Terrorist Nukes: Shipping Containers the Next Delivery System? B. D. DePaola 781 Words

The world is full of terrorists who would like nothing better than to hit us hard – and what could be harder than a nuclear bomb? Maybe you think that it would be too difficult for a terrorist to make a nuke. Or maybe you think that if they made the bomb outside the country, it would be impossible to get it in. After all, when was the last time you tried to fly with even a puny pocket knife in your carry-on?

Well, let's look at the facts: (1) A nuclear weapon is very easy to construct if someone hands you the highly enriched uranium you'd need for fuel. (2) A shipping container is huge. It would be simple to hide a nuclear weapon inside of one. (3) With all that space, the bad guys could easily shield the radiation emitted by the HEU by simply surrounding the bomb with lead. (4) There are so many shipping containers coming into our ports that it is impossible for us to check them all. Let's look at these points one by one.

Several rogue nations, including Iran and North Korea are already enriching uranium. In as soon as a year they could produce the highly enriched uranium (HEU) needed for a nuclear weapon. Do you think these countries would think twice about giving some of their HEU to some terrorist group so that they could attack us with it? If they had the HEU, all the terrorist group would have to do is build a simple ignition system that would fire a small conventional explosive.

Most likely the terrorist group would build the nuke and then smuggle it in. This would be simpler than smuggling in the HEU and then building the bomb here. This is because nearly all the risk of detection is during the smuggling part of the operation because of HEU's radioactive nature. Furthermore assembling the nuke here would increase the chances of getting caught. Finally, after building the bomb you'd have to deploy it. Why not combine the smuggling and deployment into a single step?

What's special about a shipping container? First, they're everywhere! We handle about 20% of the maritime trade worldwide. Did you know that more than 6 million shipping containers arrive in our ports each year? Furthermore, a single ship can carry more than 3,000 containers. With all these containers coming in, they cannot all be adequately searched. In fact, only about 2% of them are checked at all, and most of these are just checked for drugs or human trafficking.

Second, these containers are huge. The smallest standard container is about 18' x 8' x 8' (approximate inside dimensions). Even a homemade nuke could be much smaller than this, including the several inches of lead needed to shield its gamma radiation. (The alphas wouldn't even get through the metal of the shipping container.) The rest of the container could be packed with harmless cargo.

So how much damage could this do? Consider The Port Long Beach, CA. It handles only 3% of our shipping, and yet if this facility were closed down for just 10 days it would cost an estimated \$2 billion. Even a small nuclear device would completely destroy the port, and it would require decades to rebuild. This would be crippling to our economy. And even worse, a nuclear attack

on one of our ports would essentially close down all of our ports until we figure out a way to inspect cargo for nukes. Right now we import over \$40 billion of merchandise from China alone, and all of these would stop. Imagine shopping at Walmart if there were no Chinese merchandise: the store would be empty! Furthermore it would take a really long time before our manufacturing could take up the slack because we just don't make many of those products anymore. Even our manufacturing tools are imported! And if our economy dies, so does the rest of the world's.

Now consider the loss of human life. The nuclear explosion could kill 50,000 to 1,000,000 people. This does not even consider the severe psychological damage. People would freak out and move as far from ports as they could, causing more unemployment and general chaos.

Rogue nations could soon provide the material for building nuclear weapons to terrorist organizations. In turn, these organizations could readily build the weapons and deliver them to US soil via commercial shipping containers. The containers are large enough and common enough for imbedded nuclear devices to pass undetected. The damage would be catastrophic to the US economy, as well as to civilians near the docks where the explosion occurs.

Bibliography

- Greenberg, M. D. et al., *Maritime Terrorism: Risk and Liability*, Santa Monica: RAND Corporation (2006).
- Port Security, from Wikipedia: http://en.wikipedia.org/wiki/Port_security
- Frittelli, J. F. et al., *Port and Maritime Security: Background and Issues*, New York: Novinka Books (2003).
- http://en.wikipedia.org/wiki/Intermodal_container
- http://en.wikipedia.org/wiki/List_of_ports_in_the_United_States
- http://www.joc.com/economy-watch/us-economy-news/nrf-nam-say-ilwu-strike-would-cost-billions_20140626.html
- Clark C., Abt Associates Report to US DOT/RSPA/Volpe, *The Economic Impact of Nuclear Terrorist Attacks on Freight Transport Systems in an Age of Seaport Vulnerability* (2003).