

# Intelligence and the Prevention of Nuclear Terrorism

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**N**uclear terrorism is an exceptionally important problem for the United States and other Western countries that are both potential targets of and hosts for nuclear terrorists. It is the most damaging possible variant of nuclear proliferation and general terrorism.

Intelligence is the first line of defense against nuclear terrorism. Western security policies should place a special premium on monitoring nuclear proliferation and international terrorism, not only to limit the separate threats they pose to Western security interests but also to prevent them from merging into the much more severe threat to Western societies: nuclear terror.

Here I address the role of intelligence in preventing nuclear terrorism. I describe the problems and requirements facing national intelligence services in helping to prevent nuclear terrorism, including the difficulties of providing sufficiently timely, accurate, and reliable warnings to forestall actual threats, and I examine in some detail the problem of nuclear hoaxes that terrorists could use to intimidate people and coerce governments if intelligence cannot credibly expose their falsehood.

I do not address the sources and methods that could be used to detect, monitor, and appraise nuclear terrorist threats, nor do I assess current intelligence resources and plans. I focus instead on the intelligence policy implications of a long-term strategy to enforce a de facto ban on nuclear terrorism by averting any credible threat or actual use of nuclear violence by nonsovereign forces against national interests.

The paper first defines intelligence and nuclear terrorism and analyzes the nature of the problem from both a specifically US and a more generally Western viewpoint. As used here, intelligence refers broadly to the collection and reporting of information, the production of assessments, and the presentation of judgments by intelligence specialists who work for public and national security authorities. Intelligence encompasses the entire range of investigative and reporting activities at all levels of government—from local

police units to allied military commands—that could contribute to the discovery and disarming of nuclear terrorists. Nuclear terrorism, in contrast, refers only to credible threats or acts of extreme violence by forces outside the direct control of any state through false threats or actual use of a nuclear bomb. This definition excludes other highly menacing or damaging activities involving nuclear materials, facilities, weapons, or phobias such as poisoning the air or water supplies with radioactive substances; stealing nuclear materials, sabotaging nuclear powerplants, occupying a facility or seizing a vehicle with nuclear weapons, or inflaming public fears in the event of a nuclear accident. These events can be extremely frightening, as in the case of public reactions throughout Europe to the nuclear accident at Chernobyl in the Ukraine. However, their potential destructiveness and exploitability by terrorists do not match the threat of nuclear explosion.

### **Problem of Nuclear Terrorism**

It might seem that nuclear terrorism is not a clear and present danger because there have been no public signs that any terrorists have the ability and will to engage in it. Moreover, modern technology and society offer would-be terrorists ample means of threatening and killing large numbers of people in other ways. At the same time, nothing could have anything like the impact of a nuclear explosion, which could be more physically damaging, psychologically shocking, and politically disruptive than any event since World War II. Aside from the lives lost and awesome destruction, nuclear violence would breach the postwar moratorium against the use of nuclear weapons, the most important, even if only tacit, arms control arrangement of the nuclear era. Although the casualties from a single act of nuclear terrorism might not match those of nuclear war, they would still dwarf other forms of terrorism by many orders of magnitude and could easily exceed those of most conventional wars.

Nuclear terrorism cannot be dismissed as technically impossible, and it is likely to become even more feasible with the continuing spread of the nuclear materials and know-how required to make fission weapons. Nor, clearly, can the interests of individual terrorists or state supporters of terrorism in acquiring a nuclear capability be discounted as contrary to any principles or scruples they may have. Italian terrorists have already shown active interest in locating the storage facilities for NATO's nuclear weapons, although their purpose was unclear. Less ambiguously, Libya has openly sought a nuclear weapons capability, at the same time that it has sponsored and supported a variety of terrorist operations. A number of other states that have been unstable or that have supported foreign terrorist operations are pursuing similar goals.

At present, nuclear terrorism from abroad does not appear imminent, at least not on the basis of information in the public domain. But it is likely to become more feasible and credible with the continuing diffusion of the materials and know-how needed to make nuclear weapons.

Nuclear terrorism is a potential problem for almost all societies, especially for the United States, for several reasons. Terrorists tend to regard the United States, particularly its armed forces, as an enemy. Because it is the leading democratic power, the most active proponent of cooperative efforts to combat terrorism, and the best-equipped nation to avert the use of nuclear weapons, the United States is logically a main target of terrorist intimidation and violence. It may also face threats from nuclear terrorists who want simultaneously to intimidate others into submission and to deter the United States from intervening by threatening it or its interests abroad with nuclear violence. Nuclear terrorist organizations, like small states seeking to develop nuclear weapons, may envisage this offensive capability as a supplement to, rather than as a substitute for, more conventional means of armed violence and intimidation. The United States could be vulnerable to just a single nuclear weapon if it could be placed and detonated near valuable U.S. facilities, residential areas, or other targets of terrorists. So terrorists could regard the United States both as a threat to their own designs on others and as a target that may be highly susceptible to nuclear intimidation.

The United States could also serve as an unwitting source of supplies and expertise for nuclear terrorists. Indeed, many Western countries, including the United States, have inadvertently contributed to foreign nuclear research and development efforts that in turn may have helped in the production of nuclear weapons. Terrorists could similarly seek gullible or sympathetic Americans who could provide them with the special materials, designs, or devices required for a nuclear weapon.

Nuclear terrorism within the United States has been neither a clear nor a present danger. The director of the FBI, William H. Webster, testified before a U.S. Senate subcommittee that

There has historically only been one instance of a bona fide nuclear threat in this country and it was not that much of a threat, but three barrels of low enriched uranium were stolen and the FBI was able to recover those three barrels and apprehend the person. He was not, incidentally, trying to extort under threat of explosion.<sup>1</sup>

At the same time, it must be recognized that the United States has already been both the host to and victim of domestic terrorist organizations pursuing a wide variety of causes—among them, supporters of anti-imperialist revolutions in the Third World, of Puerto Rican independence, and of white supremacy. It also has an abundance of nuclear materials, facilities, and ex-

pertise Thus, although the possibility appears remote, the prospect that the United States could become a target of or host for domestic nuclear terrorists should not be dismissed

In sum, the possibility of nuclear terrorism within the United States is a growing problem for the future But international nuclear terrorism is a more likely and less remote threat to Western society, especially the United States

## **Intelligence and Nuclear Terrorism**

The problem of preventing nuclear terrorism resembles that of limiting nuclear proliferation and international terrorism in some ways but differs in several important respects First, nuclear terrorism requires a policy of absolute prevention that allows for no exceptions In contrast, nuclear proliferation and other forms of terrorism may not be, and may not need to be, suppressed completely While desirable, absolutely preventing any further proliferation of terrorism may be impossible

Second, preventing nuclear terrorism requires dealing with the possibility of false alarms Nuclear terrorists need not possess a nuclear weapon, much less use it, to achieve their objectives because of the panic and other costs even the possibility could engender if perceived to be true The role of intelligence in preventing nuclear terrorism is particularly complicated by this simultaneous need to avoid succumbing to false alarms while ensuring prompt, accurate, and specific warnings about actual threats Western leaders are elected to protect national security, economic interests, and democratic values This means that their intelligence advisers must be prepared to dispel convincingly any apparent but empty threats of nuclear terrorism that could precipitate public panic, costly mobilizations, spontaneous evacuations, extraordinary searches and surveillance measures, and other disruptive or restrictive reactions to false alarms

In the noncommunist world, where the public media are independent and skepticism is widespread, political authorities will be especially hard-pressed to prove that apparent threats are actually hoaxes A particular concern is how to establish that proof without jeopardizing the intelligence sources and means It is also possible that successive nuclear hoaxes will be more sophisticated and plausible and therefore increasingly difficult to verify

A final and alarming concern is that good intelligence capable of identifying hoaxes may inadvertently induce nuclear terrorists to detonate a nuclear explosive because the threats no longer work Even if that demonstration were intended only to authenticate future threats, not inflict casualties, it would generate widespread terror That result would hold even if the terrorists were discovered immediately and disarmed The requirements for high-quality intelligence on the plans, motivations, and organization of ter-

rorists are particularly stringent in the case of a sophisticated attempt to simulate a nuclear threat. In the event of a well-designed one, there may be no good alternative to an inside informer.

The task of intelligence against nuclear terrorists is made even more difficult by the nature of the enemy. Penetrating a nuclear terrorist operation is likely to be even more difficult than penetrating the larger terrorist organization that may support it. As the director of central intelligence wrote recently, "Terrorist groups are a very tough nut for intelligence to crack. They are small and not easily penetrated. Their operations are closely held and compartmented. They move quickly and place a high premium on secrecy and surprise."<sup>2</sup>

In the light of the difficulty and importance of preventing nuclear and other forms of terrorism, penetrations of terrorist organizations that could acquire a credible nuclear threat should be a high-priority effort. Good intelligence is essential to limiting nuclear proliferation and other forms of terrorism, still better intelligence is needed to prevent nuclear terrorism.

## **Roles of Intelligence**

The roles required of intelligence to prevent nuclear terrorism are determined by national security policies. They cover a spectrum of services that is comparable to those intelligence must also perform in limiting nuclear proliferation and nonnuclear terrorism: basic assessments of key actors, timely indications of new dangers, clear warnings of specific threats, and direct support for diplomatic, police, politico-military, or other operations intended to disable or dissuade identifiable nuclear terrorists. Intelligence is thus not only the first line of defense against nuclear terrorism, it is also an essential guide for effective action that keeps a threat from materializing or disarms it before exploding.

Intelligence must also be prepared to address urgent questions about the precise nature of the operational problems that political authorities would confront when threatened by apparent nuclear terrorists such as who they are, what they can do, why they would do it, and how they could do it.

### *Prevention*

Intelligence can contribute to the prevention of nuclear terrorism in many ways. Good intelligence can play a major peacetime role by helping statesmen to isolate and resolve the conflicts that animate political terrorism of all sorts, including potential threats or acts of nuclear violence. By focusing policy makers on the costs and risks of recurrent or persistent belligerence and identifying mutual interests in settling conflicts, intelligence can help in iden-

tifying and pursuing opportunities for peace and not just in warning against threats of war or terrorism

This peacetime role for intelligence, however, is likely to be overshadowed by several others. In the case of nuclear terrorism, a more active and important role of intelligence is to deny terrorists access to the elements needed for a credible nuclear explosive capability and to nuclear materials, explosive devices, and technical know-how. Indeed intelligence assessments based on information from all sources related to prospective threats provide general direction and sometimes even specific guidance for nuclear and security programs, export controls, and law enforcement efforts intended to minimize the spread of nuclear explosive capabilities.

Technical assessments of foreign research, development, and acquisition activities that could relate to nuclear weapons and politico-military assessments of the operational intentions and capabilities of terrorists are the most important contributors of intelligence to the prevention of nuclear terrorism. Technical assessment also furthers nonproliferation policies aimed at restricting the undue spread of nuclear weapons and the capability to produce them. The latter helps to ensure that nuclear weapons, explosive designs, and materials are secure against possible terrorist plans to steal, seize, buy, or simulate a nuclear bomb.

In the case of the United States, in implementing nuclear export controls, decision makers have been sensitive to current estimates and new information on the paths that individual states are pursuing toward the acquisition of nuclear weapons or the development of a capability to produce them. Possible early warning signs—an intent to enrich uranium as the fuel for a nuclear power reactor, research reactor, or explosive, to use centrifuges or nozzles in a processing plant to concentrate the isotopes of uranium, or to use particular types of power inverters or pumps to help generate the pressures required—have led the United States and other suppliers to tighten their nuclear export controls. Stringently focused but adaptable export controls, well guided by intelligence, can be useful in keeping nuclear weapons beyond the reach of unreliable or unstable states, especially those that might provide nuclear materials, know-how, or weapons to a terrorist organization or that might lose control of their nuclear assets to terrorists during power struggles, military coups, or civil wars.

An obvious role of intelligence is to develop basic knowledge about potential nuclear terrorists before any well-defined threats begin to emerge. For the most part, the information and evaluations are those that are most useful in planning to counter nonnuclear operations by terrorist organizations. Potential nuclear terrorists merit extra attention. In particular, it is important to close in while they are in the earliest phase of planning and organizing the operations. This task is difficult. The security measures and

compartmentation of terrorist activities approach the sophistication of the intelligence operations or nuclear weapons programs of small states

For the United States and other Western nations, the long-term problem of nuclear terrorism is likely to be aggravated by nuclear and political developments in the Third World. Some states that have supported terrorist groups (such as Libya, Iran, and Iraq) have also pursued nuclear research programs that could yield the components of a nuclear weapons capability. One or more of them could eventually succeed in obtaining nuclear weapons. These and other states in the Third World with a capacity to build small nuclear arsenals could be subject to violent and disorderly national political crises in which nuclear weapons could be used as a threat by those controlling the weapons. The threat might be aimed at both foreign backers and domestic rivals. In short, new sources of potential nuclear terrorism could emerge not only in states that support other forms of terrorism and acquire nuclear means but also in nuclear-armed states that disintegrate politically.

In sum, there are a variety of more or less plausible ways in which terrorists could acquire credible nuclear threats, including stealing weapons, fabricating them, simulating a nuclear explosive device, or receiving one from a sponsoring state. None of these paths to nuclear terrorism should be ignored.

### *Crisis Response*

If a nuclear terrorist crisis occurs, with or without prior warning, the intelligence services would be expected to advise the political authorities on whether the threat is a hoax or real. They would have to present their evaluations persuasively enough either to dispel false alarms or to motivate appropriate emergency measures, precautions, and counteraction. In the event of a genuine threat, intelligence must offer its best estimate of who and where the terrorists are, what they want, how they plan to act, whether they are susceptible to restraints of any sort, if and why they would execute their threat, and the prospective effects of alternative courses of action.

In an emergency, the quality and reliability of those critical judgments depend heavily on prior knowledge of plans and intentions, as well as on the capabilities, of the terrorists. One difficulty is that, in contrast to nuclear-armed states, nuclear terrorists are more likely to be anonymous, at an unknown location, without assets whose potential seizure or destruction is likely to deter violent behavior, and beyond the influence of others besides their sponsor. By hiding, arming, and shielding their nuclear weapons in a major metropolitan area and dispersing themselves elsewhere, as in the story *The Fifth Horseman*, the fictional account of a Libyan-sponsored threat to New York, nuclear terrorists and their threat can be expected to remain invulnerable to most conventional countermeasures.

Preventing nuclear terrorism after their weapons have been deployed and armed requires prompt and reliable information on location or on procedures for remotely countermanding orders to fire them automatically. This sort of information terrorists are likely to guard most closely and is the most difficult to acquire on short notice, unless special measures had been taken in anticipation of a crisis.

### *Policy Implications*

The policy implications of these views are simple in principle but complex in practice. To prevent nuclear terrorism, good intelligence on the intentions and capabilities of potential nuclear terrorists is indispensable. It is vital to the detection of possible acts, to dealing with threats, and to identifying and dispelling false alarms. States that support terrorists and gain access to nuclear materials, know-how, or weapons and unstable states that have nuclear weapons or their components merit special attention.

To persuade other countries concerned about nuclear proliferation to limit their inadvertent contributions to the spread of nuclear weapons, the United States must be able to share its assessments of how those countries' export controls are subject to circumvention by potential nuclear weapons states or to violations by their suppliers. Good intelligence based on multiple, independent, and reliable sources of information and thorough analysis is invaluable in facilitating the adoption of more effective export controls by all prospective suppliers. Moreover, intelligence is an essential adjunct to active security measures and law enforcement activities aimed at preventing the emergence of a black market in the special nuclear materials required to make an explosive device.

The common interests of Western nations are likely to offer new opportunities for cooperation in anticipating and countering potential nuclear terrorism. One approach will be cooperative monitoring of international terrorist organizations, as well as joint assessments of particular international terrorists, state supporters of terrorism, and their nuclear capabilities. These strategies may be essential to ensuring that Western political authorities are ready to act together rapidly and effectively. Exchanges of information among Western intelligence and security services can contribute to common assessments and to prompt detection, identification, location, and even interdiction of terrorists and their state supporters before they initiate operations.

The United States and the Soviet Union share a great interest in identifying and controlling terrorists who are trying to raise tensions or catalyze nuclear conflict. They presumably also continue to share a strong interest in perpetuating the de facto moratorium since 1945 on the use of nuclear weapons. On the other hand, Soviet and U.S. interests could diverge and conflict in



situations where terrorist operations are directed primarily against the United States and its allies and friends

The extent to which the interests of the United States and the Soviet Union converge or conflict is often unclear. The case of the Soviet allegations to Western governments that South Africa was undertaking nuclear test preparations in August 1977 is an example. In this instance, both countries presumably had a common interest in limiting nuclear proliferation. At the time, however, the Soviets were interested in discrediting the United States in black African eyes by linking it with the nuclear ambitions of South Africa's apartheid leadership. As a result, rather than just privately advising the United States and other potentially influential states of its concerns, the Soviet leadership launched a public campaign denouncing the United States and others for their ties to South Africa. This propaganda raised doubts about the reliability of Soviet allegations and made it unclear whether the Soviets were more interested in arousing and exploiting fears of a South African bomb or in helping the West prevent one. In turn, this publicity also limited the range of actions that Western countries could take to counter actual developments.

If the Soviets alert Western countries to apparent nuclear terrorists in a similarly sensational and self-serving way in the future, they may generate far more damaging false alarms, whether they intend to or not. The problem is that in a case of nuclear terrorism, there might be little time to resolve the usual and inevitable uncertainties, let alone any fresh doubts raised by Soviet propaganda.

Common understandings between the United States and the Soviet Union on the sharing of information in case of a threat or act of nuclear terrorism would be invaluable in countering the possibility through the deterrence of nuclear-capable states from supporting international terrorists with nuclear means in the first place.

Thus, common assessments and cooperative exchanges of information and assistance can improve the world's political and operational readiness for effective action. The unique vulnerabilities, capabilities, and responsibilities of the United States confer a premium on its knowledge and leadership in fostering international consensus and cooperation. At the same time, the United States has an obligation to protect the sources and methods of its intelligence-gathering against damaging disclosures. This obligation includes protecting the identity of cooperative foreign intelligence services whose contributions to US intelligence are potentially valuable.

Finally, nuclear terrorism warrants special recognition by the US intelligence community as the most damaging possible variant of nuclear proliferation and general terrorism. Fortunately, it is probably not too late, despite the long lead time, for investment in the monitoring of nuclear terrorist threats that might emerge in the 1990s.