

# CRS Report for Congress

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## Maritime Security: Overview of Issues

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### Summary

The 107<sup>th</sup> Congress is considering legislation to enhance security at U.S. seaports, including updating information management systems at border monitoring agencies, increasing the visibility of cargo in transport, modifying data requirements for clearing cargo through customs, enhancing the physical security infrastructure at port facilities, and raising international standards for port security. Increases in the efficiency of maritime transportation have been an important factor in the steady growth of the import/export sector since World War II. One drawback of increased trade and economic globalization is that it facilitates the expansion of transnational crime and may serve as a medium for terrorist activities. An interagency commission report found the state of security in U.S. seaports generally ranges from poor to fair, and in a few cases, good; it made a series of recommendations for improving security. This report will be updated as developments warrant.

U.S. seaports, and the U.S. maritime system in general, enjoy a low profile despite the fact that the United States is the largest trading nation and 95% of its overseas trade is carried by ships. The drawback of increased trade and economic globalization is that it facilitates the expansion of transnational crime - drug trafficking, arms smuggling, illegal immigration, piracy on the seas, cargo theft, and terrorism.<sup>1</sup>

In April 1999, the Clinton Administration set up a special commission of 15 federal agencies to evaluate the current state of security at U.S. seaports. The interagency commission (commonly referred to as the “seaport commission”) conducted an examination of 50 seaports and published its results in the fall of 2000.<sup>2</sup> The report concluded that security was generally inadequate and that the vulnerability of seaports to a terrorist attack was high. The report found that there were no “widely accepted

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<sup>1</sup> *Threats and Challenges to Maritime Security 2020*, Office of Naval Intelligence and U.S. Coast Guard Intelligence Coordination Center, Mar. 1, 1999.

<sup>2</sup> *Report of the Interagency Commission on Crime and Security in U.S. Seaports*, available at [<http://www.uscg.mil/overview/icssrpt.pdf>]

standards or guidelines for physical, procedural, and personnel security for seaports....”<sup>3</sup>

In addition to discussions of specific measures that may be adopted to enhance the level of seaport security, a broader question is how control over maritime activity may be tightened without disrupting the flow of legitimate commerce. The U.S. economy relies on secure shipping lanes. There are few industries in the United States that do not use some imported components. Industry analysts argue that faster, more reliable, and more flexible transportation services have enabled manufacturers to boost productivity with “just-in-time” deliveries and “outsourcing” of production functions where they lack a comparative advantage. With lean inventories, companies can free up capital that otherwise would be tied up in excess inventory and warehousing space. From 1980 to 2000, the ratio of inventory to nominal GDP declined from 25% to 15%.<sup>4</sup> Some industry analysts are concerned that increased risks of delay at seaports could threaten the efficiency gains achieved in supply chain management over the past two decades.

Although extra security measures may add to the country’s freight-transportation and logistics bill, policy considerations also include benefits these measures may have in reducing the cost of maritime crimes. The FBI estimates that in the United States, cargo crime amounts to \$12 billion annually and finds that most cargo theft occurs in or near seaports.<sup>5</sup> It is estimated that during fiscal 1998, 110,000 pounds of cocaine were concealed with legitimate cargo in containers and imported into the U.S. through seaports, of which only about 86,000 pounds were seized by federal agents.<sup>6</sup> The Coast Guard estimates the worldwide financial losses incurred as a result of piracy are about \$450 million per year.<sup>7</sup> Statistics show that almost 80% of pirate attacks occur while the ship is at anchorage or at berth in port. Most pirate attacks occur in foreign waters to foreign-flag ships but U.S. corporations may be among the owners of cargo on a pirated vessel. Stowaways and trade fraud (mis-declared cargo) are other problems that plague maritime commerce but whose costs are difficult to measure.

## Vulnerabilities in the Maritime System

Vulnerabilities in the U.S. maritime system include undetected contraband in sea containers; the hazardous and volatile nature of energy products carried in tanker vessels; passengers on cruise ships; and seaports located at the center of large urban populations. A brief profile of the scale and scope of U.S. international maritime activity is given below.

**Sea Containers.** Containerization has facilitated trade because it has greatly reduced the amount of time, labor, cargo damage, and possible pilfering involved in stevedoring. Although containers offer greater cargo protection they also make cargo less transparent than traditional breakbulk cargo. Breakbulk cargo is packaged in individual cases, barrels, bags, or pallets and is loaded or unloaded in cargo nets on a piece-by-piece

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<sup>3</sup> Ibid., p. v.

<sup>4</sup> “Don’t Jump to Conclusions,” *JoC Week*, v.2, issue 38, p. 14.

<sup>5</sup> “Cargo Crime Bill Hit,” *Traffic World*, Oct. 9, 2000, p.22.

<sup>6</sup> “Security Lacking at U.S. Seaports,” *American Shipper*, Oct. 1999, p. 91.

<sup>7</sup> “Crime Pays,” *Traffic World*, Jan. 8, 2001, p. 19.

or pallet-by-pallet basis. Cargo inside a steel or aluminum container is obviously invisible to the naked eye and crews rely entirely on the paperwork to tell them what is inside. Containers make it easier to hide contraband - whether it is drugs, stolen vehicles, stowaways, or weapons of mass destruction.

The sheer volume of imported containers ensures that no one single shipment can be scrutinized too carefully. In 2000, the equivalent of 5 million 40-foot sea containers (a 40-foot container is about the size of a truckload) was imported into the United States. For comparison, that same year, about 2.4 million truckloads were imported from Mexico and about 5 million truckloads were imported from Canada. At the Ports of Los Angeles and Long Beach, the busiest container ports in the country, one container is landed every 20 seconds.<sup>8</sup> U.S. Customs' Automated Targeting System (ATS) is a computer system designed to identify shipments for physical inspection based on anomalies in cargo manifest data. The seaport commission reported (prior to September 11) that less than 2% of import cargo is physically inspected.<sup>9</sup> To physically inspect a container, it takes five U.S. Customs agents an average of three hours. Growing terminal congestion and "just-in-time" delivery requirements put pressure on inspectors to expedite container releases.

**LNG and Petroleum Tankers.** Although liquefied natural gas (LNG) is a very small portion of U.S. energy imports, the volatile nature of the commodity has kept LNG transit at the forefront of security concerns. There is one active LNG receiving terminal on the East Coast and one on the Gulf Coast. Two more terminals on the East Coast are being reactivated. The volatile and hazardous nature of petroleum products can pose a threat to life, property, and the environment. Domestically, about 75% of U.S. coastwise trade is in petroleum products. Ports along the Texas and Louisiana coasts represent over half of imported tonnage carried by tankers. Nationwide, U.S. ports receive about 20,000 tanker visits per year.

**Cruise Ships.** Cruise ships pose a potential security risk because of the large number of people in a concentrated and predictable area. About 80% of passengers on international cruises are U.S. citizens. Like their cargo counterparts, cruise ships are also getting larger. Ocean going cruise ships may carry two to three thousand passengers and some of the newest vessels are built to carry 5,000 passengers and crew. Foreign-flag ships account for 95% of the world fleet. There are only two U.S.-flag passenger ships in the international market. Most crew members are non-U.S. citizens.

**Seaports.** For economic and historical reasons, port facilities tend to be located next to and surrounded by large urban areas. Many of the large, older ports are designed to be open facilities, especially on the waterside, to allow easy access for cargo ships. Some ports are located next to oil tank farms, pipeline facilities, power plants, naval bases, and navy construction yards. The governance of ports can be as varied as their geography. There are ports which are part of state government (Alabama State Docks) and others which are part of a municipal government (the Port of Los Angeles). The Port Authority of New York and New Jersey is a bi-State agency. Ports can be a subsidiary of a public agency but may be structured to act as a private sector corporation. Some of

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<sup>8</sup> *Report of the Interagency Commission on Crime and Security in U.S. Seaports*, ch. 5, p.87

<sup>9</sup> *Ibid.*

the major U.S. ports are landlord ports, leaving the terminal operations at the port to steamship lines or terminal operating companies.

## Response to September 11

Historically, the Coast Guard safeguards navigation while U.S. Customs polices cargo movement. The role of the newly created Transportation Security Administration (TSA) in maritime security matters is not yet clearly defined. In response to the September 11 attack, the Coast Guard and U.S. Customs went on their highest level of alert. Customs' operating status changed to "Alert Level 1 - Code Red" which is defined as "sustained intensive anti-terrorism operations."<sup>10</sup> Two programs U.S. Customs has initiated to counter the terrorist threat are the Container Security Initiative (CSI) and the Customs - Trade Partnership Against Terrorism (C-TPAT). One element of CSI includes stationing U.S. Customs inspectors at major foreign transshipment ports to pre-screen U.S. bound containers. C-TPAT is a program that promises importers expedited processing of cargo if they comply with Customs' requirements for securing their entire supply chain.

Under the terms of The Ports and Waterways Safety Act of 1972, the Coast Guard has authority to protect vessels and harbors from subversive acts. The Coast Guard has instituted new reporting requirements for ships entering and leaving U.S. harbors. The 24-hour advance Notice of Arrival (NOA) has been extended to a 96-hour NOA. The NOA includes detailed information on the crew, passengers, cargo, and the vessel itself. The Coast Guard is maintaining "security zones" around waterside facilities, navy ships, and cruise and cargo ships entering or leaving port. In some cases, "sea marshals" may board ships navigating the harbor.<sup>11</sup>

## Issues for Congress

In addition to issues related to establishing a Border and Transportation Security division in a proposed Department of Homeland Security, several measures have been introduced in the 107<sup>th</sup> Congress to increase the level of security at seaports. Key points of discussion include the physical security infrastructure of seaports; use of container scanning devices; information databases on shippers and carriers; information sharing among law enforcement agencies; the future of "in-bond" shipments; in-transit transparency; and international security standards for foreign ships and ports engaged in commerce with the United States.

**Information Management.** To combat terrorism, officials have suggested that better information is one of the most potent weapons. Gaining more familiarity with those who are trading goods is cited as a key to enhanced security. To better track, control, and process all commercial shipments entering the country, U.S. Customs has plans for replacing its 17 year old system, the Automated Commercial System (ACS),

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<sup>10</sup> A description of alert levels is available at [<http://www.customs.gov>].

<sup>11</sup> For further information on the role of the Coast Guard in Homeland Security, see CRS Report RS21125, *Homeland Security: Coast Guard Operations- Background and Issues for Congress* and CRS Report RS20924, *Homeland Security: Coast Guard Legislation in the 107<sup>th</sup> Congress*.

with a new system called the Automated Commercial Environment (ACE).<sup>12</sup> ACE will allow more advanced data mining techniques so that Customs can target suspicious shipments. The Customs Border Security Act (H.R. 3129) as passed by the House, would provide \$308 million each year from FY2002 - FY2004 for the development of ACE.

Sharing information among agencies that monitor cargo at the border has also been advocated in discussions about seaport security. The Maritime Transportation Antiterrorism Act (H.R. 3983) which passed the House, would require U.S. Customs to consult with other appropriate federal agencies in determining the cargo information shippers must submit for international shipments. The bill also requires U.S. Customs to share cargo information with other federal agencies. The Coast Guard is developing a concept called Maritime Domain Awareness (MDA). MDA is defined as the effective knowledge of all activities and elements that threaten the safety, security, or environment of the United States and the use of this knowledge to intercept threats at sea before they reach U.S. harbors. This knowledge is to be obtained by fusing existing databases from U.S. Customs, Naval Intelligence, the Immigration and Naturalization Service (INS), Department of State, and the Coast Guard. The Port and Maritime Security Act (S. 1214) which passed the Senate, requires the DOT to report to Congress on the development of MDA.

**Ocean Cargo Documentation.** One concern is the quality and accuracy of cargo manifest data submitted to U.S. Customs by shippers and carriers. A fundamental fact regarding ocean documentation is that “it is only as reliable as the person providing it.”<sup>13</sup> The cargo description on many inbound container bills of lading may simply state “freight of all kinds” (FAK) or “general cargo.” This frequently occurs when less-than-container load (LCL) cargo from multiple shippers is consolidated into a single container. The carrier’s master bill of lading will not list the individual LCL cargo descriptions, the multiple shippers or recipients because of the paperwork burden. Shippers may also use non-specific cargo descriptions for fear of cargo theft. Bills of lading may list the broker as the shipper or consignee (recipient) rather than the true shipper to prevent competitors from identifying their customers. The Port Terrorism Prevention Act (S. 2426) would eliminate the use of non-specific wording in cargo descriptions.

**In-bond Cargo.** Another issue that has raised concerns is customs clearance requirements for cargo moving “in-bond”. Not all shipments require customs clearance at the border. Moving import cargo “in-bond” or “IT” (in-transit) has been an option since the 1700s. Carriers or brokers who place a bond with U.S. Customs do not have to clear their cargo at the border but can delay clearance and payment of duties until the cargo reaches its final inland destination. If the cargo should somehow disappear or duties go unpaid, Customs can confiscate the bond.

Critics believe that Customs has less knowledge and control over imported in-bond cargo moving to inland destinations because less documentation is required at the border port for in-bond shipments. In-bond cargo movement has been questioned before in light

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<sup>12</sup> ACE is expected to cost over \$1 billion. The GAO has been monitoring its development closely. For example, see *U.S. Customs Service: Observations on Selected Operations and Program Issues*, T-GGD/AIMD-00-150, April 20, 2000. Also CRS Report RL31230, *U.S. Customs Service authorization, FY2002 budget, and related border management issues*.

<sup>13</sup> Chris Dupin, “Cargo Security - Holes in the Fence,” *JOC Week*, Oct. 29 - Nov. 4, 2001, p. 11.

of the war on drugs. Some observers believed that drug smugglers were using the in-bond system to shift Customs clearance from ports where inspectors are on high alert for drugs (Florida) to inland ports where cargo may receive less scrutiny. S. 1214 would modify existing in-bond data requirements by requiring that shippers report the consignor, consignee, country of origin, and tariff number of the goods prior to their arrival at the initial port of discharge.

**In-transit Visibility.** Another concern for enforcement officials is the ability to track imported cargo moving to inland destinations. Advances in information technology recently introduced in the industry could be used to assist federal agencies in security efforts. In the second half of the 1990s, carriers have made an enormous investment in information technology. Bar codes, GPS, EDI, and tracking numbers are all used to communicate over the internet the status of individual shipments. Shippers need the ability to monitor their shipments from the factory to the user because in a “just-in-time” supply chain there is less margin for error. S. 1214 and H.R. 3983 both contain provisions to develop technology to track containers as well as improve their physical security with improved seals and locks.

**Physical Infrastructure.** Another area of discussion is increasing the physical hardware that enforcement officials have at their disposal. In recent months, Customs has started to deploy x-ray machines that can scan the contents of a container. These machines, called “Vehicle and Cargo Inspection Systems” (VACIS), cost about \$1 million each and take only minutes to scan a container. Initially they were deployed at the Port of Miami to catch stolen vehicles being exported in containers. S. 1214 would make available \$15 million to \$19 million for each fiscal year 2003-2006 for the use of “non-intrusive screening and detection equipment” for U.S. Customs. S. 1214 and H.R. 3983 would also provide grants to help ports finance other improvements in their physical security infrastructure, such as fences, more secure gates, and surveillance equipment.

**International Standards.** Some security analysts have called for a paradigm shift in the focus of security efforts from the “point of entry” to the “point of origin.”<sup>14</sup> Countries and shippers who enforce a system of safeguards and inspections at the port of loading, would be rewarded with an “E-Z lane” at the port of discharge. The Coast Guard has made recommendations to the International Maritime Organization (IMO) to establish international standards for port security. The IMO is a United Nations agency established in 1948 that has established conventions for the maritime industry but with a focus on safety and pollution prevention rather than security matters. The IMO met in May 2002 to begin negotiating maritime security standards and plans to meet again in December 2002 to consider adoption of the standards. The standards include screening containers at ports of origin, installing automatic identification systems on vessels, and conducting background checks on seafarers. S. 1214 and H.R. 3983 calls for the Secretary of Transportation to assess the security standards at foreign ports exporting to the United States. If the Secretary finds security lacking at a foreign seaport, trade may be restricted with that port if corrective measures are not taken.

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<sup>14</sup> Flynn, Stephen. *Beyond Border Control: Policing Global Commerce for Migrants, Thugs, and Terrorists*, Council on Foreign Relations, Apr. 26, 2000.