



Responsive Infrastructure

What is a responsive infrastructure?

The elements of a responsive infrastructure include the people, science and technology base, business practices, technical processes and facilities and equipment needed to support a right-sized nuclear weapons enterprise. The term “responsive” refers to the resilience of the nuclear weapons infrastructure to unanticipated events, or emerging threats. Unanticipated events could include a problem with a deployed warhead type. Emerging threats could call for new or modified warhead development or for providing additional warheads for force augmentation. A responsive infrastructure can always stay one step ahead of potential adversaries.

Why is a responsive infrastructure important?

In 2001, the U.S. determined that a responsive infrastructure would be necessary for deterrence to be credible in the 21st century. Without a responsive infrastructure, the U.S. may be unable to deter the adversaries of the future from threatening the U.S. or its allies.

Why is the current infrastructure “not” responsive?

To remain ahead of potential adversaries, the current nuclear weapons complex must become more responsive to address potential technical issues in the stockpile or to react to adverse political change. Key nuclear weapons design and production capabilities have not been sufficiently exercised to be timely and efficient. Also, the nuclear weapons complex is currently unable to produce certain critical components for warheads (e.g., plutonium parts in sufficient quantities).

What would be the benefits of a responsive infrastructure?

In addition to providing credible deterrence in the 21st century, a responsive infrastructure may enable a reduction in stockpile size, by allowing “back up” needs for the stockpile to be provided by infrastructure capability rather than additional non-deployed warheads. Indeed, a responsive infrastructure is necessary to meet the nation’s commitment to maintain the lowest number of nuclear weapons consistent with national security. A reduced stockpile and consolidated, efficient design and production capability will also be a more cost-effective means to maintain the U.S. nuclear deterrent.

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