

Mobilizing Intelligence against Nuclear Terrorism: A Personal Perspective

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The acquisition of intelligence is best achieved when the following sequence of logical steps controls the process

- 1 *Definition of essential information.* This step consists of identifying the most important items of required information and will be closely tied to the issue under consideration, such as a specific event, evolution, or deployment. It is also important to determine how much warning time is needed prior to an event's occurring.
- 2 *Identification of indicators.* This step involves the determination of observable facts or actions that are indicators of the essential information. Sometimes they may be indirect and worth noting but not sufficient in themselves—for example, an interesting characteristic of an envisaged evolution that may be emerging.
- 3 *Intelligence acquisition program.* This step can be thought of as a matrix in which the columns list the indicators, and the rows list the various means of acquiring information about them.
4. *Ongoing review of the basic premises.* Step 1 always involves a set of assumptions. Once the process of intelligence acquisition is underway, it is important to check and recheck whether the basic premises still hold or need to be modified on the basis of new intelligence. This process should be ongoing. Often, however, it is forgotten, albeit at heavy expense.

Here the discussion centers mainly on steps 1 and 2. Much of what would come under step 3 relates to the specific operations of intelligence services and thus cannot be discussed. However, some aspects of step 3 are in the public domain.

The Essential Information

A basic assumption made here is that the danger we believe we need to defend against (through warning, deterrence, and prevention) is possible actions by terrorists and not possible nuclear sabotage by a nuclear power (including the Soviet Union and China) as part of its own direct covert operations. This assumption is plausible in terms of our present thinking, but it should be rechecked periodically in the light of new information.

What we are after in this step centers around three main threats¹

- 1 The acquisition of a nuclear device by a terrorist organization through procurement, theft, or forcible action
- 2 The acquisition of nuclear materials by a terrorist organization in order to manufacture a nuclear device
- 3 Terrorist action against a nuclear reactor or base

The third threat can be part of 1 or 2 if the aim is to obtain a nuclear device or fissile material, but it should also be treated as a separate topic because the aim might be to cause harm by generating nuclear fallout by directing conventional explosives against nuclear materials or devices.

The Indicators

The conditions that create the possibility of acquisition of a manufactured nuclear device and that therefore serve as indicators include the availability of nuclear devices in countries in which there are terrorist groups with a sufficient level of organization. This condition is true throughout Western Europe and the Mediterranean, Japan, the Republic of Korea, and Okinawa, and for US or other naval forces, some regions in Latin America, and the Southern Hemisphere.

Nuclear devices are generally supplied with mechanisms designed to preclude a nuclear explosion if detonated by unauthorized personnel. However, the nuclear device could still serve as a source of fissile material for manufacturing a new one (threat 2). Even if one weapon did not contain enough fissile material for a more primitive bomb, it must be remembered that bombs often come in clusters.

Concerted action by different terrorist organizations is an indicator of the high degree of organization and planning capability needed to realize this threat. The assistance rendered by the Japanese Red Army to the Popular Front for the Liberation of Palestine in the attack on Ben Gurion airport in 1969 implied liaison, briefings, supply of intelligence and other resources,

and capabilities on the part of the terrorists. The notorious Carlos, a Latin American in the service of the Palestine Liberation Organization (PLO) and working out of Beirut, is another case in point. Such collaboration might help resolve various difficulties facing European terrorists preparing to move against a U.S. base, given that European terrorist groups have very limited membership—some twenty active participants per organization. To mount a serious assault, they would need reinforcements, which could come from Latin America or Japan. Reinforcements from Japan or the Middle East also raise the possibility of suicide squad personnel, who could be an important element in such an assault. Preparations by European terrorists (such as reconnaissance activities around U.S. bases) and interregional movements (bringing in key personnel from Latin America, the Middle East, or Japan) are thus possible indicators.

Terrorists planning a theft or assault would need precise information on the location and protection of the nuclear device within the base. Thus, any internal reconnoitering and attempts to infiltrate personnel on the base could be considered as very high probability indicators. Identifying a terrorist, even one posing as a waiter in the base kitchen, should be regarded as a serious warning, considering that the acquisition of a nuclear device could be the most valuable prize and thus the first possible motivation for an infiltration effort, where bombs are available.

Vulnerability is maximized during transport and movement, such as the transfer of a base or the replacement of old devices. Should a terrorist group be strengthened by reinforcements, theft when the devices are between bases is a serious possibility. Evidence of the monitoring of military movements by terrorist groups is another strong indicator and calls for a higher state of readiness.

Should the terrorists succeed in obtaining a nuclear device, they will have to hide it while preparing to use it. It is possible that just as these devices are protected against unauthorized detonation, they could be equipped with hidden emitters or responders that would help in locating them. In many cases, these devices might hurt the strategic security and capabilities of the weapons by making it easier for the enemy to strike at them in war. For tactical weapons, however, this possibility might be less important.

Regarding the manufacture of a nuclear device, fissile material is generally less protected than a bomb. Vulnerability is greater when the material is on the move—for example, in transit for reprocessing. The French ship that sank recently in a Belgian port after being loaded with uranium hexafluoride, which was to be shipped to the Soviet Union for enrichment, proved that vulnerability.

Generally, handling fissile material requires radiation protection equipment—for example, hot cells. The purchase of that type of equipment is thus an indicator. However, Kamikaze-type Japanese or Middle Eastern Shutes

might be persuaded to handle fissile material without personal protection. It should also be noted that manufacturing is a major operation that would be liable to detection. The possibility that this stage might be performed in a state sponsoring the terrorists is of greater concern here.

Lists of the specific elements needed for the transformation of a quantity of fissile material into a weapon or at least into a static device should be prepared. The purchase of any of these items, or perhaps the appearance of several of them in conjunction, could be an indicator. Of course, the purchase might have nothing to do with weapons, but it should be possible to check the reasons in each case.

Manufacturing requires specialists. The recruitment of physicists and chemists by a terrorist organization should be regarded as an important indicator.

Fissile material originates in reactors or in isotope separation plants. If fast breeders do enter the industry, the danger will be multiplied. It should be considered as highly advantageous that as yet nuclear energy, even conventional reactors, has not made any inroads in the Middle East. At present, there are no nuclear power stations from Afghanistan to Morocco. Considering the volatility of the region and the high level of terrorist activity, Middle Eastern countries should be persuaded to postpone indefinitely any plans they might have for nuclear energy. I would be willing to place a moratorium on nuclear energy in Israel as long as the other countries in the region did likewise. At the same time, the introduction of nuclear power in unstable countries should be considered as a prime indicator, creating conditions that might develop into a threat. Brazil and Argentina do have nuclear reactors. Given the level of regional terrorism in Latin America, a special effort at surveillance is justified.

As a consequence of the rising traffic in narcotics, most countries (including those of the Middle East) now have tight border controls. These should be strengthened and adapted to deal with the new danger through the erection of well-camouflaged detection devices at all entrance points to a country. Such detection devices should be capable of discovering both nuclear fuel and closed nuclear devices. There is room for a research and development program, and any equipment that might be developed should be offered to any country wanting to protect itself.

Intelligence regarding conventional attacks on nuclear facilities is largely similar to any situation where an essential facility has to be protected. In particular, it is important to be on the alert for a major means of attack falling into the hands of terrorists: a bomber, an artillery piece, or a mortar that might later be hidden near a facility.

Intelligence Acquisition

There is now a greater awareness in the United States of the dangers of terrorism. The Task Force on Combatting Terrorism, headed by Vice-Presi-

dent George Bush, has recommended the creation of a "center to routinely analyze intelligence on terrorism" It would consist of a "cadre of experts from various government departments and agencies" Another recommendation is the "enhancement of intelligence exchanges with like-minded foreign governments, with international law enforcement agencies and national police organizations"²

Establishing a group with specific responsibility for intelligence on terrorism is a good way to ensure that the subject receives appropriate attention at intelligence agencies The center should include a unit (perhaps a committee of experts) that focuses specifically on prospective nuclear terrorism

Once the United States starts to treat the study of terrorism in general and of nuclear terrorism in particular as an important strategic issue, the same will happen in Europe and Japan Exchanges with friendly intelligence services should cover all these issues, with special care and attention paid to them

It is conceivable that on the issue of nuclear terrorism, an agreement can be reached with the Soviet Union Although much international terrorism is boosted by or directed from the Soviet Union, the dangers of nuclear terrorism specifically should be clear to the Russians An agreement about mutual warnings on these matters should be in the realm of the possible, however, such sharing involves a fine line The West cannot engage in a general sharing of intelligence on terrorist groups, which are often supported by the Soviet Union Rather, cooperation is called for when there is a danger of a group's going nuclear

International organizations reveal ambivalence when it comes to terrorism The PLO, for example, enjoys observer status at the International Atomic Energy Agency (IAEA) In this case, a terrorist organization is in a position to monitor in detail directly or indirectly through friendly nations every set of precautions the IAEA might initiate or sponsor States sponsoring terrorism such as Libya or Syria are also actively participating in these types of organizations Their position might be instrumental in setting up sabotage or theft of materials in conjunction with a terrorist organization On the other hand, the IAEA could have an extremely useful role to play, provided it is depoliticized It could monitor movements of every kilogram of fissile material all over the world, notice disappearances, and notify intelligence and police bodies This role could be particularly important with respect to monitoring the large quantities involved in fuel reprocessing

Summary

Aside from the search for indicators, I have several auxiliary recommendations

- 1 Easy-to-handle, highly sensitive detectors capable of registering the presence of nuclear explosives, even when the packaging is designed to avoid detection, need to be developed
- 2 Camouflaged attachments to existing nuclear weapons, especially tactical, and to stocks of fissile materials, need to be designed to help trace their movement and location, should they fall into illegal hands
- 3 In the long run, the organization of an apolitical centralized control system capable of accounting for every kilogram of nuclear fuel throughout the noncommunist world (and hopefully everywhere in the future) needs to be established
- 4 The spread of nuclear power stations to the more volatile regions of the world needs to be postponed
- 5 The United States and the Soviet Union should negotiate an agreement to provide mutual warnings on items relating to the potential threats of nuclear terrorism

Notes

1 I focus on action rather than intent, since it is the action that needs to be forestalled. Knowledge about intent is academic and it can be assumed that every terrorist organization would like to possess nuclear weapons.

2 *Public Report of the Vice President's Task Force on Combatting Terrorism* (Washington, D.C.: U.S. Government Printing Office, February 1986)

Chapter 6

What International Measures Can Be Taken?