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Commentary: Nuclear Detection Architecture Also Deters

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To deal with the danger of a terrorist nuclear attack, one of the greatest threats to US and global security, the United States has adopted a variety of measures. Intelligence operations, military actions and financial restrictions all can undermine the ability of terrorist groups to mount such attacks, as can cooperative efforts with other countries to help secure nuclear materials and weapons from theft.

Interdiction of illegal nuclear shipments further impede efforts by terrorist groups to acquire such weapons.

An essential, but little recognized, bulwark against nuclear terrorism is the Global Nuclear Detection Architecture (GNDA) maintained by the United States and other countries. The purpose of the nuclear detection architecture, according to the Department of Homeland Security, is to “protect against terrorist attacks” through the “coordinated detection, analysis, and reporting on the unauthorized importation, possession, storage, transportation, development, or use” of nuclear materials or weapons.

But what is underappreciated is how the very presence of the architecture can also deter, not simply prevent, an attack.

Detection capabilities are located at foreign seaports, airports and land border crossings; on the sea; at US sea, air, and land ports of entry; and within the US interior.

The detection capabilities of the GNDA are both technical and nontechnical, including sensors that pick up radiation emitted by nuclear or radiological materials and the surveillance of terrorist activities.

When established nearly a decade ago, the GNDA was conceived as a way “to protect” the US against a nuclear attack by detecting attempts to smuggle in a nuclear weapon or material, thus stopping a weapon in transit.

Even if terrorists penetrate an outer layer of the GNDA, that movement could alert other layers of the architecture for subsequent intercept. But the presence of the detection architecture may also protect by deterring.

US strategy for counterterrorism recognizes that defensive capabilities can serve to deter attacks. As a June 2011 White House report, “National Strategy for Counterterrorism,” notes. “Presenting the United States as a ‘hardened’ target is unlikely to cause al-Qaida and its affiliates and adherents to abandon terrorism, but it can deter them from attacking particular targets or persuade them that their efforts are unlikely to succeed.”

Precisely right; deterrence can help prevent attack by confronting terrorists with costs and risks that exceed the anticipated benefits of attacking.

Some might argue that the risk of detection is inadequate to deter terrorists because they are fanatics. But fanaticism does not exclude calculation, and an opponent that calculates is potentially susceptible to deterrence.

Terrorists are willing to violate all rules of warfare, but they certainly calculate potential risks, costs and gains when planning attacks. US intelligence and military officials reportedly have determined that “fear of humiliation and failure kept al-Qaeda from attempting some attacks on a 9/11 scale after 2001, when defenses against terrorist strikes were heightened.”

Terrorist planners will be deterred when they perceive the risk of detection by the GNDA and related complications as so great that they stand back from an attack they otherwise would undertake.

Deterrence will be strengthened if terrorists not only respect the risks of detection by the GNDA, but understand detection means a failed attack, weapons seized and operatives accompanying the weapon captured or killed.

Long-term incarceration may be a deterring prospect—including for those hoping for the glories of death in a mission.

In recent years, US officials at the Domestic Nuclear Detection Office have begun to think about how the GNDA’s capabilities might be best exploited to also deter.

First, while the layers of the GNDA are robust, they may not be impenetrable (defenses rarely are) and discouraging an attack through deterrence could usefully complement GNDA capabilities to block an attack through detection.

Second, the GNDA’s deterrent effect, while it can’t be quantified in standard terms of measurement, still should be recognized and credited in programmatic and cost-effectiveness evaluations of the architecture.

Third, the deterrent effect might be strengthened through measures, such as strategic communications, field exercises and technology demonstrations, to make clear to terrorists the obstacles they will confront in undertaking an attack.

And finally, efforts to maximize the deterrence value of the GNDA should help shape future plans and programs, increasing both its capacity to psychologically prevent attack as well as physically detect it.

The detection capabilities of the GNDA can help deter as well as frustrate terrorist plans for nuclear attack. By increasing the risks that an attack will fail, and increasing the obstacles to carrying out an attack, the GNDA detection architecture can contribute to deterrence.

It should not be expected to provide an ironclad deterrent; deterrence is too complex for any such sure predictions. But, in combination with the other US counterterrorism capabilities, it can make a terrorist nuclear attack less likely. ■

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