4 SPECIAL PROJECTS AND REPORTS

A. Ballast Water Treatment (IMO/GEF/UNDP)

The Global Ballast Water Management Programme has issued the latest edition of its research report dated May 2003 and titled *Ballast Water Treatment R&D Directory*. This directory lists research and development (R&D) projects that are focussed specifically on the physical, mechanical, or chemical treatment of ballast water to prevent/reduce the transfer of aquatic organisms. It does not list broader research projects relating to ballast water or marine bio-invasion issues in general. The directory is organized into two primary divisions, i.e., projects completed and projects underway. Within each primary division research projects are listed by country.

The International Maritime Organization (IMO), with funding provided by the Global Environment Facility (GEF) through the United Nations Development Program (UNDEP), initiated the Global Ballast Management Programme (GloBallast). This program is aimed at reducing the transfer of harmful marine species in ships' ballast water by assisting developing countries to implement existing IMO voluntary guidelines on ballast water management (IMO Assembly Resolution A.868(20)) and to prepare for the anticipated introduction of an international legal instrument regulating ballast water management, currently being developed by IMO member countries under the auspices of the IMO Marine Environment Protection Committee (MEPC).

For further information, contact Mr. Steve Raaymakers, Technical Adviser, Program Coordination Unit, Global Ballast Water Management Programme, International Maritime Organization, 4 Albert Embankment, London SE1 7SR, United Kingdom, (telephone: +44 (0)20 7587 3251, electronic mail: sraaymak@imo.org) or refer to the GloBallast Internet Web Site: http://globallast.imo.org.

B. Security in Maritime Transport (OECD)

The Organization for Economic Cooperation and Development (OECD) has published a report dated July 2003 and titled *Security in Maritime Transport: Risk Factors and Economic Impact*. This report, prepared by the OECD Maritime Transport Committee, explores the risks posed to the international merchant maritime transport system by terrorist organizations. As a part of this vulnerability analysis, the report explores the possible economic repercussions of a terrorist attack involving maritime transport. The report also explores the cost implications of security measures enacted in response to this threat.

The report notes that world trade is dependent on maritime transport and great strides have been made in recent years to render this system as open and frictionless as possible in order to spur even greater economic growth. However, the very things that have allowed maritime transport to contribute to economic prosperity also render it uniquely vulnerable to exploitation by terrorist groups. The risks are numerous and encompass both containerized and bulk shipping. The

vulnerabilities are important and range from the possibility for physical breaches in the integrity of shipments and vessels to documentary fraud and illicit money-raising for terrorist groups. Finally, the stakes are extremely high, as any important breakdown in the maritime transport system would fundamentally cripple the world economy.

Governments have set in place a series of actions aimed at reducing the risk from the most obvious security gaps in the maritime transport network. The bulk of these have been negotiated at the International Maritime Organization (IMO) and are set to become effective in July 2004. Additionally, the United States has also developed a set of maritime security measures that are comprised of both mandatory and voluntary elements. These measures come at a cost, which this report has tried to ascertain at a very early stage in their implementation. Three broad conclusions emerged from this overview as follows:

1. The costs of inaction are potentially tremendous. The maritime transport system is vulnerable to being targeted and/or exploited by terrorists. A large attack, especially a well-coordinated one, could have the result of shutting down the entire system as governments scramble to put in place appropriate security measures. These may be drastic, such as the complete closure of ports, and inefficient, such as duplicative and lengthy cargo checks in both originating and receiving ports. The cost of such an attack would likely be measured in the tens of billions of U.S. dollars (e.g., up to 58 billion U.S. dollars for the United States alone). It is precisely for these reasons that governments have sought to strengthen their security dispositions regarding maritime transport.

2. Some costs of maritime security actions are more easily measured than others, and those costs that can be measured with some precision are significantly less than the potential cost of doing nothing. Generally, ship-related costs tend to be relatively easy to ascertain as these involve specific equipment purchases and labor costs at known international rates. OECD estimates that the initial burden on ship operators will be at least 1,279 million U.S. dollars and 730 million U.S. dollars per year thereafter. The bulk of ship-related costs are related to management staff and security-related equipment expenditures. Estimates on port-related security costs are extremely difficult to derive as it is yet uncertain what the impact of IMO measures will be on hiring of new security personnel and what will be the applicable labor rates. Some of the most difficult costs to estimate are those that derive from system-wide procedural changes. Overall, OECD finds that, for the costs that can be measured, the resulting figure of slightly over 2 billion U.S. dollars is still substantially below the costs that might result from a major attack.

3. Many of the measures proposed have distinct benefits that are not related to their anti-terrorism task. These benefits result from reduced delays, faster processing times, better asset control, decreased payroll due to information technology improvements, fewer losses due to theft, decreased insurance costs, etc. These savings can be significant, and can serve to counter-balance the increase in security costs.

Most participants in the international maritime trading system agree that the recently enacted maritime security measures are desirable. They are not free, but they do bring about benefits that go beyond their mitigating impacts on terrorism. The extent of their costs is uncertain, but it is

likely to be much less than the extent of costs linked to inaction. What is certain is that some of these measures have the potential to change long-established practices in the industry – for the better.

For a copy of this report, refer to the following OECD Internet Web Link: http://www.oecd.org/dataoecd/63/13/4375896.pdf.

C. Container Security (GAO)

The U.S. General Accounting Office (GAO) has published a report (GAO-03-770) dated July 2003 and titled *Container Security: Expansion of Key Customs Programs Will Require Greater Attention to Critical Success Factors*. Ocean containers play a vital role in the movement of cargo between global trading partners. In 2002, more than 7 million ocean cargo containers arrived at U.S. seaports. Responding to heightened concern about national security since September 11, 2001, several U.S. government agencies have acted to prevent terrorists from smuggling weapons of mass destruction (WMD) in cargo containers from overseas locations to attack the United States and disrupt international trade.

Because of its frontline responsibilities for inspection at U.S. ports of entry, the U.S. Customs Service, U.S. Department of Homeland Security, assumed the lead role in improving ocean container security and reducing the vulnerabilities associated with the overseas supply chain. Announced in January 2002, the Container Security Initiative (CSI) places Customs staff at designated foreign seaports to screen containers for weapons of mass destruction. In November 2001, Customs initiated the Customs-Trade Partnership Against Terrorism (C-TPAT), in which private companies improve the security of their supply chains in return for the reduced likelihood that their containers will be inspected for weapons of mass destruction. Customs quickly implemented both programs in the first year. It concluded bilateral arrangements with foreign governments to place Customs personnel at 24 foreign ports and deployed staff to 5 of these ports under CSI, and it enrolled more than 1,700 companies in C-TPAT. Customs is developing critical program elements intended to ensure that C-TPAT companies improve and maintain their security practices.

The report indicates that GAO found that Customs' implementation of these programs evolved in response to challenges it encountered. Although Customs is preparing to devote significantly more resources to CSI and C-TPAT as it expands these programs, it has not taken adequate steps to incorporate factors necessary for the programs' long-term success and accountability. These factors include human capital planning, development of performance measures, and strategic planning. To ensure that CSI and C-TPAT achieve their long-term objectives, GAO recommends that the Secretary of Homeland Security, working with the Commissioner of Customs and Border Protection and managers for both programs, take the following steps: (1) develop human capital plans that clearly describe how the programs will recruit, train, and retain staff; (2) expand efforts to develop performance measures that include outcome-oriented indicators; and (3) develop strategic plans that clearly lay out the programs' goals, objectives, and implementation strategies.

For further information, contact Loren Yager, Director of International Affairs and Trade, U.S. General Accounting Office, 441 G Street, NW, Washington, DC 20548, (telephone: (202) 512-4347, electronic mail: yagerl@gao.gov). A copy of the report can be accessed at the following GAO Internet Web Link: http://www.gao.gov/cgi-bin/getrpt?GAO-03-770.

D. International Sewage Pollution Prevention Equivalency Documentation (CG)

On September 4, 2003, (68 FR 52593-52594), the Coast Guard (CG), U.S. Department of Homeland Security, issued a notice of policy regarding international sewage pollution prevention equivalency documentation. On September 27, 2003, revised Annex IV (sewage) of the 1973 International Convention for the Prevention of Pollution from Ships, as modified by the Protocol of 1978, as amended, (MARPOL 73/78), will enter into force internationally. The United States is not a party to Annex IV of MARPOL 73/78; however, U.S. flagged vessels visiting nations that are parties may need to demonstrate compliance with these MARPOL regulations on the prevention of pollution by sewage from ships. The Coast Guard plans to assist qualified U.S. flag vessels in demonstrating compliance with these MARPOL requirements by issuing a document certifying equivalent compliance with the revised Annex IV. Failure of a U.S. flagged vessel to have the appropriate certificate or a document stating shipboard equivalency to MARPOL 73/78, Annex IV, could result in a port state detention abroad.

The United States considers a Coast Guard certified marine sanitation device (MSD) to offer equivalent sewage pollution prevention to MSDs with an IMO Certificate of Type Test demonstrating compliance with the performance requirements of revised Annex IV of MARPOL 73/78. Therefore, any vessel with an installed and operational Coast Guard certified MSD which meets the criteria of 33 CFR part 159 should be eligible to receive documentation certifying equivalent compliance with revised Annex IV.

For further information, contact LCdr. Brian Downey, Office of Compliance (G-MOC), U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (telephone: (202) 267-2735, electronic mail: bdowney@comdt.uscg.mil).

E. Maritime Security (GAO)

The U.S. General Accounting Office (GAO) has published a report (GAO-03-1155T) dated September 9, 2003, and titled *Maritime Security: Progress Made in Implementing Maritime Transportation Security Act, but Concerns Remain*. After the events of September 11, 2001, concerns were raised over the security of U.S. ports and waterways. In response to the concerns over port security, the U.S. Congress passed the Maritime Transportation Security Act (MTSA) in November 2002. The MTSA created a broad range of programs to improve the security conditions at the ports and along U.S. waterways, such as identifying and tracking vessels, assessing security preparedness, and limiting access to sensitive areas. A number of executive agencies were delegated responsibilities to implement these programs and other provisions of the Act.

The GAO has found that agencies responsible for implementing the security provisions of the MTSA have made progress in meeting their requirements. Thus far, GAO has obtained information about 43 of 46 specific action areas, and efforts are under way in 42 of them. For example, the Coast Guard, the U.S. Department of Homeland Security (DHS) agency with lead responsibility for most of the assignments, has published six interim rules covering responsibilities ranging from security of port facilities to vessel identification systems. Two other agencies within the new DHS – the Transportation Security Administration and the Bureau of Customs and Border Protection – have actions under way in such areas as establishing an identification system for millions of port workers and setting information requirements for cargo. The Maritime Administration of the U.S. Department of Transportation has already completed or is well into implementing such responsibilities as developing training for security personnel.

While much has been accomplished, GAO's review found five areas of concern. Three relate primarily to security issues: (1) the limited number of ports covered by the vessel identification system, (2) questions about the scope and quality of port security assessments, and (3) concerns related to approving security plans for foreign vessels. Two relate primarily to organizational and operational matters: (1) potential duplication of maritime intelligence efforts, and (2 inconsistency with Port Security Grant Program requirements.

For further information, contact Ms. Margaret Wrightson, Director, Homeland Security and Justice Issues, U.S. General Accounting Office, 441 G Street, NW, Washington, DC 20548, (telephone: (415) 904-2000, electronic mail: wrightsonm@gao.gov). A copy of the report may be accessed at the following GAO Internet Web Link: http://www.gao.gov/cgi-bin/getrpt?GAO-03-1155T.