



US

toughens up

Robert Phelan and David Loh, of Cozen O'Connor, look at a wave of recent developments to protect maritime trade and improve both the economy and safety

The cost to the US economy resulting from the discovery or detonation of a weapon of mass destruction would be enormous. Accordingly, in the aftermath of the terrorist attacks of 11 September 2001, the US Customs Service, now US Customs and Border Protection (CBP), began developing anti-terrorism programmes to help protect the US from such an occurrence.

The following initiatives, laws and technologies not only improve national security and maritime trade safety, but can also decrease the cost of doing business.

A wave of changes

Created in January 2002, the CBP's container security initiative (CSI) is one multinational programme designed to protect the undisputed primary system of global trade – containerised shipping.

In fiscal year 2004, more than 9.6 million maritime containers arrived at US seaports, an average of 26,000 a day (fact sheet, US Customs and Border Protection press release, 2 October 2007, available at www.cbp.gov). Approximately 40% of all incoming trade to the US arrives by ship and most of that is in shipping containers. It is

estimated that legal maritime trade, driven by global economic growth and flourishing international trade, will triple by 2020 (source: container security initiative, 2006-2011 strategic plan, US CBP).

Most of the vulnerabilities in the containerised cargo supply chain that can be effectively addressed exist in the early stages of the supply chain and greatly diminish once a container arrives at a seaport for loading onto a container vessel. The three core elements of CSI therefore are to:

- (i) identify high-risk containers;
- (ii) pre-screen and evaluate containers before they are shipped; and
- (iii) use technology, including large-scale x-ray and gamma-ray machines and radiation detection devices to pre-screen high-risk containers without slowing down the movement of trade.

In order to permit CBP officers to pre-screen and target high-risk containers, the 24-hour rule was implemented in January 2003. The 24-hour rule requires manifest and bill of lading information to be submitted to CBP 24 hours in advance of cargo being loaded on a ship at a foreign port.

Then, only those US-bound containers identified as potential threats are examined, either by non-intrusive inspection (NII) or physical exams. The NII involves use of x-ray or gamma-ray scanners to generate an image of the contents, which CBP officers review for anomalies. If an irregularity is identified, officers may physically examine all, or a portion of, the container's contents.

CSI is not just limited to the world's largest seaports. Currently, there are more than 57 operational CSI ports, including places such as Valencia, Spain and Haifa, Israel. Furthermore, CSI is just one of many inter-agency programmes developed to prevent an incident of national significance from disrupting the movement of maritime cargo.

In 2006, the Department of Homeland Security (DHS) announced the first phase of the secure freight initiative (SFI) in an effort to build upon the existing and emerging port security measures to enhance the federal government's ability to scan containers.

The initial phase of SFI leveraged the Department of Energy, national nuclear security administration megaports initiative that agreed to install monitoring devices at CSI seaports to deter, detect and interdict

illicit shipments of nuclear and other radioactive materials.

The megaports initiative has completed deployment of radiation detection equipment at six international seaports around the world:

- Port Qasim in Pakistan;
- Puerto Cortes in Honduras;
- Southampton in the UK;
- Port Serlalah in Oman;
- the Port of Singapore; and
- the Gummen Terminal at Port Busan in Korea.

Since early 2007, containers from these ports are scanned for radiation and information risk factors before being allowed to depart for the US. Sensor and image data gathered is then encrypted and transmitted to the National Targeting Center operated by CBP.

All alarms from the radiation detection equipment are resolved locally, which can include requesting the host government to open and inspect the containers' contents, or instructing carriers under existing regulations not to load the container until the risk is fully resolved.

Additionally, operational testing of the secure freight system began in November 2007 at the Modern Terminal at the port of Hong Kong. The Modern Terminal was designated a secure freight initiative (SFI) phase 1 port in July 2007, after becoming a CSI port in December 2002.

Among worldwide seaports that export containers with goods destined for the US, Hong Kong is first in terms of the volume of shipments and containers imported into the US. In fiscal year 2006, Hong Kong processed 1,333,812 shipments bound for the US, constituting 11.48% of all shipments to the US, involving 948,876 containers and 9.28% of shipping containers arriving (source: fact sheet, US CBP, October 2007, available at www.cbp.gov).

Every truck hauling a container that passes through the main gate at the Modern Terminal passes through a scanning system designed by Science Applications International Corporation (SAIC) (source: *Homeland Defense Journal*, November 2007, 'The Case for 100-percent scanning: not proven' By Eric Watkins).

In addition to using gamma rays to scan the inside of the containers, the system also captures images of the containers' identification numbers. All of this information is collated and can be disseminated to appropriate officials in the US before the ship arrives at its destination port. Based upon the

lessons learned in this initial phase (approximately 18 months), a second phase, with more extensive deployments will follow.

To fulfil requirements under the law in the Security and Accountability for Every Port Act of 2006 (SAFE Port Act), SFI was also initially required to evaluate the feasibility of scanning 100% of all cargo bound for the US.

Indeed, on 3 August 2007, Public Law no 110-53, 'to provide for the implementation of the recommendations of the National Commission on Terrorist Attacks Upon the United States' was enacted. Public Law 110-53 modifies the SAFE Ports Act to prohibit any container that was loaded on a vessel on or after 1 July 2012 in a foreign port from entering the US unless the container was scanned by non-intrusive imaging and radiation detection equipment at a foreign port before it was loaded.

The law recognises that the technology might not be ready and it permits the secretary of DHS to extend that deadline by two-year increments.

Public Law 110-53 also directs the secretary of DHS to:

- establish technological and operational standards for systems to scan containers;
- ensure that the standards are consistent with the global nuclear detection architecture developed under HSA; and
- co-ordinate with other federal agencies that administer scanning or detection programmes at foreign ports.

Weighing the risks and benefits

The new technologies and standards for scanning can reduce vulnerabilities in the containerised cargo supply chain. However, these technologies and standards must be balanced against the organisation's operational and financial costs.

The technologies and processes must be evaluated applying the following criteria:

- the probability of detection;
- the nuisance and false alarm note;
- its ability to be detected;
- its operability and maintainability under the conditions it is to be used in, and the true response and system cost; and
- lifecycle cost of the detector.

In addition to improving national security, the new laws, technologies and programmes may decrease the cost of maritime trade to shippers. The development of container technology that can track and report on the integrity of a shipment will provide supply

chain stakeholders with a real-time picture of the location and status of shipments and give carriers better control of equipment.

Furthermore, insurance costs may decline because of the new legislation and ongoing initiatives. If the increased scrutiny of containers leads to fewer inspections because of more careful shippers, there is also the potential for a reduction in the number of, and costs associated with, liability claims.

And, with the significant operational hurdles, the success of the US initiatives also depends on foreign government co-operation. Some foreign governments may prefer a calculated risk managed approach instead of a 100% physical inspection.

The US must convince its trade partners that these are not regulatory barriers to trade, but are important measures to improve security, without disrupting trade and costing legitimate businesses significant time and money in conducting maritime trade.

It is too soon to tell if the US has convinced its trade partners. While only time will tell if the initiatives will be a success, it is certain that the maritime industry and the trade community will benefit from new security programmes, which increase safety and efficiency across the board. ■



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