In this issue’s cover story, “Rethinking the Unthinkable,” Houston T. Hawkins, a retired Air Force colonel and a Laboratory senior fellow, points out that since Vladimir Putin returned to power in Russia, relations with the United States and its NATO allies have cooled down like a thermometer in December. The biting off of Crimea from the Ukraine, the callous shooting down of a Malaysian passenger jet, and the frank words and deeds demonstrating Putin’s intention to consume more of the Ukraine and “other lands where people speak Russian” have raised concerns that, after two decades of hibernation, the Bear is awake—aggressive and very hungry. The relations have taken on a tone reminiscent of the Cold War.

Whereas these bellicose actions and others—such as Russia’s tests of a new nuclear-capable intermediate-range cruise missile in violation of nuclear arms control treaties—are widely known, others are less so. Col. Hawkins presents a long list of what Russia is doing to modernize and build up its nuclear capabilities. In comparison, what is the United States doing to stay on par with or ahead of its rivals in nuclear science, technology, and deterrence?

Many of us doing national security science encounter rational thinkers who hold beliefs and opinions about nuclear weapons that are contrary to fact. Examples include “maintaining the U.S. nuclear deterrent is just too expensive,” or “the United States can maintain an effective nuclear deterrent by relying solely on its nuclear submarines” or “the world is made safer every time the U.S. nuclear stockpile is reduced.”

The article “Debunking Six Big Myths about Nuclear Weapons” provides readers with facts to use in responding logically to these and other misconceptions commonly held by a thoughtful but often not-well-informed public.

If it is to meet its mission—to solve national security challenges using the world’s best science—the Laboratory requires the support of a well-informed public. I hope this issue helps shed some much needed light on what some of the national security challenges are and on what Los Alamos and the other U.S. national security laboratories need if we are to help meet those challenges. The safety and security of the nation, and its allies, are at stake.

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