ILLUSTRATIVE PRESIDENTIAL DIRECTIVE FOR IMPROVING NUCLEAR SAFETY

One of the difficulties in designing a set of strategies and policies for improving nuclear safety is the broad, cross-cutting nature of the problem. Nuclear safety touches on pivotal and controversial issues—for example, nuclear strategy, the readiness and posture of U.S. and Russian nuclear forces, the changing nature of U.S.-Russian relations—so any effort to design useful strategies and policies is likely to be both technically challenging and politically sensitive. These difficulties are likely to be compounded by the need to integrate any steps to improve nuclear safety with other U.S. and Russian goals and policies. If past is prologue, it is safe to say that no nuclear safety measures will be implemented without first facing a variety of bureaucratic obstacles, in both governments.

Within the U.S. government, the President would have to articulate the imperative to improve nuclear safety. One mechanism he could use to do this is a Presidential Directive. In it he would task the departments and agencies to define potential options for improving nuclear safety, to evaluate them against a set of specific criteria, and to make specific recommendations. The President would then make a decision based on the recommendations. This Appendix presents an illustrative example of a Presidential Directive on nuclear safety.

Of course, the President could instead decide to take another route, one in which he and a few close advisors formulate the policy and analyze the options. This is the approach that President Bush’s father used to develop unilateral cuts in 1991, when he was President. Both approaches have their advantages and disadvantages. But both require Presidential leadership and strong commitment for success.
ILLUSTRATIVE PRESIDENTIAL DIRECTIVE ON NUCLEAR SAFETY

Background

The reactions of both the United States and Russia to the attacks of September 11, 2002, have solidified the evolutionary changes that have been occurring since the end of the Cold War. For the first time since the Second World War, the United States and Russia find themselves cooperating, in this case in the war on terrorism. Despite these seismic shifts, however, substantial elements of the strategic nuclear forces of both nations remain on alert. This posture endangers both nations because of the possibility it provides for an unauthorized launch by a terrorist or an accidental launch based on mistaken information. These grave dangers are exacerbated by Russia's economic difficulties and by the large number of U.S. counterforce strategic nuclear weapons that are ready to strike within minutes.

In light of these concerns, the President has decided to make two objectives—reducing nuclear danger and improving nuclear safety—a priority of his administration. The United States urgently needs to work with Russia to improve the nuclear safety of both nations.

Goals

Relevant Federal agencies are directed to explore technical, operational, policy, and diplomatic measures to meet the following three goals. Moreover, since the promotion of nuclear safety will involve many dimensions, all three should be pursued as part of a comprehensive strategy.

1. Ensure that both the United States and Russia have reliable, high-quality early-warning and attack-detection capabilities.

2. Extend the time that civilian and military officials have to make decisions involving the possible use of nuclear weapons both in peacetime and during crises.
3. Reduce the risk of accidental and unauthorized use of nuclear weapons that could arise because of
   - An unauthorized but intentional launch by a terrorist or rogue commander.
   - A training accident.
   - The potential misinterpretation of a benign event (space launch, sun glint, etc.).
   - The misinterpretation of a nuclear event—i.e.,
     - A nuclear attack by a third country or terrorists.
     - An accidental nuclear detonation.

These goals should be pursued as part of an overall U.S. policy of improving U.S.-Russian relations and redefining U.S. deterrence needs in light of a rapidly evolving geostrategic environment. The process of improving nuclear safety should involve immediate and near-term steps to build confidence and trust between the two countries, thereby enabling more-extensive steps in the medium and long term.

**Nuclear Safety Options**

The President directs the Secretary of Defense to take the lead in defining and analyzing a series of options for improving nuclear safety. Because of the complex operational issues involved, close consultation with the military will be essential. Options should be defined for each of the goals above, building on past initiatives and our experience in dealing with Russia. In consultation with the Secretary of State and the Director of the Central Intelligence, each of the options should also be analyzed in terms of whether they would best be undertaken unilaterally by the United States, mutually with Russia through informal agreements, or through formal negotiations and treaties. These options should include, but not be limited to, the following:

Goal 1: Ensure that both the United States and Russia have reliable, high-quality early-warning and attack-detection capabilities, paying particular attention to filling gaps in Russia’s early-warning network.

- Improve arrangements to share early-warning information either bilaterally or multilaterally.
• Provide funding and/or technology for construction of Russian early-warning radars or construction or launch of satellites.

• Establish a joint, redundant system for warning of ICBM attack by placing sensors near each other’s ICBM silos.

Goal 2: Extend the time that civilian and military officials have to make decisions involving the possible use of nuclear weapons both in peacetime and during crises.

• Immediately stand down all nuclear forces to be eliminated under proposals offered at Crawford, Texas.

• Pull all ballistic missile submarines out of range of Russian targets.

• Reduce day-to-day launch readiness by one or more of the following (or other) methods:
  — For ICBMs, by disabling silo doors and removing guidance systems or warheads.
  — For ballistic missile submarines, by removing launch-critical components or keeping fewer at sea.

• Increase the survivability of some nuclear forces and command and control systems.

Goal 3: Reduce the risk of accidental and unauthorized use.

• Share command and control technology and personnel reliability procedures.

• Install post-launch destruct mechanisms on strategic missiles.

• Deploy limited missile defenses of the United States.

**Evaluation of Options**

Each option should be evaluated using the following criteria:

• Contribution to reducing the risk of nuclear use.

• Effect on current U.S. strategies and targeting plans.

• Effect on U.S.-Russian political relations.
• Effect on other major international actors (China, Europe, etc.).
• Effect on prospects for achieving nonproliferation and counter-terrorism goals.
• Feasibility and affordability.
• Effect on incentive to strike first with nuclear weapons.
• Ability to monitor or verify implementation of the option and the effect of cheating.

In coming to an overall assessment of each option, a negative evaluation based solely on one of the criteria should not automatically mean rejection of that option.

**Recommendations and Timeline**

Improving nuclear safety will be a long-term process with immediate, near-term, and medium-term measures implemented in a phased manner. An interagency working group will be convened to review the Department of Defense’s initial set of options with the goal of designing a timetable for possible implementation. Options will be grouped both by how rapidly they can be implemented and by whether they can be accomplished unilaterally, through rapid mutual agreement, or only through extensive technical negotiations.

For options requiring the active support of the Russian government, the President, the Department of State, and the Department of Defense will need to engage their Russian counterparts, the goal being to mutually design a series of steps to improve nuclear safety and to then take the necessary implementing measures. Military-to-military consultations will also be important for addressing the complex operational issues likely to arise.

The end state sought by the United States is a significant improvement in nuclear safety along with a strengthened U.S.-Russian relationship.