

Chain reaction

Ronald Thomason of the Maritime Security Council argues that the UN's objective of WMD non-proliferation needs the active support of supply chain security personnel



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In April 2004, the **United Nations Security Council (UNSC)** unanimously adopted resolution **UNSCR 1540**, establishing obligations for all UN member states to develop and enforce appropriate measures against the proliferation of Weapons of Mass Destruction (WMD).

UNSCR 1540 obliges member states to:

- refrain from providing support to non-state actors seeking such items
- prohibit non-state actors from engaging in specified activities relating to WMD, including the acquisition and use, attempted acquisition and use, or financing the acquisition and use of such items
- initiate and enforce effective measures to establish domestic controls to prevent the proliferation of WMDs, including establishing appropriate controls over related materials.

The objective of this resolution is to reduce or eliminate WMD proliferation by creating a uniform mechanism for tracking WMD materials as they move through the supply chain. The expectation is that the successful implementation of UNSCR 1540 by individual UN member states will significantly enhance the ability to control the export of the nuclear, chemical, and biological materials, their means of delivery, and related materials.

While governments worldwide have committed to achieving the obligations of UNSCR 1540 as an integral component of their individual foreign policy, a unified capacity for functional compliance has not yet been adopted. The questions that need to be answered are:

- what regulatory instruments and industry 'best practices' tools may be applied to this challenge?
- how may these 'best practice' tools best be integrated to establish an effective mechanism for providing transparency, accountability, and security for nuclear, chemical, biological, and dual use technology materials as they move through the supply chain?
- what mechanism needs to be created to manage the collection, analysis, and

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transmission of information in a timely and effective manner?

Supply chain security

Global supply chains are composed of a number of links that includes aviation, maritime, road, and rail carriers; as well as a host of intermediary service providers required to implement, integrate, and coordinate the logistics services necessary to support their cost and operationally effective operations. A 'kink' in supply chains, supporting the delivery of everything from consumable goods to crude oil, is likely to result in limited supply and higher prices at retail outlets and petrol stations. What may not be generally understood or appreciated outside the industry are the multiple linkages and relationships required to operate and maintain today's global supply chain, and how security connects, or sometimes separates, those links.

Historically, security measures are usually implemented in response to the identification of an increased exposure to liability associated with a specific threat, the increased likelihood of risk associated with that threat, or in response to an actual incident. Terrorist or criminal attacks on transportation carriers, mobility corridors, warehouses and other supply chain links will usually trigger a review of security standards and practices that results in the application

of preventive measures designed to reduce the likelihood of future incidents and mitigate the damages to company operations. Within corporate executive offices, security is often viewed as a distasteful expense necessary to mitigate the consequences of an incident, rather than as an investment to ensure the integrity of business operations 'end-to-end' through the supply chain. All too often, manufacturers, carriers, consolidators, importers, and buyers have focused on the strength and resilience of security for the link in their supply chain over which they have direct control. However, the cargo transportation and supply chain industries now have more tools at hand to help them establish a uniform approach to the implementation of preventive security policies and procedures across the full range of their locations and operations.

Security standards

Within the past decade, a number of

regulations and 'best practices' – e.g. the *International Ship and Port Facility Security (ISPS) Code*, the **International Organization for Standardization's ISO 28000**, the *Business Alliance for Secure Commerce (BASC)* and the **US Customs and Border Protection's (CBP) Customs-Trade Partnership Against Terrorism (C-TPAT)** and *Free and Secure Trade (FAST)* programmes etc. – have been promulgated that establish minimum equipment performance and training standards that apply to discreet supply chain elements. The **International Maritime Organization (IMO)** implemented the ISPS Code, which established minimum security standards applicable to the maritime links in the supply chain, including port facilities, cargo vessels, and offshore platforms. Subsequent to this, the United States, Canada, the United Kingdom, Norway, and the European Union (EU) developed similar regulatory instruments establishing

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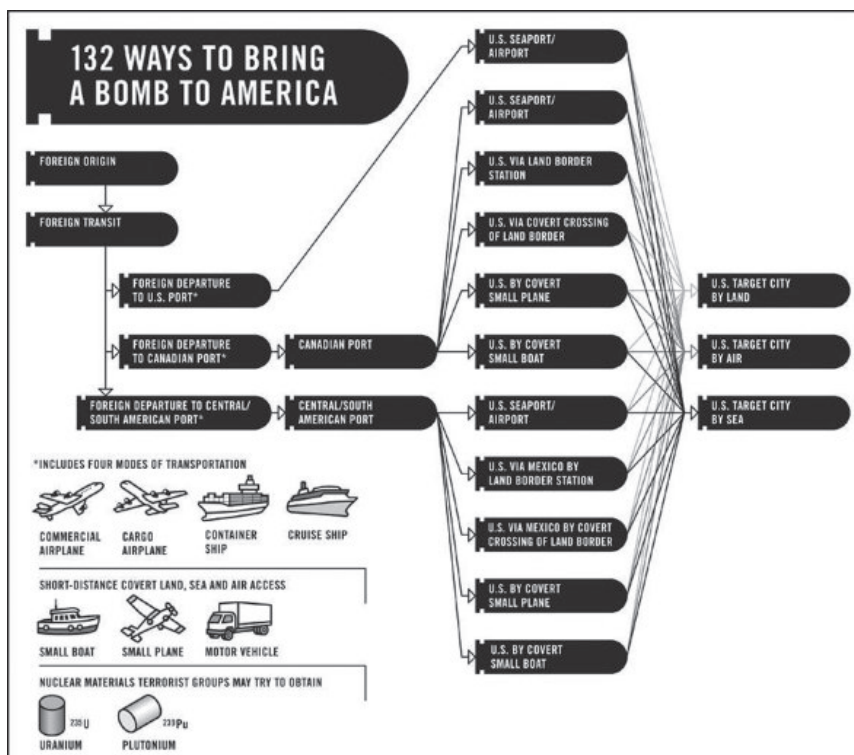


Figure 1 – The vulnerability of the US transportation system

security standards and performance objectives for maritime facilities, vessels, and operations within their geographic or legal purview.

A number of 'best practice' programmes have also been fielded to enhance security for specific industry sectors and dangerous materials or have been designed for enterprise-wide implementation across supply chains through which cargo destined for European and US markets transit.

These transportation and supply chain industry security regulations and 'best practices' are the tools with which a programme for functional compliance with the requirements for transparency, accountability, and security

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of WMD materials may be implemented worldwide.

The challenge

The WMD proliferation threat to the UN member states that are signatories to UNSCR 1540 is illustrated in Figure 1.

The diagram in Figure 1 identifies the wide range of vectors that may be used – singly or in combination with other supply chain elements – to introduce nuclear, biological, or chemical materials through transshipment locations to a potential target. While these materials are transported via the global supply chain, they are not readily identified as weapons. WMD materials and the technologies used in their development

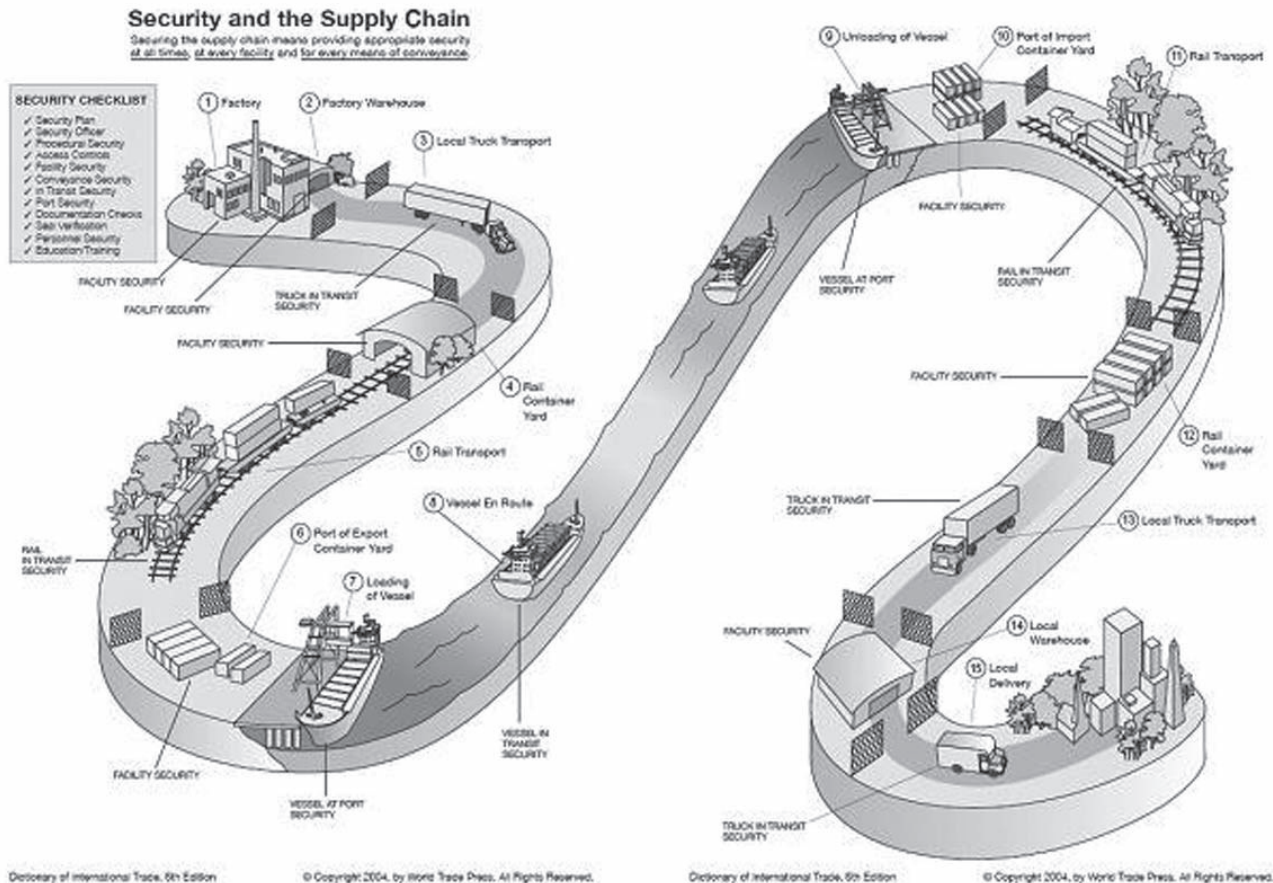


Figure 2 – Existing security regulations

and delivery as weapons often have legitimate application in the commercial marketplace. Radiological isotopes and dual-use materials have medical imaging and diagnostic applications; chemicals used in the production of pharmaceuticals may, in greater quantities or concentration, be used to create lethal chemical agents; and biological materials used as a medium for the incubation of cultures in the production of vaccines may also be used to cultivate deadly biological agents.

Since WMD materials – and the dual-use technologies essential to their processing or delivery as weapons – are likely to be masked or purposely mislabelled on their manifest documents used to transport them through the supply chain, the challenge that the UNSCR 1540 Expert Committee faces is how to leverage the transportation and supply chain industry-based knowledge and tools to achieve the desired policy objectives.

Outreach programmes

Another challenge to be overcome is to encourage and reinforce UNSCR 1540 outreach and education programmes to personnel across all enterprise levels in the transportation and supply chain communities. This is where the institutional knowledge resides as to the ‘operational norms’ associated with the transport of specific classes of or types of cargo and materials. This is also the point at which anomalies in shipping activities or documentation may be identified as indicators of possible proliferation actions. It is essential that port and intermodal operations personnel responsible for capturing and tracking cargo data as it transits the supply chain have training in, and understanding of, the nature of the requirements or limitations associated with the transport of materials and equipment. Transportation and supply chain industry personnel at all enterprise levels should know enough about the UNSCR 1540 requirements for accountability of WMD materials so that they may assist in identifying irregularities in cargo documentation.

While UN member states are

committed to compliance with UNSCR 1540’s policy objectives, translating those into an actionable programme that results in the creation of a functional implementation plan will require the active participation of the transportation and supply chain communities.

Existing security regulations, programme requirements, and performance objectives that are currently applied throughout the supply chain, as identified in Figure 2, represent the foundation upon which the **Maritime Security Council (MSC)** has created its UNSCR 1540 programme.

The MSC’s programme will use existing software tools to capture cargo identification and tracking information for WMD materials as it transits at each link in its supply chain. This will then be transmitted to regional or national information sharing and analyses centres (ISACs) that serve as the loci for the reporting, analyses, and dissemination of applicable threat and cargo information. The MSC’s programme will include the ‘top down’ delivery of security policies and practices that are keyed to national or regional-specific requirements or limitations. There will be periodic audits, as well as quarterly drill and exercises, to validate the level of functional compliance of transportation and supply chain community members with UNSCR 1540 performance objectives.

One of the benefits of the MSC’s programme is that it will create nodes for the ‘end-to-end’ capture and transfer of verified cargo transit and security information in a protected manner, for use by industry and government agencies to meet UNSCR 1540 requirements.

Conclusion

The UN is in the process of transitioning from policy development and member state acceptance of UNSCR 1540 policy to functional implementation of the programme objectives within the transportation and supply chain communities. The most operationally efficient and cost-effective method for accomplishing this is the MSC’s approach, which is currently being prepared for pilot programme implementation.

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