

WikiLeaks cables: How US 'second line of defence' tackles nuclear threat

Diplomatic dispatches reveal world of smugglers, ex-military fixers and radioactive materials found in unlikely locations

- [Julian Borger](#) and [Karen McVeigh](#)
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A worker at a uranium mine in the DRC: the abundance and quality of Congolese ore worries the US as terrorists could use it to create bombs. Photograph: Schalk Van Zuydam/AP
The leaked US cables reveal the constant, largely unseen, work by American diplomatic missions around the world to try to keep the atomic genie in its bottle and forestall the nightmare of a terrorist nuclear attack.

The leaked cables tell hair-raising tales of casks of uranium found in wicker baskets in [Burundi](#), a retired Russian general offering to sell "uranium plates" in Portugal, and a radioactive Armenian car on the Georgian border.

As part of what the US government calls its "second line of defence", it is America's diplomatic corps who are called out in the middle of the night when radiation detectors go off on a border crossing or smugglers turn up with fissile or radioactive materials in his pocket.

Each time that happens, and UN data suggests it has happened about 500 times in the past 15 years, it means the "first line of defence" has already been breached. The fissile material (the fuel for a nuclear warhead) or radioactive isotopes (which emit harmful radiation), have already been stolen from their source.

Three months after taking office, Barack Obama vowed to secure all the world's vulnerable

nuclear stocks within four years in a global drive to pre-empt nuclear terrorism. But a cash-strapped Congress has yet to do approve any increase in funding for the ambitious project and Obama's deadline looks almost certain to be missed. Meanwhile, from Africa to the former Soviet Union, there are signs it may already be too late.

In [June 2007, the US embassy in Burundi reported](#) an approach by a local elder alerting the Americans to a cache of uranium in a concrete bunker over the border in the Democratic Republic of Congo (DRC). He was concerned that it would fall into the hands of "the wrong people", specifically the Arabs who will "destroy" people with it. At the request of the sceptical Americans, [he returned a few weeks later](#) with a Congolese smuggler who said he found the material hidden at an old Belgian colonial building. He had pictures of a wicker basket with a uranium cask inside, apparently the property of the country's Atomic Energy Commission.

There was good reason for alarm. After Mobutu Sese Seko seized power in the mid-1960s, two uranium fuel rods from a colonial-era research reactor went missing. One turned up in 1998 when the Sicilian mafia were caught in a sting operation trying to sell it for over \$12m (£7.7m) to a customer in the Middle East. The other is still unaccounted for.

Another decade on, security at the Kinshasa nuclear research centre had scarcely improved. A diplomatic cable in September 2006 [describes the security measures separating the reactor from the university next door](#).

"The fence is not lit at night, has no razor-wire across the top, and is not monitored by video surveillance," a US diplomatic team reports. "There is also no cleared buffer zone between it and the surrounding vegetation. There are numerous holes in the fence, and large gaps where the fence was missing altogether. University of Kinshasa students frequently walk through the fence to cut across [the reactor site] and subsistence farmers grow manioc on the facility next to the nuclear waste storage building."

At the same time, there was concern over established smuggling routes shipping both uranium fuel and raw uranium ore abroad, possibly to Iran. Congo has some of the richest uranium reserves on earth, both in terms of the scale of the deposits and the purity of its ore.

It would require just a few lorry loads of Congolese ore to process and enrich enough uranium for a bomb. Both Washington and inspectors at the International Atomic Energy Agency (IAEA) have been concerned that such a black market source of high quality ore, outside IAEA controls, could be used in a covert weapons programme in Iran.

A cable from Tanzania in September 2006 [passed on a tip](#) that some of the smuggled material may be passing through the nation's capital.

"According to a senior Swiss diplomat, the shipment of uranium through Dar es Salaam is common knowledge to two Swiss shipping companies ... though no one at either company would admit it in writing."

The other major front in America's "second line of defence" runs around the edge of [Russia's](#) borders, where the collapse of the Soviet Union created a black market in nuclear and radioactive material that endures two decades on.

As in Africa, the fears are based on poor security, particularly in the immediate aftermath of the Soviet implosion, when a significant amount of fissile material went missing, some of it

undoubtedly stolen by former military officers and officials as a private pension plan. As in Africa, the diplomats are left with the challenging task of separating nuclear fact from fiction.

In July 2008, [the embassy in Lisbon reported a "walk-in" informant](#) with a tale of a retired Russian general who had a brick of uranium metal to sell. The informant handed over a picture of the merchandise – a lump of grey metal.

Noting that the "walk-in stated he is not on any medications and has not consulted any mental health specialists", the case is handed over to specialists, and there is no further mention of it in the cables.

More often, the post-Soviet nuclear black market has remained closer to home. An illicit trafficking database maintained by the IAEA records 500 incidents since the mid-90s, involving "the theft or loss of nuclear or other radioactive material". Of those, 15 involved high enrichment uranium (HEU) and plutonium, from which nuclear warheads are made. Most of those were in former Soviet republics or in eastern Europe.

As part of the "second line of defence" programme, the US National Nuclear Security Administration (NNSA) is helping Russia build radiation detectors on every one of the country's border crossings, about 350 sites, by the end of next year.

However, there are doubts that this expensive hi-tech approach will work. Critics point to the fact that out of 20 high profile cases where nuclear smuggling has been uncovered, radiation detectors have played a part in only one. That is partly because they are so easily triggered, there are often turned off or ignored by local officials.

A confidential cable from the US embassy in Tbilisi records an incident in August last year [when a car carrying three Armenians set off a detector on the Georgian-Armenian border](#). The driver was waved on by customs guards, however, after he claimed to have been injected with radioactive isotopes during surgery.

The car was only searched when it set off the alarm again on the way back to [Armenia](#). It was found to be contaminated throughout by Cesium-137, a highly radioactive isotope, which could make a devastating "dirty bomb". A cloth in the car produced the highest radiation reading, but no radioactive material was found. It appears that whatever the car was carrying, had been delivered.

Eight months later, two more Armenian smugglers crossed the same border carrying HEU, but managed to shield it from the detectors by the simple expedient of carrying it in a lead-lined cigarette box. The alarms did not sound, and instead, the two Armenians, Hrant Ohanyan and Sumbat Tonoyan, were caught in a Georgian sting operation and were sentenced last month to prison terms of 13 and 14 years respectively. As the US cables make vividly clear, their cases are the tip of an iceberg.

WikiLeaks cables: Yemen radioactive stocks 'were easy al-Qaida target'

Sana'a official told US diplomats solo sentry had been removed from atomic facility and CCTV

system was broken

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Yemeni soldiers stand guard outside a hearing of al-Qaida suspects at a court in Sana'a.

Photograph: Yahya Arhab/EPA

A senior government official in [Yemen](#) warned US diplomats that poor security at the country's main store of radioactive products could allow dangerous material to fall into the hands of terrorists, according to a leaked US embassy cable.

The official told the Americans that the lone guard standing watch at Yemen's national atomic energy commission (NAEC) facility had been removed from his post and that its only closed circuit TV security camera had broken down six months previously and was never fixed.

"Very little now stands between the bad guys and Yemen's nuclear material," the official warned, in a cable dated 9 January this year sent from the [Sana'a embassy to the CIA, the FBI and the department of homeland security](#) as well as the US secretary of state in Washington and others.

Yemen, the Arab world's poorest nation, has emerged as [al-Qaida](#)'s most active base, after Iraq and Afghanistan. It is home to Al-Qaida in the Arab Peninsula (AQAP), the group behind a series of attacks on western targets, including the failed airline cargo bomb plot in October and the attempt to bring down a US passenger jet over Detroit on Christmas Day last year. The Nigerian-born Detroit bomber, Umar Farouk Abdulmutallab, was radicalised in Yemen,

according to security sources.

The cable, classified as secret by the US ambassador Stephen Seche, and sent during the immediate aftermath of the Christmas Day bomb, describes how the "worried" official implored the US to help convince the Yemen government "to remove all materials from the country until they can be better secured, or immediately improve security measures at the NAEC facility".

The cable revealed that the facility holds large quantities of radioactive material used by hospitals, local universities for agricultural research and in oilfields. The international community fears radioactive isotopes could be used to make a dirty bomb – a device combining simple explosives with radioactive materials, which it would disperse over a wide area.

The isotopes are not explosive themselves, unlike nuclear material such as uranium. Although unlikely to kill a large number of people, such a device could cause tremendous damage and disruption by creating large no-go areas contaminated by radioactivity.

International experts said today the lack of security at the Yemen facility would be a "high priority" for the US government. Told of the cable's revelation of the type of materials and the amount stored in Yemen's NAEC facility, Matthew Bunn, a former White House science adviser who specialises in nuclear threat and terrorism, said: "Holy cow. That's a big source.

"If dispersed by terrorists it could make a very nasty dirty bomb capable of contaminating a wide area," said Bunn, an associate professor at Harvard University's John F Kennedy school of government, who compiles an annual assessment of the nuclear terrorism threat titled Securing the Bomb.

Such a bomb would be "enough to make a mess that would cost tens of billions of dollars in cleanup costs and economic disruption, with all sorts of controversy over how clean is clean, how will people go back there", he said.

"It's the type of thing that the US programme have been working on securing all over the world. The global threat reduction initiative (GTRI) in the department of energy has two missions: one, to get rid of enriched uranium and two, to improve security on radioactive facilities so that dirty bombs cannot be used.

"The location in Yemen is obviously of particular concern given terrorism, given Al-Qaida in the Arab Peninsula headquartered there, also the spotty effectiveness of the government.

"I would think it would be a high priority to do something about it."

While a dirty bomb has never been detonated, terrorists have been accused of plotting such attacks.

A Briton, Dhiren Barot, admitted plotting to build a radioactive bomb in the UK and was convicted in 2006.

The leaked US cable revealed that, in the days following the official's warning over security and probably as a result of US diplomatic pressure, the radioactive material was moved to a

more secure facility and the remainder of it was likely to follow.

In a section of the cable titled Comment, it read: "Post will continue to push senior ROYG (Republic of Yemen Government) officials to increase security at all national atomic energy commission facilities and provide us with a detailed accounting of all radioactive materials in the country."

A spokesman for the US state department said: "We decline to comment on any cable. A team from the US department of energy visited Yemen in February and continues to work with the government on security upgrades at relevant sites as part of its global threat reduction initiative."



The US national nuclear security administration declined to comment on the cable or any action taken as a result of it.

A spokesman added: "I am not going to comment on upgrades to any specific sites. I can say that we have programmes to co-operate with more than 100 countries around the world to secure vulnerable nuclear material, improve security at nuclear facilities, and prevent nuclear smuggling. We are working day and night to prevent terrorists from acquiring nuclear material, no matter the source."

WikiLeaks cables: Egypt 'turned down' black-market nuclear weapons deal

Cairo's ambassador to the UN claimed President Mubarak said no to offer of atomic weapons from ex-Soviet state

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Hosni Mubarak rejected offers of nuclear weapons and scientists, according to the cables.
Photograph: Amr Nabil/AP

[Egypt](#) was offered [nuclear weapons](#), material and expertise on the black market after the collapse of the Soviet Union, according to a senior Egyptian diplomat.

President Hosni Mubarak turned down the offer, but the incident raises new questions over what nuclear sales were made by the other states or groups in the chaos of the early 1990s in Russia and the former Soviet republics.

Maged Abdelaziz, the country's ambassador to the UN, made the revelation to America's top negotiator on nuclear arms control, Rose Gottemoeller, [in a conversation reported in a leaked US cable in May last year](#).

The subject came up in a discussion of the creation of a nuclear weapons-free zone in the [Middle East](#), a foreign policy priority for Cairo. The US cable said: "Finally, in an apparent attempt to portray Egypt as a responsible member of the international community, Abdelaziz claimed that Egypt had been offered nuclear scientists, materials and even weapons following the collapse of the Soviet Union, but Egypt had refused all such offers."

"A/S [assistant secretary of state] Gottemoeller asked him how he knew this to be true, to which Abdelaziz replied he was in Moscow at that time and had direct personal knowledge."

Abdelaziz declined to comment on the cable, and it is unclear from the text who made the offer.

However, other evidence points towards groups of former military officers and nuclear scientists suddenly facing loss of privileges and income.

Maria Rost Rublee, an expert on the history of Egyptian nuclear programme, said she was told by three well-informed sources – a former Egyptian diplomat, military officer, and nuclear scientist - that "non-state actors" from an unnamed former Soviet republic had tried to sell fissile material and technology to Egypt.

"Mubarak refused. He was very cautious, even over nuclear energy, and cancelled plans for a programme after Chernobyl," said Rublee, the author of Nonproliferation Norms – a study of why some nations choose the path of nuclear restraint, now teaching at the University of Auckland.

She said the leaked May 2009 US cable marks the first time a Egyptian official has claimed his government was offered actual nuclear warheads and the assistance of nuclear technicians.

Olli Heinonen, former head of the safeguards division at the International Atomic Energy Agency, said: "At the time of the Soviet collapse, there were lots of people with financial difficulties.

"Some guys were looking for ways of many money and set up companies, offering nuclear material, but these were individuals making the offers, not the states."

Several kilograms of weapons-grade uranium and plutonium have been seized from smugglers in the intervening years.

Meanwhile, there have been occasional accounts of former Soviet weapons scientists hawking their expertise abroad.

The International Atomic Energy Agency has been trying to find out what a Russian-Ukrainian scientist who had carried out pioneering work on the Soviet nuclear bomb at Chelyabinsk in Siberia, was doing in Iran in the mid-90s.

The scientist, now back in Moscow, is an expert in the implosion techniques necessary for rigging up a nuclear warheads.

Meanwhile al-Qaida focused far more on the Pakistan nuclear programme as a possible source for a terrorist bomb.

Amid all the uncertainty, experts argue that if a warhead had gone astray in that critical period in the early 90s, it would probably have been detonated by now.