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NATIONAL SECURITY IN THE 21ST CENTURY: HOW THE NATIONAL SECURITY COUNCIL CAN SOLVE THE PRESIDENT'S CLIMATE CHANGE PROBLEM

by Arija Flowers*

INTRODUCTION

To adequately protect the national security interests of the United States, the President should immediately implement domestic policies and vigorously pursue agreement on international standards that stabilize greenhouse gas concentration at 350 parts per million (“ppm”) as soon as possible, and no later than 2050.¹ The Obama Administration acknowledged the real threat climate change poses to U.S. security in the 2009 National Intelligence Strategy (“NIS”) and 2010 National Security Strategy (“NSS”).² However, in failing to use the authority delegated to the Committee on Transnational Threats to implement climate change prevention policies, the Administration has not met its obligation under the National Security Act of 1947 to protect U.S. people, property, and interests.³

The most politically feasible and compelling argument for addressing climate change promptly is that U.S. security depends upon it. Threats to security emanating from climate change are many and varied, internal and external, and are already beginning to occur.⁴ This article explains the science behind climate change, then discusses the impacts that climate change will have on people and communities, and the relationship of those impacts to threats on U.S. security. In response to these impacts, the article examines national security law and the Administration's faulty understanding of its power under that law and suggests how the Administration can use the authority it already possesses to implement the necessary policies to ensure a comprehensive national security program and actions to take to meet the present and future threat posed by climate change.

CLIMATE SCIENCE

There is no longer any scientifically sound question as to whether anthropogenic climate change is occurring, and will continue to occur in the future; only the ongoing debate of how much change human activity will produce remains.⁵ The Intergovernmental Panel on Climate Change (“IPCC”) report finds definitive anthropogenic warming between 3.2°F and 9.2°F over the twenty-first century.⁶ Based on the amount of carbon already released into the atmosphere, the Earth is committed to a temperature increase of at least 2°F.⁷ The best estimates of the IPCC, which depend on future reductions in CO₂ emissions, predict global average temperature increases of 3.2°F to 7.2°F during the twenty-first century.⁸

In order to understand climate science, it is important to also understand the *political* environment surrounding climate

change science and to consider what that means for determining future policies in the United States. The IPCC is a joint project of the United Nations and the World Meteorological Organization that has compiled extensive, highly scrutinized data⁹ to become the source of internationally accepted science on climate change, relied on by governments around the world including the U.S. government.¹⁰

The problem with the scientific numbers presented by the IPCC is that they are influenced by the politics of strong, fossil-fuel-dependent nations like Saudi Arabia, the United States, and China, whose economies run on the sale and use of fossil fuels.¹¹ The desire to keep their economies humming without changing their habits is a strong incentive to downplay the impacts of CO₂.¹² Middle Eastern member states, like Saudi Arabia, work to ensure that the primary export upon which their entire economy depends on is not rendered valueless by the findings.¹³ Thus, the highly certain findings of the IPCC report exist *in spite* of the efforts of oil exporting countries to water-down the language until more evidence of anthropogenic change is found.¹⁴ The result is an IPCC report with watered-down, politically motivated findings,¹⁵ being represented to the global community as scientifically factual findings,¹⁶ and ultimately the international acceptance of compromised science as the basis for climate change policy.

Other scientists, unconstrained by the challenges within the IPCC, believe more significant temperature—and climate—change will occur.¹⁷ Scientists know from studying ice cores that Earth's surface temperature increased 9°F when CO₂ levels in the atmosphere rose by 100 ppm at the end of the last ice age.¹⁸ Thus, logic renders it unlikely that a doubling of CO₂ over the level in 1800 (an increase of approximately 280 ppm, or nearly *three* times larger than the prior increase) will result in a temperature increase of just 5.4°F, as the IPCC seems to predict.¹⁹ Based on scientific data, leading experts believe that the current global goal must be to reduce CO₂ concentrations below 350 ppm in order to prevent and reverse destabilizing global warming.²⁰

Climate science is becoming increasingly more accurate as scientists continue to refine computer simulation programs called Global Circulation Models.²¹ With increasing frequency, these computer programs are able to accurately model weather

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and climate events based on inputted data, for events that already happened in the past.²² Because the events already happened and we know what the model *should* look like, the computer models' accuracy can be readily tested and proven by its ability to correctly forecast those events.²³

Comparing current predictions with known previous atmospheric changes illustrates the appropriateness of skepticism regarding the more conservative scientific estimates, like those of the IPCC. Further, the scientifically accepted 550 ppm CO₂ "threshold," which is the maximum allowable level to avoid inducing dangerous climate change, is nearly twice as high as pre-Industrial Revolution levels.²⁴ Even the IPCC predicts an increase in temperature varying from 3.2°F to 7.2°F,²⁵ which is clearly below the 9°F history has proven can occur.²⁶ Given these illogical ratios, it is reasonable to be skeptical of the conservative estimates of the impacts of climate change, rather than skeptical that climate change is real.

WAYS IN WHICH CLIMATE CHANGE IMPACTS THREATEN U.S. SECURITY

Congress and the White House understand that climate change threatens U.S. national security, because it threatens internal systems and contributes to the destabilization of governments and people abroad.²⁷ The range of threats begin with "natural" disasters, including increasingly severe hurricanes like Katrina in 2005,²⁸ and extend to heightened terrorism risks as diminished resources threaten livelihoods and foreign populations slip further into extremism.²⁹

Natural disaster impacts are easier to visualize because they have a direct cause and effect. Sea level rise threatens to wipe small island nations off the face of the Earth.³⁰ Rapid rising sea levels of this type directly threaten military infrastructure on low-lying islands, and in all coastal regions worldwide.³¹ More hurricanes of higher intensity means military equipment and personnel must be moved out of harm's way, adding expense and wear and tear, reducing general readiness, and interrupting training operations.³² Increasingly severe storms can devastate infrastructure, as hurricane Andrew damaged Homestead Air Force Base in Florida in 1992 and prevented the base from ever reopening.³³ More frequent and intense flooding has similar impacts, requiring disaster response, while simultaneously damaging the economy, and wasting resources that could be utilized elsewhere. The Navy has additional concerns about vessel safety in a polar ice-free world, since mapping of shifting ice locations will become more difficult.³⁴

The United States has the most varied and severe weather of any country on Earth.³⁵ With vast, drought-prone, high, arid plains, extensive coasts vulnerable to sea level rise, coasts that have already been battered by record-intensity hurricanes, and plains repeatedly flooded by rivers following massive rains and snow-melt runoff, the United States has more to lose in terms of climate change induced domestic threats than nearly any other country, except perhaps those that will be lost to the oceans.³⁶ The western states should prepare for decreased snowpack and correspondingly reduced summer runoff³⁷ and extended periods

of drought.³⁸ Without even addressing the military components of homeland security, these direct impacts on the infrastructure, economy, and livelihoods of citizens threaten the security of most of the largest cities in the U.S., because they are located on coasts, and much of the farmland located in flood plains.³⁹ It is clear, however, that changing precipitation patterns, increased severe weather events, and rising sea levels are all expected in the future, with negative direct implications for U.S. national security interests.⁴⁰

The more complex threats are the indirect effects, which result not from the changed climate and associated weather events, but from the human actions which follow. As resources become scarcer and local living conditions harsher, populations with weak governments that are unable to assist those people in adapting to changes will likely resort to methods of self-preservation.⁴¹ U.S. military leaders expect the United States will see increased conflict for resources, mass migrations to escape the dearth of resources, and incidences of terrorism.⁴² Where the most basic resource needs—food and water—go unmet, disputes spiral into full-fledged conflict,⁴³ as evidenced by the "at least [eleven] violent conflicts since 1990 [which] have been fueled in part by the degradation of renewable natural resources."⁴⁴ In these situations, populations may turn to extremism and terrorism,⁴⁵ similar to al-Qaida in Afghanistan where half the country's gross domestic product comes from farming or ranching, but drought and overuse of the land has left most of the country at risk of desertification.⁴⁶ Populations will also likely participate in mass migrations as environmental refugees increase global tensions and further strain resources in the new location.⁴⁷ The IPCC and others believe that average global warming exceeding 3.6°F may be dangerous,⁴⁸ while others argue that 3.6°F "warming would be catastrophic for large segments of humanity."⁴⁹

This type of instability in the developing world is a "threat multiplier"⁵⁰ and U.S. military leaders believe that "climate change will provide the conditions that will extend the war on terror"⁵¹ because "droughts, violent weather, ruined agricultural lands—those are the kinds of stresses we'll see more of under climate change [which lead directly to] more poverty, more forced migrations, higher unemployment" so that "climate change prolongs those conditions [that increase terrorism risks] . . . [and] makes them worse."⁵² Many nations that struggle to maintain political stability currently, or are likely terrorist safe-havens, are also highly vulnerable to destabilizing climate change impacts, such as drought,⁵³ flooding,⁵⁴ and increased disease.⁵⁵ When a region is "traumatized by an event or a change in conditions triggered by climate change . . . [i]f the government there is not able to cope with the effects . . . you can be faced with a collapsing state . . . as breeding grounds for instability, for insurgencies, for warlords."⁵⁶ Ultimately, these conditions enhance the threat of terrorist networks and risks for U.S. security.⁵⁷

Increased temperatures will have dire consequences for fresh water access, flood mitigation, and human health.⁵⁸ Access to fresh water for drinking, farming, and hygiene is threatened by changing precipitation patterns and especially by altered mountain glacier runoff.⁵⁹ Three billion people already live in

water-stressed developing nations. However, that number is expected to increase to half of the global population by 2030 and those people will be exposed to *high* water stress, beyond what is currently experienced.⁶⁰ In addition to the increased spread of disease resulting from reduced water availability,⁶¹ human exposure to malaria will double and dengue fever will increase with only a 1°F to 2°F temperature rise as the geographical range of mosquitoes expands to new regions.⁶² Drought—or permanently drier climates—result in food and water shortages, as seen in Darfur, Sudan, that pose serious threats to stability,⁶³ and these conditions are expected to increase around the globe.⁶⁴ What began in Darfur as a struggle between farmers and camel herders for minimal water during time of “drought” became a permanent end of precipitation in the region, leading to desperation, civil unrest, and mass migrations.⁶⁵ Mass migrations out of permanently “drought” afflicted areas into northern hemisphere countries should be anticipated, along with strained resources and tempers in all regions.⁶⁶

Changes in sea level and acidity could also have a devastating impact on communities around the world.⁶⁷ Approximately two-thirds of the world population lives within fifty miles of the coast, and in some places, including New Orleans and The Netherlands, below sea-level.⁶⁸ Many vulnerable populations live within the expected zone of sea-level rise, including the ten million inhabitants living within three feet of sea-level in Bangladesh.⁶⁹ In addition to the encroaching waters, many of the vulnerable populations are also vulnerable to the increasing acidity of the oceans, which is a primary source for protein for more than one billion people.⁷⁰ Ocean acidity is increasing at a rate that will be evolutionarily difficult for fish to keep up with, and diminished food supplies are expected to result in greater unrest.⁷¹

Between increased crises within the United States, reduced capacity to respond to those crises, and the possibility of increased extremism abroad, climate change impacts directly and indirectly threaten U.S. national security. If the President truly believes that “[t]o advance our common security, we must address the underlying political and economic deficits that foster instability, enable radicalization and extremism, and ultimately undermine the ability of governments to manage threats within their borders,”⁷² then the United States must address climate change as a leading future cause of those political and economic de-stabilizers.

THE DEVELOPMENT AND ROLE OF NATIONAL SECURITY LAW

The Obama Administration fully acknowledges that prompt and sweeping action is needed to bring greenhouse gases (“GHG”) to a safe level, thereby reducing the effects and degree of climate change.⁷³ The 2010 NSS acknowledges that the “danger from climate change is real, urgent, and severe” and that the effects of climate change “will lead to new conflicts over refugees and resources” as well as “catastrophic natural disasters.”⁷⁴ However, the Administration incorrectly believes that comprehensive legislation from Congress is required before

such climate protection actions can be taken.⁷⁵ The Administration already has the authority to take decisive action under the National Security Act.

The National Security Act of 1947 (“NSA”) established the National Security Council (“NSC”) with the intention of ensuring an open and effective working “relationship between those responsible for foreign policy and those responsible for military policy”⁷⁶ by creating a central advisory coordinating office for all matters related to national security.⁷⁷ Before World War II, it had become increasingly clear that the United States needed a more unified approach to deal with national security issues, and that need became apparent to the public at large with the attack on Pearl Harbor.⁷⁸ The NSC may have originally been conceived of as an advisory group, rather than a force for implementation, but the group’s function has varied to both ends of that spectrum over the years.⁷⁹

The sweeping language in the opening lines of the National Security Act of 1947 expresses Congress’s acknowledgement of the need for a large-scale program to address threats to U.S. security.⁸⁰ The Act opens with the declaration that, “[i]n enacting this legislation, it is the intent of Congress to provide a *comprehensive* program for the future security of the United States; to provide for the establishment of integrated *policies and procedures* for the departments, agencies, and functions of the Government relating to the national security.”⁸¹ The Act does not define a threat to national security, instead leaving that undefined for future experts to determine in order to fulfill the stated purpose of the Act.⁸²

Congress also provided for a National Security Council whose purpose was advising the President regarding “the integration of *domestic, foreign*, and military policies relating to the national security to enable the military services and the *other departments and agencies* of the Government to cooperate more effectively in matters involving the national security,”⁸³ and other duties in addition to functions directed by the President.⁸⁴ Congress’s plain intention was government-wide policies promoting national security. Though some members of Congress expressed concern that the NSA should not delegate unsupervised authority to the Executive,⁸⁵ they were persuaded that extensive delegation would not deprive Congress the authority of oversight or implementation of new laws,⁸⁶ and gave the Executive the power necessary to carry out the desired mission: protecting national security.⁸⁷ Additionally, at the time of enactment, like today, flexibility in national security was a serious concern and other members of Congress believed too many restrictions on military activity would undermine the purpose of unifying defense intelligence and strategy under this new protocol.⁸⁸ Ultimately, Congress was convinced of the necessity of the NSC as an advisory council to the President and coordination center for all matters relating to national security.⁸⁹ The result of these competing Congressional concerns was a broadly written statute creating the NSC, which has enabled Presidents to determine the structure and workings of the Council, while conforming to the purpose, functions, and duties established in the original Act of 1947.⁹⁰

Given the flexibility of the NSA, Presidents have altered the structure and use of the NSC from its beginnings to fit their leadership styles and the changing nature of the challenges faced by the nation at any particular time.⁹¹ Where President Truman rejected the authority to promote “implementation,” President Eisenhower specifically authorized the coordinated implementation of national security policies under the NSC, creating an Operations Coordinating Board.⁹² While this “implementation” function was criticized by some, its legal validity was not questioned,⁹³ and President Kennedy went on to invoke similar powers during the Cuban Missile Crisis, even after rejecting the practice.⁹⁴

The oscillating nature of the NSC⁹⁵ peaked during President Reagan’s tenure, in the form of the Iran-Contra Affair, but ultimately resulted in a strong and stable NSC to shape and monitor the implementation of national security policy.⁹⁶ Accordingly, extensive reforms were made whereby the NSC became responsible for making policy recommendations and “reviewing, coordinating, and monitoring the implementation of national security policy.”⁹⁷ Upon assuming office, President George H. W. Bush was able to use his experience as the lead intelligence officer to the NSC as a prior Director of National Intelligence to establish working groups (Policy Coordinating Committees “PCCs”) for the NSC that actually worked.⁹⁸ This structure was also adopted by Presidents Clinton and George W. Bush because of its effectiveness.⁹⁹

Congressional approval of increased authority to the Executive was evident following the attacks on September 11, 2001 in the United States, in the creation of the Department of Homeland Security,¹⁰⁰ and in President Bush’s creation of a Homeland Security Council (“HSC”) with extensive powers.¹⁰¹ The President created the HSC to assist in developing and implementing homeland security policy, and created the Policy Coordinating Committees—modeled after the NSCs PCCs that became so effective under the first President Bush—to coordinate the development and implementation of homeland security policies, including working with local governments.¹⁰² Congress passed legislation supporting this Executive-created expanded authority (the HSC’s creation), and authorized the Council to advise the President and “perform such other functions as the President may direct,”¹⁰³ supporting a similar attitude towards the NSC, which also contains language authorizing “other functions as the President may direct.”¹⁰⁴ Even before September 11, 2001, Congressional appreciation for the need of unified, flexible, and responsive national security systems, following increasing international terror attacks,¹⁰⁵ was plainly expressed in the passage of the Intelligence Renewal Act of 1996.¹⁰⁶

Specifically, Congress added the Committee on Transnational Threats (“CTT”) to the NSC¹⁰⁷ as part of a commitment to reexamine and modernize intelligence and security programs¹⁰⁸ following attacks on U.S. soil in the 1990s.¹⁰⁹ The statute defines a “transnational threat” as “any transnational activity (including international terrorism, narcotics trafficking, the proliferation of weapons of mass destruction and the delivery systems for such weapons, and organized crime) that threatens the

national security of the United States”¹¹⁰ or “any individual or group that engages in an activity referred to in [the prior definition].”¹¹¹ The CTT is directed to “coordinate and direct the activities of the United States government relating to combating transnational threats.”¹¹² The Committee is required to identify these threats; develop strategies to respond to such threats; “monitor implementation” of those strategies; make recommendations of appropriate responses to specific transnational threats; develop policies and “procedures” to ensure effective information sharing about such threats between Federal departments and agencies; and develop guidelines to enhance and improve the coordination of activities regarding national security.¹¹³

The Committee membership includes the Director of Central Intelligence, the Secretaries of State and Defense, the Attorney General, the Assistant to the President for National Security Affairs, and any other members that the President chooses to include.¹¹⁴ The NSC membership has fluctuated remarkably since its inception,¹¹⁵ but Congress clearly granted the President authority to include any one else he believes is properly included for the purpose of protecting national security from transnational threats.

Congress understood when passing the Intelligence Renewal and Reform Act of 1996 that with the close of the Cold War, non-traditional factors, from increasingly varied sources,¹¹⁶ influenced national security.¹¹⁷ Before passage of the law, floor speeches from members of both houses of Congress advocated for an adaptable¹¹⁸ and “dynamic” twenty-first century security force¹¹⁹ to counter the “rapidly changing threats.”¹²⁰ This included environmental research desired by the departments to increase “understanding of global environmental challenges.”¹²¹ The language in the Conference Report indicates that Congress supports CTT engagement in both developing and implementing coordinated policies across departments to protect the nation from transnational threats, whatever they may be.¹²²

Climate change is a transnational threat to U.S. national security by the plain language of the law. First, it inherently extends beyond the national borders of the United States because it occurs across the planet through the atmosphere and oceans.¹²³ Second, the negative impacts of climate change, documented above, both from a purely domestic perspective and from added tensions and risks at the global scale, establish the consequences of climate change as national security threats.¹²⁴ The original intention of Congress to create a unified security force capable of adapting to the emerging and unknown threats that left the United States vulnerable prior to World War II supports these broad and evolving views of national security.¹²⁵ Even President George W. Bush’s policies support the inclusion of climate change by including “manmade disasters” in the realm of national security.¹²⁶ Thus climate change plainly falls within the delegated responsibility of the NSA’s Committee on Transnational Threats.

Congress has specifically recognized the importance of climate change in the context of national defense¹²⁷ and, since 2008, has required the Department of Defense to include the armed forces capability to handle “the consequences of climate

change” in its Quadrennial Defense Review.¹²⁸ At the same time, Congress required all future National Security Strategy¹²⁹ and National Defense Strategy reports to provide military personnel guidance on how to “assess the risks of projected climate change.”¹³⁰

Excuses that responsibility for implementing policies to protect against climate change are already within the authority of other departments and agencies within the Executive, and thus outside the President’s authority within the NSC, are unfounded. This argument rests on CO₂ regulation by the Environmental Protection Agency (“EPA”), which currently only has authority to regulate GHG emissions¹³¹ to protect the public health or welfare.¹³² EPA does not have authority to implement GHG policies to protect national security.¹³³ The President and his NSC have a mandate to do so,¹³⁴ and climate change policy is not solely about air quality standards, but also about protecting Americans from increasing threats posed by catastrophic weather events, destabilized global populations, and terrorism.

The variation in Presidential styles and uses of the NSC over the years, recently expanded powers granted to the Presidency, and creation of the CTT all demonstrate the President’s power to use the NSC to establish policies and to oversee their implementation in the other departments. President Obama ought to use his NSC to implement policies protecting the U.S. from modern threats,¹³⁵ since the *purpose* of the Act was to provide the United States with a “comprehensive program . . . of integrated policies and procedures for the departments, agencies, and functions of the government relating to the national security.”¹³⁶ Congress has recognized climate change as a national security issue¹³⁷ and it is now the President’s responsibility to use the NSC and the CTT to their fullest capacity, as Congress intended, to protect U.S. security.

RECOMMENDATIONS

U.S. national security policies cannot be based on internationally accepted science, when that science is subject to manipulation by segments of the U.S. public and private sectors, as well as some of the very nations whose activities may threaten U.S. national security.¹³⁸ To adequately address climate change in the national security context, the United States ought to abandon its reliance on the conservative IPCC estimates and use the best available science to determine the *actual* risks, and likelihood of those risks, to people, property, and interests of the United States.¹³⁹ Recent studies, including those by NASA scientists, make clear that change must occur promptly to adequately reduce CO₂ levels.¹⁴⁰

The United States should also take on the challenge like a new Cold War, fully deploying all resources necessary to defeat the threat. President Obama already recognized this in his 2010 National Security Strategy stating,

[w]hen the world was confronted by fascism, America prepared itself to win a war and to shape the peace that followed. When the United States encountered an ideological, economic, and military threat from communism, we shaped our practices and institutions at

home—and policies abroad—to meet this challenge. Now, we must once again position the United States to champion mutual interests among nations and peoples.¹⁴¹

Fully engaging to defeat the threats of climate change will require more than just tax incentives—though these should be utilized too—it will require significant financial investment in overhauling U.S. infrastructure and international diplomatic maneuvering to effect the necessary changes.¹⁴²

First, the President should implement an aggressive *green* Job Corps program, in the style of President Franklin Roosevelt’s Works Progress Administration, employing Americans and building U.S. infrastructure for the new technological age, harnessing the power of proven renewable energy resources.¹⁴³ While such a program would cost significant sums of money, it would also provide jobs to millions of Americans¹⁴⁴ who currently receive ongoing unemployment benefits, without any benefit to U.S. infrastructure, as the job market refuses to improve significantly.¹⁴⁵ These jobs would vary in skill level from senior planning positions to low-skill labor jobs building and installing the new electrical generation and transmission systems. Additionally, proven economic advantages exist in moving to a low-carbon economy.¹⁴⁶ Similar to the construction of the National System of Interstate and Defense Highways under President Eisenhower, this new infrastructure system is necessary for U.S. security in the future.¹⁴⁷ Not only are U.S. civilians reliant on the current fossil-fuel-burning energy grid, exposing cities and entire regions to potential brown-outs,¹⁴⁸ so too is the U.S. military which relies almost entirely on the national power grid at fixed installations and on petroleum in combat and operations.¹⁴⁹ Thus, strategic security motivations exist for moving to renewable energies that actually improve battlefield readiness.¹⁵⁰ Dependence on fuel supply lines reduces operational preparedness, and results in astronomical monetary costs associated with transporting large quantities of fuel in comparison to the dependable renewable energy options, while jeopardizing troops’ lives.¹⁵¹

Second, working with the Secretary of State, the President must actively convince other nations, like China, to do the same, to secure U.S. security into the future.¹⁵² This could be accomplished in a similar fashion to the “space race,”¹⁵³ but intentionally created, since countries that implement the new technologies first will be better prepared for the future.¹⁵⁴ Unfortunately, the 2010 NSS claim that the United States is “promoting universal values abroad by living them at home,”¹⁵⁵ is simply not true.¹⁵⁶ The 2010 NSS claims that the United States must be a global leader and “reengage the world” to facilitate “global cooperation on issues . . . [including] climate change . . . that challenge all nations, but that no one nation alone can meet.”¹⁵⁷ These statements, while true, effectively punt U.S. responsibility in dealing with climate change by: emphasizing the global nature of the problem and the need for individual nations to take responsibility; professing U.S. leadership on climate change solutions while also asserting that the U.S. will meet climate goals; but hedging the promise with the need for Congressional action.¹⁵⁸ Now is

not the time for the United States to shy away, but the time to lead by example and convince others to join our efforts, through diplomacy and fear of future ostracism in the global community for failure to adopt clean renewable energy technology.

CONCLUSION

The impacts of climate change touch every aspect of U.S. national security. They increase destabilization of governments and demands on U.S. resources to aid or re-stabilize a region after a crisis. They threaten U.S. land, people, and infrastructure around the world, and are largely preventable. However, they are only preventable if the Administration takes responsibility for our future and utilizes the resources available to it, indeed

required of it, to protect the national security of the United States. The President should seek Senate approval to appoint the Secretaries of Interior, Agriculture, and Labor, as well as the EPA Administrator, to the NSC.¹⁵⁹ The President should rely on the best science available, not the lowest common denominator, and should take responsibility on the international stage for U.S. CO₂ emissions by making the United States the leader in climate change mitigation technology, enabling effective diplomatic and economic pressure in convincing other nations to do the same. The President has the authority, and the responsibility, to establish these policies and procedures to protect U.S. national security. 

Endnotes: National Security in the 21st Century

¹ See JAMES HANSEN ET AL., *Target Atmospheric CO₂: Where Should Humanity Aim?*, 2 OPEN ATMOSPHERE SCI. J. 217, 217-18 (2008), <http://arxiv.org/ftp/arxiv/papers/0804/0804.1126.pdf> (recommending the reduction of CO₂ to 350 ppm immediately, or else as quickly as possible); *Climate Change: Halving Carbon Dioxide Emissions By 2050 Could Stabilize Global Warming*, SCIENCE DAILY (May 4, 2009), <http://www.sciencedaily.com/releases/2009/05/090502092019.htm> (supporting a fifty percent reduction from 1990 levels by the year 2050); TIM FLANNERY, *THE WEATHER MAKERS: HOW MAN IS CHANGING THE CLIMATE AND WHAT IT MEANS FOR LIFE ON EARTH* 6 (2005) (arguing that the best available science shows global CO₂ emissions need to be reduced by seventy percent by the year 2050 to stabilize carbon levels and the climate).

² THE WHITE HOUSE, NATIONAL SECURITY STRATEGY (2010), http://www.whitehouse.gov/sites/default/files/rss_viewer/national_security_strategy.pdf (providing the declassified version of the NSS report which the President must provide to Congress annually pursuant to 50 U.S.C. §404(a)); NATIONAL INTELLIGENCE STRATEGY, THE OFFICE OF THE DIR. OF NAT'L INTELLIGENCE (2009), <http://www.fas.org/irp/offdocs/nis2009.pdf>.

³ See National Security Act of 1947, 50 U.S.C. §401 (2006) (declaring Congressional intent for administrative agencies to create a comprehensive program of integrated policies and procedures regarding national security and defining national intelligence and intelligence related to national security); see also Exec. Order No. 13434, 72 Fed. Reg. 28,583 (May 17, 2007) (including specifically both natural and manmade threats to national security); 50 U.S.C. § 402(i) (2006) (establishing, delineating officers for, and delegating authority to a Committee on Transnational Threats within the National Security Council).

⁴ See LENNY BERNSTEIN ET AL., AN ASSESSMENT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE: SYNTHESIS REPORT 30 (2007) (finding observed significant increases in precipitation in some regions and decreases in other regions including the Sahel over the past one hundred years, as well as increased drought since the 1970s, increased severe weather events in the past fifty years, and higher temperatures during the last half of the 20th century than in any other time frame in the past 500 years and likely the past 1,300 years); see generally FLANNERY, *supra* note 1 (explaining the scientifically proven increased rates of melting of land-based ice masses and polar ice that is increasing the rate of sea-level rise).

⁵ BERNSTEIN ET AL., *supra* note 4 (reporting the findings of the one hundred delegate nations and 899 scientists, experts, editors, and peer reviewers comprising the United Nations IPCC under the World Meteorological Association that climate system warming is definitively occurring at least in part due to human emission of greenhouse gasses). See also FLANNERY, *supra* note 1, at 2-3 (explaining the importance of skepticism in science, but also that the debate no longer is on the impact of the greenhouse gasses being emitted by man as opposed to if man is contributing); Jeffrey D. Sachs, *Climate Change and the Law: Even the Bush Administration has Started to Recognize U.S. Legal Obligations to Fight Global Warming*, SCI. AM., Oct. 14, 2007, <http://www.scientificamerican.com/article.cfm?id=climate-change-and-the-law&print=true> (hinting that some of the most ardent climate change deniers acknowledge the scientific validity through legal obligations to prevent effects).

⁶ E.g., BERNSTEIN ET AL., *supra* note 4, at 7-8 (finding the likely range of temperature increase between 2.0°F and 11.5°F with best estimates as the numbers

above; these changes are over the average temperatures between 1980-1999); FLANNERY, *supra* note 1, at 161-62 (referring to a 2005 study at Oxford University using 90,000 computers to generate possible results ranging from 3.6°F to 20°F).

⁷ See FLANNERY, *supra* note 1, at 176 (warning that a 2.0°F increase is now inevitable and will necessarily result in the extinction of at least one newly discovered and entirely unique wet tropics frog species); HANSEN ET AL., *supra* note 1 (warning that a 2.0°F temperature increase is “in the pipeline” due to imbalance between current global temperatures and the appropriate “equilibrium” temperature due to slow feedback cycles in the ice sheets and oceans).

⁸ BERNSTEIN ET AL., *supra* note 4, at 7 (providing a table of CO₂ emission scenarios, along with average expected associated temperature increase and sea level rise for the years 2090-2099 compared against averages from 1980-1999, and noting that actual change will depend on what policies are adopted to deal with CO₂ and that the IPCC anticipates an increase in GHG of at least twenty-five percent by 2030 over 2000 levels).

⁹ *Organization*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE [hereinafter IPCC], <http://www.ipcc.ch/organization/organization.htm> (explaining the make-up, workings, and politics of the IPCC) (last visited Feb. 15, 2011). See also FLANNERY, *supra* note 1, at 245 (explaining that the Assessment Report is the result of thousands of scientists' contributions, 426 climate experts, whose work was twice reviewed by 440 other experts with thirty-three editors and a final adoption by delegates from one hundred nations, and that any nation that wants to participate is allowed to do so).

¹⁰ See 10 U.S.C.S. § 118(g) (2010) (mandating that beginning in 2009 the President's National Security Strategy report and the Department of Defense Quadrennial Defense Review use IPCC data in determining U.S. military capabilities to deal with climate change, including extreme weather events and to use other “consensus climate projections” if available); BERNSTEIN ET AL., *supra* note 4 (providing the international consensus report); FLANNERY, *supra* note 1, at 245 (recognizing the IPCC as the internationally accepted authority on climate change science, but questioning the basis for that authority).

¹¹ BERNSTEIN ET AL., *supra* note 4; FLANNERY, *supra* note 1, at 245-46.

¹² *Id.*

¹³ FLANNERY, *supra* note 1, at 245-46 (citing the Saudi Arabian delegate's claimed reason for seeking changes in wording in the Panel's reports was a desire to avoid repercussions to oil sales until even stronger evidence existed precisely because oil is ninety-six percent of Saudi Arabia's total exports, and noting that these countries likely realize it is better for them to have a seat at the table to influence the final language of the IPCC report, thereby protecting their economic survival by avoiding the abandonment of fossil fuels, for as long as possible).

¹⁴ See *id.* (advocating for reliance on alternative scientific resources, like the Hadley Centre and other such non-political, science-based organizations).

¹⁵ *Id.* at 246.

¹⁶ IPCC, *supra* note 9 (describing itself as a “scientific body” working to provide “rigorous and balanced scientific information” and a “clear scientific view” on climate change and potential consequences).

ENDNOTES: NATIONAL SECURITY IN THE 21ST CENTURY: HOW THE NATIONAL SECURITY COUNCIL CAN SOLVE THE PRESIDENT'S CLIMATE CHANGE PROBLEM *continued from page 55*

¹⁷ See generally HANSEN ET AL., *supra* note 1; FLANNERY, *supra* note 1.

¹⁸ FLANNERY, *supra* note 1, at 161.

¹⁹ See *id.* (questioning the IPCC findings and explaining the likelihood that modeling data is underestimating the actual impacts of climate change, possibly from a lack of understanding about feedback loops).

²⁰ See, e.g., HANSEN ET AL., *supra* note 1, at 13, 16 (promoting the aggressive pursuance of 350 ppm CO₂ targets in order to avoid irreversible dynamic alterations to climate based on observations of paleoclimate data).

²¹ E.g., FLANNERY, *supra* note 1, at 155 (explaining that ten GCMs currently exist in the world, where researchers create global climate modeling systems based on massive data inputs to create computer programs that accurately recre-

ate previous, i.e. known, weather events and climate changes, thereby proving the accuracy of the modeling program to accurately predict future climate changes, and that the leading one is the Hadley Centre in England).

²² *Id.* at 155-56.

²³ *Id.*

²⁴ *Id.* at 28-29.

²⁵ BERNSTEIN ET AL., *supra* note 4, at 45 (providing data from IPCC Special Report on Emissions Scenarios 2000 with projections varying between 1.8°C and 4.0°C).

²⁶ E.g., FLANNERY, *supra* note 1, at 161 (explaining that CO₂ levels at the end of the last ice age increased by only one hundred ppm yet resulted in 9°F increase in average global surface temperatures).

²⁷ National Defense Authorization Act for Fiscal Year 2008, 110 Pub. L. 181, 122 Stat. 3 (2008) (codified at 10 U.S.C.S. § 118(g)(2)) (specifying that national security issues include impacts of climate change, specifically mentioning severe weather events impacting both U.S. domestic and foreign responses abroad).

²⁸ See 10 U.S.C.S. § 118(g)(2) (expressing Congressional belief that increased storm frequency and severity is occurring, straining military capabilities, and threatening military infrastructure); BERNSTEIN ET AL., *supra* note 4, at 13 (projecting a likely increased intense tropical cycles); CNA CORP., NATIONAL SECURITY AND THE THREAT OF CLIMATE CHANGE 6, 32-34 (2007), <http://www.cna.org/sites/default/files/National%20Security%20and%20the%20Threat%20of%20Climate%20Change.pdf> (finding of retired military commanders that the science supports increased tropical storm severity and frequency, which adversely impacts maintenance and stability of ships and fleets).

²⁹ E.g., FLANNERY, *supra* note 1, at 124-27 (arguing that conflict is not about geographic location in the world or conflicting religious beliefs, but stems from an instinct for survival, which is threatened when resources are scarce, thus leading to increased violence against any perceived threat).

³⁰ E.g., DAVID TITLEY, Rear Admiral, United States Navy, Presentation at the American Meteorological Society Climate Briefing Series: Climate Change & National Security (June 4, 2010), <http://www.ametsoc.org/atmospolicy/climatebriefing/titley.html> (explaining real anticipated challenges to Naval operations in the next century in adapting to climate change, and advocating for efforts to mitigate changes, including a commitment by the Secretary of the Navy to reduce the Navy's carbon footprint by twenty percent by 2020 from 2008 levels).

³¹ E.g., *id.* (noting the impact on security issues from displaced persons when land ceases to exist where it previously did); CNA CORP., *supra* note 28, at 32-34 (explaining that the United States has a major logistics hub located on an atoll in the Indian Ocean, Diego Garcia, which has maximum elevation of only four feet above sea level); BERNSTEIN ET AL., *supra* note 4, at 12 (projecting increased inundation of island communities that will threaten infrastructure and reduce access to fresh water sources on small islands).

³² CNA CORP., *supra* note 28, at 35 (relating a story from retired U.S. Army General Paul J. Kern about personnel missing a NATO training activity, with months of planning invested, because personnel and equipment had to be relocated around the country when hurricane Hugo hit the Fort Stewart, Georgia, where the mission was scheduled to depart from).

³³ See *id.* at 37 (referencing also Hurricane Ivan in 2004, which removed Naval Air Station Pensacola from service for nearly a year while repairs were made).

³⁴ TITLEY, *supra* note 30 (explaining concerns that accompany the Navy's forecast that the arctic will be ice-free for approximately four to six weeks each year by the mid to late 2030s).

³⁵ FLANNERY, *supra* note 1, at 140 (citing FREDERICK K. LUTGENS & EDWARD J. TARBUCK, *THE ATMOSPHERE: AN INTRODUCTION TO METEOROLOGY* (Pearson Prentice Hall 2004)).

³⁶ *Id.* at 140.

³⁷ See, e.g., BERNSTEIN ET AL., *supra* note 4, at 11 (projecting regionalized impacts of climate change).

³⁸ FLANNERY, *supra* note 1, at 131 (referencing the ongoing drought of the U.S. West, which in 2004 was in its fifth year of drought, and drawing parallels to Darfur, Sudan, noting that such severe hot and dry conditions had not been seen in the region in 700 years).

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ See CNA CORP., *supra* note 28, at 16-18 (explaining the security consequences of the destabilizing effects of climate change).

⁴² *Id.*

⁴³ *Id.* (pointing to the examples of the Rwandan genocide resulting from insufficient agricultural resources and ongoing situation in Darfur, which began as a conflict between farmers and ranchers over scarce food and water supplies).

⁴⁴ CHRISTINE PARTHMORE & WILL ROGERS, SUSTAINING SECURITY: HOW NATURAL RESOURCES INFLUENCE NATIONAL SECURITY 9 (2010), http://www.cnas.org/files/documents/publications/CNAS_Sustaining%20Security_Parthmore%20Rogers.pdf (referring to findings of the United Nations for the number and cause of such conflicts).

⁴⁵ E.g., CNA CORP., *supra* note 28, at 16 (mentioning both Hezbollah in Lebanon and the gang First Capital Command in Brazil as examples of how extra-governmental extremists fill the power vacuum when large populations are left without the basic benefits of government).

⁴⁶ PARTHMORE & ROGERS, *supra* note 44, at 5.

⁴⁷ LILIANA HISAS, THE FOOD GAP: THE IMPACTS OF CLIMATE CHANGE ON GLOBAL FOOD PRODUCTION: A 2020 PERSPECTIVE, at iii, 6, 12-35 (2011), <http://www.>

[eenews.net/assets/2011/01/19/document_cw_02.pdf](http://www.eenews.net/assets/2011/01/19/document_cw_02.pdf) (explaining the likelihood, based on the IPCC's own data and projections, that Earth will experience a 2.4°F increase in temperature by 2020 based on current business-as-usual patterns, likely resulting in global food shortages); *Accord* CNA CORP., *supra* note 28, at 16 (commenting that forty percent of the world population will live in a country experiencing significant water shortages by the year 2025).

⁴⁸ HANSEN ET AL., *supra* note 1, at 13 (citing SUSAN SOLOMON ET AL., IPCC CLIMATE CHANGE 2007, 996 (2007) and MICHAEL D. MASTRANDREA & STEPHEN H. SCHNEIDER, *Probabilistic Integrated Assessment of "Dangerous" Climate Change*, 304 Sci. 571-75 (2004)).

⁴⁹ E.g., FLANNERY, *supra* note 1, at 161 (urging climate change action by the United States, during the Bush Administration, despite claims of concern about "uncertainty" in the science, on the grounds that massive scientific advances over thirty years of climate research have not dramatically reduced uncertainty, since humanity cannot absolutely predict the future).

⁵⁰ E.g., JEFFREY MAZO, Research Fellow for Envtl. Sec. & Sci. Policy, Int'l Inst. for Strategic Studies, Presentation at the American Meteorological Society Climate Briefing Series: Climate Change & National Security (June 4, 2010) (explaining that many countries where climate change will likely have an adverse impact on global terrorism are already vulnerable or failing states, so future failure will not be a surprise, but will multiply the threat faced; however, new threats from states that are not currently in danger of collapse, like North Korea, Indonesia, and Columbia, could be pushed that direction by severe water and food scarcity; hence multiplying threats that currently exist).

⁵¹ E.g., CNA CORP., *supra* note 28, at 17 (quoting Retired U.S. Navy Admiral T. Joseph Lopez, Former Commander-in-Chief of U.S. Naval Forces in Europe and of Allied Forces in Southern Europe).

⁵² E.g., *id.* (quoting Retired Navy Admiral Joseph Lopez, explaining why climate change promotes terrorism risks and threatens U.S. national security into the future).

⁵³ E.g., PARTHMORE & ROGERS, *supra* note 44, at 19 (highlighting the importance of Yemen's precariously increasing risk of drought because destabilization or a failed state in the Arab peninsula region would threaten regional trade routes and global security).

⁵⁴ See FLANNERY, *supra* note 1, at 143 (noting the extreme flooding risk to Bangladesh).

⁵⁵ See CNA CORP., *supra* note 28, at 13 (explaining that even governments which appear stable may be unable to deal with climate change stresses and that ineffective government breeds extremism); see also FLANNERY, *supra* note 1, at 177, 288 (attributing the dense human population distributions in mountain valleys in tropical climates like Mexico City and Papua New Guinea, and not in the valleys below, to the occurrence of malaria in the massive forests below); PARTHMORE & ROGERS, *supra* note 44, at 17-19 (supporting the proposition that these factors are connected).

⁵⁶ CNA CORP., *supra* note 28, at 31 (quoting Retired Marine Corps General Anthony C. Zinni, the former Commander-in-Chief of U.S. Central Command, explaining the high price the United States will pay in the future—in human lives and U.S. dollars lost in the war on terror—if we do not instead choose now to spend our dollars to reduce greenhouse gas emissions).

⁵⁷ *Id.*

⁵⁸ See, e.g., FLANNERY, *supra* note 1, at 165 (highlighting challenges humanity will face with only a global surface temperature rise of 3.6°F which would result in an 8.1°F increase for Europe, Asia, and the Americas).

⁵⁹ E.g., CNA CORP., *supra* note 28, at 13 (asserting that even a modest rise in temperature of only 2° to 4°F can result in increased flooding with less snow and ice available for much needed runoff water in the dry summer months).

⁶⁰ PARTHMORE & ROGERS, *supra* note 44, at 17 (citing ORG. FOR ECON. COOPERATION & DEV., OECD ENVIRONMENTAL OUTLOOK TO 2030 (2008) and WORLD WATER ASSESSMENT PROGRAMME, WATER IN A CHANGING WORLD, UNITED NATIONS WORLD WATER DEVELOPMENT REPORT No. 3 (2009), http://www.unesco.org/water/wwap/wwdr/wwdr3/pdf/WWDR3_Water_in_a_Changing_World.pdf).

⁶¹ E.g., CNA CORP., *supra* note 28, at 15 (explaining that good health and access to fresh water are necessarily linked).

⁶² E.g., FLANNERY, *supra* note 1, at 177, 288 (raising concerns about what will happen to populations that are currently not exposed to malaria and have no immunity to the disease once a rapid exposure to the disease begins; CNA CORP., *supra* note 28, at 15 (finding an increase in disease and reduced overall health will result from temperature increases and other climate change impacts, as identified by the World Health Organization).

⁶³ E.g., FLANNERY, *supra* note 1, at 124-27 (explaining that a "drought" is a temporary and transient lack of precipitation, but what is beginning to occur in regions around the planet is actually a new, drier, Saharan-like climate where there is no expectation that rain will return).

⁶⁴ *E.g.*, BERNSTEIN ET AL., *supra* note 4, at 13 (projecting a likely increase the amount of area affected by drought, creating more widespread water stress, increased risk of food and water shortages and of water- and food-borne diseases, reduced ability to produce hydropower, and exacerbating the potential for large-scale population migrations).

⁶⁵ FLANNERY, *supra* note 1, at 124-27; CNA CORP., *supra* note 28, at 20.

⁶⁶ *E.g.*, CNA CORP., *supra* note 28, at 22 (explaining the geopolitical landscape of the future will be one of scarcity, exacerbating migrations to Europe and within Africa, which already increases tensions and adds to national security concerns).

⁶⁷ FLANNERY, *supra* note 1, at 143.

⁶⁸ *See id.* (explaining the planned construction of a “super dyke” in The Netherlands to protect the country from the rising oceans).

⁶⁹ *Id.*

⁷⁰ *E.g.*, TITLEY, *supra* note 30 (asking “what will happen” to these hungry and displaced populations living under weak governmental regimes, and positing that military leaders believe such scenarios present increasing threats to U.S. security due to increased demands on humanitarian aid missions in addition to increased incidence of terrorism and extremism resulting from desperation).

⁷¹ *Id.*

⁷² THE WHITE HOUSE, *supra* note 2, at 26 (discussing how the United States can best go about advancing its own national interests).

⁷³ *See id.* at 47 (calling for increased fuel efficiency standards and investment in renewable energy technologies with the goal of cutting U.S. emissions by seventeen percent by 2020 and more than eighty percent by 2050 as the (no doubt inadequate) solution).

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ *E.g.*, CODY M. BROWN, THE NATIONAL SECURITY COUNCIL: A LEGAL HISTORY OF THE PRESIDENT’S MOST POWERFUL ADVISERS, at ii (2008), <http://www.pnsr.org/data/images/the%20national%20security%20council.pdf> (citing Unification of the War and Navy Departments and Postwar Organization for National Security, Report to Hon. James Forrestal, Committee on Naval Affairs 47, 7 (1945)).

⁷⁷ *Id.* at 1-6.

⁷⁸ *See, e.g.*, DOUGLAS T. STUART, *Foreword* to BROWN, *supra* note 76 (relating how Americans responded to the surprise attack on Pearl Harbor by desiring a new, high-level mechanism for coordination and implementation of policies that would effectively protect the United States from threats).

⁷⁹ *See* BROWN, *supra* note 76.

⁸⁰ National Security Act of 1947, Pub. L. 80-253, 61 Stat. 495 § 2 (codified at 50 U.S.C. § 401 (2006)).

⁸¹ *Id.* (emphasis added).

⁸² *See generally id.* (providing no guidance as to what qualifies as national security issues, only requiring that strong unified efforts must be made to protect national security and a unified defense).

⁸³ *See* National Security Act, 50 U.S.C. § 402(a) (2006) (emphasis added) (creating the National Security Council and establishing the broad purpose of the council to promote policies and activities increasing national security across all parts of the federal government).

⁸⁴ *See* 50 U.S.C. § 402(b) (indicating the President was authorized to task the Council with other duties to advise and monitor the implementation of the policies created to protect the national security).

⁸⁵ *See, e.g.*, BROWN, *supra* note 76, at 2-3 (explaining the sentiment of the Committee on Naval Affairs that the NSC must fill a policy advisory role lest it usurp the authority of the executive in holding power to direct foreign affairs in the name of national security).

⁸⁶ *E.g., id.* at 39 (noting the authority Congress can assert when it believes the Executive is exceeding appropriate authority, as happened with the War Powers Resolution).

⁸⁷ *Id.*

⁸⁸ *See* 93 CONG. REC. 9895 (July 21, 1947) (statement of Sen. Lodge) (expressing fear of an immobile and inflexible security program incapable of meeting the needs of a future war due to provisions insisted upon by the House that seemingly codified what general types of warfare tactics each service could engage in; arguing that Congress should not presume any ability to foresee the future by cementing such decisions in statute).

⁸⁹ *See* BROWN, *supra* note 76, at 3-4 (citing an exchange on the Senate floor between Senators Leverett Saltonstall and Ray Baldwin expressing that the purpose of the NSC would not be as an administrative agency, but solely as an advisory committee, found at 93 CONG. REC. 8497 (July 9, 1947)).

⁹⁰ *See id.* at 10, 81 (quoting Robert Cutler, the U.S.’s first National Security Advisor, that under the flexible framework in the NSA, “each President may

avail himself of the mechanism in whatever way he finds best suited to his needs” and arguing that the NSC’s development was not the result of Congress but of powerful Executive actions necessarily resulting from the complicated task of coordinating and effectively implementing national security policies).

⁹¹ *See id.* at 11, 13, 17 (elucidating the policies and practices of each President in using and transforming the NSC since its inception, explaining the different approaches taken specifically by President’s Truman and Eisenhower, and referring to President Dwight D. Eisenhower’s Message to Congress (Apr. 3, 1958) (advocating for unifying changes so that in any future war the United States would fight “in all elements, with all services, as one single concerted effort” and advancing his belief that “peacetime preparatory and organizational activity must conform to this fact”) and Reorganization Plan No. 4 of 1949, 63 Stat. 1067 (eff. Aug. 20, 1949), which moved the NSC into the Executive Office of the President, and indicating that efforts by members of the NCS to establish themselves as implementers of policy was rejected by Truman).

⁹² *See* Exec. Order No. 10483, 18 Fed. Reg. 5379, Establishing the Operations Coordinating Board (Eisenhower, Sept. 2, 1953) (later amended by E.O. 10598; superseded by E.O. 10700; revoked by E.O. 10920 (Feb. 18, 1961)).

⁹³ *See* BROWN, *supra* note 76, at 24-26 (referencing Senator Jackson’s recommendation as Chairman of the Senate Government Operations Subcommittee on National Policy Machinery that a President use the NSC as an inner circle for policy and strategy debate rather than as a policy development bureaucracy and subsequent implementation bureaucracy following Presidential adoption of a policy).

⁹⁴ *E.g., id.* at 27-29 (citing NSAM-196, Establishment of an Executive Committee of the National Security Council (Kennedy, Oct. 22, 1962) which included all members of the NSC, specifically to ensure “effective conduct of the operations . . . in the current crisis”).

⁹⁵ *E.g., id.* at 7, 39 (explaining how Congress’s discomfort was evidenced by its assertion of authority in the War Powers Resolution, Pub. L. No. 93-148, 87 Stat. 555 (1973) (codified at 50 U.S.C. § 1541 *et seq.*), which was passed in the aftermath of President Nixon’s fall from grace and stretched to the very limits its Constitutional power in limiting the authority of the Executive, and the 1974 Amendments to the Foreign Assistance Act of 1961 (Pub. L. No. 93-559, 88 Stat. 1795 (1974)); CHRISTOPHER C. SHOEMAKER, THE NSC STAFF: COUNSELING THE COUNCIL 18 (1991) (claiming that the NSC rebounded in the mid-1970s as it became clear that “only the White House could effect the coordination demanded by the mounting completing of the international system”).

⁹⁶ BROWN, *supra* note 76, at 47-59 (explaining the changes Reagan made to the NSC during his tenure and the facts surrounding the Iran-Contra affair, leading to Congressional oversight hearings and the reworking of the NSC structures and authority).

⁹⁷ *See id.* at 55 (describing how the NSC became involved in implementing foreign policy through the sale of arms to Iran in exchange for hostages and the funneling of excess funds earned from the arms sales to Nicaraguan rebels, exceeding the scope of the authority to “advise” the President on national security policy and explaining the streamlined, smaller NSC organization with the “Senior Review Group” and the “Policy Review Group”).

⁹⁸ *Id.* at 57-58 (explaining how the “Principles Committee” (“PC”), was made up of the Secretaries of State and Defense and the National Security Advisor, Chairman of the JCS, Director of Central Intelligence, and the President’s Chief of Staff, who were all able to implement the policy within their department once the group had reached a policy decision, and identifying the other two sub-groups within the NSC as the Deputies Committee—made up of the agency deputies to the principles, which was the primary policy group and the Policy Coordinating Committee, consisting of assistant secretaries in the departments—which primarily identified and suggested policy issues for the NSC to take into consideration).

⁹⁹ *Id.* at 63, 72-74.

¹⁰⁰ *See id.* at 76.

¹⁰¹ Exec. Order No. 13228, 66 Fed. Reg. 51812, Establishing the Office of Homeland Security and the Homeland Security Council (George W. Bush, Oct. 8, 2001) (amended E.O. 12656; later amended by E.O. 13284 and E.O. 13286); BROWN, *supra* note 76, at 75-77.

¹⁰² *See* BROWN, *supra* note 76, at 77 (noting the difference in responsibilities to the PCCs between the NSC and the Presidentially created HSC).

¹⁰³ 6 U.S.C. §§ 491, 494 (2006) (creating, statutorily, the HSC and defining its functions in assisting the President).

¹⁰⁴ 50 U.S.C. §402(b).

¹⁰⁵ *See* 104 CONG. REC. S10625 (daily ed. Sept. 17, 1996) (statements of Sens. Specter, R-PA and Kerrey, D-NE) (referring to recent terrorist attack on Khobar Towers and the Aldrich Ames spy incident, among other examples to support

the need for flexible thinking and progressive national security programs to meet the ever changing challenges of the future).

¹⁰⁶ See Intelligence Renewal and Reform Act of 1996, Pub. L. No. 104-293, § 803, 110 Stat. 3461 (1996) (codified at 50 U.S.C. § 402).

¹⁰⁷ See 50 U.S.C. § 402(i) (amending the NSA in 1996 in response to newly perceived and developing threats); BROWN, *supra* note 76, at 27-29.

¹⁰⁸ See 50 U.S.C. § 402 (contained in the Intelligence Authorization Act for FY 1997) (adding a Committee on Foreign Intelligence, making changes to the annual intelligence reports, and fourteen other substantive additions or changes to the National Security statute).

¹⁰⁹ 1993 World Trade Center Bombing, FED. BUREAU OF INVESTIGATION (Feb. 26, 2008), http://www.fbi.gov/page2/feb08/tradebom_022608.html (noting the first bombing attack on the World Trade Center on February 26, 1993); *History and Mission*, OKLA. CITY NAT'L MEM'L & MUSEUM, <http://www.oklahomacitynationalmemorial.org/secondary.php?section=1> (discussing the bombing of the Oklahoma City Federal Building on April 19, 1995) (last visited Feb. 15, 2011).

¹¹⁰ 50 U.S.C. § 402(i)(5)(A) (emphasis added).

¹¹¹ § 402(i)(5)(B) (emphasis added).

¹¹² § 402(i)(3) (emphasis added).

¹¹³ § 402(i)(4) (emphasis added).

¹¹⁴ § 402(i)(2).

¹¹⁵ See generally BROWN, *supra* note 76 (providing a history of the NSC).

¹¹⁶ See 142 CONG. REC. H11054 (daily ed. Sept. 25, 1996) (statement of Rep. Goss) (adopting the Conference Report and enacting Intelligence Authorization Act for FY 1997, including the Intelligence Renewal and Reform Act of 1996).

¹¹⁷ 142 CONG. REC. H5389 (daily ed. May 22, 1996) (statement of Rep. Richardson) (acknowledging “world economies” as a component of global intelligence necessary for policy makers, in addition to the traditional weapons of mass destruction, terrorists, and narcotics).

¹¹⁸ 142 CONG. REC. H11054 (daily ed. Sept. 25, 1996) (statement of Rep. Dicks) (calling for a security strategy adapted to 21st century threats).

¹¹⁹ 104 CONG. REC. S10625 (daily ed. Sept. 17, 1996) (statement of Sen. Kerry) (stating the *purpose* in creating the two committees—the CTT and the Foreign Intelligence Committee—was to provide the President with the necessary tools to affect change, should the President choose to use them and to bring these types of threats to the forefront for policy-makers who sometimes ignore intelligence warnings, and remain focused on threats of past world paradigms, rather than follow in the “moribund” footsteps of the NSCs Low Intensity Conflict Board which had become ineffective).

¹²⁰ 142 CONG. REC. S10625 (daily ed. Sept. 17, 1996) (statement of Sen. Specter).

¹²¹ 142 CONG. REC. H5389 (daily ed. May 22, 1996) (statements of Reps. Skaggs and Weldon).

¹²² See H.R. REP. NO. 104-832, at 38, 40 (1996) (Conf. Rep.) (stating the Committee function includes not just developing strategies to respond to transnational threats in a coordinated way, but also assisting in resolving operational differences between departments and ensuring effective information sharing by developing unified policies and procedures).

¹²³ *Transnational*, MERRIAM-WEBSTER DICTIONARY ONLINE, <http://east.merriam-webster.com/dictionary/transnational> (defining “transnational” as “extending or going beyond national boundaries”) (last visited Feb. 15, 2011).

¹²⁴ See BERNSTEIN ET AL., *supra* note 4, at 11-15 (providing examples of expected negative impacts to all regions of the planet, specifying what types of negative impacts to expect, and identifying water, agriculture, infrastructure, human health, tourism, transportation, and energy as sectors that will be impacted and require adaptation to these negative climate impacts); CNA CORP., *supra* note 28 (identifying both direct climate threats and threats from increased extremism in response to destabilized governments resulting from climate change); FLANNERY, *supra* note 1, at 124-27 (noting decreased resources necessary for survival leads to increased desperation and increased destabilization).

¹²⁵ E.g., 50 U.S.C. § 401 (declaring the intent of Congress). See also BROWN, *supra* note 76, at 3-5 (noting the remarkable breadth of the NSA calling for a modernized national security system, though focused on the military institutions).

¹²⁶ See Exec. Order No. 13434, 72 Fed. Reg. 28,583 (May 17, 2007) (intending no doubt to reach “manmade disasters” like terrorist events, but also including other manmade disasters like anthropogenic climate change which leads to altered precipitation patterns, increased temperatures, the resulting food shortages and economic devastation which leads to government destabilization abroad and enhanced threats to the U.S.; also creating a Steering Committee, including both the Secretaries of Energy and Agriculture, to “facilitate the implementation” of an integrated education system to ensure national security personnel have the skills and knowledge to protect the nation, leaving what is needed to the Steering Committee to establish).

¹²⁷ See National Defense Authorization Act for Fiscal Year 2008, 110 Pub. L. 181, 122 Stat. 3 (2008) (codified at 10 U.S.C.S. § 118) (providing funding for the Department of Defense).

¹²⁸ See *id.* (codified at 10 U.S.C.S. § 118(g)(2)) (extending national defense and security issues to include impacts of climate change and requiring the Department of Defense to include planning and preparations for such impacts in reports to Congress, specifically requiring information on “preparedness for natural disasters from extreme weather events and other missions the armed forces may be asked to support inside the United States and overseas”).

¹²⁹ See 50 U.S.C. § 404(a) (requiring the President to transmit an NSS to Congress each year on the date he transmits the budget proposal for the next fiscal year and stating required topics for the President to address in the NSS including explaining U.S. interests, goals, and objectives vital to national security and efforts to deter aggression, and long- and short-term plans for meeting U.S. national security interests, and any additional information the President believes would be useful to Congress that relates to national security).

¹³⁰ See 110 Pub. L. 181 (codified at 10 U.S.C.S. § 118(g)(1)) (requiring alterations to planning in accordance with these new risks, and to work “with allies and partners to incorporate climate *mitigation strategies*, capacity building, and relevant research and development” (emphasis added)).

¹³¹ See *Massachusetts v. EPA*, 549 U.S. 497 (2007) (requiring the EPA to regulate CO₂ and greenhouse gasses as pollutants under the Clean Air Act, 42 U.S.C. § 7521(a)(1) which requires EPA set emissions standards for air pollutants which cause, contribute to, or may reasonably be expected to endanger public health or welfare).

¹³² See 42 U.S.C. § 7521(a)(1) (limiting the authority of the EPA Administrator to regulate such emissions to when those emissions endanger public health or welfare, not when it endangers national security).

¹³³ *Id.*

¹³⁴ 50 U.S.C. § 401.

¹³⁵ See THE WHITE HOUSE, *supra* note 2, at 51 (asserting that the NSS takes a broad view of what constitutes national security and seeks a full range of actions to address the myriad challenges identified, the President correctly attempts to implement this broad definition, including the release of CO₂ by all government agencies).

¹³⁶ 50 U.S.C. § 401.

¹³⁷ 110 Pub. L. 181 § 951 (codified at 10 U.S.C.S. § 118(g)(1)).

¹³⁸ See FLANNERY, *supra* note 1, at 245-46 (decrying the invalidity of the IPCC’s findings based on the political influences exerted by the member nations and warning that while you had better believe whatever the IPCC says, but also then believe that it is likely that the actual situation is “far worse than” the IPCC says it is).

¹³⁹ 50 U.S.C. § 401(a) (defining “intelligence” and “foreign intelligence” for national security reasons as all intelligence that pertains to more than one U.S. government agency under presidential guidance, and that involves “threats to the United States, its people, property, or interests” among other possible options, further supporting the conclusion that climate change does fall within the purview of national security issues, since it meets the definition of national security intelligence). See FLANNERY, *supra* note 1, at 245-46 (critiquing political influences that undermine science in IPCC findings); PETER SCHWARTZ & DOUG RANDALL, AN ABRUPT CLIMATE CHANGE SCENARIO AND ITS IMPLICATIONS FOR UNITED STATES NATIONAL SECURITY 4 (2003), http://www.edf.org/documents/3566_AbruptClimateChange.pdf (providing plausible abrupt climate change scenarios in advocating U.S. consideration of such possibilities in national security planning).

¹⁴⁰ See HANSEN ET AL., *supra* note 1, at 217-18 (recommending the reduction of CO₂ to 350 ppm immediately, or else as quickly as possible); FLANNERY, *supra* note 1, at 6 (arguing that the best available science shows global CO₂ emissions need to be reduced by seventy percent by the year 2050 to stabilize carbon levels and the climate); *Climate Change: Halving Carbon Dioxide Emissions by 2050 Could Stabilize Global Warming*, SCIENCE DAILY (May 4, 2009), <http://www.sciencedaily.com/releases/2009/05/090502092019.htm> (supporting a fifty percent reduction from 1990 levels by the year 2050).

¹⁴¹ See THE WHITE HOUSE, *supra* note 2, at 9 (acknowledging that when U.S. security has previously been threatened by significant challenges, massive coordinated responses were required to defeat those threats and that the United States currently faces similar challenges requiring aggressive, targeted programs).

¹⁴² See Hansen et al., *supra* note 1, at 17 (comparing the “Herculean” effort required to eliminate the use of coal that does not capture CO₂ over the next twenty to twenty-five years with the effort required to protect the U.S. and global security during World War II and arguing that WWII was the significantly larger challenge).

¹⁴³ See Nick Taylor, *Works Progress Administration*, N.Y. TIMES (Jan. 5, 1935), http://topics.nytimes.com/top/reference/timestopics/organizations/w/works_progress_administration/index.html (explaining that the WPA was more than just a jobs program during hard economic times, but a strategic investment to address the U.S.'s weak infrastructure of unpaved roads, dangerous bridges, insufficient water and sewage systems, inadequate airports, hospitals and schools, and degraded forests and parks around the country).

¹⁴⁴ See *id.* (recalling that the WPA employed 8.5 million people during the eight years it was in existence); *Roosevelt to Make Jobs for 3,500,000 Now on Relief; Pushes his Social Program*, N.Y. TIMES (Jan. 5, 1935), http://graphics8.nytimes.com/packages/pdf/topics/WPA/35_01_05.pdf.

¹⁴⁵ See, e.g., Ron Scherer, *Unemployment Extension 101: What You Need to Know*, CHRISTIAN SCIENCE MONITOR (July 22, 2010), <http://www.csmonitor.com/Money/2010/0722/Unemployment-extension-101-what-you-need-to-know> (noting that this is the fourth extension of unemployment benefits to aid unemployed workers as the economic downturn lingers, costing thirty-four billion dollars in this extension alone).

¹⁴⁶ See THE WHITE HOUSE, *supra* note 2, at 34 (claiming economic advantage exists for the country that leads the way to the new low carbon economy); FLANNERY, *supra* note 1, at 246-47 (highlighting the case of BP which made a profit by reducing the company's CO₂ emissions through photovoltaic cells, and also explaining a thirty-six percent increase in British national economic growth during a period where CO₂ emissions dropped by fifteen percent through creation of a Carbon Trust and requirements that power suppliers get over fifteen percent of their energy from renewable resources).

¹⁴⁷ See Henry Petroski, *On the Road*, 94 AM. SCI. 396-99 (2006) (explaining how President Eisenhower believed the national interstate highway system was necessary for U.S. security based on his own experiences traveling across the country in the Army and after witnessing the effectiveness of the German autobahn while serving as an Allied Commander in World War II).

¹⁴⁸ See CNA CORP., *supra* note 28, at 38 (highlighting the delicate nature of the national power grid which was thrust into an eight-state, and parts of Canada, regional blackout in 2003, costing four to ten billion dollars and impacting fifty million people because trees fell on power lines in Ohio).

¹⁴⁹ See *id.* (comparing the vulnerabilities faced by the military to civilian energy supplies and offering a combination of increased energy efficiency, use of renewable energy sources, and removing installations from the national grid as

one potential solution for military security, though civilians and business would still be at risk and thus risking the national security).

¹⁵⁰ *Id.* at 39 (explaining how military commanders in Afghanistan and Iraq requested new renewable energy technologies to improve operations as well as reduce danger to the fuel supply convoys).

¹⁵¹ *Id.*

¹⁵² *Id.* at 25 (quoting Retired U.S. Navy Admiral Joseph W. Prueher's explanation of why the United States must engage China and convince them to move to a low-carbon or carbon-free energy economy because the U.S.'s climate problems cannot be resolved unless China also reduces carbon emissions).

¹⁵³ See THE WHITE HOUSE, *supra* note 2, at 11 (promoting the idea that the United States must have sustainable international cooperation, similar to post-WWII, to deal with global issues like climate change).

¹⁵⁴ See, e.g., *id.* at 30 (claiming that the country that leads the path to a clean energy economy will have a "substantial economic and security advantage" and further claiming that the United States is spending heavily on research and energy development).

¹⁵⁵ *Id.* at 5.

¹⁵⁶ See Stephen Stromberg, *What Sank the Senate's Climate Bill*, WASH. POST (July 29, 2010), <http://www.washingtonpost.com/wp-dyn/content/article/2010/07/28/AR2010072804527.html?hpid=opinionsbox1> (explaining how the U.S. Congress failed to pass legislation to address carbon emissions and begin dealing with climate change during the summer of 2010, while Washington, D.C. itself was experiencing record temperatures and a severe summer storm that knocked out power for days in the greater capitol region).

¹⁵⁷ THE WHITE HOUSE, *supra* note 2, at 11 (advancing the idea that the United States is fully engaged and leading the way to solutions on climate change, and other international challenges, and indicating that the United States intends to support enforcement of international law in combating these challenges).

¹⁵⁸ See generally *id.* at 5, 11, 13, 47 (claiming the United States is a leader heavily invested in clean technology and committed to diplomacy to engage others in combating climate change; further, promising CO₂ cuts of eighty percent by 2050 and seventeen percent by 2020, *but only if* Congress implements legislation to do so).

¹⁵⁹ See 50 U.S.C. § 402(a) (including the Secretary of Energy in the council membership along with the Secretaries of State and Defense, and permitting Presidential appointment, with the advice and consent of the Senate, of Secretaries and Under Secretaries of other executive and military departments, among others).