The Proliferation of Weapons of Mass Destruction in the Middle East

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In-Depth Reports

We are approaching an anniversary that I'm sure is etched in your minds, the thirtieth anniversary of the Cuban Missile Crisis, when we faced hostile, nuclear- tipped missiles less than 100 miles from our shores.

As President Kennedy prepared to respond to this threat, he sent envoys to each of our allies in Europe to explain both the situation and his intentions. In London, Prime Minister Harold Macmillan, apparently unnerved by the impending crisis, told Ambassador David Bruce and the U.S. envoy, Dean Acheson, that Europeans had grown accustomed to living short distances from Soviet nuclear-tipped missiles, and Kennedy might as well get used to them, too.

We know Kennedy didn't accept Macmillan's advice, and in the thirty years since we stood on that famous brink, all U.S. administrations have consistently sought to limit the danger of nuclear and other weapons of mass destruction.

We of course live in a different world today. When Kennedy faced down Khrushchev, only one country other than the United States and the USSR had weapons of mass destruction and the means to deliver them. Today, over twenty countries have, are suspected of having, or are developing nuclear, biological, or chemical weapons, and the means to deliver them. As you know, nearly half of them are in the Middle East and South Asia.

Intelligence Community's View of Proliferation in the Middle East and South Asia

Missiles or other weapons of mass destruction in the Middle East do not today directly threaten the North American continent; only missiles in China and the Commonwealth of Independent States can do that. Nor do we expect increased risk to the U.S. mainland -- in a conventional military sense -- from special weapons in the Middle East for at least another decade. However, these weapons could threaten every country in the Middle East, parts of Europe, and U.S. forces stationed throughout the region.

- Several countries have missiles now that could carry nuclear warheads, others are likely to have them soon. And if any of these countries acquire even a few nuclear warheads, it would soon become an international threat.
- Most of the major countries in the Middle East have chemical weapons programs, and some have stockpiled weapons that could be used on short notice against civilians or poorly defended military targets.
- Most countries have not yet equipped their ballistic missiles to carry weapons of mass destruction, but over the next decade, many countries will -- from North Africa through South Asia -- if international efforts fail to curtail them.

- China and North Korea have already sold missiles to countries in the Middle East, and could sell longer-range versions and the technology to produce them. In that event, countries with existing special weapons programs will take on new, more ominous significance.

How was this Level of Technology Achieved?

First and foremost, from the technical standpoint, the technologies used in these weapons are simply more available and more easily absorbed by Third World countries than ever before. Nuclear and ballistic missile technologies are, after all, 1940s technologies by U.S. standards. Biological Weapons (BW) and Chemical Weapons (CW) technologies are even older, and are easier and cheaper to develop.

Second, most of these technologies are dual use -- that is, they have legitimate civilian applications. This makes it difficult to restrict trade in them, because we would be limiting the ability of developing nations to modernize. For example, chemicals used to make nerve agents are also used to make plastics and process foodstuffs. A modern pharmaceutical industry could produce biological warfare agents as easily as vaccines and antibiotics, and much of the technology needed for a ballistic missile program is the same as that needed for a space launch vehicle program.

A third reason for the increase is that individuals, companies, and in some cases countries that face stiff competition in legitimate business, look for the quick profits in illicit sales.

To these technical and economic reasons, you need only add the political, territorial, and ideological ambitions present in the Middle East to understand the rapid increase in the number of weapons of mass destruction programs in the region.

Now I will cover the situation in more detail, country by country:

Iraq

Iraq remains a great challenge. Saddam has built formidable programs in all four areas of weapons of mass destruction. The UN Special Commission is working diligently to eliminate Saddam's programs, but time and again he has dug in when the Commission gets close to something he especially wants to protect.

Desert Storm did significantly damage Iraq's special weapons programs. But, they are not beyond recovery. The time required will be different for each:

- Nuclear weapons production is likely to take the longest time. Baghdad still has the technical expertise, but much of the infrastructure needed to produce fissile materials must be rebuilt. If Saddam were to attempt to move as rapidly as possible, he would need a few -- but not many -- years to do so.
- The coalition severely damaged the chemical weapons infrastructure as well, and it too will have to be rebuilt. Much of the hard-to-get production equipment was removed and hidden before bombing started, however, and would be available for reconstruction. If UN sanctions were relaxed, we estimate Iraq could produce some chemical agents almost immediately. It would take a year or more to recover the CW capability it previously enjoyed, however.
- Facilities belonging to the BW program were also damaged, but critical equipment for it, too, was hidden during the war. And because the program does not require a large infrastructure, the Iraqis could be producing BW agents in a matter of weeks.
- We believe a number, perhaps hundreds, of Scud missiles and much Scud and Condor production equipment remains. The time and cost of reviving the missile program depend on what remains when inspection and destruction activities have ended, and on how easily Baghdad's engineers can get the missing pieces from abroad.

In our opinion, Iraq will remain a primary proliferation threat at least as long as Saddam remains in power. In addition to what he has hidden, Saddam retains his trained scientists and engineers, and he clearly hopes to outlast

the focus of the world's attention on him. Fortunately, international resolve to maintain inspections and sanctions remains strong. As long as it does, Saddam will have a hard time rebuilding his weapons programs.

Iran

Iran has embarked on an across-the-board effort to develop its military and defense industries, including programs in weapons of mass destruction. This effort is intended not only to prepare for the reemergence of the Iraqi threat, but also to solidify its position as a military power in the Gulf and Southwest Asia.

Iran continues to shop Western markets for nuclear and missile technologies and is trying to lure back the technical experts it drove away in the 1980s. Increasingly, however, as Western controls have become more effective, Tehran has turned to Asia; Tehran's principal sources of special weapons since the Iran-Iraq war have been North Korea, for long-range Scuds, and China, for battlefield missiles, cruise missiles, and nuclear-related technologies.

China, for example, is supplying a miniature neutron source reactor and an electromagnetic isotope separator. This equipment has legitimate peaceful uses, but Iranian public statements that it should have nuclear weapons suggest that it will be used as a step in nuclear weapons development.

Iran probably hopes contacts in Kazakhstan will allow it to tap into the weapons technology of the former Soviet Union, a subject I will talk more about shortly. We also have reason to believe that Iran is pursuing collaborative arrangements with other would-be special weapons developers in the region.

Libya

Despite international outcries, Libya's CW program continues. We estimate that the production facility at Rabta has produced and stockpiled as much as 100 tons of chemical agents. Rabta appears to be out of production now, perhaps for the long- awaited public opening to demonstrate its supposed pharmaceutical purpose. But as far as we can tell, they have yet to reconfigure it to make it incapable of producing chemical agents. Even if Rabta is closed down as a CW plant, the Libyans have no intention of giving up CW production. There have been a number of reports that Libya is constructing another CW facility -- one they hope will escape international attention.

For several years the Libyans have made a concerted effort to build a BW facility, but they have not made much progress. We believe they need assistance from more technically advanced countries to build one and make it work.

As for delivery systems, Libya has only the 300 km version of the Scud because of setbacks in their acquisition efforts. Both Russia and China, for example, have rejected Libyan purchase requests. Tripoli is still shopping diligently, and has reportedly found a seller in North Korea.

Persistent efforts to deny Libya access to nuclear, BW, and delivery system technology have hobbled Qadhafi's programs and forced him to turn to less advanced technologies and less reliable sources available in the gray and black markets of the developing world.

Syria and Other Middle Eastern States

Syria's turn to North Korea has already received a great deal of attention. Motivated by its inability to get SS-23s from the Soviet Union, Damascus has been shopping in China and acquiring extended range missiles from Pyongyang. It also appears to be looking for help from China and Western firms to improve its CW or BW warheads. And finally, Damascus is negotiating with China for a nuclear research reactor.

Other countries in the region seem to have decided to strengthen their deterrent and defensive capabilities as hedges against threats from their neighbors. Israel, for example, continues to invest in the development of the Arrow anti-tactical ballistic missile and to test and maintain its ballistic missile force. The Saudis are expanding their CSS-2 missile support facilities, and Egypt has a missile production facility that could begin operating at any time.

Algeria

As you know, we have concerns about a nuclear reactor China has been building in Algeria. Both the Algerians and the Chinese have said the reactor will be used only for peaceful purposes, and have agreed to place it under International Atomic Energy Agency (IAEA) safeguards. These are reassuring developments, but we will keep our eyes on the program's progress.

India and Pakistan

In South Asia, the arms race between India and Pakistan is a major concern because of the recurring tensions between the two countries. These countries are seen as role models by other proliferating countries and as potential sources of weapons technologies for the Middle East. Both have had nuclear weapon and ballistic missile programs for some time, and have recently pursued chemical weapons as well.

We have no reason to believe that either India or Pakistan maintains assembled or deployed nuclear bombs. But some could be assembled quickly, and both countries have aircraft that could deliver them. Since the tension-packed days of two years ago, Karachi and New Delhi have publicly agreed to confidence-building measures such as not attacking each others' nuclear facilities, and we are hopeful that the continuing dialogue will bear fruit.

Former Soviet Union

Preventing the misuse of potentially dangerous technology and expertise is the principal challenge of the United States and its allies. That challenge was already complicated before the events surrounding the collapse of the Soviet Union. Those events have magnified this challenge because they not only have threatened the stability of Moscow's nuclear command and control system, but have also threatened to unleash technologies and materials that previously had been carefully controlled.

The multiple internal crises in the former Soviet Republics are all occurring while the remnants of the Union still own about 30,000 nuclear weapons, the most powerful of which are aimed at us. In the months since the Union shut its doors, we are still looking to see how Russia and the other republics sort out the ownership of nuclear weapons, and what procedures they establish to maintain, control, and dismantle them. Russian and other republic leaders are committed to destroying much of their nuclear stockpile, but even under the best of circumstances it will take more than ten years to do so. As long as these stockpiles exist under troubled political conditions, they present a tempting target for people ambitious to lead nuclear-armed countries, especially south of the former USSR.

In addition to the transfer of weapons themselves, we face a range of other troubling possibilities, including the sale of sensitive technology and materials. All of you well know that commerce in Central Asia and the Transcaucasus is an ancient and highly developed activity, and that much of its takes place without official supervision. Because these former Soviet republics are near countries that are deeply interested in acquiring special weapons, arms traders are no doubt acutely aware of the potential value of sensitive materials and technologies, and would be eager to act as middlemen.

We have seen a number of press reports that Soviet nuclear materials have already been offered on the black market. Thus far, we have no independent corroboration that any of these stories are true, and all leads that we have been able to check have turned out to be false. Because of the great demand for these materials, the difficulty in determining the authenticity of nuclear materials, and the widespread availability of small quantities of uranium and plutonium in research facilities, we can expect to see many scams and hoaxes. This will make our job even more difficult, and on occasion spawn spectacular headlines.

We can also expect to see former Soviet defense industries, while struggling to survive, attempt to market dual-use technologies to Middle Eastern countries. Most notable among these would be nuclear power and space launch

vehicles. For example, the space organization Glavkosmos reorganized to market joint Russia-Kazakhstan space launch services, and Russia has offered SS-25 boosters as space launchers. Some goods and services are likely to be available at bargain basement prices.

Still worrisome, though less then it has been, is the "Brain Drain." International aid and technological development programs involving or being led by the U.S., will mitigate the danger, but the memory of a rogue scientist like Gerald Bull, implementing his unconventional ideas in the Middle East, should remain a vivid warning about the movement of expertise to countries which consider themselves to be at war.

We estimate that nearly one million Soviets were involved in the nuclear weapons program in one way or another, although probably only one or two thousand have the skills to design nuclear weapons. A few thousand have the knowledge and the marketable skills to develop and produce biological weapons. Workers whose skills have no civilian counterpart are most vulnerable to being lured away to help in foreign weapons programs. These people were well treated under the Soviet system and will find it hard to get comparable positions now.

Most former Soviet scientists who want to emigrate probably would prefer to settle in the West, but the West cannot absorb all of them. Based on Soviet scientific collaboration in the 1980s, Cuba, India, Syria, Egypt, and Algeria are most likely to have the contacts and resident scientists to assist emigrating Soviets. There presumably is a point beyond which Russia and the other republics would want to stem the outflow of talent. But scientists do not need to leave their homelands to pass on specifications or advice to agents of another country.

I should add that we may also see leakage of highly sophisticated, but less controlled, "conventional" military technologies and weapons to the Middle East from the former Soviet republics. Technologies of concern include stealth, counterstealth, thermal-imaging, and electronic warfare. Weapons could include fuel-air explosives, precision guided munitions, and advanced torpedoes.

North Korea

The recent eight or nine thousand mile odyssey to Iran and Syria of the North Korean arms carrier Dai Hung Ho is another reminder that proliferation cannot be considered a local problem. Not only is North Korea's special weapons program an urgent national security concern in East Asia, it has ripple effects in the Middle East.

North Korea has invested heavily in the military, and depends on arms sales for much of its hard currency earnings. Its copies of the Soviet-designed Scud missile are present throughout the Middle East, as we all know. These include an improved version with a greater range, which is present in Iran and Syria. We now worry that Pyongyang is not far from having a much larger missile for sale, one with a range of at least 1000 km. Centered in Western Iraq, a 1000 km circle would encompass Cairo, most of Turkey, and much of Saudi Arabia. From Libya, this missile could reach Athens and Rome, and of course from home base it could reach Kyoto and Osaka Japan, and Beijing and perhaps Shanghai, China.

Given North Korea's propensity to sell its weapons, Pyongyang's nuclear program is a great concern. There are some unprecedented and hopeful negotiations underway. For instance, Pyongyang recently ratified the IAEA safeguards agreement and representatives of the two Koreas have reached an agreement in principle for a nuclear-free peninsula. According to this agreement, each side has committed itself not to test, manufacture, produce, receive, possess, store, deploy, or use nuclear weapons. Both sides also agreed not to have nuclear reprocessing or uranium enrichment facilities. The verification details, including those associated with on-site inspections, remain to be worked out. Given their history in living up to past promises, however, we remain deeply concerned as to their motivations.

China also depends heavily on arms sales to earn foreign exchange and pay for its defense modernization. Beijing is developing two solid fuel SRBMs -- the M-9 and M-11 -- that exceed the range and payload limits of the Missile

Technology Control Regime (MTCR) -- 500 kilograms and 300 kilometers. It had contracted to sell these missiles in the Middle East, but Chinese leaders have indicated that their commitment to abide by MTCR guidelines and parameters would affect the sales of both missiles. We will just have to keep watching to see how they balance these conflicting commitments.

China has now completed the process of joining the nuclear Non-Proliferation Treaty. Beijing is now obligated to require all recipients who are not signatories to the Treaty to safeguard the nuclear equipment and materials it sells. This development is important because China has long been a supplier of nuclear technologies to the Third World. While China has claimed that all such exports were for peaceful purposes, it has not always required recipients to adhere to safeguards.

Western Sources

And finally, as the Bull affair and others have illustrated, commercial enterprises in the West continue to sell sensitive technologies to countries developing weapons of mass destruction. Some of this trade goes through front companies or third countries with innocuous-sounding consignees.

Most of the equipment sold has some legitimate end use, supporting the claims of exporters and export control authorities that they did not know that a particular shipment was means for a special weapons development program. In all too many cases, however, exporters have known very well with whom they were dealing. They may even have sought the business in the first place and collaborated with the purchaser to evade export regulations.

Libya, Iran and India, for example, are continuing to obtain advanced materials such as specialty steels, high-purity graphite, and composite materials for rocket motors from West European suppliers. The sale of precision machine tools with missile and nuclear applications are of particular concern.

International Control Efforts

Not all the news is bad, however, thanks in part to U.S. activism. Since the Gulf War and revelations about Saddam's programs, many responsible countries have expanded export control laws, increased penalties for violators, and stepped up enforcement regimes. International organizations and agreements, such as the IAEA, the MTCR, and the Australia Group -- the regime to control CW and BW materials -- have taken on a new life.

The governments of several key countries have assured the State Department that they have abandoned nuclear weapons or ballistic missile programs. For example, South Africa has signed the Non-Proliferation Treaty, and Argentina and Brazil have taken some steps away from their nuclear options. South Korea and Taiwan, who had entertained the thought of developing nuclear weapons in the past, have both walked away from this option. The reunification talks with North Korea have shown that at least the South is serious in its efforts to achieve a nuclear free peninsula.

On the missile front, Brazil has announced that its space launch program has been placed under civilian control, and the Argentine government said that it is investigating the suspended Condor II program.

Although the members of the MTCR and the Australia Group have been actively adding new members to their rosters and refining specifications of equipment and materials covered, there are limits to what we can expect from multilateral control regimes. Some countries will never find it in their interest to join. And even membership is no guarantee of good behavior. Trade and other incentives that are often conditions of membership, however, can entice some countries to accede even though they have little intention of enforcing the regulations.

What is the Intelligence Community doing about it?

The intelligence community has been concerned about arms races and the proliferation of weapons of mass destruction in the Middle East for a long time. The arms race in the region was addressed as long ago as 1958 in an

estimate entitled "The Arab-Israeli Arms Problem -- Relative Capabilities and the Prospects for Control."

Since then, resources used to track arms transfers and proliferation have grown substantially. In addition, we have centralized and improved coordination among the intelligence community components that work the problem. The creation of the Nonproliferation Center, the center that Director Gates has just asked me to lead, illustrates his intention to keep this issue on our front burner.

The Nonproliferation Center has senior officers from several agencies who formulate and coordinate intelligence actions in support of our government's policy. Its work will include the coordination of the extensive and detailed information that all the intelligence community components provide to arms and export control negotiators and to technical experts throughout the government.

Other actions will involve working closely with the U.S. Department of State, which in turn has worked closely with the IAEA and the UN Special Commission in implementing UN Resolution 687. And we have and will, where appropriate, share intelligence with other countries also working to stem the proliferation threat -- including the governments of the new republics of the Commonwealth of Independent States.

As Dr. Gates' senior intelligence officer on Proliferation Issues, I will manage an organization that will do everything it can to unearth and examine all relevant cases. And when we uncover dangerous developments, we will present our findings to the decision makers in the Administration and, as appropriate, to members of Congress.

In closing, I want to reiterate that nonproliferation efforts have had a positive effect in galvanizing international support for the NPT, the MTCR, and the Australia Group. The level of attention to export controls among all civilized countries has never been greater. But we still have our work cut out for us. And as much as we may hope for good news on this front, the intelligence community will often have to deliver unpleasant news, requiring difficult decisions. ❖

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