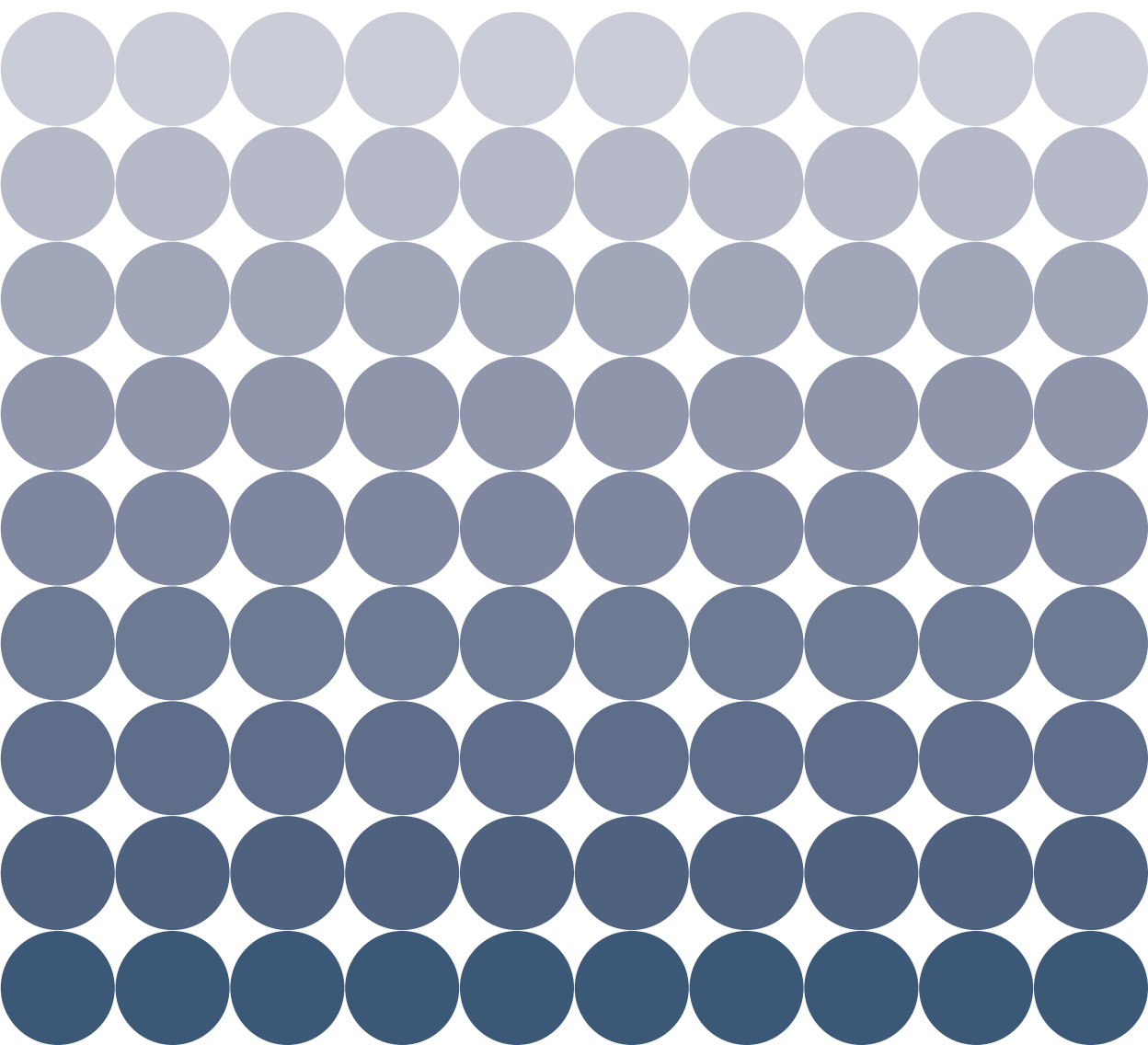


MARITIME TRANSPORT AND DESTABILIZING COMMODITY FLOWS

HUGH GRIFFITHS AND MICHAEL JENKS



STOCKHOLM INTERNATIONAL PEACE RESEARCH INSTITUTE

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Maritime Transport and Destabilizing Commodity Flows

SIPRI Policy Paper No. 32

HUGH GRIFFITHS AND MICHAEL JENKS



**STOCKHOLM INTERNATIONAL
PEACE RESEARCH INSTITUTE**

January 2012

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ISSN 1652-0432 (print)

ISSN 1653-7548 (online)

ISBN 978-91-85114-71-9

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Preface

Maritime transport flows are the lifeblood of global trade. They are also the dominant means of transporting a range of potentially destabilizing commodities that threaten states and societies throughout the developing and developed worlds. Maritime transport is the preferred mode for this clandestine trade not least because the high seas are the most difficult areas of our planet to monitor or regulate. No state effectively controls the vastness of this territory; despite advances in the application of satellite and ship monitoring technologies and enhanced information sharing in certain areas, much remains unknown.

This SIPRI Policy Paper aims to fill a crucial knowledge gap by—for the first time in a public document—providing an analysis of the ships involved in the transport of some of the most destabilizing commodities: narcotics, arms and dual-use goods essential to the development of weapons of mass destruction. It also identifies ‘choke points’ and weaknesses in trafficking techniques, which—if the political will and requisite resources exist—can be exploited to better prevent destabilizing maritime transfers. The study further recommends actions that could be implemented at relatively low cost, using existing mechanisms, but that could have major and lasting benefits for global economic and human security. Through this study, the authors offer a much-needed focus on and practical solutions to one of the most important global security challenges for policymakers, civil society and industry in the 21st century.

The analysis is based on the SIPRI Vessel and Maritime Incident Database (VMID), which has been developed by SIPRI over the past two years. I would like to congratulate Hugh Griffiths, Michael Jenks and the Countering Illicit Trafficking—Mechanism Assessment Projects (CIT-MAP) team for their vision and enormous dedication in creating this remarkable resource. Special thanks are due in this regard to Lawrence Dermody, Edin Omanovic, Julia Rundberg, Laura Duran, Shermaine Ho, Allard Duursma, Mircea Budulean, Agnieszka Górna, Sanna Baymani, David Björnberg, Elias Efvergren, Sofia Ek, Alex Hansson, Marika Hjalsten, Sebastian Sanchez and David Shamy.

SIPRI would like to thank the senior officials from European Union member states, the European Commission, the European External Action Service, the Maritime Analysis and Operations Centre for Narcotics and the European Maritime Safety Agency, along with the admirals of the Wise Pen Team of the European Defence Agency, for hosting meetings and study visits in Brussels and Lisbon. SIPRI is also grateful for the input of numerous government officials and experts in other parts of Europe, the Americas, Asia and the Caribbean regarding this report and the development of the VMID. Finally, thanks are due to all those within SIPRI who offered the fruits of their experience and expertise in the development of this report, in particular Dr Ian Anthony, Mark Bromley, Aaron Dunne, Dr Paul Holtom and the SIPRI editors, especially Caspar Trimmer.

Dr Bates Gill
Director, SIPRI
January 2012

Summary

Maritime transport dominates international trade in licit and illicit goods. It accounts for the majority of seizures and suspect shipments of military equipment and dual-use goods (goods that have both civilian and potential military applications, including in the development of weapons of mass destruction and missiles) originating from or destined for embargoed states such as Iran and North Korea. It is the primary means of delivering shipments of conventional arms to actors involved in conflicts in Africa. Sea transport plays a major role in global flows of narcotics and associated chemical precursors. It is also the main mode of transport for other illicit and potentially destabilizing commodities, such as smuggled tobacco, oil and counterfeit goods.

One reason why maritime transport offers the greatest scope for trafficking of destabilizing commodities is that it is more difficult for states to monitor and control than any other means of international bulk transport. Jurisdiction over merchant shipping in international waters rests with a vessel's flag state and, as a result, ships suspected of carrying destabilizing commodities cannot be boarded—and the commodities seized—without the prior agreement of the flag state. The majority of ships involved in reported destabilizing military equipment, dual-use goods and narcotics sail under so-called flags of convenience and are registered in flag states with limited regulation and control of their merchant fleets. Nevertheless, the ships' owners are mainly companies based in European Union (EU), North Atlantic Treaty Organization (NATO) and Organisation for Economic Co-operation and Development (OECD) member states.

The most common ship types used in reported destabilizing military equipment, dual-use goods and narcotics transfers are general cargo ships and container ships. Ships involved in cases where the owner, commercial operator or officers appear to have been complicit in the transfer have an average age of more than 27 years. These ships tend to have poor safety and environmental inspection records or to have been involved in previous accidents or pollution incidents. A majority of the flags of convenience under which these vessels sail have been consistently targeted for inspection by port state control (PSC) regimes on the basis of poor performance in previous inspections.

Arms proliferation networks are increasingly adopting techniques pioneered by drug trafficking organizations that integrate their logistics operations within the global supply chain through the use of sealed shipping containers, which are carried aboard vessels that are owned by mainstream shipping companies and engaged in licit trade. Such techniques represent the most cost-effective method when traffickers are confronted by well-resourced and coordinated surveillance operations supported by international agreements such as United Nations arms embargoes and counter-narcotics conventions.

There are significant differences between the frequency with which different types of commodity involved in destabilizing transfers are seized when detected. While almost all reported cases involving narcotics and precursors end in seizure

of the commodity, seizure rates for destabilizing military equipment and dual-use goods transfers are highly dependent on the countries involved. Significantly, more than half of reported destabilizing transfers to or from Iran and North Korea have resulted in seizure, but the seizure rates for shipments ultimately destined for embargoed states, regions or groups in Africa have been very low.

Recommendations

1. Efforts to counter maritime trafficking should recognize the utility of PSC as a ‘choke point’ to monitor and control poorly regulated flag of convenience ships suspected of involvement in destabilizing commodity flows.

2. The more advanced PSC regimes should initiate outreach, training and technical cooperation to PSC authorities at ports identified as being more frequently visited by vessels suspected of involvement in particular destabilizing commodity flows.

3. At national level, operational links should be strengthened between PSC authorities and export control, customs, security and intelligence agencies. PSC authorities should be trained to identify suspect cargoes and ships.

4. At international and regional levels, formal and informal information sharing on suspect vessels should be improved between different governments and relevant PSC authorities.

5. Political support should be enhanced for a holistic approach to maritime security, using technologies, instruments and assets currently used for environmental protection, ship monitoring, fisheries protection and other aspects of maritime governance and surveillance in order to better target destabilizing maritime trade.

6. Governments should initiate dialogue with global shipping industry representatives on addressing destabilizing maritime trade, in particular the growing use of containerization.

7. In the EU, a mechanism should be established for sharing information on suspect shipments and ships that effectively shares information with and between relevant government agencies and PSC authorities.

Abbreviations

| | |
|-----------|--|
| DRC | Democratic Republic of the Congo |
| EU | European Union |
| GT | Gross tonnes |
| IMO | International Maritime Organization |
| IRISL | Islamic Republic of Iran Shipping Lines |
| ITF | International Transport Workers' Federation |
| IUU | Illegal, unreported and unregulated |
| NATO | North Atlantic Treaty Organization |
| OECD | Organisation for Economic Co-operation and Development |
| Paris MOU | Paris Memorandum of Understanding on Port State Control |
| PSC | Port state control |
| SALW | Small arms and light weapons |
| Tokyo MOU | Memorandum of Understanding on Port State Control in the Asia–Pacific Region |
| UN | United Nations |
| UNCLOS | UN Convention on the Law of the Sea |
| VMID | Vessel and Maritime Incident Database |
| WMD | Weapon(s) of mass destruction |

1. Introduction

Maritime transport accounts for at least 80 per cent of internationally traded goods.¹ The development of the maritime transport system, in combination with new technologies such as containerization, has facilitated a quadrupling of sea-borne trade in the past 40 years.² This growth has been one of the most important drivers of globalization.

Maritime transport also dominates in illicit and destabilizing trade flows. Organized criminal networks take advantage of the many gaps in the governance and surveillance of the maritime domain to smuggle, for example, narcotics, tobacco, counterfeit consumer goods and undocumented migrants. This trade not only has profound social and economic consequences for the destination countries but it can have a destabilizing effect on global peace and security.³ The production, control and transfer of narcotics threaten the governance structures in Afghanistan, Belize, Colombia, El Salvador, Guatemala, Guinea, Guinea-Bissau, Honduras, Iran, Mexico, Pakistan and Sierra Leone, among others, through a combination of conflict and corruption.

Shipments of arms and related goods that violate the letter or the spirit of national and international law and norms also commonly go by sea. Such transfers can destabilize volatile regions, inflame ongoing conflicts and even aid the proliferation of weapons of mass destruction (WMD). Sea transport accounts for the majority of seizures and suspect shipments of military equipment, dual-use goods and missile technology originating from or destined for states under comprehensive United Nations sanctions, such as Iran and North Korea.⁴ It is also a primary means of delivering large shipments of heavy conventional weapons and military equipment to fragile states in the developing world. These flows have included deliveries of arms, ammunition and other military equipment to current sites of conflict in Africa such as the Democratic Republic of the Congo (DRC)

¹ United Nations Conference on Trade and Development (UNCTAD), *Review of Maritime Transport 2008*, (UNCTAD: Geneva, 2008), p. 14. The International Maritime Organization (IMO) cites a figure of more than 90%. See e.g. the IMO homepage, <<http://www.imo.org/>>.

² Isalgue, A., Martinez, F. X. and Castells, M., 'The importance of the improvements on the maritime transport in the global trade', eds R. Rodriguez-Martos, R. Mari and F. X. Martinez, *Maritime Transport IV* (Universitat Politècnica de Catalunya: Barcelona, 2009), pp. 683–95.

³ E.g. ships are used to transport the bulk of counterfeit goods from production and transit sites in Asia and the Middle East to markets in Africa, North America and Western Europe. The value of this overwhelmingly seaborne trade is estimated at \$200 billion per year, which is more than the gross domestic products of 150 countries. Smuggled commodities such as cigarettes and counterfeit goods deprive governments of tax revenues while legitimate manufacturers suffer significant income loss. European Commission, Taxation and Customs Union Directorate-General, 'Report on Community customs activities on counterfeit and piracy: results at the European border,' 2007, 19 May 2008, <http://ec.europa.eu/taxation_customs/resources/documents/customs/customs_controls/counterfeit_piracy/statistics2007.pdf>; UN Office on Drugs and Crime (UNODC), *The Globalization of Crime: A Transnational Organized Crime Threat Assessment* (UNODC: Vienna, 2010), pp. 174–75; Organisation for Economic Co-operation and Development (OECD), *The Economic Impact of Counterfeiting and Piracy: Executive Summary* (OECD: Paris, 2007), p. 16; and von Lampe, K., 'The illegal cigarette trade', ed. M. Natarajan, *International Criminal Justice* (Cambridge University Press: Cambridge, 2011), p. 148.

⁴ Dual-use goods are goods that have both civilian and potential military applications, including in the development of WMD and missiles.

and Sudan. Studies have found that sea transport has been the primary means of illicit deliveries of small arms and light weapons (SALW) to non-state actors in Colombia, Somalia and Sri Lanka.⁵

These destabilizing commodity flows transported via sea can have devastating consequences for states and societies in both the developing and the developed worlds. Yet little is known about the ships involved: their nationality, ownership, age, type, safety record, and so on. There have to date been no published studies or mapping exercises providing an overview of the vessels reportedly involved in such shipments.

This Policy Paper aims to address this knowledge gap by publishing, for the first time, data and data analysis on the vessels reported as involved in a number of these destabilizing commodity flows. In doing so, it identifies common dynamics, recurring patterns and current trends that could be topics for further research together, along with some general conclusions and recommendations on how maritime security and governance in these areas can be enhanced. The data is taken from the Vessel and Maritime Incident Database (VMID) compiled and maintained by SIPRI's Countering Illicit Trafficking–Mechanism Assessment Projects (CIT-MAP).

The structure of the report

The rest of this chapter introduces the Vessel and Maritime Incident Database. It outlines the contents and structure of the database, including a unique taxonomy used to categorize ships and incidents based on the ways in which the transfers were carried out and the level of complicity or negligence on the part of those responsible for the ship. It also introduces the data set of reported destabilizing commodity transfers examined in this Policy Paper. Chapter 2 presents data from the VMID relating to the national flags flown by ships reported as involved in destabilizing commodity transfers, highlighting the disproportionate involvement of ships flying so-called flags of convenience. Chapter 3 presents data on where the owners of the ships involved in these reported destabilizing commodity transfers are based. It also presents data on the types of ship most frequently involved, and their average age.

Chapter 4 examines the apparent nexus between poor safety records and the ships and flags reported as involved in destabilizing commodity transfers, with a focus on the role of port state controls. Chapter 5 presents some other notable trends highlighted by the VMID, such as the increasing use of containerized freight traffic by narcotics traffickers. It also examines methods used by proliferation networks linked to Iranian and North Korean points of origin or destination

⁵ Cragin, K. and Hoffman, B., *Arms Trafficking and Colombia* (RAND Corporation: Santa Monica, CA, 2003), p. 27; Schroeder, M., *Small Arms, Terrorism and the OAS Firearms Convention*, Federation of American Scientists (FAS) Occasional Paper no. 1 (FAS: Washington, DC, Mar. 2004), p. 24; United Nations, Security Council, Report of the Panel of Experts on Somalia pursuant to Security Council Resolution 1474 (2003), S/2003/1035, 4 Nov. 2003, pp. 18–20; and Chalk, P., 'Liberation Tigers of Tamil Eelam's (LTTE) international organization and operations: a preliminary analysis', Canadian Security Intelligence Service Commentary no. 77, 1999.

to continue to ship arms and dual-use goods in the face of strong international sanctions. Finally, it highlights the glaring disparities between the levels of resourcing, cooperation and enforcement applied to combating, on the one hand, maritime narcotics flows and proliferation-related activities linked to Iran and North Korea and, on the other, shipments of conventional arms to zones of conflict.

The SIPRI Vessel and Maritime Incident Database

The study is based on analysis of data extracted from the SIPRI Vessel and Maritime Incident Database. The VMID is a unique database of commercial vessels reportedly involved in a range of illicit or potentially destabilizing activities since the early 1980s.

The VMID includes details of the vessels involved in over 2500 reported cases of maritime trafficking of illicit goods, from narcotics and their precursor chemicals to counterfeit goods to smuggled consumer goods and oil; potentially destabilizing transfers by sea of weapons and dual-use items; and various other illicit activities such as illegal unreported and unregulated (IUU) fishing and the movement of undocumented migrants in vessels that pose a safety risk to their passengers. Comprehensive historical data on the ships—including reported accidents, inspections, changes of flag or ownership and name—comprises over 11 000 separate records.

The database is the result of the first and only comprehensive survey of this kind, undertaken in 2010–11. The database is based on open sources—books, journals, media articles and governmental and non-governmental reports available online or obtained from government agencies on the basis of freedom-of-information requests.⁶ The VMID represents the most complete collection of information on vessels reportedly involved in illicit and destabilizing commodity flows produced to date by an independent research institute.

Vessels included in the VMID are sea-going commercial vessels of all sizes reported to have been involved in illicit or potentially destabilizing activities by a credible source. As far as possible, information on individual incidents is gathered from multiple sources. For inclusion, it is not necessary for the incident to have led to legal proceedings. Cases where the original charges or suspicions appear to have been dropped are excluded.

The structure of the VMID

The VMID identifies vessels over 100 gross tonnes (GT) by their seven-digit International Maritime Organization (IMO) number. All vessels over 100 GT are assigned a unique IMO number by IHS Fairplay. As the IMO number remains the same throughout the lifetime of the ship, this makes it possible for the VMID to

⁶ The database also includes some information from limited-distribution documents obtained by SIPRI. This information is not included in the statistical analyses presented here but supports the general trends observed.

trace the histories of individual vessels even when the name, owners and national registration change or are falsified.

In the case of smaller vessels, non-commercial vessels without IMO numbers—for example, most private yachts, most fishing vessels, go-fast boats, semi-submersibles and submarines—the VMID contains information on reported incidents but limited data is available on the vessels themselves. Such incidents and vessels are not the subject of this Policy Paper and unless otherwise indicated, ‘ship’ should be understood here as referring to sea-going merchant vessels over 100 GT.

For reported incidents of trafficking, smuggling, destabilizing transfers and IUU fishing, the VMID contains the month and year of the incident, the type of incident reportedly involved (narcotics trafficking, smuggling of counterfeit goods and so on), the category assigned to the incident (see below), the text of reports of the incident, and data on the ship involved. This ship data includes the IMO number, the year the ship was built, and the following data valid at the time of the incident: ship name, the national shipping registry (flag state) to which it was registered; the registered and beneficial owners, and the countries in which they were located; the commercial operator; and the type of vessel.⁷

For each ship, the VMID also contains substantial historical data from both before and after the incident: changes of ship name, flag state or ownership; the number and location of port state control (PSC) safety inspections (see chapter 3) it has undergone; the number and type of deficiencies found during those inspections and any resulting detentions; and reported collisions and other accidents involving the ship.

A wide variety of sources, including free online databases, subscription-based databases and maritime publications have been used in the compilation of the VMID. These include databases such as vesseltracker.com, Equasis and the US Coast Guard’s Marine Information for Safety and Law Enforcement (MISLE). Data on individual ships, including registration and ownership histories, vessel type, build year and inspection reports, among others, was checked against data from the subscription-based Lloyd’s List Intelligence Seasearcher service, which is considered the most authoritative source.

The data set analysed in this report

The statistics and analysis presented here examine a specific subset of vessels and incidents recorded in the VMID: merchant ships reportedly involved in transfers of narcotics (including the precursor chemicals used in their production) and in destabilizing transfers of arms, ammunition and other military equipment and of dual-use goods (goods with both potential civilian and

⁷ These fields are discussed in chapters 2 and 3. The VMID does not systematically include data on a range of other actors involved in the ownership and operation of vessels, due to limited availability of open source data. These include the technical manager, the company responsible for the repair and maintenance of the ship and ‘in many instances the crew’; third party operators, companies that undertake ‘control, management, operation or agency’ of the ship under a period charter; and the nominal owners, ‘finance organisations or mortgages behind the purchase of the vessel’. Definitions are taken from the Lloyd’s List Intelligence Seasearcher service. Note that definitions and terms vary between organizations.

potential military applications), between January 1991 and December 2011.⁸ IMO-numbered fishing vessels are included, but IMO-numbered private yachts are excluded.

The focus on these commodities was chosen because of the particularly destabilizing effects their production, trade, stockpiling and use can have on global peace and security. Globally, they are the most conflict-sensitive of all commodities. This data set represents 560 out of more than 2500 vessels in the VMID.

Statistics on the world merchant fleet used for comparison with the data set are based on a 10-year average of statistics maintained by IHS Fairplay (2000–2009).⁹ Where historical statistics are missing the latest available figure (for 2009) is used. Where certain countries are missing from the IHS Fairplay statistics, the US Central Intelligence Agency (CIA) World Factbook is used.¹⁰

The VMID taxonomy of vessels and incidents

Alongside the data on the ships themselves, each of the vessels in the VMID is assigned to one of five categories. These categories are intended to reflect the degree of complicity, negligence and ignorance on the part of the ship's owners, operators, captain, other officers or crew in the illicit or destabilizing transfer. This unique typology can afford a more nuanced analysis of transfers and can help in identifying the most effective policy responses.¹¹

Vessels are assigned a category based on SIPRI's assessment of the circumstances of the transfer, based on the information available from sources such as documentation of any subsequent investigations, court proceedings and media reports. The categorization is always tentative and is not intended as a definitive assessment of legal responsibility and culpability in individual cases.

As far as possible, the factors taken into account in assigning categories reflect those used by criminal intelligence, law enforcement and military intelligence agencies, and research institutes in European Union (EU) and North Atlantic

⁸ 'Narcotics' refers to controlled substances listed in the 'List of narcotic drugs under international control' prepared by the International Narcotics Control Board, <http://www.incb.org/incb/yellow_list.html>. 'Precursors' refers to chemicals in the two lists compiled by the US Drug Enforcement Agency in accordance with the US Chemical Diversion and Trafficking Act, Code of Federal Regulations, title 21, vol. 9, section 1310.02 of 1 Apr. 2009. In identifying destabilizing arms transfers, SIPRI follows the Wassenaar Arrangement description of transfers that are assessed to 'contribute to a destabilising accumulation or to be a potential threat to security and stability in the region of destination'. These include transfers of materiel and dual-use goods to destinations under arms embargoes or located in conflict zones. Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-use Goods and Technologies, 'Best practices to prevent destabilising transfers of small arms and light weapons (SALW) through air transport', Vienna, Dec. 2007. For details of arms embargoes currently in force see the SIPRI Arms Embargoes Database, <<http://www.sipri.org/databases/embargoes>>.

⁹ IHS Fairplay, *World Fleet Statistics 2009* (IHS Fairplay: London, 2010); and Lloyd's Register–Fairplay, *World Fleet Statistics 2006, 2007 and 2008* (Lloyd's Register–Fairplay: London, 2007/2008/2009).

¹⁰ Central Intelligence Agency (CIA), 'Country comparison: merchant marine', World Factbook, <<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2108rank.html>>.

¹¹ The very few prior attempts to develop typologies of trafficking incidents relate only to narcotics. See e.g. Aune, B. R., 'Maritime drug trafficking: an underrated problem', *Bulletin on Narcotics*, vol. 42, no. 1 (Jan. 1990), p. 64.

Treaty Organization (NATO) member states to profile ships and shipments based on identification of anomalies and risk analysis. The categorizations also acknowledge a range of profile indicators or risk assessment systems applied by criminal intelligence, law enforcement and military intelligence agencies and research institutes, which are used to filter shipments and vehicles on the basis of risk analysis and anomaly detection. The taxonomy also takes into account advances in maritime transport technology, customs and criminal intelligence profiling methods that have been developed in recent years as they relate to containerization as well as voyage anomalies.¹²

Among the factors taken into consideration are (a) the type of goods involved, and particularly whether the ship's officers or crew could be expected to know that the goods were illicit or sensitive; (b) the point of origin, routing and destination;¹³ (c) payment methods used; (d) how the goods were stowed or concealed on the ship; (e) any change of flag state around the time of the incident—ships known to be involved in destabilizing transfers with the complicity of the owners have changed flag immediately before or during the transfer; (f) any changes in ownership structure immediately before the incident, for example if the ship was bought by a new beneficial owner that owned no other ships and did not register contact details; (g) the ship's voyage history before and after the incident; (h) evident discrepancies between what was stated on the cargo manifest and the appearance of the cargo; and (i) if a shipping container used in the transfer belonged to, or carried the markings of, a company designated by international organizations and monitoring agencies as subject to an asset freeze or that appeared on national or international watchlists.

It is important to note that the SIPRI taxonomy is not based on legal responsibility. Determining who is legally responsible for vessels and cargoes can be very difficult because of the use of flags of convenience (see chapter 2), single-ship registered owner companies and complicated ownership structures that are deliberately designed to limit the liability of the ultimate owner. The ship's captain is, in principle, legally responsible for the vessel and ensuring it complies with national and international laws. However, the successful prosecution of a ship's captain, operator or owner for a trafficking offence involving arms, dual-use goods, narcotics, precursors or other contraband requires the prosecuting authority to prove their involvement with court-admissible evidence.

¹² These include a wide variety of systems currently employed by EU and NATO member states and organizations. For a list of the type of anomalies considered by military and maritime law enforcement officials see Van Laere, J. and Nilsson, M., 'Evaluation of a workshop to capture knowledge from subject matter experts in maritime surveillance', Paper presented at the 12th International Conference on Information Fusion, Seattle, WA, 6–9 July 2009, <<http://isif.org/fusion/proceedings/fusion09CD/data/papers/0413.pdf>>.

¹³ All merchant ships over 300 tonnes are obliged to register their movements through an automated identification system (AIS). This makes it possible to see e.g. when a ship stops at sea close to a second vessel or makes a diversion that is not in accordance with declared cargo or route. This may be used by maritime safety and security organizations to target a vessel for closer inspection by naval forces or law enforcement agencies at its next port of call.

Category 1

Category 1 includes cases where there appears to have been direct involvement, a high degree of complicity or gross negligence on the part of one or more of the ship's owner, commercial operator or officers, based on reporting of the incident.

The cargo ship *Vicky-B*, IMO 5239199, is an example of a category 1 ship. This 51-year-old Guyanese-flagged ship, which had previously been registered under the Panamanian, Albanian, Bolivian and German flags, was intercepted outside the port of Soufrière, Saint Lucia, by St Lucian police on 24 September 2011. Police seized 30 kilograms of cocaine, 46 kg of marijuana, SALW, ammunition and grenades, all of which were secreted in a compartment aboard the ship. The police arrested six Guyanese men aboard the ship, including the captain, and charged them with offences ranging from possession of narcotics to possession of dangerous weapons. Following the incident the police seized the vessel. Contemporary media reports stated that the owner of the ship had gone into hiding.¹⁴

Category 2

Category 2 includes cases where there appears to have been direct involvement or a high degree of complicity on the part of one or more crew members, but no knowledge on the part of the ship's owners, operators or officers.

An example of a category 2 vessel is the four-year-old Singapore-flagged and Norwegian-owned chemical tanker *Stolt Basuto*, IMO 9351543. A crew member was sentenced on 19 November 2010 for attempting to smuggle 33 kg of cocaine from Colombia to Houston, Texas. The captain had informed the US authorities when he learned that the cocaine was aboard the ship.¹⁵

Category 3

Category 3 includes cases where it appears that the ship's owners, operators or officers were aware of the conflict-sensitive or potentially suspect nature of the cargo and through a more thorough examination of the documentation and circumstances surrounding the shipment, such as the nature of the charterer, consignee, consignor or freight forwarder, unusual methods of contracting or payment, or anomalies in the documentation, they could have gained grounds for suspicion as to the potentially destabilizing or illicit nature of the shipment.

An example of a category 3 vessel is the 30-year-old *Faina*, IMO 7419377, a Belize-flagged, Ukrainian-owned roll-on roll-off cargo ship that was hijacked by pirates on 25 September 2008 while transporting a large quantity of military equipment. The cargo included T-72 tanks, multiple launch rocket systems, and SALW, and was to be unloaded at the Kenyan port of Mombasa.

¹⁴ Royal Saint Lucia Police Force, 'Guyanese nationals on cargo ship charged for drugs and dangerous weapons' Press release, 5 Oct. 2011, <<http://www.rslpf.com/news2011.10.05b.html>>; Charles, M., Deputy Chief of Police (Operations), Royal Saint Lucia Police Force, Interview with the authors, 28 Dec. 2011; and 'St Lucia drugs, guns bust . . . Guyanese boat owner goes into hiding', Stabroek News, 2 Oct. 2011, <<http://www.stabroeknews.com/2011/news/stories/10/02/guyanese-boat-owner-goes-into-hiding/>>.

¹⁵ United States Attorney's Office, Southern District of Texas, 'Final defendant sentenced for trafficking scheme', News release, 13 Jan. 2011.

While the documents accompanying the shipment listed the Kenyan Government as the consignee—which was confirmed by the Kenyan Government—several of the commercial transport actors involved in the shipment have since said that they knew at the time that it was destined for Southern Sudan. Although not prohibited by a UN arms embargo, importing arms into Southern Sudan would have been a violation of the 2005 Comprehensive Peace Agreement between the Government of Sudan and the southern rebel group the Sudan People's Liberation Movement/Army (SPLM/A) without advance coordination with the UN and the agreement of both parties.

None of the reporting of the case suggests that the *Faina's* owners, operators or officers were aware that the intended final destination of the shipment was Southern Sudan. Nevertheless, the *Faina* is assigned to category 3 on the basis that, had any of these parties chosen to explore the anomalies in the documentation, they could have learned of the real destination and, from that, further ascertained that the transfer would have violated the peace agreement and thus been destabilizing. The contract number on the cargo manifest included the formulation 'GOSS', which has been interpreted as an abbreviation of 'Government of South Sudan'.¹⁶

Category 4

Category 4 includes cases where neither the ship's owners, operators, officers or crew members apparently had any knowledge of the potentially illicit or conflict-sensitive nature of the cargo, but the shipment nevertheless involved consignors, consignees, charterers, freight forwarders, points of origin or destination states, or other factors that would have given it a high risk profile if entered into an information-sharing and risk-assessment system supported by Organisation for Economic Co-operation and Development (OECD) member states. Had the owners, operators or ship's officers had access to such a system, they could have identified the shipment as potentially suspect. In all cases in this category, goods have been carried in shipping containers, which the ship's owners, operators and officers have no right to inspect (see chapter 4).

A category 4 case is the German-owned, French-operated *Everest*, IMO 930-0154, a five-year-old container vessel flagged to the Marshall Islands. In November 2010, Nigerian security forces discovered 240 tonnes of rockets, mortar shells and small arms ammunition in 13 containers that had been shipped by the *Everest* to Tin Can Port in Nigeria from Bandar Abbas, Iran, in July 2010. Iran had been prohibited from exporting arms under UN sanctions since 2007.¹⁷

Several measures appear to have been taken to conceal the nature of the shipment. Marble slabs and glass wool had been placed in front and around some of the crates within the containers in an attempt to conceal the ammunition, and the contents had been falsely declared as 'building materials'. An attempt to hide the real consignee of the cargo was made by describing the consignee in the bill

¹⁶ Lewis, M., *Skirting the Law: Sudan's Post-CPA Arms Flows*, Human Security Baseline Assessment Working Paper no. 18 (Small Arms Survey: Geneva, 2009), pp. 39–44.

¹⁷ UN Security Council Resolution 1747, 24 Mar. 2007.

of lading as ‘to order’.¹⁸ Thus the ship’s owners, operators and officers had no knowledge or reason for suspicion regarding the container.

The company that operated the vessel, CMA CGM, subsequently stated that the containers were loaded and sealed by an Iranian company that did not appear on any list of prohibited traders.¹⁹ While the freight forwarder, Behineh Trading Company, was not on the UN consolidated list of individuals and entities subject to a travel ban or asset freeze, it had been identified as the freight forwarder responsible for an earlier shipment of smuggled military equipment in 2009 by an OECD member state.²⁰ Had the information held by the OECD member state been made accessible in an information-sharing and risk-assessment system, the shipment might have been identified as potentially suspect.

Category 5

Category 5 includes cases in which there is no reason to believe, from the known circumstances of the case, that the ship’s owners, operators, charterers, officers or crew were or could have been aware of the nature of the cargo loaded or secreted aboard the ship and, furthermore, nothing about the circumstances of the shipment would have triggered a high-risk rating as part of any intelligence-led risk analysis process supported by OECD member states. In all cases so far recorded in this category, goods have been carried in shipping containers.

An example of a category 5 vessel is the *Dole Chile*, IMO 9185281, a Bahamas-flagged, US-owned refrigerated container ship. In June 2010, US customs officers found 28.6 kg of cocaine hidden in the ventilation system of a container of bananas that the ship had transported from a South American port to Wilmington, Delaware. A customs official indicated that the shipping company was the ‘unwitting victim’ of drug traffickers.²¹

Scope and limitations

The VMID is intended primarily as a data-collection and analysis tool on historical, emerging and future long-term trends related to destabilizing commodity flows, commercial shipping patterns, piracy and IUU fishing. It can serve as a basis for case studies and for other qualitative research on particular com-

¹⁸ United Nations, Security Council, Panel of Experts established pursuant to Resolution 1929 (2010), Final report, [n.d. 7 May 2011?], <<http://www.innercitypress.com/1929r051711.pdf>>, pp. 35, 48.

¹⁹ ‘Arms found in Nigeria were headed to West Africa: Iran’, Agence France-Presse, 15 Nov. 2010, <<http://www.google.com/hostednews/afp/article/ALeqM5gg8SYEFM7CWVpyMX4cfb7WDEFmDg?docId=CNG.0c88193b3e9b4444e62e90b9ea8464d9.331>>.

²⁰ United Nations (note 18), pp. 11–12, 61. The consolidated list can be found in United Nations, Security Council, Committee established pursuant to Resolution 1737 (2006), ‘Individuals and entities designated as subject to the travel ban and assets freeze pursuant to resolution 1737 (2006) of 23 December 2006, 1747 (2007) of 24 March 2007, 1803 (2008) of 3 March 2008 and 1929 (2010) of 9 June 2010’, 19 Aug. 2010, <<http://www.un.org/sc/committees/1737/consolist.shtml>>.

²¹ Hooper, E., ‘Bananas hide \$2 million in cocaine’ National Broadcasting Company Philadelphia, 14 June 2010, <<http://www.nbcphiladelphia.com/news/local/Bananas-Hide-2M-in-Cocaine.html>>.

modity flows and geographic regions as well as more general studies on point of origin, destination and trans-shipment ports, routes and trading patterns.²²

Most VMID entries are based on open sources and the information extracted from the VMID for this Policy Paper is based on open sources only, in several languages. The VMID also contains documentation on shipments not reported in open sources.

The VMID aims to include all relevant incidents reported in open sources for the period 1985 to 2011. While it is almost inevitable that some incidents have been missed, the VMID is estimated to include more than 90 per cent of all ships over 100 GT reported as involved in illicit narcotics-related and destabilizing military-related transfers between 1991 and 2011. It is regularly reviewed and updated to incorporate new information.

It is impossible to estimate reliably what proportion of destabilizing and illicit transfers, IUU fishing and other activities covered by the VMID is detected and reported, and thus what proportion of the ships involved is captured in the VMID. The realities of maritime trade patterns, law enforcement and, possibly, diplomatic relations mean that certain transfers in certain locations are more likely to be detected than others, which introduces biases in the data held in the VMID. For example, monitoring and interdiction may be more frequent aboard those vessels owned by companies whose governments take a more proactive approach to counter-narcotics and to implementing EU and UN arms embargos and counter-proliferation initiatives. It is also possible that illicit and destabilizing transfers are more likely to be detected or reported when they involve countries subject to a greater degree of scrutiny by permanent members of the UN Security Council, media and academic publications. States that have significant naval, coastguard or intelligence resources are also more likely to detect illicit and destabilizing transfers than those that do not.

Such distortions are inevitable in a research undertaking like the VMID. However, the validity of future data samples can only be enhanced by the inclusion of more data to supplement the open-source data on which the VMID is based—for example if government authorities were to provide information on ships that is not currently available for public release.

This study focuses on statistics related to the ships involved in destabilizing commodity flows, along with the roles of their flag states, owners and officers. Many other actors also play key roles in maritime trade—and may be involved in carrying out destabilizing and illicit maritime commodity transfers.²³ No statistics are presented relating to these actors, largely because of the current structure of the VMID and a lack of sufficient open-source data. However, their role is, as far as possible, taken into account in the analysis.

²² Trans-shipment is the transfer of an item of cargo from 1 vessel to another.

²³ These actors include, among many others, freight-forwarding companies, which arrange for the shipping of goods and may prepare shipping and export documentation using their own bills of lading (a detailed list of the cargo which forms the basis of a receipt of goods) as well as warehousing, insurance and cargo tracking services; third-party operators (note 7); and shipping agents, which act on behalf of a ship's owner in a particular port and may be responsible for the ship's business as it relates to insurance or documentation.

2. Headline data: vessel flag states

All merchant vessels are required to sail under a national flag and are considered to have the nationality of the flag state.²⁴ The ship sails under the flag state's authority, and the flag state is responsible for the implementation and enforcement of laws governing safety aboard the ship, pollution and other environment-related standards, and labour conditions.²⁵ Figure 2.1 shows the 14 flag states most frequently associated with ships reported as being involved in destabilizing military equipment, dual-use goods and narcotics transfers between 1991 and 2011.

The vessel flag is of particular importance for the control of destabilizing commodity flows because, under international law, the flag state has exclusive jurisdiction over a vessel on the high seas.²⁶ This means that a naval, police or coastguard ship belonging to another state cannot interdict and seize a ship or cargo on the high seas for carrying a cargo of illicit arms or narcotics without the permission of, or a prior agreement with, the flag state.

Flags of convenience

Traditionally, a national shipping register includes that country's merchant fleet: ships owned by domestic businesses intended to meet the country's commercial shipping needs. Thus, the fleet is part of the country's commercial infrastructure. In traditional practice, crew members and, particularly, ship's officers (including the captain) are citizens of, and taxpayers in, the flag state.

However, current practices have changed this in the case of a large proportion of the world merchant fleet. Nationality patterns for maritime transport now differ significantly from those for air and land transport. This is because of the use of so-called flags of convenience: that is, registering ships in the national registry of a state other than that where the shipowner is located. This practice expanded hugely from the 1920s thanks to the emergence of so-called open registries, which facilitate or actively encourage the registration of foreign-owned, foreign-controlled and foreign-crewed vessels.²⁷

²⁴ Article 92 of the UN Convention on the Law of the Sea (UNCLOS), opened for signature on 10 Dec. 1982, entered into force on 16 Nov. 1994, *United Nations Treaty Series*, vol. 1833. Under normal circumstances, vessels are flagged to only 1 state.

²⁵ UN Convention on the Law of the Sea (note 24), Article 94.

²⁶ UN Convention on the Law of the Sea (note 24), Article 92. The only exceptions to the exclusive jurisdiction are set out in UNCLOS articles 99, 109 and 105: state authorities may board a vessel flying another state's flag to free slaves being transported, seize unauthorized broadcasting equipment or seize the property of a pirate ship.

²⁷ While 'open registry' is often used synonymously with 'flag of convenience'—and is generally preferred by the shipping industry—it is used here to refer to a shipping registry that does not set strict criteria concerning the nationality of shipowners, officers and crew and includes a large majority of foreign-owned ships.

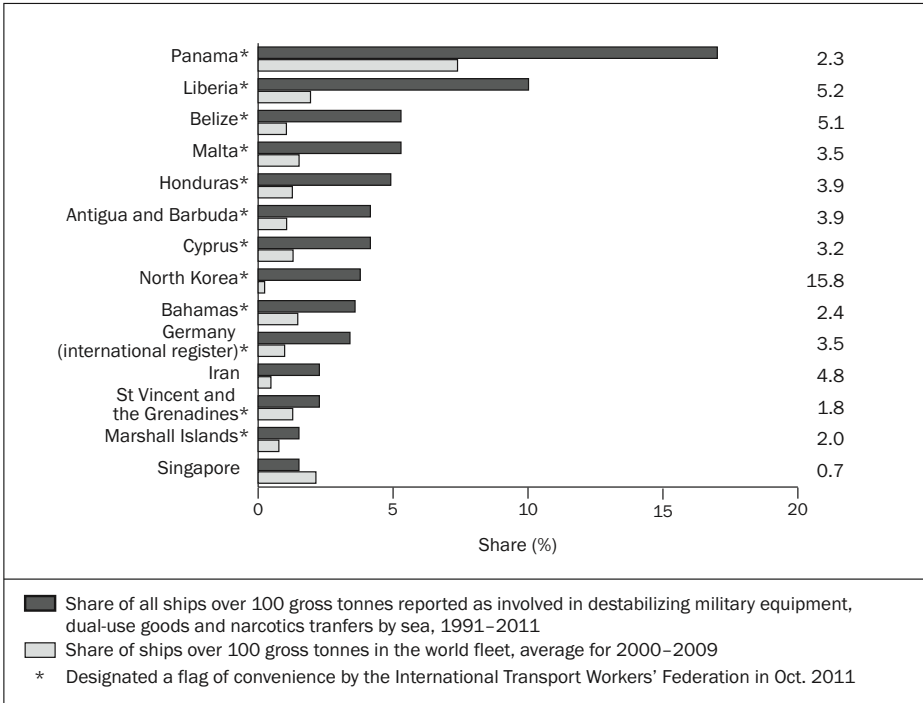


Figure 2.1. Flag states most frequently associated with reported destabilizing military equipment, dual-use goods and narcotics transfers by sea, 1991–2011, share of incidents compared with share of world fleet

Notes: The sample size is 529 ships. For each state, the figure on the right is the ratio of its share of reported incidents in 1991–2011 to its share of the world fleet in 2000–2009: a figure of 1.0 means that share of reported incidents is equal to share of the world fleet; a higher figure indicates disproportionate involvement by the flag state's ship in reported incidents.

Sources: SIPRI Vessel and Maritime Incident Database; IHS Fairplay, *World Fleet Statistics 2009* (IHS Fairplay: London, 2010); Lloyd's Register–Fairplay, *World Fleet Statistics 2006, 2007 and 2008* (Lloyd's Register–Fairplay: London, 2007/2008/2009); Central Intelligence Agency (CIA), 'Country comparison: merchant marine', *World Factbook* <<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2108rank.html>>; and International Transport Workers' Federation, 'FOC countries', <<http://www.itfglobal.org/flags-convenience/>>.

Flag of convenience processes are now established practice within sections of the world merchant fleet. The Panama Registry, the first major open registry, is now the largest national shipping registry in the world, accounting for more than 7 per cent of ships in the world merchant fleet, only a tiny proportion of which are owned by companies based there. However, the use of flags of convenience remains controversial. It has been argued that the use of flags of convenience runs contrary to the 1982 United Nations Convention on the Law of the Sea (UNCLOS), which states that there must be a 'genuine link' between the flag state

and the ship.²⁸ Many open registries are based in landlocked countries, island states with small populations or other countries with no strong maritime tradition. Flag of convenience practices are also said to comprise a central pillar of what has been termed the offshore economy—‘a new and relatively unregulated realm in which economic transactions take place with minimal intervention by the state’.²⁹

It is generally accepted that flags of convenience are often used because the flag state offers more relaxed implementation and enforcement of maritime norms and standards than might be the case in the owner’s state—for example in the areas of environmental pollution, vessel safety and labour rights—or in order to limit the owner’s legal and tax liabilities.³⁰ Open registries may impose certain restrictions on the vessels that they will accept, and—like all flags—have a list of ‘recognized organizations’—classification societies to which they delegate the checking and monitoring ships sailing under their flag for compliance with norms and standards.³¹ However, these restrictions and the rigour with which the norms and standards are implemented and enforced can vary widely between different registries.

Significantly, open registries also actively advertise for foreign ships to register with them—apparently seeing ship registration not as a method ‘to impose sovereignty . . . but as a service which is sold to foreign ship-owners’.³² Many open registries are maintained on behalf of the flag state by offshore companies that often have little administrative capacity to enforce norms and standards relating to, for example, pollution, vessel safety and labour standards.³³

Furthermore, many of the companies that offer to arrange ship registration in open registries also offer a range of other offshore financial services orientated towards minimizing tax liabilities. The central link between these offshore financial and ship registration services is the anonymity that they provide. The mechanisms by which this anonymity is achieved have been termed the ‘corporate veil’ by the OECD, and include the acceptance by open registries of bearer shares, nominee shareholders, directors, international business corporations, trusts and other intermediaries as the shipowners.³⁴

²⁸ UN Convention on the Law of the Sea (note 24), Article 91.

²⁹ Palan, R., ‘The emergence of an offshore economy’, *Futures*, vol. 30, no. 1 (1998), p. 63.

³⁰ Tan, A. K., *Vessel-source Marine Pollution: The Law and Politics of International Regulation* (Cambridge University Press: Cambridge, 2006), p. 49. See also Metaxas, B., *Flag of Convenience: A Study of Internationalisation* (Gower: Aldershot, 1985).

³¹ Egiyan, G. S., ‘Flag of convenience or open registration of ships’, *Marine Policy*, vol. 14, no. 1 (1990), pp. 108–10.

³² Ademun-Odeke, ‘An examination of bareboat charter registries and flag of convenience registries in international law’, *Ocean Development & International Law*, vol. 36, no. 4 (2005), p. 343.

³³ E.g. a Singapore-based company, Sovereign Ventures, has been reported as managing the Cambodian (until 2002), Kiribati, Mongolian and Tuvalu registries. Pham, J. P., ‘Ship of fools?’, *Washington Times*, 7 May 2008; Parliament of Kiribati, Journal of the Seventh Meeting of the Ninth Parliament, 31st August to 11th September 2009, [n.d.], <<http://www.parliament.gov.ki/content/journals-proceedings>>, p. 35; and Lalua, S., ‘Government talks with Sovereign Venture, Air Fiji and Air Pacific’, Tuvalu-News.TV, 7 Nov. 2006.

³⁴ Organisation for Economic Co-operation and Development (OECD), Directorate of Science, Technology and Industry, Maritime Transport Committee, *Ownership and Control of Ships* (OECD: Paris, 2003), pp. 8–12.

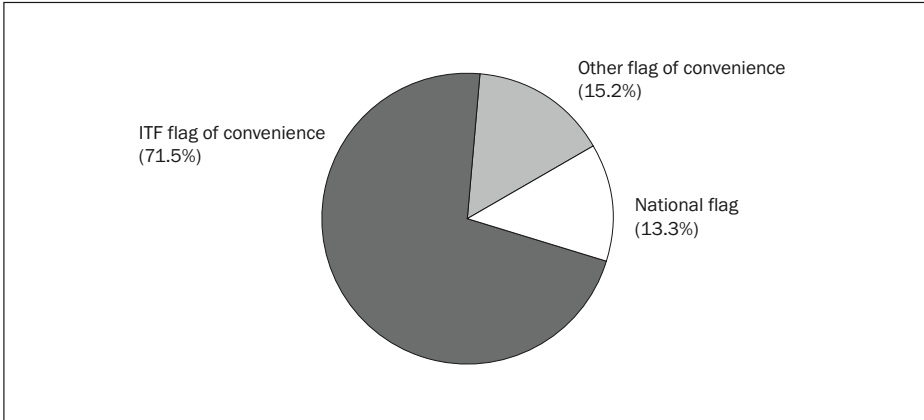


Figure 2.2. Involvement of flag of convenience ships in reported destabilizing military equipment, dual-use goods and narcotics transfers by sea, 1991–2011

Notes: The sample size is 529 ships. ‘ITF flag of convenience’ refers to the 32 registries designated as flags of convenience by the International Transport Workers’ Federation, as of Oct. 2011. ‘Other flag of convenience’ refers to cases where the beneficial owner of the ship is based in a state other than the flag state, and where the flag state is not an ITF flag of convenience. ‘National flag’ refers to cases where the flag state and beneficial owner state are the same.

Sources: SIPRI Vessel and Maritime Incident Database; IHS Fairplay, *World Fleet Statistics 2009* (IHS Fairplay: London, 2010); Lloyd’s Register–Fairplay, *World Fleet Statistics 2006, 2007 and 2008* (Lloyd’s Register–Fairplay: London, 2007/2008/2009); Central Intelligence Agency (CIA), ‘Country comparison: merchant marine’, World Factbook <<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2108rank.html>>; and International Transport Workers’ Federation, ‘FOC countries’, <<http://www.itfglobal.org/flags-convenience/>>.

According to an OECD report, such corporate entities also provide a shielding mechanism for money laundering on behalf of narcotics and arms traffickers.³⁵ Furthermore, a number of individual high-profile cases have led some organizations to conclude that flag of convenience vessels are more likely to be involved in maritime crime. In 2001 the UN assessed that ‘most ships used in illegal arms shipments operate under flags of convenience’.³⁶ Later reports have focused on the involvement of ships from particular open registries, such as those of Cambodia and North Korea, in narcotics or arms smuggling.³⁷

³⁵ Organisation for Economic Co-operation and Development (OECD), *Behind the Corporate Veil: Using Corporate Entities for Illicit Purposes* (OECD: Paris, 2001), pp. 23–24.

³⁶ United Nations, General Assembly, ‘Small arms’, Report of the Group of Governmental Experts established pursuant to General Assembly resolution 54/54 V of 15 December 1999, A/CONF.192/2, 11 May, 2001, p. 10.

³⁷ Neff, R., ‘Flags that hide the dirty truth’, *Asia Times*, 20 Apr. 2007, <<http://www.atimes.com/atimes/Korea/ID20Dg03.html>>; and Gianni, M., *Real and Present Danger: Flag State Failure and Maritime Safety and Security* (World Wide Fund for Nature and International Transport Workers’ Federation: Gland/London, June 2008).

Box 2.1. The International Transport Workers' Federation list of flags of convenience

While all ships sailing under a flag other than that of their beneficial owner are defined as flag of convenience ships, the International Transport Workers' Federation (ITF) maintains a list of specific national shipping registries that it designates flags of convenience. The designation is made by the ITF Fair Practices Committee based on reports from trade unions within the federation.

In designating a registry as a flag of convenience, the committee is supposed to take into account not only the proportion of foreign-owned vessels in the registry but also the flag state's record in terms of ability and willingness to enforce international minimum social standards on its vessels, including respect for basic human and trade union rights, freedom of association and the right to collective bargaining.

The ITF list is periodically updated, with registries being removed or added based on new information. Because of the selection criteria, the list does not include all of the current open registries. It is also notable that at least two registries in the current list—the second (international) registries of France and Germany—are not in fact dominated by foreign-owned vessels. Nevertheless, the ITF list is widely cited in discussions on flags of convenience.

The list of ITF-designated flags of convenience used in this chapter is as of October 2011. It includes 32 registries: Antigua and Barbuda, Bahamas, Barbados, Belize, Bermuda, Bolivia, Cambodia, Cayman Islands, Comoros, Cyprus, Equatorial Guinea, the French International Ship Register, the German International Ship Register, Georgia, Gibraltar, Honduras, Jamaica, North Korea, Lebanon, Liberia, Malta, the Marshall Islands, Mauritius, Mongolia, Myanmar, the Netherlands Antilles (now Curaçao), Panama, Sao Tome and Principe, Saint Vincent and the Grenadines, Sri Lanka, Tonga, and Vanuatu.

Due to a lack of historical data, the statistical breakdowns presented here do not reflect changes to the ITF list that may have taken place during the period. The registries of overseas or dependent territories are considered separately from those of the sovereign state.

Source: International Transport Workers' Federation, 'What are flags of convenience?', <<http://www.itfglobal.org/flags-convenience/index.cfm>>.

Flag states and destabilizing commodity transfers

The data gathered as part of this study provides the first quantitative evidence of the disproportionate involvement of flag of convenience vessels across a range of destabilizing commodity flows. Figure 2.2 shows that ships sailing under the 32 ITF-designated flags of convenience (see box 2.1) constitute the overwhelming majority of ships in the data set—71.5 per cent—outnumbering those in other registries by nearly 3 to 1. (In 2000–2009, the same 32 flags accounted for only 24.3 per cent of the world merchant fleet, on average.) Of those ships in other registries, more than half—15.2 per cent of ships in the data set—are flag of convenience ships by the broader definition: they are sailing under the flag of a state other than that where their beneficial owner is located.

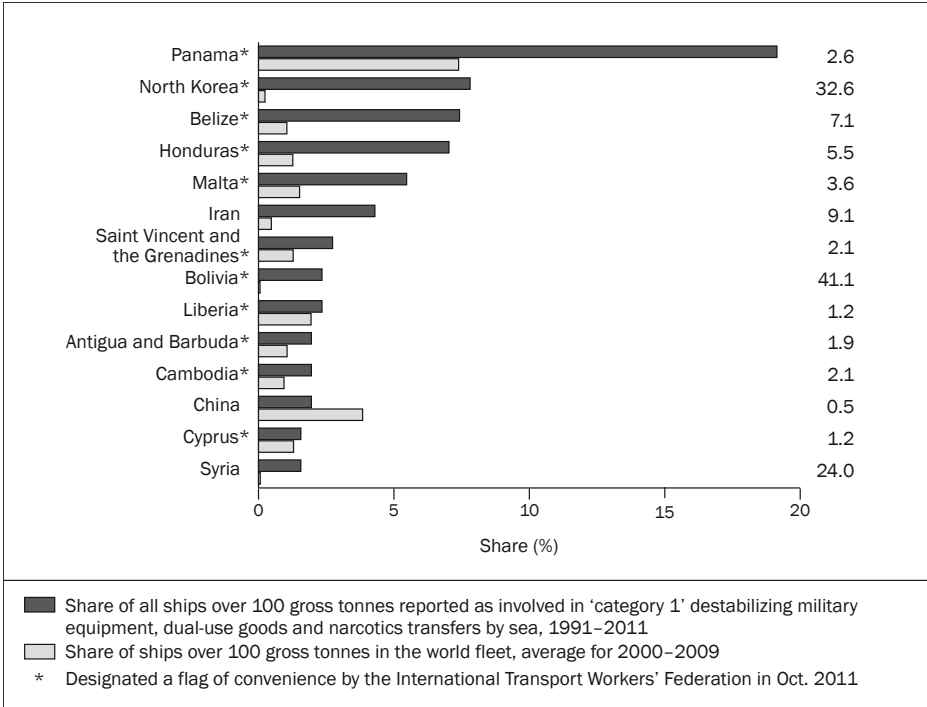


Figure 2.3. Flag states most frequently associated with reported ‘category 1’ destabilizing military equipment, dual-use goods and narcotics transfers by sea, 1991–2011, share of incidents compared with share of world fleet

Notes: The sample size is 256 ships. In ‘category 1’ incidents, it appears from available information that the transfer took place with direct complicity or gross negligence on the part of the ship’s owner, operator or officers. For each state, the figure on the right is the ratio of its share of reported incidents in 1991–2011 to its share of the world fleet in 2000–2009.

Sources: SIPRI Vessel and Maritime Incident Database; IHS Fairplay, *World Fleet Statistics 2009* (IHS Fairplay: London, 2010); Lloyd’s Register–Fairplay, *World Fleet Statistics 2006, 2007 and 2008* (Lloyd’s Register–Fairplay: London, 2007/2008/2009); Central Intelligence Agency (CIA), ‘Country comparison: merchant marine’, *World Factbook* <<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2108rank.html>>; and International Transport Workers’ Federation, ‘FOC countries’, <<http://www.itfglobal.org/flags-convenience/>>.

At the level of individual flag states, of the 14 flags most frequently flown by ships involved in destabilizing military equipment, dual-use goods and narcotics transfers between 1991 and 2011, 12 are ITF-designated flags of convenience (see figure 2.1). All of the top five are ITF-designated flags of convenience: Panama (17.0 per cent), Liberia (10.0 per cent), Belize (5.3 per cent), Malta (5.3 per cent) and Honduras (4.9 per cent).

Furthermore, all of the ITF-designated flags of convenience in figure 2.1 are over-represented when compared to the share of the world merchant fleet registered to them. While the Panamanian ship register accounted for 17.0 per cent of ships involved in destabilizing transfers in the period, it accounted for only 7.4 per cent of the world merchant fleet in 2000–2009. Thus, ships sailing under

the Panamanian flag are more than 2.3 times more likely to have been reported as being involved in destabilizing transfers than the average for the world merchant fleet. (It is important to note that this refers to statistical likelihood; the vast majority of ships sailing under the Panamanian or any other flag have no reported involvement in destabilizing commodity flows.)

Of the two non-ITF designated registries in the top 14, ships flagged to Singapore are less likely to have been reported as involved in destabilizing commodity flows than the average for the world fleet. The other flag, Iran, is over-represented in the data set. Although Iran is not considered a flag of convenience by the ITF, all of the Iranian ships reportedly involved in destabilizing transfers of military equipment and dual-use goods in the period have subsequently 'flagged out' to the Hong Kong registry or to the ITF-designated flags of convenience Barbados, Cyprus and Malta.

Flag states of category 1 ships

Figure 2.3 shows the 14 flag states most commonly associated with category 1 ships in the data set. Comparing this with figure 2.1, it is notable that Germany is no longer in the list—in the majority of cases where German ships have been reported as involved in destabilizing transfers, it has been without direct involvement or gross negligence on the part of the ship's owners, commercial operators or officers. The other two EU member states in figure 2.1, Cyprus and Malta, remain, but Cyprus represents a much smaller share; both are still somewhat over-represented compared to their share in the world merchant fleet. Also dropping out of the list are the Bahamas, the Marshall Islands and Singapore.

The shares of category 1 ships registered in North Korea, Panama, Honduras, Belize, Iran, Bolivia and Cambodia are all at least 1 per cent greater than those flags' shares of the entire data set, with North Korea showing the largest difference (4 per cent). Two of these—Iran and North Korea—are states under a current UN arms embargo. North Korea, Bolivia and Syria—which has been under Arab League and EU arms embargoes since 2011—are all markedly over-represented in category 1 cases compared to their shares of the world fleet.

Flag states of category 2–5 ships

In contrast with category 1 cases, in category 2–5 cases the ship's owner, commercial operator and officers were apparently unaware that the ship was being used for a destabilizing commodity transfer. Figure 2.4 shows the top 14 flag states for category 2–5 cases in the period. Among these are a number of ITF-designated flags of convenience, notably Liberia, that generally adhere to higher safety standards than some of the other flags of convenience that feature more prominently in category 1 cases.³⁸ Two NATO and OECD members enter

³⁸ DeSombre, E. R., *Flagging Standards: Globalization and Environmental, Safety, and Labor Regulations at Sea* (MIT Press: Cambridge MA, 2006), pp. 104–106.

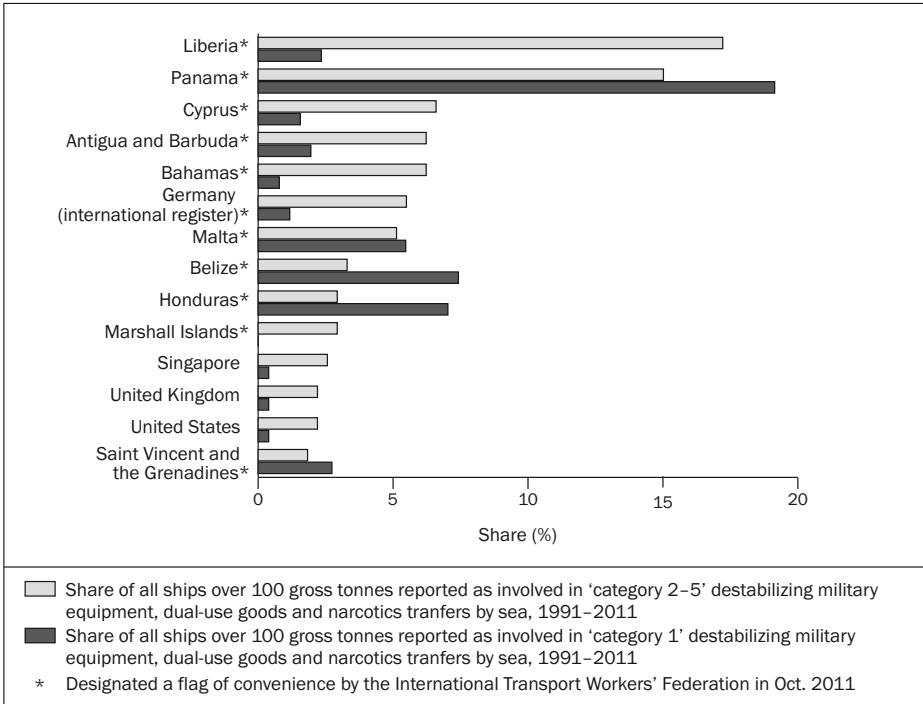


Figure 2.4. Flag states most frequently associated with reported 'category 2-5' destabilizing military equipment, dual-use goods and narcotics transfers by sea, 1991-2011, share of incidents compared with share of 'category 1' incidents

Notes: The sample size is 273 ships. In 'category 2-5' incidents, it appears from available information that the transfer took place without the knowledge of, or gross negligence on the part of, the ship's owner, operator or officers. 'Category 1' incidents appear to have taken place with direct complicity or gross negligence on the part of those parties.

Sources: SIPRI Vessel and Maritime Incident Database; IHS Fairplay, *World Fleet Statistics 2009* (IHS Fairplay: London, 2010); Lloyd's Register-Fairplay, *World Fleet Statistics 2006, 2007 and 2008* (Lloyd's Register-Fairplay: London, 2007/2008/2009); Central Intelligence Agency (CIA), 'Country comparison: merchant marine', *World Factbook* <<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2108rank.html>>; and International Transport Workers' Federation, 'FOC countries', <<http://www.itfglobal.org/flags-convenience/>>.

the list: the United Kingdom and the United States. Among the EU members in the list, only Malta is associated with a larger share of category 1 cases than of category 2-5 cases.

3. Headline data: vessel owners, types and age

Besides flag states, analysis of the SIPRI Vessel and Maritime Incident Database offers other revealing characteristics of ships involved in reported destabilizing military equipment, dual-use and narcotics transfers. This chapter examines the patterns of ownership of the ships involved. In particular, it looks at the nationalities of the companies or individuals that ultimately own the vessels. It also presents the types of ship most commonly involved and their average ages at the time of the incident.

Vessel ownership

While the vessel flag determines the national jurisdiction, laws, regulations and level of enforcement the ship is subject to, it is the ship's owner who decides 'how their vessels will be used, or at least remain responsible for the uses to which their vessels are put, even if this is done without their knowledge or consent'.³⁹

Whenever the information is available, the VMID records the 'beneficial owner' of the ship and the country in which it is based. The beneficial owner is considered the ultimate owner of the ship, and the ultimate beneficiary from its commercial operations. It may be an individual, company, group or organization.⁴⁰ The beneficial owners of ships appearing in the VMID include some of the major freight shipping lines. The beneficial owner is identifiable for most ships over 100 GT through databases such as vesseltracker.com, Equasis, MISLE and Seasearcher. However, the listed beneficial owner may not be the entity that truly profits from or controls the ship, especially in the case of criminal organizations.

The VMID also records the registered owner of a ship. The registered owner is the entity to whom 'the ship's legal title of ownership has been registered'. Registered and beneficial owners are often different. Especially in the case of flag of convenience ships, the registered owner may be based in a state other than that of the beneficial owner and be 'a "brass-plate" company created on paper to legally own a ship and possibly to limit liability for the "real" owners and/or benefit from offshore tax laws'.⁴¹ For some flag of convenience ships, the registered owner may also be listed as the beneficial owner, but is unlikely to be the true ultimate owner.

Commercial decisions concerning how and where the ship is employed are made by the commercial operator. This may be a subsidiary of the beneficial owner or the beneficial owner itself. When the ship is chartered, a third-party

³⁹ Organisation for Economic Co-operation and Development (note 34), p. 5.

⁴⁰ The definitions presented here are based on those used in Seasearcher (see note 7). Definition of these terms varies between organizations and publications.

⁴¹ IHS Fairplay, 'Data definitions—vessel types—owners & managers', <<http://www.ihsfairplay.com/About/Definitions/definitions.html>>.

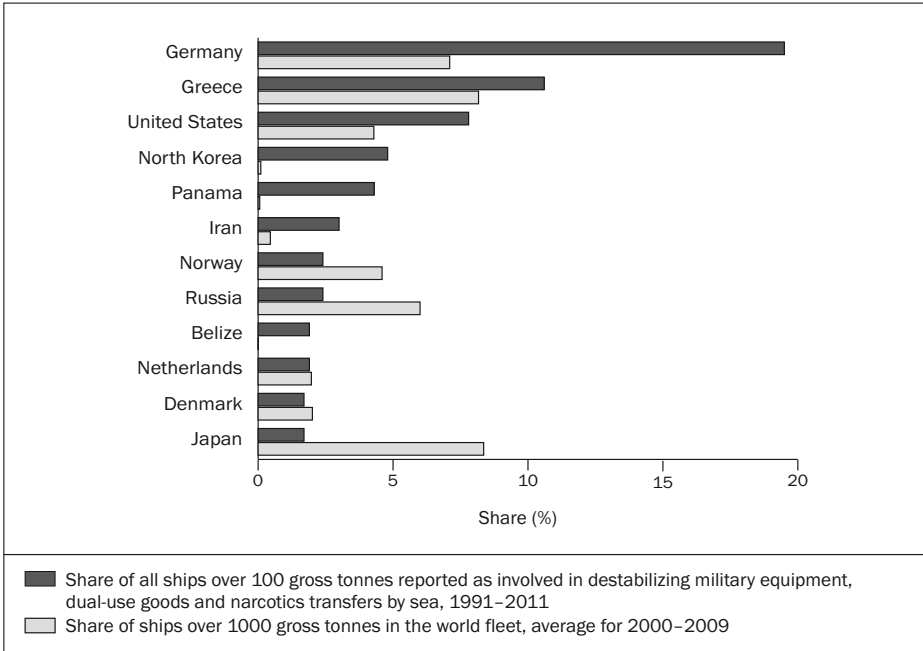


Figure 3.1. Beneficial ownership states most frequently associated with reported destabilizing military equipment, dual-use goods and narcotics transfers by sea, 1991–2011, share of incidents compared with share of world fleet

Notes: The sample size is 462 ships. Beneficial ownership states are the states in which the ships' beneficial owners are registered. Beneficial ownership data for the world merchant fleet is only available for ships over 1000 gross tonnes. Beneficial ownership patterns may differ for ships of 100–999 gross tonnes, so comparisons should be drawn with care.

Sources: SIPRI Vessel and Maritime Incident Database; IHS Fairplay, *World Fleet Statistics 2009* (IHS Fairplay: London, 2010); Lloyd's Register–Fairplay, *World Fleet Statistics 2006, 2007 and 2008* (Lloyd's Register–Fairplay: London, 2007/2008/2009); and Central Intelligence Agency (CIA), 'Country comparison: merchant marine', World Factbook <<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2108rank.html>>.

operator undertakes its control, management, operation or agency for the duration of the charter. The VMID records commercial operators but not third-party operators, as this information is frequently unavailable.

Patterns of beneficial ownership

Beneficial owners are by far the most important category of owner for the purposes of understanding and responding to patterns of destabilizing military equipment, dual-use goods and narcotics flows by sea. Analysis of the VMID shows that more than 61 per cent of ships involved in destabilizing or narcotics-related transfers between 1991 and 2011 had a beneficial owner based in an EU, NATO or OECD member state.

It is not surprising that companies based in the world's richest maritime states and those that have historically played the greatest role in the development of

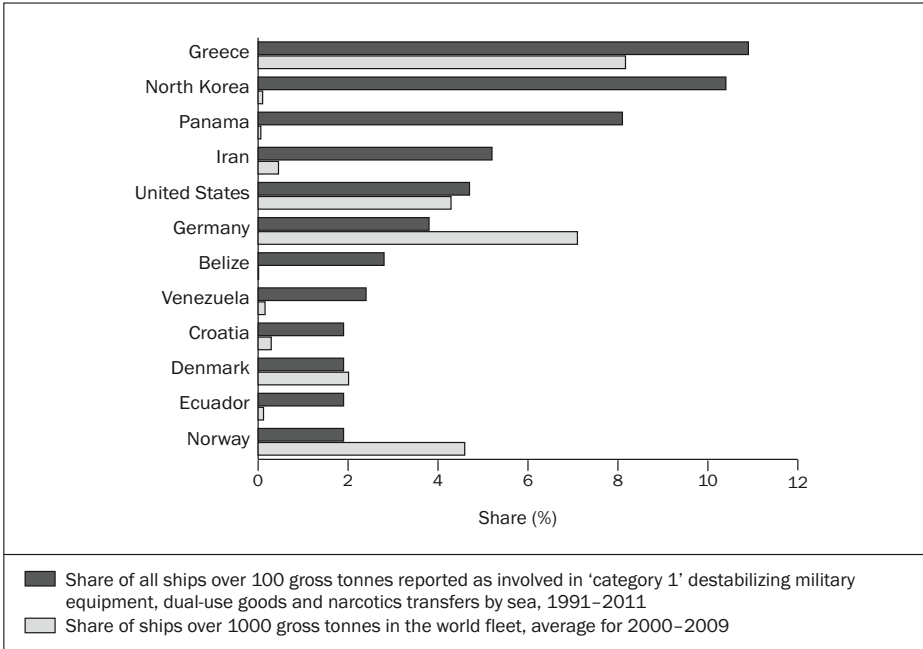


Figure 3.2. Beneficial ownership states most frequently associated with reported ‘category 1’ destabilizing military equipment, dual-use goods and narcotics transfers by sea, 1991–2011, share of incidents compared with share of world fleet

Notes: The sample size is 211 ships. Beneficial ownership states are the states in which the ships’ beneficial owners are registered. In ‘category 1’ incidents, it appears from available information that the transfer took place with direct complicity or gross negligence on the part of the ship’s owner, operator or officers. Beneficial ownership data for the world merchant fleet is only available for ships over 1000 gross tonnes. Beneficial ownership patterns may differ for ships of 100–999 gross tonnes, so comparisons should be drawn with care.

Sources: SIPRI Vessel and Maritime Incident Database; IHS Fairplay, *World Fleet Statistics 2009* (IHS Fairplay: London, 2010); Lloyd’s Register–Fairplay, *World Fleet Statistics 2006, 2007 and 2008* (Lloyd’s Register–Fairplay: London, 2007/2008/2009); and Central Intelligence Agency (CIA), ‘Country comparison: merchant marine’, *World Factbook* <<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2108rank.html>>.

maritime trade own the greater share of ships in the world merchant fleet. However, it is notable that companies subject to the laws of those states with the most developed legal systems, law enforcement, intelligence and foreign policy establishments are nevertheless over-represented among the beneficial owners of ships reported as involved in destabilizing military equipment, dual-use goods and narcotics transfers: the same group of states account for only 54.5 per cent of ships over 1000 GT in the world merchant fleet.

By far the largest number of identified beneficial owners of ships involved in reported destabilizing military equipment, dual-use goods and narcotics transfers in the period were German companies, constituting 19.5 per cent of the identified beneficial owners (see figure 3.1). For comparison, German companies

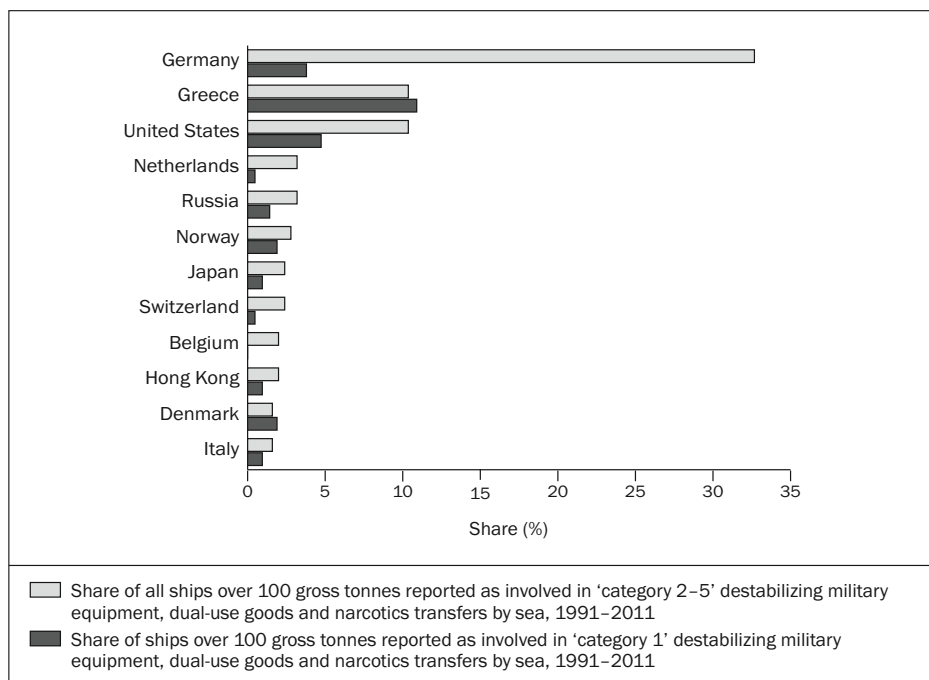


Figure 3.3. Beneficial ownership states most frequently associated with reported 'category 2-5' destabilizing military equipment, dual-use goods and narcotics transfers by sea, 1991-2011, share of incidents compared with share of 'category 1' incidents

Notes: The sample size is 251 ships. Beneficial ownership states are the states in which the ships' beneficial owners are registered. In 'category 2-5' incidents, it appears from available information that the transfer took place without the knowledge of, or gross negligence on the part of, the ship's owner, operator or officers. 'Category 1' incidents appear to have taken place with direct complicity or gross negligence on the part of those parties. Beneficial ownership data for the world merchant fleet is only available for ships over 1000 gross tonnes. Beneficial ownership patterns may differ for ships of 100-999 gross tonnes, so comparisons should be drawn with care.

Sources: SIPRI Vessel and Maritime Incident Database; IHS Fairplay, *World Fleet Statistics 2009* (IHS Fairplay: London, 2010); Lloyd's Register-Fairplay, *World Fleet Statistics 2006, 2007 and 2008* (Lloyd's Register-Fairplay: London, 2007/2008/2009); and Central Intelligence Agency (CIA), 'Country comparison: merchant marine', World Factbook <<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2108rank.html>>.

represented only 7.1 per cent of the identified beneficial owners of ships over 1000 GT in the world merchant fleet in 2000-2009. The top three beneficial ownership states in the list—Germany, Greece and the USA, which together account for 37.9 per cent of identified beneficial owners of ships in the data set—are all members of NATO.

Beneficial ownership of category 1 ships

When the focus is narrowed to category 1 cases, patterns of beneficial ownership change somewhat (see figure 3.2). Most notably, compared to figure 3.1, larger shares of beneficial owners are located in states currently under international

sanctions—Iran and, particularly, North Korea—and in tax havens (and ITF-designated flag of convenience states)—Belize and Panama.

A significant proportion of category 1 ships in the data set still have their beneficial owners located in EU, NATO or OECD member states, but no longer the majority: 39.8 per cent, compared with 61.3 per cent of all ships in the data set. While Greece accounts for the largest share of category 1 ships in the data set (10.9 per cent), Germany falls to sixth place (3.8 per cent).

Beneficial ownership of category 2–5 ships

Most of the top 12 states where the beneficial owners of category 2–5 vessels are located are EU, NATO or OECD member states, which accounted for 79.3 per cent of all category 2–5 ships in the period (see figure 3.3). Notably, six of the seven biggest beneficial owner states in the world merchant fleet—each accounting for at least 4 per cent of ships over 1000 GT—are represented. The seventh biggest, China, accounted for only 0.8 per cent of category 2–5 cases, but for 7.3 per cent of the ships over 1000 GT in the world fleet. Of these seven, three were over-represented given their share of larger ships in the world fleet—Germany, the USA and Greece. This suggests that their ships were particularly likely to be targeted by traffickers.

Vessel types

All ships are designed or retrofitted to perform specific functions. This determines what kinds and quantities of commodities the ship can transport and how they are loaded and unloaded. It also affects how—and whether—various types of destabilizing commodities can be secreted aboard the ship.

Certain types of vessel are disproportionately involved in reported destabilizing military equipment, dual-use goods and narcotics transfers (see figure 3.4).⁴² General cargo vessels are the most frequently appearing vessel type in the data set (39.8 per cent of ships) and are a little more than twice as likely to have been used in destabilizing military equipment, dual-use goods and narcotics transfers as their share of the world merchant fleet would suggest.

The most notable over-representation in the data set, however, is container ships, which are more than six times more likely to be involved in destabilizing military and narcotics-related transfers than their share of the world merchant fleet would suggest. Nearly half of category 2–5 incidents in the data set involved container ships, reflecting the ease with which the true contents of such containers can be hidden from a ship's commercial operators, officers and crew. The attractions of shipping containers for traffickers, and the increasingly large role containerization plays in destabilizing commodity flows, are discussed in chapter 5.

⁴² Vessel types recorded in the VMID are those given in Seasearcher and other sources. No attempt has been made to standardize or simplify them, except in the case of combined function ships, in which case the first named function (presumed to be the primary function) is recorded. Descriptions of the vessel types appearing in the figures presented here are provided in appendix A.

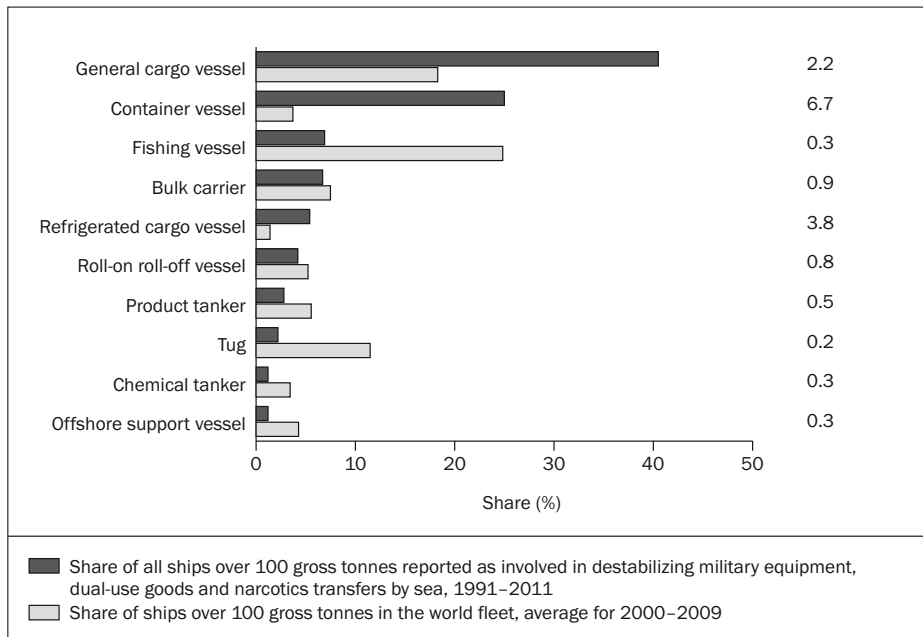


Figure 3.4. Vessel types most frequently associated with reported destabilizing military equipment, dual-use goods and narcotics transfers by sea, 1991–2011, share of incidents compared with share of world fleet

Notes: The sample size is 512 ships. For each vessel type, the figure on the right is the ratio of its share of reported incidents in 1991–2011 to its share of the world fleet in 2000–2009.

Sources: SIPRI Vessel and Maritime Incident Database; IHS Fairplay, *World Fleet Statistics 2009* (IHS Fairplay: London, 2010); Lloyd’s Register–Fairplay, *World Fleet Statistics 2006, 2007 and 2008* (Lloyd’s Register–Fairplay: London, 2007/2008/2009); and Central Intelligence Agency (CIA), ‘Country comparison: merchant marine’, *World Factbook* <<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2108rank.html>>.

Fishing vessels constituted 24.8 per cent of the world merchant fleet, more than any other vessel type, but were involved in only 6.8 per cent of destabilizing transfers in the period.⁴³

Vessel types and category 1 ships

Nearly 60 per cent of category 1 incidents in the data set took place aboard general cargo vessels, which are over-represented by a factor of 3.3 compared to their share of the world merchant fleet (see figure 3.5). The other vessel types whose shares increase are fishing vessels, product and crude oil tankers, offshore support vessels and tugs. All of these are types of vessel that, for one reason or another, would be difficult to load with destabilizing commodities of the types

⁴³ Fishing vessels account for a large number of reported narcotics trafficking incidents included in the VMID. However, many of the fishing vessels involved are excluded from the present analysis because they are under 100 GT or otherwise lack an IMO number. There is no requirement for fishing vessels over 100 GT to obtain an IMO number and an unknown share of fishing vessels of this size do not have one. The VMID also includes cases of IUU fishing, but these are also excluded from the data set.

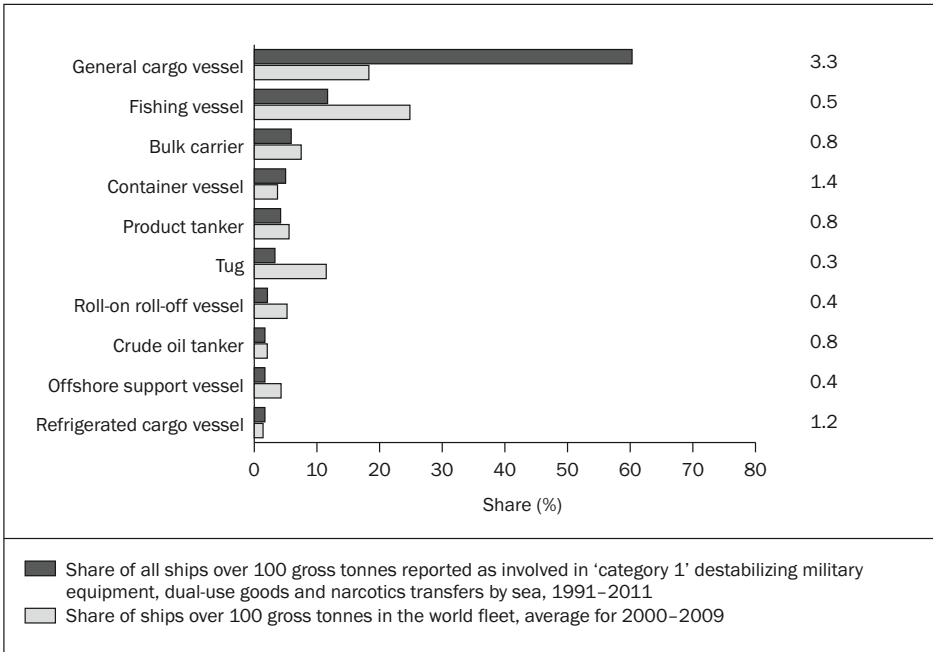


Figure 3.5. Vessel types most frequently associated with reported ‘category 1’ destabilizing military equipment, dual-use goods and narcotics transfers by sea, 1991–2011, share of incidents compared with share of world fleet

Notes: The sample size is 245 ships. In ‘category 1’ incidents, it appears from available information that the transfer took place with direct complicity or gross negligence on the part of the ship’s owner, operator or officers. For each vessel type, the figure on the right is the ratio of its share of reported incidents in 1991–2011 to its share of the world fleet in 2000–2009.

Sources: SIPRI Vessel and Maritime Incident Database; IHS Fairplay, *World Fleet Statistics 2009* (IHS Fairplay: London, 2010); Lloyd’s Register–Fairplay, *World Fleet Statistics 2006, 2007 and 2008* (Lloyd’s Register–Fairplay: London, 2007/ 2008/2009); and Central Intelligence Agency (CIA), ‘Country comparison: merchant marine’, *World Factbook* <<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2108rank.html>>.

studied here without the knowledge of the ship’s officers. In contrast, the shares of container vessels, roll-on roll-off vessels and refrigerated cargo vessels all fall significantly compared to figure 3.4.

Vessel age

The age of a ship affects its value and is also a relatively good indicator of its condition. The age of a ship may also play a role in determining the markets the ship services and the commodities it is used to carry. Older ships are more likely to fall below the standards of the more respected classification societies, port state controls (see chapter 4) and flag states in areas such as safety and pollution. This makes them more likely to sail under certain flags of convenience (which tend to recognize a wider range of classification societies) and to ply routes and

visit ports where controls are less rigorous. Furthermore, some flag states will not register ships over a certain age.⁴⁴

The average age of vessels reported as involved in destabilizing maritime commodity transfers in the period, at 21 years, was roughly the same as the average age of the world merchant fleet (20 years, average for 2009). However, category 1 ships tended to be significantly older, at 27 years. In contrast, category 2–5 ships have an average age of 15 years. This difference probably reflects the preponderance of container ships operated by major shipping lines in category 2–5 cases (particularly category 4). However, it is also notable that category 1 ships tended to be older than category 2–5 ships of the same type; for example, category 1 general cargo ships had an average age of 29 years, while category 2–5 general cargo ships had an average age of 21 years.

Older ships tend to have worse safety and pollution records and may be subject to higher levels of port state control inspection as a result. This topic is explored in more detail in chapter 4.

⁴⁴ A trend noted in the VMID data is that the greater a ship's age the greater is the probability that it sails under a flag of convenience with less stringent regulatory standards and enforcement regimes.

4. The maritime trafficking and safety nexus

As with most vehicles, the age of a merchant ship is often a good indicator of its general condition. As was noted in chapter 3, category 1 ships involved in reported destabilizing transfers of military equipment, dual-use goods and narcotics—those cases where the ship’s owner, commercial operator or officers appear to have been complicit—tend to be much older than the average ship in the world merchant fleet. This would suggest that the ships involved in such incidents tend to be in worse than average condition, and thus to be more likely to fall short of safety and pollution standards. This phenomenon has the useful policy implication that category 1 ships are more likely to fall foul of port state control inspections, particularly when those inspections deliberately target ships or flags with poor safety records.

Category 1 flags and port state control blacklists

When ships in the data set are profiled based on the SIPRI taxonomy, more than 64 per cent of category 1 vessels are registered with flags of convenience that have repeatedly been identified as poor performers in PSC inspections carried out by European or North American authorities for at least 7 of the past 11 years (see table 4.1).

Port state control inspections are carried out by authorities in the ports where vessels dock. The inspections are, or should be, based on standards and criteria laid down by various IMO conventions. These include the 1974 International Convention for the Safety of Life at Sea, which sets minimum safety standards for the construction, equipment and operation of ships; the 1973 International Convention for the Prevention of Pollution from Ships; the 1978 International Convention on Standards of Training, Certification and Watch-keeping for Seafarers; and the 1968 International Convention on Load Lines, which regulates the distance between the water line and the deck level, and thus relates to the weight of cargo that merchant ships can safely take aboard.

Information on any deficiencies identified during inspections is recorded and provided to the respective flag state and to a range of other authorities and organizations, including IHS Fairplay and Lloyd’s List Intelligence, to be added to the ship’s record. If the PSC inspectors assess the ship to be unsafe to proceed at sea, they can detain it in port until the deficiencies are corrected.

The organization responsible for PSC in the United States is the US Coast Guard. Most other coastal states in the world are members of one or more regional PSC regimes. One of the most effective and well managed of these is the Paris Memorandum of Understanding on Port State Control (Paris MOU), which groups the PSC authorities of all European coastal states and the west coast of Canada. By entering into arrangements like the Paris MOU, the member states commit themselves to a set of agreed standards and routines in order to harmonize their national inspection regimes. Other PSC regimes are the Abuja

Table 4.1. Comparison of port state control blacklists with the list of flag states most commonly associated with ‘category 1’ destabilizing commodity transfers by sea, 1991–2011

| Flag state | Share of ‘category 1’ cases (%) | No. of years targeted by US Coast Guard, 2001–10 | No. of years on Paris MOU blacklist, 2001–10 |
|-----------------------------------|---------------------------------|--|--|
| Panama* | 19.1 | 11 | 7 |
| North Korea* | 7.8 | Banned | 9 |
| Belize* | 7.4 | 7 | 9 |
| Honduras* | 7.0 | 11 | 10 |
| Malta* | 5.5 | 11 | 4 |
| Iran | 4.3 | Banned | 1 |
| Saint Vincent and the Grenadines* | 2.7 | 11 | 11 |
| Bolivia* | 2.3 | 6 | 11 |
| Liberia* | 2.3 | – | – |
| Antigua and Barbuda* | 2.0 | 10 | – |
| Cambodia* | 2.0 | 9 | 11 |
| China | 2.0 | – | – |
| Cyprus* | 1.6 | 8 | 4 |
| Syria | 1.6 | Banned | 11 |

* = Flag of convenience as designated by the International Transport Workers’ Federation (ITF)

Notes: Column 2 shows appearances in the List of Targeted Flag Administrations (Safety) maintained by the US Coast Guard, except in the case of flag states subject to a blanket ban from US ports. Column 3 shows appearances in the blacklist maintained by the Paris Memorandum of Understanding on Port State Control. ‘Category 1’ transfers are those that appear, from the available information, to have taken place with direct complicity or gross negligence on the part of the ship’s owner, commercial operator or officers.

Sources: SIPRI Vessel and Maritime Incident Database; Paris Memorandum of Understanding on Port State Control annual reports 2000–10, <http://www.parismou.org/Publications/Annual_reports/>; and US Department of Homeland Security, US Coast Guard, *Port State Control in the United States*, annual reports 2000–10, <<https://homeport.uscg.mil/mycg/portal/ep/browse.do?channelId=-18371>>.

MOU in western and central Africa, the Acuerdo de Viña del Mar Agreement in Latin America, the Black Sea MOU, the Caribbean MOU, the Indian Ocean MOU, the Mediterranean MOU for the eastern Mediterranean and North Africa, the Riyadh MOU in the Gulf region and the Tokyo MOU for the Asia–Pacific Region.

PSC inspection reporting by the US Coast Guard and the Paris and Tokyo MOU regimes have become increasingly standardized over the past decade, with deficiencies and detentions comprehensively recorded by some states. However, it is problematic to generate quantitative data at the international level or based on the inspection records for individual ships for several reasons. First, there are large regional and national variations in inspections and reporting. Second, for a significant part of the period covered by the data set—from 1991 to 1998—PSC inspections in Europe were less rigorous than they are now and vessels reported as being involved in destabilizing commodity flows were not generally inspected.

However, the two most advanced PSC regimes, the US Coast Guard and the Paris MOU, do provide useful quantitative indicators. These are increasingly used to target ships for inspection based on a risk assessment. Both regimes target for inspection ships sailing under flags whose ships have scored poorly in past PSC inspections, and both publish lists of those flags that they are particularly targeting.

Targeting of category 1 ship flags by major port state control regimes

The Paris MOU is based on an agreement created in 1982. The 1995 EU Council directive on port state control strengthened the provisions of the MOU in EU member states.⁴⁵ One new provision under the EU Council directive was that EU member states must inspect at least 25 per cent of all ships entering their ports and employ qualified personnel to implement this requirement.⁴⁶

The Paris MOU maintains and annually updates its black, grey and white lists of state flags and of recognized organizations (classification societies). The lists reflect the number and outcome of inspections carried out on ships entering Paris MOU ports. The white list represents 'quality flags with a consistently low detention record'; the grey list, flags with average performance; and the black list, those flags with the worst performance, categorized as 'medium risk' to 'very high risk'. These lists are taken into account when targeting ships for inspections when they enter Paris MOU ports, and those on the black list are liable for banning from the region after multiple detentions.⁴⁷

The US Coast Guard has since 2000 maintained the List of Targeted Flag Administrations (Safety), which includes flag states whose vessels have had a higher than average ratio of detentions to total ships inspected for the previous three years and have had at least one ship detained in a US port in that period.⁴⁸

The US Coast Guard and Paris MOU flag state target lists are not identical. One reason is that certain flag states blacklisted by the Paris MOU have been banned from entering US ports since at least 1991 on national security grounds, and thus have not been subject to PSC inspections: these flag states are Cuba, Iran, Iraq, North Korea, Libya, Sudan and Syria.⁴⁹

⁴⁵ EU Council Directive 95/21/EC of 19 June 1995 on port state control of shipping, *Official Journal of the European Union*, L157, 7 July 1995, now superseded by Directive 2009/16/EC of the European Parliament and of the Council of 23 Apr. 2009 on port state control (recast), *Official Journal of the European Union*, L131, 28 May 2009.

⁴⁶ PSC officers have admitted that an unofficial policy existed of inspecting 25% of the newest, most seaworthy ships rather than those most likely to be unsafe, in order to reduce their workload and to minimize the likelihood of carriers using neighbouring ports instead, and thus depriving the port of revenue. Former EU member state PSC official, Interview with the authors, 18 Aug. 2010. See also Langewiesche, W., *The Outlaw Sea: A World of Freedom, Chaos and Crime* (North Point Press: New York, 2004), pp. 92–93.

⁴⁷ The Paris MOU lists are based on inspections and detentions during a 3-year period. Flag states and recognized organizations are only included in the lists when 30 or more ships associated with them have been inspected. Paris MOU on Port State Control, 'Paris MOU announced new targeting lists', Press release, 6 June 2011.

⁴⁸ US Department of Homeland Security, US Coast Guard, 'Targeted flag list for ISPS/MTSA', 19 Dec. 2011, <<https://homeport.uscg.mil/>>.

⁴⁹ US National Security Directive 57 Annex A, dated 7 May 1991, provided a list of states whose vessels were not eligible to enter US ports. These included Cambodia, Cuba, Iran, Iraq, Libya, North Korea, Syria and Viet Nam. Annex 2 listed states whose access would be limited or denied to certain US ports on the

Another reason for the differences between the two lists is geographical location and trading links: different ships and shipping companies may service the markets covered by the regimes. Finally, while both the Paris MOU and US Coast Guard use risk-assessment matrices to target particular flags, the formulae used in their two respective processes differ.

Despite these substantial differences, both the Paris MOU blacklist and the US Coast Guard list of targeted flags are remarkably consistent in targeting the flags most commonly associated with category 1 cases of reported destabilizing military and narcotics-related transfers, as table 4.1 shows. Of the 14 flags most commonly flown by category 1 ships in the data set, 12 have appeared on one list or the other at least once in the past 11 years. Eleven of the flags have appeared at least 7 times in at least one list, including all but one of the ITF-designated flags of convenience in the top 14. Panama, the most common flag in category 1 incidents, has appeared in the US list every year since 2000, and in the Paris MOU blacklist for 7 years. However, in 2011 Panama entered the Paris MOU white list, which will reduce the frequency of inspections of Panamanian-flagged ships in the Paris MOU member states.

The Iranian registry, whose ships are banned from US ports, accounted for 4.3 per cent of category 1 ships in the data set but has only been blacklisted for one year by the Paris MOU and is not an open registry. However, many Iranian ships have recently been flagged out to the ITF-designated flags of convenience Barbados, Cyprus and Malta or to the Hong Kong registry under flag of convenience arrangements.

Liberia has one of the largest fleets of the ITF-designated flags of convenience and accounted for 2.3 per cent of category 1 ships in the data set, but it has never been blacklisted by the Paris MOU or targeted by the US Coast Guard. The Liberian registry is generally regarded as adhering to higher safety standards than some other open registries.⁵⁰

The other flag in the list that has not been targeted by either list is China, which accounted for 2.0 per cent of category 1 ships in the data set. The Chinese registry is not considered a flag of convenience by the ITF.

The Syrian flag is not an ITF-designated flag of convenience, but a number of Iranian and Libyan companies have in the past registered their ships under the Syrian flag. Syrian-flagged ships are banned from entering US ports, but the Syrian registry has been blacklisted by the Paris MOU in every year of the blacklist's existence.

Case studies of category 1 ships

While quantitative data on inspection outcomes based on the records of individual ships is problematic, the VMID facilitates detailed case studies of some category 1 ships in the data set. These highlight the link between older, poorly managed and maintained ships and destabilizing and illicit transfers.

grounds of national security. States listed in annex 2 included Albania, Bulgaria, Czechoslovakia, Hungary, Poland and the Soviet Union.

⁵⁰ Stopford, M., *Maritime Economics*, 2nd edn (Routledge: London, 1997), p. 436.

One example is the 27-year-old general cargo ship *Light*, IMO 8415433, which was suspected by the United States of attempting to transfer missile technology from North Korea to Myanmar in May 2011. It has been detained twice in the past four years following PSC inspections in China, once in June 2007 and again in July 2011.⁵¹ The ship has subsequently been inspected three times in China—in August 2011, when 21 deficiencies were recorded, in September 2011, when 6 deficiencies were recorded, and in November 2011, when 7 deficiencies were recorded. Between November 2008 and August 2011, the *Light* underwent another four PSC inspections, two of them in Thailand and two in Viet Nam. Deficiencies were reported in each inspection. In addition, the *Light* has been involved in two collisions with other vessels, in June 1997 and June 2000, and struck a harbour wall in August 1994.

A ship involved in a category 1 narcotics shipment, the 46-year-old general cargo ship *Fifita 500*, IMO 6603115, was boarded in July 2011 off the Caribbean coast of Panama by the US Coast Guard and Panamanian military personnel, who seized nearly 2 tonnes of cocaine.⁵² Between July 2008 and July 2011, the *Fifita 500* had sailed between Colombia and Panama and had not been subjected to any recorded PSC inspections. However, in the six months before that, when the ship was entering US ports with PSC arrangements in place, six inspections found a total of 55 deficiencies. The vessel had been detained on three separate occasions between 1998 and 2004. In 1998 hull damage holed the *Fifita 500*, forcing it to return to port for repairs; in 2001 it was involved in a collision with another vessel; and in 2007 it ran aground.

VMID data also shows that ships used in other types of maritime trafficking may also have poor inspections records. In July 2010 the 32-year-old general cargo ship *Alla*, IMO 8877239, was intercepted by Greek coastguards with more than 2.3 million packets of smuggled cigarettes aboard.⁵³ The *Alla* had undergone 29 PSC inspections in the preceding 10 years and been detained six times by Egyptian, Greek, Italian and Romanian PSC authorities. In addition to these detentions, other inspections in Bulgaria, Greece, Lebanon, Romania, Russia and Turkey between 2003 and 2009 recorded a total of 79 deficiencies.

Another case illustrates the fact that the smuggling of undocumented migrants and refugees by organized criminal groups is often done in ships with poor safety records. The 30-year-old general cargo ship *Sun Sea*, IMO 8017748, was intercepted in August 2010 by the Canadian Navy transporting 490 undocumented Sri Lankan migrants.⁵⁴ The 52-metre ship had spent more than three months at sea with the migrants aboard and was in a poor condition.⁵⁵ The *Sun Sea* had only

⁵¹ Sanger, D. E., 'US said to turn back North Korea missile shipment', *New York Times*, 12 June 2011.

⁵² Ramsey, G., 'Panama drug bust just a drop in the bucket', InSight Crime, 5 July 2011, <<http://insightcrime.org/insight-latest-news/item/1184-panama-drug-bust-just-a-drop-in-the-bucket>>.

⁵³ Voytenko, M., 'Contraband cigarettes seized aboard Ukrainian-flagged freighter "Alla"', *Maritime Bulletin*, 12 July 2010, <<http://www.odin.tc/eng/articles/442-Contraband-cigarettes-seized-on-board-of-Ukrainian-flagged-freighter--Alla-.asp>>.

⁵⁴ Fong, P., Aulakh, R. and Woods, A., 'Canadian officials board Tamil ship', *The Star*, 13 Aug. 2010, <<http://www.thestar.com/news/canada/article/847277--canadian-officials-intercept-tamil-ship>>.

⁵⁵ Fong P., 'Three months on the MV Sun Sea: Tamil migrants describe their journey', *The Star*, 21 Aug. 2010, <<http://www.thestar.com/News/Canada/article/850885>>.

been inspected on five occasions between 2000 and 2010; however, the severity of the deficiencies led to the vessel being detained following three of the five inspections, and the other two inspections revealed 9 and 11 deficiencies, respectively.

Port state controls: a natural ‘choke point’ for targeting category 1 ships

Port state control inspections are often the only opportunities for states to assert their jurisdiction over flag of convenience vessels. UNCLOS Article 24 states that authorities should not discriminate ‘in form or fact’ against foreign-flagged ships in their coastal waters. However, UNCLOS Article 94 also obligates the flag state to exercise effective jurisdiction and control over administrative, technical and social matters aboard its ships. Many open registries have manifestly failed in those duties and as such the profiling of ships partly based on their flag has become established practice within PSC regimes. The PSC mechanism, particularly when it is based on risk assessments that factor in poor performance in previous inspections, is thus a means by which states can gain access to, and influence the behaviour of, ships sailing under poorly regulated flags—including most of the flags associated with reported category 1 incidents. PSC inspections may also offer states the opportunity to more closely scrutinize ships that pass through their ports in transit transporting military equipment on the basis of questionable end-user or export licence documentation for high-risk or conflict-sensitive destinations.

PSC authorities have several mechanisms at their disposal that can alter the behaviour of vessels. Detentions and bans are punitive measures that can lose the ship revenue and damage the reputation—and the attractiveness to ship-owners—of the flag state. Safety bans not only deny unsafe ships the opportunity to dock at ports but also deny ships access to lucrative markets—in the case of the Paris MOU, the world’s largest market. Thus, rigorously enforced PSC regimes put pressure on shipowners and flag states to improve their oversight of vessels. They can also dissuade, or forbid, poorly maintained boats—which seem to be frequently involved in reported cases of destabilizing commodity transfers—from entering ports that are critical to their operations, for either bunkering or trading purposes.⁵⁶

In addition, PSC inspections allow officials of the port state to inspect cargo arrangements aboard ships. This is particularly significant in cases where illicit or destabilizing commodities are believed to be aboard a ship in transit between ports where enforcement is lax. Customs authorities rarely check the cargo of ships that enter their port for bunkering, since no goods are being imported. However, PSC authorities can inspect ships in transit, including their cargo holds. Thus, PSC can be considered a ‘choke point’ at which states that proactively enforce international narcotics conventions, UN sanctions or regional

⁵⁶ Bunkering is the refuelling and replenishment of ships.

arms embargos can monitor and control poorly regulated flag of convenience ships that are otherwise beyond their effective reach.

Enhancing port state controls has been identified by Gisela Bichler as probably the most effective method of combating a wide variety of maritime crime, including trafficking.⁵⁷ This proposition is supported by the numerous cases since at least the 1970s in which the US Coast Guard has discovered and seized large quantities of narcotics during safety inspections.⁵⁸ The US Coast Guard is unique among OECD member state PSC agencies in that it is also responsible for safety inspections at sea and for trafficking interception and interdiction operations in the seas surrounding the USA.

Asia also offers examples of the at least occasional practice of using PSC inspections as a tool to monitor and control the activities of vessels suspected of involvement in destabilizing transfers. In June 2003 Japanese PSC inspectors conducted their first joint inspections with Japanese coastguard, customs and immigration officials, targeting North Korean ships.⁵⁹ One ship that was inspected, the 34-year-old fishing vessel *Nam San 3*, IMO 6929650, was detained under the PSC regime for what appeared to be relatively minor safety violations.⁶⁰ Another, the 31-year-old general cargo ship *Daehung Rason 2*, was also detained. The Japanese Ministry of Foreign Affairs stated that the PSC inspections focused on the safety and security measures on the ship, and ‘at the same time, they made a thorough inspection of any possible illegal shipments or any sort of illegality on the ship’.⁶¹ This came at a time when the US Government was reportedly encouraging its allies to put pressure on alleged North Korean nuclear proliferation activities by enforcing safety rules and searching for illicit drugs on North Korean vessels.⁶² The North Korean Government denounced the Japanese actions as ‘sanctions’.⁶³

The case of North Korea clearly demonstrates the utility of PSC as a method to monitor and control the activities of flag of convenience ships. UN Security Council Resolution 1874, which strengthened sanctions on North Korea, calls on

⁵⁷ E.g. Bichler, G., ‘Maritime crime’, ed. M. Natarajan, *International Crime and Justice* (Cambridge University Press: Cambridge, 2011), p. 188.

⁵⁸ E.g. United States of America, Plaintiff-Appellee, v. John L. Warren, Jr, David DeFina, Des E. Shick and Thomas A. Warren, Defendants-Appellants, Case no. 75-4368, US Court of Appeals, Fifth Circuit, 7 Apr. 1977, <<http://openjurist.org/550/f2d/219/united-states-v-l-warren-e-a>>; United States of America, Plaintiff-Appellee, v. James Michael Thompson, Defendant-Appellant, Case no. 89-6301, US Court of Appeals, 11th Circuit, 17 Apr. 1991, <<http://ftp.resource.org/courts.gov/c/F2/928/928.F2d.1060.89-6301.html>>; and US Customs Service, ‘Safety inspection at sea yields 70 lbs of cocaine aboard ship headed for Portland, Oregon’, Press release, 28 Aug. 2001, <<http://www.cbp.gov/hot-new/pressrel/2001/0830-01.htm>>.

⁵⁹ ‘North Korean freighter barred from leaving port’, *Japan Times*, 11 June 2003.

⁶⁰ Details of the violations leading to the detention are not recorded in any of the maritime database services that regularly record such information. The violations were described in a media report as ‘missing a maritime chart of the surrounding area’ and ‘an illegal hole found in the bulkhead of the freighter’s bow’. ‘North Korean freighter barred from leaving port’ (note 59). In later Japanese PSC inspections, in Aug. 2004, Apr. 2005 and Nov. 2005, many more deficiencies were recorded, some of which posed a greater threat to the seaworthiness of the ship than the unreported 2003 deficiencies, but the vessel was not detained.

⁶¹ Japanese Ministry of Foreign Affairs, Transcript of press conference, Tokyo, 26 Aug. 2003, <<http://www.mofa.go.jp/announce/press/2003/8/0826.html#7>>.

⁶² Brooke, J., ‘Japan, citing safety concerns, detains North Korea ships’, *New York Times*, 10 June 2003.

⁶³ Agence France-Presse, ‘N. Korea accuses Japan of economic sanctions’, *Taipei Times*, 22 June 2003.

member states to inspect vessels on the high seas ‘with the consent of the flag state’, if they believe them to be carrying conventional arms, nuclear- and missile-related goods and technologies or other banned goods to or from North Korea.⁶⁴ If the flag state does not consent, it must instead direct the ships to an ‘appropriate and convenient’ port for inspection. However, North Korea denies the legitimacy of the UN sanctions and has refused to cooperate with the UN groups of experts tasked with monitoring the arms embargo. Most importantly, the North Korean Government has stated that it would regard attempts to board its ships as ‘an act of war’.⁶⁵ Thus, it has been difficult to enforce inspections of North Korean-flagged ships on the high seas.

However, North Korea has no legal grounds to prevent PSC inspections on its merchant ships once they have entered a foreign port. States operating ports may provide entry to foreign-flagged vessels only on condition of ‘compliance with certain port state safety, security, environmental measures, and inspection regimes’.⁶⁶ By entering a foreign port, a North Korean vessel binds itself to submit to inspection. Given the increasingly frequent confrontations involving North Korean navy, fishing and merchant vessels, PSC inspections can be seen as a useful tool by which North Korean merchant ships may be physically monitored and controlled in a manner that will not lead to a military escalation. The average age and poor condition of most of the North Korean fleet ensures that North Korean-flagged vessels are targeted and often detained by PSC regimes, particularly the Paris MOU, on the basis of safety criteria alone.⁶⁷ This is not based on holding North Korean vessels to a higher standard than other flag states.⁶⁸ The same rationale can be applied to PSC inspections of other ships considered high risk in terms of destabilizing or illicit commodity shipments.

⁶⁴ UN Security Council Resolution 1874, 12 June 2009, paras 12–13.

⁶⁵ Craill, P., ‘UN tightens North Korea sanctions’, *Arms Control Today*, vol. 39, no. 6 (July/Aug. 2009).

⁶⁶ Kraska, J., ‘Broken taillight at sea: the peacetime international law of visit, board, search and seizure’, *Ocean and Coastal Law Journal*, vol. 16, no. 1 (2010).

⁶⁷ Ducruet, C., Roussin, S. and Jo, J.-C., ‘Political and economic factors in the evolution of North Korea’s maritime connections’, *Journal of International Logistics and Trade*, vol. 7, no. 1 (June 2009), p. 14.

⁶⁸ Smith, H., ‘North Korean shipping: a potential for WMD proliferation?’, *Asia Pacific Issues* no. 87, East-West Center, Feb. 2009, <<http://www.eastwestcenter.org/publications/north-korean-shipping-potential-wmd-proliferation>>, p. 4.

5. Trends in maritime trafficking, ship registration and seizures

Some notable trends in maritime trafficking techniques, ship registration patterns and seizures highlighted by VMID data are examined in this chapter. The first section looks at how military equipment and dual-use goods proliferation networks linked to Iran and North Korea have adopted maritime smuggling techniques that were pioneered by drug trafficking organizations in order to evade detection, when faced with UN sanctions and comparatively well-resourced surveillance operations. The second section highlights how the use of flags of convenience and other practices has enabled an entire fleet of ships to evade inspections and UN sanctions. The third section compares the frequencies with which different types of destabilizing commodity are seized when they are detected aboard merchant ships.

Methods used to evade detection

Analysis of the VMID shows that, in cases where UN sanctions are supported by sophisticated and well-resourced maritime surveillance operations—specifically in the cases of Iran and North Korea—networks engaged in transferring destabilizing military equipment and dual-use goods appear to have adopted new techniques. In particular, they are increasingly using shipping containers (figure 5.1) that are carried aboard ships owned by major shipping companies based in OECD member states and sailing under flags of convenience.⁶⁹

These techniques were pioneered by drug trafficking organizations. According to reports in the VMID, over the past five years, drug traffickers appear to have utilized containers or vessels belonging to the 10 largest global shipping container companies to transport precursor chemicals, cocaine and heroin to Africa, Europe and North America. Shipping companies generally cannot physically verify the cargo they transport in containers and it has proved difficult to develop measures to effectively reverse the trend.

Advantages of containerization for traffickers

Containerization has been credited with enabling globalization.⁷⁰ However, just as they have facilitated the rapid growth of legitimate international trade in recent decades, shipping containers have particular advantages for organizations wishing to transport destabilizing or illicit commodities.

⁶⁹ The VMID only includes cases where the ship that transported the container is identified. In the great majority of cases, the identity of the ship is not reported in open sources. The trend towards the use of containers seen in figure 5.1 would certainly be far more marked if all cases involving containers were included.

⁷⁰ Levinson, M., *The Box: How the Shipping Container Made the World Smaller and the World Economy Bigger* (Princeton University Press: Princeton, NJ, 2006).

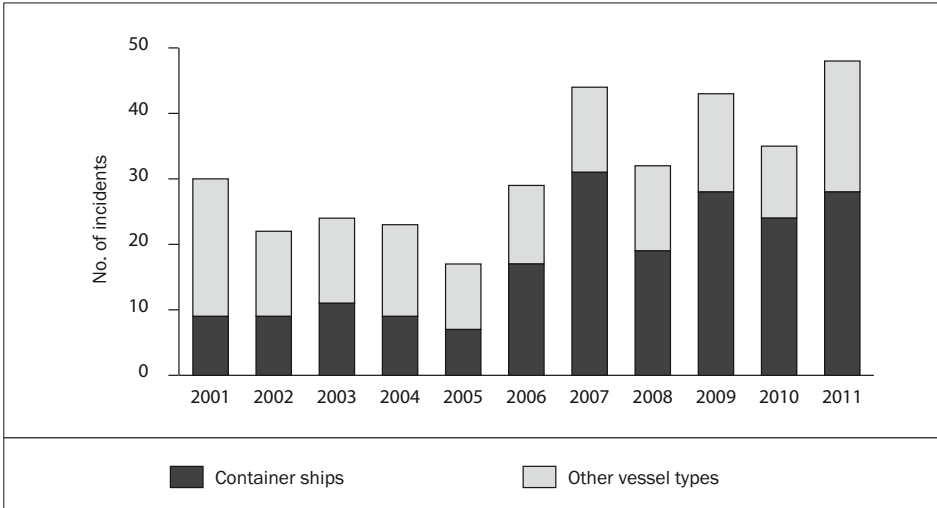


Figure 5.1. The use of container ships in reported destabilizing commodity transfers by sea, 2001–11

Notes: The sample size is 357. This sample includes all reported destabilizing military equipment, dual-use goods, narcotics and precursor transfers involving merchant ships over 100 gross tonnes. ‘Container ships’ includes all ships with container capacity.

Source: SIPRI Vessel and Maritime Incident Database.

The first relates to concealment of cargo. Sealed containers cannot, in principle, be opened and inspected by the carrier or the other individuals and companies associated with the ship’s operation and ownership. As a result, containerization also diffuses legal responsibility for the cargo. Instead of the carrier, legal responsibility may lie with the shipping agent, who should have checked the cargo before the container was sealed. For containerized cargoes, the cargo manifest and bill of lading, which must be authorized by the carrier, contain clauses such as ‘said to contain’ ‘shipper’s stow, load and count’ in order to protect the carrier in case the contents are misdeclared.⁷¹ As long as the seals on the container have not been tampered with, the carrier is generally exempt from responsibility. It may also be difficult to prove that the shipping agent was aware of any illicit shipment, as a wide range of transport and port workers may have gained access to the container following its departure from the shipper’s warehouse.⁷²

Prosecutions of ship’s officers do occur in cases of drug trafficking where evidence exists, but if the narcotics have been well hidden aboard a vessel and no

⁷¹ Not all national jurisdictions and customs authorities recognize such clauses as legal waivers of responsibility. E.g. they have not been recognized by French courts in past cases. French Government official, Communication with the author, 18 Nov. 2012.

⁷² Organisation for Economic Co-operation and Development (OECD), Directorate for Science, Technology and Industry, *Security in Maritime Transport: Risk Factors and Economic Impact* (OECD: Paris, 2003), pp. 24–25.

crew member is willing to testify against the officers, it can be difficult to establish a prosecution case or secure a conviction.

Another advantage of using shipping containers for trafficking is their anonymity. Containers have few distinguishing features and thousands may go through the biggest container ports in a day. According to the UN, less than 2 per cent of containers are inspected.⁷³ Thus, without a coordinated operation based on prior intelligence identifying a container's individual tracking number, the chances of a container's contents being accidentally discovered during transport are extremely low.

Containerization and narcotics trafficking

The growth in container shipping has been exploited by drug trafficking organizations whose own cargo ships were increasingly targeted by air and sea operations involving the US Coast Guard, the US Drug Enforcement Administration (DEA) and European law enforcement agencies.⁷⁴ In 1999 a US intelligence study noted that the rapid growth in containerized sea transport offered narcotics traffickers 'simplicity and convenience', stating that containers were the most 'cost effective' method.⁷⁵

Also in 1999, the World Customs Organization reported that 64 per cent of the cocaine seized globally was intercepted in maritime containers.⁷⁶ In 2005 the UN stated that 'containers facilitate the trafficking of large quantities of heroin and cocaine'.⁷⁷ Five years later, the Spanish police's Organized Crime Special Response Group (Grupo Especial de Respuesta al Crimen Organizado, GRECO) reported that a paradigm shift towards containerization had occurred in the way cocaine entered the country in the wake of two major counter-narcotics operations in 2009 and the death of a major drug trafficker; by 2010 more than 80 per cent of the cocaine seized on its way into Spain was in shipping containers.⁷⁸ In 2010, the US State Department assessed it as the most cost-effective and lowest risk method of transporting cocaine to distribution centres in Europe and the USA.⁷⁹

⁷³ UN Office on Drugs and Crime, 'Countering the world of smuggling through container control' 11 May 2011, <<http://www.unodc.org/unodc/en/frontpage/2011/May/countering-the-world-of-smuggling-through-container-control.html>>.

⁷⁴ An example is the DEA's Operation Journey, which was supported by law enforcement agencies in Albania, Belgium, Colombia, France, Greece, Italy, the Netherlands, Panama, Spain, the UK and Venezuela. It led to the seizure of 22.5 tonnes of cocaine and 5 non-container cargo ships operated by the Ivan De La Vega drug transportation organization between Jan. 1999 and Aug. 2000. US Drug Enforcement Administration, 'Operation Journey', Aug. 2000, <<http://www.justice.gov/dea/major/journey.htm>>.

⁷⁵ US Office of Naval Intelligence and US Coast Guard Intelligence Coordination Center, *Threats and Challenges to Maritime Security 2020* (Coast Guard Intelligence Coordination Center, National Maritime Intelligence Center: Washington, DC, 1 Mar. 1999), Chapter III, <<http://www.fas.org/irp/threat/maritime2020/CHAPTER3.htm>>.

⁷⁶ United Nations, General Assembly, 'Oceans and the Law of the Sea', Report of the Secretary-General, A/60/63, 4 Mar. 2005, para. 99.

⁷⁷ United Nations (note 76), para. 99.

⁷⁸ Abril, G. and Borasteros, D., 'Where's all the cocaine gone?' *El Pais*, 12 Aug. 2011.

⁷⁹ US Department of State, Bureau for International Narcotics and Law Enforcement Affairs, *International Narcotics Control Strategy Report 2010*, vol. 1, *Drug and Chemical Control*, March 2010 (US Department of State: Washington, DC, Mar. 2010), p. 302.

According to VMID data, maritime containers also account for more than 80 per cent of all seizures of precursor chemicals at Central and South American ports reported in open sources. The supply of precursor chemicals is critical to drug trafficking networks and organizations and in many cases determines to what extent groups may control and profit from the production and supply process.⁸⁰ The emergence of Mexican cartels as dominant actors within cocaine and subsequent methamphetamine flows is highlighted by increasing reported seizures by the Mexican Navy of containers of precursor chemicals between 2006 and 2010. In 2011, unprecedented seizures of precursor chemicals used in the production of methamphetamines in Mexico were acknowledged as providing the basis to ‘dominate the world market’.⁸¹

Organized crime groups have also, since at least the mid-1990s, used containers to ship and store significant quantities of hard currency.⁸² A series of container seizures in Colombia and Mexico in a two-week period in September 2009 resulted in the confiscation of \$41 million in hard currency.⁸³

Iran and North Korea: evading sanctions and surveillance on arms shipments

In 1999 it was predicted that containerization would be adopted by arms traffickers.⁸⁴ Recent seizure data indicates that this has happened, particularly when the military equipment and dual-use goods concerned originate in or are destined for states under comprehensive UN sanctions and subject to well-resourced surveillance operations.

Like the drug trafficking organizations before them, networks engaged in destabilizing military equipment and dual-use goods transfers now camouflage shipments further through the use of circuitous voyages, one or more trans-shipment points and vessels, and false declarations on cargo manifests and bills of lading. For example, a reported shipment of North Korean military equipment to the DRC seized by South African authorities in 2009 was disguised by the use of multiple trans-shipment points, in China and in Malaysia, and of at least two flag of convenience container ships—the Liberian-flagged, German-owned *Westerhever*, IMO 9074418, and the British-flagged, French-owned *CMA CGM Musca*, IMO 9356311—both owned by an EU member state company.⁸⁵

⁸⁰ See Bonner, R. C., ‘The new cocaine cowboys’, *Foreign Affairs*, vol. 89, no. 4 (July/Aug. 2010); and Grayson G. W., *La Familia Drug Cartel: Implications for U.S.-Mexican Security* (Strategic Studies Institute: Carlisle, PA, 13 Dec. 2010).

⁸¹ Stevenson, M., ‘Mexico’s Sinaloa cartel makes big move into meth’, Associated Press, 27 Aug. 2011.

⁸² US Department of Transportation, Maritime Administration, Office of Ports and Domestic Shipping, ‘Maritime Security Report No. 1’, Washington, DC, Jan. 1996, <<http://ntl.bts.gov/lib/24000/24100/24179/msrjan96.pdf>>, p. 4.

⁸³ ‘ICE touts \$41 million cash seizure in Mexico, Colombia’, CNN, 28 Sep. 2009, <http://articles.cnn.com/2009-09-28/world/colombia.mexico.cash_1_cash-seizure-shipping-manzanillo?s=PM:WORLD>.

⁸⁴ US Office of Naval Intelligence and US Coast Guard Intelligence Coordination Center (note 75).

⁸⁵ Lauria, J., Fairclough, G. and Wonacott, P., ‘Pretoria seized North Korean weapons’, *Wall Street Journal*, 26 Feb. 2010.

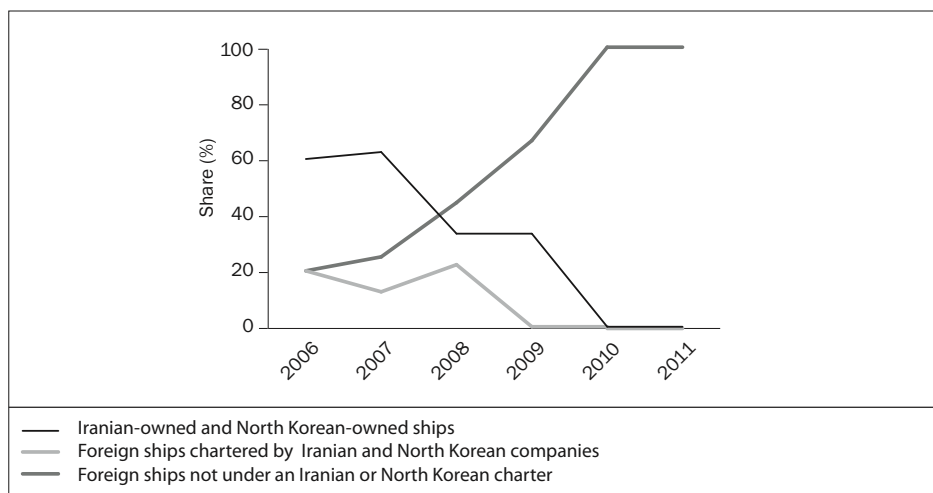


Figure 5.2. Ownership and chartering patterns for ships used to transport military equipment or dual-use goods to or from Iran or North Korea, 2006–11

Source: SIPRI Vessel and Maritime Incident Database.

Military equipment and dual-use goods shipments to and from Iran and North Korea are subject to comprehensive UN embargoes. They are also supported by well-resourced monitoring and control operations. Analysis of reported transfers in the VMID between 1991 and 2011 suggests that new trafficking patterns have been adopted in order to sidestep these obstacles.

The most recently documented seizures of Iranian and North Korean military equipment and dual-use technologies were transported by the *Victoria* (2011), the *MSC Finland* (2011), the *CMA CGM Everest* (2010), the *STX Patraikos* (2010), the *CMA CGM Musca* (2009), the *Westerhever* (2009), the *Francop* (2009), the *Hansa India* (2009), the *MSC Rachele* (2009), the *ANL Australia* (2009) and the *Monchegorsk* (2009).

All 11 of these ships were foreign-owned and foreign-flagged vessels. Ten were sailing under ITF-designated flags of convenience. Ten were owned by companies based in OECD member states, all in the EU or Switzerland. The two earlier shipments in 2009—aboard the *Monchegorsk*, IMO 9404015, and the *Hansa India*, IMO 9070967—were on ships chartered by the Islamic Republic of Iran Shipping Line (IRISL). All of the later shipments were in containers carried on ships owned by companies based in OECD member states as part of their regular commercial trading patterns. None of the owners of these vessels appears to have been aware of the nature of the cargo when it was loaded.

The shipments aboard the *STX Patraikos*, IMO 9442172, and the *MSC Rachele*, IMO 9290282, were carried in containers originating in China and North Korea destined for Iran and Syria, respectively.⁸⁶ The remaining ships were transporting

⁸⁶ United Nations (note 18), pp. 15–16.

conventional weapon, military explosives, small arms or ammunition of Iranian and North Korean origin. Suspected end-users included non-state actors and armed forces in the Middle East and in sub-Saharan Africa. In some cases the ships involved were transporting up to 36 containers of military equipment.

According to reports by UN panels of experts monitoring the sanctions on Iran and North Korea, most of these shipments were in shipping containers whose contents were misdeclared on the bills of lading. In a number of cases, the proscribed cargoes were hidden behind other items matching the declared contents of the container, apparently to reduce the chances of detection during random physical inspections. For example, in the case of the *MSC Finland*, IMO 8511184, sacks of an illegal explosive were secreted in the middle of a shipping container among sacks of milk powder, the contents stated on the bill of lading.⁸⁷

The UN Panel of Experts on Iran also described other methods apparently designed to avoid detection: attempts to hide the identity of the consignee and the use of shipper-owned containers. Shipper-owned containers—which were used in the *CMA CGM Everest* (IMO 9300154) and *Franco* (IMO 9277412) cases—allow the shipper generally to avoid the possibility of their containers being tracked across the globe using commercially available databases. In addition, in some cases, the shippers apparently tried to conceal the movement of the containers by obscuring the standard container identification numbers and replacing them with unconventional and temporary numbers.⁸⁸

Recent seizures provide evidence of increasingly sophisticated routings designed to ensure that containers carrying proscribed military equipment or dual-use goods blend in as far as possible with containers related to licit commercial trade. The use of trans-shipment or free-trade ports—long a tactic of networks engaged in trafficking narcotics or counterfeit goods as means to obscure the true point of origin of a shipment—is evident in some of the more recent seizures relating to military equipment and dual-use goods originating in or shipped to Iran or North Korea.⁸⁹

A shipment of suspected nuclear weapon-related items reportedly seized in March 2011 in two containers carried aboard a Malaysian-flagged and registered vessel, the *Bunga Raya Satu*, IMO 9157698, en route from China to Iran seems to confirm the pattern. The goods were reportedly misdeclared on the bill of lading as ‘goods used for liquid mixing or storage for pharmaceutical or chemical or food industry’.⁹⁰

The concealment measures used in the cases described above represent a shift away from the patterns seen in 2006 and 2007, when most cases of shipments of military and dual-use goods from or to Iran involved ships owned by IRISL or an Iranian affiliate and, in many cases, registered in Iran or sailing under a flag of convenience. Statistics from the VMID for 2006–11 show that 60 per cent or more of vessels reportedly detected transporting military equipment or dual-use

⁸⁷ United Nations (note 18), pp. 13, 35, 48.

⁸⁸ United Nations (note 18), p. 48.

⁸⁹ United Nations (note 18), p. 49.

⁹⁰ Associated Press, ‘Malaysia: ship with illegal cargo was Iran-bound’, *Washington Post*, 18 Mar. 2011.

goods to or from Iran or North Korea in 2006 and 2007 were Iranian-owned (figure 5.2). By 2010 there are no credible open-source reports of cases involving Iranian-flagged, owned or chartered vessels.

No North Korean-flagged vessel was reported in open sources as being involved in a substantial destabilizing military equipment transfer during 2011. Cargo traffic between North Korea and Myanmar is apparently sometimes handled in Myanmar by the armed forces Directorate of Procurement. However, none of the relevant records contains a specific reference to military equipment.⁹¹ It has been noted that the high likelihood of foreign PSC inspections acts as a strong disincentive for the North Korean Government to use North Korean-flagged ships to transport illicit cargo, although this would depend on the ship transiting a port with effective port state controls.⁹²

The UN Panel of Experts on North Korea reportedly observed in 2010 that the intense scrutiny to which North Korean vessels have been subjected may also explain why recent shipments of North Korean-origin military equipment and dual-use goods have involved containers transported aboard foreign-owned and foreign-flagged vessels.⁹³ In this context, it is important to note that foreign-flagged vessels constitute a majority of all ships calling at North Korean ports.⁹⁴ The cases of the *MSC Rachele* and the *CGM CMA Musca* also indicate a trend towards trans-shipping North Korean military equipment and dual-use goods in Chinese ports.

Flags of convenience providing ‘clean’ new identities for targeted ships and fleets

Another phenomenon revealed by analysis of the VMID is the ease with which shipping companies targeted under UN Security Council resolutions and subject to national sanctions have reregistered their fleets under flags of convenience. The most notable example is IRISL. Security Council Resolution 1803 called on member states to inspect, at their seaports, any cargoes bound for or coming from Iran on vessels owned or operated by IRISL ‘provided there are reasonable grounds to believe that the . . . vessel is transporting goods prohibited under this resolution or resolution 1737 (2006) or resolution 1747 (2007)’.⁹⁵

A number of states introduced sanctions on IRISL following Resolution 1803. In September 2008 the US Department of the Treasury’s Office of Foreign Assets Control (OFAC) imposed sanctions banning US companies, along with foreign companies operating in the USA, from doing business with IRISL or with

⁹¹ Lintner, B., ‘Fog lifts on Myanmar–North Korea barter’, *Asia Times*, 4 Mar. 2011, <http://atimes.com/atimes/Southeast_Asia/MC04Ae01.html>.

⁹² Smith (note 68), p. 10.

⁹³ Charbonneau, L., ‘Excerpts from U.N. Report on N. Korea proliferation’, *Reuters*, 9 Nov. 2010, <<http://www.reuters.com/article/2010/11/09/us-korea-north-un-excerpt-idUSTRE6A83IW20101109>>.

⁹⁴ Ducruet, Roussin and Jo (note 67), p. 8.

⁹⁵ UN Security Council Resolution 1803, 3 Mar. 2008, para. 11. and resolutions 1737, 1747, 1803 and 1929 have effected a comprehensive ban on the export and procurement of arms from Iran as well as the supply to Iran of a wide range of conventional military equipment and dual-use items..

companies designated as supporting it.⁹⁶ The US Treasury Department records that, in October 2009, the British Government froze commercial activities with IRISL, which led to the cancellation by British insurers of IRISL's hull protection and indemnity ship insurance. Other European insurers then refused to insure IRISL vessels. IRISL temporarily obtained insurance in Bermuda before the Government of Bermuda enacted a law in January 2010 to forbid it, forcing IRISL to turn to an Iranian company, Moallem Insurance Company, which did not normally offer shipping insurance.⁹⁷

On 27 July 2010 the EU issued a regulation to enforce asset freezes on IRISL and its subsidiaries.⁹⁸ Earlier that month, six vessels owned by IRISL or other Iranian companies later designated by the EU for acting on IRISL's behalf had been removed from the German International Ship Register.⁹⁹

As these measures have taken force, IRISL has adopted new vessel registration patterns. Most of IRISL's fleet has now left the Iranian national shipping registry and been reregistered in Barbados, Cyprus and Malta (all ITF-designated flags of convenience) and Hong Kong.¹⁰⁰ A number of the registered owners of these vessels have also changed, but according to the UN Panel of Experts on Iran, it is 'highly likely' that IRISL remains the real beneficial owner, hidden behind the type of complex corporate ownership structures tolerated by open registries.¹⁰¹ The Panel of Experts also noted suggestions that these vessels were deliberately registered with open registries that were not on the current Paris MOU and Tokyo MOU flag state blacklists to reduce the likelihood of them being targeted by PSC authorities.¹⁰² In addition to the reflagging, many IRISL ships were renamed between late 2008 and 2010. The UN Panel of Experts has already noted that 76 of 123 IRISL-controlled ships had been renamed between March 2008 and mid-2010.¹⁰³ According to VMID data, another 14 Iranian-controlled ships have been renamed since mid-2010. The extent and scope of IRISL's move

⁹⁶ IRISL was added to OFAC's List of Specially Designated Entities and Blocked Persons on 10 Sep. 2008, under Executive Order 13382 of 28 June 2005. US Department of the Treasury, Office of Foreign Assets Control, 'Changes to List of Specially Designated Entities and Blocked Persons since January 1, 2008', <<http://www.treasury.gov/resource-center/sanctions/SDN-List/Pages/archive.aspx>>.

⁹⁷ US Treasury Department, Press Center, 'Fact sheet: Treasury designates Iranian entities tied to the IRGC and IRISL', Press release, 22 Dec. 2010, <<http://www.treasury.gov/press-center/press-releases/Pages/tg1010.aspx>>.

⁹⁸ Council Implementing Regulation (EU) no. 668/2010, 26 July 2010, *Official Journal of the European Union*, L195, 27 July 2010.

⁹⁹ These ships were the *Daffodil* (original name *Iran Hormozgan*, IMO number 9209324), the *Dandle* (original name *Iran Isfahan*, IMO number 9209348), the *Gabion* (original name *Iran Sattari*, IMO number 9165786), the *Galax* (original name *Iran Hesabi*, IMO number 9165798), the *Gladiolus* (original name *Iran Baabaei*, IMO number 91658159), and the *Decker* (original name *Iran Atrak*, IMO number 9349667). Each of these ships has changed name 3 times in the past 4 years.

¹⁰⁰ A number of IRISL ships have been transferred from the German International Ship Registry to the Maltese registry, and several Maltese-registered IRISL vessels have transferred to the Cypriot registry after a change in the name of the beneficial owner. An example is the *Lotus*, IMO number 9165827, now registered in Cyprus, former names *Iran Tabatabaei* (1998–2008, registered in Iran), *Lucky Lily* (2008–2008, registered in Malta) and *Goldenrod* (2008–11, registered in Malta).

¹⁰¹ United Nations (note 18), p. 46

¹⁰² United Nations (note 18), p. 46.

¹⁰³ United Nations (note 18), p. 47.

to flag out its fleet is illustrated by the fact that in 2007 IRISL was the world's 23rd largest container line; by April 2011 it was no longer in the top 100.¹⁰⁴

Nearly all of the IRISL ships reported as involved in the shipment of military equipment and dual-use goods have subsequently been reflagged and renamed. However, these constitute only a small minority of the IRISL ships that have been renamed and reflagged in the past few years. This suggests that the name and flag changes are not so much an attempt to evade detection in order to facilitate transfers of military equipment as a response to the commercial and logistical difficulties of operating any Iranian ship resulting in part from the withdrawal of insurance and some restrictions placed on bunkering.

Individual ships registered in North Korea have been subject to multiple reflagging. For example, the North Korean-registered *Bu Yon 1*, IMO 8415433, was reflagged to Belize 2010 and was renamed *Light*. In May 2011 the US Government forced the *Light* to abandon a voyage to Myanmar, to which it believed the ship was transporting North Korean military equipment.¹⁰⁵ Following this incident, the ship was renamed *Victory 3* and was reflagged to Sierra Leone in July 2011.

However, unlike the IRISL fleet, North Korean ships have not been flagged out in large numbers over a short period of time. The number of North Korean-controlled vessels flagged to other states has remained stable since 2005, with 20–25 ships sailing under the Chinese and South Korean flags or registered in the open registries of the Comoros, Mongolia, Panama and Sierra Leone.¹⁰⁶

Such reflagging practices are in part a response to the monitoring of North Korean vessels by the navies and aircraft of NATO member states and, in the case of Iran, because of the range of financial sanctions and logistical measures which make foreign trading using such flags more expensive and problematic.

The flagging out of ships associated with entities targeted by sanctions appears to be as simple as it is for any other ship and, with the exception of the German International Ship Register, the EU sanctions do not appear to have been taken into account by the other open registries that have accepted IRISL ships. This demonstrates how flag of convenience practices facilitate the avoidance of both inspections and sanctions.

Disparities in seizure rates

Another important finding of this study is the disparity between seizure rates for the different types of commodity examined here. While at least 99 per cent of reported incidents involving narcotics-related shipments transported by sea involve seizure of the cargo, only 36 per cent of reported destabilizing military equipment and dual-use goods transfers result in seizure (see figure 5.3).

¹⁰⁴ United Nations (note 18), p. 47.

¹⁰⁵ Sanger (note 51).

¹⁰⁶ United Nations, Security Council, Report of the Panel of Experts established pursuant to Resolution 1874 (2009), 12 May 2011, <<http://www.nkeconwatch.com/nk-uploads/UN-Panel-of-Experts-NORK-Report-May-2011.pdf>>, p. 35.

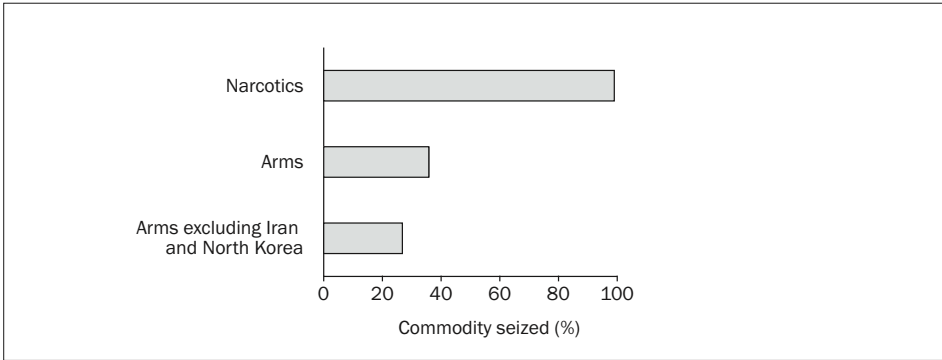


Figure 5.3. Detected transfers of destabilizing commodities that end with seizure of the commodity, share of incidents, 1991–2011

Notes: The sample size is 530 ships. Only incidents reported in open sources are included. ‘Narcotics’ includes all reported transfers of narcotics and precursor chemicals. ‘Arms’ includes all destabilizing transfers of military equipment and dual-use goods. ‘Arms excluding Iran and North Korea’ includes all such transfers to or from destinations other than Iran and North Korea.

Source: SIPRI Vessel and Maritime Incident Database.

There are a number of reasons for the discrepancies in the seizure statistics for narcotics and destabilizing military equipment and dual-use goods transfers. One of the most important is the different legal frameworks governing these commodity types. Narcotics are controlled substances that are illegal under nearly all circumstances. States are generally committed to the interdiction of ships transporting narcotics and this is reflected in the variety of international legal instruments and bilateral agreements specifically designed to support maritime interdiction and seizure. When narcotics are seized, those who are suspected of knowingly transporting them are prosecuted and often convicted by national courts.

The punitive legal framework against narcotics trafficking is supported by well-resourced national agencies specializing in criminal intelligence and maritime interdiction that have developed sophisticated monitoring regimes. There is often a high degree of multilateral and bilateral information sharing and operational partnership. Such joint counter-narcotics operations can involve the intelligence agencies, coastguards, customs, police and armed forces of the largest and best-resourced OECD member states.

The most notable joint operation to date is the Joint Interagency Taskforce South (JIATF-South), which is claimed to have been responsible for more than 40 per cent of global cocaine interdiction in 2009.¹⁰⁷ JIATF-South includes personnel from the US Army, Navy, Air Force, Marine Corps, Coast Guard, Customs and Border Protection, DEA, Federal Bureau of Investigation, Defense Intelligence Agency, Central Intelligence Agency, National Security Agency,

¹⁰⁷ Munsing, E. and Lamb, C. J., *Joint Interagency Taskforce-South: The Best Known, Least Understood Interagency Success*, Center for Strategic Research Strategic Perspectives 5 (National Defense University Press: Washington, DC, June 2011), p. 3.

National Geospatial-Intelligence Agency and National Reconnaissance Office, as well as representatives from Argentina, Brazil, Canada, Chile, Colombia, the Dominican Republic, Ecuador, El Salvador, France, the Netherlands, Peru, Spain and the UK.¹⁰⁸ Another platform, the Maritime Analysis and Operations Centre–Narcotics (MAOC-N), has been established to share information between EU member states, the USA and African partners on narcotics shipment monitoring and seizure. As a result of the levels of attention, resources and international cooperation, counter-narcotics-related activities covering the Atlantic, the Caribbean and the eastern Pacific are the most sophisticated maritime interdiction operations currently in existence.

The legal frameworks and maritime operations that govern and monitor conventional arms and dual-use goods shipments are very different. Conventional military equipment and dual-use goods are not illegal to produce, under most circumstances, and their transfer is not inherently illicit. In some parts of the world, they are subject to effective national export controls, but only a relatively small number of states have effective end-use monitoring systems in place to reduce the risk of diversion to areas or states under a UN or regional embargo. Furthermore, few states have criminalized the violation of UN arms embargoes and no flag state has prosecuted a ship operator, captain or owner for violation of a UN arms embargo.

Nearly half of all reported seizures of military equipment and dual-use goods for the period 1991–2011 were of shipments originating in or destined for either Iran or North Korea. Excluding these, the seizure rate for destabilizing military equipment and dual-use goods shipments is only around 27 per cent of the total reported.

The number of reported destabilizing maritime arms and dual-use goods shipments over the years would suggest that the majority of destabilizing military equipment transfers are not observed at the time by the relevant UN groups of experts. In most of the reports of such transfers, it appears that international monitors were prevented from inspecting and verifying the cargo. Furthermore, there are few reports of seizures by UN peacekeepers at African ports in regions or states under UN arms embargoes. Judging by the reports of cases held in the VMID, it is fair to state that few destabilizing military equipment transfers by sea to Africa have been subject to interception or interdiction by UN member states.

Most of the available records of destabilizing military equipment transfers to Africa are to be found in UN sanctions committee reports by groups of experts or in reports by UN and other peacekeeping forces who observed the transfers but were prevented from inspecting the shipments. Others were revealed by non-governmental organizations that investigate arms transfers. Still others came to light by chance—for example, the ship was involved in a collision or was seized by pirates; the delivery was witnessed by humanitarian organizations unloading humanitarian supplies at the same port; dockworkers refused to unload the cargo

¹⁰⁸ Munsing and Lamb (note 107), p. 6.

in protest at the undemocratic regime for which it was intended; or the ship was detained after being monitored by a NATO-led maritime counterterrorism operation after having been deemed to be acting suspiciously.

The higher seizure rate (55 per cent) for Iranian- and North Korean-related maritime shipments appears to be indicative of the higher priority given by some NATO and OECD member states to monitoring shipments to and from those countries and their efforts to control the shipments. Some of these efforts have been directed through the UN and have resulted in a range of relatively restrictive UN sanctions. However, it is the high level of resources devoted to monitoring shipments originating in or destined for Iran and North Korea that appears to be most responsible for the higher, intelligence-led seizure rate. The measures taken include diplomatic demarches submitted by permanent members of the UN Security Council to states that may be unaware of the export, its suspect nature or the final end users. There is informal and formal national and international inter-agency cooperation and the full range of civilian and military intelligence disciplines have been deployed to monitor shipments originating or destined for Iran and North Korea, including geospatial intelligence, human intelligence, signals intelligence, financial intelligence, and measurement and signature intelligence.

The monitoring and control efforts on military equipment and dual-use shipments from or to Iran and North Korea more closely resemble the most sophisticated maritime counter-narcotics operations. In contrast, few such resources and initiatives have been employed to counter destabilizing transfers of military equipment and dual-use goods that have had such a negative impact on a significant number of African states and their populations over the past two decades.¹⁰⁹

¹⁰⁹ See e.g. Wezeman, P. D., Wezeman, S. T., and Béraud-Sudreau, *Arms Flows to Sub-Saharan Africa*, SIPRI Policy Paper no. 30 (SIPRI: Stockholm, Dec. 2011).

6. Conclusions and recommendations

Maritime trade is one of the pillars of globalization. As new economic powers emerge and new trading links are forged, maritime trade will continue to expand; the relative importance of different shipping lanes, flag states, ports and markets will change dynamically; and the shipping industry will seek new ways to improve efficiency and to maximize profit. Understandably, governments will continue to weigh the benefits of stricter controls on the shipping industry against the significant costs of jeopardizing their countries' involvement in maritime trade.

Maritime trade has always included a share of illicit activity. However, as the findings presented here show, the advent of containerization in particular has given non-state actors engaged in maritime trafficking and destabilizing transfers unprecedented opportunities to integrate their activities into the global supply chain. Containerization provides trafficking and proliferation networks with the same cost- and time-saving transport mechanisms that have allowed the world's multinational companies to deliver their products quickly and cheaply, penetrate new markets and expand their global customer base. The trend towards containerization for a wide range of destabilizing commodities is and will remain one of the key challenges for Asian, European and North American policymakers focused on international peace and security.

This report throws light on the methods used in some of the forms of maritime trafficking with the gravest consequences: the trade in narcotics and in the precursors that allow them to be manufactured, and the trade in military equipment and dual-use goods that can prolong and inflame conflicts, derail democratization and even aid the proliferation of WMD. It has demonstrated the capacity of traffickers in these commodities to innovate and adapt. In particular, it has highlighted the alarming ease with which traffickers have been able to skirt laws and controls and to co-opt the methods, flows and technologies of legitimate trade.

The rapid growth in trade volumes and the emerging dominance of containerization, not to mention the commercial imperative to keep delivery times as short as possible, mean that random customs checks are no longer considered a viable or effective way of detecting illicit cargoes—especially in the case of dual-use items that are only identifiable with expert analysis. To address the gap, states have sought to identify and target higher-risk containers and ships, taking into account a range of indicators and information sources, including intelligence. However, as this report has demonstrated, resources, activity and political will are unevenly distributed between types of illicit commodity and between geographical areas. The contrast is particularly striking between, on the one hand, efforts to disrupt narcotics flows into Europe and North America and flows of arms to and from Iran and North Korea and, on the other, those to effectively monitor and control ships transporting military equipment that is ultimately destined for unstable parts of Africa.

The following are some broad conclusions and recommendations based on the findings of this report.

Emphasis on port state controls

The international law of the sea codified in UNCLOS provides flag states with exclusive sovereignty and jurisdiction over their vessels in international waters. A disproportionate majority of the category 1 cases—in which the ship's owners, commercial operator or officers appear to have been complicit in destabilizing military equipment, dual-use goods and narcotics transfers—between 1991 and 2011 involved ships registered in those flag states least capable of enforcing national and international laws. This fact—along with the ease with which ships can reflag from one open registry to another—suggests that efforts to combat trafficking that rely largely on the cooperation of flag states alone are unlikely to be effective.

It is perhaps more productive to put emphasis on dialogue with the owners of category 2–5 vessels, who generally represent mainstream OECD member state companies, and focus on PSC for category 1 vessels. This is because PSC inspections in most cases are the only occasions when state authorities have the right to board a ship without consulting the flag state. PSC inspections allow inspection of the ship, including the cargo hold and crew's quarters. They also provide a mechanism to control the movement of targeted ships through detention in port and even a ban from all ports under the same cooperative PSC regime.

Although the express purpose of PSC inspections is, generally, to check for compliance with safety, pollution and labour standards, category 1 ships are more often than not registered in flag states whose ships are targeted for extra PSC inspections. PSC represents an existing potential choke point that could provide states with significant tools to better monitor and control ships involved in a range of destabilizing commodity flows.

Initiatives to benefit from the opportunities offered by PSC inspections could be undertaken at relatively low cost. They include outreach, training, technical assistance and information sharing with PSC authorities at ports identified as more frequently visited by vessels suspected of involvement in particular destabilizing commodity flows, as well as confidence-building measures that would facilitate information sharing on unsafe, suspect vessels at a later date. Training could include methods of detecting and identifying suspect commodities. At national level, operational links could be strengthened between PSC authorities and export control, customs, security and intelligence agencies.

At international and regional levels, formal and informal information sharing could be enhanced between governments, regional maritime administrative agreements, and relevant national and individual PSC authorities on suspect vessels with a view to ensuring that they are targeted for PSC inspections.

A holistic approach to maritime domain awareness, security and governance

There are some areas of maritime governance where sophisticated surveillance, inspection and other forms of monitoring and control are already in place in some parts of the world: maritime pollution, ship safety, vessel traffic and fisheries protection. These are generally treated as discrete fields and their governance is overseen by different agencies. However, an integrated and holistic approach to the monitoring, security and governance of maritime activities could save time and resources and benefit from important synergies.

In particular, it would allow those states and organizations concerned with monitoring and controlling various destabilizing and illicit commodity flows to tap into the systems, networks and technologies of maritime surveillance and governance agencies that have already established some of the most technologically advanced mechanisms for monitoring individual vessels and fleets. The potential of a holistic approach has been recognized by certain agencies and regional initiatives such as the EU Common Information Sharing Environment (CISE). The most important EU actor in the field of ship safety, pollution monitoring and vessel traffic is the European Maritime Safety Agency (EMSA), which provides a large repository of tools, skills and data. EU member states and institutions should create an information-sharing mechanism for lists of suspect ships and shipments that could be integrated into other EU systems as part of a wider holistic approach to maritime security and the enforcement of EU arms embargoes.

To ensure that such initiatives develop to their full potential, greater political support is required at national, regional and international levels. A holistic approach would place emphasis on using existing technologies, instruments and assets currently used to better protect the marine environment (such as pollution monitoring satellites and PSC) to assist in the monitoring of vessels suspected of involvement in destabilizing transfers of military equipment and narcotics, which have a heavy impact on both developed and developing world populations. These same ships also carry higher maritime safety and pollution risks.

Dialogue with the mainstream shipping industry

Containerization has been increasingly adopted as a shipping method by drug traffickers and for destabilizing transfers of military equipment and dual-use goods. In such cases, the containers are frequently carried on ships owned by mainstream shipping companies based in EU, NATO or OECD member states, without the knowledge of the ship's owner, operator or officers. Containerization offers many advantages to traffickers, particularly a relatively low risk of detection. It is therefore likely that, at least as long as the trend towards containerization continues in the licit portion of maritime trade, containers will increasingly be used for many sorts of trafficked commodities—and mainstream

companies based in EU, NATO and other OECD member states will increasingly become unwitting accomplices of the traffickers.

Any attempt to systematically reduce maritime flows of destabilizing and illicit commodities that are transported without the knowledge of the shipowners requires the input and voluntary participation of the mainstream Asian, European and North American shipping industry. The concerns of shipowners and their captains need to be taken into account if moves toward systems that reduce or mitigate the risk of unintentional transfer are to be found. Many ship's captains fear that reporting a potentially suspicious cargo will result in delays to a ship's schedule and thus financial loss. Best practices developed at a number of ports may offer practical solutions to address such concerns.

Dialogue with the shipping industry would be a first step to develop wider systems or learn from existing arrangements that could allay such concerns, particularly regarding the increasing use of shipping containers for trafficking. Many of the main actors involved in the shipping industry—including beneficial owners, banks providing mortgages and insurers—are based in EU, NATO and OECD member states that tend to have relatively well-developed law enforcement, prosecution, military intelligence and foreign intelligence services with established mechanisms for bilateral and multilateral information sharing. These well-developed states that host mainstream shipping industry companies, particularly the beneficial owners, have much greater potential than many flag states to be useful interlocutors in any future information-sharing, risk assessment and cooperation initiatives dedicated to particular destabilizing and illicit commodity flows.

Further study and analysis

Due to considerations of time and space, this study has not been able to properly reflect the roles played by, for example, key shore-based actors in the maritime trading chain, such as classification societies, freight forwarders and shipping agents; export control regimes; most of the vast corpus of transport regulations; and the various bilateral or multilateral initiatives already established to combat maritime trafficking or proliferation-related activities.¹¹⁰ Similarly, the analysis presented here has not taken into account routeings and shipping hubs, other trans-shipment points, ports of origin, transit and destination.

Another key sector that could usefully be studied is the maritime insurance industry. Insurance is an important element in the operation of any vessel and insurance considerations have been known to alter shipping industry patterns and flag state registration. As the case of IRISL illustrates, when shipowners are

¹¹⁰ E.g. the Proliferation Security Initiative (PSI), the UN Office on Drugs and Crime—World Customs Organization (WCO) Container Control Programme, the IMO International Ship and Port Facility Security (ISPS) Code, the US Container Security Initiative, the US Secure Freight Initiative and the WCO SAFE Framework of Standards to Secure and Facilitate Global Trade. For further reading on these initiatives see Kraska (note 66); and United Nations Conference on Trade and Development (UNCTAD), 'Maritime security: elements of an analytical framework for compliance measurement and risk assessment', UNCTAD/SDTE/TLB/2005/4, New York and Geneva, 2006.

unable to obtain insurance from the more mainstream and reputable insurers, they seek coverage elsewhere. Some of the more obscure companies claiming to offer full coverage not only provide a refuge for suspect shipowners but also may not in fact have the required assets or surety to meet the liabilities resulting from a major maritime disaster involving one of their vessels.

The VMID is the largest and most comprehensive collection of data on ships reportedly involved in maritime trafficking incidents. While it can only ever reflect cases that are detected, the VMID provides useful indications of where there is scope for more targeted research into particular commodity flows, routes, nodes and actors. As such, this study should be considered a first step towards a deeper understanding of how certain destabilizing and illicit commodity transfers occur—and of how they can be prevented.

Appendix A. Vessel type definitions

The definitions presented below are for the vessel types most frequently associated with destabilizing military equipment, dual-use goods and narcotics transfers (see chapter 3). They are based on more detailed vessel type designations used by IHS Fairplay. For the full list of IHS Fairplay vessel type definitions see IHS Fairplay, ‘Data definitions—vessel types—owners & managers’, <<http://www.ihsfairplay.com/About/Definitions/definitions.html>>. Note that the VMID includes other vessel types than those listed here.

| | |
|---------------------------|---|
| General cargo vessel | Single-deck or multi-deck vessel to carry non-liquid cargoes. |
| Container vessel | Single-deck cargo vessel with boxed holds fitted with fixed cellular guides for the carriage of containers. This vessel type includes ships designed to carry refrigerated containers. |
| Crude oil tanker | Tanker for the bulk carriage of crude oil. |
| Bulk carrier | Single-deck cargo vessel built for the carriage of bulk dry cargoes. Also includes bulk carriers fitted to carry crude oil as an alternative cargo, and bulk carriers equipped for discharging cargo without the use of external equipment. |
| Chemical tanker | Tanker for the bulk carriage of chemical cargoes, lubricant oils, vegetable or animal oils and other chemicals. |
| Product tanker | Tanker for the bulk carriage of refined petroleum products. |
| Offshore support vessel | Single- or multi-functional offshore support vessel. Functions can include the transport of goods, stores and crew to offshore facilities. |
| Roll-on roll-off vessel | Single or multi-deck cargo vessel for the carriage of vehicles that are loaded via ramps. |
| Refrigerated cargo vessel | Usually multi-deck cargo ship for the carriage of non-containerized refrigerated cargoes at various temperatures. |
| Tug | Vessel equipped with a towing winch to tow other vessels. |
| Fishing vessel | IMO-numbered fishing vessel over 100 tonnes. |
| Passenger vessel | Vessel certificated to carry more than 12 passengers. |

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Maritime Transport and Destabilizing Commodity Flows

Maritime transport flows are the lifeblood of global trade. They are also the dominant means of transporting a range of potentially destabilizing commodities that threaten states and societies throughout the developing and developed worlds.

This SIPRI Policy Paper aims to fill an important knowledge gap by—for the first time in a public document—providing a comprehensive mapping and analysis of the ships involved in the clandestine transport of narcotics, of arms and of dual-use goods essential to the development of weapons of mass destruction. It also offers practical solutions to one of the most important global security challenges for policymakers, civil society and industry in the 21st century.

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ISBN 978-91-85114-71-9



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