Open Source: Potential in Latin America for Radiological Weapons

by

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Introduction

This paper presents the potential of state and non-state actors to use radiological weapons based on open source information. Specifically, this paper examines actors that have an interest in Latin America. This paper focuses on the potential use of radiological weapons because open source research yielded a paucity of hard evidence of these actors pursuing radiological weapons.

Venezuela

Means to Support Radiological Dispersion Devices

This paper selected Venezuela as an actor to research in open sources due to their alleged state sponsored terrorism and involvement in nuclear material. Venezuela’s involvement or potential involvement in radiological weapons is a direct product of Venezuela’s president Hugo Chávez. Their potential in radiological weapons is based on their relationships to state and non-state actors, their ability to transport radiological material, their nuclear knowledge, and their availability to radioactive materials.

According to several open sources, Venezuela has or has been accused of having relationships with Iran, Revolutionary Armed Forces of Colombia (FARC), al Qaeda, Hamas, and Hezbollah. These relationships involve support in the form of financial, weapons and fuel, radioactive material, and political support. However, this paper focuses on the radioactive material relationships. In 2009, the Associated Press reported that President Chávez defended Iran’s nuclear program, which he regarded as their sovereign right. Chávez has also spoken out openly against sanctions placed on Iran for their nuclear program. Beyond political support, Israel has accused Venezuela of supplying Iran with uranium, which Chávez has subsequently
denied. However, according to Nima Gerami, there is little evidence to support Israel’s charges against Venezuela.³

Open sources have also accused Chávez of having a relationship with FARC, which involves finance and arms shipments. According to Stephen Blank, a 2008 report confirms that since at least 2003, Venezuela has supplied the FARC with Russian small arms.⁴ Given that Venezuela has access to radiological material (uranium mines and future nuclear power plants) and an alleged relationship to the FARC, which could be one avenue that Chávez could leverage to supply radioactive material to a terrorist organization that is motivated to use radiological dispersion devices (RDDs).

Venezuela may have the ability to transport radioactive material based on their ability to transport weapons and equipment for weapons production. We can point to two issues. First, there is Israel’s accusation that Venezuela is supply Iran with uranium. Secondly, José Cárdenas writes about a case in 2008 were Turkish authorities seized Iranian cargo destined for Venezuela labeled ‘tractor parts’; however, the cargo actually contained laboratory equipment capable of producing explosives.⁵

Venezuela has proven their ability to receive and transfer illicit weapons, now they have openly stated that they have increased their knowledge in nuclear energy. According to Roger Noriega, in 2009 Chávez declared that Venezuela is a strategic ally with Iran, and subsequently “thanked Iran for expanding Venezuela’s nuclear know-how” during an interview with the French newspaper Le Figaro.⁶ Aside from Venezuela directly benefiting from Iran nuclear knowledge, Russia announced a deal to help Venezuela to develop a peaceful nuclear program,⁷ and in 2008 they agreed to build Venezuela’s first nuclear reactor.⁸ According to Norman Bailey,
the technical assistance that Iran and Russia are providing is to find and efficiently mine uranium.\textsuperscript{9}

Finally, Venezuela has the means to use or support the use of RDDs due to their access to radioactive material, specifically uranium. According to a report by Robert Morgenthau, Venezuela has an estimated 50,000 tons of uranium deposits. Furthermore, Morgenthau reported that Iran has several facilities in remote, interior parts of Venezuela that may be processing uranium. However, Morgenthau warns that there is a lack of evidence of what these remote sites are really used for; therefore, these facilities deserve more attention due to their secretive nature.\textsuperscript{10} In addition to indigenous uranium deposits, Venezuela potentially will have access to the byproducts of nuclear power generation if they acquire a Russian nuclear power plant.

\textbf{Motivation to Use Radiological Dispersion Devise}

Venezuela has expressed their anti-US rhetoric, which may be a sign of their motivation to leverage the use of RDD directly or indirectly. According to Jerrold Post, Chávez has declared the US to be Venezuela’s prime enemy and “Venezuela would resort to the ‘war of the fleas’ (terrorism and insurgency) against the U.S.”\textsuperscript{11} Chávez’s also makes his anti-US stance clear when he accused the US of causing the 2010 Haiti earthquake with a tectonic weapon as a means to deploy troops to the region to bring law and order.\textsuperscript{12} Finally, the Associated Press reported that Chávez stated, “Tehran and Caracas are ‘facing the same enemy, which is the U.S. empire and its lackeys. And we will defeat the empire and its lackeys.'”\textsuperscript{13}

While Chávez has openly opposed sanctions and investigations regarding Iran’s nuclear activities,\textsuperscript{14} he has refused to encourage nuclear transparency and accountability in Iran, which makes the outlook for Venezuela’s own nuclear transparency not very bright.\textsuperscript{15} This lack of transparency is spotlighted by Chávez refusal to sign the Additional Protocol that would give the
International Atomic Energy Agency (IAEA) broader inspection powers. Moreover, the protocol would have required Venezuela to provide “the location, operational status and estimated annual production capacity of uranium mines.”

The evidence of Chávez’s motivation to support rogue states and terrorist organizations is present in the open literature. According to Jerrold Post, Chávez supported “major adversaries of the United States, including Iran, Syria, and North Korea, as well as Hamas.” Just recently, On 15 March 2010, Chávez admitted that he met with Raul Reyes, a slain FARC commander responsible in the 2008 Colombian uranium bust, which this paper addresses in the FARC section.

Chávez’s motivation seems apparent in his willingness to support terrorist organizations. According to Post, Chávez allied himself with Hamas, and there are unconfirmed reports of earlier support for al Qaeda. Post believes that open support for al Qaeda is not a reasonable approach for Chávez, because Chávez should know that overt proof that Venezuela is supporting “the major identified opponent of the United States in the war on terror would have dire consequences.” Consequently, Post expects that Chávez will probably have to support Islamic extremist groups covertly, because the predominately-Catholic Venezuela would not accept the extremists.

Opportunity

Given the potential means and motivation, Venezuela may currently have opportunity to support the use of RDD by other state and non-state actors. According to open source documents from 2010, Iran has a covert tractor factory operating in the Venezuela interior, which these sources suspected of nefarious activities. Moreover, these factories have direct access to the Orinoco River that provides a route to the Atlantic Ocean. Norman Bailey stated that the
Venezuelan government controls all ports and airports in the country. Therefore, there is no way to determine what is entering or leaving the country except for what the government decides what it wants the public to know.23 Additionally, Venezuela also has indigenous uranium deposits that were estimated independently at 50,000 tons.24 This access to uranium and means of transporting weapons gives Venezuela the opportunity to support the use of RDD.

**Revolutionary Armed Forces of Colombia**

This paper highlighted the Revolutionary Armed Forces of Colombia (FARC) because the FARC is a Latin American terrorist organization that has a connection to RDDs, specifically the acquisition of uranium. In March 2008, the Colombian government profited from sensitive FARC information when Colombian forces attacked and raided a FARC camp in Ecuador, which yielded several laptop computers with incriminating data.25

*Reuters* reported that according to Colombian officials, the FARC computers contained information that led Colombian forces to a stash of uranium. On 26 March 2008, Colombian forces seized 30 kilograms of uranium in Bogotá, which is the first time the FARC has been linked to radioactive material.26 According to *Al Jazeera*, the Colombian state geological institute later confirmed that the uranium was depleted uranium, which may have uses in missiles,27 and not specifically useful in RDDs. *Reuters* reported that Colombian officials believe that the FARC was seeking uranium to make a ‘dirty bomb’.28 However, one expert believes that the FARC does not have the facilities to make a bomb with the uranium, and instead believes that the uranium was intended to be sold on the black market to make money.29 Jonathan Winer, a senior vice president in *APCO Worldwide* in Washington D.C. and former US deputy assistant secretary of state for international law enforcement, posits that perhaps the FARC was interested in smuggling radioactive material, but was not able to acquire highly radioactive material.
Therefore, the FARC intended to use the depleted uranium in a trial run in preparation for future operations with material that is more radioactive.\(^\text{30}\) Another open source opinion is that an RDD might not be an attractive weapon for the FARC because it would only cause “minimal damage” and simultaneously making the FARC politically radioactive.\(^\text{31}\) Regardless, the open literature has not confirmed the intended purpose for the uranium, nor where the FARC obtained it.

In addition to the information from the captured FARC laptops that led to the uranium seizure, Roger Noriega reported that FARC computer records documented the role of numerous Venezuelan officials in FARC smuggling activities.\(^\text{32}\) Furthermore, the GAO stated that those files suggested that the Venezuelan government gave the FARC $300 million, support, and weapons.\(^\text{33}\) In summary of the FARC’s means to use RDD, the FARC had access to radioactive material, state sponsored financing, and safe havens in Venezuela.\(^\text{34}\)

**Feasibility of Radiological Dispersion Devices**

This section surveys the effectivity and feasibility for terrorist organizations to acquire and build RDDs according to open source literature. According to Aaron Mannes, the problem with low-level RDDs is that the effect may only create a slight long-term increase in health risks. Thus, an RDD detonation may have minimal physical effects with respect to the effect of the radioactive material; nevertheless, a real concern lies in a potential for widespread panic that it may cause.\(^\text{35}\)

Regarding RDD with a maximum radiation, a paper from Lydia Hansell and Sammy Salama stated that a terrorist group would need to acquire a radioactive isotope with a relatively short half-life.\(^\text{36,37}\) As an aside, the IAEA verified that depleted uranium has a half-life of 4.5 billion years\(^\text{38}\), which does not fall under Hansell’s and Salama’s short half-life. Finally, Hansell and Salama write that experts suggest that it is unlikely that an RDD attack would cause a large
number of casualties. Instead, a lethal dose of radiation is only probable to individuals that are close enough to the RDD to risk injuries or death from the explosion.  

In August 2004, a UK Metropolitan Anti-Terrorist Branch arrested Dhiren Barot in Gujarat, India, where the operation recovered Barot’s “Gas Project Limo” plan. This plan is essentially a terrorist handbook on types of attacks, which Barot derived from his own investigations. Barot stated that someone making an RDD should select radioactive materials based on access to the material rather than its hazardous capabilities, because the more hazardous sources are the most difficult to secure access to; therefore, Barot recommends seeking less radioactive sources. In Barot’s plan, he was most interested in Americium-147, which is used in smoke detectors, as his radioactive source of choice. Barot posited that a terrorist could wreak havoc with an RDD that used 10,000 smoke detectors. However, purchasing a large number of smoke detectors has its own concern, one of which could tip off intelligence organizations. The London Metropolitan Police Service released Barot’s plan, which is heavily redacted and not available on their website. Ultimately, Barot concluded that there are a few places with large, powerful radioactive devices in places like food preparation facilities and hospitals (x-ray machines), but security is robust in these facilities and thus difficult to access.

Evaluation of Sources

The primary sources used in this open source research came from a variety of news sites and research papers produced by organizations such as US government departments, educational institution, political and economic magazines, and private organizations dedicated to counter terrorism research. Finally, two blogs were cited, TerrorWonk Plus and Counterterrorism Blog. These sites are worth addressing in regards to their credibility. In the case of TerrorWonk Plus, this is a personal blog managed by Aaron Mannes who is the author of “Profiles in Terror: The
Guide to Middle East Terrorist Organizations, the former Director of Research at the Middle East Media Research Institute (MEMRI), and considered a contributing expert to the Counterterrorism Blog, which is discussed below. Given the credentials of the blog’s author TerrorWonk Plus blog, this blog appears credible. Regarding the Counterterrorism Blog, this blog is a funded the Counterterrorism Foundation which receives donations and corporate sponsors according to the website. The site boasts several dozen contributing experts, which are also contributors to national news outlets. Overall, the Counterterrorism Blog seems reputable, as it is also cited by the Congressional Research Service.

Conclusion

This paper examined the potential for Venezuela and FARC to use or support the use of RDD related to Latin America. Several other terrorist organizations were not researched such as Hamas, Hezbollah, National Liberation Army, Shining Path, or the United Self-Defense Forces of Colombia, which are present in Latin America according to open sources. Instead, this paper studied Venezuela and the FARC due to their active participation in radioactive material. It is apparent from open source literature that both of these actors are active and interested in radioactive material. Some activities may be related to peaceful nuclear power; however, Venezuela is not pursuing their interests with the transparency necessary to appease the international community. At least in open sources, the question remains as to these actors’ true intentions.
End Notes

22. Cárdenas, “Hugo Chávez is up to no good.”
26. Bronstein, “Colombia seizes uranium from leftist guerrillas.”
29. Bronstein, “Colombia seizes uranium from leftist guerrillas.”
End Notes

42 Wesley, “British Terrorist Dhiren Barot’s Research.”
44 Dhiren, “Rough Presentation for Gas Limos Project,” 34.
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