up: Balancing China's State Secrecy Needs and Military-Civil Fusion,” in *Roundtable: China's Military-Civil Fusion Strategy: Development, Procurement, and Secrecy*, *Asia Policy*, vol. 16, no. 1 (January 2021), pp. 46-64; Conor M. Kennedy, “China Maritime Report No. 4: Civil Transport in PLA Power Projection,” U.S. Naval War College China Maritime Studies Institute, *CMSI China Maritime Reports* 4 (December 2019), pp. 28-29; Brian Lafferty, “Civil-Military Integration and PLA Reforms,” in *Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms* (Washington, DC: National Defense University Press, 2019), pp. 639-640, 648-649.

⁴² “Top 100 for 2022,” *Defense News*, at <https://people.defensenews.com/top-100/>.

⁴³ Lucie Béraus-Sudreau and Meia Nouwens, “Weighing Giants: Taking Stock of the Expansion of China's Defence Industry,” *Defense and Peace Economics* vol. 32 no. 2 (2021): 158-161.

source of potential funding” for China’s defense industry.⁴⁴ In discussing a 13.5% increase in China’s general public budget for basic research in 2022, the PRC Ministry of Finance’s March 2023 budget report claimed that “we spared no effort to ensure the necessary funds for research on core technologies in key fields and innovations in defense-related science and technology.”⁴⁵ The RAND study anticipates that as PLA operational requirements expand and require more resources, “a smaller and smaller portion of [the defense budget] will be allocated to the [defense industrial base] for new weapons and research.”⁴⁶

While China’s leaders strive to achieve a fully self-reliant defense industry, for now, PRC defense companies remain dependent on foreign technology. DOD refers to China’s defense industry benefitting from a “massive tech transfer apparatus.”⁴⁷ DOD alleges that China has employed espionage in its attempts to acquire some sensitive, dual-use, or military-grade equipment.⁴⁸ In other situations, according to another analysis, “subsidiaries of some of the top eight Chinese [state-owned defense enterprises] are engaged in accessing foreign technology relating to specific stumbling blocks in indigenous innovation, such as aircraft engines, through the acquisition of foreign companies.”⁴⁹

Trends and Questions Surrounding the Resourcing of China’s Military Power

Slowing growth. As China’s economic growth has slowed, some experts assess its leaders are contending with “guns versus butter” trade-offs. According to analysis by defense and intelligence information source Janes, “the slowdown in [China’s economic] growth appears to be gradually shifting the drivers of [PRC defense] budget increases from the availability of resources created by rapid economic growth to a more direct consideration of defense resourcing requirements.” The Janes analysis suggests, for example, that wage pressures may have contributed to PRC leaders’ decision to reduce the size of the PLA by 300,000 personnel during the mid-2010s and notes that “reductions in personnel numbers will enable the PLA to maintain the pace of its modernization process while minimizing the strain upon government finances.”⁵⁰

Although reporting on popular views of military spending in China is scarce, one study analyzing a 2016 survey found that PRC citizens, while supportive of increased military spending in the abstract, generally ranked “increasing military strength” near the bottom of a list of other policy priorities. The survey result suggests “a significant majority believ[e] that tackling domestic and social problems should be prioritized over efforts to enhance China’s military power and international prestige.”⁵¹ The study concluded that this “preference brings into question whether public support for military expenditure can be sustained if economic growth rates continue to fall at the same time as domestic needs continue to rise.”⁵²

⁴⁴ Cortney Weinbaum et al., *Assessing Systemic Strengths and Vulnerabilities of China’s Defense Industrial Base*, RAND Corporation, 2022, pp. 25-26.

⁴⁵ PRC Ministry of Finance, *Report on the Execution of the Central and Local Budgets for 2022 and on the Draft Central and Local Budgets for 2023*, March 5, 2023, p. 14.

⁴⁶ Cortney Weinbaum et al., *Assessing Systemic Strengths and Vulnerabilities of China’s Defense Industrial Base*, RAND Corporation, 2022, p. 24.

⁴⁷ U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2022*, November 2022, p. 151.

⁴⁸ U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2022*, November 2022, p. 152.

⁴⁹ Lucie Béraus-Sudreau and Meia Nouwens, “Weighing Giants: Taking Stock of the Expansion of China’s Defence Industry,” *Defense and Peace Economics* vol. 32 no. 2 (2021): 164.

⁵⁰ Janes, “China – Defense Budget,” January 6, 2023.

⁵¹ Han Xiao, Michael Sadler, and Kai Quek, “Guns and Butter in China: How Chinese Citizens Respond to Military Spending,” *The China Quarterly*, 245 (March 2021), p. 254.

⁵² Han Xiao, Michael Sadler, and Kai Quek, “Guns and Butter in China: How Chinese Citizens Respond to Military Spending,” *The China Quarterly*, 245 (March 2021), p. 258.

A more global force. Analysis by Janes finds that PRC defense spending trends reflect the PLA's increasingly global operations and aspirations. Although the historically dominant ground forces account for nearly half of PLA expenditures, the PLA is increasingly diverting resources from the ground forces to its air and naval forces, and as it expands its global military footprint its operating costs are set to grow. Among other things, these resources fund sophisticated platforms that extend the reach of China's military, such as aircraft carriers, surface combatants and amphibious assault ships for the PLA Navy and fifth-generation combat aircraft, transport aircraft, and strategic bombers for the PLA Air Force.⁵³ This raises questions of whether or how China's leaders might reallocate resources for security in the face of perceived threats and interests across multiple geographic areas.

Centralized control. A 2022 report by the RAND Corporation conducted pursuant to a requirement in the FY2021 NDAA (P.L. 116-283, Section 1260C) found that the PRC's top-down, centralized, long-term planning and control of its defense industry confers both strengths and weaknesses on its military power. Although it identifies advantages, ranging from a large workforce to massive manufacturing capacity to growing technological innovation, the report also raises questions about whether China's centralized decision-making apparatus creates vulnerabilities for its defense industrial base:

The centralization of power and decisionmaking within the Chinese government supports its ability to drive whole-of-government strategies, set priorities, and align government actions around its priorities in ways the U.S. government is unable to do. China can create global approaches to its priorities, whereas the U.S. government must take more fragmented or piecemeal actions in the absence of affirmative interagency processes. But the ability of the Chinese government to lead with one voice creates a weakness for the country when the entire [defense industrial base] pivots toward the new priorities to the detriment of others. In short, Xi Jinping can do anything, but he cannot do everything. Topics outside the priority list risk anemic treatment without the leadership's spotlight. This challenge is a risk for China should the government bet on the wrong technology or shine its light too brightly on one aspect of its [defense industrial base] and leave another in the dark..⁵⁴

The report's analysis of China's defense industrial base could also be extended to other areas of China's defense bureaucracy (and its governance system more generally), raising questions about whether the PRC's efforts to enhance its security and military strength through strict centralization and control undermine its objectives or offer advantages for adversaries to exploit.

Economic Power

In its efforts to build composite national power, China's approaches emphasize economic strength, technological leadership, the role of innovation, global economic influence, and control of global supply chains. Since 2014, Xi has made several speeches that show how he is developing concepts of national security and law to advance China's national interests, domestically and globally. China's emerging concept of national security under Xi Jinping includes traditional and nontraditional elements, defensive and offensive measures, and an interplay of domestic and global factors. Xi's concept of "overall national security" discusses economic security as the foundation of China's security, and the interplay between China's economic development and security as one of five key relationships. The concept includes China's "right to develop," a principle that PRC officials often invoke in response to U.S. sanctions and other restrictions affecting trade, investment, and collaboration.⁵⁵ In two 2018 speeches, Xi emphasized

⁵³ Janes, "China – Defense Budget," January 6, 2023.

⁵⁴ Cortney Weinbaum et al., *Assessing Systemic Strengths and Vulnerabilities of China's Defense Industrial Base*, RAND Corporation, 2022, p. v.

⁵⁵ Jude Blanchette, "Ideological Security as National Security," CSIS Report, December 2, 2020. Blanchette translates Tang Aijun, "Ideological Security in the Framework of the Overall National Security Outlook," *Socialism Studies*, May 2019; Outline

China's efforts to promote and secure control over core technologies, research, and innovation. In an April 2018 speech at China's National Cybersecurity and Informatization Work Conference, Xi emphasized developing and controlling core technologies as "important instruments of the state."⁵⁶ In a May 2018 address to the Chinese Academies of Sciences and Engineering, Xi said that "the initiatives of innovation and development must be securely kept in our own hands."⁵⁷

Levers of PRC Economic Power

China's industrial policies feature a heavy government role in directing and funding PRC firms to obtain targeted foreign expertise and technology in areas where China has gaps and the United States has strong comparative advantages (e.g., aerospace, artificial intelligence, biotechnology, and semiconductors).⁵⁸ *Made in China 2025*—a broad umbrella industrial plan that China introduced in 2015—seeks to boost China's economic competitiveness by advancing a leadership and vertically-integrated position for China in the global manufacturing value chain, leapfrogging into emerging technologies where China assesses it is easier to break into markets because there are less-defined rules, standards, and global corporate leaders. *Made in China 2025* calls for breakthroughs in 10 sectors, supports a range of sector-specific plans, and sets goals for each sector to increase the share of production by PRC firms.⁵⁹

The role of the state in China's economy and business ecosystem blurs lines between China's government authorities and business operations. The PRC government is directly involved in advancing China's national economic development and related industrial policy goals and in promoting national corporate champions, sometimes setting commercial terms and influencing corporate decision-making.⁶⁰ China's system also blurs state and corporate interests, enabling the government to deploy trade tools (e.g., antidumping, antitrust, standards, and procurement), economic coercion, and espionage to advantage its firms and advance China's industrial and other policies.⁶¹ This economic role of the state gives China unique and increasingly powerful asymmetric and arguably unfair competitive global economic and technological advantages as China becomes increasingly influential in the global economy.⁶² Experts contend that China is actively seeking to enhance its global economic influence, including promoting its statist development model and ensuring that global rules serve China's interests.⁶³

of the National Innovation-Driven Development Strategy, Central Committee of the Communist Party of China (CPC) and the State Council, English-language translation, Center for Security and Emerging Technology, December 11, 2019.

⁵⁶ "Xi Jinping's April 20 [2018] Speech at the National Cybersecurity and Informatization Work Conference," Unofficial English translation, New America Foundation Blog, April 30, 2018.

⁵⁷ "China Focus: Xi Calls for Developing China into World Science and Technology Leader," Xinhua, May 29, 2019.

⁵⁸ *State Council Decision on Accelerating the Process of Nurturing and Developing Strategic New Industries*, State Council of the PRC, Document No. 32, October 2010; *Guiding Opinions of the State Council on Promoting the Internet Plus*, State Council of the PRC, Document No. 40, July 1, 2015; the *13th Five-Year Plan on Science Technology and Innovation* (2016-2020), Ministry of Science and Technology of the PRC, September 15, 2016; State Council on Printing and Issuing the *Twelfth Five-Year Development Plans for the National Strategic Emerging Industries*, State Council, No. 28, June 2012.

⁵⁹ CRS In Focus IF11684, *China's 14th Five-Year Plan: A First Look*, by Karen M. Sutter and Michael D. Sutherland; CRS In Focus IF10964, *"Made in China 2025" Industrial Policies: Issues for Congress*, by Karen M. Sutter.

⁶⁰ Mark Wu, "The 'China, Inc.' Challenge to Global Trade Governance," *Harvard International Law Journal*, Vol. 57, (2016): 1001-1063.

⁶¹ Mark Wu, "The 'China, Inc.' Challenge to Global Trade Governance," *Harvard International Law Journal*, Vol. 57, (2016); See CRS Report R46915, *China's Recent Trade Measures and Countermeasures: Issues for Congress*, by Karen M. Sutter.

⁶² James McGregor, "China's Drive for 'Indigenous Innovation': A Web of Industrial Policies," U.S. Chamber of Commerce and APCO Worldwide, July 2010. CRS Report R46915, *China's Recent Trade Measures and Countermeasures: Issues for Congress*, by Karen M. Sutter.

⁶³ Elizabeth C. Economy, "Testimony before the U.S.-China Economic and Security Review Commission Hearing on The 'China Model,'" March 13, 2020.

Opacity and political controls allow China to hide both strengths and weaknesses in its economic power. PRC reporting tends to highlight economic and technological progress while understating instances when advancements are due to capabilities acquired from the United States.⁶⁴ China is building out its economic and technological strength in large part through trade, investment, technology and research ties to the United States and the broader global economy. China continues to require the transfer of critical U.S. technology and advanced capabilities to China to operate in strategic areas, including sectors representing the top U.S. exports to China— aerospace, semiconductors, advanced medical equipment, agriculture, biotechnology, and energy.⁶⁵ A focus on U.S.-China strategic competition ignores the ways in which the United States economy, including the fields of research and technology, remains open to China, and raises questions about the extent to which U.S. commercial, financial, or research activity may be helping to fill PRC gaps or ameliorate areas of weakness.

Specifically, China sets terms that require the transfer of critical U.S. technology and advanced capabilities to China to operate in strategic areas.⁶⁶ In response to China's terms, U.S. aerospace firms have invested in joint ventures with PRC state firms to develop China's single-aisle aircraft (C-919), which aims to compete with Boeing and Airbus using U.S. advanced technologies.⁶⁷ A PRC government fund finances the purchase of U.S. technology, equipment, and software that support industrial policies that seek to develop China's self-sufficiency in semiconductor production.⁶⁸ In agriculture, China's state firms have purchased leading foreign biotechnology firms (e.g., Syngenta), enhancing China's global influence over global agricultural trade.⁶⁹ In electric vehicles, China has required firms to localize supply chains for batteries, components, and systems.⁷⁰ In medical devices and pharmaceuticals, a national procurement program creates cost pressures on foreign firms that arguably encourage production in China.⁷¹ In critical materials, China leverages its control of extraction and processing to promote production in China, while continuing to acquire foreign assets overseas in strategic minerals such as nickel, cobalt, and lithium.⁷² Research ties with the United States allow China to fill critical knowledge gaps in strategic technical areas. China's state talent programs call for participants to "serve the country" while working abroad, which may involve the transfer of capabilities to China,⁷³ and the PRC

⁶⁴ Guidelines of the 11th Five-Year Plan for National and Social Economic Development, State Council of the PRC, March 11, 2006; Cong Cao, Richard P. Suttmeier, and Denis Fred Simon, "China's 15-Year Science and Technology Plan," *Physics Today*, December 2006.

⁶⁵ Barry Naughton, *The Rise of China's Industrial Policy 1978 to 2020*, Universidad Nacional Autonoma de Mexico, 2021 (See Chapters 4 and 5); "2021 Report to Congress on China's WTO Compliance," USTR, February 2022.

⁶⁶ Barry Naughton, *The Rise of China's Industrial Policy 1978 to 2020*, Universidad Nacional Autonoma de Mexico, 2021 (See Chapters 4 and 5); "2021 Report to Congress on China's WTO Compliance," USTR, February 2022.

⁶⁷ Bohdan Kucheriavyl, "Boeing: Beijing Strikes Back," *Seeking Alpha*, December 1, 2022.

⁶⁸ Li Tao, "How China's 'Big Fund' is helping the country catch up in the global semiconductor race," *South China Morning Post*, May 10, 2018.

⁶⁹ Michael Shields, "ChemChina clinches landmark \$43 billion takeover of Syngenta," *Reuters*, May 5, 2017.

⁷⁰ "Notice on Adjusting the Financial Subsidy Policy for the Promotion and Application of New Energy Vehicles," Ministry of Finance, Cai Jian [2016] 958, January 11, 2017.

⁷¹ "China expands drug bulk-buy program, puts pressure on pharma firms," *Reuters*, September 2, 2019.

⁷² Lara Seligman, "China Dominates the Rare Earths Market. This U.S. Mine Is Trying to Change That," *Politico Magazine*, December 14, 2022.

⁷³ Andrew Spear, "Serve the Motherland While Working Overseas," and Jeffrey Stoff, "China's Talent Programs" in William C. Hannas and Didi Kirsten Tatlow, *China's Quest for Foreign Technology*, Routledge, 2021; David Zweig, Chung Siu Fung, and Donglin Han, "Redefining the Brain Drain: China's 'Diaspora Option,'" *Science, Technology and Society* 13.1, May 2008, pp. 1–33.

government encourages the return of Chinese expatriates with technical expertise and the hiring and exchange of foreign research talent, including from the United States.⁷⁴

China views its economic dependencies on the United States and other foreign markets as a source of weakness and has sought to diversify trade, secure supply chains and boost self-sufficiency in agriculture, energy, technology, and industry, while leveraging its control over global supply chokepoints.⁷⁵ China's leaders have identified agriculture and food security as priorities in China's 14th Five-Year Plan, covering the years 2021-2025, and have sought to diversify China's sources of agricultural imports.⁷⁶ In a 2020 speech, Xi called for China to build production and supply chains that are "independently controllable, secure and reliable" to ensure industrial and national security.⁷⁷ Xi said China should "tighten international production chains' dependence on China, forming a powerful countermeasure and deterrent capability."⁷⁸ Xi also called for developing and leveraging control of core technologies—in sectors such as high speed rail, telecommunications and power equipment, and new energy—and localizing technology and critical production in China.

Economic Strength at Home

The World Bank considers China to be an "upper middle income country." China was among the world's fastest-growing economies with real annual GDP growth averaging 9.5 percent between 1979 and 2018. In a 2006 study, an influential public intellectual, Hu Angang, compared the "strategic resources and major indicators" of five countries, using such metrics as arable land, freshwater resources, and number of Internet users.⁷⁹ In a 2022 article, he and two co-authors catalogued China's world rankings on a set of 23 mainly economic metrics (see **Appendix**). On the metrics they chose, Hu and his co-authors found that China held the top global spot in four categories in 2000, in 10 categories in 2010, and in 16 categories in 2020. They conclude that, "The substantial increase in China's composite national strength is the biggest endogenous variable that can effectively resist the United States' containment of China."⁸⁰ Many of these

⁷⁴ See CRS In Focus IF10964, "Made in China 2025" Industrial Policies: Issues for Congress, by Karen M. Sutter.

⁷⁵ *Proposal of the Central Committee of the Communist Party of China on Formulating the Fourteenth Five-Year Plan for National Economic and Social Development and the Long-term Goals for 2035* (adopted at the Fifth Plenary Session of the 19th Central Committee of the Communist Party of China on October 29, 2020), *Xinhua News Agency*, November 3, 2020, at http://www.xinhuanet.com/politics/zywj/2020-11/03/c_1126693293.htm; *Report on the Implementation of the 2019 Plan for National Economic and Social Development and on the 2020 Draft Plan for National Economic and Social Development*, delivered at the Third Session of the Thirteenth National People's Congress on May 22, 2020; National Development and Reform Commission of the PRC, as published by *Xinhua News Agency*, at <http://www.xinhuanet.com/english/download/nationaleconomic.pdf>.

⁷⁶ 中华人民共和国国民经济和社会发展第十四个五年规划和2035年远景目标纲要, *Xinhua*, March 13, 2021, at http://www.xinhuanet.com/fortune/2021-03/13/c_1127205564.htm. For an English translation, see Center for Security and Emerging Technology, Georgetown University, "Translation: Outline of the People's Republic of China 14th Five-Year Plan for National Economic and Social Development and Long-Range Objectives for 2035," May 13, 2021, at <https://cset.georgetown.edu/publication/china-14th-five-year-plan/>.

⁷⁷ Xi Jinping, "Certain Major Issues in the National Medium and Long-Term Economic and Social Development Strategy," *Qiushi Journal*, October 31, 2020. Unofficial English translation available at <https://cset.georgetown.edu/research/xi-jinping-certain-major-issues-for-our-national-medium-to-long-term-economic-and-social-development-strategy/>.

⁷⁸ *Ibid.*

⁷⁹ Angang Hu, "Comprehensive National Power (1980-2000): A Comparative Study of the U.S, Russia, Japan, India and China," in *Economic and Social Transformation in China* (Routledge, 2006), at <https://www.taylorfrancis.com/chapters/oa-monograph/10.4324/9780203970096-12/comprehensive-national-power-1980%E2%80%932000-comparative-study-us-russia-japan-india-china-angang-hu>.

⁸⁰ Hu Angang, Liu Donghao, and Yang Hualiu, "中美战略竞争的发展趋势——基于利益综合国力分析框架" "The Trend of China-U.S. Strategic Competition: Based on the Analytical Framework of Interests-Comprehensive National Power", *Journal of Hainan University (Humanities and Social Sciences)*, August 1, 2022, at <https://kns.cnki.net/kcms/detail/46.1012.C.20220801.0901.001.html>.

areas of strength depend, however, on China's ability to access the global economy and continued global openness and tolerance of the PRC's statist economic model; China's unfair trade practices have become increasingly contentious in the United States and other countries.⁸¹

Growth has been slowing as China faces pressures to shift away from previous growth drivers—such as fixed-asset investment by the PRC government and global comparative advantages in low-cost manufacturing and exports—which the International Monetary Fund (IMF) assesses have reached their limits.⁸² Economic activity in China has picked up since the PRC government lifted Coronavirus Disease 2019 restrictions in October 2022, but the pandemic exposed and exacerbated systemic economic weaknesses, including China's reliance on fixed asset investment for growth, weakness in the property sector, and a significant debt burden that was exacerbated by government spending during the pandemic. China's total debt—household, corporate, and government—reached 296% of GDP in the third quarter of 2022, with the majority held by companies.⁸³ Many economists assess that China faces a middle-income trap, citing pressures China faces in trying to reach a more advanced development stage while grappling with constraints of an aging population. The United Nations estimates the average age in China will climb from 38.5 in 2022 to over 50 in 2047.⁸⁴

Some analysts now estimate that China will not overtake the United States as the largest global economy until at least 2035—at which point analysts still expect the United States to lead with regard to prosperity and productivity—while others question whether China will overtake the United States at all.⁸⁵

Economic Influence Abroad

China's expanding global role increasingly allows it to influence markets and international financial institutions in its favor. China's overseas development finance between 2008 and 2019 totaled an estimated \$462 billion, rivaling \$469 billion in World Bank lending over the same period, according to Boston University's Global Development Policy Center.⁸⁶ China's global outward foreign direct investment (FDI) stock reached an estimated \$2.6 trillion (6% of world total) in 2021, up from \$34.7 billion (0.5% of world total) in 2001. The United States, by comparison, accounted for \$9.8 trillion, or 23%, of global outward FDI stock in 2021 (down from 32% in 2001), according to official country data compiled by the United Nations.⁸⁷ In 2022, China was the top global trader with over \$6.3 trillion in trade (see **Figure 4**).

China's 14th Five-Year Plan also seeks to advance China's national economic security interests through market restrictions and China's *One Belt, One Road* global networks to foster PRC-controlled supply chains.⁸⁸ China assesses it has particular advantages through its control of key raw materials and

⁸¹ "Findings of the Investigation into China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation Under Section 301 of the Trade Act of 1974," Office of the U.S. Trade Representative, March 22, 2018.

⁸² "People's Republic of China: 2022 Article IV Consultation Staff Report," IMF Country Report No. 23/67, February 2023.

⁸³ "Total Credit to the Non-Financial Sector (Core Debt), as a Percentage of GDP," Bank for International Settlements (BIS), at <https://stats.bis.org/statx/srs/table/fl.1>.

⁸⁴ Iori Kawate, "China's Debt Ratio hits Record High at 3 times GDP," *Nikkei Asia*, December 7, 2022.

⁸⁵ Ann Scott Tyson, "After Rough 2022, Can China Still Surpass the US?" *Christian Science Monitor*, January 20, 2023.

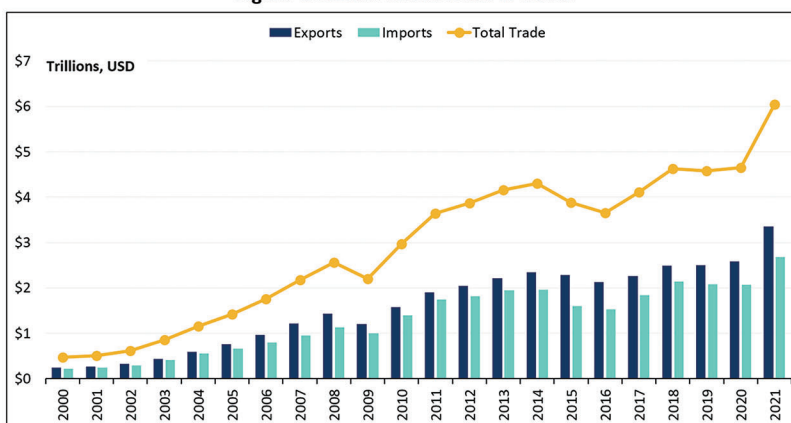
⁸⁶ "China's Overseas Development Finance Database," Global Development Policy Center, Boston University. For a discussion of gaps and challenges in using PRC investment data, see CRS In Focus IF12035, *China's Global Investments: Data and Transparency Challenges*, by Andres B. Schwarzenberg.

⁸⁷ World Investment Report, 2022, United Nations Conference on Trade and Development.

⁸⁸ "The 14th Five Year Plan and 2035 Long-Term Development Objectives," *Xinhua*, March 11, 2021, at http://www.xinhuanet.com/fortune/2021-03/13/c_1127205564.htm. See CRS In Focus IF11684, *China's 14th Five-Year Plan: A First Look*, by Karen M. Sutter and Michael D. Sutherland and CRS In Focus IF11735, *China's "One Belt, One Road" Initiative: Economic Issues*, by Karen M. Sutter, Andres B. Schwarzenberg, and Michael D. Sutherland.

processing, its role as a center for global production, and the fluidity of emerging technology sectors and the absence of defined corporate leaders.⁸⁹ China's policies seek to reduce the country's longstanding dependence on foreign intellectual property (IP) licensing and lead in setting global technical standards by promoting patent filings and setting domestic and global standards that depend on this IP. China currently holds 79 International Organization for Standardization secretariat positions.⁹⁰ For comparison, the United States holds 92 secretariat positions; Germany holds 131 secretariat positions; and Japan holds 80 secretariat positions.⁹¹ China is the second-most active participant in International Electrotechnical Commission committees—behind Germany—and holds vice-chair positions in International Telecommunication Union study groups for information communications technologies.⁹²

Figure 4. China's Global Trade in Goods



Source: CRS with data from China Customs and Trade Data Monitor.

Innovation and Indigenization of Foreign Capabilities

China has identified innovation as fundamental to its national security and economic competitiveness. China's economic strength and technological capabilities relative to the United States are difficult to quantify. Analysts debate the accuracy and quality of PRC data because of the pressures in China's

⁸⁹ For example, China supplies an estimated 85% of the world's processed rare earth elements (REE) and was the source of 80% of U.S. REE imports between 2016 and 2019. Although the United States is not a major refiner of rare earths, it contains large reserves of certain minerals critical to industries in China, such as high-grade quartz used to manufacture polysilicon, a key input in solar panels. CRS In Focus IF11684, *China's 14th Five-Year Plan: A First Look*, by Karen M. Sutter and Michael D. Sutherland; CRS In Focus IF10964, *"Made in China 2025" Industrial Policies: Issues for Congress*, by Karen M. Sutter.

⁹⁰ U.S. China Business Council, "China in International Standards Setting: USCBC Recommendations for Constructive Participation," February 2020.

⁹¹ U.S. China Business Council, "China in International Standards Setting: USCBC Recommendations for Constructive Participation," February 2020. For current representation, see <https://www.iso.org/members.html>.

⁹² John Seaman, "China and the New Geopolitics of Technical Standardization," IFRI Center for Asian Studies, January 2020, at https://www.ifri.org/sites/default/files/atoms/files/seaman_china_standardization_2020.pdf, pp. 20-22.

system to report outcomes that meet government targets and previous reports that the PRC manipulates data.⁹³ To address issues of data accuracy and quality, PRC officials and outside experts have used surveys and proxy indicators (e.g., energy consumption) to better gauge economic growth.⁹⁴ PRC officials and outside experts have also questioned the accuracy and quality of PRC data measuring technological capabilities, such as China's patent filings and published scientific research.⁹⁵ Although it faces gaps in basic research and certain technological capabilities, China has been adept in filling these gaps through U.S. research ties and commercialization of U.S. innovation. Its industrial policies, subsidies, market protections, and acquisition of foreign capabilities have allowed China to move up the value chain quickly and take global market share in a range of sectors, including petrochemicals, steel, consumer electronics, information communication technologies, and renewables. For example, in 2022 China produced 55 percent of the global supply of crude steel.⁹⁶ As of early 2021, China produced an estimated 75 percent of the global supply of lithium ion batteries.⁹⁷ China also is developing its domestic R&D base, is the second largest spender in R&D after the United States, and is making policy changes that seek to improve the quality of patent filings.⁹⁸

Technology independence and "indigenous" innovation are longstanding themes in PRC industrial policies. China's approach involves carefully calibrated statist policies that protect China's market while seeking to sustain China's access to U.S. and foreign technology, capabilities, research, talent, and global markets. For example, China's *Medium and Long Term Plan for Science and Technology* (2006-2020) called for innovation as the core driver of development, and prioritized developing indigenous capabilities, decreasing dependence on foreign technology, and advancing emerging technologies.⁹⁹ To achieve this goal, the plan called for a process of "indigenous" innovation that involves the introduction, absorption, and re-adaptation of targeted foreign technologies, research, and other capabilities that are then rebranded as independent PRC capabilities and breakthroughs. This approach underscores how China's advancements have been due in key ways to its access, both licit and illicit, to foreign capabilities.

⁹³ X. Frank Zhang, "Study Suggests That Local Chinese Officials Manipulate GDP," Yale Insights, February 11, 2020.

⁹⁴ Sidney Leng, "China's Economic Census Uncovers More Fake Data as Officials Promise 'Zero Tolerance' to Data Manipulation," *South China Morning Post*, June 20, 2019; "China to Increase Scrutiny of Statistical Data to Curb Fraud," *Reuters*, March 18, 2022.

⁹⁵ These measures include the annual amount of research investment; IP patent filings; research publications; technology deployment, commercialization and sales revenue; education funding; employment data; and input in technical standards. See Mark Cohen, "Uses and Misuses of Chinese Patent Data to Assess Emerging Technological Challenges from China," China IPR Blog, August 26, 2022.

⁹⁶ World Steel Association, 2022 global steel production database.

⁹⁷ Visual Capitalist and S&P Global Market Intelligence survey data as calculated and presented by Statista.

⁹⁸ "The 14th Five Year Plan and 2035 Long-Term Development Objectives," Xinhua, March 11, 2021, http://www.xinhuanet.com/fortune/2021-03/13/c_1127205564.htm; CRS In Focus IF11684, China's 14th Five Year Plan: A First Look, by Karen M. Sutter and Michael D. Sutherland; and Paolo Beconcini and Elisa Li, "New Procedures Indicate China's Patent System is Now Focused on Quality, not Quantity, of Patents," Squire Patton Boggs, February 14, 2021.

⁹⁹ *The National Medium- and Long-Term Program for Science and Technology Development (2006- 2020): An Outline*, State Council of the People's Republic of China, https://www.itu.int/en/ITU-D/Cybersecurity/Documents/National_Strategies_Repository/China_2006.pdf; Xinhua, "The 14th Five Year Plan and 2035 Long-Term Development Objectives," March 11, 2020, http://www.xinhuanet.com/fortune/2021-03/13/c_1127205564.htm; and CRS Report R46767, *China's New Semiconductor Policies: Issues for Congress*, by Karen M. Sutter.

Diplomatic Power

At the CPC's 20th Party Congress in October 2022, Xi Jinping described China's "major-country diplomacy with Chinese characteristics" over the prior five years as having won China "widespread international recognition." Making clear that he sees diplomatic power as an element of national power, he said that as a result of China's diplomacy, "China's international influence, appeal, and power to shape have risen markedly." Among the diplomatic activities Xi highlighted in his remarks were China's work "to build a global network of partnerships" and its record of "actively participating in the reform and development of the global governance system."¹⁰⁰

Two agencies in China have particular responsibility for diplomacy, the Ministry of Foreign Affairs and the Communist Party's International Liaison Department. Both agencies released documents on the eve of the 20th Party Congress taking stock of their achievements over the prior decade. Those documents provide insights into the metrics that each applies to its work to bolster China's diplomatic power.

Metrics highlighted in the Ministry of Foreign Affairs' document include:¹⁰¹

- **Leader engagements.** The Ministry details that, "General Secretary Xi has made 42 overseas trips, visiting 69 countries on five continents, and received over 100 heads of state and government." During the pandemic, the Ministry states, "General Secretary Xi carried out active "cloud diplomacy", having 181 phone conversations with foreign leaders and heads of international organizations and attending 78 major diplomatic events via video link."
- **Belt and Road cooperation agreements.** The Ministry states that China, "signed more than 200 such cooperation documents with 149 countries and 32 international organizations."
- **COVID-19 diplomacy.** The Ministry says China's contributions to international cooperation on COVID-19 included sharing "containment protocols and diagnostic and treatment plans with over 180 countries as well as international organizations, sending 38 medical expert teams to 34 countries, providing over 2.2 billion doses of vaccines to more than 120 countries and international organizations."
- **Frameworks for "major-power relations."** The Ministry says China "deepened" its "comprehensive strategic partnership of coordination for a new era" with Russia. China "fostered" what it calls "partnerships for peace, growth, reform and civilization" with the European Union. Meanwhile, China also "promoted" a relationship with the United States, "characterized by mutual respect, peaceful coexistence and win-win cooperation."
- **Diplomatic relations.** The Ministry says "China has established diplomatic relations with 181 countries and entered into partnerships with more than 110 countries and regional organizations, thus making more and more friends and forming a network of partnerships covering the entire world."
- **Active participation in global governance.** The Ministry cites Xi's proposals for the global community as well as China's contribution of over 50,000 peacekeepers to U.N. peacekeeping operations, its status as "among the first of countries to meet the U.N."

¹⁰⁰ Xi Jinping, "Hold High the Great Banner of Socialism with Chinese Characteristics and Strive in Unity to Build a Modern Socialist Country in All Respects," report to the 20th National Congress of the Communist Party of China, October 16, 2022, pp. 10-11, at <https://english.news.cn/20221025/8eb6f5239f984f01a2bc45b5db0c51/c.html>.

¹⁰¹ Ministry of Foreign Affairs of the PRC, "Following the Guidance of Xi Jinping Thought on Diplomacy and Advancing in All Respects Major-country Diplomacy with Chinese Characteristics in the New Era," September 29, 2022.

Millennium Development Goals,” and its actions implementing the U.N.’s 2020 Agenda for Sustainable Development.

- **Diplomatic isolation of Taiwan.** The Ministry notes that the PRC “established or resumed diplomatic ties with nine countries” that previously recognized Taiwan.
- **Pushing back against criticism of China.** The Ministry says China “thwarted anti-China moves related to human rights at the Human Rights Council and the Third Committee of the UN General Assembly for seven times in a row.” Nearly 100 countries supported China in such efforts, the Ministry says, and 80 countries “wrote letters or issued statements against the politicization of origins-tracing,” a reference to international criticism of China’s level of cooperation with efforts to trace the origins of the COVID-19 pandemic.
- **Support for PRC citizens abroad.** Between 2012 and 2022, the Ministry says China organized “over 10” emergency evacuations of PRC citizens, including evacuating over 5,200 PRC citizens “after the Ukraine crisis broke out.” The Ministry also operates a 24/7 hotline number for PRC citizens overseas.

The Party’s International Liaison Department (ILD) focuses on party-to-party relations. Its document summarizing its achievements over the last decade claims that due to its work, the Party’s “international circle of friends’ has kept expanding” and “a historic shift has taken place in the relationship between the CPC and the world.” Metrics included in the ILD report include the following:¹⁰²

- **Attendees at ILD-organized international meetings.** The “Communist Party of China in Dialogue with World Political Parties High-Level Meeting” in December 2017 reportedly drew participants representing some 300 political parties and political organizations from over 120 countries. A virtual 2021 summit drew “leaders of more than 500 political parties and political organisations from over 160 countries.”
- **Progress in relationships with fellow socialist nations.** Those nations are the Democratic People’s Republic of Korea (DPRK, or North Korea), Vietnam, Laos, and Cuba). (The ILD document lists them in that order.)
- **Briefings and workshops for foreign audiences on Communist Party of China “stories.”** The ILD says it has organized 14 “thematic briefings” on the “practice of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era,” with attendance by “over 5000 political party leaders.”
- **Congratulatory messages received.** The ILD says the Communist Party received “more than 1500” messages from “over 600 political parties” congratulating it on the 100th anniversary of its founding.
- **Pushing back against criticism of China.** The ILD says the Communist Party of China recruited “over 240 political parties and international political party organizations from 110-plus countries” to join in an open letter “to oppose the politicisation of public health issues,” another reference to criticism of China’s level of cooperation with efforts to investigate the COVID-19 pandemic. A joint statement submitted to the WHO Secretariat calling for “objective, just and science-based global origins tracing of COVID-19,” reportedly drew support from, “more than 300 political parties, social organisations and think tanks from over 100 countries and regions.” After House Speaker Nancy Pelosi’s visit to Taiwan in 2022, the ILD claims, “more than 500 political parties, think tanks and social organisations from over 150 countries expressed through various means their

¹⁰² International Department of the Central Committee of the Communist Party of China, “Major Achievements in the External Work of the Communist Party of China Over the Past Decade,” September 29, 2022.

stance of firmly supporting the One China Principle.” (China’s “one-China principle” holds that Taiwan is a part of China; under the U.S. “one-China policy,” the United States maintains official relations with the PRC and unofficial relations with Taiwan and considers Taiwan’s political status to be unresolved.”)

- **Relations with foreign political parties.** The ILD claims to maintain contacts with over 600 political parties and organizations worldwide. It has established dialogues with political parties in many regions of the world.
- **COVID-19 diplomacy.** The ILD says that among other things, the CPC “provided COVID-19 therapeutics to nearly 400 political parties of 149 countries and medical supplies and technical aid to foreign political parties and international organisations in need.”

Expenditures

On March 5, 2023, China’s Ministry of Finance reported that the PRC has budgeted RMB54.84 billion (~\$7.91 billion) to support “diplomatic endeavors” in 2023, an increase of 12.2% over 2022. The budget for diplomacy is 3.5% of the PRC’s announced 2023 budget for national defense (RMB1.55 trillion, or ~\$224.2 billion) an increase of 7.2% over 2022. Putting spending on diplomacy in a broader perspective, the 2023 budget for diplomacy is 16% of that for science and technology (RMB328.03 billion or ~\$47.34 billion), 25% of that for domestic security (RMB 208.97 billion or ~\$30.15 billion), and 35.3% of that for education (RMB155.48 billion or ~\$22.43 billion).¹⁰³

The Ministry of Finance reports that the PRC spent a cumulative RMB505.6 billion (~\$75.5 billion) on diplomacy between 2011 and 2021. Annual spending increased from RMB30.9 billion (~\$4.5 billion) in 2011 to RMB49.2 billion (~\$7.6 billion) in 2021 (see **Figure 5**).¹⁰⁴ The ministry’s public expenditure figures break down diplomatic spending into several subcategories. They include:

- Foreign aid, traditionally the largest category, which in 2021 accounted for approximately 40% (RMB19.8 billion) of the PRC’s total reported diplomatic expenditures;
- International organizations, including mandatory and voluntary contributions and assessments for U.N. peacekeeping operations, accounting for 36.6% (RMB18 billion) of diplomatic expenditures in 2021; and
- External messaging, which accounted for 1% (RMB296 million) of national general expenditures in 2021. The PRC government reports spending a cumulative RMB1.7 billion (~\$248 million) on “external messaging” for “diplomatic purposes” between 2018 and 2021.

Lack of transparency throughout the PRC party-state makes it difficult to validate the annual numbers provided by the Ministry of Finance. Many figures are presented without specifying the offices, agencies, or programs they support. It is unclear, for example, whether the Ministry of Finance totals include the expenditures of Party departments involved in overseas activities, such as the Party’s International Liaison Department and United Front Work Department. What is clear is that the Ministry of Finance figures do not solely reflect the budget of China’s Ministry of Foreign Affairs. For 2022, the Ministry of Finance reported that the central government spent RMB48.88 billion (\$7.03 billion) on diplomacy.¹⁰⁵

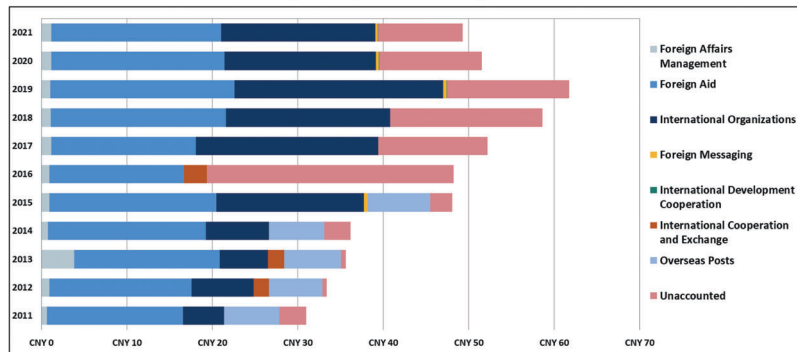
¹⁰³ Ministry of Finance of the PRC, *Report on the Execution of the Central and Local Budgets for 2022 and on the Draft Central and Local Budgets for 2023*, delivered at the First Session of the 14th National People’s Congress of the PRC, March 5, 2023.

¹⁰⁴ Numbers approximated using data from the PRC Ministry of Finance’s National General Public Budget Expenditure tables (2011–2021). For the 2021 table, see https://yss.mof.gov.cn/2021zyjs/202207/t20220728_3830482.htm.

¹⁰⁵ Ministry of Finance of the PRC, *Report on the Execution of the Central and Local Budgets for 2022 and on the Draft Central*

The Ministry of Foreign Affairs' own budget for 2022 reported expenditures of RMB15.8 billion (\$2.27 billion).¹⁰⁶

Figure 5. PRC Annual Expenditure on Diplomacy (in RMB billion)
As reported by the PRC Ministry of Finance



Source: Figure created by CRS using data from the National General Public Budget Expenditure (2011-2021), published by the Ministry of Finance of the PRC.

Overseas Diplomatic Presence

The PRC maintains 268 physical, overseas diplomatic posts, two more than the United States' 266.¹⁰⁷ (See **Table 1.**)

Table 1. Diplomatic Posture: United States and China

Metric	United States	China
Overseas posts	266 active posts, including 173 embassies and 83 consulates (see notes)	268 active posts, including 174 embassies, an office of chargé d'affaires, and 92 consulates (see notes)
Diplomats	December 2022: 13,517 Foreign Service Employees (8,834 Foreign Service and Civil Service employees employed overseas)	October 2018 (most recent available): 6,239 diplomats
Department of Commerce Foreign Commercial Service Foreign Service personnel	225	N/A

and *Local Budgets for 2023*, delivered at the First Session of the 14th National People's Congress of the PRC, March 5, 2023.

¹⁰⁶ Ministry of Foreign Affairs of the PRC, “外交部 2022 年部门预算” (“Ministry of Foreign Affairs 2022 Departmental Budget”), March 2023, at https://www.fmprc.gov.cn/web/wjbm_673085/zfxgk_674865/gknrlb/cwxx/ysjs/202203/P020220324520627926382.pdf

¹⁰⁷ The United States maintains virtual diplomatic posts in some countries.

Metric	United States	China
Number of citizens employed in U.N. system (2020 figures)	5,459 (4.7% of total U.N. staff, including 2,376 in the U.N. Secretariat)	1,384 (1.2% of total U.N. staff)
Number of citizens heading any of 15 U.N. Specialized Agencies (2023)	1 (The World Bank Group)	1 (Food and Agriculture Organization)

Sources: U.S. data – For number of overseas posts, U.S. Department of State, “United States Department of State Telephone Directory: Geographic Index,” February 21, 2023. For number of diplomats, U.S. Department of State (State Department), Bureau of Global Talent Management, “GTM Fact Sheet: Facts about Our Most Valuable Asset – Our People,” December 31, 2022. For Department of Commerce personnel, American Foreign Service Association, “Foreign Commercial Service.” **PRC data** – Website of the Ministry of Foreign Affairs of the PRC, accessed February 1, 2023, https://www.fmprc.gov.cn/web/zwjg_674741/zwjg_674743/yz_674745/; State Council Information Office of the PRC, “Equality, Development and Sharing: Progress of Women’s Cause in 70 Years Since New China’s Founding,” government white paper, September 20, 2019. **U.N. data** – U.N. document, CEB/2021/HLCM/HR/4, Personnel Statistics, data as at 31 December 2020, August 25, 2021.

Notes: The PRC’s Ministry of Foreign Affairs lists among China’s active consulates the PRC Consulate in Houston, which the Trump Administration ordered to close in July 2020. The Foreign Ministry site also lists seven closed consulates.

The PRC currently maintains 13 embassies in countries or territories without a U.S. embassy, including the Democratic People’s Republic of Korea (DPRK, also known as North Korea) and Iran, both countries with which the United States does not maintain diplomatic relations. The PRC also maintains an office in Palestine headed by a diplomat with the rank of ambassador. By comparison, the United States maintains 11 embassies in countries without a PRC embassy.¹⁰⁸ Nine of those U.S. posts are in countries that extend diplomatic recognition to Taiwan.¹⁰⁹ A tenth is in Kosovo, which the PRC does not recognize as a country, having never accepted Kosovo’s 2008 declaration of independence from Serbia.¹¹⁰ An eleventh is in Lithuania, where the PRC downgraded its embassy to an Office of the Chargé d’Affaires after Lithuania allowed Taiwan to open an unofficial Taiwanese Representative Office in the Lithuanian capital in 2021.¹¹¹ (See **Table 2.**)

CRS continues to monitor and analyze China’s national security priorities and expenditures, assessing their implications for U.S. interests and issues facing Congress.

¹⁰⁸ The United States maintains two additional overseas posts in Taiwan, in Taipei and Kaohsiung. They are not official diplomatic posts so are not included in the CRS tally of U.S. physical overseas diplomatic posts, but they operate very much like U.S. embassies and consulates elsewhere. Technically, the U.S. post in Taipei is the “main office” of the American Institute in Taiwan (AIT), a private, non-profit corporation created pursuant to the Taiwan Relations Act (P.L. 96-8; 22 U.S.C. §3301) and headquartered just outside Washington, DC. The U.S. post in Kaohsiung is technically a “branch office” of AIT. AIT operates under a formal contract with the U.S. Department of State.

¹⁰⁹ Fourteen countries in the world maintain diplomatic relations with Taiwan. The four Taiwan diplomatic partners in which the United States does not maintain a diplomatic presence are the Federation of Saint Christopher and Nevis (also known as Saint Kitts and Nevis), Nauru, Saint Lucia, and Saint Vincent and the Grenadines. The PRC requires countries to sever diplomatic relations with Taiwan as a condition for establishing diplomatic relations with China. In Haiti, however, the PRC maintains a semi-official Office of Commercial Development of China in Haiti, led by a representative who previously served as a PRC diplomat in Tunisia and Niger. The office’s website URL includes the official “.gov.cn” domain extension.

¹¹⁰ PRC Foreign Ministry spokesperson Hua Chunying restated China’s position on Kosovo in August 2022: “The sovereignty, independence and territorial integrity of Serbia should be fully respected, and the parties concerned should continue with practical and constructive dialogue to actively seek a lasting solution to the Kosovo issue.” Ministry of Foreign Affairs of the PRC, Foreign Ministry Spokesperson Hua Chunying’s Regular Press Conference on August 3, 2022, August 3, 2022, at https://www.mfa.gov.cn/eng/xwfw_665399/s2510_665401/202208/t20220804_10733756.html.

¹¹¹ Ministry of Foreign Affairs of the PRC, “Statement by the Ministry of Foreign Affairs,” November 21, 2021, at https://www.fmprc.gov.cn/mfa_eng/wjbxw/202111/t20211121_10451002.html.

Table 2. Countries and Territories Where Either the United States or China Maintains a Physical Embassy and the Other Does Not

Where the PRC Maintains Embassies and the U.S. Does Not (13)	Where the U.S. Maintains Embassies and China Does Not (11)
Afghanistan, Antigua and Barbuda, Comoros, Dominica, Democratic People's Republic of Korea, Guinea-Bissau, Iran, Libya, The Maldives, The Seychelles, Syria, Vanuatu, Yemen	Belize,* Eswatini,* Guatemala,* Haiti,* Honduras,* Kosovo, Lithuania, The Marshall Islands,* Palau,* Paraguay,* The Holy See*

Source: Websites of the U.S. Department of State and the Ministry of Foreign Affairs of the PRC.

Notes: Countries with asterisks maintain diplomatic relations with the Republic of China (Taiwan).

Appendix. China's Global Rankings on 23 Metrics

Table 3. China's Global Rankings on 23 Metrics: Year Achieved

Table by Hu Angang et al. (2022); translation by CRS

Row No.	Metric	Year China Achieved No. 3 Rank	Year China Achieved No. 2 Rank	Year China Achieved No. 1 Rank	Data Source
1	Size of urban population			1975	World Bank
2	Size of working population			1950	United Nations
3	Gross domestic product (GDP; exchange rate method, current U.S. dollars)	2007	2010		World Bank
4	GDP (purchasing power parity)	1994	1999	2017	World Bank
5	Agricultural value added (current U.S.\$)		1994	1995	World Bank
6	Industrial value added (current US\$)	1999	2006	2011	World Bank
7	Goods exports (current US\$)	2004	2007	2009	World Trade Organization (WTO)
8	Goods imports (current US\$)	2003	2009		WTO
9	Services exports (current US\$)	(No. 4 in 2011)			International Monetary Fund (IMF)
10	Services imports (current US\$)	2011	2013		IMF
11	Foreign currency reserves (not including gold; current US\$)	1995	1996	2006	IMF
12	Number of patent applications by domestic residents	2003	2009	2010	World Intellectual Property Organization
13	Number of direct trademark applications by domestic residents		1997	2001	World Intellectual Property Organization
14	Number of articles in scientific and technical publications	2003	2004	2016	U.S. National Science Foundation
15	Railway passenger volume (million passengers per kilometer)			1999	World Bank
16	Highways (number of kilometers)	2000	2001	2012	N/A
17	Number of airline passengers transported	1993	2004		International Civil Aviation Organization
18	Port container throughput (20 foot equivalent)			2000	Containerisation International Yearbook
19	Liner index			2000	Containerisation International Yearbook
20	Energy consumption (oil equivalent)	1985	1993	2009	BP Statistical Review of World Energy
21	Electricity generation (kilowatt hours)	1994	1996	2011	BP Statistical Review of World Energy

