



DCI Testimony 3/20/96

Testimony before the Permanent Subcommittee on Investigations of the Senate Committee on Government Affairs by the DCI, John M. Deutch.

Overview

The testimony that this Subcommittee heard last week underscores the fact that the threat of a nuclear attack involving hundreds or thousands of weapons from the former Soviet Union has been much diminished. It also emphasized that another threat has arisen, the potential acquisition of nuclear materials or even nuclear weapons by states hostile to the US or by terrorists intent on staging incidents harmful to US interests. We currently have no evidence that any terrorist organization has obtained contraband nuclear materials. However, we are concerned because only a small amount of material is necessary to terrorize populated areas.

The chilling reality is that nuclear materials and technologies are more accessible now than at any other time in history--due primarily to the dissolution of the former Soviet Union and the region's worsening economic conditions. This problem is exacerbated by the increasing diffusion of modern technology through the growth of the world market, making it harder to detect illicit diversions of materials and technologies relevant to a nuclear weapons program.

Russia and the other states of the former Soviet Union are not the only potential sources of nuclear weapons or materials. The reported theft of approximately 130 barrels of enriched uranium waste from a storage facility in South Africa, which was covered in the press in August 1994, demonstrates that this problem can begin in any state where there are nuclear materials, reactors, or fuel cycle facilities.

The Intelligence Community is taking all possible measures to aggressively support US Government efforts to ensure the security of nuclear materials and technologies. Let me first review why we are concerned about the security of nuclear materials.

A few countries whose interests are inimical to the US are attempting to acquire nuclear weapons--Iraq and Iran being two of our greatest concerns. Should one of these countries, or a terrorist group, acquire one or more nuclear weapons, they could enormously complicate US political or military activity, threaten or attack deployed US forces or allies, or possibly conduct an attack against the US.

Years ago there were two impediments to would-be proliferators: the technical know-how for building a bomb and the acquisition of the fissile material. Fissile material is the highly enriched uranium or plutonium atoms that split apart in a chain reaction and create the energy of an atomic bomb.

Today the major impediment to a nation committed to acquiring a nuclear capability is the acquisition of fissile material. While it is by no means easy to make a nuclear weapon, knowledge of weapons design is sufficiently widespread that trying to maintain a shroud of secrecy around this technical knowledge no longer offers adequate protection.

The protection of fissile material in the Former Soviet Union has thus become even more critical at the same time that it has become more difficult. Many of the institutional mechanisms that once curtailed the spread of nuclear materials, technology, and knowledge no longer exist or are present only in a weakened capacity and effective new methods of control have yet to be fully implemented for a large portion of the world's nuclear related materials, technology, and information.

The Former Soviet Nuclear Complex

During the cold war the security of Soviet nuclear weapons and fissile material in the weapons program was based on a highly centralized, regimented military system operating within a strong political authority. Nuclear weapons security ultimately depended on a responsible, competent, well-disciplined military establishment at the command and operating level. There was intrusive human oversight, and procedures and technical controls on what individuals could do. But the breakup of the Soviet Union, the opening of Russian society, and its economic difficulties have subjected the security system

to stresses and risks it was not designed to withstand. All these changes have worked together to raise both Russian and US concerns about the security of Russian weapons.

- The military is now facing a crisis situation in housing, pay, food, manning levels, and social services, all of which have resulted in plummeting morale and lapses in discipline. Although nuclear weapon handlers traditionally were among the best treated and loyal in the Russian military, they are now suffering hardships similar to those of the rest of the armed forces.
- The new openness in Russia has reduced the effective distance between personnel who have access to nuclear know-how or weapons, and those who may hope to profit from the theft of a nuclear weapon.

The Russian nuclear weapons production complex, and particularly the nuclear material production facilities, now face an uncertain future. With the dramatic reduction in nuclear forces that is to occur over the next 10 years, many of the nuclear weapons production facilities will be dismantled or converted to civilian uses.

- The once highly regarded personnel employed by these facilities have fewer perks and in some cases are living below what common factory workers are making. Some are seeking employment out of the nuclear field, in the commercial sector, where salaries are higher. Some potentially could lose their jobs if work cannot be found for them.
- MINATOM--the Ministry of Atomic Energy--has told personnel at its facilities, moreover, that they can no longer rely solely on government funds to support them, and that they need to market their goods and services to remain a viable organization.

In addition to personnel issues, accountability for nuclear materials is a major concern.

- Tons of weapons-usable material have been distributed over the last 40 years to non-military organizations, institutes, and centers for various nuclear projects, none of these has what we regard as sufficient accountability.
- Hundreds of tons more weapons-usable material will be recovered from the nuclear warhead elimination program as a result of unilateral and multilateral commitments. The accountability system for this material also is uncertain.

The net result from all this is first, a large disaffected population (potentially thousands of people in Russia's nuclear complex) with knowledge and access to nuclear materials; second, an uncertain nuclear material inventory with a questionable accounting system; and, third, an ongoing demand for such material by proliferating countries and possibly terrorists. Both we and the Russians recognize the potential for loss of weapons-usable material, and its security implications.

The countries of Central Asia and the Caucasus--Kazakhstan, Armenia, Azerbaijan, Kyrgyzstan, and Uzbekistan-- form transit links between Asia and the West, and the Middle East and the West. The breakup of the Soviet Union has resulted in the breakdown of the institutions that kept many smugglers and questionable traders out of this region. The pervasive control once exerted by a combination of the Soviet KGB, the Soviet military, and the Soviet border guards no longer exist. Even before the breakup, however, some of the southern borders, especially with Afghanistan, were penetrable. According to anecdotal information from recent travelers to these areas, anything can go across the borders in these countries for a minimal price. Travelers have discussed bribing border guards with as little as a bottle of vodka to allow them passage without papers, to as much as a few hundred dollars to arrange for a carload of goods and travelers to cross without inspection or questions.

There is little hard evidence to support the plethora of unconfirmed reports and anecdotal information that this region has been a source of proliferation concern, but weapons of mass destruction-related materials--to include weapons-grade fissile material and other radioactive materials, nuclear and missile technology, and scientific expertise--are present in the region, and the potential for diversion exists.

There is no evidence that existing narcotics transit routes are being used to smuggle nuclear materials. The fact that they are well established and successful, however, leads us to believe that they easily could be used for nuclear materials diversion.

The Proliferation Problem

Acquisition of any or all of the critical components of an effective nuclear weapons program--nuclear weapons technology, engineering know how, and weapons-usable material--would seriously shorten the time any nation would need to produce a viable nuclear weapon.

For example, we judge that Iran is actively pursuing an indigenous nuclear weapons capability. A wide variety of data indicate that Tehran has assigned civilian and military organizations to support the production of fissile material for nuclear weapons. Specifically, Iran is attempting to develop the capability to produce both plutonium and highly enriched uranium. In an attempt to shorten the timeline to a weapon, Iran has launched a parallel effort to purchase fissile material, mainly from sources in the former Soviet Union.

- Iranian agents have contacted officials at nuclear facilities in Kazakhstan on several occasions, attempting to acquire nuclear-related materials. For example, in 1992, Iran unsuccessfully approached the Ulba Metallurgical Plant to obtain enriched uranium.
- In 1993, three Iranians believed to have had connections to Iran's intelligence service, were arrested in Turkey while seeking to acquire nuclear material from smugglers from the former Soviet Union.

Iran's continued nuclear cooperation with Russia and China--even when carried out under international safeguards--could indirectly enhance its technological capabilities for nuclear weapons efforts. We estimate that Iran is some years away from producing a nuclear weapon, but with extensive foreign assistance or receipt of a significant amount of nuclear materials, Iran could produce a weapon much quicker than if left to its own capabilities.

Iraq also remains a formidable nuclear proliferation problem despite its current lack of fissile materials and production facilities. Saddam built a major program to develop nuclear weapons. Operation Desert Storm significantly damaged its nuclear program as a whole and United Nations (UN) sanctions continue to disrupt Baghdad's progress. However, Iraq has not abandoned its nuclear program and is taking steps designed to thwart the inspection process.

- Baghdad's recent actions in delaying US inspectors for several hours at three legitimate inspection sites are a clear indication that Iraqi government policy is to continue to frustrate and hinder the inspection process. Such delays, if they become routine, will give Iraqi officials ample opportunity to destroy relevant documents, remove suspect material, and ultimately prevent the UN from attaining a full and complete accounting of Iraq's weapons of mass destruction program and intentions.

We have no indication that Iraq has attempted to acquire fissile material from the Former Soviet Union. We assess, however, that Iraq would seize any opportunity to buy nuclear weapons materials or a complete weapon in much the same way that it attempted to rejuvenate its missile program late last year. In that incident, Jordanian authorities intercepted a shipment of sophisticated Russian-produced missile guidance instruments bound for Iraq.

North Korea's nuclear aspirations also are of grave concern to us. We assess that North Korea has produced enough plutonium for at least one, possibly two, nuclear weapons. Under the terms of the 21 October 1994 Agreed Framework with the United States, North Korea agreed to freeze its plutonium production capability. Currently, P'yongyang has halted operation of the 5MW(e) reactor, ceased construction on two larger reactors, frozen activity at the plutonium recovery plant, and agreed to dismantle these facilities eventually. There is no evidence at this time that North Korea has sought to acquire additional fissile material from sources in the former Soviet Union to circumvent the current freeze on its own production facilities under the terms of the US-North Korean Agreed Framework.

Other countries also represent a nuclear-proliferation challenge to the Intelligence Community.

- Libya currently operates a small Soviet-supplied nuclear research center near Tripoli. Qadhafi reportedly is trying to recruit nuclear scientists to assist in developing nuclear weapons, although it is doubtful that Tripoli could produce a nuclear weapon without significant foreign technological assistance.
- Syria's nuclear research program is at a rudimentary level and appears to be aimed at peaceful uses at this time. It is subject to International Atomic Energy Agency (IAEA) safeguards. At present, we have no evidence that Syria has attempted to acquire fissile material.
- Algeria operates two nuclear reactors: one in the capital of Algiers, supplied by Argentina, and a second at Ain Oussera, supplied by the Chinese. Aspects of Algeria's nuclear development program cause concern in the West despite claims by Algeria that its two reactors are being used for civilian purposes. Algerian scientists could apply the experience gained in running both reactors to a possible future weapons program.

The Threat from Terrorists and Other Non-State Actors

The list of potential proliferators is not limited to states with nuclear weapons ambitions. There are many non-state actors, such as separatist and terrorist groups, criminal organizations, and individual thieves who could choose to further their cause by using fissile or non-fissile (but radioactive) nuclear materials. Despite the number of press articles claiming numerous instances of nuclear trafficking worldwide, we have no evidence that any fissile materials have actually been acquired by any terrorist organization. We also have no indication of state-sponsored attempts to arm terrorist organizations with the capability to use any type of nuclear materials, fissile or non-fissile, in a terrorist act. Unfortunately, this does not preclude the possibility that a terrorist or other group could acquire, potentially through illicit trading, enough radioactive material to conduct an operation, especially one designed to traumatize a population.

A non-state actor would not necessarily need fissile material for its purposes. Depending upon the group's objectives, any nuclear or radioactive material could suffice. The consequences of a nuclear explosion are well appreciated and feared. But non-fissile radioactive materials dispersed by a conventional explosive or even released accidentally could cause damage to property and the environment, and cause societal and political disruption.

Examples of non-fissionable radioactive materials seen in press reports are cesium-137, strontium-90, and cobalt-60. These cannot be used in nuclear weapons but could be used to contaminate water supplies, business centers, government facilities, or transportation networks. Although it is unlikely they would cause significant numbers of casualties, they could cause physical disruption, interruption of economic activity, post-incident clean-up, and psychological trauma to a workforce and to a populace. Non-state actors already have attempted to use radioactive materials in recent operations. For example:

- In November 1995, a Chechen insurgent leader threatened to turn Moscow into an "eternal desert" with radioactive waste, according to press reports. The Chechens directed a Russian news agency to a small amount of cesium-137--a highly radioactive material that can be used both for medical and industrial purposes--in a shielded container in a Moscow park which the Chechens claimed to have placed. Government spokesmen told the press that the material was not a threat, and would have to have been dispersed by explosives to be dangerous. According to Department of Defense assessments, there was only a very small quantity of cesium-137 in the container. If it had been dispersed with a bomb, an area of the park could have been contaminated with low levels of radiation. This could have caused disruption to the populace, but would have posed a minimal health hazard for anyone outside the immediate blast area.
- The Japanese cult Aum Shinrikyo, which attacked Japanese civilians with deadly gas exactly one year ago (March 20, 1995) also tried to mine its own uranium in Australia and to buy Russian nuclear warheads.

Traditional terrorist groups with established sponsors probably will remain hesitant to use a nuclear weapon, for fear of provoking a worldwide crackdown and alienating their supporters. In contrast, a new breed of multinational terrorists, exemplified by the Islamic extremists involved in the bombing of the World Trade Center, might be more likely to consider such a weapon if it were available. These groups are part of a loose association of politically committed, mixed nationality Islamic militants, apparently motivated by revenge, religious fervor, and a general hatred for the West.

The Threat From Organized Crime

Organized crime is a powerful and pervasive force in Russia today. We have no evidence, however, that large organized crime groups, with established structures and international connections, are involved in the trafficking of radioactive materials. The potential exists, though, and Russian authorities have announced arrests of criminals, alleged to be members of organized crime groups, associated with seizures of non-weapons grade nuclear materials.

We estimate that there are some 200 large, sophisticated criminal organizations that conduct extensive criminal operations throughout Russia and around the world. These organizations have established international smuggling networks that transport various types of commodities. Many of these groups have connections to government officials that could provide them access to nuclear weapons or weapons grade materials and enhance their ability to transport them out of the country. In fact, various reports suggest there are vast networks, consisting of organized crime bosses, government officials, military personnel, intelligence and security service officers, as well as legitimate businesses. These networks would have the resources and the know-how to transport nuclear weapons and materials outside the former Soviet Union.

What Has Occurred So Far?

We have received well over a hundred reports alleging the diversion of nuclear warheads or components during the last few years. The Intelligence Community checks out all reporting of warhead theft and will continue to do so. But to date much of the reporting has been sporadic, unsubstantiated, and unreliable.

Of the numerous reports describing the diversion of weapons-usable material, only a few actually have involved weapons-usable material. And the quantities have been significantly less than that needed for a weapon. In the past two and a half years, European police made the first seizures of weapons-usable material stolen from Russian facilities and smuggled to outside countries. In Germany, police seized about 6 grams of plutonium, a gram sample of highly enriched uranium (HEU), and approximately a half-kilogram-sample containing both plutonium and uranium. Czech police seized just under three kilograms of HEU in December 1994, the largest quantity we have encountered.

To date all other reports have been scams, some using low-enriched uranium that is used in reactors. Scams using low-enriched uranium are not surprising because of the tons of this material stored at reactor sites and fuel fabrication facilities, and because security for this material is less stringent than for weapons-usable material.

The Russians are also concerned about security. For example, they are working, with US assistance, to improve accountability and control. In addition, they have consolidated many of their warheads in fewer locations and have moved them out of areas of unrest to further reduce the potential for loss. We estimate that there were over 500 nuclear storage sites in the former Soviet Union and Eastern Europe in 1990 and that there are less than 100 today, mostly in Russia, with a few remaining in Ukraine, Belarus and possibly Kazakhstan.

What are the Prospects?

We believe the likelihood of the loss of a nuclear weapon is still slight today. But, the threat from within the Russian military and a deteriorating economy mean that this judgment could change rapidly. Moreover, besides the materials in the weapons program, we are concerned about the possible loss of weapons-usable nuclear materials in research and other facilities that are not controlled by the Ministry of Defense (MOD). We believe the Russians may not know where all their material is located. The fact that some materials from these non-weapons facilities have already made it out of the country shows that these materials are not as well protected as the materials controlled by the military. Finally, we do not know what we are not seeing: significant quantities of fissile materials can be hypothetically as few as four kilograms--quantities easily smuggled with normal commercial transactions.

Assessments of nuclear material security indicate that theft of nuclear material from a weapons program or from facilities belonging to the Ministry of Defense is less likely than thefts from non-MOD sites such as research facilities, scientific institutes, and reactor fuel facilities. However, we are concerned about the possibility of an "inside job" from a nuclear weapons facility. A knowledgeable Russian has told us that, in his opinion, accounting procedures are so inadequate that an officer with access could remove a warhead, replace it with a readily available training dummy, and authorities might not discover the switch for as long as six months. We do not have any evidence corroborating this particular point, but it is an unnerving prospect which leaves us uncertain as to how quickly we would find out about the actual loss of a warhead.

It is encouraging that the Russians recognize many of the same nuclear security issues we do, even though they may see their importance or risk differently, and may not believe all our concerns are well founded. With upcoming elections in Russia, there could be changes in leadership, but we have no reason to doubt a continued Russian commitment to support past agreements and treaties.

What Role is There for US Assistance?

The Russians have accepted US assistance in upgrading equipment, training, and procedures, in order to address deficiencies in their security programs. Joint US-Russian cooperation on improving material protection, control and accountability (MPC&A) has been ongoing since the signing of an agreement between MINATOM and the US Department of Defense in September 1992. The Intelligence Community has monitored the safety and security practices at Russian non-Ministry of Defense fissile materials facilities for some time. A comprehensive examination revealed that none of these facilities in Russia or other newly independent states had adequate safeguards or security measures by international standards for weapons-useable materials. The Intelligence Community has assisted the policy community in identifying the most critical Russian civilian sites handling weapons-useable material that could benefit from US efforts. This provided a starting point for US and Russian agreement on which facilities to concentrate initial material protection, control, and accountability improvement efforts. This cooperation has been steadily expanding and currently involves over a dozen MINATOM facilities and a comparable number of facilities outside of Russia.

Cooperation on construction of a safe storage facility for nuclear materials obtained from nuclear weapons dismantlement was identified as a priority and the US and Russia (DoD and MINATOM) embarked on a joint project to construct a storage facility at the Mayak Production Association located near Ozersk. While such programs will go a long way toward improving the situation, they do not automatically solve Russia's problem of the threat of material diversion.

The US also has played a significant role in Kazakhstan. After several months of sensitive negotiations, the United States purchased from Kazakhstan, and brought to the US Department of Energy's facility at Oak Ridge, Tennessee, for storage, 600 kilograms of highly enriched uranium. As a result, that material is unavailable to nuclear traffickers and proliferating states.

Intelligence Community Response

The mission of the US Intelligence Community in the counterproliferation arena is to support those who make and execute all four aspects of US counterproliferation policy: preventing acquisition; capping or rolling back existing programs; deterring use of WMD; and ensuring US forces' ability to operate against proliferated weapons.

To achieve these ends, the Intelligence Community focuses its efforts on providing accurate, comprehensive, timely, and actionable foreign intelligence. The Community has also searched for new ways and opportunities to add substantial value to counterproliferation policy decisions and activities. This has included:

- Support to those policy makers responsible for implementation of the Treaty on the Non-Proliferation of Nuclear Weapons wherein the US and other signatories have expressed their nonproliferation commitments;
- Support to those implementing the Comprehensive Test Ban Treaty, wherein the US and other signatories have expressed their commitments to end nuclear testing; and
- Examining the entire Russian nuclear weapons cycle to identify areas where transparency measures would be most effective.
- Maintaining a surge capability to quickly deploy specialists outside the United States to the scene of a terrorist nuclear or radiological threat to provide the US Mission and host government advice and guidance on dealing with the threat. During such an event, the specialists would coordinate fully with appropriate United States Government Agencies, keeping them informed and drawing upon their expertise if follow-up action is required.

US Intelligence has instituted a corporate strategic planning and evaluation process for support to counter proliferation. This process contributes to the Intelligence Community's National Needs Process and the National Foreign Intelligence Program (NFIP), the Joint Military Intelligence Program (JMIP), and the Tactical Intelligence and Related Activities (TIARA) program and Planning Guidance. A major benefit of this effort has been the establishment of a significant Department of Defense (DoD) representation within the DCI's Nonproliferation Center. This has helped integrate Intelligence support to DoD counterproliferation needs and actions. The Intelligence Community also has expanded its relations with the law enforcement community and is sharing information and resources in support of the law enforcement community's counterproliferation efforts.

The Presidential Decision Directive (PDD) on Nonproliferation and Export Controls, related PDDs, Congressional Language, reports from government committees engaged in counterproliferation, and policy statements of several government agencies have shaped the Intelligence Community's counterproliferation strategic planning process and have helped determine a list of priority customer information requirements. These requirements are addressed in various Intelligence Community action programs such as the Annual Strategic Intelligence Review, the WMD Integrated Collection Strategy, the Countering WMD Strategic Plan, and the NSC-directed country studies.

As the threat of proliferation has increased, US Intelligence capabilities to support counterproliferation efforts have been redirected or expanded and now include:

- Assessing the intentions and plans of proliferating nations;
- Identifying nuclear weapons programs and clandestine transfer networks set up to obtain controlled materials or launder money;
- Supporting diplomatic, law enforcement, and military efforts to counter proliferation;
- Providing direct support for multilateral initiatives and security regimes; and
- Overcoming denial and deception practices set up by proliferators to conceal their programs.

US Intelligence has taken or participated in actions to address the overall challenges facing US counterproliferation efforts, including:

- Formation of the Nonproliferation and Arms Control Technology Working Group (NPAC/TWG) to enhance the coordination of R&D efforts among intelligence, operational, policy and other elements of the US Government;

- Work on the DCI-commissioned Technical Intelligence Collection Review (TICR) to identify future shortfalls in sensors against WMD and related delivery systems activities. This review addresses the 1994 Nonproliferation Review Committee identification of technical and operational needs to increase warning times before foreign targets achieve actual operational WMD capability;
- Identifying funding to maintain Technical Intelligence Collection Programs related to WMD and delivery system tests of proliferating nations;
- Fostering the development of new technologies with the potential to improve our ability to detect WMD activities at significantly longer ranges than possible today. For example, the Central Intelligence Agency has explored the efficacy of high risk, high payoff counterproliferation-related Research and Development initiatives;
- Establishing a relationship to enhance cooperation between CIA and R&D components;
- Redirecting and reorganizing intelligence activities to increase and sharpen the focus of counterproliferation-related efforts--both analytically and operationally; and
- Redirecting resources and activities toward assisting Federal Bureau of Investigation and US Customs Service efforts to identify, target, and apprehend individuals engaged in the trafficking and smuggling of nuclear materials worldwide.

Additionally, the creation of JMIP to coordinate joint, DoD-wide initiatives, activities and programs, will provide intelligence information and support to multiple DoD customers and should significantly enhance US Intelligence support to DoD's counterproliferation program.

These initiatives have enhanced the ability of the Intelligence Community to aggressively pursue efforts to uncover hidden supply lines and stop key materials and technologies from reaching countries of proliferation concern. The US Government, in cooperation with other governments, has been able to halt the transfer of a large amount of equipment that could be used in developing nuclear weapons programs, including mass spectrometers, custom-made cable equipment, graphite materials, aluminum melting furnaces, arc-welding equipment, and a gas jet atomizer.

All of these efforts have proved fruitful thus far, but more can, and must, be done. This is not the time to relax our efforts. Now is the time to prevent countries of proliferation concern from obtaining the materials and technology they need to advance their weapons of mass destruction programs. This is the time to put forth our greatest effort to keep nuclear materials out of the hands of groups or individuals who would inflict damage on the world community. We are at a significant juncture in history. Now is the time for all elements of our Government to pull even closer together and to act in concert with our allies in the world community. Now is the time to reaffirm our commitment to doing the absolute best that we can to combat the proliferation of nuclear materials.

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