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CURRENT AND PROJECTED NATIONAL SECURITY THREATS TO THE UNITED STATES

HEARING

BEFORE THE

SELECT COMMITTEE ON INTELLIGENCE

OF THE

UNITED STATES SENATE

ONE HUNDRED FOURTEENTH CONGRESS

SECOND SESSION

TUESDAY, FEBRUARY 9, 2016

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CURRENT AND PROJECTED NATIONAL SECURITY THREATS TO THE UNITED STATES

TUESDAY, FEBRUARY 9, 2016

U.S. SENATE,
SELECT COMMITTEE ON INTELLIGENCE,
Washington, DC.

The Committee met, pursuant to notice, at 2:38 p.m. in Room SH–216, Hart Senate Office Building, Hon. Richard Burr (Chairman of the Committee) presiding.

Committee Members Present: Senators Burr, Feinstein, Coats, Collins, Blunt, Lankford, Cotton, Wyden, Warner, Heinrich, King, and Hirono.

OPENING STATEMENT OF HON. RICHARD BURR, CHAIRMAN, A U.S. SENATOR FROM NORTH CAROLINA

Chairman BURR. I'd like to call the hearing to order, and I'd like to welcome our witnesses today: Director of National Intelligence James Clapper; Director of Central Intelligence Agency John Brennan; Director of Defense Intelligence Agency General Vincent Stewart; Director of the Federal Bureau of Investigation Jim Comey; and Director of the National Security Agency Admiral Rogers. To each of you, welcome.

I'd note that Director Clapper and General Stewart have already appeared before the Senate Armed Services Committee this morning and I appreciate you both suffering through a very long day of testimony. I also thank our other witnesses for their attendance and participation.

Today's hearing presents an opportunity for both the witnesses and the members of the committee. It's my sincere hope that our discussion will shed some light on the dedicated and tireless work of our intelligence community professionals, the men and women represented by our witnesses. Their efforts to keep America safe often go unrecognized, but that does not mean it goes unnoticed.

I've spent the better part of 20 years as a member of the Congressional intelligence committees and have seen the scale, scope, and type of threats to our Nation evolve greatly. We no longer live in a world defined by a few distinct and well-defined threats. Our intelligence professionals are faced with collecting against and analyzing the threat posed by a range of actors from nation-states on down to home-grown violent extremists.

Director Clapper, in your statement you've pulled together the collective expertise of the intelligence community's extraordinary men and women. We value your laying out for our benefit the diverse and evolving and decentralized system of threats that imperil

this Nation and its interests across the globe. I ask that everyone take a moment to reflect on the range of expertise required to make sense of this information.

I note in your statement that cyber and, more broadly, technology headline your global threats. I agree with the assessment that innovation and increased reliance on information technology in the next few years will have significant consequences on society's way of life and, more specifically, how your officers perform their mission.

I look forward to your highlighting some of the challenges and consequences as you see them. I also remain concerned by the technological reach of ISIL and the danger of their using the information technology, social media, online unlimited research capabilities we use every day to propagate their barbaric message. Jim, I do hope you'll dedicate some time to laying out that particular threat, and I thank you again for being here today.

I'd like to also highlight for my colleagues that the Committee will be holding a classified hearing on worldwide threats later this week. To the degree it needs saying, please reserve any questions that you think might not be appropriate for an open session until the Thursday hearing.

With that, again I welcome our witnesses here today and I turn to the Vice Chairman for any comments she might have.

OPENING STATEMENT OF HON. DIANNE FEINSTEIN, VICE CHAIRMAN, A U.S. SENATOR FROM CALIFORNIA

Vice Chairman FEINSTEIN. Thanks very much, Mr. Chairman. I join you in welcoming our witnesses and also thanking the intelligence community for its service to this country. I also share your sentiment that this annual open hearing is important to help explain to the American people the threats that face this Nation and the efforts of the dedicated men and women of the intelligence community to keep us safe.

I want to open my comments by recognizing the significant contributions made by you, Director Clapper, as the leader of this community. You're the longest serving Director of National Intelligence to date and I think both the Chairman and I remember when this, the DNI, was developed and put into effect. Your capable stewardship of the community has driven it to be a more integrated and capable organization than at any time in history. So I want to personally thank you for the contributions you have made to this country's security.

But, as you know, there is no rest for the weary. The threats that face this Nation and our allies seem only to grow. The Syrian war is approaching its fifth year. Yet Bashar Al-Assad is still in power and a refugee crisis is destroying the lives of millions of innocent families and wreaking havoc across Europe.

We are witnessing the resurgence of an unpredictable Russia in Eastern Europe and Syria. North Korea last month conducted its fourth nuclear bomb test and two days ago conducted what it called a space launch. Of course, this is actually a thinly veiled test to develop missiles that could deliver weapons of mass destruction against a number of countries, including the United States.

While these threats are significant and troubling, we are all deeply concerned about the threat from ISIL, the Islamic State of Iraq and the Levant, and other terrorist groups. To us, ISIL is much more than a regional threat within the Syrian and Iraqi borders. It's a terrorist army, a global exporter of terrorism, with a presence in a number of countries. The official count is 11, including ISIL affiliates. But some of our friends, like the King of Jordan, have said they're in as many as 17 countries. And ISIL has the ability to spread its message of hate and violence around the world using social media in a very sophisticated way.

Director Clapper, I've read your written comments and am very much interested in your assessment of these global threats, their status today, and the outlook for the future.

I'd also ask you to comment on how the intelligence community is positioned to address these threats. Is it better today than it was, let's say, five years ago? For instance, while the coalition's air campaign is helping to deny ISIL some territorial safe havens and financial resources, how do we degrade it and destroy it if all they need to carry out an attack on the West is an Internet connection and an encrypted message application?

I'd like to hear your assessments of how the rise of end-to-end encryption has impacted our Nation's ability to identify and track individuals who seek to do us harm. Director Comey has spoken of this concern often. Director Rogers recently highlighted it as well. I'm interested in your views today about its impact and how you recommend we tackle this problem of terrorists and criminals communicating via these encrypted message applications.

The U.S. Freedom Act that passed last year eliminated the bulk collection of telephone communications metadata, and the new law now requires specific queries, with FISA Court approval, to individual telecommunication companies. Has this change affected your ability to discover new threats and relationships?

I'll save the rest of my comments for questions. But, gentlemen, thank you very much for being here. We look forward to discussion.

Chairman BURR. Thank you, Vice Chairman.

Before I recognize Director Clapper, let me say to members it's my intent—hopefully it's been conveyed to all members—you will be recognized for five minutes in the order that you appeared, with one exception. If there is no objection, when Director Clapper's testimony is over I would like to recognize Senator Lankford for a first set of questions, for the simple reason that on Tuesdays he has to preside over the Senate, and he has to preside at 3:20 today and I'd like to let him get a set of questions in. So, Jim, James, you will be recognized.

With that, the floor is yours, Director Clapper.

STATEMENT OF HON. JAMES R. CLAPPER, DIRECTOR OF NATIONAL INTELLIGENCE; ACCOMPANIED BY: JOHN BRENNAN, DIRECTOR, CENTRAL INTELLIGENCE AGENCY; LtGen VINCENT STEWART, DIRECTOR, DEFENSE INTELLIGENCE AGENCY; JAMES COMEY, DIRECTOR, FEDERAL BUREAU OF INVESTIGATION; AND ADM MICHAEL ROGERS, DIRECTOR, NATIONAL SECURITY AGENCY

Director CLAPPER. Chairman Burr and Vice Chairman Feinstein, members of the committee: First, Chairman Burr, thanks very much for the acknowledgment particularly of the great men and of women of the U.S. intelligence community whom we represent here today. It's very appropriate that you do that for the great work that they do. And, Madam Vice Chairman, thanks very much for acknowledging my long service. It's very gracious of you.

We're here today to update you on some, but certainly not all, of the pressing intelligence and national security issues facing our Nation, many of which you both alluded to, and so there will be a certain amount of echo here, I guess. In the interest of time and to get to your questions, we'll cover just some of the wavetops, and mine will be the only opening statement so we can go to your questions.

I apologize in advance to the crossover members who were present this morning at the Senate Armed Services Committee. But in the highest traditions of that's our story, we're sticking to it, it'll be the same statement.

As I said last year, unpredictable instability has become the new normal and this trend will continue for the foreseeable future. Violent extremists are operationally active in about 40 countries. Seven countries are experiencing a collapse of central government authority and 14 others face regime-threatening or violent instability or both. Another 59 countries face a significant risk of instability through 2016.

The record level of migrants, more than one million arriving in Europe, is likely to grow further this year. Migration and displacement will strain countries in Europe, Asia, Africa, and the Americas. There are some 60 million people worldwide considered displaced. Extreme weather, climate change, environmental degradation, rising demand for food and water, poor policy decisions, and inadequate infrastructure will magnify this instability.

Infectious diseases and vulnerabilities in the global supply chain for medical countermeasures will continue to pose threats. For example, the Zika virus, first detected in the Western Hemisphere in 2014, has reached the U.S. and is projected to cause up to four million cases in this hemisphere.

With that preface, I want to briefly comment on both technology and cyber specifically. Technological innovation during the next few years will have an even more significant impact on our way of life. This innovation is central to our economic prosperity, but it will bring new security vulnerabilities. The Internet of Things will connect tens of billions of physical devices that could be exploited. Artificial intelligence will enable computers to make autonomous decisions about data and physical systems and potentially disrupt labor markets.

Russia and China continue to have the most sophisticated cyber programs. China continues cyber espionage against the United States. Whether China's commitment of last September moderates its economic espionage remains to be seen.

Iran and North Korea continue to conduct cyber espionage as they enhance their attack capabilities. Non-state actors also pose cyber threats. ISIL has used cyber to its great advantage, not only for recruitment and propaganda, but also to hack and release sensitive information about U.S. military personnel. As a non-state actor, ISIL displays unprecedented online proficiency.

Cyber criminals remain the most pervasive cyber threat to the U.S. financial sector. They use cyber to conduct theft, extortion, and other criminal activities.

Turning to terrorism, there are now more Sunni violent extremist groups, members, and safe havens than at any time in history. The rate of foreign fighters traveling to the conflict zones in Syria and Iraq in the past few years is without precedent. At least 38,200 foreign fighters, including at least 6,900 from western countries, have traveled to Syria from at least 120 countries since the beginning of the conflict in 2012. As we saw in the November Paris attacks, returning foreign fighters with firsthand battlefield experience pose a dangerous operational threat.

ISIL has demonstrated sophisticated attack tactics and tradecraft. ISIL, including its eight established and several more emerging branches, has become the preeminent global terrorist threat. ISIL has attempted or conducted scores of attacks outside of Syria and Iraq in the last 15 months, and ISIL's estimated strength globally now exceeds that of Al-Qaeda.

ISIL's leaders are determined to strike the U.S. homeland beyond inspiring home-grown violent extremist attacks. Although the U.S. is a harder target than Europe, ISIL external operations remain a critical factor in our threat assessment for 2016.

Al-Qaeda's affiliates also have proven resilient. Despite counterterrorism pressure that's largely decimated the core leadership in Afghanistan and Pakistan, Al-Qaeda affiliates are positioned to make gains in 2016. Al-Qaeda in the Arabian Peninsula and the Al-Nusra Front, the Al-Qaeda chapter in Syria, are the two most capable Al-Qaeda branches.

The increased use by violent extremists of encrypted and secure Internet and mobile-based technologies enables terrorist actors to go dark and serves to undercut intelligence and law enforcement efforts.

Iran continues to be the foremost state sponsor of terrorism and exerts its influence in regional crises in the Middle East through the Islamic Revolutionary Guard Corps-Quds Force, its terrorist partner Lebanese Hezbollah, and proxy groups. Iran and Hezbollah remain a continuing terrorist threat to U.S. interests and partners worldwide.

We saw firsthand the threat posed to the United States by homegrown violent extremists in the July attack in Chattanooga and the attack in December in San Bernardino. In 2014 the FBI arrested nine ISIL supporters and in 2015 that number increased over fivefold.

Turning to weapons of mass destruction, North Korea continues to conduct test activities of concern to the United States. On Saturday evening Pyongyang conducted a satellite launch and subsequently claimed that the satellite was successfully placed in orbit. Additionally, last month North Korea carried out its fourth nuclear test, claiming it was a hydrogen bomb. But the yield was too low for it to have been a successful test of a thermonuclear device.

Pyongyang continues to produce fissile material and develop a submarine-launched ballistic missile. It is also committed to developing a long-range nuclear-armed missile that's capable of posing a direct threat to the United States, although the system has not been flight tested.

Despite its economic challenges, Russia continues its aggressive military modernization program. It has the largest and most capable foreign nuclear-armed ballistic missile force. It has developed a cruise missile that violates the Intermediate-Range Nuclear Forces, or INF, Treaty.

China continues to modernize its nuclear missile force and is striving for a secure second strike capability. It continues to profess a "no first use" doctrine.

The Joint Comprehensive Plan of Action, or JCPOA, provides us much greater transparency into Iran's fissile material production. It increases the time the Iranians would need to produce enough highly enriched uranium for a nuclear weapon from a few months to about a year. Iran probably views the JCPOA as a means to remove sanctions while preserving some nuclear capability. Iran's perception of how the JCPOA helps it achieve its overall strategic goals will dictate its level of adherence or compliance to the agreement over time.

Chemical weapons continue to pose a threat in Syria and Iraq. Damascus has used chemicals against the opposition on multiple occasions since Syria joined the Chemical Weapons Convention. ISIL has also used toxic chemicals in Iraq and Syria, including the blister agent sulfur mustard—the first time an extremist group has produced and used a chemical warfare agent in an attack since Aum Shinrikyo used sarin in Japan in 1995.

Turning to space and counter-space, there are about 80 countries that are now engaged in the space domain. Russia and China well understand how our military fights and how heavily we rely on space. They're each pursuing destructive and disruptive anti-satellite systems. China continues to make progress on its anti-satellite missile program.

Moving to counter-intelligence, the threat from foreign intelligence entities, both state and non-state, is persistent, complex, and evolving. Targeting collection of U.S. political, military, economic, and technical information by foreign intelligence services continues unabated. Russia and China pose the greatest threat, followed by Iran and Cuba on a lesser scale. As well, the threat from insiders taking advantage of their access to collect and remove sensitive national security information will remain a persistent challenge for us.

With respect to trans-national organized crime, I do want to touch on one crime issue, specifically drug trafficking. Southwest border seizures of heroin in the United States have doubled since

2010. Over 10,000 people died of heroin overdoses in the United States in 2014, much of it laced with fentanyl, which is 30 to 50 times more potent than heroin. In that same year, more than 28,000 died from opiate overdoses. And cocaine production in Colombia, from which most U.S. supplies originate, has increased significantly.

Now let me quickly move through a few regional issues. In East Asia, China's leaders are pursuing an active foreign policy while dealing with much slower economic growth. Chinese leaders have also embarked on the most ambitious military reforms in China's history. Regional tension will continue as China pursues construction at its outposts in the South China Sea.

Russia has demonstrated its military capabilities to project itself as a global power, command respect from the West, maintain domestic support for the regime, and advance Russian interests globally. Moscow's objectives in the Ukraine will probably remain unchanged, including maintaining long-term influence over Kiev and frustrating its attempts to integrate into western institutions.

Putin is the first leader since Stalin to expand Russia's territory. Moscow's military venture into Syria marks its first use since its foray into Afghanistan of significant expeditionary combat power outside of the post-Soviet space. Its interventions demonstrate the improvements in Russian military capabilities and the Kremlin's confidence in using them.

Moscow faces the reality, however, of economic recession, driven in large part by falling oil prices as well as sanctions. Russia's nearly 4 percent GDP contraction last year will probably extend well into 2016.

In the Mideast and South Asia, there are more cross-border military operations under way in the Mideast region than at any time since the 1973 Arab-Israeli War. In Iraq, anti-ISIL forces in Iraq will probably make incremental gains through this spring similar to those made in Baiji and Ramadi in the past few months. ISIL is now somewhat on the defensive and its territory and manpower are shrinking, but it remains a formidable threat.

In Syria, pro-regime forces have the initiative, having made some strategic gains near Aleppo and Latakia in the north, as well as in southern Syria. Manpower shortages, however, will continue to undermine the Syrian regime's ability to accomplish its strategic battlefield objectives. The opposition has less equipment and firepower and its groups lack unity. They sometimes have competing battlefield interests and fight among themselves.

Meanwhile, some 250,000 people have been killed as this war has dragged on. The humanitarian situation in Syria continues to deteriorate. As of last month, there were approximately 4.4 million Syrian refugees and another 6.5 million internally displaced persons, which together represent about one-half of Syria's population.

In Libya, despite the December agreement to form a new government of national accord, establishing authority and security across the country will be difficult at best, with hundreds of militia groups operating throughout the country. ISIL has established its most developed branch outside of Syria in Libya—outside of Syria and Iraq, in Libya, and maintains a presence in Sirte, Benghazi, Tripoli, and other areas of the country.

In Yemen, the conflict will probably remain stalemated through at least mid-2016. Meanwhile, AQAP and ISIL's affiliates in Yemen have exploited the conflict and the collapse of government authority to recruit and expand territorial control. The country's economic and humanitarian situation also continues to deteriorate.

Iran deepened its involvement in the Syria, Iraqi and Yemeni conflicts in 2015. It also increased military cooperation with Russia, highlighted by its battlefield alliance in Syria in support of the regime. Iran's supreme leader continues to view the United States as a major threat. We assess his views will not change, despite the implementation of the JCPOA deal, the exchange of detainees, and the release of the 10 U.S. sailors.

In South Asia, Afghanistan is at serious risk of a political breakdown during 2016, occasioned by mounting political, economic, and security challenges. Waning political cohesion, increasingly assertive local power brokers, financial shortfalls, and sustained countrywide Taliban attacks are eroding stability.

Needless to say there are many more threats to U.S. interests worldwide that we can address, most of which are covered in our statement for the record. But I'll stop this litany of doom and open to your questions.

Before I do that, I do want to answer one question that Madam Vice Chairman asked about the state of the community now vs. five years ago. I would like to think that we are better as a community just from the simple proposition of the sum being greater than the parts, because we operate as an integrated enterprise. Others may have a comment on that. None of them are unwilling to disagree with me, but that's my view.

So I'll stop there and open to your questions.

[The prepared statement of Director Clapper follows.]

Statement for the Record

Worldwide Threat Assessment
of the
US Intelligence Community

Senate Select Committee on Intelligence

James R. Clapper

Director of National Intelligence

February 9, 2016

STATEMENT FOR THE RECORD

WORLDWIDE THREAT ASSESSMENT
of the
US INTELLIGENCE COMMUNITY

February 9, 2016

INTRODUCTION

Chairman Burr, Vice Chairman Feinstein, Members of the Committee, thank you for the invitation to offer the United States Intelligence Community's 2016 assessment of threats to US national security. My statement reflects the collective insights of the Intelligence Community's extraordinary men and women, whom I am privileged and honored to lead. We in the Intelligence Community are committed every day to provide the nuanced, multidisciplinary intelligence that policymakers, warfighters, and domestic law enforcement personnel need to protect American lives and America's interests anywhere in the world.

The order of the topics presented in this statement does not necessarily indicate the relative importance or magnitude of the threat in the view of the Intelligence Community.

Information available as of February 3, 2016 was used in the preparation of this assessment.

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GLOBAL THREATS

CYBER AND TECHNOLOGY

Strategic Outlook

The consequences of innovation and increased reliance on information technology in the next few years on both our society's way of life in general and how we in the Intelligence Community specifically perform our mission will probably be far greater in scope and impact than ever. Devices, designed and fielded with minimal security requirements and testing, and an ever-increasing complexity of networks could lead to widespread vulnerabilities in civilian infrastructures and US Government systems. These developments will pose challenges to our cyber defenses and operational tradecraft but also create new opportunities for our own intelligence collectors.

Internet of Things (IoT). "Smart" devices incorporated into the electric grid, vehicles—including autonomous vehicles—and household appliances are improving efficiency, energy conservation, and convenience. However, security industry analysts have demonstrated that many of these new systems can threaten data privacy, data integrity, or continuity of services. In the future, intelligence services might use the IoT for identification, surveillance, monitoring, location tracking, and targeting for recruitment, or to gain access to networks or user credentials.

Artificial Intelligence (AI). AI ranges from "Narrow AI" systems, which seek to execute specialized tasks, such as speech recognition, to "General AI" systems—perhaps still decades away—which aim to replicate many aspects of human cognition. Implications of broader AI deployment include increased vulnerability to cyberattack, difficulty in ascertaining attribution, facilitation of advances in foreign weapon and intelligence systems, the risk of accidents and related liability issues, and unemployment. Although the United States leads AI research globally, foreign state research in AI is growing.

The increased reliance on AI for autonomous decisionmaking is creating new vulnerabilities to cyberattacks and influence operations. As we have already seen, false data and unanticipated algorithm behaviors have caused significant fluctuations in the stock market because of the reliance on automated trading of financial instruments. Efficiency and performance benefits can be derived from increased reliance on AI systems in both civilian industries and national security, as well as potential gains to cybersecurity from automated computer network defense. However, AI systems are susceptible to a range of disruptive and deceptive tactics that might be difficult to anticipate or quickly understand. Efforts to mislead or compromise automated systems might create or enable further opportunities to disrupt or damage critical infrastructure or national security networks.

Foreign Data Science. This field is becoming increasingly mature. Foreign countries are openly purchasing access to published US research through aggregated publication indices, and they are collecting social media and patent data to develop their own indices.

Augmented Reality (AR) and Virtual Reality (VR). AR and VR systems with three-dimensional imagery and audio, user-friendly software, and low price points are already on the market; their adoption will probably accelerate in 2016. AR provides users with additional communications scenarios (e.g. by using virtual avatars) as well as acquisition of new data (e.g. from facial recognition) overlaid onto reality. VR gives users experiences in man-made environments wholly separate from reality.

Protecting Information Resources

Integrity. Future cyber operations will almost certainly include an increased emphasis on changing or manipulating data to compromise its integrity (i.e., accuracy and reliability) to affect decisionmaking, reduce trust in systems, or cause adverse physical effects. Broader adoption of IoT devices and AI—in settings such as public utilities and health care—will only exacerbate these potential effects. Russian cyber actors, who post disinformation on commercial websites, might seek to alter online media as a means to influence public discourse and create confusion. Chinese military doctrine outlines the use of cyber deception operations to conceal intentions, modify stored data, transmit false data, manipulate the flow of information, or influence public sentiments—all to induce errors and miscalculation in decisionmaking.

Infrastructure. Countries are becoming increasingly aware of both their own weaknesses and the asymmetric offensive opportunities presented by systemic and persistent vulnerabilities in key infrastructure sectors including health care, energy, finance, telecommunications, transportation, and water. For example, the US health care sector is rapidly evolving in ways never before imagined, and the cross-networking of personal data devices, electronic health records, medical devices, and hospital networks might play unanticipated roles in patient outcomes. Such risks are only heightened by large-scale theft of health care data and the internationalization of critical US supply chains and service infrastructure.

A major US network equipment manufacturer acknowledged last December that someone repeatedly gained access to its network to change source code in order to make its products' default encryption breakable. The intruders also introduced a default password to enable undetected access to some target networks worldwide.

Interoperability. Most governments are exploring ways to exert sovereign control over information accessible to and used by their citizens and are placing additional legal requirements on companies as they seek to balance security, privacy, and economic concerns. We assess that many countries will implement new laws and technologies to censor information, decrease online anonymity, and localize data within their national borders. Although these regulations will restrict freedoms online and increase the operating costs for US companies abroad, they will probably not introduce obstacles that threaten the functionality of the Internet.

Identity. Advances in the capabilities of many countries to exploit large data sets almost certainly increase the intelligence value of collecting bulk data and have probably contributed to increased targeting of personally identifiable information. Commercial vendors, who aggregate the bulk of digitized information about persons, will increasingly collect, analyze, and sell it to both foreign and domestic customers. We assess that countries are exploiting personal data to inform a variety of counterintelligence operations.

Accountability. Information security professionals will continue to make progress in attributing cyber operations and tying events to previously identified infrastructure or tools that might enable rapid attribution in some cases. However, improving offensive tradecraft, the use of proxies, and the creation of cover organizations will hinder timely, high-confidence attribution of responsibility for state-sponsored cyber operations.

Restraint. Many actors remain undeterred from conducting reconnaissance, espionage, and even attacks in cyberspace because of the relatively low costs of entry, the perceived payoff, and the lack of significant consequences. Moscow and Beijing, among others, view offensive cyber capabilities as an important geostrategic tool and will almost certainly continue developing them while simultaneously discussing normative frameworks to restrict such use. Diplomatic efforts in the past three years have created the foundation for establishing limits on cyber operations, and the norms articulated in a 2015 report of the UN Group of Governmental Experts suggest that countries are more likely to commit to limitations on what cyber operations can target than to support bans on the development of offensive capabilities or on specific means of cyber intervention. For example, in 2015, following a US-Chinese bilateral agreement, G-20 leaders agreed that that no country should conduct or sponsor cyber espionage for the purpose of commercial gain.

Leading Threat Actors

Russia. Russia is assuming a more assertive cyber posture based on its willingness to target critical infrastructure systems and conduct espionage operations even when detected and under increased public scrutiny. Russian cyber operations are likely to target US interests to support several strategic objectives: intelligence gathering to support Russian decisionmaking in the Ukraine and Syrian crises, influence operations to support military and political objectives, and continuing preparation of the cyber environment for future contingencies.

China. China continues to have success in cyber espionage against the US Government, our allies, and US companies. Beijing also selectively uses cyberattacks against targets it believes threaten Chinese domestic stability or regime legitimacy. We will monitor compliance with China's September 2015 commitment to refrain from conducting or knowingly supporting cyber-enabled theft of intellectual property with the intent of providing competitive advantage to companies or commercial sectors. Private-sector security experts have identified limited ongoing cyber activity from China but have not verified state sponsorship or the use of exfiltrated data for commercial gain.

Iran. Iran used cyber espionage, propaganda, and attacks in 2015 to support its security priorities, influence events, and counter threats—including against US allies in the region.

North Korea. North Korea probably remains capable and willing to launch disruptive or destructive cyberattacks to support its political objectives. South Korean officials have concluded that North Korea was probably responsible for the compromise and disclosure of data from a South Korean nuclear plant.

Nonstate Actors. Terrorists continue to use the Internet to organize, recruit, spread propaganda, collect intelligence, raise funds, and coordinate operations. In a new tactic, ISIL actors targeted and released sensitive information about US military personnel in 2015 in an effort to spur "lone-wolf" attacks. Criminals develop and use sophisticated cyber tools for a variety of purposes such as theft, extortion, and

facilitation of other criminal activities such as drug trafficking. "Ransomware" designed to block user access to their own data, sometimes by encrypting it, is becoming a particularly effective and popular tool for extortion for which few options for recovery are available. Criminal tools and malware are increasingly being discovered on state and local government networks.

TERRORISM

The United States and its allies are facing a challenging threat environment in 2016. Sunni violent extremism has been on an upward trajectory since the late 1970s and has more groups, members, and safe havens than at any other point in history. At the same time, Shia violent extremists will probably deepen sectarian tensions in response to real and perceived threats from Sunni violent extremists and to advance Iranian influence.

The Islamic State of Iraq and the Levant (ISIL) has become the preeminent terrorist threat because of its self-described caliphate in Syria and Iraq, its branches and emerging branches in other countries, and its increasing ability to direct and inspire attacks against a wide range of targets around the world. ISIL's narrative supports jihadist recruiting, attracts others to travel to Iraq and Syria, draws individuals and groups to declare allegiance to ISIL, and justifies attacks across the globe. The ISIL-directed November 2015 attacks in Paris and ISIL-Sinai's claim of responsibility for the late October downing of a Russian airliner in the Sinai underscore these dynamics.

Al-Qa'ida's affiliates have proven resilient and are positioned to make gains in 2016, despite counterterrorism pressure that has largely degraded the network's leadership in Afghanistan and Pakistan. They will continue to pose a threat to local, regional, and even possibly global interests as demonstrated by the January 2015 attack on French satirical newspaper *Charlie Hebdo* by individuals linked to al-Qa'ida in the Arabian Peninsula (AQAP). Other Sunni terrorist groups retain the ability to attract recruits and resources.

The United States will almost certainly remain at least a rhetorically important enemy for most violent extremists in part due to past and ongoing US military, political, and economic engagement overseas. Sunni violent extremists will probably continually plot against US interests overseas. A smaller number will attempt to overcome the logistical challenges associated with conducting attacks on the US homeland. The July 2015 attack against military facilities in Chattanooga and December 2015 attack in San Bernardino demonstrate the threat that homegrown violent extremists (HVEs) also pose to the homeland. In 2014, the FBI arrested approximately one dozen US-based ISIL supporters. In 2015, that number increased to approximately five dozen arrests. These individuals were arrested for a variety of reasons, predominantly for attempting to provide material support to ISIL.

US-based HVEs will probably continue to pose the most significant Sunni terrorist threat to the US homeland in 2016. The perceived success of attacks by HVEs in Europe and North America, such as those in Chattanooga and San Bernardino, might motivate others to replicate opportunistic attacks with little or no warning, diminishing our ability to detect terrorist operational planning and readiness. ISIL involvement in homeland attack activity will probably continue to involve those who draw inspiration from

the group's highly sophisticated media without direct guidance from ISIL leadership and individuals in the United States or abroad who receive direct guidance and specific direction from ISIL members or leaders.

ISIL's global appeal continues to inspire individuals in countries outside Iraq and Syria to travel to join the group. More than 36,500 foreign fighters—including at least 6,600 from Western countries—have traveled to Syria from more than100 countries since the conflict began in 2012. Foreign fighters who have trained in Iraq and Syria might potentially leverage skills and experience to plan and execute attacks in the West. Involvement of returned foreign fighters in terrorist plotting increases the effectiveness and lethality of terrorist attacks, according to academic studies. A prominent example is the November 2015 attacks in Paris in which the plotters included European foreign fighters returning from Syria.

ISIL's branches continue to build a strong global network that aims to advance the group's goals and often works to exacerbate existing sectarian tensions in their localities. Some of these branches will also plan to strike at Western targets, such as the downing of a Russian airliner in October by ISIL's self-proclaimed province in Egypt. In Libya, the group is entrenched in Surt and along the coastal areas, has varying degrees of presence across the country, and is well positioned to expand territory under its control in 2016. ISIL will seek to influence previously established groups, such as Boko Haram in Nigeria, to emphasize the group's ISIL identity and fulfill its religious obligations to the ISIL "caliphate."

Other terrorists and insurgent groups will continue to exploit weak governance, insecurity, and economic and political fragility in an effort to expand their areas of influence and provide safe havens for violent extremists, particularly in conflict zones. Sunni violent extremist groups are increasingly joining or initiating insurgencies to advance their local and transnational objectives. Many of these groups are increasingly capable of conducting effective insurgent campaigns, given their membership growth and accumulation of large financial and materiel caches. This trend increasingly blurs the lines between insurgent and terrorist groups as both aid local fighters, leverage safe havens, and pursue attacks against US and other Western interests.

No single paradigm explains how terrorists become involved in insurgencies. Some groups like ISIL in Syria and al-Qa'ida in the Islamic Maghreb (AQIM) in Mali have worked with local militants to incite insurgencies. Others, like Boko Haram, are the sole instigators and represent the primary threat to their respective homeland's security. Still others, including al-Shabaab, are the primary beneficiaries of an insurgency started by others. Finally, other groups, such as core al-Qa'ida, have taken advantage of the relative safe haven in areas controlled by insurgent groups to build capabilities and alliances without taking on a primary leadership role in the local conflict.

Although al-Qa'ida's presence in Afghanistan and Pakistan has been significantly degraded, it aspires to attack the US and its allies. In Yemen, the proven capability of AQAP to advance external plots during periods of instability suggests that leadership losses and challenges from the Iranian-backed Huthi insurgency will not deter its efforts to strike the West. Amid this conflict, AQAP has made territorial gains in Yemen including the seizure of military bases in the country's largest province. Al-Qa'ida nodes in Syria, Pakistan, Afghanistan, and Turkey are also dedicating resources to planning attacks. Al-Shabaab, al-Qaida's affiliate in East Africa, continues its violent insurgency in southern and central Somalia despite losses of territory and influence and conflict among senior leaders.

Iran—the foremost state sponsor of terrorism—continues to exert its influence in regional crises in the Middle East through the Islamic Revolutionary Guard Corps—Qods Force (IRGC-QF), its terrorist partner Lebanese Hizballah, and proxy groups. It also provides military and economic aid to its allies in the region. Iran and Hizballah remain a continuing terrorist threat to US interests and partners worldwide.

Terrorists will almost certainly continue to benefit in 2016 from a new generation of recruits proficient in information technology, social media, and online research. Some terrorists will look to use these technologies to increase the speed of their communications, the availability of their propaganda, and ability to collaborate with new partners. They will easily take advantage of widely available, free encryption technology, mobile-messaging applications, the dark web, and virtual environments to pursue their objectives.

Long-term economic, political, and social problems, as well as technological changes, will contribute to the terrorist threat worldwide. A record-setting 60 million internally displaced persons (IDPs) and refugees as of 2014—one half of whom are children, according to the United Nations—will stress the capacity of host nations already dealing with problems relating to assimilation and possibly make displaced populations targets for recruitment by violent extremists. Among Sunni violent extremist groups, ISIL is probably most proficient at harnessing social media to disseminate propaganda and solicit recruits among a broad audience. It is likely to continue these activities in 2016 by using videos, photos, and other propaganda glorifying life under ISIL rule and promoting the group's military successes. In addition, violent extremist supporters will probably continue to publicize their use of encrypted messaging applications on social media to let aspiring violent extremists know that secure avenues are available by which they can communicate.

The acute and enduring nature of demographic, economic, political, social, and technological factors contribute to the motivation of individuals and groups and their participation in violent extremist activities. These factors ensure that terrorism will remain one of several primary national security challenges for the United States in 2016.

WEAPONS OF MASS DESTRUCTION AND PROLIFERATION

Nation-state efforts to develop or acquire weapons of mass destruction (WMD), their delivery systems, or their underlying technologies constitute a major threat to the security of the United States, its deployed troops, and allies. Use of chemical weapons in Syria by both state and nonstate actors demonstrates that the threat of WMD is real. Biological and chemical materials and technologies, almost always dual use, move easily in the globalized economy, as do personnel with the scientific expertise to design and use them. The latest discoveries in the life sciences also diffuse rapidly around the globe.

North Korea Developing WMD-Applicable Capabilities

North Korea's nuclear weapons and missile programs will continue to pose a serious threat to US interests and to the security environment in East Asia in 2016. North Korea's export of ballistic missiles and associated materials to several countries, including Iran and Syria, and its assistance to Syria's

construction of a nuclear reactor, destroyed in 2007, illustrate its willingness to proliferate dangerous technologies.

We judge that North Korea conducted a nuclear test on 6 January 2016 that it claimed was a successful test of a "hydrogen bomb." Although we are continuing to evaluate this event, the low yield of the test is not consistent with a successful test of a thermonuclear device. In 2013, following North Korea's third nuclear test, Pyongyang announced its intention to "refurbish and restart" its nuclear facilities, to include the uranium enrichment facility at Yongbyon and its graphite-moderated plutonium production reactor, which was shut down in 2007. We assess that North Korea has followed through on its announcement by expanding its Yongbyon enrichment facility and restarting the plutonium production reactor. We further assess that North Korea has been operating the reactor long enough so that it could begin to recover plutonium from the reactor's spent fuel within a matter of weeks to months.

North Korea has also expanded the size and sophistication of its ballistic missile forces—from close-range ballistic missiles to intercontinental ballistic missiles (ICBMs)—and continues to conduct test launches. In May 2015, North Korea claimed that it successfully tested a ballistic missile from a submarine. Pyongyang is also committed to developing a long-range, nuclear-armed missile that is capable of posing a direct threat to the United States; it has publicly displayed its KN08 road-mobile ICBM on multiple occasions. We assess that North Korea has already taken initial steps toward fielding this system, although the system has not been flight-tested.

Although North Korea issues official statements that include its justification for building nuclear weapons and threats to use them as a defensive or retaliatory measure, we do not know the details of Pyongyang's nuclear doctrine or employment concepts. We have long assessed that Pyongyang's nuclear capabilities are intended for deterrence, international prestige, and coercive diplomacy.

China Modernizing Nuclear Forces

The Chinese People's Liberation Army's (PLA's) has established a Rocket Force—replacing the longstanding Second Artillery Corps—and continues to modernize its nuclear missile force by adding more survivable road-mobile systems and enhancing its silo-based systems. This new generation of missiles is intended to ensure the viability of China's strategic deterrent by providing a second-strike capability. In addition, the PLA Navy continues to develop the JL-2 submarine-launched ballistic missile (SLBM) and might produce additional JIN-class nuclear-powered ballistic missile submarines. The JIN-class submarines—armed with JL-2 SLBMs—will give the PLA Navy its first long-range, sea-based nuclear capability.

Russian Cruise Missile Violates the INF Treaty

Russia has developed a ground-launched cruise missile that the United States has declared is in violation of the Intermediate-Range Nuclear Forces (INF) Treaty. Russia has denied it is violating the INF Treaty. In 2013, a senior Russian administration official stated publicly that the world had changed since the INF Treaty was signed 1987 and noted that Russia was "developing appropriate weapons systems" in light of the proliferation of intermediate- and shorter-range ballistic missile technologies around the world, and Russian officials have made statements in the past regarding the unfairness of a Treaty that prohibits

Russia, but not some of its neighbors, from developing and processing ground-launched missiles with ranges between 500 to 5,500 kilometers.

Chemical Weapons in Syria and Iraq

We assess that Syria has not declared all the elements of its chemical weapons program to the Chemical Weapons Convention (CWC). Despite the creation of a specialized team and months of work by the Organization for the Prohibition of Chemical Weapons (OPCW) to address gaps and inconsistencies in Syria's declaration, numerous issues remain unresolved. Moreover, we continue to judge that the Syrian regime has used chemicals as a means of warfare since accession to the CWC in 2013. The OPCW Fact-Finding Mission has concluded that chlorine had been used on Syrian opposition forces in multiple incidents in 2014 and 2015. Helicopters—which only the Syrian regime possesses—were used in several of these attacks.

We assess that nonstate actors in the region are also using chemicals as a means of warfare. The OPCW investigation into an alleged ISIL attack in Syria in August led it to conclude that at least two people were exposed to sulfur mustard. We continue to track numerous allegations of ISIL's use of chemicals in attacks in Iraq and Syria, suggesting that attacks might be widespread.

Iran Adhering to Deal To Preserve Capabilities and Gain Sanctions Relief

Iran probably views the Joint Comprehensive Plan of Action (JCPOA) as a means to remove sanctions while preserving some of its nuclear capabilities, as well as the option to eventually expand its nuclear infrastructure. We continue to assess that Iran's overarching strategic goals of enhancing its security, prestige, and regional influence have led it to pursue capabilities to meet its nuclear energy and technology goals and give it the ability to build missile-deliverable nuclear weapons, if it chooses to do so. Its pursuit of these goals will dictate its level of adherence to the JCPOA over time. We do not know whether Iran will eventually decide to build nuclear weapons.

We also continue to assess that Iran does not face any insurmountable technical barriers to producing a nuclear weapon, making Iran's political will the central issue. Iran's implementation of the JCPOA, however, has extended the amount of time Iran would need to produce fissile material for a nuclear weapon from a few months to about a year. The JCPOA has also enhanced the transparency of Iran's nuclear activities, mainly through improved access by the International Atomic Energy Agency (IAEA) and investigative authorities under the Additional Protocol to its Comprehensive Safeguard Agreement.

As a result, the international community is well postured to quickly detect changes to Iran's declared nuclear facilities designed to shorten the time Iran would need to produce fissile material. Further, the JCPOA provides tools for the IAEA to investigate possible breaches of prohibitions on specific R&D activities that could contribute to the development of a nuclear weapon.

We judge that Tehran would choose ballistic missiles as its preferred method of delivering nuclear weapons, if it builds them. Iran's ballistic missiles are inherently capable of delivering WMD, and Tehran already has the largest inventory of ballistic missiles in the Middle East. Iran's progress on space launch vehicles—along with its desire to deter the United States and its allies—provides Tehran with the means and motivation to develop longer-range missiles, including ICBMs.

Genome Editing

Research in genome editing conducted by countries with different regulatory or ethical standards than those of Western countries probably increases the risk of the creation of potentially harmful biological agents or products. Given the broad distribution, low cost, and accelerated pace of development of this dual-use technology, its deliberate or unintentional misuse might lead to far-reaching economic and national security implications. Advances in genome editing in 2015 have compelled groups of high-profile US and European biologists to question unregulated editing of the human germline (cells that are relevant for reproduction), which might create inheritable genetic changes. Nevertheless, researchers will probably continue to encounter challenges to achieve the desired outcome of their genome modifications, in part because of the technical limitations that are inherent in available genome editing systems.

SPACE AND COUNTERSPACE

Space

Global Trends. Changes in the space sector will evolve more quickly in the next few years as innovation becomes more ubiquitous, driven primarily by increased availability of technology and growing private company investment. The number of space actors is proliferating, with 80 countries participating in space activities and more expected in the next few years. New entrants from the private space sector—leveraging lowering costs in aerospace technology and innovations in other technology sectors, such as big data analytics, social media, automation, and additive manufacturing—will increase global access to space-enabled applications, such as imaging, maritime automatic identification system (AIS), weather, Internet, and communications.

Military and Intelligence. Foreign governments will expand their use of space services—to include reconnaissance, communications, and position, navigation, and timing (PNT)—for military and intelligence purposes, beginning to rival the advantages space-enabled services provide the United States. Russia and China continue to improve the capabilities of their military and intelligence satellites and grow more sophisticated in their operations. Russian military officials publicly tout their use of imaging and electronic-reconnaissance satellites to support military operations in Syria—revealing some of their sophisticated military uses of space services.

Counterspace

Threats to our use of military, civil, and commercial space systems will increase in the next few years as Russia and China progress in developing counterspace weapon systems to deny, degrade, or disrupt US space systems. Foreign military leaders understand the unique advantages that space-based systems provide to the United States. Russia senior leadership probably views countering the US space advantage as a critical component of warfighting. Its 2014 Military Doctrine highlights at least three space-enabled capabilities—"global strike," the "intention to station weapons in space," and "strategic non-nuclear precision weapons"—as main external military threats to the Russian Federation. Russia and China are also employing more sophisticated satellite operations and are probably testing dual-use technologies in space that could be applied to counterspace missions.

Deny and Disrupt. We already face a global threat from electronic warfare systems capable of jamming satellite communications systems and global navigation space systems. We assess that this technology will continue to proliferate to new actors and that our more advanced adversaries will continue to develop more sophisticated systems in the next few years. Russian defense officials acknowledge that they have deployed radar-imagery jammers and are developing laser weapons designed to blind US intelligence and ballistic missile defense satellites.

Destroy. Russia and China continue to pursue weapons systems capable of destroying satellites on orbit, placing US satellites at greater risk in the next few years. China has probably made progress on the antisatellite missile system that it tested in July 2014. The Russian Duma officially recommended in 2013 that Russia resume research and development of an airborne antisatellite missile to "be able to intercept absolutely everything that flies from space."

COUNTERINTELLIGENCE

The United States will continue to face a complex foreign intelligence threat environment in 2016. We assess that the leading state intelligence threats to US interests will continue to be Russia and China, based on their capabilities, intent, and broad operational scope. Other states in South Asia, the Near East, East Asia, and Latin America will pose local and regional intelligence threats to US interests. For example, Iranian and Cuban intelligence and security services continue to view the United States as a primary threat.

Penetrating and influencing the US national decisionmaking apparatus and Intelligence Community will remain primary objectives for numerous foreign intelligence entities. Additionally, the targeting of national security information and proprietary information from US companies and research institutions involved with defense, energy, finance, dual-use technology, and other sensitive areas will remain a persistent threat to US interests.

Insiders who disclose sensitive US Government information without authorization will remain a significant threat in 2016. The sophistication and availability of information technology that can be used for nefarious purposes exacerbate this threat both in terms of speed and scope of impact.

Nonstate entities, including international terrorist groups and transnational organized crime organizations, will continue to employ and potentially improve their intelligence capabilities, which include human, cyber, and technical means. Like state intelligence services, these nonstate entities recruit human sources and conduct physical and technical surveillance to facilitate their activities and avoid detection and capture.

TRANSNATIONAL ORGANIZED CRIME

Some US Drug Threats Are Growing

Transnational drug trafficking poses a strong and in many cases growing threat to the United States at home and to US security interests abroad. Supplies of some foreign-produced drugs in the United States are rising, and some criminals who market them are growing more sophisticated.

- Mexican drug traffickers, capitalizing on the strong US demand for heroin, have increased heroin production significantly since 2007. US border seizures nearly doubled between 2010 and 2014. Some Mexican trafficking groups—which collectively supply most of the heroin consumed in the United States—have mastered production of the white heroin preferred in eastern US cities and have been boosting overall drug potency by adding fentanyl. Fentanyl, which is 30 to 50 times more potent than heroin, is sometimes used as an adulterant and mixed with lower-grade heroin to increase its effects or mixed with diluents and sold as "synthetic heroin" with or without the buyers' knowledge.

- Mexican traffickers have probably increased their production of the stimulant methamphetamine for the US market. US border seizures of the drug rose by nearly half between 2013 and 2014.

- Traffickers in the Andean countries have increased their manufacture of cocaine. Producers in Colombia—from which most US cocaine originates—increased output by nearly a third in 2014 over the prior year. Cocaine output will probably rise again in 2016 as previously planted coca crops fully mature.

- US availability of some new psychoactive substances—so-called "designer drugs" typically produced in Asia—has been increasing; UN scientists have identified more than 500 unique substances.

Transnational Organized Crime Groups Target Vulnerable States

Transnational organized crime groups will pose a persistent and at times sophisticated threat to the wealth, health, and security of people around the globe. Criminal groups' untaxed and unregulated enterprises drain state resources, crowd out legitimate commerce, increase official corruption, and impede economic competitiveness and fair trade. On occasion, transnational organized crime groups threaten countries' security, spur increases in social violence, or otherwise reduce governability.

- Profit-minded criminals generally do not seek the reins of political power but rather to suborn, co-opt, or bully government officials in order to create environments in which criminal enterprise can thrive.

- Foreign-based transnational criminals are increasingly using online information systems to breach sovereign borders virtually, without the need to send criminal operatives abroad to advance illicit businesses.

- Organized crime and rebel groups in Africa and elsewhere are likely to increase their involvement in wildlife trafficking to fund political activities, enhance political influence, and purchase weapons. Illicit trade in wildlife, timber, and marine resources endangers the environment, threatens good

governance and border security in fragile regions, and destabilizes communities whose economic well-being depends on wildlife for biodiversity and ecotourism. Increased demand for ivory and rhino horn in East Asia has triggered unprecedented increases in poaching in Sub-Saharan Africa.

Human trafficking exploits and abused individuals and challenges international security. Human traffickers leverage corrupt officials, porous borders, and lax enforcement to orchestrate their illicit trade. This exploitation of human lives for profit continues to occur in every country in the world—undermining the rule of law and corroding legitimate institutions of government and commerce. Trafficking in persons has become a lucrative source of revenue for transnational organized crime groups and terrorist organizations and is estimated to produce tens of billions of dollars annually. For example, terrorist or armed groups—such as ISIL, the Lord's Resistance Army, and Boko Haram—engage in kidnapping for the purpose of sexual slavery, sexual exploitation, and forced labor. These activities might also contribute to the funding and sustainment of such groups.

We assess that the ongoing global migration crises—a post-WWII record 60 million refugees and internally displaced persons—will fuel an increase in the global volume of human trafficking victims as men, women, and children undertake risky migration ventures and fall prey to sex trafficking, forced labor, debt bondage and other trafficking crimes. This continuing rise in global displacement and dangerous migration, both forced and opportunistic movements within countries and across national borders, will probably allow criminal groups and terrorist organizations to exploit vulnerable populations.

ECONOMICS AND NATURAL RESOURCES

Global economic growth will probably remain subdued, in part because of the deceleration of China's economy. During 2015, preliminary figures indicate that worldwide GDP growth slipped to 3.1 percent, down from 3.4 percent the previous year, although advanced economies as a group enjoyed their strongest GDP growth since 2010 at nearly 2 percent. However, developing economies, which were already dealing with broad and sharp commodity-price declines that began in 2014, saw the first net capital outflows to developed countries since the late 1980s.

GDP growth for these economies was 4 percent in 2015, the lowest since 2009. The International Monetary Fund (IMF) is forecasting a slight growth upturn in 2016 but downgraded its forecast in January for both developed and developing economies. Adverse shocks such as financial instability in emerging markets, a steeper-than-expected slowdown in China's growth, or renewed uncertainty about Greece's economic situation, might prevent the predicted gradual increase in global growth.

Macroeconomic Stability

Continued solid performance by the United States and the resumption of growth for many European states, even as the region continues to wrestle with the Greek debt crisis, will probably help boost growth rates for developed economies. However, increasing signs of a sustained deceleration of Chinese economic growth—particularly in sectors that are the most raw-material intensive—contributed to a continued decline in energy and commodity prices worldwide in 2015. Emerging markets and developing countries' difficulties were compounded by the declines in foreign investment inflows and increases in

resident capital outflows. The prospect of higher growth and interest rates in the United States is spurring net capital outflows from these countries, estimated to be more than $700 billion in 2015, compared to an average yearly inflow of more than $400 billion from 2009 to 2014. The global slowdown in trade is also contributing to a more difficult economic environment for many developing economies and might worsen if efforts to advance trade liberalization through the World Trade Organization (WTO) and regional trade deals stall.

Energy and Commodities

Weak energy and commodity prices have been particularly hard on key exporters in Latin America; Argentina and Brazil experienced negative growth and their weakened currencies contributed to domestic inflation. A steeply declining economy in Venezuela—the result of the oil-price decline and years of poor economic policy and profligate government spending—will leave Caracas struggling to avoid default in 2016. Similarly, in Africa, declining oil revenues and past mismanagement have contributed to Angolan and Nigerian fiscal problems, currency strains, and deteriorating external balances. Falling prices have also forced commodity-dependent exporters, such as Ghana, Liberia, and Zambia, to make sharp budget cuts to contain deficits. Persian Gulf oil exporters, which generally have more substantial financial reserves, have nonetheless seen a sharp increase in budget deficits.

Declining energy prices and substantial increases in North American production have also discouraged initiatives to develop new resources and expand existing projects—including in Brazil, Canada, Iraq, and Saudi Arabia. They typically take years to complete, potentially setting the stage for shortfalls in coming years when demand recovers.

Arctic

Diminishing sea ice is creating increased economic opportunities in the region and simultaneously raising Arctic nations' concerns about safety and the environment. Harsh weather and longer-term economic stakes have encouraged cooperation among the countries bordering the Arctic. As polar ice recedes and resource extraction technology improves, however, economic and security concerns will raise the risk of increased competition between Arctic and non-Arctic nations over access to sea routes and resources. Sustained low oil prices would reduce the attractiveness of potential Arctic energy resources. Russia will almost certainly continue to bolster its military presence along its northern coastline to improve its perimeter defense and control over its exclusive economic zone (EEZ). It will also almost certainly continue to seek international support for its extended continental shelf claim and its right to manage ship traffic within its EEZ. Moscow might become more willing to disavow established international processes or organizations concerning Arctic governance and act unilaterally to protect these interests if Russian-Western relations deteriorate further.

HUMAN SECURITY

Environmental Risks and Climate Change

Extreme weather, climate change, environmental degradation, related rising demand for food and water, poor policy responses, and inadequate critical infrastructure will probably exacerbate—and potentially

spark—political instability, adverse health conditions, and humanitarian crises in 2016. Several of these developments, especially those in the Middle East, suggest that environmental degradation might become a more common source for interstate tensions. We assess that almost all of the 194 countries that adopted the global climate agreement at the UN climate conference in Paris in December 2015 view it as an ambitious and long-lasting framework.

- The UN World Meteorological Organization (WMO) report attributes extreme weather events in the tropics and sub-tropical zones in 2015 to both climate change and an exceptionally strong El Niño that will probably persist through spring 2016. An increase in extreme weather events is likely to occur throughout this period, based on WMO reporting. Human activities, such as the generation of greenhouse gas emissions and land use, have contributed to extreme weather events including more frequent and severe tropical cyclones, heavy rainfall, droughts, and heat waves, according to a November 2015 academic report with contributions from scientists at the National Oceanic and Atmospheric Administration (NOAA). Scientists have more robust evidence to identify the influence of human activity on temperature extremes than on precipitation extremes.

- The Paris climate change agreement establishes a political expectation for the first time that all countries will address climate change. The response to the deal has been largely positive among government officials and nongovernmental groups, probably because the agreement acknowledges the need for universal action to combat climate change along with the development needs of lower-income countries. However, an independent team of climate analysts and the Executive Secretary of the UN climate forum have stated that countries' existing national plans to address climate change will only limit temperature rise to 2.7 degrees Celsius by 2100.

Health

Infectious diseases and vulnerabilities in the global supply chain for medical countermeasures will continue to pose a danger to US national security in 2016. Land-use changes will increase animal-to-human interactions and globalization will raise the potential for rapid cross-regional spread of disease, while the international community remains ill prepared to collectively coordinate and respond to disease threats. Influenza viruses, coronaviruses such as the one causing Middle Eastern Respiratory Syndrome (MERS), and hemorrhagic fever viruses such as Ebola are examples of infectious disease agents that are passed from animals to humans and can quickly pose regional or global threats. Zika virus, an emerging infectious disease threat first detected in the Western Hemisphere in 2014, is projected to cause up to 4 million cases in 2016; it will probably spread to virtually every country in the hemisphere. Although the virus is predominantly a mild illness, and no vaccine or treatment is available, the Zika virus might be linked to devastating birth defects in children whose mothers were infected during pregnancy. Many developed and developing nations remain unable to implement coordinated plans of action to prevent infectious disease outbreaks, strengthen global disease surveillance and response, rapidly share information, develop diagnostic tools and countermeasures, or maintain the safe transit of personnel and materials.

- Human encroachment into animal habitats, including clearing land for farm use and urbanization, is recognized as a contributing factor in the emergence of new infectious diseases. The populations of Asia and Africa are urbanizing and growing faster than those of any other region, according to the

UN. Emerging diseases against which humans have no preexisting immunity or effective therapies pose significant risks of becoming pandemics.

Atrocities and Instability

Risks of atrocities, large-scale violence, and regime-threatening instability will remain elevated in 2016. A vicious cycle of conflict resulting from weak governance, the rise of violent non-state actors, insufficient international capacity to respond to these complex challenges, and an increase in global migration all contribute to global security risks. Weak global growth, particularly resulting from the cascading effect of slower Chinese growth that will hurt commodity exporters, will also exacerbate risk.

- Regional spillover will probably spread. For example, the long-term impact of civil war in Syria is reinforcing sectarian differences in Iraq, and the flight of Syrians to Turkey, Jordan, and Lebanon, and then onward to Europe is sowing regional tensions and straining national governments.

- As of 2015, the central governments of seven states are unable to project authority and provide goods and services throughout at least 50 percent of their respective territory; this number is the largest at any point in the past 60 years.

- The risk of waning support for universal human rights norms is increasing as authoritarian regimes push back against human rights in practice and in principle.

Global Displacement

Europe will almost certainly continue to face record levels of arriving refugees and other migrants in 2016 unless the drivers causing this historic movement toward the continent change significantly in 2016, which we judge is unlikely. Migration and displacement will also probably be an issue within Asia and Africa as well as the Americas. In total, about 60 million people are displaced worldwide, according to the UN High Commissioner for Refugees (UNHCR). These 60 million consist of approximately 20 million refugees, 38 million internally displaced persons (IDPs), and approximately 2 million stateless persons, also according to UNHCR statistics.

- Wars, weak border controls, and relatively easy and affordable access to routes and information are driving this historic increase in mobility and displacement.

The growing scope and scale of human displacement will probably continue to strain the response capacity of the international community and drive a record level of humanitarian requests. At the same time, host and transit countries will struggle to develop effective responses and, in some cases, manage domestic fears of terrorists exploiting migrant flows after the Paris attacks in November 2015.

- In 2015, the UN received less than half of its requested funding for global assistance, suggesting that the UN's 2016 request is also likely to be underfunded.

REGIONAL THREATS

Emerging trends suggest that geopolitical competition among the major powers is increasing in ways that challenge international norms and institutions. Russia, in particular, but also China seek greater influence over their respective neighboring regions and want the United States to refrain from actions they perceive as interfering with their interests—which will perpetuate the ongoing geopolitical and security competition around the peripheries of Russia and China, to include the major sea lanes. They will almost certainly eschew direct military conflict with the United States in favor of contests at lower levels of competition—to include the use of diplomatic and economic coercion, propaganda, cyber intrusions, proxies, and other indirect applications of military power—that intentionally blur the distinction between peace and wartime operations.

Although major power competition is increasing, the geopolitical environment continues to offer opportunities for US cooperation. In addition, despite the prospect for increased competition, the major powers, including Russia and China, will have incentives to continue to cooperate with the United States on issues of shared interest that cannot be solved unilaterally. A future international environment defined by a mix of competition and cooperation among major powers, however, will probably encourage ad-hoc approaches to global challenges that undermine existing international institutions.

EAST ASIA

China

China will continue to pursue an active foreign policy—especially within the Asia Pacific—highlighted by a firm stance on competing territorial claims in the East and South China Seas, relations with Taiwan, and its pursuit of economic engagement across East Asia. Regional tension will continue as China pursues construction at its expanded outposts in the South China Sea and because competing claimants might pursue actions that others perceive as infringing on their sovereignty. Despite the meeting between China's and Taiwan's Presidents in November 2015, Chinese leaders will deal with a new president from a different party in Taiwan following elections in January. China will also pursue efforts aimed at fulfilling its "One Belt, One Road" initiative to expand China's economic role and outreach across Asia.

China will continue to incrementally increase its global presence. Mileposts have included symbolic and substantive developments, such as the IMF's decision in November 2016 to incorporate the renminbi into its Special Drawing Rights currency basket and China's opening of the Asian Infrastructure Investment Bank in early 2016. China will increasingly be a factor in global responses to emerging problems, as illustrated by China's participation in UN peacekeeping operations, WHO's Ebola response, and infrastructure construction in Africa and Pakistan.

Amid new economic challenges, Chinese leaders are pursuing an ambitious agenda of economic, legal, and military reforms aimed at bolstering the country's long-term economic growth potential, improving

government efficiency and accountability, and strengthening the control of the Communist Party. The scope and scale of the reform agenda—coupled with an ongoing anti-corruption campaign—might increase the potential for internal friction within China's ruling Communist Party. Additionally, China's leaders, who have declared slower economic growth to be the "new normal," will nonetheless face pressure to stabilize growth at levels that still support strong job creation.

Southeast Asia

Regional integration via the Association of Southeast Asian Nations (ASEAN) made gains in 2015 with the establishment of the ASEAN Community. However, ASEAN cohesion on economic and security issues will continue to face challenges stemming from differing development levels among ASEAN members and their varying threat perceptions of China's regional ambitions and assertiveness in the South China Sea.

Democracy in many Southeast Asian nations remains fragile. Elites—rather than the populace—retain a significant level of control and often shape governance reforms to benefit their individual interests rather than to promote democratic values. Corruption and cronyism continue to be rampant in the region, and the rising threat of ISIL might provide some governments with a new rationale to not only address the terrorist threat but also curb opposition movements, like some leaders in the region did in the post 9/11 environment. The new National League for Democracy-led government in Burma is poised to continue the country's democratic transition process, but given its lack of governing experience, the learning curve will be steep. The Burmese constitution also ensures that the military will retain a significant level of power in the government, hampering the NLD to put its own stamp on the ongoing peace process. In Thailand, the military-led regime is positioned to remain in power through 2017.

North Korea

Since taking the helm of North Korea in December 2011, Kim Jong Un has further solidified his position as the unitary leader and final decision authority through purges, executions, and leadership shuffles. Kim and the regime have publicly emphasized—and codified—North Korea's focus on advancing its nuclear weapons program, developing the country's troubled economy, and improving the livelihood of the North Korean people, while maintaining the tenets of a command economy. Despite efforts at diplomatic outreach, Kim continues to challenge the international community with provocative and threatening behavior in pursuit of his goals, as prominently demonstrated in the November 2014 cyberattack on Sony, the August 2015 inter-Korean confrontation spurred by the North's placement of landmines that injured two South Korean soldiers, and the fourth nuclear test in January 2016.

RUSSIA AND EURASIA

Russia

Moscow's more assertive foreign policy approach, evident in Ukraine and Syria, will have far-reaching effects on Russia's domestic politics, economic development, and military modernization efforts.

President Vladimir Putin has sustained his popular approval at or near record highs for nearly two years after illegally annexing Crimea. Nevertheless, the Kremlin's fears of mass demonstration remain high, and the government will continue to rely on repressive tactics to defuse what it sees as potential catalysts for protests in Russia. The Kremlin's fear of instability and its efforts to contain it will probably be especially acute before the September 2016 Duma election.

The Russian economy will continue to shrink as a result of longstanding structural problems—made worse by low energy prices and economic sanctions—and entered into recession in 2015. A consensus forecast projects that GDP will contract by 3.8 percent in 2015 and will probably decline between 2-3 percent in 2016 if oil prices remain around $40 per barrel or only 0.6 percent if oil returns to $50 per barrel. Real wages declined throughout most of 2015 and the poverty rate and inflation have also worsened.

We assess that Putin will continue to try to use the Syrian conflict and calls for cooperation against ISIL to promote Russia's Great Power status and end its international isolation. Moscow's growing concern about ISIL and other extremists has led to direct intervention on the side of Bashar al-Asad's regime and efforts to achieve a political resolution to the Syrian conflict on Russia's terms. Since the terrorist attacks in Paris and over the Sinai, Russia has redoubled its calls for a broader anti-terrorism coalition. Meanwhile, growing Turkish-Russian tensions since Turkey's shootdown of a Russian jet in November 2015 raise the specter of miscalculation and escalation.

Despite Russia's economic slowdown, the Kremlin remains intent on pursuing an assertive foreign policy in 2016. Russia's willingness to covertly use military and paramilitary forces in a neighboring state continues to cause anxieties in states along Russia's periphery, to include NATO allies. Levels of violence in eastern Ukraine have decreased, but Moscow's objectives in Ukraine—maintaining long-term influence over Kyiv and frustrating Ukraine's attempts to integrate into Western institutions—will probably remain unchanged in 2016.

Since the crisis began in Ukraine in 2014, Moscow has redoubled its efforts to reinforce its influence in Eurasia. Events in Ukraine raised Moscow's perceived stakes for increasing its presence in the region to prevent future regime change in the former Soviet republics and for accelerating a shift to a mulitpolar world in which Russia is the uncontested regional hegemon in Eurasia. Moscow will therefore continue to push for greater regional integration, raising pressure on neighboring states to follow the example of Armenia, Belarus, Kazakhstan, and Kyrgyzstan and join the Moscow-led Eurasian Economic Union.

Moscow's military foray into Syria marks its first use of significant expeditionary combat power outside the post-Soviet space in decades. Its intervention underscores both the ongoing and substantial improvements in Russian military capabilities and the Kremlin's confidence in using them as a tool to advance foreign policy goals. Despite its economic difficulties, Moscow remains committed to modernizing its military.

Russia continues to take information warfare to a new level, working to fan anti-US and anti-Western sentiment both within Russia and globally. Moscow will continue to publish false and misleading information in an effort to discredit the West, confuse or distort events that threaten Russia's image, undercut consensus on Russia, and defend Russia's role as a responsible and indispensable global power.

Ukraine, Belarus, and Moldova

The implementation timeline for the Minsk agreements has been extended through 2016, although opposition from **Ukraine**, Russia, and the separatists on key remaining Minsk obligations might make progress slow and difficult in 2016. Sustained violence along the Line of Contact delineating the separatist-held areas will probably continue to complicate a political settlement, and the potential for escalation remains.

Ukraine has made progress in its reform efforts and its moves to bolster ties to Western institutions. Ukraine will continue to face serious challenges, however, including sustaining progress on key reforms and passing constitutional amendments—required under the Minsk agreements to devolve political power and fiscal authority to the regions.

Belarus continues its geopolitical balancing act, attempting to curry favor with the West without antagonizing Russia. President Lukashenko released several high-profile political prisoners in August 2015 and secured reelection to a fifth term in October 2015 without cracking down on the opposition as he has in previous elections. These developments prompted the EU and the United States to implement temporary sanctions relief, providing a boost to a Belarusian economy.

Moldova faces a turbulent year in 2016. Popular discontent over government corruption and misrule continues to reverberate after a banking scandal sparked large public protests, and political infighting brought down a government coalition of pro-European parties in October 2015. Continued unrest is likely. The breakaway pro-Russian region is also struggling economically and will remain dependent on Russian support.

The Caucasus and Central Asia

Even as **Georgia** progresses with reforms, Georgian politics will almost certainly be volatile as political competition increases. Economic challenges are also likely to become a key political vulnerability for the government before the 2016 elections. Rising frustration among Georgia's elites and the public with the slow pace of Western integration and increasingly effective Russian propaganda raise the prospect that Tbilisi might slow or suspend efforts toward greater Euro-Atlantic integration. Tensions with Russia will remain high, and we assess that Moscow will raise the pressure on Tbilisi to abandon closer EU and NATO ties.

Tensions between **Armenia** and **Azerbaijan** over the separatist region of Nagorno-Karabakh remained high in 2015. Baku's sustained military buildup coupled with declining economic conditions in Azerbaijan are raising the potential that the conflict will escalate in 2016. Azerbaijan's aversion to publicly relinquishing its claim to Nagorno-Karabakh proper and Armenia's reluctance to give up territory it controls will continue to complicate a peaceful resolution.

Central Asian states remain concerned about the rising threat of extremism to the stability of their countries, particularly in light of a reduced Coalition presence in Afghanistan. Russia shares these concerns and is likely to use the threat of instability in Afghanistan to increase its involvement in Central Asian security affairs. However, economic challenges stemming from official mismanagement, low commodity prices, declining trade and remittances associated with Russia's weakening economy, and

ethnic tensions and political repression, are likely to present the most significant instability threat to these countries.

EUROPE

Key Partners

European governments will face continued political, economic, and security challenges deriving from mass migration to Europe, terrorist threats, a more assertive Russia, and slow economic recovery. Differences among national leaders over how best to confront the challenges are eroding support for deeper EU integration and will bolster backing for populist leaders who favor national prerogatives over EU-wide remedial strategies.

The European Commission expects 1.5 million migrants to arrive in Europe in 2016—an influx that is prompting European officials to focus on improving border security, particularly at the Schengen Zone's external borders, and putting the free movement of people within the EU at risk. Several European governments are using military forces in domestic security roles.

The European Commission has warned against drawing a link between terrorists and refugees, but populist and far-right leaders throughout Europe are preying on voters' security fears by highlighting the potential dangers of accepting migrants fleeing war and poverty. Some EU leaders are citing the November 2015 terrorist attacks in Paris to justify erecting fences to stem the flow of people.

European countries will remain active and steadfast allies on the range of national security threats that face both the United States and Europe—from energy and climate change to countering violent extremism and promoting democracy. Although the majority of NATO allies have successfully halted further declines in defense spending, European military modernization efforts will take several years before marked improvement begins to show.

Europe also continues to insist on full implementation of the Minsk agreement to stop violence in Ukraine. However, European governments differ on the proper extent of engagement with Moscow.

Europe's economic growth, which the EU projects will be moderate, could falter if emerging market economies slow further, which would decrease the demand for European exports. The EU continues to struggle to shake off the extended effects of its economic recession, with lingering worries over high unemployment, weak demand, and lagging productivity. Greece also remains a concern for the EU. The agreement between Greece and its creditors is an important step forward for restoring trust among the parties and creating the conditions for a path forward for Greece within the Eurozone. Developing the details of the agreement and its full implementation remain challenges.

The Balkans

Ethnic nationalism and weak institutions in the Balkans remain enduring threats to stability. Twenty years after the end of the Bosnian War and the signing of the Dayton Agreement, Bosnia and Herzegovina

remains culturally and administratively divided, weighed down by a barely functional and inefficient bureaucracy. The country, one of Europe's poorest, has endured negative GDP growth since the 2008 international financial crisis and is reliant on the support of international institutions including the IMF. Youth unemployment, estimated at 60 percent, is the world's highest.

Kosovo has made progress toward full, multiethnic democracy, although tensions between Kosovo Albanians and Kosovo Serbs remain. In Macedonia, an ongoing political crisis and concerns about radicalization among ethnic Albanian Muslims threatens to aggravate already-tense relations between ethnic majority Macedonians and the country's minority Albanians, fifteen years after a violent interethnic conflict between the two groups ended. Social tensions in the region might also be exacerbated if the Western Balkans becomes an unwilling host to significant migrant populations.

Turkey

Turkey remains a partner in countering ISIL and minimizing foreign fighter flows. Ankara will continue to see the Kurdistan Workers' Party (PKK) as its number one security threat and will maintain military and political pressure on the PKK, as well as on the Democratic Union Party (PYD) and its armed affiliate People's Protection Units (YPG), which Turkey equates with the PKK. Turkey is extremely concerned about the increasing influence of the PYD and the YPG along its borders, seeing them as a threat to its territorial security and its efforts to control Kurdish separatism within its borders.

Turkey is concerned about Russia's involvement in the region in support of Asad, the removal of whom Turkey sees as essential to any peace settlement. Turkey is also wary of increased Russian cooperation with the Kurds and greater Russian influence in the region that could counter Turkey's leadership role. The Russian-Iranian partnership and Iran's attempts to expand Shiite influence in the region are also security concerns for Turkey.

The refugee flow puts significant strain on Turkey's economy, which has amounted to $9 billion according to a statement by Turkish President Recep Tayyip Erdogan. Refugees have also created infrastructure and social strains, particularly regarding access to education and employment. Turkey tightened its borders in 2015 and is working to stanch the flow of migrants to Europe and address refugee needs.

MIDDLE EAST AND NORTH AFRICA

Iraq

In Iraq, anti-ISIL forces will probably make incremental battlefield gains through spring 2016. Shia militias and Kurdish forces in northern Iraq have recaptured Bayji and Sinjar, respectively, from the Islamic State of Iraq and the Levant (ISIL). In western Iraq, the Iraqi Security Forces (ISF) have retaken most of the greater Ramadi area from ISIL and will probably clear ISIL fighters from the city's urban core in the coming month.

ISIL's governance of areas it controls is probably faltering as airstrikes take a toll on the group's sources of income, hurting ISIL's ability to provide services, and causing economic opportunities for the population

to dwindle. Even so, the Iraqi Sunni population remains fearful of the Shia-dominated government in Baghdad. This fear has been heightened as Iranian-backed Shia militias play a lead role in retaking Sunni-majority areas, suggesting Iraq's Sunnis will remain willing to endure some deprivation under ISIL rule.

Prime Minister Haydar al-Abadi will probably continue to struggle to advance his reforms—which aim to combat corruption and streamline government—because of resistance from Iraqi elites who view the reforms as threatening to their entrenched political interests. Meanwhile, the drop in oil prices is placing strain on both Baghdad's and Irbil's budgets, constraining their ability to finance counter-ISIL operations and limiting options to address potential economically driven unrest.

Syria

We assess that foreign support will allow Damascus to make gains in some key areas against the opposition and avoid further losses, but it will be unable to fundamentally alter the battlespace. Increased Russian involvement, particularly airstrikes, will probably help the regime regain key terrain in high priority areas in western Syria, such as Aleppo and near the coast, where it suffered losses to the opposition in summer 2015. ISIL is under threat on several fronts in Syria and Iraq from increased Coalition and government operations.

Manpower shortages will continue to undermine the Syrian regime's ability to accomplish strategic battlefield objectives. The regime still lacks the personnel needed to capture and hold key areas and strategically defeat the opposition or ISIL. Damascus increasingly relies on militias, reservists, and foreign supporters—such as Iran and Lebanese Hizballah—to generate manpower, according to press reporting.

The Syrian regime and most of the opposition are participating in UN-mediated talks that started in early February in Geneva. Both sides probably have low expectations for the negotiations, with the opposition calling for ceasefires and humanitarian assistance as a precondition. The negotiations, without a ceasefire agreement, will not alter the battlefield situation.

The humanitarian situation in Syria continues to deteriorate. In December 2015 and January 2016, the number of Syrian refugees registered or in the process of registering in the Middle East and North Africa rose by nearly 102,000 from 4.3 million to 4.4 million, according to UN data. The refugees are putting significant strain on countries surrounding Syria as well as on Europe. Turkey hosts more than 2.2 million refugees; Lebanon has about 1.1 million; Jordan has more than 630,000; Iraq has 245,000. Approximately 500,000 have fled to Europe, according to the UN. The more than 4 million refugees and 6.5 million estimated internally displaced persons (IDPs) account for 49 percent of Syria's preconflict population.

- Estimates of fatalities in Syria since the start of the civil war vary, but most observers calculate that at least 250,000 men, women, and children on all sides of the conflict have lost their lives since 2011.

- On 22 December, the UN Security Council unanimously adopted resolution 2258, which renews the UN's authority to utilize cross-border deliveries for humanitarian assistance to Syria through 10

January 2017. Since July 2014, the UN has provided food to 2.4 million people, water and sanitation to 1.3 million people, and medical supplies to 4.1 million people through its cross-border deliveries.

- Separately, the Syrian Government began requiring in mid-November that aid agencies get humanitarian assistance notarized by the Syrian embassies in the country of product origin. This requirement previously applied only to commercial goods and might delay future UN food deliveries within Syria, according to the UN.

Libya

We assess that insecurity and conflict in Libya will persist in 2016, posing a continuing threat to regional stability. The country has been locked in civil war between two rival governments and affiliated armed groups. The 17 December signing of a UN-brokered agreement to form a Government of National Accord (GNA) resulted from a year-long political dialogue that sought to end the ongoing civil war and reconcile Libya's rival governments. However, the GNA will face a number of obstacles in establishing its authority and security across the country. The GNA still faces the difficult task of forming a capable, centralized security force. It will also be challenged to confront terrorist groups such as ISIL, which has exploited the conflict and political instability in the country to expand its presence.

- The rival governments—the internationally recognized Tobruk-based House of Representatives (House) and the Tripoli-based General National Congress (GNC) have participated in UN-brokered peace talks since fall 2014. Reaction to the deal and the proposed GNA has been mixed, and hardliners on both sides have opposed the agreement.

- (U) On 25 January, the House voted to approve the UN-brokered deal with conditions but rejected a controversial article granting the GNA's Presidency Council interim control of the military. The House also rejected the GNA's proposed cabinet and demanded a smaller ministerial slate.

- Libya's economy has deteriorated because of the conflict. Oil exports—the primary source of government revenue—have fallen significantly from the pre-revolution level of 1.6 billion barrels per day. Libya's oil sector also faces continued threats from terrorist groups; ISIL attacked oil production and export facilities in February 2015, September 2015, and January 2016.

Meanwhile, extremists and terrorists have exploited the security vacuum to plan and launch attacks in Libya and throughout the region. The permissive security environment has enabled ISIL to establish one of its most developed branches outside of Syria and Iraq. As of late 2015, ISIL's branch in Libya maintained a presence in Surt, Benghazi, Tripoli, Ajdabiya, and other areas of the country, according to press reports. Members of ISIL in Libya continue to stage attacks throughout the country.

Yemen

The Yemen conflict will probably remain in a strategic stalemate through mid-2016. Negotiations between the Saudi-led coalition and the Huthi-aligned forces remain stalled, but neither side is able to achieve decisive results through military force. Huthi-aligned forces almost certainly remain committed to fighting following battlefield setbacks in the Aden and Marib Governorates in 2015 and probably intend to retake lost territory in those areas.

Nonetheless, regional stakeholders on both sides of Yemen's conflict, including Iran, which continues to back the Huthis, are signaling willingness to participate in peace talks. Even a cease-fire of a few days or weeks would facilitate the entry and distribution of commercial and humanitarian goods inside Yemen, where at least 21 million people—80 percent of the population—require assistance, according to the UN.

AQAP and ISIL's affiliates in Yemen have exploited the conflict and the collapse of government authority to gain new recruits and allies and expand their territorial control. In December, AQAP seized the southern city of Zinjibar, adding to its capture of the coastal city of Mukalla to the east.

Iran

Since January, Tehran met the demands for implementation of the Joint Comprehensive Plan of Action (JCPOA), exchanged detainees, and released 10 US sailors. Despite these developments, the Islamic Republic of Iran presents an enduring threat to US national interests because of its support to regional terrorist and militant groups and the Asad regime, as well as its development of advanced military capabilities. Tehran views itself as leading the "axis of resistance"—which includes the Asad regime and subnational groups aligned with Iran, especially Lebanese Hizballah and Iraqi Shia militants. Their intent is to thwart US, Saudi, and Israeli influence, bolster its allies, and fight ISIL's expansion. Tehran might even use American citizens detained when entering Iranian territories as bargaining pieces to achieve financial or political concessions in line with their strategic intentions.

Iran's involvement in the Syrian, Iraqi, and Yemeni conflicts deepened in 2015. In Syria, Iran more openly acknowledged the deaths of Iranian "martyrs," increased Iranian troop levels, and took more of a frontline role against "terrorists." In Iraq, Iranian combat forces employed rockets, artillery, and drones against ISIL. Iran also supported Huthi rebels in Yemen by attempting to ship lethal aid to the Huthis. Tehran will almost certainly remain active throughout the Persian Gulf and broader Middle East in 2016 to support its regional partners and extend its regional influence. Iranian officials believe that engaging adversaries away from its borders will help prevent instability from spilling into Iran and reduce ISIL's threat to Iran and its regional partners. Iran has also increased cooperation with Russia in the region.

Supreme Leader Khamenei continues to view the United States as a major threat to Iran, and we assess that his views will not change, despite implementation of the JCPOA deal. In October 2015, Khamenei publicly claimed the United States was using the JCPOA to "infiltrate and penetrate" Iran. His statement prompted the Iranian hardliner-dominated security services to crack down on journalists and businessmen with suspected ties to the West. The crackdown was intended by hardliners to demonstrate to President Ruhani and to Washington that a broader opening to the West following JCPOA would not be tolerated. Iran released several US citizens in January 2016 who were being held in Iran; however, it might attempt to use any additional US citizens as bargaining chips for US concessions.

Iran's military and security services are keen to demonstrate that their regional power ambitions have not been altered by the JCPOA deal. One week prior to JCPOA Adoption Day, Iran publicized the launch of its new "long-range" and more accurate ballistic missile called the "Emad." Iran also publicizes development of its domestically produced weapons systems, submarines and surface combatants, artillery, and UAVs to deter potential adversaries and strengthen its regional influence and prestige.

Iran's involvement in the Syrian and Iraqi conflicts has enabled its forces to gain valuable on-the-ground experience in counterinsurgency operations.

Lebanon

Lebanon will continue to struggle with the fallout from the civil war in neighboring Syria and faces a range of interlocking political, security, humanitarian, and economic challenges. The spillover from the Syrian conflict has had negative consequences on almost all aspects of life in Lebanon, from rising sectarianism to major strains on infrastructure and public services, further straining the country's delicate political balance.

- Lebanon's most immediate security threat is from Syrian-based extremists on its northeastern border. The Lebanese army has carried out multiple operations against Nusrah Front and ISIL to secure the border and prevent against the flow of terrorists into the country. Beirut also faces threats from Sunni extremists in the country who are retaliating against Lebanese Hizballah's military involvement in the Syrian civil war.

- The influx of about 1.1 million Sunni Syrian refugees to Lebanon has altered the country's sectarian demographics and is badly straining public services and burdening the economy. The Lebanese economy will probably remain stagnant throughout 2016, as protracted regional instability and political gridlock at home continue to erode the country's competitiveness.

Egypt

Egypt faces a persistent threat of terrorist and militant activity directed primarily at state security forces in both the Sinai Peninsula and in mainland Egypt. The security services have initiated a counterterrorism campaign to disrupt and detain Sinai-based militants; however, terrorist groups still retain the ability to conduct attacks.

- ISIL's branch in Sinai (ISIL-Sinai) has conducted dozens of lethal attacks on military and security personnel, some of which suggest sophisticated and coordinated attack planning, according to press reports.

- ISIL-Sinai claimed responsibility for the downing of a Russian aircraft in the Sinai in October 2015, which, if true, would demonstrate the expanding threat from ISIL and its regional branches.

- The continued threat of terrorism places further strain on Egypt's economy by harming Egypt's tourism industry, a key source of revenue. The country is also grappling with high poverty and unemployment rates.

Tunisia

Tunisia's first post-transitional democratic government since the 2011 Arab Spring revolution is marking its first year in office. Since the revolution, the country has overcome deep political divisions to reach consensus on key political issues, develop a new constitution, and elect a new government, according to

press and academic reports. Despite the government's significant strides in its democratic transition, Tunisia faces challenges in consolidating these achievements.

- Tunisia is confronting a threat from terrorist groups exploiting Libya's permissive environment to plan and launch attacks, as well as from groups operating within Tunisia's borders, according to press reports. The perpetrators of the terrorist attack on the Bardo Museum in Tunis in March 2015 and hotels in Sousse in June—both claimed by ISIL—trained at a terrorist camp in Libya, according to press reports.

- The government inherited high unemployment, particularly among youth, and a high budget deficit according to press reports. The Bardo and Sousse terrorist attacks have disrupted tourism, a critical source of revenues and jobs.

SOUTH ASIA

Afghanistan

The Kabul Government will continue to face persistent hurdles to political stability in 2016, including eroding political cohesion, assertions of authority by local powerbrokers, recurring financial shortfalls, and countrywide, sustained attacks by the Taliban. Political cohesion will remain a challenge for Kabul as the National Unity Government will confront larger and more divisive issues later in 2016, including the implementation of election reforms, long-delayed parliamentary elections, and a potential change by a Loya Jirga that might fundamentally alter Afghanistan's constitutional order. Kabul will be unable to effectively address its dire economic situation or begin to curb its dependence on foreign aid until it first contains the insurgency, which is steadily chipping away at Afghanistan's security. In this environment, international financial aid will remain the most important external determinant of the Kabul government's strength. We assess that fighting in 2016 will be more intense than 2015, continuing a decade-long trend of deteriorating security that will compound these challenges. The fighting will continue to threaten US personnel, our Allies, and international partners—including Afghans—particularly in Kabul and other urban population centers. The Afghan National Security Forces (ANSF), with the help of anti-Taliban powerbrokers and international funding, will probably maintain control of most major population centers. However, the forces will very likely cede control of some rural areas. Without international funding, the ANSF will probably not remain a cohesive or viable force.

The Taliban has largely coalesced and is relatively cohesive under the leadership of new Taliban Senior Leader Mullah Akhtar Mohammad Mansur despite some early opposition. The Taliban's two-week seizure of the provincial capital of Kunduz provided an important boost to Mansur's leadership. The Taliban will continue to test the overstretched ANSF faced with problematic logistics, low morale, and weak leadership.

The Islamic State of Iraq and the Levant (ISIL) announced in January 2015 the formation of its Khorasan branch in South Asia, an amalgamation of primarily disaffected and rebranded former Afghan Taliban and Tehrik-e Taliban Pakistan (TTP) members. Despite quick early growth in 2015, ISIL's Khorasan branch

will probably remain a low-level threat to Afghan stability as well as to US and Western interests in the region in 2016.

Bangladesh

Prime Minister Sheikh Hasina's continuing efforts to undermine the political opposition in Bangladesh will probably provide openings for transnational terrorist groups to expand their presence in the country. Hasina and other government officials have insisted publically that the killings of foreigners are the work of the Bangladesh Nationalist Party and the Bangladesh Jamaat-e Islami political parties and are intended to discredit the government. However, ISIL claimed responsibility for 11 high-profile attacks on foreigners and religious minorities. Other extremists in Bangladesh—including Ansarullah Bangla Team and al-Qa'ida in the Indian Subcontinent (AQIS)—have claimed responsibility for killing at least 11 progressive writers and bloggers in Bangladesh since 2013.

Pakistan and India

Relations between Pakistan and India remain tense despite the resumption of a bilateral dialogue in December. Following a terrorist attack in early January on Pathankot Air Force base in India, which New Delhi blames on a Pakistani-based group, India's engagement with Pakistan will probably hinge in 2016 on Islamabad's willingness to take action against those in Pakistan linked to the attack.

SUB-SAHARAN AFRICA

Central Africa

Prospects for delayed elections in the **Democratic Republic of the Congo**, originally scheduled for 2016, increase the risk of political tensions and perhaps violence. Violence might also break out in the **Republic of Congo** where a controversial October 2015 constitutional referendum paved the way for long-serving President Denis Sassou-Nguesso to run for a new term in 2016 elections. Both governments have resorted to heavy-handed tactics to stifle opposition and subdue or prevent election-related protests.

In **Burundi**, violence related to President Pierre Nkurunziza's controversial reelection in July 2015 will almost certainly continue as a simmering crisis. The conflict might expand and intensify if increased attacks between the government and armed opposition provoke a magnified response from either side or if the security services fracture into divided loyalties.

The **Central African Republic** held peaceful presidential and parliamentary elections in late December, although they were marred by logistical issues. A run-off will probably take place in mid-February between the two top candidates, and we do not know how the armed spoilers and losing candidates will react. The risk of continued ethno-religious clashes between Christians and Muslims throughout the country remains high despite the presence of international peacekeeping forces, which are increasingly targets of violence.

Somalia

The Somali Federal Government's authority will probably remain largely confined to the capital in 2016, and Mogadishu will continue to rely on the African Union Mission in Somalia (AMISOM) as a security guarantor against al-Shabaab as it prepares for elections in 2016.

South Sudan

Implementation of the peace agreement between Juba and opposition elements will be slow as spoilers from both sides seek to stall progress. The return of former opposition members to Juba will almost certainly cause jockeying for positions of power. Localized fighting will continue and probably spread to previously unaffected areas, causing the humanitarian situation to worsen Economic conditions will probably deteriorate further as inflation remains high and prices for staple goods rise, fueling dissatisfaction with the government.

Sudan

President Bashir consolidated power following his reelection in April 2015, but the regime will continue attempts at a national dialogue, which will probably not placate a divided political opposition. The regime will almost certainly confront a range of challenges, including public dissatisfaction over a weakened economy. Divisions among armed opponents will almost certainly inhibit their ability to make significant gains against Khartoum. However, elements of the opposition will continue to wage insurgencies in the Southern Kordofan and Blue Nile states and Darfur. Sudan, listed as a state sponsor of terror since 1993, cut diplomatic ties with Iran in January following an attack on the Saudi Embassy in Tehran. Since 2014, Sudan's relations with Iran have cooled as Khartoum has grown closer to Riyadh.

Nigeria

President Muhammadu Buhari and the Nigerian government will confront a wide range of challenges in 2016, many of which are deeply rooted and have no "quick fixes." His tasks include reviving a struggling economy – Africa's largest – diversifying sources of government revenue beyond oil, reining in corruption, addressing mounting state debts, reforming redundant parastatal organizations, and developing the power, agriculture, and transportation sectors. Nigeria will continue to face internal threats from Boko Haram, which pledged loyalty to the Islamic State in Iraq and the Levant (ISIL) in March 2015. Despite losing territory in 2015, Boko Haram will probably remain a threat to Nigeria throughout 2016 and will continue its terror campaign within the country and in neighboring Cameroon, Niger, and Chad.

LATIN AMERICA AND CARIBBEAN

Central America

Strong family ties to the United States—as well as gang violence, a lack of jobs, and a worsening drought in Central America's northern tier—will sustain high rates of migration to the United States in 2016. Weak institutions, divided legislatures, low levels of tax collection, and high debts will constrain efforts to

improve rule of law, tackle corruption, and alleviate poverty. Homicide rates in the region remain among the highest in the world and spiked in El Salvador to levels not seen since the country's civil war from 1979 to 1992. The people hardest hit by the drought include most of the region's subsistence farmers, who constitute 25 to 40 percent of the population in Guatemala and Honduras. The prolonged drought will probably affect 3.5 million people in the region in 2016.

Cuba

Cuban leaders will remain focused on preserving political control as they prepare for a probable presidential transition in 2018. Economic reforms to reduce the state role in the economy and promote private economic activity will continue at a slow pace, in part because of probable resistance from senior leaders and government officials concerned that rapid changes might provoke popular unrest. Living standards will remain poor. Along with fears among the Cuban population that the United States will repeal the 1966 Cuban Adjustment Act, the statute allowing Cuban nationals to apply to become lawful permanent US residents, these trends sustain the increasing migration of undocumented Cubans. Migration is particularly acute across the US southwest border where 31,000 Cubans crossed in FY2015, a 76-percent increase over the prior year.

Venezuela

The opposition alliance won a much-coveted majority in the December 2015 national assembly elections, setting the stage for a political showdown in 2016 between the legislative and executive branches. The opposition will seek to implement its policy agenda, which might include pursuing a presidential recall referendum. Economic issues will also figure prominently on the domestic agenda for 2016. Caracas will probably encounter fiscal pressures as it seeks to avoid a default on its sovereign debt in 2016; the economy is suffering from a severe recession that the IMF projects will cause it to contract by at least 8 percent in 2016. Venezuela's government has declined to release complete official figures on macroeconomic indicators, such as inflation and growth.

Brazil

Brazil's investigation into corruption at state-controlled oil company Petrobras will probably continue through 2016. Scores of Petrobras officials, construction firm executives, and politicians have been jailed since the probe was launched in March 2014. Brazil lost its investment-grade rating in December 2015 after the second credit agency in three months downgraded the country's debt to junk status. Further damaging revelations from the probe might prolong political gridlock in Brazil. Meanwhile, preparations are underway in Brazil to address infrastructure, logistics, and security issues involved in hosting the 2016 Summer Olympics in Rio. Organizers are using past Olympics as models, cooperating with foreign governments, and building upon Brazil's experience organizing a large and sustained security posture such as when it hosted the World Cup in 2014.

Chairman BURR. Director Clapper, thank you for that testimony.

I remind all members that everybody at the witness table is available for questions directed at them. With that, I'd recognize Senator Lankford for five minutes.

Senator LANKFORD. Thank you, Mr. Chairman.

To all of you, thank you. I do remind people back home, because in Oklahoma we're extremely grateful for many folks in the armed services that serve us every single day. We recognize them, see them, recognize them by their uniforms. But I remind them also that there are a lot of people in the intelligence community that they won't recognize at all and they'll never see and they'll never be able to thank personally.

So would you pass on gratitude to them, and we are incredibly grateful for the very difficult work that they do every single day.

Director Clapper, you said this morning in your 50 years in the intelligence business you can't recall a more diverse array of challenges. And you graced us with a long list of doom as you listed it just now, whether that be space, whether that be proliferation, whether that be radical Islamic terrorism and such.

I want to focus on one of the areas that you talked about specifically and that's narcotics and the movement into our country and what we deal with on a day to day basis as a challenge. Again, this morning you had mentioned you thought the focus should be more on the interdiction. So my challenge is for this group and my interest: What are we doing on the intel gathering to be able to find out what's happening, the pathways that some of these narcotics are moving into the United States and the interdiction, and how we're cooperating among agencies, how's that communication going?

Director CLAPPER. Well, sir, the challenge, as I indicated this morning—and I hark back to a series of testimonies by General Kelly, the former commander of the Southern Command, in which he made the point that we did have a great deal of intelligence on drug flow into the United States—our challenge has been the lack of resources sometimes to react to it, to actually interdict it.

So in one sense I think that's a plea or a commercial for more operational assets to respond. I'm a big fan of the Coast Guard and I think the Coast Guard has done some great work. The deployment of these new Coast Guard cutters, which has a national security component to it, has had a dramatic impact when they've been able to be employed. So to me the big thing here is the operational resource to respond. I think the community works very well together on the issue of drug intelligence and facilitating interdiction.

Senator LANKFORD. Any comments on that from any of the other leaders?

[No response.]

Let me move on then as well, because there's been a lot of conversation about Libya and ISIL and their movement into other areas they call provinces and moving all around the world. Libya has been especially large in that. What do you think is ISIL's intention in Libya?

Director CLAPPER. Well, I think not unlike what they've done with Syria and Iraq. What's unique about ISIL, of course, is its possession and control over territory, and that's been the case in Syria and Iraq, and of course that presents certain vulnerabilities

when they assume the accoutrements or the traits of a nation-state.

I think it's similarly their goal in Libya. It's essentially an ungoverned space and also access to substantial oil resources, just as they've had in Syria. So I think there is some commonality.

They're right now kind of centered or headquartered in Sirte, which is kind of in the center of the coast of Libya, and they're trying to spread out along the coast and take over more and more areas. They are present, as I indicated in my statement, in the major cities, notably Benghazi and Tripoli.

Senator LANKFORD. You mentioned as well about Iran still being the largest state sponsor of terrorism in the world. How have you seen that role and that direction towards terrorism and support of terrorism since the signing of the JCPOA? Since that has occurred, have you seen a change in Iran's behavior towards sponsoring terrorism?

Director CLAPPER. Have not seen a change in the behavior of the Quds Force. They are right now kind of consumed with the situation in Iraq and Syria, and as well in supporting the Houthis in Yemen. So that has been the focus predominantly. That's not to say they're not interested elsewhere, but that's where the focus of their efforts has been.

Senator LANKFORD. Again, you had mentioned this morning that there have been about 140 missiles launched by Iran in violation of UN agreements, and then two additional just in the last few months. Any change in behavior you've seen in their testing of ballistic missiles?

Director CLAPPER. No. You're exactly right, Senator Lankford, that's what I said. Since 2010 and the promulgation of the UN Security Council Resolution 1929, they've fired about 140 missiles. About half of that took place during the negotiations. They launched two, one in October and one in November, which I personally think was a message that they are still going to continue to develop what is already a very robust missile force.

Senator LANKFORD. Thank you. I yield back.

Chairman BURR. Thank you, Senator Lankford.

The Chair would recognize himself for a couple of questions.

Director Comey, what's the risk to law enforcement and to prosecution if, when presented a legal court order, a company refuses to provide the communications that the court has ordered them to?

Director COMEY. The risk is that we won't be able to make a case and a really bad guy will go free.

Chairman BURR. Can you for the American people set a percentage of how much of that is terrorism and how much of this fear is law enforcement and prosecutions that take place in every town in America every day?

Director COMEY. I'd say this problem we call "Going Dark," which as Director Clapper mentioned is the growing use of encryption both to lock devices when they sit there and to cover communications as they move over fiber optic cables, is actually overwhelmingly affecting law enforcement, because it affects cops and prosecutors and sheriffs and detectives trying to make murder cases, car accident cases, kidnapping cases, drug cases. It has an impact

on our national security work, but overwhelmingly this is a problem that local law enforcement sees.

Chairman BURR. This would include pornography, and the list goes on and on and on, which I think there would be consensus in America that if that's carried out, that if a court certifies that the reason is there, that a company ought to then produce that information. Is that logical?

Director COMEY. Yes, especially with respect to devices, phones, that default lock. That is the overwhelming concern of state and local law enforcement, because all of our lives are becoming increasingly digital. Those devices are going to hold the evidence of child pornography, communications that someone made before they were killed, before they went missing, the evidence that will be necessary to solve a crime, and including things like car accidents.

So it is a big problem for law enforcement, armed with a search warrant, when you find a device that can't be opened even though the judge said there's probable cause to open it. As I said, it affects our counterterrorism work. San Bernardino, a very important investigation to us; we still have one of those killers' phones that we have not been able to open. It's been over two months now. We're still working on it.

But this also occurred on the criminal side. A woman was murdered in Louisiana last summer, eight months pregnant, killed. No clues to who did it, except her phone was there when she's found, killed. They couldn't open it, still can't open it. So the case remains unsolved.

So this is something I hear about all over the country from my partners in state and local law enforcement.

Chairman BURR. Is it safe to say that if companies were required to honor that court order, that law enforcement and the prosecution element isn't concerned at all at how they access that—that can be proprietary and within each company—but supplying the information is absolutely crucial to the continuation of that investigation and prosecution?

Director COMEY. That's one of the aspects of the conversation, which is healthy. There's a robust debate going on and there ought to be because these are important issues. But a part that gets confusing to me is when folks talk like we want access to companies' servers, we want access to their source code. What we would like is a world where people are able to comply with court orders.

Lots of companies do. Both people who make phones are able to unlock them when judges order it and people who provide communication services are able to comply with judges' orders. Others can't and therein lies the problem. But it's not about us trying to get a back door, a term that confuses me, frankly. I don't want a door, I don't want a window, I don't want a sliding glass door. I would like people to comply with court orders, and that's the conversation we're trying to have.

Chairman BURR. Thank you, Director Comey.

Vice Chairman.

Vice Chairman FEINSTEIN. Thanks very much, Mr. Chairman.

Mr. Brennan, I'd like to ask you a question if I may, subject Libya. How does the CIA assess ISIL's intrusions into Libya?

Director BRENNAN. We see Libya as the most important theater for ISIL outside of the Syria-Iraq theater. They have several thousand members there. They have absorbed some of the groups inside of Libya, including Ansar Al-Sharia, that was very active prior to ISIL's rise.

Libya has been a place where this form of extremism and terrorism has grown up over the years. As the borders of the Syria-Iraq area were being tightened down, we know that some of those foreign fighters started to divert into Libya. So Libya has become a magnet for individuals not only inside of Libya, but from the African continent as well as from outside. So it is a real issue, a real problem. But we see ISIL in Libya as a very, very important hub for ISIL activities.

Vice Chairman FEINSTEIN. Second question: Assessment on North Korea. We know they possess anywhere from 10 to 20 both uranium and plutonium weapons. We now have seen the recent launch of the Taepodong 2, which my understanding is is capable of reaching the United States. And then there's the KN08.

How do you assess the Korean leader's intentions with what he is doing with respect to these tests and the development of both a plutonium and uranium stream of weapons?

Director BRENNAN. I think it's very obvious that Kim Jong Un is trying to demonstrate to the world that he has capability both in terms of the nuclear test as well as ballistic missile, an intercontinental ballistic missile capability, that he wants to showcase as a way to demonstrate his strength, but also as a way to market some of his proliferation capabilities. So it is something that is obviously a key concern to the intelligence community as a whole. It is a priority collection area for us. But the assessment, at least from my perspective, is that he has developed both the nuclear capability as well as developing this ballistic missile capability, mating them together, so that he can demonstrate that he has reach far beyond the Korean Peninsula.

Vice Chairman FEINSTEIN. Third question, a little bit more time: How do you assess the Taliban and Al-Qaeda in Afghanistan? How much of the territory of Afghanistan today is controlled by the Taliban?

Director BRENNAN. It's a difficult question to address because a lot of times the Taliban control of certain areas is dynamic and fluid. So they'll go in and take various government and military outposts, seize it, and then pull back. There's large parts of that country that fall under Taliban influence, and we've been working very closely with the Afghan military and security services, intelligence services, to try to concentrate their focus on areas that need to be protected, whether it be critical infrastructure, cities, transit and transportation routes.

But, as you well know, the Taliban control a lot of terrain outside of the central government's reach. And Al-Qaeda continues to have a presence, typically inside of the eastern part of Afghanistan. They continue to work with the Taliban as well as with the Haqqanis. Collectively, they present a serious threat to the stability of the Afghan government, as well as to our personnel, U.S. personnel, inside of Afghanistan.

Vice Chairman FEINSTEIN. Thank you.

That's it for now. Thank you.

Chairman BURR. Senator Wyden.

Senator WYDEN. Thank you very much.

Gentlemen, my view is you couldn't have passionate debates in this room without the great work that the men and women of the intelligence community do to preserve our freedom. I just want to start by saying we're very grateful for that.

Director Brennan, in 2014 the CIA conducted an unauthorized search of Senate files, including the emails of Senate staff investigating the CIA's use of torture. The CIA Inspector General later stated that the search involved improper agency access to Senate files, and a review board that you appointed concluded that the search resulted in inappropriate access to the committee's work product.

You initially denied that search took place, but the reports of both your inspector general and the review board show that this denial was at odds with the facts. After the facts were publicly exposed, the CIA even wrote an apology letter that you did not send.

Now, senior officials from the NSA, the FBI, and the Office of the Director of National Intelligence have all testified that it would be inappropriate for their agencies to secretly search Senate files without external authorization. But we still have not gotten an acknowledgment from you.

So I think it would be important—I'd like to hear from you. I'd like to set the record straight that this would never happen again. Would you agree that the CIA's 2014 search of Senate files was improper?

Director BRENNAN. This is the annual threat assessment, is it not? Yes.

I think, Senator, as you well know, there were very unique circumstances associated with this whole affair. These were CIA computers, at a CIA-leased facility. It was a CIA network that was shared between Senate staffers conducting that investigation for your report, as well as CIA personnel. When it became quite obvious to CIA personnel that Senate staffers had unauthorized access to an internal draft document of CIA, there was an obligation on the part of CIA officers who had responsibility for the security of that network to investigate to see what might have been the reason for that access that the Senate staffers had to that document.

They conducted that investigation. I spoke to the Chairman and Vice Chairman about it. I tried to make sure they understood exactly what the challenge was that we had. We conducted that investigation. I then subsequently referred the matter to the IG when the Senate leadership was concerned about the actions of CIA officers. I also subsequently convened an accountability board. And I think if you were to read those reports, including the accountability board, you would see that it determined that the actions of the CIA were reasonable, given the very unclear and unwritten or unspecific understanding between the committee and CIA at the time in terms of——

Senator WYDEN. Mr. Director, my time is short, but that's not what the inspector general or the——

Director BRENNAN. I respectfully disagree.

Senator WYDEN [continuing]. Or the review board——

Director BRENNAN. I respectfully disagree with you, Senator.

Senator WYDEN. I'd like to read the exact words. The exact words of the review board were: "It resulted in inappropriate access to SSCI work product." And your inspector general reached the same conclusion.

So the question here is when you're talking about spying on a committee responsible for overseeing your agency, in my view that undermines the very checks and balances that protect our democracy, and it's unacceptable in a free society. And your compatriots in all of the sister agencies agreed with that. Now, you disagree?

Director BRENNAN. Yes. I think you mischaracterized both their comments as well as what's in those reports. And I apologized to the Chairman and the Vice Chairman about the de minimis access and inappropriate access that CIA officers made to five emails or so of Senate staffers during that investigation, and I apologized to them for that very specific inappropriate action that was taken as part of a very reasonable investigative action.

But do not say that we spied on Senate computers or your files. We did not do that. We were fulfilling our responsibilities.

Senator WYDEN. I read the exact words of the inspector general and exact words of the review board. You appointed the review board. They said nobody ought to be punished, but they said there was improper access.

My point is, in our system of government we have responsibilities to do vigorous oversight and we can't do vigorous oversight if there are improper procedures used to access our files.

My time is up, Mr. Chairman.

Director BRENNAN. Senator, I would say, do you not agree that there was improper access that Senate staffers had to CIA internal deliberative documents? Was that not inappropriate, unauthorized?

Senator WYDEN. I can tell you, having talked at length to our staff, everything that we determined they did was appropriate. But I asked about CIA conduct and two reviews, the inspector general and your review board, said it was improper.

Director BRENNAN. Yes, and I'm still awaiting the review that was done by the Senate to take a look at what the staffers' actions were. Separation of powers between the Executive and Legislative Branches, Senator, goes both ways. As I said, I apologized to the Chairman and the Vice Chairman for the very specific inappropriate access that agency officers who were investigating this incident made to those emails, very limited inappropriate actions. Overall, that investigation was done consistent with our obligations, consistent with the law, consistent with our responsibilities.

And I do think that you're mischaracterizing the full tenor of both the accountability board and the inspector general's report.

Senator WYDEN. It's pretty hard to mischaracterize word for word quotes. They used the words "improper access."

Chairman BURR. I'll exercise something here and recognize Senator Heinrich.

Senator HEINRICH. I want to start by thanking our panelists for being here and for the continued excellent work that their respective agencies do every day in providing world-class strategic analysis and in keeping our country safe in a world of growing and complex threats that Director Clapper so eloquently laid out twice

today. The work done by your agencies is critical and I want to thank the men and women of those agencies who continue to do excellent work.

I also want to thank Chairman Burr for holding this hearing. It's been two years since we've had one of these and I hope we don't wait that long next time. I think it's important that the American people have a chance to hear from these officials directly, especially since so many of our actions with these Directors take place behind closed doors. While that's certainly appropriate in most circumstances, a public debate I believe benefits tremendously from transparency, and I appreciate the opportunity today.

I want to start with Admiral Rogers. Admiral, as you know, the world has seen a truly alarming increase in attacks on critical infrastructure. For example, in December DHS reported a 20 percent increase in cyber incidents between fiscal year 2014 and fiscal year 2015. While critical manufacturing was the most targeted sector in that, energy ranked second in the number of incidents, with water and waste water systems coming in third.

On top of that, we've seen recent attacks against Turkish banks, Ukrainian and Israeli electricity providers, and it was recently revealed that Iranian hackers infiltrated a dam just north of New York City in 2013.

So my question for you is this: Does the IC, particularly NSA, have sufficient insight into the sorts of cyber threats to U.S. critical infrastructure that we're seeing by foreign actors, and what can we do to better position ourselves against those threats specifically to critical infrastructure?

Admiral ROGERS. You never have all the insight that you would like. I don't think you're going to hear an intel professional tell you, hey, look, I couldn't use more insight.

I think the biggest challenge in some ways is not so much the level of insight, but it's how do we generate, take that insight and generate action, and make the changes that I think we all believe are necessary, given the dynamics of the world that you've outlined, that I don't think are short-term trends. I don't see this changing in the near term. I see this as the nature of the world we're living in and we're likely to be living in for some period of time. So the challenge I think is how do we take those insights and generate action. That's the biggest challenge to me.

Senator HEINRICH. Have you thought about, particularly given the focus of those on things like electrical generation and water and waste water systems, the ramifications of some of the changes within those fields, of distributed approaches and resiliency, as opposed to the very traditional approaches of sort of one-way generation and large-scale transmission?

Admiral ROGERS. Right. And we're watching most of the sectors in the area trying to go that approach. How can you build redundancy and resiliency, look at fragmentation and duplication? I've talked to several elements in power and water over the course of the last year, and you can see elements within the sectors trying to go that way. But I'd be the first to acknowledge, just given the breadth of infrastructure within our Nation, the amount of time it's going to take to do that across the entire breadth of our Nation, that is not an insignificant challenge.

Senator HEINRICH. Clearly. Would you agree that some of the movement towards more distributed purchase, particularly within electrical generation, things like microgrids, islandable microgrids, distributed storage, distributed generation, are helpful in mitigating the potential impact of a large-scale attack?

Admiral ROGERS. Yes. I think that's part of, that should be a fundamental element of, a broader strategy. I just try to remind people, there's no silver bullet, if that makes sense.

Senator HEINRICH. As a smart Senator said, sometimes there's silver buckshot when you don't have a silver bullet.

Director Brennan, while the United States is obviously not addressing the ISIL issue alone in Syria and Iraq, the reality is that many of our foreign partners in the region are at times heavily distracted by unrelated conflicts that are sometimes counterproductive to that fight. For example, as you're well aware, Turkey is targeting the very Kurds who've been some of the most engaged fighters in the battle against ISIS. We have Saudi Arabia pouring money and equipment into the fight in Yemen instead of focusing on ISIL in Syria.

You've spent a lot of time in the Middle East over the years. What has the CIA done and what else might be done to get our regional partners more focused on confronting the threat posed by ISIL?

Director BRENNAN. As you point out, Senator, the Middle East right now I think is racked by more instability and violence and inter-state conflict than we have seen certainly in the past 50 years. The amount of bloodshed and the humanitarian suffering is I think unprecedented.

We, CIA, work very closely with our partners throughout the region trying to make sure that those intelligence and security services are fulfilling their responsibilities professionally as far as making sure that we can share information with them about the flow of foreign fighters in particular, given that there is such transit between and among these countries of individuals who might go to Syria, Iraq, and then down to Libya or Egypt. We're trying to make sure we give them the intelligence they need, give them the training they need, but also give them the professional training that is required, because there are tremendous obligations on them to make sure that they are able to carry out their responsibilities while at the same time respect the human rights obligations that they have as security services.

So what we're trying to do is to serve as an interlocutor with many of them and to see whether or not we can enhance their relationships. Sometimes not only do we have inter-state conflicts, but we have sort of intramural conflicts among some of these countries, which then extends to the services.

So I think building up these intelligence and security services, giving them the wherewithal to address the problems, but again making sure that they carry out their responsibilities professionally, is very important.

Chairman BURR. Thank you, Senator Heinrich.

The Chair would also make a note that the Senator is correct, we didn't have an open threats hearing last year. We had a closed one. But last year we had open hearings with Admiral Rogers from

the NSA, Director Rasmussen from the NCTC, Director Comey from the FBI. And we had an open hearing scheduled for Director Brennan and were blitzed by a snowstorm. Maybe had we had him in he wouldn't have fallen and wrecked his knee.

It is the intent of the Chair to continue to allow every agency the opportunity, not just to be here for a worldwide threat hearing, but to come in and share with the American people what it is they do, why they do it, but, more importantly, why the American people should care about their success. Today is drinking out of a fire hose, trying to address the entire globe at one time. The rest of it I think is going to be more constructive. So I think the committee has attempted to try to increase the amount of open exposure with a degree of specificity that we haven't had in the past.

With that, Senator Coats.

Senator COATS. Thank you, Mr. Chairman.

Director, I note here on the very first page of the statement for the record you say: "The order of topics presented in this statement does not necessarily indicate the relative importance or magnitude of the threat in the view of the intelligence community." My question is, is this because we are dealing with such a complex and ever-expanding level of threats and it's difficult to prioritize, or is it because maybe we ought to be talking about this in Thursday's closed session? If that's the case, please tell me.

But if you had to prioritize—you know, we have to make decisions here. We have limitations. You have budget limitations. We want to try to address all these threats equally, but that's not possible. So it seems to me that as a committee member and as a member of Congress we need to know how to best allocate our budgets toward what you need. I know that this can be ever-changing, but what's your response to that and how should we best address this?

Director CLAPPER. Well, the more time I've spent doing this, I think the more loath I've become to try to rank-order threats, because any of them can leap up and bite us. So we don't have the luxury of—I don't like to mislead people that, well, this one threat is the one that we're going to focus on at the expense of others.

So that's why the statement there. What does that mean from a resource standpoint in terms of what funding and resources we're given to do our job? I think the approach that we've taken, at least what I've tried to champion in the five and a half years I've been the DNI, is those resources that enable resilience and agility, so that we can respond and, hopefully, anticipate and then respond to a variety of threats.

That's one thing—I said this before in answer to a question this morning. Again, in my time in the intelligence business I don't recall a time when we have been confronted with a more diverse array of threats, whether it's the nation-state threat posed by Russia and China, and particularly their substantial nuclear capabilities, or non-nation-states of the likes of ISIL, Al-Qaeda, etc.

So all these threats are serious, be it terrorism, be it weapons of mass destruction, or be it cyber. Others may have a view here. John.

Director BRENNAN. As it was pointed out, we're facing this array of threats. The one area that I'm very concerned about is the in-

creasing concerns about vulnerabilities in that digital domain and cyber. I do think we as a country need to make sure that we understand what those vulnerabilities are. Then, I think to Jim Comey's and others' points, making sure that we understand that the intelligence and security services and law enforcement services of this country have a role to help protect that environment, because our way of life, our future, really depends on making sure that that is strong. And we have adversaries overseas, both nation-states as well as sub-national actors, that have the potential and the capability to carry out attacks.

Director CLAPPER. The other part of this, if I may, just a thought that John keyed here, is the admixture, the combination of the threats posed to us in the cyber domain and the connection of that with terrorism. That makes ranking these discrete threats kind of difficult.

Senator COATS. Maybe that's why you have cyber technology as number one. I just assume that, and I appreciate the response on that.

Admiral Rogers, I'd like you to comment on that also, because this is your domain. Where do we stand on that?

Admiral ROGERS. For me, like my counterparts on the panel, I tell our team I am always leery about this hierarchical approach to doing business, because I've watched it encourage a workforce to think very linearly, so we focus on number one, then we think about number two, then we think about number three. And the world around us just doesn't work that way.

For me, the way I try to bin it with our team is protection of U.S. persons and U.S. infrastructure is priority number one. And I look at this and I see cyber- and the counterterrorism world in particular bringing those together in a very concerning way, as you heard from Director Clapper in his opening statement, and cyber remains so foundational to every aspect of our daily lives, just in a way that we haven't necessarily seen as much in the past. It represents both great opportunity for us as a society, but great vulnerability, with the potential for great impact. That's what's of concern.

Chairman BURR. Thank you, Senator Coats.

Senator King.

Senator KING. To follow up that, on that point, I was a governor during September 11th, and shortly afterwards we tasked our state police to go to all of what we thought were the vulnerable pieces of infrastructure in our state, electrical, chemical plants, and those kind of things, and assess their level of vulnerability and to in effect red team them about how they could the attacked.

Do we do that with our critical infrastructure? There's a lot of talk here about legislation, but it seems to me you could create a team to go to our power grid, to go to our water and gas utilities, financial services, and say: Look, this is what could happen to you; have you thought about this? You don't really need legislation to do this. In other words, more proactive, trying to alert them to the risks and to alert them to some of the protections that may be available.

Admiral ROGERS. Now you're really talking outside my lane as the Director of NSA and more in the lane of the Department of

Homeland Security, so I will not speak for Secretary Johnson. I share your concern. It's one reason why, speaking within my lane within DOD, for example, we do just that. We aggressively attempt to make sure we understand our structures, their importance to our ability to execute their mission, our mission, and then their vulnerability.

So we do penetration testing. We do red teams. We do no-notice inspections, for example, as a way to make sure——

Senator KING. It seems to me we ought—and perhaps we ought to have Jeh Johnson here. But we need to be talking about being more active and not just wait and hope they are doing the proper defensive measures, but to alert them to where they're vulnerable and to help them figure out the defensive measures.

Let me change the subject for a moment to heroin, which is an absolute epidemic. 10 or 12,000 people a year now dying. The number's accelerating just astoundingly and tragically.

Director Clapper talked about Mexico and that's where it seems to be coming from. A specific question. One of the problems with heroin that we're now seeing is it's often laced with fentanyl, which makes it more potent and more dangerous. Where does that come from? Do we know? Do we have intelligence on where the fentanyl is coming from, where it's being manufactured, how it gets into this unfortunate stream? Director Comey.

Director COMEY. Senator, I know there's a lot of work being done on that. We have a pretty good sense that a fair amount of it is being manufactured in China, but it's also being manufactured in other places in the developing world. So I know DEA and FBI and the rest of the intelligence community is spending a lot of time trying to understand where those sources are.

Senator KING. Well, I think we should know that and it should be publicity and we should name and shame those companies—those countries, because this is entirely unacceptable. It's a trade in death. I would hope that there would be further analysis of that, and also analysis of the trade stream that allows it to get to Mexico or Central America.

Second question: Do we have adequate resources in terms of intelligence, but also in terms of interdiction, in Mexico and Central America? My understanding is we have a pretty small number of people in some of those Central American countries which also are contributing to this. Do you feel as the intelligence community that you have adequate resources to this trade, where it comes from, who's behind it? Then of course that leads into interdiction. I'll follow up with that.

Mr. Comey, your thoughts?

Director COMEY. Surely not, given the size of the tidal wave of heroin that's washing over from Mexico. And there's two waves. We talk a lot about the heroin wave, for good reason. There's another wave washing over the western United States that's methamphetamine from Mexico, and the two waves are actually now crashing together in the middle of the United States.

So surely not is the honest answer. We have built, I think as Director Clapper said, much more effective relationships among ourselves in focusing on that problem and with our partners in Mexico

and Central America. But honestly, it's not good enough, given the size of the threat.

Senator KING. Another question is, how's it getting in? Do we know how much by land and how much by water? My understanding is a great deal of this is coming by water and one of the problems is a lack of adequate interdiction resources, both in terms of the military and the Coast Guard.

Director COMEY. A large amount of it comes by water, and it tends to switch from both sides of the Central American land mass, Pacific or Atlantic side. But to pick up on what General Clapper said, what I've heard from the Coast Guard especially is they have a lack of resources to interdict.

But also a lot of it comes by land, tunnels, smugglers, trucks. Because it's a tidal wave, it's washing in a lot of different ways.

Senator KING. A tidal wave of death is what we're talking about. I appreciate your efforts, but I think we have to realize that this is something that's really exploded almost literally in the last three or four years and we have to react to it proportionate to the threat to our people. This is killing people right now in the United States, in every state. It's not an abstract concern. It's not a possible virus. It's something that's happening right now.

So I commend you for your efforts, but I hope that this is something where the community can work together to develop the information necessary, but then we can also—it's got to be all of government to react to take the information and act upon it.

Thank you very much for your testimony.

Thank you, Mr. Chairman.

Chairman BURR. Senator Collins.

Senator COLLINS. Thank you, Mr. Chairman.

Director Clapper, I suspect that this may be your last public global threat hearing before our committee. So let me join with our colleagues in thanking you for your decades of service. You and I first met in 2004 when Joe Lieberman and I wrote the law that created the DNI Office and I take special pride in the work that you're doing and want to thank you for all of your years of service.

Director CLAPPER. Thank you very much, Senator Collins.

Senator COLLINS. Let me follow up on the questions that my colleague from Maine just posed. Is there actionable intelligence that would allow us to disrupt and interdict more of the heroin and fentanyl-laced heroin that is coming in from Mexico than we are able to act on because of operational constraints?

Director CLAPPER. Well, I just discussed this morning before the Senate Armed Services Committee the testimony that General Kelly, former, recently retired as the commander of Southern Command. I heard him say on more than one occasion that they had a lot of good intelligence on drug flow into the United States and he was limited because of his lack of operational resources to react.

Now, that is getting better. Again, a plug for the Coast Guard: They do magnificent work. These new cutters that they're building and deploying are a fantastic capability, ideally suited for this interdiction mission, particularly with the seaborne and specifically the semi-submersible vehicles that the druggies are using to ship large quantities. When those are caught at sea, you take a lot of drugs off the street.

Senator COLLINS. Thank you.

Director Comey, you talked earlier about encryption and how difficult it is making the job of both law enforcement and our efforts to prevent and detect terrorist plots. In fact, you have been quoted as saying that encryption is at the center of the terrorist tradecraft. Yet the administration has not submitted to date any legislative proposal to deal with encryption.

I would like to know whether you—and I'm going to ask General Clapper and Director Brennan the same question—have any of the three made recommendations to the President that he submit legislation dealing with the encryption problem to Congress for our consideration?

Director COMEY. I'll go first. Thank you, Senator. I would never—I don't think it would be appropriate for me to share recommendations that I might have made within the Executive Branch. But I will tell you this. Encryption is a problem in our investigations. It is also a great thing. And therein lies the challenge, which is why this is such a hard problem. That's why the administration and the private sector have been struggling so much.

I am optimistic that we'll make progress through our conversations, but I don't know whether that'll get us far enough. So I can't quite clearly see what the future looks like from here, but I'm just not comfortable talking about the deliberations inside.

Senator COLLINS. Well, let me change the question then. Do you believe that we should pass legislation that deals with encryption?

Director COMEY. I'm going to have to dodge that because that's not the FBI's job, to make recommendations. I do think that Congress and the American people have to grapple with this, because there's a collision between something that is great, encryption, and something that's also great, which is public safety.

Senator COLLINS. General Clapper, you're retiring at the end of the year, so you don't have to be careful in answering this question in any way.

Director CLAPPER. Well, I'm not sure we've exhausted all the possibilities here technologically. I'm not an IT expert by any means. I would hope that we have not yet exhausted what could be done voluntarily. As Director Comey indicated, encryption is a good thing for all kinds of reasons, for security and privacy and all that. But at the same time, it enables—it is enabling nefarious activity of all sorts, whether it's law enforcement or in the national security arena, to go on, and we're losing information because of it.

So my hope is that the technological solution, we haven't fully explored the potential there.

I'd also ask Admiral Rogers to comment as well.

Admiral ROGERS. Encryption is foundational to the future. Anyone who thinks we're just going to walk away from that I think is totally unrealistic. The challenge becomes to me, given that premise that encryption is foundational to the future, what's the best way for us to meet both of these imperatives, to ensure the privacy and the rights of our citizens and to ensure their protection and safety? Both are incredibly important to us as a Nation.

The challenge that I've seen in the discussion to date is, from Mike Rogers' perspective, we're spending a lot of time talking about what we can't do, and I keep thinking to myself: We are the most

innovative, technologically advanced Nation in the world; let's start thinking about what can we do. Let's start trying to figure out how are we going to make this work.

Senator COLLINS. Thank you.

Chairman BURR. Senator Hirono.

Senator HIRONO. Thank you, Mr. Chairman.

Director Clapper, thank you very much for noting—well, first of all for your service, and to all of you on the panel. Thank you for noting that the drug threat is ever growing in our country and that, while interdiction and enforcement are very important challenges to us, I suspect that we are not putting very many resources into the prevention side of the drug equation. That's just a comment.

Moving on, as North Korea continues its nuclear weapons and missile programs, do you assess that locating missile defense systems closer to North Korea or locating another carrier, say in Yokosuka, Japan, could provide greater deterrence against North Korean aggression? And I welcome comments also from Lieutenant General—General Stewart, and anyone else on the panel who'd like to comment.

Director CLAPPER. Well, that's a policy call. But, having said that, I think it would. I think even the discussion about missile defense certainly gets the Chinese' attention. They would prefer that THAAD, for example, not be deployed. But the North Koreans are making it hard, I think, for the Chinese to sustain that position.

So to the extent that there are force displays, force presence, missile defense, I think that could possibly have a deterrent effect on the North Koreans, but it could also incite them to do more.

Senator HIRONO. And with Kim Jong Un it's hard to tell which way he would go. That's just an editorial comment.

In your statement of record you note that we will monitor compliance with China's September 2015 commitment to refrain from conducting or knowingly supporting cyber-enabled theft of intellectual property with the intent of providing competitive advantage to companies or commercial sectors. Private security experts have identified limited ongoing cyber activity from China, but have not verified state sponsorship or the use of exfiltrated data for commercial gain.

So, Director Clapper and Admiral Rogers, I understand that there's much that we can't discuss in this open forum, but can you help me understand how the September 15th U.S.-China cyber agreement is helpful when we can't effectively monitor compliance?

Director CLAPPER. Well, I think I'll ask Admiral Rogers to back me up here, but I think that there has been a decline, but I think we're going to have to have some more time to assess whether this is a case where these state sponsors, those elements, cyber actors, that are under the control of the state, have actually reduced their activity or they were told: Don't get caught. I think we're going to need some more time to assess that.

Of course, there's also the challenge of determining whether, per the agreement, that any information that is purloined is actually used for economic advantage or not.

Mike, do you want to add to that?

Admiral ROGERS. No, I would agree, and I don't think there's any doubt that we have been able to show in the past cases where that was the case. I think that's in part what led to the desire to be very direct with our Chinese counterparts to say this behavior is unacceptable and we have to work our way through this, because the status quo, the use of the powers of the state to generate economic advantage through cyber as a tool, is not acceptable to us. I think that's what drove the discussions in September and, as the DNI has said, our view to date is we have seen some lessening in activity, but we're not yet prepared to say that's as a result of a systematic policy choice on the part of our Chinese counterparts.

Senator HIRONO. Because it's so hard to determine attribution in the cyber threat arena, do you believe that we'll ever be able to resolve this dilemma? I'd ask you two gentlemen to respond.

Then, General Stewart, would you care to comment on my first question regarding the assessment question that I had?

General STEWART. I think North Korea has a number of objectives, one of which is demonstrating strength against the U.S. and its allies. The second objective is to deter U.S. actions if they take unilateral actions on the Korean Peninsula. And third among the objectives is to separate the U.S. from its South Korean ally.

So the things that we can do that will show that we still have strength, that we will not be deterred, that we will not be separated from our ally, will be very beneficial. However, Kim Jong Un is unpredictable, and therefore I think we should do all those things to maintain our relationship, show strength, show that we cannot be deterred from taking action, but he is still an unpredictable wild card that none of us know how he will react.

Senator HIRONO. Some of our force structure decisions, though, would also have an impact on China, which is a more I think reasonable actor.

I'm sorry, Mr. Chairman, but could the other two gentlemen answer briefly the question?

Chairman BURR. They can, briefly.

Admiral ROGERS. You never have perfect knowledge. We historically have been able to put together a fairly good picture. I'm not going to argue that it's perfect. I'm the first to acknowledge it's getting harder, not easier, because we're watching opponents spending a lot of time trying to hurt or diminish our ability to attribute specific activity to specific actors.

Senator HIRONO. Did you want to add to that?

Director CLAPPER. No.

Senator HIRONO. Thank you. It's going to be a challenge.

Chairman BURR. The correct answer.

[Laughter.]

Senator HIRONO. Thank you.

Chairman BURR. Senator Warner.

Senator WARNER. Thank you, Mr. Chairman.

Let me start with thanking again all of you for your service and, equally important, the literally thousands of men and women who work to keep our country safe. Let me say at the outset, as a Virginia Senator, the fact that we have the offices of ODNI, CIA, NRO, NGO, NGA, and a series of other entities, and, Director Comey, if GSA makes the right decision, maybe the FBI as well—

and Senator Mikulski's not here—I hope you will relay that message that we give you the credit, and obviously the men and women, the professionals, don't get the credit that they appropriately deserve.

Director Clapper, I'm going to—a couple questions for you. First of all, I want to commend you in terms of your testimony today, the fact that you've listed cyber and what I would call digital security first, and the recognition that, while we're talking somewhat about encryption today, and I'm going to come back to that in a moment, that we need forward-leaning thinking about the Internet of Things and artificial intelligence and virtual reality, and the fact of the matter that foreign data science is moving ahead very rapidly and tools and challenges around issues like encryption and going dark—this genie's out of the bottle.

I particularly commend both Admiral Rogers and Director Comey's comments. People who want to relitigate the origination of encryption, that issue is behind us. I think it's appropriate to point out that when our national security is threatened also in terms of intellectual capital, personal information, other kinds of intrusions, encryption—and I particularly appreciate, Director Comey, your comments as well—is both an asset and potentially a liability.

I fear that sometimes we have focused just on this piece rather than the whole encompassing issue around digital security. Admiral Rogers, again I want to give you kudos for this notion around innovation.

Director Clapper, I guess what my concern is is that sometimes, with all of these competing interests, with national security interests, with intellectual capital security interests, with civil liberties security, with American business security, that I'm not sure all of these competing interests, while there have been efforts, have actually all come together in a thoughtful, reflective way to try to challenge folks around American innovation about how we get this back.

I think there needs to be a real debate between all of these communities—the tech community, American business, information security specialists, law enforcement, intel, advocates for privacy and civil liberties. Director Clapper, I'd like to see, if we had such kind of a thoughtful approach would that be of value to this debate, which has already proved to be quite contentious?

Director CLAPPER. It certainly would. I think—and I think you've named most of the key constituencies here. There are many countervailing interests. There is the pull of the needs for national security and law enforcement that you've heard. There are the privacy and civil liberties concerns and our own security.

So there are a myriad or a welter of countervailing interests here that are at play. We certainly, we try to sort our way through all those competing equities. It's a very, very complex issue, as I think you've heard from the discussion that's transpired so far.

Senator WARNER. Well, I just would say that, as somebody who spent 20-plus years, 25-plus years, in the telecom industry, I don't think it is totally equivalent. And the notion of a kind of top-down solution, which might give us a static solution for a short period of time, but this is going to be a constantly evolving challenge and

the response is going to need to be flexible and constantly transitioning.

Again, as you lay out some of the challenges, we're talking about a piece here on encryption, but digital security is a much broader issue. I think you've appropriately laid out some of the buckets that have to be part of this, this conversation.

My time is running out. I just want to add a subject that the Chair and the Vice Chair have been very helpful on as we think about on overhead, on our satellite issues. I recently was out at NGA, had a very good session there on commercial satellites. Right now the United States, not governmental, has about 50 commercial satellites. One company alone is going to go to 250 this year. I guess, Director Clapper—I know your background here—would you spend a moment in terms of how commercial is going to fit in with our overall overhead needs?

Director CLAPPER. Well, I think commercial imagery, I have been a huge proponent of it since I served as the Director of NIMA–NGA right after 9–11 as a crucial part of our overall architecture. It's also important, though, I think, that these commercial entities remain commercially viable. If they have a product or service that we can use, we should take advantage of that from the standpoint of additional coverage, what is it we can unload from our NTM complex, which I think we'll always have a need for; and also importantly, for resiliency.

But what I don't think is a good thing is if they become completely dependent on the government. So we have to find the balance there, and that's why I would like to make a change in the architectural responsibility so that that is accounted for in the totality of our overhead reconnaissance constellation.

Senator WARNER. Thank you.

Chairman BURR. Thank you, Senator Warner.

Senator Blunt.

Senator BLUNT. Thank you, Chairman.

General Clapper, all of you who represent the IC community and the people you work with and the people that work for us, thank you for what you do.

I'm going to mention a couple of questions I'm not going to ask, one for the record. But you just mentioned your leadership at NGA, the geospatial efforts we have. I've been spending a lot of time lately with Director Cardillo and in those discussions we've been talking a lot about sort of the workforce of the future. So one thing I'm going to ask in a question for all of you that we don't have time to ask today is: With engineering, with technology, with science, with math, are we doing the kinds of things we need to do and what can we do earlier to identify people we want to get on that track of being able to do these jobs in the IC community generally, Admiral Rogers, in your field specifically? Some information on that would be helpful.

I'm also going to not ask a question—I will ask that question for the record.

With regard to science, technology, engineering, and mathematics (STEM) disciplines, what are we doing to identify and nurture STEM talent earlier and attract those people to the IC in general, and to the NSA in particular?

I won't ask today about Robert Levinson. I think that's probably more appropriately asked in a closed setting, and I'll be doing that later. But in that regard, I am concerned that the transfer of money occurred when it did. A supposed $400 million from a past military sale that we had had happened to be given back just coincidentally the same time that those three hostages, as I see them, were released.

Now, this is money, by the way, that the Congress in 2000 said had to go to victims of Iranian-backed terror and it all did. So this is clearly giving the money away twice, sort of like the meeting of the church business meeting where they say: We've got a real problem. We've got a $1,000 deficit. What should we do? And somebody says: Well, let's give half of it to the PTA and half of it to the Girl Scouts.

This money was gone, but it was an excuse, a coincidental excuse I think, to do the right thing in the wrong way.

But what I want to ask you is, you said, Secretary Kerry said, just in the last few days that undoubtedly some of the money returned to Iran would go to terrorist groups. You verified again today that you see no real change in behavior in this number one sponsor, state sponsor of terror in the world. Are we doing any analysis? And anybody that wants to answer this can. What do we think happens when suddenly Iran gets $100 million, $100 billion, or maybe they get half of that? Maybe they get $50 billion. What do we think happens in places where not very much money can drive a lot of bad activity? $400 million in Yemen can make lots of bad things happen.

Are we evaluating what happens when Hezbollah, when the Taliban, when the Houthi get this new infusion of money that I think everybody understands they are about to get?

Director CLAPPER. Well, Senator Blunt, I'm a little constrained here in what can be said about this publicly. But we are watching to the best of our ability the insight we have on actually where this money is going. Most of it so far has been taken up with what I would call encumbrances, in other words do-outs, loans, and other needs that Iran has. Those fall mainly in the economic arena. They need to recapitalize their whole oil infrastructure, which has deteriorated, if they're going to do something with that. They have a lot of obligations in debts that they need to pay.

So the actual—we can go into this in more detail in a classified setting, but what has actually flowed to the Quds Force, let's say, has not been very much. And bear in mind that even during the period of heavy sanctions the Quds Force, the IRGC, the Republican Guards, and the Quds Force specifically, were—they were funded and the Iranians found a way to sustain them. And of course, they themselves have business interests by which they generate their own income.

Senator BLUNT. I think that last point is the best point. Even when Iran didn't have whatever amount of this money they get—say they get a tenth of the purported $100 billion. Even when they didn't have money, they were able to fund terrorism. I think whatever percentage of that money comes back to them, the argument we sometimes hear that, well, they'll build schools and hospitals and pay debts—they could have done all those things before they

got this money as well, and they still found money to finance terror efforts all over the neighborhood that they're in and outside that neighborhood.

Thank you, Mr. Chairman.

Chairman BURR. Thank you, Senator Blunt.

Senator Cotton.

Senator COTTON. Thank you, gentlemen, for appearing here. We frequently get to talk in private, not often in public. So let me associate myself with the comments of so many other members of this committee in thanking you, not only for your service—Director Clapper in particular for your many years of long service—for the service of the men and women that you represent.

Director Brennan, you stated earlier, in response to Senator Heinrich, we have not seen as much violence, instability, and interstate conflict in the Middle East in, I believe the time period was, your lifetime?

Director BRENNAN. I think I said 50 years, which is less than my lifetime.

Senator COTTON. Why do you think that is? What are the key drivers that's causing all that?

Director BRENNAN. Well, I think it's been five years now since the Arab Spring started to take root, which had a very traumatic impact on governments throughout the region, and the street became alive. And Al-Qaeda and terrorist organizations did not trigger that, but they have taken full advantage of it. So the instability that we see in Libya and Yemen and Syria certainly was an outgrowth of the Arab Spring and the turnover in governments in Libya and Yemen.

So this is pitting individuals from different areas of the country, of ethnic backgrounds that might be different than the government's. There are sectarian tensions that are playing out. All these things that were repressed because of the authoritarian governments that were in power for many years, and once their control was shaken I think it then loosed this popular reaction that now is finding expression in basically civil war, sectarian conflict, and challenges against the government.

A lot of these governments do not have the political institutions, nor the ability to address the many, many challenges, political, economic, and social in the region.

Finally, as you well know, a lot of these countries were carved out of previous colonial realms and therefore were almost patchworks of people of various backgrounds, that now are finding ways to fight among themselves.

Senator COTTON. Thank you.

Director Comey, I want to address electronic communication transaction records. I've introduced legislation to rectify a problem commonly known as the "ECTR fix." The legislation would clarify the government can obtain specified sets of electronic communication transaction records and fix an oversight made in an earlier law. What's your position and what is the position of the FBI on the need for this fix?

Director COMEY. We need it very much, and it's actually quite an ordinary fix. It's necessary because of what I believe is a typo in the 1993 statute that has led to some companies interpreting it in

a way I don't believe Congress ever intended. So it is ordinary, but it affects our work in a very, very big and practical way.

Senator COTTON. Would you characterize that as a top legislative priority for the FBI?

Director COMEY. Yes.

Senator COTTON. Thank you.

General Stewart, I want to turn to North Korea's recent nuclear test. The Comprehensive Test Ban Treaty Organization has not reported any collection of xenon or other nuclear particulates. Are you aware of any nuclear particulates collected from the test?

General STEWART. Thank you for letting me participate.

[Laughter.]

I have 10 questions I'd like to answer and that's not one of them. But I appreciate the opportunity.

We have not at this point detected any particulates that would characterize this device.

Senator COTTON. What does that tell us then about North Korean containment vessels and technology?

General STEWART. Very robust capability to deceive, contain, hide their full capability and capacity. And I'd like to talk about this some more in closed hearing about both our capability and what we're seeing that they're doing.

Senator COTTON. Thank you. I believe we'll have a chance to do that soon.

Director Brennan, I want to return in closing here to your exchange with Senator Wyden. You mentioned the removal of a CIA document from the shared space in violation of a memorandum of understanding with this committee. Has any of this committee or staffer ever apologized to you for the removal of that document?

Director BRENNAN. No, Senator.

Senator COTTON. Do you believe that that was a violation of the MOU that the agency and this committee had?

Director BRENNAN. I believe it was inconsistent with the understanding that we had, the common understanding, yes.

Senator COTTON. Has that document been returned to you?

Director BRENNAN. I will have to check on that, Senator.

Senator COTTON. Handling of classified information is a very serious matter, right?

Director BRENNAN. Yes.

Senator COTTON. Thank you.

Chairman BURR. I thank all Senators. We're going to have a second round. It's going to start in the same order as the first one. The second round will consist of one question or two minutes, whichever happens fastest. And it's my intent that we will be out of here shortly. Again, I thank our witnesses.

General Stewart, you were recognized too soon, because I have a question for you. I'm not sure it's in the 10 questions that you would like to answer. Assessing where we are today in Iraq: Share with me what Iraq looks like at the end of this year as it relates to being different, if at all?

General STEWART. The Kurds in northern Iraq solidify their positions. They probably won't move any further south because it's not in their interest to move south. The Shia militia retains control over the central part of Iraq, moving out west just a bit. We con-

solidate our gains in Ramadi. The Sunni forces and Iraqi forces consolidate their gains in Ramadi, begin to move in to secure the corridors moving from Hit up to Haditha, possibly isolating, beginning the isolation effort around Mosul. But in the western part of Iraq I'm not optimistic that we will have done much to move ISIL forces out of that region.

Chairman BURR. And doubtful that Mosul will change hands in this calendar year?

General STEWART. I am not betting on that, Senator.

Chairman BURR. Thank you, General.

General STEWART. I think it'll be very difficult to both isolate and conduct a clearing operation that would look like the securing of Mosul this year.

Chairman BURR. Thank you, General Stewart.

Vice Chairman.

Vice Chairman FEINSTEIN. Director Comey, I want to thank you. You really are a man of principle and you stand up for what you believe, and it's very much appreciated.

Last year, I think some of us received a report from the FBI in March of 2015 that showed that individuals on the FBI terrorist watch list attempted over a 10-year period to buy a gun or explosive over 2,000 times and they were successful 91 percent of the time. Could you describe the standard used by the FBI to make sure that only individuals who pose a threat to national security are placed on the FBI's terrorist screening database?

Director COMEY. Thank you, Senator. I'll try and do it briefly. There's an extensive process to vet the information around an individual to see if they meet our threshold, which I think is reason to believe—reasonable basis to believe they're involved in terrorist activity, to then put them on the watch list.

Vice Chairman FEINSTEIN. Can you describe here the safeguards to ensure that the FBI minimizes false positives? That means making sure that innocent Americans aren't placed on the terrorist screening database?

Director COMEY. Probably in two directions. One from our own direction is a constant effort to make sure our records are accurate, because false positives simply waste our resources. Then from the other direction, in the last year the Department of Justice has driven the creation of a redress procedure. So if anyone thinks they were wrongly placed on the list, there's a process through which they can challenge that.

Vice Chairman FEINSTEIN. Thank you.

Mr. Brennan, I want to go back to Afghanistan for a minute. Talk a little bit about Al-Qaeda's presence in the country and whether it's increasing or not, and ISIL's influence in the country. And how probable is the emergence of an ISIL stronghold in Afghanistan?

Director BRENNAN. Al-Qaeda, there's probably about maybe 100 or so, somewhere in that area, of Al-Qaeda members in the eastern part of Afghanistan. The leader there is an individual by the name of Farouq Al-Qatari, and they have married up, as I said, with some of the other militant organizations in the area, including the Taliban. So they continue to ply their trade on the ground inside of Afghanistan.

But we're concerned they can regenerate in that Afghan-Pak border region, which is why we need to maintain the intelligence collection, as well as working with our Afghan and Pak partners.

ISIL has been able to take advantage of some elements within the Taliban that have been disenchanted with the organization. So ISIL is seen as a threat, certainly by Afghan officials. When I traveled over to Afghanistan just two months ago, it was one of the real concerns they had that ISIL is planting the flag in different parts of Afghanistan and they are now seen as a competer, a competitor, to some of the existing militant and terrorist organizations there.

Vice Chairman FEINSTEIN. Stop there. How do you assess that?

Director BRENNAN. We assess it based on our——

Vice Chairman FEINSTEIN. No, no, not the methodology. But in the vernacular, how big a deal is that?

Director BRENNAN. It's a concern. ISIL probably has several hundred members or so inside of Afghanistan, I would estimate. And it is distributed. They have had some setbacks there as they have gone up against some of the other militant organizations. But it is a concern. Just like we see these various franchises growing in places like Indonesia or Nigeria, Somalia, Yemen, Libya, we see the same thing in South Asia.

Vice Chairman FEINSTEIN. Some time ago we did a four-corners intelligence trip that went to Afghanistan and I had the privilege of spending some time with women parliamentarians. I was amazed at their strength and the fact that they were going to survive and the Taliban was not going to come back.

Now, as I watch the developments happening there, the worry goes up and up and up, and you see these terrible things being done to women again, and also school children who happen to be girls.

I wonder whether we can make sufficient progress in the next decade or so. Do you have any assessment on that?

Director BRENNAN. As you point out, I think the Afghan people are a very resilient people. There have been thousands of Afghans who have given their lives for the future of that country. That's why we want to continue to work very closely with them, their intelligence, security, military organizations that are there. They face a host of challenges. Foreign assistance is critically important both on the military front as well as on the economic side.

But President Ghani and CEO Abdullah Abdullah, they need to make sure that their government is able to address the concerns of the Afghan people across the broad range of areas. But as you point out, the Afghan people are some of the bravest people that we have——

Chairman BURR. As the Vice Chair has worked five questions into the one-question round, I don't question the strength of women. I can assure you of that.

Senator Wyden.

Senator WYDEN. Thank you, Mr. Chairman. I will not incur the wrath of the Chairman. I will stick to one.

Director Clapper, I wanted to ask you a question about encryption. I'm not sure you're familiar with the report. Maybe already got it. It's brand new, written by an independent group. It's on encryption and the title of it is "Don't Panic." Matt Olsen, who

we all have enormous respect for, was very involved, the former Director of the National Counterterrorism Center.

I'm struck by this because I think when you get into the nuts and bolts of it, obviously encryption is available all around the world, often very cheaply. The basic thesis in this report is that, with wireless connectivity and sensors and the like, there are going to be more opportunities to prevent our country from going dark.

My question to you would be: Because of Matt Olsen's involvement and the experts involved in this, I would like to have your team take a look at this report and give us an analysis within an agreed-upon time, maybe 60 days. I would ideally like an unclassified version. Maybe if it has a classified annex that would be fine. Would that be something you could agree today? I think this is really a breakthrough report in my view, given the cross section of experts involved. Is that something that you could do for us?

Director CLAPPER. Sure, we'll do that.

Senator WYDEN. Great. Thank you very much.

Thank you, Mr. Chairman.

Chairman BURR. Senator King.

Senator KING. Thank you. I have one quick comment and one question.

Director Clapper, there's been a lot of praise heaped upon you today. I'd like to join in that. In my study of American history, the more I read the more I appreciate Washington, not for necessarily the war and the presiding over the Constitutional Convention, but his role as the first President, establishing precedents and sort of how this whole enterprise would function.

I realize you're not the first Director of National Intelligence, but I think by your tenure and your character and your intelligence and your experience you have served a similar function in really establishing how this entity should operate and will operate in the future. For that I want to profoundly compliment and thank you. I think you've helped to create an institution that will serve this country well for some period of time. That's my comment.

My question is a very broad one and I don't think it's one that we can answer here today. You comment in your report that Sunni violent extremism has been on an upward trajectory since the seventies. More groups have more safe havens than in any other time in history. We've killed 20,000 members of ISIS and yet we now know that more than 36,000 foreign fighters have gone to join ISIS.

The point is we're dealing with a hydra here, where we cut off one head and two grow back. I wonder if it isn't time to stop and say, do we need a new strategy other than trying to just kill our enemies as they arise? I'm thinking of George Kennan and the strategy of containment, not saying that that's the right strategy, but that there was a sort of comprehensive strategy rather than an ad hoc dealing with each individual attack or crisis.

I would just suggest that it seems to me this would be a role maybe at the end of this administration or the beginning of the next administration, to think about how do we deal with Sunni extremism and how do we develop a strategy that involves other countries, particularly Sunni countries, that can try to get at the roots of this instead of just the tactics.

Your thoughts?

Director CLAPPER. Senator King, I think you've hit on a very important, very crucial point. By the time you get into our business, where we're trying to track down terrorists who are bent on doing harm to us, it's way late. What really needs to be focused on are what are the fundamental systemic conditions that give rise to this?

You can kind of rattle off: large ungoverned spaces, a place awash in weapons, the population bulge of young, unemployed and frustrated males to whom such propaganda appeals. What has to be gotten at fundamentally while we're doing our thing of collecting intelligence and taking people off the battlefield is what are the root causes that give rise to this phenomenon of extreme jihadism.

Senator KING. Thank you. I hope this discussion can continue.

Thank you, Mr. Chairman.

Chairman BURR. Thank you, Senator King.

Senator Cotton.

Senator COTTON. Is it one question or two minutes, whichever is longer?

Chairman BURR. Whichever comes first.

Senator COTTON. Can I take the Vice Chair?

Vice Chairman FEINSTEIN. Oh, you get no sympathy from me.

Senator COTTON. I had a long series of adversarial, prosecutorial questions for each of you that I now can't ask since I'll be stopped after the first one.

Admiral Rogers, I will address briefly Section 702 of FISA, which expires, if I'm not mistaken, at the end of next year. Section 702 authorizes the government to target non-U.S. persons reasonably believed to be outside the U.S. for purposes of acquiring foreign intelligence information. I believe that Section 702 is a vital national security tool. It's constitutional. It has multiple layers of oversight.

In 2012 DNI Clapper wrote to Congress requesting a straight reauthorization of Title 7, which would include 702. Do you believe that Congress should pass a straight reauthorization of Section 702?

Admiral ROGERS. I do believe we need to continue 702.

Senator COTTON. Thank you. I converted a long series of adversarial questions into a speech and then asked if you agreed with my speech.

Chairman BURR. I will follow up the line of questioning just to say this, that the committee will take up 702 very quickly, not from the standpoint of the legislation, but from the standpoint of the preparation that we need to do in educating and having Admiral Rogers and others bring us up to speed on the usefulness and any tweaks that might have to be made. But I daresay this is something that I think Director Clapper has said before. We cannot do without this. This is absolutely crucial. It's been at the centerpiece of a lot of things.

If I could before we end go back to encryption since it was brought up. I've had more district attorneys come to me about the encryption issue than I have the individuals at this table. The district attorneys have come to me because they're beginning to get to a situation where they can't prosecute cases. This is town by town, city by city, county by county, and state by state. It ranges

from Cy Vance in New York to a rural town of 2,000 in North Carolina.

It's something we need to take seriously. One of the responsibilities of this committee is to make sure those of you at the table and those that complete the complement of our intelligence community have the tools through how we authorize that you need. The traditional tools I see as no different than I look at encryption and say we need to provide a tool for you to have the access to that information when the courts give you permission to do it.

I could care less how that's accomplished. It is I think the priority—and I think I can speak for the Vice Chairman. It is the priority of both of us that this be voluntary. But if in fact it's not something we can achieve the balance on voluntarily, then I feel like it's the committee's responsibility to pursue it in any fashion we can, and I intend personally—I won't commit the committee to do it—to pursue that, because I think it is invaluable in the future.

I fear that this is not the toughest decision we're going to make, based upon how technology might impact the world we're in.

The American people expect us, Director Comey, to this year exceed 72 individuals that you incarcerate before they commit a lone wolf event. You're on track to probably do that, based upon the beginning of this year and based upon intent. I'm not sure that we can turn around and say, well, we only got 11 of them because we couldn't see inside the communications of the other 60-some and, America, you're out of luck. You won't stand for it, I won't stand for it, the American people won't stand for it.

So I hope—we're working with the administration and hopefully we can all work towards the same end goal.

I want to take one last opportunity to thank each of you, but, more importantly, the folks that work for you and work for the American people. At any given point in time, everybody at the table's workforce has been challenged to work 24–7 to address events that happened over the worst times, I might say. Over the holidays as we went through Christmas, I can't imagine what the Bureau was doing. I can't imagine, Admiral Rogers, what you were going through. John, I can't imagine what the CIA was going through, trying to track down the number of threat streams that were out there, and that culminates with Director Clapper. So I don't think anybody had a real comfortable holiday season this year. But the fact is we got through it without an event, and I don't think many of us would have bet that that would have been the outcome, but we did. And now we're focused on tomorrow, not yesterday.

My hope is that we will continue to do it and to do it successfully. With that, I will tell you how much we look forward to seeing all of you again on Thursday, and this hearing's adjourned.

[Whereupon, at 4:28 p.m., the hearing was adjourned.]

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