

## Bin Laden and the bomb

By David Albright, Kathryn Buehler & Holly Higgins

**A**RE OSAMA BIN LADEN AND THE AL QAEDA NETWORK SHOPPING FOR NUCLEAR WEAPONS—OR DO THEY already have them? Is it possible that today's terrorists could acquire such weapons—and use them? Answering these questions has taken on an added urgency in the wake of the September 11 attacks. Al Qaeda has sought nuclear weapons for years. Last year, the CIA intercepted a cryptic message from an Al Qaeda member who boasted that Osama bin Laden was planning to carry

out a “Hiroshima” against America.

Nuclear weapons in the hands of terrorists is a frightening prospect. A surface detonation in a major U.S. city of a five-kiloton nuclear bomb—one-third the size of the Hiroshima blast—would destroy most buildings within a several-block radius. Many within about a mile from ground zero would receive severe radiation and burn injuries.

Considering the stakes, everyone wants 100 percent certainty that terrorist groups do not have nuclear weapons. But absolute certainty is impossible, so governments must exert extraordinary efforts to ensure that terrorists never acquire such weapons.

Following extensive analysis of open source information and interviews with knowledgeable officials, the Institute for Science and International Security found no credible evidence that either bin Laden or Al Qaeda possesses nuclear weapons or sufficient fissile material to make them. However, if Al Qaeda obtained enough plutonium or highly enriched uranium, we believe it is capable of building a crude nuclear explosive, despite several difficult steps. We cannot say absolutely whether Al Qaeda possesses fissile material, but to our knowledge no evidence of possession has surfaced.

This uncertainty reflects several factors. We know of previous attempts—all unsuccessful—by Al Qaeda agents to buy highly enriched uranium in the mid-1990s in Africa, Europe, and Russia. Bin Laden has loudly proclaimed his desire for nuclear capability, and on November 9, he told a Pakistani journalist that he already has nuclear weapons. U.S. intelligence officials reportedly believe that bin Laden is actively seeking nuclear weapons, but they doubt his claim that he possesses any.

Information on who may be helping Al Qaeda, and how, remains sketchy. It is possible that Al Qaeda agents

have contacted foreign “insiders” to secretly procure nuclear materials, equipment, or technology. Similar contact occurred in the late 1980s between the secret Iraqi weapons program and German nuclear specialists who harbored grudges against their employers or wanted money. Through these illicit arrangements, Iraq covertly obtained an astonishing variety and amount of classified gas centrifuge uranium enrichment components and information from MAN New Technologies in Munich. Considering the Taliban's close cooperation with bin Laden, nuclear transfers may have taken place under the cover of the Afghani government's civil activities.

In late October, authorities in Pakistan detained a group of former nuclear scientists for questioning about their involvement with the Taliban. One of the men, Sultan Bashiruddin Mahmood, was once a senior official in Pakistan's nuclear weapons program with broad access to classified information. Western experts worried that the scientists could have relayed nuclear knowledge, equipment, or materials to the Taliban. Mahmood, who worked for Pakistan's government for 28 years, felt betrayed by Islamabad, according to a family friend interviewed by the *Washington Post*. The friend said Mahmood told him that he considered knowledge about Pakistan's nuclear program to be secret, but not his expertise on enriching uranium or producing weapon-grade plutonium. Few suspect the Taliban or Al Qaeda have the capability to enrich uranium or produce plutonium. But Mahmood, or his colleagues, may have transferred such know-how or become a conduit for sensitive information or items.

If they had a secret, fixed base in Afghanistan, over the last several years Al Qaeda and its Taliban allies could have made significant progress on nuclear research. Such

a base would be beneficial to nuclear weaponization activities, particularly in overcoming engineering and other practical steps in building a weapon.

If Al Qaeda were to build nuclear weapons, it would likely build relatively crude, massive nuclear explosives, deliverable by ships, trucks, or private planes. Stopping such an attack would be extremely difficult.

### **What needs to be done**

The United States and its allies must continue to scour Afghanistan, searching for evidence of Taliban or Al Qaeda nuclear activity, trying to identify the effort's scope, origin, timing, and purpose. It is critical to determine what the Taliban or Al Qaeda have already accomplished; to identify and destroy any nuclear equipment, materials, or facilities; and to gather intelligence about Al Qaeda and its allies' nuclear activities outside of Afghanistan.

Another priority should be locating any scientists, officials, or technicians involved in Al Qaeda or Taliban nuclear efforts, and encouraging them (through incentives or threat of jail time) to talk. Investigators should focus especially on whether nuclear or nuclear-related items were obtained from overseas, and if so, who the suppliers were.

Efforts to find international Al Qaeda " sleeper cells " that may be working to master nuclear crafts should be accelerated. Any Al Qaeda nuclear specialists or bright scientists or technicians willing to learn about nuclear weapons remain a threat.

All nuclear weapons and fissile material must be better secured to minimize the chance that terrorists will someday get their hands on nuclear weapons. The problem of poorly protected stockpiles is most acute in Russia, which in 2000 still possessed an estimated 1,150 metric tons of weapon-grade plutonium and highly enriched uranium. Only a relatively small amount of fissile material—from a few to tens of kilograms—is needed to make a nuclear explosive. Better control, accounting, and protection is needed to ensure that a terrorist group cannot secretly obtain

any of this material.

More effective coordination between key governments is essential to guarantee that terrorists never acquire nuclear weapons. A well-organized terrorist group could try to develop its nuclear capabilities in many countries at once. Terrorist groups must be aggressively pursued, and individual governments must work to prevent cells from operating within their countries on nuclear weapons activities.

Existing international nuclear organizations are poorly prepared or ill-equipped to pursue this type of effort. For example, the International Atomic Energy Agency (IAEA) could have questioned the Afghanistan government about Al Qaeda's nuclear activities using open-source information reporting. But even though Afghanistan is a signatory to the Nuclear Non-Proliferation Treaty, the IAEA showed little inclination to investigate these reports. The IAEA was also unmotivated to inspect Afghanistan because Kabul had no declared nuclear activities, and the IAEA traditionally has minimized its activities in such nations. Finally, most governments consider the Taliban an illegitimate ruling party that is openly hostile to U.N. agencies.

Governments should establish an international group, advised or staffed by nuclear weapons experts, with the authority to investigate terrorists' nuclear activities and to coordinate with national law enforcement and intelligence agencies. An international group, even if loosely defined, could also help educate the public about the threat of nuclear terrorism, and perhaps even sound an early alarm to which national governments or the U.N. Security Council could respond collectively to thwart a nuclear attack.

Preventing terrorists from striking with nuclear weapons will not be easy, but it will be worth the effort. Armed with nuclear weapons, terrorists could fracture civilization. ✱

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