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## Defense Primer: Command and Control of Nuclear Forces

The U.S. President has sole authority to authorize the use of U.S. nuclear weapons. This authority is inherent in his constitutional role as Commander in Chief. The President can seek counsel from his military advisors; those advisors are then required to transmit and implement the orders authorizing nuclear use. But, as General John Hyten, the Commander of U.S. Strategic Command (STRATCOM), noted during his September 2016 confirmation hearing, his job is to give advice, while the authority to order a launch lies with the president.

The President does not need the concurrence of either his military advisors or the U.S. Congress to order the launch of nuclear weapons. In addition, neither the military nor Congress can overrule these orders. As former STRATCOM Commander General Robert Kehler has noted, members of the military are bound by the Uniform Code of Military Justice “to follow orders provided they are legal and have come from competent authority.” But questions about the legality of the order—whether it is consistent with the requirements, under the laws of armed conflict (LOAC), for necessity, proportionality, and distinction—are more likely to lead to consultations and changes in the President’s order than to a refusal by the military to execute the order. The President could delegate the authority to authorize the use of nuclear weapons to others in the chain-of-command (an option considered necessary during the Cold War), but they also could not overrule the President.

### The Nuclear Command and Control System (NCCS)

According to the Nuclear Matters Handbook, published by the Office of the Deputy Assistant Secretary of Defense for Nuclear Matters, the elements of the nuclear command and control system (NCCS) “support the President, through his military commanders, in exercising presidential authority over U.S. nuclear weapons operations.” The system relies on “a collection of activities, processes, and procedures performed by appropriate military commanders and support personnel that, through the chain of command, allow for senior-level decisions on nuclear weapons employment.” Specifically, the NCCS provides the President “with the means to authorize the use of nuclear weapons in a crisis and to prevent unauthorized or accidental use.”

The NCCS collects information on threats to the United States, communicates that information through the chain of command to the President, advises the President on options for a response, communicates the President’s chosen response to the forces in the field, and controls the targeting and application of those forces. The process begins with the radars, satellites, and processing systems that provide “unambiguous, reliable, accurate, timely, survivable, and

enduring” warning about attacks on the United States, its allies, and its forces overseas.

In a scenario where the system identifies an attack or an anomalous event, the President would participate in an emergency communications conference with the Secretary of Defense, the Chairman of the Joint Chiefs of Staff, and other military advisors. They would offer the President details and an assessment of the possible incoming attack, while the STRATCOM Commander would explain the President’s options for a retaliatory attack.

The President would then evaluate and respond to the information provided in the conference, then decide whether to authorize the use of U.S. nuclear weapons. He would communicate his choices and provide this authorization through a communications device known as the nuclear “football”—a suitcase carried by a military aid who is always near the President. The suitcase is equipped with communication tools and a book with prepared war plans for certain targets. The President could choose from these prepared plans or, time permitting, ask STRATCOM to prepare an alternative.

If the President did choose to respond with a nuclear attack, he would identify himself to military officials at the Pentagon with codes unique to him. These codes are recorded on an ID card, known as the “biscuit,” that the President carries at all times. He would then transmit the launch order to the Pentagon and STRATCOM. The Secretary of Defense would possibly contribute the process by confirming that the order came from the President, but this role could also be filled by an officer in the National Military Command Center at the Pentagon. STRATCOM would implement the order by preparing to launch the weapons needed for the selected option. According to Bruce Blair, an expert on U.S. command and control, once the order is “transmitted to the war room, they would execute it in a minute or so.” If an immediate response was selected, “the (land-based) Minuteman missiles will fire in two minutes. The submarines will fire in 15 minutes.” Blair also notes that there is no way to reverse the order.

### Options for Nuclear Use

As General Michael Hayden, the former director of the CIA noted, the system “is designed for speed and decisiveness. It’s not designed to debate the decision.” Long-range missiles attacking the United States from Russian territory could reach U.S. territory in around 30 minutes; sea-based systems deployed closer to U.S. shores might arrive in half that time. If the United States wanted to retaliate before U.S. weapons, or, more importantly, the U.S. command and control system, were degraded by an attack, then the entire process of identifying, assessing, communicating, deciding, and launching would have to take place in less than that

amount of time. Given that some time would be needed for mechanical or administrative steps, analysts estimate that the President would have less than 10 minutes to absorb the information, review his options, and make his decision.

The United States planned for such a scenario during the Cold War, when the Soviet Union deployed thousands of nuclear warheads that could reach the United States. U.S. doctrine argued that, to deter a Soviet attack, the United States would need to be able to retaliate even if the Soviet Union launched a massive attack with little warning. This scenario, and the short time lines, would have provided the President with the option of launching U.S. weapons before most of the attacking warheads detonated on U.S. soil.

But, even during the Cold War, an attack or anomalous event was not the only possible scenario for the start of a nuclear war, and a massive U.S. response launched in under 30 minutes was not the only option available to the President. If the nuclear war escalated out of a conflict in Europe, or if the Soviet Union launched a more measured attack, the President might have more time to assess the threat and determine his response. Moreover, because U.S. bombers could fly away from their bases earlier in a crisis or conflict and U.S. submarine-based missiles might survive an attack on U.S. territory, the President could decide to delay the U.S. response. Nevertheless, some analysts have speculated that a launch under attack was the dominant option during the Cold War, and that the command and control system was designed to permit such a prompt launch of U.S. nuclear weapons.

The United States has reviewed and revised its nuclear employment plans several times since the end of the Cold War. According to unclassified reports, these reviews have added options to the plans available to the President. While some options probably still provide responses to an attack from a nation, like Russia, with a large nuclear force, others might provide for more measured and discriminate attacks. In addition, even though the plans likely include options for a prompt response in the face of an unexpected attack, they also likely have options for delayed responses. As a result, although the prompt launch options that may have dominated U.S. planning during the Cold War may no longer dominate U.S. nuclear war plans.

Another scenario could see the United States choose to use nuclear weapons prior to a nuclear attack against the United States or its allies, on a time line that did not reflect an imminent nuclear attack against the United States. The United States has never declared a “no first use” policy, and the President could order the first use of nuclear weapons. As noted above, his military advisors may seek to adjust his orders to meet the laws of armed conflict, but there is, otherwise, no legal barrier to first use.

Recently, some Members of Congress and analysts outside government have questioned whether the Commander-in-Chief should have the sole authority to launch a nuclear attack in all circumstances. They agree that the President would not have the time to consult with Congress or seek approval from other officials if the United States were under attack with nuclear weapons. But, in an environment

where the threat of a massive nuclear attack seems more remote than during the Cold War, they argue that the President could take the time to consult with Congress before launching nuclear weapons in less extreme circumstances.

Some analysts outside the U.S. government have also questioned whether the United States should retain the option to launch nuclear weapons promptly because, they argue, the time pressures could lead to the accidental or inadvertent start of a nuclear war. They note that the United States received false warning of nuclear attack several times during the Cold War, and if the President had responded to that warning within the 30-minute time line of a nuclear attack, it would have triggered global nuclear war. If the President could not launch the weapons in such haste, he would necessarily have the time to wait for more accurate or less ambiguous information.

Others, however, argue that there is nothing inherently destabilizing or dangerous in the prompt launch options. The President already has options to delay a response and await additional information. In addition, in the current security environment, a President and his advisors would be unlikely to interpret ambiguous warning information as evidence of an all-out attack from Russia or another nation. Instead, they note that the presence of both prompt and delayed options bolsters deterrence by providing the President with the flexibility to choose the appropriate response to an attack on the United States or its allies.

### Legislation

H.R. 669, Restricting First Use of Nuclear Weapons Act of 2017

### CRS Products

CRS Report RL33640, *U.S. Strategic Nuclear Forces: Background, Developments, and Issues*, by Amy F. Woolf

### Other Resources

DOD. Nuclear Matters Handbook. April 2016.

Steve Liewer, “A Nuclear Decision: As global tension builds, voters must choose which candidate they trust with the codes,” *Omaha World Herald*, November 1, 2016.

Jeffrey Lewis, “U.S. presidents are currently given a four-minute window to decide whether or not to initiate an irreversible apocalypse,” *Foreign Policy*, August 5, 2016.

Peter Huessy, “The Prompt Launch Scare,” *Real Clear Defense*, November 9, 2016.

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