



INTERNATIONAL/US: Planned 100% 'box' screen may work

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EVENT: The greatest threat to North American security is terrorists smuggling a nuclear weapon through a port in a container, Canadian Defence Minister Peter MacKay said on November 28.

SIGNIFICANCE: The most important demand on any government arguably is ensuring the security of its people. The unprecedented act of terrorism on September 11, 2001, sent the message to the US government that the country was vulnerable to external international terrorist threats of a magnitude not previously considered.

ANALYSIS: Between 2001-05, US government spending on port security has increased six-fold to 1.6 billion dollars per year. By 2012, it proposes to improve security at ports, including the screening of all containers brought into the United States.

Seaborne terrorism. The potential threat of physical destruction, economic disruption and loss of life posed by 'terrorism from the sea' affects national security in a number of ways:

- A ship can be used as a delivery system for a weapon of mass destruction (WMD). Secreted onboard, WMD might be carried by an innocent ship into a port and remotely detonated.
- Of greater concern are freight containers carrying WMD brought in by container ('box') ship and detonated in a port or at predetermined targets inland.
- Terrorists might also attack ships either at sea or in port, with the possible involvement of WMD. Past incidents include the Achille Lauro hijack and the small-craft bombing of the USS Cole (see [INTERNATIONAL/SOMALIA: Pirates add to unstable Horn - November 16, 2007](#)).

Increased container use. Containerisation has provided the world with an efficient transport system and enabled the dramatic growth in international trade of the past four decades (see [INTERNATIONAL: World ship capacity just meets demand - October 22, 2007](#)). The world freight container fleet has been growing rapidly and is set for further growth:

- The present fleet exceeds 22 million 20-foot equivalent units (TEUs).
- In 2006, world ports handled 452 million TEUs, which is expected to rise by 40% by 2011.
- Last year, the combined US ports of Long Beach and Los Angeles -- the fifth-largest port area in the world -- handled more than 14 million TEUs.

The use of the freight container as a potential delivery system thus presents very real concerns.

Container insecurity. Few know what goods are being carried in a container. Packed and sealed by the shipper, a container can be transported without hindrance, unless suspicion is aroused. It is the anonymity of the freight container and its contents that is the concern. Bills of lading and seaway bills describe its contents, and allow the ship's manifest to be compiled. There is a large element of trust between the container operator and merchant that the supplied information is correct.

The only information provided to staff in port and onboard about the contents is for cargoes declared as 'specials' (eg odd-sized 'out of gauge') or 'dangerous'. Inspections in transit are limited to sample inspections of containers carrying goods declared as dangerous by the shipper.

After loading, a seal is put through the rear door handles, designed to ensure that any tampering with the container door is easily spotted. However, containers notoriously may be entered without breaking the seal.

US 'layered' defences. Recognising its vulnerability to attack, the United States has adopted a strategy of warding off the threat with a series of 'layered' defences (see [INTERNATIONAL: Maritime code sees high compliance - November 30, 2004](#)):

- **ISPS.** The International Ship and Port Security (ISPS) Code requires all port authorities to undertake a Port Facility Security Assessment (PFSA), drawing on expert knowledge and covering physical security, structural integrity, procedural policy and contingency planning within the port.

INTERNATIONAL/US: Planned 100% 'box' screen may work - p. 2 of 2

- **24-Hour Rule.** In February 2003, the United States started full enforcement of its '24-Hour Rule', requiring that a completed manifest for a ship leaving a foreign port for the United States be submitted to the Department for Homeland Security 24 hours before departure. Information on the manifest is screened. Declared destinations are matched with a listing held. If there are doubts or suspicions about the legitimacy of the destination, the container will not be loaded. If already on board, it will be discharged and searched.
- **Scanning.** In August 2007, a law came into effect that before any cargo is loaded in a foreign port on a ship bound for the United States, it must be scanned. The devices used include x- or gamma-ray imaging systems providing an internal 'picture' of the container's contents, and radiation-detection systems which provide a passive, non-intrusive means of spotting nuclear devices. US ports of entry have both types of equipment, which will be required at all foreign ports shipping containers to the United States by 2012.

Other Initiatives. The US Safe Port Act now requires further information to help identify high-risk containers, known as '10+2' -- ten extra pieces of information are required from the shipper and two from the shipping company. The Customs-Trade Partnership Against Terrorism (C-TPAT) involves low-risk organisations that undertake to protect their supply chains from infiltration (see [US/CANADA: Border security plan carries steep costs - June 13, 2006](#)). New designs are being developed to prevent or reduce the risk of tampering with a container in transit. More than 600 dog-detection teams employed at US ports of entry are among other means to identify chemical weapons.

System effectiveness. Port security has improved since the introduction of the ISPS Code and various US initiatives. However, there is concern about the need for and effectiveness of 100% scanning for containers entering US ports. Current technology, it is argued, is limited and insufficient to provide uninterrupted scanning without disrupting the free flow of commerce. Gamma detectors cannot penetrate dense materials. Radiation scanners lack the sensitivity to detect highly enriched uranium.

The World Shipping Council says 100% scanning is unworkable and pilot schemes should have been completed and assessed before new US legislation was agreed. Trials are being undertaken in six ports worldwide, including Southampton in the United Kingdom, to evaluate the technology and the impact of scanning on container movement. For its part, the United States considers that the five-year period before the law is fully enacted will allow technical solutions to be found to problems arising from trials.

Alternative security suggestions include the application of risk analysis so that only those containers considered a risk will be scanned. Continuous monitoring devices, which detect a container break-in, tampering with cargo or deviations of course from planned routes are also being developed.

Economic effects. Installing container scanners at every port in the world would cost an estimated 1.5 billion dollars, increasing shipping costs by 50-100 dollars per container movement. This is tiny compared with the typical ocean container freight charge, perhaps one cent for every individual item carried inside a container.

There might be a positive economic impact in increasing container security against terrorists. It should lead to a reduction in container theft, which, while unquantifiable, is said to cost industry billions of dollars per year.

CONCLUSION: There is a real threat that terrorists will use freight containers to transport and deliver WMD. The United States has policy of "pushing security borders back to their origins", relying on its economic power to ensure compliance by its trading partners. The US solution of screening all inbound containers by 2012 is controversial but if fully enacted as envisaged will provide a more secure container transport system for all.

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