It is five minutes to midnight 2011
Nuclear Weapons

The nuclear age dawned in the 1940s when scientists learned how to release the energy stored in the atomic nucleus. They thought of two potential uses—an uncontrolled weapon and a new energy source. The United States built the first atomic bombs during World War II, which they used on Hiroshima and Nagasaki, Japan, in August 1945. Within two decades, Britain, the Soviet Union, China, and France had also established nuclear weapon programs. Since then, Israel, India, Pakistan, and North Korea have built nuclear weapons as well.

For most of the Cold War, overt hostility between the United States and Soviet Union, coupled with their extensive nuclear arsenals, defined the global “balance of terror.” These superpowers had about 30,000 warheads in the mid-1980s and the Soviet arsenal at 45,000 warheads in the 1980s, dwarfing all other nuclear weapon states.

Unfortunately, however, in a globalized world with porous national borders, rapid communications, and expanded commerce in dual-use technologies, nuclear know-how and materials travel more widely and easily than before—raising the possibility that terrorists could obtain such materials and construct a nuclear device of their own. The materials necessary to construct a bomb pervade the world.

As a result, according to the International Panel on Fissile Materials, substantial quantities of highly enriched uranium, one of the materials necessary for a bomb, remain in more than 40 non-weapon states. Savet for Antarctica, every continent contains at least one country with civilian highly enriched uranium. Even with the improvement of nuclear reactor design and international controls provided by the International Atomic Energy Agency (IAEA), proliferation remains a concern, because heartless governments and terrorists believe that the mountain could not safely contain high-level nuclear waste for 10,000 years or more, but rather that the mountain could not contain high-level nuclear waste for 10,000 years or more, but rather that the mountain could be made stone-cold dead—not because scientists determined that the mountain could not contain high-level nuclear waste for 10,000 years or more, but rather because politics trumped science.

Repository for radioactive waste appears to be the Yucca Mountain site in Nevada. Dawn Stover suggests that the Yucca Mountain site, chosen in 1987, is a distinct possibility.

1. The “scientization” of Yucca Mountain

With greater understanding of genetic material and of how physiological systems interact, biologists can engineer a more effective rodent control method.

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US tactical nuclear weapons in Europe, 2011

January/February 2011

Hans M. Kristensen and Robert S. Norris write on the Comprehensive Test Ban Treaty.

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“Most of us in the community of counterterrorism experts consider the Bulletin as the preeminent publication on these issues. For example, law enforcement officers who work every day to counter nuclear trafficking in Eastern and Central Europe and the Black Sea need access to current, authoritative analysis of the conditions they face. Keep it up.”

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“With over 100 deployed nuclear warheads now at its disposal, Pakistan has in the past few years more than doubled its nuclear arsenal, which now exceeds that of neighboring India, says a report carried by the latest issue of the Bulletin of Atomic Scientists. Pakistan is the only country blocking US efforts to prepare an international agreement banning the production of fissionable materials.”

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The Daily News Egypt (online journal, printing an Australian editorial), February 29, 2012

And just two samples from early 2012

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• showcases the Doomsday Clock and draws bulletin to current challenges to humanity

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It is 5 minutes to midnight.

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