

STATEMENT OF
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COMMANDER
UNITED STATES NORTHERN COMMAND
AND
NORTH AMERICAN AEROSPACE DEFENSE COMMAND



BEFORE THE
SENATE ARMED SERVICES COMMITTEE
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Chairman Reed, Ranking Member Inhofe, and distinguished members of the Committee: Thank you for the opportunity to testify today, and for allowing me the honor of representing the Soldiers, Sailors, Airmen, Marines, Guardians, Coast Guardsmen, and civilians of United States Northern Command (USNORTHCOM) and North American Aerospace Defense Command (NORAD). I am especially privileged to represent the members of the Canadian Armed Forces who are a vital and essential part of the NORAD team.

USNORTHCOM is the U.S. geographic combatant command responsible for defense of the United States homeland. USNORTHCOM is also tasked with providing defense support of civil authorities and engaging in theater security cooperation with regional allies and partners. NORAD is a distinct, bi-national command responsible for three missions in defense of the United States and Canada: aerospace warning, aerospace control, and maritime warning. Canadian Armed Forces personnel, to include my three-star NORAD Deputy Commander, are essential to our NORAD missions.

Since I assumed command of USNORTHCOM and NORAD, each day has afforded me the opportunity to lead a workforce of dedicated, innovative, and resilient warfighters and public servants. That fundamental commitment to our vital missions is clearly evident as USNORTHCOM and NORAD have kept the watch and defended our nations in what is certainly the most dynamic and complex strategic environment I have encountered in my 33 years in uniform.

Our competitors continue to take increasingly aggressive steps to gain the upper hand in the military, information, economic, and diplomatic arenas. USNORTHCOM meets each of those challenges head-on—and we have done so while supporting whole-of-government efforts to safeguard our citizens through the coronavirus pandemic and historically severe hurricane and

wildfire seasons, and also simultaneously synchronizing the deployment of troops to support federal law enforcement personnel on the southwest border. The cascading events of the past year placed unprecedented strain on our people, our interagency partners, and our institutions, and I am proud that we overcame each of those challenges and emerged more resilient.

That steadfast commitment is more important than ever as our competitors continue to target the homelands through multiple means in all domains. Defending our nations, our citizens, and our way of life requires constant vigilance, and USNORTHCOM and NORAD have demonstrated time and again that our commands remain determined, focused, and ready. But we must keep moving forward. Looking to the future, we will continue to pursue innovative new capabilities and strategies to detect, deny, deter, and, if necessary, defeat the mounting threats posed by peer competitors, rogue nations, transnational criminal organizations, and foreign and domestic violent extremists. No matter the challenge or circumstance, this Committee should rest assured USNORTHCOM and NORAD are always on guard.

Threats

The global geostrategic environment continues to evolve rapidly. While the United States has spent the last 30 years projecting power forward to combat rogue regimes and violent extremists overseas, our global competitors pursued capabilities to circumvent our legacy warning and defensive systems and hold our homeland at risk. Peer competitors like Russia and China are undermining the international rules-based order and challenging us in all domains. Further, rogue states like North Korea and Iran are also pursuing capabilities to nullify our military advantages, threaten our networks with cyber weapons, and—in the case of North Korea—develop nuclear weapons. Meanwhile, violent extremist organizations continue to devise plots to attack our citizens and our way of life.

During the Cold War, we were overwhelmingly focused on defending the United States and Canada from a single nation-state threat. After the Soviet collapse, Iraq's invasion of Kuwait and later the September 11, 2001 attacks shifted our focus to non-state and rogue actors. Today, we don't have the luxury of focusing regionally or on only one threat at a time. In the last decade, we've seen a sharp resurgence in the nation-state threat as our global competitors deploy increasingly sophisticated capabilities to hold the United States and Canada at risk and limit our options in a crisis. Concurrently, the terrorist threat continues to evolve in ways that challenge our homeland defense capabilities. As a result, today's threat environment is likely the most complex we have ever faced, as potential adversaries threaten us in all domains and from all vectors.

Russia

Russia presents a persistent, proximate threat to the United States and Canada and remains the most acute challenge to our homeland defense mission. Russian leaders seek to erode our influence, assert their regional dominance, and reclaim their status as a global power through a whole-of-government strategy that includes information operations, deception, economic coercion, and the threat of military force.

In peacetime, Russian actors conduct sophisticated influence operations to fan flames of discord in the United States and undermine faith in our democratic institutions. In crisis or conflict, we should expect Russia to employ its broad range of advanced capabilities—non-kinetic, conventional, and nuclear—to threaten our critical infrastructure in an attempt to limit our ability to project forces and to attempt to compel de-escalation. Offensive capabilities Russia has fielded over the last several years include advanced cyber and counterspace weapons and a new generation of long-range and highly precise land-attack cruise missiles—including

hypersonics. These capabilities complicate our ability to detect and defend against an inbound attack from the air, sea, and even those originating from Russian soil.

Russia also continues to modernize all three legs of its nuclear triad. In December 2019, Russia fielded the world's first two intercontinental ballistic missiles (ICBMs) equipped with a hypersonic glide vehicle payload that will challenge our ability to provide actionable warning and attack assessment. In the coming years, Russia hopes to field a series of even more advanced weapons intended to ensure its ability to deliver nuclear weapons to the United States. These include the Poseidon transoceanic nuclear torpedo and the Burevestnik nuclear-powered cruise missile, which—if perfected—could enable strikes from virtually any vector due to its extreme range and endurance.

Finally, Russia continues to conduct frequent military operations in the approaches to North America. Last year, NORAD responded to more Russian military flights off the coast of Alaska than we've seen in any year since the end of the Cold War. These Russian military operations include multiple flights of heavy bombers, anti-submarine aircraft, and intelligence collection platforms near Alaska. These efforts show both Russia's military reach and how they rehearse potential strikes on our homeland. Last summer, the Russian Navy focused its annual OCEAN SHIELD exercise on the defense of Russia's maritime approaches in the Arctic and Pacific. The multi-fleet exercise, intended in part to demonstrate Russia's ability to control access to the Arctic through the Bering Strait, included amphibious landings on the Chukotka Peninsula opposite Alaska, as well as anti-submarine patrols and anti-ship cruise missile launches from within the U.S. Exclusive Economic Zone.

China

China continues to pursue an aggressive geopolitical strategy that seeks to undermine U.S. influence around the globe and shape the international environment to its advantage. In the USNORTHCOM area of responsibility, China has made deliberate attempts to increase its economic and political influence with our close partners in Mexico and The Bahamas. While the United States remains the economic and military partner of choice in the region, China is seeking to grow its trade and investment in Mexico and, over the past few years, has invested in The Bahamas' vital tourism sector through marquee infrastructure projects. Militarily, China is rapidly advancing a modernization program that seeks to erode our military advantages and deter us from intervening in a regional conflict.

China remains among the world's most capable and brazen cyber actors, stealing volumes of sensitive data from U.S. government, military, academic, cleared defense contractors, and other commercial networks each year. In a crisis, China is postured to transition rapidly from cyber exploitation to cyber attack in an attempt to frustrate our ability to flow forces across the Pacific, and globally. China also continues to advance its counter-space capabilities that could threaten our space-based communications and sensors. In the foreseeable future, China will likely be able to augment its cyber-attack capabilities with a new family of long-range precision-strike weapons capable of targeting key logistical nodes on our West Coast that support U.S. mobilization and sustainment.

China also continues to expand and modernize its strategic nuclear forces to rival those of Russia and the United States in sophistication, if not in numbers. Over the last decade, China fielded dozens of road-mobile ICBMs and several ballistic missile submarines designed to enhance the survivability of China's nuclear deterrent and ensure its ability to retaliate following

any attack. In the next decade, China will deploy a new generation of advanced weapons—some of them hypersonic—that will further diversify their nuclear strike options and potentially increase the risks associated with U.S. intervention in a contingency.

North Korea and Iran

The Kim Jong Un regime has achieved alarming success in its quest to demonstrate the capability to threaten the U.S. homeland with nuclear-armed ICBMs, believing such weapons are necessary to deter U.S. military action and ensure his regime's survival. In 2017, North Korea successfully tested a thermonuclear device—increasing the destructive potential of their strategic weapons by an order of magnitude—as well as three ICBMs capable of ranging the United States. In October 2020, North Korea unveiled a new ICBM considerably larger and presumably more capable than the systems they tested in 2017, further increasing the threat posed to our homeland. The North Korean regime has also indicated that it is no longer bound by the unilateral nuclear and ICBM testing moratorium announced in 2018, suggesting that Kim Jong Un may begin flight testing an improved ICBM design in the near future.

Iran continues to advance its military technologies and threaten the security of U.S. forces and allies throughout the Middle East. Iran adheres to a self-imposed range limit on its ballistic missile force that prevents it from directly threatening the United States. Nonetheless, Iran is developing and testing ICBM-relevant technologies through its theater missiles and space launch platforms—including its first successful orbit of a military satellite in April of 2020—that could accelerate the development of a homeland-threatening ICBM should Iran's leaders choose to pursue such a system. Iran retains the ability to conduct attacks via covert operations, terrorist proxies, and its growing cyber-attack capabilities, which it has already employed against U.S. financial institutions.

Violent Extremist Organizations

The terrorist threat has grown more diffuse, typified by simple attacks inspired from afar and carried out by individuals or small networks that are difficult for our law enforcement partners to detect and interdict. Foreign terrorist groups remain committed to attacking the United States, either directly or by inspiring homegrown violent extremists (HVEs) to act in their stead. Despite their territorial losses over the last several years, ISIS leaders—along with their more patient counterparts in al-Qa'ida—remain highly adaptive foes who are largely immune to traditional means of deterrence. Commercial and general aviation persist as preferred targets due to the disproportionate economic and psychological impact of such attacks. Meanwhile, foreign terrorists and HVEs continue to target U.S. military personnel both on and off base, as exemplified by the December 2019 shooting at Naval Air Station Pensacola.

Transnational Criminal Organizations

Transnational Criminal Organizations undermine the security of the United States, and that of our allies and partners, through increasingly violent and destabilizing activities that threaten the rule of law and our shared democratic institutions. These organizations have increased their collaboration with criminal groups beyond North America, which has increased their resilience. In our interconnected Western Hemisphere and globally, we must minimize the negative effect of organized criminal activity by aligning strategies, policies, plans, and authorities with the associated personnel and resources—across the United States Government and with allies and partners—to significantly diminish this proximate threat. All of this requires a coordinated whole-of-government effort to understand and manage these networks, as well as shared domain awareness across our government, allies, and partners. This national security imperative is integral to contesting peer competitors.

Defending the Homeland

USNORTHCOM's defense of the homeland provides the foundation for the full spectrum of the Department of Defense's worldwide missions and supports the missions of every other combatant command. The ability to deploy forces overseas, support allies, deliver humanitarian assistance, and provide presence and reassurance around the globe relies on our ability to safeguard our citizens, as well as national critical infrastructure, transportation nodes, and leadership. As competitors field highly advanced and agile long-range weapons systems and seek to act on growing territorial ambitions, we are adapting our thinking, evolving our own capabilities, and enhancing our operations and exercises to accurately reflect a changing world while remaining a relevant force.

The United States has long relied on our nuclear arsenal to serve as the strategic deterrent against an attack on our homeland. In today's threat environment, strategic deterrence remains foundational to our national defense. A safe, secure, and effective nuclear force remains the most credible combination of capabilities to deter strategic attack and execute our national strategy. The U.S. strategic deterrent has helped to maintain a careful balance between nuclear powers and remains the bedrock of our national defense, as the longstanding doctrine of deterrence by punishment makes clear to potential adversaries that a large-scale attack on the United States or our allies would result in an overwhelming and devastating response.

However, over the last decade, our competitors have adapted new techniques and fielded advanced weapons systems with the potential to threaten the homeland below the nuclear threshold. Simply stated, the missiles and delivery platforms now in the hands of our competitors present a significant challenge to our legacy warning and assessment systems and defensive capabilities. Advanced systems posing threats to the homeland have already been

fielded in large numbers, and our defensive capabilities have not kept pace with the threat. The notion that the homeland is not a sanctuary has been true for some time, and that will remain the case for the foreseeable future. Therefore, we must ensure effective nuclear and conventional deterrents are in place to defend the homeland and ensure our ability to project power where and when it is needed.

Highly advanced cruise missiles, hypersonic missiles, and stealthy delivery platforms provide our competitors with the ability to hold targets in the homeland at risk with conventional weapons. That fact has led us to emphasize improved all-domain awareness and the development of a layered sensing grid to provide warfighters and decision makers at the strategic, operational, and tactical levels with increased awareness and decision space.

The reality of a vulnerable homeland and the risks associated with rising global competition are driving our commands to collaborate with interagency and industry partners to find and deliver smarter, more affordable technology. To outpace our competitors, we cannot be satisfied with incremental steps; instead, we must continue to increase the pace and tempo of our technological advancements. This work is essential, and we are proud of our close collaboration with a host of interagency and industry partners and international allies as we work together to outthink our competition, outpace threats, and defend what we hold most dear. That global focus and cooperation is also reflected in our growing wargaming capacity, including major homeland defense exercises such as VIGILANT SHIELD and our participation in the Large Scale Global Exercise series.

The Path to Decision Superiority

I believe our future success in USNORTHCOM, our fellow U.S. combatant commands, and NORAD requires **all-domain awareness, information dominance, and decision**

superiority. Our competitors have invested heavily in weapons systems that can be launched against distant targets with little to no warning, as well as stealthy delivery platforms specifically designed to evade detection by existing sensors. As a result, the successful execution of USNORTHCOM and NORAD missions in the digital age relies on significantly improving global **all-domain awareness** through the development of a fused ecosystem of networked sensors extending from space to the seafloor.

This network will pull data from an array of repurposed systems, legacy sensors enhanced through low-cost software modifications, and a limited number of new sensors to provide robust indications and warning and persistent tracking of the full spectrum of potential threats to the homeland from the seafloor to on orbit. Integrating and sharing data from this global sensor network into common platforms will allow leaders to observe potential adversaries' actions earlier in the decision cycle, providing more time and decision space at all levels.

That decision space is where the true value of improved domain awareness resides. Harnessing the capability of distributed multi-domain sensors, machine learning, and artificial intelligence will provide military leaders, the intelligence community, and senior civilian officials with the information necessary to anticipate, rather than react to, competitors' actions.

All-domain awareness is the first critical step on the path to **decision superiority**, and USNORTHCOM and NORAD require and have prioritized capabilities that improve our domain awareness and global integration with our fellow warfighters. Sensors and systems such as Over the Horizon Radars, polar satellite communications, Integrated Underwater Sensor Systems, and space-based missile warning and tracking sensors are essential to our missions. And while the benefits to continental defense are clear, these capabilities will also help every U.S. combatant

commander around the world while enhancing USNORTHCOM and NORAD's collective ability to defend the United States and Canada.

In September 2020, just after I assumed command of USNORTHCOM and NORAD, the commands partnered with the United States Air Force and United States Space Command in the second onramp demonstration of the Air Force's Advanced Battle Management System (ABMS). This large-scale joint force demonstration established a network with embedded machine learning and artificial intelligence to rapidly detect, track, and positively identify a simulated cruise missile threat, while providing a common operating picture and all-domain awareness for commanders at multiple levels.

The ABMS onramp demonstration provided a brief but exciting glimpse into the future of USNORTHCOM and NORAD. By creating potential pathways for accessing and distributing data in ways that allow leaders to think, plan, and act globally rather than relying on outdated regional approaches, we are significantly amplifying the capability of the joint force. Through these and other efforts, USNORTHCOM and NORAD are actively working to deliver **information dominance** by fusing new technologies to increase decision space for commanders and senior civilian decision makers. Ultimately, our objective is to enable leaders and commanders all over the world to quickly assess any situation and take the steps necessary to stay well ahead of an adversary's next moves in order to deter and deny in competition, de-escalate in crisis, and defeat in conflict.

The prototype Pathfinder data analytics project provides another example of how USNORTHCOM and NORAD are working to leverage existing but stovepiped data streams to the benefit of both operational and strategic decision makers. In our ongoing prototype efforts, Pathfinder gathers data from multiple distinct military and civilian air domain sensors and,

through automation and machine learning models, produces a fused common operating picture to improve the reliability of the data and increase the decision space that will someday soon be available in real time to our assessors and watch-standers. This low-cost, rapidly developed system will have long-term benefits for our domain awareness and has already shown some of the advantages that information dominance will provide to warfighters around the world.

Information is power, but only if it is accessible, sharable, and actionable. Unlocking the enormous potential of the data currently being collected by a global layered sensor grid will allow us to gain a decisive advantage over competitors and potential adversaries. Currently, vast quantities of data are trapped by incompatible systems and antiquated organizational structures. Breaking down these stovepipes is achievable, but doing so will require innovation and coordination across various agencies, to include technology that allows for timely exploitation of the massive volume of data collected by our sensor networks. More importantly, it will also depend on breaking away from a culture that favors compartmenting and isolating information, in order to fully realize the full potential of our capabilities—including those that reside with our allies and partners. As the defense and intelligence communities connect systems and sensors, consideration of national electromagnetic spectrum management policies is needed to ensure that necessary connections and bandwidth are accessible.

As our competitors rapidly develop and deploy advanced capabilities with clear intent to overcome the U.S. technological advantage, the Department of Defense and the U.S. Government as a whole must also modernize our requirements and acquisition processes to stay ahead. Given the current pace of technological advancement, the limitations of the two-year budgeting process and protracted acquisition timeframe simply do not allow us to take full advantage of the forward-thinking solutions our industry partners can offer. To succeed in this

era of Great Power Competition, it is essential to rapidly deliver capabilities to the warfighter by streamlining the processes for prototyping, testing, and moving promising technologies into production.

The success of USNORTHCOM and NORAD's Pathfinder program, along with much of the work done by DOD's Defense Innovation Unit, show what is possible when we provide innovators and technical experts the resources and flexibility to tackle even the most daunting challenges. The same approach should also be applied to software development and acquisition. Success in competition and in conflict will increasingly depend on the ability to field software-based capabilities faster than our adversaries. For that reason, I am encouraged by the new model championed by the Office of the Under Secretary of Defense for Acquisition and Sustainment that will enable the Department of Defense to acquire software through modern development practices and deliver needed capability at the speed of relevance.

Armed with timely and accurate information, equipped with modern sensors and software, and backed by a flexible and responsive conventional deterrent that provides defeat mechanisms below the nuclear threshold, commanders will achieve **decision superiority** with the options and time necessary to allocate resources wherever needed to deny or deter aggression in competition, de-escalate potential crises, and defeat adversaries should conflict arise.

Missile Defense

Ballistic Missile Defense

The need for a robust and modern ballistic missile defense system has been strongly reinforced over the past year. Despite U.S. efforts in 2020 to reach an agreement with Kim Jong Un, North Korea continued its development of ICBMs capable of striking targets in the United States. As North Korea continues its pursuit of advanced long-range strategic weapons—

including the new systems displayed during their 10 October 2020 parade—USNORTHCOM remains committed to maximizing the capability and capacity of our ballistic missile defense systems.

USNORTHCOM is focused on developing and fielding advanced sensors capable of tracking potential missile threats and providing improved discrimination capability to our warfighters and assessors. Simultaneously, USNORTHCOM is collaborating with our partners in the Missile Defense Agency (MDA) to ensure that the Next Generation Interceptor (NGI) is fielded and operational as soon as possible. Of note, USNORTHCOM worked hand-in-hand with MDA to ensure all of our operational requirements are addressed in the NGI acquisition process. When fielded, NGI will add 20 interceptors to the current inventory, and will provide greater reliability and capability.

As competitor missile technology advances, USNORTHCOM is also working with MDA toward a layered missile defense capability that will allow for a more flexible and responsive defense of the homeland against both ballistic missile and cruise missile threats. The successful engagement of an ICBM-class target by an SM3-IA interceptor on 16 November 2020 was an historic achievement and a critical step toward establishing this layered capability. Defending the United States homeland against the ballistic missile threat remains a complex and technically challenging endeavor, and I am grateful to the Committee for your continued support as we take the steps necessary to ensure the success of this critical mission.

Cruise Missile Defense

NORAD is devoting significant attention and resources toward mitigating the current and emerging threat presented by advanced, long-range cruise missiles. These sophisticated weapons are difficult to detect and can be launched from significant distances against targets in the United

States and Canada from launch sites on Russian soil and by long-range bombers, attack submarines, and surface vessels. Whether subsonic or hypersonic, these missiles can range targets in the homeland and present a very real challenge for our defensive capabilities. Russia has already amassed an inventory of both nuclear and conventional variants, while China is expected to develop similar capabilities in the next decade.

The proliferation of these systems creates all the more incentive for focused investments in improved sensor networks, domain awareness, and information dominance capabilities. Those investments, coupled with the development of layered denial, deterrence, and defeat mechanisms capable of addressing current and emerging threats, are fundamental to the defense of our homeland.

The Arctic

The Arctic provides an avenue of approach to North America as well as a representation of the changing physical and geostrategic environment that is actively shaping our future plans and requirements. The escalation of Russian activity and Chinese ambitions in the region demonstrates the strategic importance of the Arctic. Competition will only increase as sea ice diminishes and competition for resources expands. Now and into the future, meeting the full scope of our mission requirements will require USNORTHCOM, our Service and fellow combatant command partners, and NORAD to devote attention, resources, and capabilities to the Arctic.

Improving our domain awareness, communications systems, and our ability to conduct and sustain multi-domain operations in the high north are all important priorities for both USNORTHCOM and NORAD. We are fortunate to be able to draw on the experience and expertise of the Arctic warriors found in the Canadian element of NORAD, as well as the

soldiers and airmen of Alaskan Command and the Alaska National Guard. Multi-command Arctic exercises like ARCTIC EDGE, ICEX, and NORTHERN EDGE provide valuable experience and lessons learned for conducting multi-domain operations in the high north, while the Joint Pacific Alaska Range Complex (JPARC) offers expansive and demanding training opportunities for the Total Force.

USNORTHCOM and NORAD are expanding our knowledge base and ensuring that warfighters and partners are developing the skills and experience needed to overcome the significant challenges presented by the extreme climate and physical environment of the high north. We are also moving forward with our Canadian partners to fulfill mutual objectives to modernize NORAD by leveraging industry advances in infrastructure and expeditionary capabilities that will strengthen our ability to sustain operations in and through the Arctic.

Every successful military endeavor is dependent on reliable communications.

USNORTHCOM and NORAD are working closely with United States Space Force, each of the other military Services, United States Space Command, and industry partners to establish space-based communications networks that will provide greater reach, more flexibility, and the ability to communicate with every element of the joint force operating in the high north.

I want to thank the Committee for your support for improving Arctic communications through a commercial constellation of proliferated low earth orbit communication satellites. This effort is well underway and will dramatically improve communications for military users in the Arctic, as well as for civilians in remote, high latitude communities. The capability will pay lasting dividends for all users and will enhance our defense of the homeland, as well as our ability to provide defense support of civil authorities.

Partnerships

Our successes as a nation have long been due in large part to close collaboration with partners and allies. With history as our guide, USNORTHCOM and NORAD are building and fostering the critical interagency, interdepartmental, and international relationships that are so vital to any strategic endeavor. Just as we are knocking down stovepipes that impede the flow of critical data between organizations, we are also striving to expand our collaboration and communication with our partners.

Canada remains our essential ally in the defense of North America. For over 62 years, the extraordinary and irreplaceable relationship between the United States and Canada has been demonstrated through the constant vigilance of the world's only bi-national command, NORAD. That bond remains as vital as when the command was first established in 1958. Meeting NORAD's crucial missions to provide aerospace warning, aerospace control, and maritime warning in the United States and Canada has required the command to adapt and evolve to address new challenges and emerging technologies that threaten our homelands. Canada remains a true and trusted partner in our common defense and continues to share the economic and manpower costs associated with sustaining and modernizing vital NORAD capabilities.

Over the past year, our competitors repeatedly tested NORAD, but we have stood firm in our resolve and capability to defend the U.S. and Canadian homelands. The year 2020 saw Russian military aircraft entering the Canadian and Alaskan Air Defense Identification Zones (ADIZ) on multiple occasions to measure our responses to increasingly complex operations. As Russia continues to modernize its bomber fleets and improve the proficiency of its long-range aviation units, NORAD must maintain the ability to detect and respond to all air domain competitors.

In addition to our aerospace control mission, NORAD provides warning of potential maritime threats to the United States and Canada. This critical mission requires uninterrupted contact with U.S. geographic combatant commands, the intelligence community, and NATO partners to detect and track maritime vessels of interest well before they cross into the NORAD area of operations.

The importance of this mission was illustrated in September 2020 when Russia conducted portions of its Exercise OCEAN SHIELD in the Bering Sea off the coast of Alaska. NORAD (and USNORTHCOM) monitored the exercise, noting that although the Russian vessels remained in international waters, they were in close proximity to U.S. civilian fishing boats operating in the United States Exclusive Economic Zone. That Russia would conduct a complex military exercise so close to our shore demonstrates the necessity for a robust and capable NORAD today and well into the future.

As further evidence of both the global nature of the threat and the implicit trust in our bi-national command, NORAD is developing the requirements for the defense of the United States and Canada against advanced cruise missiles. In this capacity, NORAD works closely with the U.S. military Services, the Canadian Joint Operations Command, and a host of other dedicated DOD and Canadian Defence Ministry partners to share costs and ensure a clear, common understanding of the threat and what will be required to mitigate the risk to our nations.

Mexico is a vital partner in our cooperative defense, and the USNORTHCOM relationship with our Mexican military partners remains robust. While the COVID pandemic has forced both countries to cancel a number of in-person engagements and planned training events, USNORTHCOM and our Mexican military counterparts have ensured we maintain routine, close contact through virtual engagements. From leaders at the tactical level, to the Mexican military

liaison officers assigned to our headquarters, and up to the Secretaries of National Defense (SEDENA) and the Navy (SEMAR), USNORTHCOM is proud of the military-to-military cooperation and the personal relationships fostered over the years with our Mexican counterparts. Through well-established forums such as the Bilateral Military Cooperation Roundtable, USNORTHCOM and our Mexican partners have remained in close contact throughout the pandemic, and we continue to make substantive progress toward mutual security goals. The Mexican military faces significant challenges from violent drug cartels and from the effects of the pandemic, but USNORTHCOM and our Service components will continue to stand by our partners and work to enhance our domain awareness in the common defense of North America.

The Bahamas is an important partner that has faced extraordinary challenges over the last 18 months. The Bahamas continues to address the severe economic impacts resulting from Hurricane Dorian in 2019 and markedly decreased tourism resulting from the coronavirus pandemic. Even so, we continue to work closely with our Royal Bahamas Defence Force (RBDF) partners to improve regional maritime security in the southeast approaches to the United States. USNORTHCOM directly supports RBDF efforts by enhancing their domain awareness with maritime surveillance system radars currently being deployed across The Bahamas island chain. USNORTHCOM is firmly committed to our lasting collaboration with the RBDF and will continue to support our neighbors and valued partners.

USNORTHCOM has also worked with our partners in Mexico and The Bahamas to address our shared challenges in responding to the impacts of COVID-19. Since April, USNORTHCOM has been actively supporting response efforts to COVID-19, using Overseas Humanitarian Disaster Assistance and Civic Aid funds approved by Congress. To date, we have

conducted 63 projects in support of the Mexican and Bahamian COVID-19 response, totaling \$7.29 million. A portion of that amount consists of reprogrammed CARES Act funds which Congress approved for that purpose. USNORTHCOM and U.S. Embassy support to Mexico and The Bahamas solidifies our position as the partner of choice for these nations and is critical to countering nation states, especially China, which continues its attempts to make inroads in both countries through offers for COVID-19 medical support, large-scale economic investments, information campaigns, and material support for infrastructure projects. Our relationships with Mexico and The Bahamas enhance regional security and stability and directly strengthen our ability to defend the homeland through continued close cooperation with these key partner nations.

Defense Support of Civil Authorities

USNORTHCOM provided defense support of civil authorities at an unprecedented pace in 2020, and many of those support missions continue today. As the Commander of USNORTHCOM, I serve as the DOD synchronizer for the federal pandemic response led by the Federal Emergency Management Agency (FEMA) and the Department of Health and Human Services. In that role, we remain tightly integrated with the interagency effort to assist health care providers and our fellow citizens around the country. As we have supported our federal interagency partners throughout this difficult national effort, members at every level of our command have demonstrated extraordinary commitment to meeting every mission requirement while diligently safeguarding the health of our own civilian and military workforce.

The 2020 hurricane season saw 11 hurricanes make landfall in the United States, impacting countless Americans, while catastrophic wildfires ravaged millions of acres and displaced entire communities in multiple western states. The Commander of USNORTHCOM

was designated as the DOD synchronizer for the federal responses to each of those disasters, and the Command stood ready to support FEMA and the National Interagency Fire Center with Title 10 assets.

Conclusion

As USNORTHCOM and NORAD look to a future marked by rapid shifts in the geopolitical environment and technological advancement, we are guided by the lessons of the past. Key among those is that we cannot overcome challenges in isolation. By viewing changing conditions and competitor actions from a global perspective, our problems become more solvable and the solutions more affordable. USNORTHCOM and NORAD will continue to build our partnerships, collaborate with fellow warfighters, and work toward overcoming shared problems rather than continuing to focus on point solutions to isolated threats.

To that end, I look forward to working with the Committee and with all of our innovative industry and interagency partners as we move quickly to develop and field the systems required to defend our nations now and well into the future. Together, I believe we can eliminate outdated barriers that only serve to stifle information sharing, and simultaneously foster a mindset that favors creative, forward-looking approaches over unproductive reliance on legacy systems.

Finally, and perhaps most importantly, we will continue to prioritize our most vital asset: our people. With that in mind, I would like to take this opportunity to publicly recognize the select group of USNORTHCOM and NORAD personnel responsible for standing the operational watch 24 hours a day, every day. Their mission is crucial to our defense, and these military and civilian watch-standers have spent much of the last year under strict but necessary isolation protocols to mitigate the risk of a COVID outbreak. They and their families have endured long

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periods of separation during an already difficult time, and they have done so without any expectation of public recognition. I am honored to lead men and women of such selflessness and professionalism, and our citizens should rest assured these extraordinary defenders have the watch.