
Maritime Security

Security interests at sea have traditionally related to military interests and naval power.¹ While this remains fundamental to the security of States, there is an increasing urgency to address other diverse security threats in and from the maritime domain by non-State actors.² Non-military or non-traditional maritime security goes back to early maritime history under the rubrics of piracy and barratry, but now includes illegal immigrants; maritime terrorism; people, weapon and drug trafficking; information security; and environmental security, among others.³

The right to protect maritime security is not explicitly included in the exclusive economic zone (EEZ) regime, albeit the United Nations Convention on the Law of the Sea (UNCLOS) addresses the specific threats to maritime security in some way or another.⁴ From the perspective of resolving conflicts regarding maritime security interests, based on the criteria provided in Article 59 and the general rules of attributing rights and duties in the EEZ, States could assert jurisdiction over activities that are related to their endowed rights or freedoms in this *sui generis* zone, or are otherwise provided by international instruments. The claims of jurisdiction over maritime security in the EEZ by different States often overlap and sometimes compete with one another. This is because States have both shared interests in maintaining the security of navigation and other

¹ Linton F. Brooks, 'Naval Power and National Security: The Case for the Maritime Strategy' (1986) 11(2) Int'l Sec 58, 58–60; Natalie Klein, *Maritime Security and the Law of the Sea* (Oxford University Press 2011) 1.

² Natalie Klein, 'Maritime Security', in Donald R. Rothwell, Alex G. Oude Elferink, Karen N. Scott and Tim Stephens (eds.), *The Oxford Handbook of the Law of the Sea* (Oxford University Press 2015) 582–583; Jun Zhao, 'Non-traditional Maritime Security and International Cooperation' (2015) 45(3) Hong Kong LJ 743, 744–745.

³ Vinh V. Thai, 'Effective Maritime Security: Conceptual Model and Empirical Evidence' (2009) 36(2) Marit Pol Mgmt 147, 147–148; Christian Bueger, 'What Is Maritime Security?' (2015) 53 Marine Policy 159, 160–161.

⁴ United Nations Convention on the Law of the Sea (10 December 1982, in force 16 November 1994) 1833 UNTS 3, Articles 99–111 (UNCLOS).

communication rights, as well as competing interests in protecting their respective priorities. From the perspective of exercising the right to protect maritime security interests, the general rules of exercising co-existing rights and duties continue to apply with regard to measures to address threats to maritime security. In the case where different States share concurrent jurisdiction over certain threats to maritime security, they are required to respect each other's rights and duties and are expected to cooperate to promote mutual security.

This chapter examines the current and emerging State practice in respect of preventing and combatting maritime security threats, it discusses the respective interests involved in attributing specific rights and jurisdiction and explores the rules for States in exercising them. It is divided into four sections. Section 7.1 discusses the concept of maritime security and the security interests as shown in the EEZ. The protection of maritime security in the EEZ refers to the right of States to address various threats to their legitimate rights and interests as recognised in this zone. Section 7.2 reviews the current international legal framework for combatting specific threats to maritime security. In the attribution of jurisdiction, it remains the flag State that has exclusive jurisdiction over vessels flying its flag, but other States share concurrent jurisdiction over certain international crimes or have been granted authorisation in international agreements to deal with such threats. Section 7.3 explores the implementation by coastal States of measures, including self-help measures, to protect their maritime security interests in the EEZ. There are limited mechanisms under the current international legal framework for the coastal State to effectively combat imminent threats to maritime security in its EEZ, which are often of a transnational nature. Section 7.4 examines the regional and international efforts to combat threats to maritime security and discusses an emerging practice of protecting collective security interests to promote collaboration between States to meet the jurisdiction gap.

7.1 The Concept of Maritime Security

7.1.1 *Defining Maritime Security*

The very word 'security' is a commonly used term in international relations that does not have a clear definition.⁵ Although it may have

⁵ Ken Booth, *Theory of World Security* (Cambridge University Press 2007) 96; Ramesh Thakur, *The United Nations, Peace and Security: From Collective Security to the Responsibility to Protect* (2nd ed., Cambridge University Press 2017) 35–36.

different meanings in different contexts, 'security' may simply be understood as an emotive term referring to 'a sense of safety and hence freedom from fear'.⁶ Security in the maritime context is closely linked with what may be called 'territorial security', indicating that activities at sea may impinge on actions taken on land.⁷ Maritime security refers to a condition in which the maritime rights and interests of a State, recognised by international law, are free from harm or danger from the threat of direct attack and other crimes at sea.⁸ Following the decrease in direct military confrontations after the Second World War and the expansion of the security agenda in the twenty-first century, the term 'maritime security' is often used to describe the non-military dimension of security at sea, namely counter-piracy, counter-terrorism, all sorts of counter-trafficking activities and other crimes at sea.⁹

Maritime security is often referred to as a buzzword that enables international cooperation on actions absent a consensus on its definition.¹⁰ As such, maritime security could be analysed through its relations to others terms, the aspects of security of a particular State and how such threats to security have been addressed in practice.¹¹ Such a conceptual framework proposes to analyse specific threats to a particular State's maritime security based on its relations with national security, economic development, the marine environment and human resilience.¹² This framework analysis methodology concurs with the approach adopted in the 2008 United Nations Secretary-General's Report on Oceans and the

⁶ Klein (2011) 2; Lisa Otto, 'Introducing Maritime Security: The Sea as a Geostrategic Space', in Lisa Otto (ed.), *Global Challenges in Maritime Security: An Introduction* (Springer 2020) 6–7.

⁷ Klein (2011) 4. For discussions on traditional security interest in the EEZ, see Chapter 6 in this volume.

⁸ United Nations General Assembly (UNGA) A/63/63, 10 March 2008, Oceans and the Law of the Sea: Report of the Secretary-General, para 39; 国家海洋局海洋发展战略研究所课题组, 中国海洋发展报告 2009 (海洋出版社, 2009), 第115页 (China Institute for Marine Affairs, *China's Ocean Development Report: 2009*) (Ocean Press 2009) 115; Dirk Siebels, *Maritime Security in East and West Africa: A Tale of Two Regions* (Palgrave Macmillan 2020) 19–21.

⁹ Klein (2015) 582–583; Donald R. Rothwell and Natalie Klein, 'Maritime Security and the Law of the Sea', in Natalie Klein, Joanna Mossop and Donald R. Rothwell (eds.), *Maritime Security: International Law and Policy Perspectives from Australia and New Zealand* (Routledge 2010) 22–23.

¹⁰ Bueger (2015) 159–160.

¹¹ Ibid 160–163; Natalie Klein, Joanna Mossop and Donald R. Rothwell, 'Australia, New Zealand and Maritime Security', in Klein, Mossop and Rothwell (2010) 5–9.

¹² Bueger (2015) 160; Christian Bueger, Timothy Edmunds and Barry J. Ryan, 'Maritime Security: The Uncharted Politics of the Global Sea' (2019) 95(5) *Int'l Aff* 971, 971–974.

Law of the Sea (2008 UN SG Report) and the approaches taken by many States to define their maritime security strategies.

The 2008 UN SG Report, recognising that there is no universally accepted definition of the concept of maritime security and that it can only be analysed in relation to the context and users, identified seven specific activities that are commonly perceived as threats to maritime security.¹³ The seven categories of activities include piracy and armed robbery against ships; terrorist attacks on vessels, offshore installations and the people and property on board; illicit trafficking in arms and weapons of mass destruction (WMD); illicit trafficking of drugs and psychotropic substances; smuggling and human trafficking; illegal, unreported and unregulated (IUU) fishing; and intentional and unlawful harm to the marine environment.¹⁴

Another comprehensive example is the 2014 European Union Maritime Security Strategy (EUMSS), which conceptualises maritime security as 'a state of affairs of the global maritime domain, in which international law and national law are enforced, freedom of navigation is guaranteed and citizens, infrastructure, transport, the environment and marine resources are protected'.¹⁵ EUMSS further defines the strategic maritime security interests of the European Union and its Member States, and then identifies a list of risks and threats to those interests, before articulating how to strengthen the responses to such risks and threats.¹⁶ In addition to the seven specific activities identified in the 2008 UN SG Report, EUMSS's list includes the threat or use of force, maritime disputes, threats to freedom of navigation, natural or human-made disasters including climate change, and illegal pillage of archaeological objects.¹⁷

Both lists cover various threats to the safety of navigation, national defense strategies, the marine environment, law enforcement activities, fishing and other maritime issues, but this list is not exhaustive. Other harmful acts occurring at sea may also threaten the security of a State's territory, economy, environment and society. For example, with the development of operational technology and automatic vessels, cyber

¹³ UNGA A/63/63 paras 39–40.

¹⁴ UNGA A/63/63 paras 54–113.

¹⁵ Council of the European Union, European Union Maritime Security Strategy, Brussels, 24 June 2014, 11205/14, s II (EUMSS).

¹⁶ *Ibid* ss IV–VI.

¹⁷ *Ibid* s V.

security is a growing concern of maritime security.¹⁸ Cyber operations could directly target the vessel or network systems within a coastal State, or cyber means could be used to facilitate threats to maritime security.¹⁹ The importance of submarine cables and pipelines to international communications and energy supply may warrant further review of the effectiveness of regulations concerning potential threats to the operation and protection of cables and pipelines lying on the ocean floor.²⁰

To discuss maritime security in the EEZ, it is important to first identify which State is the right holder, the security interests of the State that need to be protected and then the means to address existing or potential threats to these interests. Since the Cold War, the security paradigm has undergone a shift from conventional and military interests to non-conventional and non-military interests.²¹ Security interests have expanded to include political, economic, societal and ecological concerns that focus on development rights and go beyond the basic needs of survival.²² As a result, threats to maritime security extend to any events or processes that lead to significant damage to the rights and interests of the coastal State as well as other user States.

7.1.2 *Maritime Security in the EEZ*

UNCLOS provides for the peaceful use of the sea by setting out a delicately balanced legal framework to accommodate the maritime activities of States.²³ However, there is no provision in UNCLOS that has particular relevance for assessing maritime security in general in the EEZ. Commonly perceived threats to maritime security, including piracy, terrorism, transnational crimes, marine pollution and marine resource management, are all correlative to the EEZ. Therefore, within the EEZ, any State whose legitimate interests are threatened is of relevance when addressing threats to maritime security.

¹⁸ International Maritime Organization (IMO), 'Maritime Cyber Risk' www.imo.org/en/OurWork/Security/Pages/Cyber-security.aspx.

¹⁹ Michael N. Schmitt (ed.), *Tallinn Manual 2.0 on the International Law Applicable to Cyber Operations* (Cambridge University Press 2017) 243 (Tallinn Manual 2.0).

²⁰ International Law Association (ILA), Committee on Submarine Cables and Pipelines under International Law, Interim Report 2024 on Intentional Damage to Submarine Cables and Pipelines www.ila-hq.org/en_GB/committees/submarine-cables-and-pipelines-under-international-law. See discussion in Chapter 5 in this volume on submarine cables and pipelines.

²¹ Suk Kyoon Kim, 'Maritime Security Initiatives in East Asia: Assessment and the Way Forward' (2011) 42 *Ocean Dev Int'l L* 227, 227.

²² Booth (2007) 110; UNGA A/63/63 para 40.

²³ UNCLOS Preamble, Articles 88, 138, 141, 301; Rothwell and Klein (2010) 27–29.

From the perspective of threats to maritime security, there are two sets of States' interests to be protected in the EEZ. On the one hand, all States share a collective interest in promoting the safety of navigation, securing the unobstructed transportation of goods and passengers, improving the quality of the marine environment, preventing crimes at sea and maintaining the sustainability of marine resources.²⁴ All these collective interests are the concern of maritime user States in general. States that undertake activities in the EEZ of another State have the right to ensure that their nationals or entities are not threatened or harmed. On the other hand, the coastal State has an individual interest in ensuring that its adjacent sea area is not used in a way that could jeopardise its territorial integrity or political independence, or endanger its rights or jurisdiction in the EEZ as recognised by international law.

Protecting lawful maritime interests from imminent threats is different from asserting a special security right in the EEZ. The attempt to assert such a right beyond the territorial sea was rejected by the International Law Commission (ILC) in 1956, where

[i]t considered that the extreme vagueness of the term "security" would open the way for abuses and that the granting of such rights was not necessary. . . . In so far as measures of self-defence against an imminent and direct threat to the security of the State are concerned, the Commission refers to the general principles of international law and the Charter of the United Nations.²⁵

By excluding security interests in the EEZ, it avoided granting the coastal State unbridled discretion, as its determination of a security threat could be unilateral and subjective. This statement did not preclude the coastal State from protecting its security interests from specific threats, which could be addressed according to the rules of general international law.

In addition, protecting non-traditional maritime security interests in the EEZ is different from the practice, as has been used during armed

²⁴ Leticia M. Diaz and Barry Hart Dubner, 'An Examination of the Evolution of Crimes at Sea and the Emergence of the Many Legal Regimes in Their Wake' (2008–2009) 34 *NC J Int'l L & Com Reg* 521, 544; Scott Edwards, 'Fragmentation, Complexity and Cooperation: Understanding Southeast Asia's Maritime Security Governance' (2022) 44 (1) *Contemporary Southeast Asia: A Journal of International and Strategic Affairs* 87, 94–99.

²⁵ 'Report of the International Law Commission to the United Nations General Assembly, A/3159, Commentary to the Articles Concerning the Law of the Sea' (1956) 2 *YB ILC* 295, Article 66 Commentary (4) (ILC Draft Articles).

conflicts at sea, of asserting various maritime security zones and maritime exclusion zones.²⁶ A security/exclusion zone,

also referred to as a military area, barred area, war zone, or operational zone, is an area of water and superjacent air space in which a party to an armed conflict purports to exercise control and to which it denies access to ships and aircraft without permission.²⁷

It explicitly interferes with the freedom of navigation and overflight of other States. The non-traditional security interests in the EEZ relate to the protection of the normal rights of transit and economic exploitation. Moreover, within a security/exclusion zone, the primary responsibility for maintaining security rests with navies. Protecting non-traditional maritime security (in which not only shipping but the entire maritime system is at risk) involves a collective effort of multiple agencies, such as coast guards, marine police forces, customs and immigration organisations, intelligence agencies, port authorities, other law enforcement authorities and commercial entities throughout the maritime sector.²⁸

Therefore, combatting threats to maritime security in the EEZ refers to the protection of navigation, overflight, economic exploration and exploitation, the marine environment and other lawful uses from piracy, terrorist acts and other international crimes at sea, in which all States' interests are correlated. The right to address these threats to maritime security, however, is limited based on the legal framework provided by UNCLOS and other international instruments. In addition, States may take significantly different positions with regards to threat perception, the seriousness of a particular threat and the countermeasures necessary to address it. To effectively prevent and combat threats to maritime security in the EEZ, States are expected to exercise their rights in good faith and with due regard to other States' interests, and to cooperate and coordinate with respect to threats that endanger the collective interests of all maritime user States.

²⁶ Frederick C. Leiner, 'Maritime Security Zone: Prohibited Yet Perpetuated' (1983–1984) 24 *Va J Int'l L* 967, 968; Daniel P. O'Connell, *The International Law of the Sea, Volume II* (Oxford University Press 1988) 1109–1112.

²⁷ W. J. Fenrick, 'The Exclusion Zone Device in the Law of Naval Warfare' (1986) 24 *Can YB Int'l L* 91, 92.

²⁸ Chris Rahman, *The Global Maritime Partnership Initiative: Implications for the Royal Australian Navy* (Papers in Australian Maritime Affairs No. 24, Sea Power Centre Australia 2008) 8–9; J. Ashley Roach, *Excessive Maritime Claims* (4th ed., Brill 2021) 691–692.

7.2 Legal Framework to Address Maritime Security Threats

This section provides a brief overview of existing international law that applies to the different threats to maritime security in the EEZ. At the outset of this chapter, the meaning of maritime security was posited as a condition in which the maritime rights and interests of a State, in the context of national security, economic development, the marine environment and human resilience, are free from harm or danger from threats at sea. The most commonly addressed harmful acts are those identified by the 2008 UNSG's Report. Given the extensive literature on these threats, definition of various terms, the factual situation or the level of threats posed by these threats in different regions will not be discussed in detail here. Rather, the focus is on identifying the key international instruments that address these threats, and discussing the attribution of jurisdiction between States. A more comprehensive list of relevant international instruments is illustrated in the Annex to this chapter (Table 7.1).

7.2.1 *International Instruments and Marine Security Threats*

The first category of threat is pirate activities that endanger the safety and welfare of seafarers, disrupt navigation and commerce, and cause financial losses to ship and cargo owners.²⁹ The international law of piracy developed gradually throughout the nineteenth century and was codified in Articles 14–22 of the 1958 High Seas Convention, and almost literally restated in Articles 100–107 and 110 of UNCLOS.³⁰ These provisions apply to the EEZ by reference of Article 58(2). Pirates are criminals subject to universal jurisdiction because their acts pose a threat to all States and their interests in the freedom of navigation.³¹ As pirates are

²⁹ UNGA A/63/63 para 54–62; Klein (2011) 303; Türk (2012) 71; Sami Bensassi and Inmaculada Martinez-Zarzoso, 'How Costly Is Modern Maritime Piracy to the International Community?' (2012) 20(5) *Rev of Int'l Economics* 869, 869–870.

³⁰ Donald R. Rothwell and Tim Stephens, *The International Law of the Sea* (Oxford University Press 2010) 162; Douglas Guilfoyle and Rob McLaughlin, 'The Crime of Piracy', in Charles C. Jalloh, Kamari M. Clarke and Vincent O. Nmeielle (eds.), *The African Court of Justice and Human and Peoples' Rights in Context: Development and Challenges* (Cambridge University Press 2019) 389–391.

³¹ Paul Hallwood and Thomas J. Miceli, 'An Examination of Some Problems with International Law Governing Maritime Piracy' (2013) 40(1) *Marit Pol Mgmt* 65, 68–69; James Crawford, *Brownlie's Principles of Public International Law* (9th ed., Oxford University Press 2019) 286; Malcolm D. Evans, 'The Law of the Sea', in Malcolm D. Evans (ed.), *International Law* (5th ed., Oxford University Press 2018) 650; Malcolm D. Evans and Sofia Galani, 'Piracy and the Development of International Law', in Panos

outlawed, ships that are engaged in piratical activities are denied the protection of the flag State whereby any State may capture them on the high seas and in the EEZ and punish them.³² It is not only a 'long established right' but also a duty for States to 'cooperate to the fullest possible extent in the repression of piracy'.³³

The second category of threat is terrorist acts that endanger the safety of seafarers, the security of ports, offshore facilities, the ship, the people and property on board and other maritime interests.³⁴ While the definition of terrorism, including in the maritime context, has never been free from controversy, there is an extensive body of law applicable to specific terrorist acts that threaten security at sea.³⁵ Unlike piracy that is under universal jurisdiction, the right to address a vessel suspected of terrorism is not permitted in the absence of the flag State's consent.³⁶ A State other than the flag State, including a coastal State, may only assert the right for intervention to respond to maritime terrorism concerns based on the jurisdictional links provided by international conventions or bilateral agreements, or by the authorisation of the United Nations Security Council (UNSC).³⁷

Koutrakos and Achilles Skordas (eds.), *The Law and Practice of Piracy at Sea: European and International Perspectives* (Hart 2014) 344–345.

- ³² UNCLOS Article 105; Myron H. Nordquist, Satya N. Nandan and Shabtai Rosenne (eds.), *United Nations Convention on the Law of the Sea 1982: A Commentary*, Vol. III (Martinus Nijhoff 1995) 215; Yoshifumi Tanaka, *The International Law of the Sea* (3rd ed., Cambridge University Press 2019) 456; Douglas Guilfoyle, *Shipping Interdiction and the Law of the Sea* (Cambridge University Press 2009) 28–29.
- ³³ ILC Draft Articles Article 38 Commentary (2); UNCLOS Article 100; Nordquist, Nandan and Rosenne (1995) 184; Tullio Treves, 'Piracy and the International Law of the Sea', in Douglas Guilfoyle (ed.), *Modern Piracy: Legal Challenges and Responses* (Edward Elgar 2013) 122; Robin Churchill, Vaughan Lowe and Amy Sander, *The Law of the Sea* (4th ed., Manchester University Press 2022) 383.
- ³⁴ E. K. J. Pladdet, 'A Report on the Symposium 'Interference with Navigation: Modern Challenges'', International Tribunal for the Law of the Sea, Hamburg, Germany, March 15, 2003' (2003) 5 Int'l LF D Int'l 137, 137–138; UNGA A/63/63 paras 63–71.
- ³⁵ Samuel Pyeatt Menefee, 'Maritime Terror in Europe and the Mediterranean' (1988) *Marine Policy* 143, 143; Klein (2011) 305; Crawford (2019) 454–455; UNGA A/77/185, 18 July 2022, Measures to Eliminate International Terrorism, Report of the Secretary-General, para 123.
- ³⁶ UNCLOS Article 92(1); Nordquist, Nandan and Rosenne (1995) 126.
- ³⁷ Malvina Halberstam, 'Terrorism on the High Seas: The Achille Lauro, Piracy and the IMO Convention on Maritime Safety' (1988) 82(2) *Am J Int'l L* 269, 295–302; Christopher Staker, 'Jurisdiction', in Evans (2018) 299–306; Crawford (2019) 462–464.

The third category of threat is the illicit trafficking of arms and WMD, particularly for its interlinkage with other violence and crimes at sea.³⁸ There are several international instruments to suppress and regulate the illicit trafficking or transfer of certain arms and weapons, including through the maritime domain.³⁹ In addition to strengthening flag State and port State controls, States have also concluded bilateral agreements, including ship-boarding agreements, to provide a treaty basis for the right of visit of vessels reasonably suspected of being engaged in illicit trafficking of arms and WMD material.⁴⁰ However, the main challenge to addressing this threat is that there is no widespread consensus among States as to the inherent illegality of possession or trade in conventional arms and WMD material, particularly a common interpretation of the standards for import, export and transfer assessment.⁴¹

The fourth category of threat is illicit trafficking in narcotic drugs and psychotropic substances. Approximately 70 per cent of illicit drugs seized are confiscated either during or after transportation by sea.⁴² The flag State has the primary obligation, as well as exclusive jurisdiction, to act against drug trafficking on board its vessels.⁴³ The authority available to States to act against a foreign-flagged vessel suspected of drug trafficking in the EEZ is limited, however. Despite calling for full cooperation between States to suppress drug trafficking on the high seas, UNCLOS fell short on granting States the right of visit over ships suspected of drug trafficking unless the ship is without nationality.⁴⁴ States subsequently

³⁸ UNGA A/63/63 paras 72–81; United Nations Security Council (UNSC) Res 1549 (2004), 28 April 2004.

³⁹ UNGA A/63/63 paras 75–78; Arms Trade Treaty (2 April 2013, in force 24 December 2014) 3013 UNTS 269.

⁴⁰ United States, Department of State (US DOS), 'Ship Boarding Agreements' <https://2009-2017.state.gov/t/isn/c27733.htm> (archived content). Participating States include Antigua and Barbuda, Bahamas, Belize, Croatia, Cyprus, Liberia, Malta, Marshall Islands, Mongolia, Panama and St. Vincent and the Grenadines.

⁴¹ UNGA A/63/63 para 75; Guilfoyle (2009) 233; Klein (2011) 309; Arms Trade Treaty Articles 6–8.

⁴² UNGA A/63/63 paras 82–88; Guilfoyle (2009) 79; United Nations Office on Drugs and Crime (UNODC), 'Drug Trafficking' www.unodc.org/unodc/en/drug-trafficking/index.html.

⁴³ UNCLOS Articles 92, 94, 108(2); Nordquist, Nandan and Rosenne (1995) 126, 152, 228.

⁴⁴ UNCLOS Articles 108, 110(1)(d); Efthymios Papastavridis, 'Enforcement Jurisdiction in the Mediterranean Sea: Illicit Activities and the Rule of Law on the High Seas' (2010) 25 Int'l J Marine & Coastal L 569, 588–589; Efthymios Papastavridis, *The Interception of Vessels on the High Seas: Contemporary Challenges to the Legal Order of the Oceans* (Hart 2013) 206–207.

adopted international conventions, regional and bilateral agreements to facilitate enforcement related to drug trafficking by sea, particularly with respect to requesting flag State consent to take appropriate measures against a suspected vessel.⁴⁵

The fifth category of threat is human trafficking and migrant smuggling, which usually entails considerable risk to human life and human rights, and poses serious challenges to border and immigration control.⁴⁶ The international legal framework that applies to such threats is multifaceted and includes international human rights law, refugee law, criminal law, immigration law and the law of the sea.⁴⁷ UNCLOS requires the flag State to exercise effective control over ships flying its flag, including taking appropriate measures to prevent criminal acts at sea. Subsequent international agreements have developed procedures for State parties to request authorisation from the flag State to board, search or take other actions against a vessel that is suspected of being engaged in the smuggling of persons.⁴⁸ Some academic literature and State practice treat human trafficking as a modern version of the traditional 'slave trade' or 'practices similar to slavery'.⁴⁹ This interpretation would put human trafficking under the universal jurisdiction as recognised in UNCLOS, whereby every State has the right of visit for any vessel suspected of engaging in human trafficking on the high seas and in the EEZ.⁵⁰

The sixth category of threat is IUU fishing, which threatens marine biodiversity, food security and the social and economic development of the coastal State.⁵¹ Unlike the previous five types of threats, the coastal State is accorded explicit right and jurisdiction to enforce its

⁴⁵ UNGA A/63/63 paras 84–86; Guilfoyle (2009) 79–91; Carina Bruwer, 'Smuggling and Trafficking of Illicit Goods by Sea', in Otto (2020) 65–66.

⁴⁶ UNGA A/63/63 paras 89–97; UNGA A/61/515, 13 October 2006, Summary of the High-Level Dialogue on International Migration and Development, paras 10–11; UNODC 'Human Trafficking'.

⁴⁷ UNGA A/63/63 para 91; Klein (2011) 313–314.

⁴⁸ United Nations Convention against Transnational Organized Crime and the Protocols Thereto, UNGA A/RES/55/25, 15 November 2000 (in force 29 September 2003), Annex I: United Nations Convention against Transnational Organized Crime, Article 15; Annex III: Protocol against the Smuggling of Migrants by Land, Sea and Air, Article 8.

⁴⁹ US DOS, 'What Is Modern Slavery?' www.state.gov/j/tip/what/index.htm; Crawford (2019) 299; Guilfoyle (2009) 228–231.

⁵⁰ UNCLOS Articles 58(2), 99, 110(1)(b); Churchill, Lowe and Sander (2022) 398.

⁵¹ UNGA A/63/63 paras 98–106; Klein (2011) 314–315.

laws relating to fisheries in the EEZ under UNCLOS.⁵² The greater challenge to the coastal State's fishery jurisdiction concerns the conservation and management of highly migratory species and straddling stocks that are threatened by IUU fishing on the high seas.⁵³ There is still a reliance on the flag State, and increasingly the port State, to take the necessary actions to ensure the concerned vessel complies with the rules and legislation intended to protect living resources on the high seas.⁵⁴

The seventh category of threat is the intentional and unlawful damage to the marine environment that may harm marine life, damage marine habitats and the ecosystem and affect the social and economic interests of the coastal State.⁵⁵ While it remains open how to assess which intentional breach of environmental law may amount to a threat to maritime security, the coastal State has enforcement jurisdiction over vessel-source pollution and dumping in the EEZ.⁵⁶ However, the coastal State's enforcement jurisdiction is limited to giving effect to generally accepted international rules and standards, and remains supplementary to the exclusive flag State jurisdiction. Moreover, the damages to the marine environment could arise beyond the scope of vessel-source pollution. For example, the sea could be used to traffick protected species of wild marine fauna and flora, which contributes to the extinction of endangered marine species.⁵⁷ There has also been increasing concern over sea shipments of highly radioactive or other ultra-hazardous materials and the risk they pose of causing irreversible damage to the marine environ-

⁵² UNCLOS Articles 56(1)(a), 73; Myron H. Nordquist, Satya N. Nandan and Shabtai Rosenne (eds.), *United Nations Convention on the Law of the Sea 1982: A Commentary*, Vol. II (Martinus Nijhoff 1993) 794. See also Chapter 4 in this volume.

⁵³ Klein (2011) 316–317; Mary Ann Palma-Robles, 'Tightening the Net: The Legal Link between Illegal, Unreported and Unregulated Fishing and Transnational Crime under International Law' (2015) 29 *Ocean YB* 144, 147–148.

⁵⁴ UNGA A/63/63 paras 101–113.

⁵⁵ UNGA A/63/63 para 107; Basil Germond, *The Maritime Dimension of European Security Seapower and the European Union* (Palgrave MacMillan 2015) 85.

⁵⁶ UNCLOS Articles 56(1)(b)(III), 210(5), 211(5), 216(1)(a), 220(3); UNGA A/63/63 para 108; Klein (2011) 318. See also Chapter 4 in this volume.

⁵⁷ Chris Trelawny, 'Tackling the Trafficking of Illegal Wildlife Products: How Can Maritime Transport Contribute?' (2015) 2 *IMO News* 40, 42 (online); R. L. Castaneda, C. Condit and B. Wilson, 'Legal Authorities for Maritime Law Enforcement, Safety, and Environmental Protection', in Michael A. McNicholas (ed.), *Maritime Security: An Introduction* (Elsevier 2016) 456.

ment.⁵⁸ Given the nexus between climate change impacts, ocean acidification, marine life, social vulnerabilities and the occurrence of maritime criminality, there is a growing recognition of a link between climate change effects and threats to maritime security.⁵⁹

7.2.2 *Remarks on Attribution of Jurisdiction*

In sum, States have established a comprehensive legal framework to address specific threats to maritime security. However, the current international legal framework for preventing and combatting maritime security threats reveals an overwhelming reliance on exclusive flag State jurisdiction in areas beyond the territorial sea.⁶⁰ The nationality nexus remains the primary foundation for States to assert jurisdiction over unlawful acts at sea irrespective of where the activities took place. The role of the coastal State in the EEZ for combatting threats to maritime security has been effectively marginalised in most scenarios as it has been set against that of the flag State.⁶¹

From the coastal State's perspective, there are two approaches to enhance the effectiveness of the maritime security international legal framework. First, the coastal State must maximise its opportunities to exercise jurisdiction, to the extent allowed under international law, over suspected offenders in order to protect its maritime security in the EEZ. Second, efforts should be made towards strengthening cooperation and coordination with flag States in responding to maritime security threats, both on bilateral and multilateral levels.

UNCLOS and other international conventions provide for the legislative and enforcement jurisdiction of coastal States with respect to some

⁵⁸ Jon M. Van Dyke, 'The Legal Regime Governing Sea Transport of Ultrahazardous Radioactive Materials' (2002) 33 *Ocean Dev Int'l L* 77, 78; Suzette V. Suarez, 'Post September 11 Security Challenges to the Legal Regime of the Maritime Carriage of Nuclear and Radioactive Materials' (2003) 18 *Int'l J Marine & Coastal L* 423, 425–426; Jon M. Van Dyke, 'Balancing Navigational Freedom with Environmental and Security Concerns' (2004) 15 *Colo J Int'l Env L & Pol'y* 19, 22; Stuart Kaye, 'Freedom of Navigation in a Post 9/11 World: Security and Creeping Jurisdiction', in David Freestone, Richard Barnes and David M. Ong (eds.), *The Law of the Sea: Progress and Prospects* (Oxford University Press 2006) 361.

⁵⁹ Klein (2011) 319–320; Basil Germonda and Antonios D. Mazaris, 'Climate Change and Maritime Security' (2019) 99 *Marine Policy* 262, 263–265.

⁶⁰ UNCLOS Articles 58(2) 92(1), 94(1) and (6).

⁶¹ UNCLOS Articles 73(1), 77, 111(1)–(2), 220(3) and (5)–(6).

specific threats to maritime security such as piracy, unlawful acts against the safety of navigation, IUU fishing and vessel-source pollution. Coastal States need to take actions to exercise such jurisdiction. Using piracy as an example, international law allows for States to exercise universal jurisdiction but does not demand it.⁶² It is up to individual States to domesticise piracy acts under their national laws, exercise enforcement jurisdiction and decide whether to put suspects on trial, to extradite them for prosecution by another State, or not to undertake judicial procedures at all.⁶³ It can be observed that many coastal States have not exercised the legislative jurisdiction to criminalise piracy under their domestic law, let alone exercise enforcement jurisdiction over suspected pirate ships.⁶⁴

The coastal State may also seek consent from the flag State, through multilateral and bilateral agreements, to exercise concurrent jurisdiction over certain illegal activities in its EEZ, such as smuggling of drugs and trafficking of arms or people. When considering such a request for consent, the flag State should be mindful of its due regard obligation to the rights and duties of the coastal State in the EEZ.⁶⁵ In other words, the flag State must recognise the coastal State's interests in combatting various maritime security threats and act with due diligence when considering the coastal State's request for boarding suspect vessels flying its flag.

Therefore, both the flag State and the coastal State may exercise enforcement jurisdiction over specific threats to maritime security by officials or by warships and military aircraft, or other entities clearly marked and identified as being on government service in the EEZ.⁶⁶ However, States maintain different positions on whether a foreign State

⁶² Douglas Guilfoyle, 'Prosecuting Somali Pirates: A Critical Evaluation of the Options' (2012) 20 J Int'l Crim Just 767, 775; Jan Klabbers, 'Piracy in Global Law and Global Governance', in Panos Koutrakos and Achilles Skordas (eds.), *The Law and Practice of Piracy at Sea: European and International Perspectives* (Hart 2014) 334.

⁶³ UNCLOS Article 105; Tullio Treves, 'Piracy, Law of the Sea, and Use of Force: Developments off the Coast of Somalia' (2009) 20(2) Eur J Int'l L 399, 402; Türk (2012) 81; Tanaka (2019) 457.

⁶⁴ Ilja Van Hespén, 'Developing the Concept of Maritime Piracy: A Comparative Legal Analysis of International Law and Domestic Criminal Legislation' (2016) 31 Int'l J Marine & Coastal L 279, 293; United Nations Division for Ocean Affairs and the Law of the Sea, 'National Legislation on Piracy' www.un.org/depts/los/LEGISLATIONANDTREATIES/piracylegislation.htm; UNGA A/74/10, 20 August 2019, Report of the International Law Commission, Seventy-first Session (29 April–7 June and 8 July–9 August 2019), Annex C: Prevention and Repression of Piracy and Armed Robbery at Sea, National Legislations on Piracy and Armed Robbery at Sea, 386–388.

⁶⁵ UNCLOS Article 58(3).

⁶⁶ UNCLOS Article 224.

can exercise enforcement jurisdiction in the EEZ of a coastal State and what measures the operating State may take.⁶⁷ Besides obeying the general obligations of peaceful purposes and due regard for exercising a co-existing right, the operating State must follow the safeguard measures that are part of law enforcement activities, principally in relation to the use of force.⁶⁸

Many international conventions and non-binding resolutions or guidelines adopted by major international bodies call on all States to cooperate and coordinate to prevent and combat maritime security threats. Such cooperation and coordination should extend on two levels. The first level is between different States, including bilateral cooperation between a coastal State and a flag State, and recognises that threats to maritime security that occurred in a particular EEZ can cause damage to multilateral interest holders. The second level recognises the interconnections between different unlawful activities, such as illicit trafficking of arms to support pirate or terrorist acts, which requires that different enforcement agencies coordinate their responses and actions. In the end, it is in everyone's best interest that the relevant States explore the necessary measures to maintain a secure ocean space for all user States and actors.

7.3 Coastal State Implementation under the Current Legal Framework

The recognition of the coastal State's sovereign rights in the EEZ gives it broad capacity to regulate the economic activities taking place within its EEZ but does not award it jurisdiction over security interests in general. The coastal State's capability to defend and protect its recognised

⁶⁷ 王勇,《应当赋予他国在沿海国专属经济区内打击海盗的管辖权—以修改《联合国海洋法公约》为视》,《政治与法律》,2012年第8期,94-101,第95页 (WANG Yong, 'Should other States be Granted the Jurisdiction to Counter Piracy in the Exclusive Economic Zone of A Coastal State - From the Perspective of Amending the United Nations Convention on the Law of the Sea' (2012) 8 *Politics and Law* 94, 95.); Tallinn Manual 2.0 (2017) 235; *Alleged Violations of Sovereign Rights and Maritime Spaces in the Caribbean Sea (Nicaragua v. Colombia)*, Judgment of 21 April 2022, ICJ Reports 2022, p. 266, paras 100-101.

⁶⁸ UNCLOS Articles 56(2), 58(3), 225, 301; M/V 'Saiga' (No. 2) (Saint Vincent and the Grenadines v. Guinea), Judgment of 1 July 1999, ITLOS Reports 1999, p. 10, para 156; Douglas Guilfoyle, *Shipping Interdiction and the Law of the Sea* (Cambridge University Press 2009) 271; Klein (2011) 116-117; David Harris and Sandesh Sivakumaran, *Cases and Materials on International Law* (8th ed., Sweet and Maxwell 2015) 375.

interests in the EEZ must be exercised in line with the rights and jurisdiction to which they attach. Under the current legal framework, the coastal State can strengthen its ability to combat maritime security threats through two types of actions: enhanced awareness of the situation within the maritime domain through gaining information of the sea area, and improved response capacity, including exercise enforcement jurisdiction.

7.3.1 *Maritime Domain Awareness*

A critical element for the coastal State in protecting maritime security is to obtain the necessary information at its disposal to take preventative and responsive actions. In the aftermath of 9/11, States have increasingly demanded comprehensive knowledge of their coastal maritime areas, especially with regard to information on vessels, their cargoes and crews for the protection of their maritime security,⁶⁹ as well as for the purposes of search and rescue and disaster relief. This trend has led to the development of a policy framework of maritime domain awareness (MDA).

The United States considers the secure use of the world ocean a fundamental element of its territorial safety and economic security. It established a Maritime Security Policy Coordinating Committee to oversee the development of the National Strategy for Maritime Security and eight supporting implementation plans to better integrate efforts to address maritime threats.⁷⁰ It redefined the concept of MDA, which emerged from the US Coast Guard in the late 1990s, in the National Plan to Achieve MDA as ‘the effective understanding of anything associated with the maritime domain that could impact the security, safety, economy, or environment of the United States’.⁷¹ This concept is further

⁶⁹ Chris Rahman, ‘Maritime Domain Awareness in Australia and New Zealand’, in Klein, Mossop and Rothwell (2010) 202–203.

⁷⁰ United States, National Security Presidential Directive NSPD-41, Homeland Security Presidential Directive HSPD-13, 21 December 2004, ‘Maritime Security Policy’ <https://irp.fas.org/offdocs/nspd/nspd41.pdf>; United States, Homeland Security, The National Strategy for Maritime Security (NSMS), 20 September 2005 <http://georgewbush-whitehouse.archives.gov/homeland/maritime-security.html>; Richard R. Yong and Gary A. Gordon, ‘9/11, Maritime Transportation Security Act (MTSA), and How We Got to Where We Are?’ in Gary A. Gordon and Richard R. Yong (eds.), *Intermodal Maritime Security: Supply Chain Risk Mitigation* (Elsevier 2021) 12.

⁷¹ United States, Department of Homeland Security (US DOHS), National Plan to Achieve Maritime Domain Awareness for the National Strategy for Maritime Security, October 2005, ‘Key Definitions’, 1 www.dhs.gov/xlibrary/assets/HSPD_MDAPlan.pdf (US National Plan to Achieve MDA); Rahman (2011) 202.

exemplified by the definition of maritime domain, which comprises ‘all areas and things of, on, under, relating to, adjacent to, or bordering on a sea, ocean, or other navigable waterway, including all maritime related activities, infrastructure, people, cargo, and vessels and other conveyances’.⁷² Thus, the United States seeks to obtain knowledge of all activities occurring at sea, including all maritime areas under its jurisdiction, and arguably beyond.

Other countries and international organisations have further developed the policy of MDA with similar definitions and formats.⁷³ Australia, for example, adopted the same concept as the United States but defines its maritime domain as ‘[t]he series of jurisdictional zones that surrounds the coast of a State. It includes territorial seas and the EEZ’.⁷⁴ Canada considers MDA to mean

having true and timely information about everything on, under, related to, adjacent to, or bordering a sea, ocean or other navigable waterway. This includes all related activities, infrastructure, people, cargo, vessels, or other means of transport. For marine security, it means being aware of anything in the marine domain that could threaten Canada’s national security.⁷⁵

The International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO) also accepted the US definition of MDA for the purpose of search-and-rescue operations.⁷⁶

⁷² US National Plan to Achieve MDA ‘Key Definitions’ 1.

⁷³ Christian Bueger, ‘From Dusk to Dawn? Maritime Domain Awareness in Southeast Asia’ (2015) 37(2) *Contemporary Southeast Asia* 157, 159–160; I. Gusti Bagus Dharma Agastia and Anak Agung Banyu Perwita, ‘Building Maritime Domain Awareness as an Essential Element of the Global Maritime Fulcrum: Challenges and Prospects for Indonesia’s Maritime Security’ (2017) 6 *Jurnal Hubungan Internasional* 113, 115–117; David Brewster, ‘Give Light, and the Darkness Will Disappear: Australia’s Quest for Maritime Domain Awareness in the Indian Ocean’ (2018) 14(3) *Journal of the Indian Ocean Region* 296, 298; Christian Bueger and Anthony Bergin, ‘Uniting Nations: Developing Maritime Domain Awareness for the “Blue Pacific”’, Australian Strategic Policy Institute, 8 May 2018 www.aspistrategist.org.au/uniting-nations-developing-maritime-domain-awareness-for-the-blue-pacific/.

⁷⁴ Australian Maritime Doctrine, RAN Doctrine 1, (2nd ed, Royal Australian Navy 2010) 198 <https://seapower.navy.gov.au/sites/default/files/documents/Amd2010.pdf>; Australian Government Civil Maritime Security Strategy (Australian Government 2021) 10–11 www.homeaffairs.gov.au/about-us/our-portfolios/national-security/civil-maritime-security.

⁷⁵ Government of Canada, Transport Canada, ‘Maritime Domain Awareness’ www.tc.gc.ca/eng/marinesecurity/initiatives-235.htm.

⁷⁶ International Aeronautical and Maritime Search and Rescue Manual, Volume III Mobile Facilities (International Civil Aviation Organization and IMO 2016) xvi.

MDA is essentially an enabler for the formulation and implementation of maritime policy. In practice, achieving MDA depends on three steps. First, collecting a comprehensive set of data of all relevant activities at sea from all agencies, partners and stakeholders; second, analysing the data and information in such a way to identify trends and anomalies, including potential threats; and third, reacting in a timely manner to address identified suspected activities, including law enforcement activities.⁷⁷

One critical component to achieving MDA is to obtain timely and adequate information within the respective maritime domain. Facilitating data collection and information sharing for the purpose of MDA requires cooperation and coordination not only among domestic government departments but also with the private sector, as well as regional and international partners.⁷⁸ The United States, for example, established a National MDA Implementation Team to provide a forum for inter-agency coordination of each MDA implementation action to ensure they are consistent with other component plans of the National Strategy for Maritime Security.⁷⁹ At the international level, the United States promotes global maritime partnerships to expand MDA capabilities globally and enhance regional enforcement capacities through information sharing, cooperation and capacity-building.⁸⁰

The coastal State needs to establish a comprehensive MDA policy to achieve maritime security, including in the EEZ. The coastal State should utilise various information sources and technologies to seek information about activities in its maritime domain, to coordinate with relevant partners and international organisations to share information, and to reach agreements with major flag States to promote accountability.⁸¹

⁷⁷ US National Plan to Achieve MDA ‘Strategic Environment’ 2–3; United States, Department of the Navy, ‘Navy Maritime Domain Awareness Concept’, 29 May 2007 <https://apps.dtic.mil/sti/citations/ADA502494>.

⁷⁸ US National Plan to Achieve MDA ‘Key Organizations’ 5–6; EUMSS Section VI; Marin Chintoan-Uta and Joaquim Ramos Silva, ‘Global Maritime Domain Awareness: A Sustainable Development Perspective’ (2017) 16 *WMU Journal of Maritime Affairs* 37.

⁷⁹ US National Plan to Achieve MDA ‘Implementation’ 18.

⁸⁰ United States, Global Maritime Intelligence Integration Plan for the NSMS, October 2005 <https://irp.fas.org/offdocs/nspd/gmii-plan.pdf>; US DOHS, ‘International Outreach and Coordination Strategy for the NSMS’, November 2005 www.hsdl.org/c/; Rahman (2008) 7–8.

⁸¹ Renato Cruz De Castro, ‘The Philippines Discovers Its Maritime Domain: The Aquino Administration’s Shift in Strategic Focus from Internal to Maritime Security’ (2016) 12(2) *Asian Security* 111, 116–124; Agastia and Perwita (2017) 115–117; Tom Abke, ‘Indo-Pacific Countries Turn to Unmanned Vessels to Patrol Region’s Waters’ (Indo-Pacific Defence Forum, 25 January 2019).

7.3.2 *Means to Collect Information*

It is essential for coastal States to have accurate and sufficient information at their disposal in order to take proper measures to address maritime security threats.⁸² UNCLOS and other international instruments provide the coastal State with a number of tools and channels to collect pertinent information on foreign vessels navigating within the EEZ. Moreover, some coastal States take unilateral actions to require data of the vessels traversing their EEZs, with or without entering their ports or other offshore terminals.

Requesting information to monitor the movement of vessels is by no means a new phenomenon in the maritime field. The coastal State may adopt, under the auspice of IMO, several commonly used systems to monitor vessels in the EEZ for safety and security purposes.

Where the volume of traffic, level of navigational risk or environmental considerations justify, the coastal States may adopt, through IMO, ship reporting systems in a clearly defined area.⁸³ A reporting system may be mandatory for all vessels, or certain types of vessels, or vessels with certain cargoes.⁸⁴ On entering such areas, vessels subject to reporting are required to provide information essential to achieving the objectives of the reporting system, including the vessel's name, call sign, IMO identification number, position and other supplementary information, if appropriately requested.⁸⁵ It is also possible, if the circumstances justify, for the coastal State to adopt such reporting systems through IMO as a special mandatory measure for the prevention of pollution from vessels within a special area of its EEZ.⁸⁶

In an amendment to Chapter V of SOLAS in 2000, 'ships of 300 gross tonnage and upwards engaged on international voyages and cargo ships of 500 gross tonnage and upwards not engaged on international voyages and passenger ships irrespective of size' were required to be fitted with an

⁸² Klein (2011) 211.

⁸³ International Convention for the Safety of Life at Sea, as amended (1 November 1974, in force 25 May 1980) 1184 UNTS 2, Chapter V, Regulation 11 (SOLAS); IMO MSC/Circ.1060, 6 January 2003, Guidance Note on the Preparation of Proposals on Ships' Routing Systems and Ship Reporting Systems for Submission to the Sub-Committee on Safety of Navigation, Annex, paras 6.2.1, 6.2.3.

⁸⁴ IMO MSC/Circ.1060, Annex, para 5.1; SOLAS Chapter V, Regulation 11, para 1.

⁸⁵ IMO MSC/Circ.1060, Annex, paras 5.1, 6.2.2.

⁸⁶ UNCLOS Article 211(6). For coastal State's jurisdiction over foreign vessels in the EEZ, see Chapter 4 in this volume.

automatic identification system (AIS) no later than 31 December 2004.⁸⁷ AIS is a shipboard very high-frequency (VHF) radio broadcast system, standardised by the International Telecommunication Union, that allows automatic exchange of navigation and other vessel information between appropriately equipped aircraft or shore stations and other vessels.⁸⁸ The information provided by AIS includes the ship's identity, type, position, course, speed, navigational status and other voyage- and safety-related information.⁸⁹ Although AIS was initially a tool to promote navigational safety, it also facilitates the coastal State's ability to identify vessels navigating in adjacent areas, assist in tracking target vessels and enhance situation awareness.⁹⁰

There have been growing concerns over the security of AIS data due to its open access by all appropriately equipped transponders and publication on the World Wide Web, both of which may be exploited by organised crime.⁹¹ Another limitation is that the typical range of AIS transmissions at sea is nominally 20 NM, with further coverage dependent on the use of repeater stations.⁹² Since 2008, IMO has been considering the use of improved satellite detection of AIS in order to continue tracking vessels when they are out of range of coastal stations.⁹³ Norway, for instance, launched its first satellite AIS in 2010 and has full operational capability with an unprecedented ability to monitor ship traffic on a global scale.⁹⁴

Another ship monitoring system is the satellite-based Long-Range Identification and Tracking (LRIT) System, adopted in a 2006 amendment to Chapter V of SOLAS, which enables the global identification and

⁸⁷ SOLAS Chapter V, Regulation 19, para 2.4.1–2.4.4.

⁸⁸ IMO SN/Circ.227, 6 January 2003, Guidelines for the Installation of a Shipborne Automatic Identification System (AIS), Annex, para 1; United States Coast Guard, Navigation Center, 'Automatic Identification System (AIS) Overview' www.navcen.uscg.gov/automatic-identification-system-overview.

⁸⁹ SOLAS Chapter V, Regulation 19, para 2.4.5; IMO Res A.1106(29), 2 December 2015, Revised Guidelines for the Onboard Operational Use of Shipborne Automatic Identification Systems (AIS), paras 12–14.

⁹⁰ IMO Res A.1106(29) para 4.

⁹¹ IMO Res A.1106(29) para 22; IMO, 'AIS Transponders, Maritime Security – AIS Ship Data' www.imo.org/en/OurWork/Safety/Pages/AIS.aspx.

⁹² US DOHS, Navigation Center, 'How AIS Works' www.navcen.uscg.gov/how-ais-works.

⁹³ IMO MSC.85/11/1, 26 August 2008, Safety of Navigation: Improved Satellite Detection of AIS, Note by the Secretariat; International Telecommunication Union (ITU), Improved Satellite Detection of AIS, Report ITU-R M.2169 (ITU December 2009) www.itu.int/pub/R-REP-M.2169-2009.

⁹⁴ Andreas Nordmo Skauen, 'Ship Tracking Results from State-of-the-art Space-based AIS Receiver Systems for Maritime Surveillance' (2019) 11 CEAS Space Journal 301, 301–302.

tracking of ships.⁹⁵ LRIT applies to passenger ships and cargo ships (including high-speed craft) of and above 300 gross tonnage that are engaged on international voyages and mobile offshore drilling units.⁹⁶ Ships that have been fitted with AIS and operate exclusively within ‘an area within the radio telephone coverage of at least one VHF coast station in which continuous DSC (Digital Selective Calling) alerting is available’ are exempted from this regulation.⁹⁷ The LRIT system consists of

the shipborne LRIT information transmitting equipment, the Communications Service Provider(s), the Application Service Provider (s), LRIT Data Center(s), including any related Vessel Monitoring System (s), the LRIT Data Distribution Plan and the International LRIT Data Exchange.⁹⁸

Subject vessels are required to automatically transmit their identity, position (latitude and longitude) and the date and time of the position provided.⁹⁹

Each contracting State must nominate a data centre to which ships flying its flag may transmit LRIT information, and all contracting governments may request the information through the established national or participating regional or cooperative LRIT data centres using the International LRIT Data Exchange system.¹⁰⁰ A coastal State may receive the information about foreign ships under two circumstances: first, when the ships have communicated an intent to enter a port facility or a place under its jurisdiction irrespective of where such ships may be located; second, when the ships are navigating within a distance not exceeding 1,000 NM of its coast, provided that under both circumstances the ships are not located within the waters landward of the baselines of another contracting State.¹⁰¹ The LRIT operates under a private data centre that only releases the information about a specific vessel to a contracting government, who must bear all costs associated with any information it receives.¹⁰²

⁹⁵ IMO, ‘Long-Range Identification and Tracking (LRIT)’ www.imo.org/en/OurWork/Safety/Pages/LRIT.aspx.

⁹⁶ IMO Res MSC.202(81), 19 May 2006, Adoption of Amendments to the International Convention for the Safety of Life at Sea, 1974, as Amended, para 2.1.

⁹⁷ *Ibid* para 4.2; SOLAS Chapter IV ‘Radio Communications’, Regulations 2.1.3, 2.1.12.

⁹⁸ IMO, ‘Long-Range Identification and Tracking’.

⁹⁹ IMO Res MSC.202(81) para 5.

¹⁰⁰ IMO, ‘Long-Range Identification and Tracking’.

¹⁰¹ IMO Res MSC.202(81) paras 8.1.2–8.1.3.

¹⁰² *Ibid* para 11.1.

States may also adopt a specific ship monitoring system on a regional level. Member States of the European Union, Norway and Iceland established a vessel traffic monitoring and information system, SafeSeaNet, in 2002 to enhance the safety and efficiency of navigation and to improve the response of coastal States to potential threats to their maritime security.¹⁰³ SafeSeaNet requires all vessels of and above 300 gross tonnage bound for a port of participating States to notify the port authority with general information about the vessel, its voyage and persons on board at least 24 hours in advance, or at the time it leaves the previous port.¹⁰⁴ Vessels carrying dangerous or polluting goods, irrespective of their size, must notify the port authority at the latest at the moment of departure, giving detailed information of the cargo, as well as the foregoing general information.¹⁰⁵ Participating States are required to monitor and take all necessary and appropriate measures to ensure that all duly established maritime systems, including ship reporting systems, AIS, vessel traffic services, ships' routing systems and voyage data recorder systems, are being observed.¹⁰⁶ Participating States may also exchange computerised data on the ship and the dangerous or polluting goods on board for the purpose of maritime security and the protection of the marine environment.¹⁰⁷

At the national level, Australia, with a total estimated coastline length of 59,681 kilometres, has been investing heavily to protect the civil maritime security, safety, economy and environment interests associated with Australia's maritime domain.¹⁰⁸ It proposed a Maritime Identification Zone of up to 1,000 NM from its coast in 2004, which was reformulated to the Australian Maritime Identification System in

¹⁰³ Directive 2002/59/EC of the European Parliament and of the Council of 27 June 2002, Establishing a Community Vessel Traffic Monitoring and Information System and Repealing Council Directive 93/75/EEC, as amended, Article 1, OJ L 208, 5 August 2002, pp. 10–27.

¹⁰⁴ *Ibid* Article 4(1) and Annex I (1). According to Article 2(2): 'This Directive shall not apply to: (a) warships, naval auxiliaries and other ships owned or operated by a Member State and used for non-commercial public service; (b) fishing vessels, traditional ships and recreational craft with a length of less than 45 meters; (c) bunkers below 5,000 ton, ship's stores and equipment for use on board ships'.

¹⁰⁵ *Ibid* Articles 4(2), 13, and Annex I (3).

¹⁰⁶ *Ibid* Articles 5–10.

¹⁰⁷ *Ibid* Article 14.

¹⁰⁸ Australian Government, Geoscience Australia, 'Coastline Lengths – States and Territories' www.ga.gov.au/scientific-topics/national-location-information/dimensions/border-lengths; Australian Government Civil Maritime Security Strategy (2021) III.

2005 following a torrent of criticism from neighbouring States.¹⁰⁹ After more than a decade of operation, the system was consolidated into the Modernised Australian Ship Tracking and Reporting System (MASTREP), which came into force in 2016.¹¹⁰ MASTREP implements Australia's treaty obligations under both SOLAS and the International Convention on Maritime Search and Rescue that apply to the Australian search and rescue region, including the high seas.¹¹¹ Within the MASTREP area, position reports are mandatory for all Australian-flagged vessels and foreign vessels that are transiting between Australian ports.¹¹² All vessels navigating within the MASTREP area are required to report a marine incident, and to submit special reports involving the carriage of dangerous goods, harmful substances and marine pollutants as set out by IMO regulations.¹¹³

Similar to the establishment of maritime identification zones, some coastal States have adopted an air defence identification zone (ADIZ) in the airspace over their EEZs. Initially, an ADIZ was a military concept adopted by the United States after the Second World War and was reconsidered after the 9/11 attack when threats from the air re-emerged as a great concern.¹¹⁴ The ICAO defines an ADIZ as '[s]pecial designated

¹⁰⁹ News Room, Prime Minister of Australia: John Howard, Media Release, 15 December 2004, 'Strengthening Offshore Maritime Security' http://pandora.nla.gov.au/pan/10052/20050221-0000/www.pm.gov.au/news/media_releases/media_Release1173.html; Phil Goff, 'Australian Maritime Identification Zone', 17 December 2004 www.beehive.govt.nz/release/australian-maritime-identification-zone; Natalie Klein, 'Legal Implications of Australia's Maritime Identification System' (2006) 55(2) *Int'l & Compar LQ* 337, 339; Clive Schofield, Martin Tsamenyi and Mary Ann Palma, 'Securing Maritime Australia: Developments in Maritime Surveillance and Security' (2008) 39(1) *Ocean Dev Int'l L* 94, 101–104; Donald R. Rothwell and Cameron Moore, 'Australia's Traditional Maritime Security Concerns and Post 9/11 Perspectives', in Klein, Mossop and Rothwell (2010) 42–43.

¹¹⁰ Australian Maritime Safety Authority, 'Modernised Australian Ship Tracking and Reporting System', last updated: 23 December 2020 www.amsa.gov.au/safety-navigation/navigation-systems/modernised-australian-ship-tracking-and-reporting-system.

¹¹¹ *Ibid.*

¹¹² MASTREP and Australian Mandatory Reporting Guide (2nd ed, Australian Maritime Safety Authority, February 2016) www.amsa.gov.au/safety-navigation/navigation-systems/mastrep-guide-2016.

¹¹³ *Ibid.*

¹¹⁴ United States Code of Federal Regulations, Title 14: Aeronautics and Space, Part 99 – Security Control of Air Traffic (up to date as of 7/24/2024), paras 99.3, 99.41–99.47 www.ecfr.gov/current/title-14/chapter-I/subchapter-F/part-99; Peter A. Dutton, 'Caelum Liberum: Air Defense Identification Zones Outside Sovereign Airspace' (2009) 103 *Am J Int'l L* 691, 691–692; 袁发强, 张磊, 王秋雯, 郑雷, 高俊涛, 《航行自由的国际

airspace of defined dimensions within which aircraft are required to comply with special identification and/or reporting procedures additional to those related to the provision of air traffic services'.¹¹⁵ Currently, more than twenty States have established an ADIZ beyond the limit of the territorial sea extending to various breadths, including Bangladesh, Canada, China, India, Japan, Pakistan, the Philippines, the United Kingdom and the United States.¹¹⁶ The regulations adopted in these identification zones vary from State to State, but most include a request for information to identify the aircraft for security purposes.¹¹⁷ Although there is no explicit authorisation for the establishment of the ADIZ over the airspace beyond the territorial sea under UNCLOS, such practice is not necessarily inconsistent with existing international law.¹¹⁸

法理论与实践研究》(北京大学出版社, 2018), 第三章, 航行自由的国际法限制, 第三节, 防空识别区与海洋飞越自由 (YUAN Faqiang, ZHANG Lei, WANG Qiuwen, ZHENG Lei and GAO Juntao, *Research on the Theory and Practice of International Law on the Freedom of Navigation* (Beijing University Press, 2018), Chapter 3 International Law Limitations on the Freedom of Navigation, Section 3 Air Defence Identification Zone and the Freedom of Overflight).

¹¹⁵ Convention on International Civil Aviation (7 December 1944, in force 4 April 1947) 15 UNTS 295, Annex 15: Aeronautical Information Services, Chapter 1, para 1.1.

¹¹⁶ 王崇敏和邹立刚,《我国在专属经济区建立防空识别区的探讨》,法学杂志·2013年第1期,95-99,第96页 (WANG Chongmin and ZOU Ligang, 'Discussion on Building Air Defence Identification Zone in Our Exclusive Economic Zone' (2013) 1 Law Science Magazine 95, 96); Matthias Vanhullebusch and Wei Shen, 'China's Air Defence Identification Zone: Building Security through Lawfare' (2016) 16(1) The China Review 121, 126-131; Raul (Pete) Pedrozo, 'Air Defense Identification Zones' (2021) 97 Int'l L Stud Ser US Naval War Col 7, 8; Transport Canada, Designated Airspace Handbook, Issue No 301, effective 20 April 2023, M6: ADIZ www.navcanada.ca/en/dah20230223.pdf.

¹¹⁷ Jinyuan Su, 'The Practice of States on Air Defense Identification Zones: Geographical Scope, Object of Identification, and Identification Measures' (2019) 18 Chinese J Int'l L 811, 821-824; US Code of Federal Regulations, Title 14: Aeronautics and Space, Part 99 - Security Control of Air Traffic (up to date as of 7/29/2022), paras 99.7, 99.9, 99.11; Australia Defence Force, Flight Information Handbook Australia (effective 17 June 2021), ENR 1.12: Interception of Civil Aircraft, para 3.1.3 <https://ais-af.airforce.gov.au/sites/default/files/current-cycle-products/2106%20FIHA.pdf>; United Kingdom, The Joint Service Manual of the Law of Armed Conflict (Joint Service Publication 383, 2004 ed), para 12.15 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/27874/JSP3832004Edition.pdf.

¹¹⁸ Ruwantissa Abeyratne, 'In Search of Theoretical Justification for Air Defence Identification Zones' (2012) 5 J Transp Secur 87, 88; James Kraska and Raul Pedrozo, *International Maritime Security Law* (Martinus Nijhoff 2013) 178; Crawford (2019) 265-266; Jinyuan Su, 'Is the Establishment of Air Defence Identification Zones Outside National Airspace in Accordance with International Law?' (2021) 32(4) Eur J Int'l L 1309, 1133-1134.

There is controversy around what type of information the coastal State is seeking and whether the subject aircraft is bound for the territorial airspace of the coastal State.¹¹⁹

These tools and channels to collect information about ships and aircraft in the EEZ, although mainly developed for navigation safety and search and rescue purposes, have the potential to provide valuable knowledge to enhance MDA and protect maritime security. The coastal State is encouraged to use these available tools and channels to enhance maritime awareness for its security purposes in accordance with international law. It is worth noting that, although coastal States are entitled to request information of foreign vessels entering their EEZs, they are not entitled to any additional direct enforcement jurisdiction over non-compliance with such requests except for notifying the flag State, and may take action when the ship enters its port.

7.3.3 *Law Enforcement, Right of Hot Pursuit and Right of Visit*

The basic principle of the high seas freedoms remains that the vessels sail under the exclusive jurisdiction of the flag State without interruption, with the exceptions conferred by UNCLOS and general international law that other States share legislative or/and enforcement jurisdiction under certain circumstances.¹²⁰ The coastal State has the right to prescribe and enforce certain laws and regulations for foreign vessels in the EEZ, supported by the right of hot pursuit.¹²¹ The right of visit is an exceptional power of all States that challenges the exclusive jurisdiction of the flag State for certain international crimes on the high seas and in the EEZ for the benefit of the international community.¹²²

The coastal State's authority to carry out law enforcement power rests in its exercise of sovereign rights and jurisdiction over the EEZ.¹²³ The coastal State has the power, in exercising its sovereign rights, to 'explore, exploit, conserve and manage the living resources' in the EEZ, to 'take such measures, including boarding, inspection, arrest and judicial

¹¹⁹ Roach (2021) 406, 416–417.

¹²⁰ Maria Gavouneli, *Functional Jurisdiction in the Law of the Sea* (Martinus Nijhoff 2007) 33; Churchill, Lowe and Sander (2022) 381.

¹²¹ UNCLOS Articles 56, 73, 111(2), 211(5)–(6), 220(3)–(6); Nicholas M Poulantzas, *The Right of Hot Pursuit in International Law* (2nd ed., Martinus Nijhoff 2002) 39.

¹²² UNCLOS Articles 58(2), 110; Papastavridis (2013) 33–39; Crawford (2019) 291–292.

¹²³ See Chapters 4 and 5 in this volume.

proceedings, as may be necessary to ensure compliance' with its laws.¹²⁴ Such enforcement jurisdiction could apply to suspected terrorist acts, IUU fishing¹²⁵ and other criminal matters affecting the economic resources and economic exploitation of the zone. Where there are clear grounds for believing that a vessel navigating in the EEZ has intentionally polluted the marine environment, causing major damage or threat of major damage to the environment or its resources, the coastal State may take enforcement measures against the suspected vessel.¹²⁶ Although the coastal State has not been given explicit enforcement jurisdiction over non-living resources, artificial islands, installations and structures, it could be argued that such a right is implicit in connection with the prevention and punishment of violations of the law.¹²⁷ Hence, if a coastal vessel or offshore infrastructure was under violent attack in the EEZ, such as from pirates, terrorists or smugglers, the coastal State can take enforcement measures to protect its maritime security based on protective jurisdiction.¹²⁸

Where the coastal State has good reason to believe that a foreign vessel, when within the EEZ, has violated that State's applicable laws and regulations, it may continue pursuit of the vessel outside the EEZ if the vessel ignored the visual or auditory signal to stop and tried to escape.¹²⁹ The requirement of a signal to stop must be interpreted in light of modern use of technology to include radio broadcast, VHF messages and potentially maritime autonomous vehicles.¹³⁰ Such pursuit must be

¹²⁴ UNCLOS Article 73(1); James Harrison, 'Article 73', in Alexander Proelss (ed.), *United Nations Convention on the Law of the Sea: A Commentary* (Hart 2017) 557.

¹²⁵ Request for an Advisory Opinion submitted by the Sub-Regional Fisheries Commission (SRFC), Advisory Opinion of 2 April 2015, ITLOS Reports 2015, p. 4, para 106.

¹²⁶ UNCLOS Article 220(3) and (5)–(6); Myron H. Nordquist, Shabtai Rosenne and Alexander Yankov (eds.), *United Nations Convention on the Law of the Sea 1982: A Commentary*, Vol. IV (Martinus Nijhoff 1991) 300–301; Shotaro Hamamoto, 'Article 220', in Proelss (2017) 1509–1510.

¹²⁷ ILC Draft Articles Article 77 Commentary; Nordquist, Nandan and Rosenne (1993) 896; In the Matter of the Arctic Sunrise Arbitration before an Arbitral Tribunal Constituted under Annex VII to the 1982 United Nations Convention on the Law of the Sea between the Kingdom of the Netherlands and the Russian Federation, Award on the Merits, 14 August 2015, PCA Case No. 2014-02, para 284 (Arctic Sunrise Arbitration).

¹²⁸ UNCLOS Articles 56(1), 60; Poulantzas (2002) 135–137; Staker (2018) 301–302; M/V 'Virginia G' Case (Panama/Guinea-Bissau), Judgment of 14 April 2014, ITLOS Reports 2014, p. 4, para 211.

¹²⁹ UNCLOS Article 111(1)–(2) and (4); Nordquist, Nandan and Rosenne (1995) 256.

¹³⁰ M/V 'Saiga' (No. 2) paras 147–148; Arctic Sunrise Arbitration para 259; Natalie Klein, 'Maritime Autonomous Vehicles within the International Law Framework to Enhance Maritime Security' (2019) 95 Int'l Law Stud 244, 254.

commenced when the vessel or one of its boats is within the EEZ of the pursuing State, may only be continued outside the EEZ if the pursuit has not been interrupted and ends as the vessel enters the territorial sea of its flag State or a third State.¹³¹ State practice appears to support the idea that hot pursuit by relay may be conducted by multiple vessels of the coastal State, and may even be continued or concluded with the assistance of vessels of a third State.¹³² The vessel under pursuit may be stopped, arrested and escorted to a port of the coastal State for inquiries and proceedings if the circumstances justify.¹³³ The right of hot pursuit is deemed necessary to enable coastal jurisdiction to be efficiently exercised.¹³⁴

UNCLOS also provides the coastal State the right of visit over foreign merchant vessels in the EEZ if they are suspected of being engaged in piracy, the slave trade, unauthorised broadcasting or being without nationality.¹³⁵ Under these circumstances, the coastal State may proceed to verify the vessel's flag, and if suspicion remains, it may proceed to a further examination on board the vessel.¹³⁶ As technology advances, it has been argued that the right of visit could be carried out virtually using cyber means.¹³⁷ However, the right of visit is not automatically followed by the right of seizure.¹³⁸ The coastal State is authorised to seize the foreign vessel only in cases of piracy based on universal jurisdiction, and unauthorised broadcasting if that State has a connection with the person or ship or is affected by such activity.¹³⁹ In the other three circumstances, UNCLOS is silent on seizure. In most cases, the coastal State that has conducted an onboard examination and found incriminating evidence may only report the facts to the flag State and leave it in the latter's hands to exercise enforcement jurisdiction.¹⁴⁰

¹³¹ UNCLOS Article 111(1) and (3); Nordquist, Nandan and Rosenne (1995) 257–258.

¹³² Warwick Gullett and Clive Schofield, 'Pushing the Limits of the Law of the Sea Convention: Australian and French Cooperative Surveillance and Enforcement in the Southern Ocean' (2007) 22(4) *Int'l J Marine & Coastal L* 545, 569; Natalie Klein, Douglas Guilfoyle, Md Saiful Karim and Rob McLaughlin, 'Maritime Autonomous Vehicles: New Frontiers in the Law of the Sea' (2020) 69 *Int'l & Compar LQ* 719, 731.

¹³³ UNCLOS Article 111(7).

¹³⁴ Arctic Sunrise Arbitration para 245; Crawford (2019) 294.

¹³⁵ UNCLOS Articles 58(2), 109, 110(1).

¹³⁶ UNCLOS Article 110(1)–(2).

¹³⁷ Tallinn Manual 2.0 (2017) 238–239.

¹³⁸ Crawford (2019) 292.

¹³⁹ UNCLOS Articles 105, 109(3).

¹⁴⁰ UNCLOS Article 94(6).

In respect of addressing maritime security threats, there are several *lex specialis* treaties providing the coastal State the jurisdiction, or the right to request authorisation, to interdict a suspect foreign vessel in its EEZ. For example, a coastal State that is a party to the SUA Convention and Protocol may claim concurrent jurisdiction over a number of unlawful acts based on the nationality of the victim, the nationality or the habitual residence of the perpetrator, when it is the target of the act, or when the perpetrator is present within its territorial jurisdiction.¹⁴¹ Under the 1988 UN Narcotics Convention, the 2000 Migrants Smuggling Protocol and the 2016 IMO Interim Measures, a contracting State with reasonable suspicions that the foreign vessel is engaged in a violation may request permission from the flag State to board, search the suspected vessel and take appropriate actions.¹⁴²

Moreover, flag State consent ship interdiction is widely used in WMD-related non-proliferation operations.¹⁴³ The most notable example is the Proliferation Security Initiative (PSI) launched by the United States in 2003.¹⁴⁴ States participating in PSI are required to take actions to board and search vessels flying their flag in 'their internal waters or territorial seas, or areas beyond the territorial seas of any other State' that are suspected of carrying WMD, and to consider authorising other States to board, search and seize their vessels with reasonable suspicion.¹⁴⁵ By 2024, PSI had developed into a global security regime with 113 participating countries on six continents.¹⁴⁶ PSI is further strengthened by eleven bilateral ship boarding agreements, under which either one of the parties can request the other to authorise the boarding, search and possible detention

¹⁴¹ Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (10 March 1988, in force 1 March 1992) 1678 UNTS 221, Article 6; SUA Protocol (14 October 2005, in force 28 July 2010), Article 3.

¹⁴² United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances Narcotics Convention, (20 December 1988, in force 11 November 1990) 1582 UNTS 164, Article 17(3); Protocol against the Smuggling of Migrants by Land, Sea and Air, supplementing the United Nations Convention against Transnational Organized Crime (15 December 2000, in force 28 January 2008) 2241 UNTS 507, Article 8 (2000 Migrants Smuggling Protocol); IMO MSC.1/Circ.896/Rev.2, 26 May 2016, IMO Interim Measures for Combating Unsafe Practices Associated with the Trafficking, Smuggling or Transport of Migrants by Sea, Article 12.

¹⁴³ Guilfoyle (2009) 243–246.

¹⁴⁴ US DOS, 'Proliferation Security Initiative' www.state.gov/proliferation-security-initiative/.

¹⁴⁵ US DOS, 'PSI Interdiction Principles' www.state.gov/psi-interdiction-principles/.

¹⁴⁶ US DOS, 'PSI Participants' www.state.gov/proliferation-security-initiative/.

of the vessel and its cargo.¹⁴⁷ There are also practices in some bilateral treaties to arrange a ‘ship-rider’ on board the other party’s law enforcement vessel to provide on-the-spot consent to the interdiction of vessels flying its flag and to exercise the flag State’s enforcement jurisdiction.¹⁴⁸

The coastal State must not discriminate in form or in fact against foreign-flagged vessels and must respect safeguards measures when exercising enforcement jurisdiction.¹⁴⁹ When taking enforcement measures, the coastal State must ensure the safety and humane treatment of the persons on board, take due account of the need not to endanger the security of the vessel or its cargo, and not prejudice the commercial or legal interests of the flag State or any other interested parties.¹⁵⁰ In all circumstances, force must be avoided and may only be used in a way proportionate and necessary according to the specific circumstances.¹⁵¹ When using direct force, all efforts must be made to ensure that human life is not endangered, and the level and type of force must be proportionate to the targeted ship, where use of force with an intention to sink the vessel is not acceptable.¹⁵² Further, where the suspicions upon boarding prove to be unfounded or when the enforcement measures are proven unlawful or ‘exceed those reasonably required in the light of available information’, the coastal State shall be liable for damage or losses arising from such measures.¹⁵³

With respect to enforcement of fishery laws and pollution regulations, the coastal State should promptly release the arrested vessel and its crew upon the posting of bond, and take reasonable efforts to avoid unduly detaining or delaying the vessel.¹⁵⁴ The coastal State should only impose monetary penalties for these two types of violations by a foreign-flagged vessel, and should promptly notify the flag State of the actions taken.¹⁵⁵

¹⁴⁷ US DOS, ‘Ship Boarding Agreements’.

¹⁴⁸ Guilfoyle (2009) 91; Robin Geiss and Anna Petrig, *Piracy and Armed Robbery at Sea: The Legal Framework for Counter-Piracy Operations in Somalia and the Gulf of Aden* (Oxford University Press 2011) 87–90.

¹⁴⁹ UNCLOS Article 227.

¹⁵⁰ UNCLOS Articles 225, 226(1)(a); Guilfoyle (2009) 266–271.

¹⁵¹ M/V ‘Saiga’ (No. 2) paras 156–158; Guilfoyle (2009) 271–272; Christine Gray, *International Law and the Use of Force* (4th ed., Oxford University Press 2018) 150.

¹⁵² M/V ‘Saiga’ (No. 2), paras 155–156; M/V ‘Virginia G’ Case paras 361–362; Klein (2011) 116–117; Harris and Sivakumaran (2015) 375.

¹⁵³ UNCLOS Articles 110(3), 111(8), 232.

¹⁵⁴ UNCLOS Articles 73(2), 220(7), 226(1)(a)–(b). For coastal State’s enforcement jurisdiction concerning natural resources in the EEZ, see discussions in Chapters 4 in this volume.

¹⁵⁵ UNCLOS Articles 73(3)–(4), 230(1).

Subject to justifications, the coastal State should suspend its proceedings to impose penalties in respect of pollution violations if the flag State takes action to impose penalties of the corresponding charges within six months.¹⁵⁶

Regardless of the imminent alleged threats coming from the sea, the international law of the sea offers limited means for the coastal State to achieve maritime security in the EEZ.¹⁵⁷ The collection of information is considered a passive activity, and it has limited enforcement jurisdiction over suspected activities by foreign-flagged vessels. The coastal State must be prepared to cooperate with the flag State in combatting, suppressing and investigating suspected threats at sea. In fact, when coping with multifaceted threats to maritime security, which have a strong transboundary influence, all States must take collaborative approaches to be effective and to reduce the risk of long-term or irreversible adverse effects on human life and the maritime environment.

7.4 International Efforts to Enhance Maritime Security

7.4.1 *Maritime Security as Collective Security*

The preamble of UNCLOS recognises that ‘the problems of ocean space are closely interrelated and need to be considered as a whole’ and that the legal framework ‘achieved in this Convention will contribute to the strengthening of peace, security, cooperation and friendly relations among all nations’.¹⁵⁸ Efforts to enhance maritime security in the EEZ not only protect the security interests of a specific coastal State but also contribute to the secure use of ocean space for all States. Consequently, as has been persuasively asserted by the UN Secretary-General, since ‘all States share in the benefits of safer and more secure oceans, they also share in the responsibility for addressing major threats and challenges to maritime security’.¹⁵⁹ The shared interests and responsibilities provide a platform for different States to cooperate to ensure that appropriate measures are taken to maintain a secure maritime environment.

The spirit of cooperation is particularly relevant between the coastal State and the flag State of a vessel suspected of engaging in unlawful

¹⁵⁶ UNCLOS Article 228(1).

¹⁵⁷ Natalie Klein, ‘Legal Limitations on Ensuring Australia’s Maritime Security’ (2006) 7(2) *Melb J Int’l L* 278, 334.

¹⁵⁸ UNCLOS Preamble; Rainer Lagoni, ‘Preamble’, in Proelss (2017), 7–8.

¹⁵⁹ UNGA A/63/63 paras 35, 40.

activities in the EEZ. Under the maritime security threats scenario, conflicting interests between the coastal State and other States are minimised. As discussed earlier, there has been an increase in State practice to provide coastal States with the ability to monitor the movement of ships in their EEZs at the expense of the flag State relinquishing relevant information. The acknowledgement of the common interest in sharing information and providing concurrent jurisdiction is a reflection of 'the collective concerns generated from the varied maritime security threats that are currently recognized'.¹⁶⁰

Maritime security is characterised by its complex and cross-cutting nature, comprising multiple different but often related threats and incorporating themes of law enforcement, criminal justice, economic development and environmental protection.¹⁶¹ This complexity implies that narrow or isolated responses to maritime security, such as one State addressing only one threat at a time, are unlikely to succeed and may even prove counterproductive.¹⁶² To achieve collective maritime security means that responses often need to take place across and outside the maritime boundaries of States, with cooperation among multiple stakeholders.¹⁶³

At the same time, maritime security concerns differ across States and regions. Some maritime security threats transcend maritime boundaries and hence are internationally shared, such as piracy and smuggling of drugs or WMD. Other issues, such as terrorist attacks or human trafficking, may be targeted to certain States or regions. Moreover, the level of priority attached to maritime security issues of the same State or region can vary widely at different times. Hence, individual States or regions may have unique and distinct security concerns that co-exist with collective maritime security, which gives them different perspectives when it comes to identifying priorities and allocating resources.¹⁶⁴

In addition, States have different enforcement competences that directly affect their ability to maintain effective jurisdiction over vessels flying their flag and provide adequate surveillance over the maritime

¹⁶⁰ Klein (2011) 255.

¹⁶¹ Bueger (2015) 163.

¹⁶² Christian Bueger, Timothy Edmunds and Robert McCabe, 'Maritime Security, Capacity Building, and the Western Indian Ocean', in Christian Bueger, Timothy Edmunds and Robert McCabe (eds.), *Capacity Building for Maritime Security: The Western Indian Ocean Experience* (Palgrave Macmillan 2021) 7–8.

¹⁶³ Zhao (2015) 749.

¹⁶⁴ Jon D. Peppetti, 'Building the Global Maritime Security Network: A Multinational Legal Structure to Combat Transnational Threats' (2008) 55 *Naval L Rev* 73, 77.

domain under their jurisdiction. The cause of the threats to maritime security, especially piracy, terrorism, human smuggling and trafficking, may be rooted in severe domestic turmoil, poverty, infectious diseases and environmental degradation.¹⁶⁵ Affected States frequently lack the capability and resources to maintain order at sea, let alone the ability to implement maritime security measures. This lack of security often results in the disruption of marine activities that are needed in order to improve the domestic situation.¹⁶⁶ These factors feed into one another creating a deadly cycle that leaves the EEZ of these coastal States even more vulnerable.

Given the complexities of maritime security, the international community should adopt a multi-level cooperative framework to respond to various threats while taking into consideration three characteristics. First, threats to maritime security are often interconnected and interdependent of one another, so the responses should involve a range of stakeholders to enhance cooperation and coordination. Second, most maritime security issues need to be addressed with measures on land, which requires support and capacity-building for the affected States. Third, the cross-jurisdictional nature of most maritime security threats requires cooperation transcending maritime boundaries at various levels of governance.¹⁶⁷ To this end, States are expected to cooperate at both the global and regional levels to identify a common discourse and shared view regarding common threats, in particular to remedy the inadequacy of an individual State's competence to address specific security concerns. International organisations, including the UN and IMO, and regional organisations, such as the African Union and the Association of Southeast Asian Nations (ASEAN), can play an important role in enhancing maritime security cooperation, particularly with respect to sharing information, resources and expertise needed for law enforcement activities and building capacity and mutual trust.¹⁶⁸

¹⁶⁵ UNGA A/59/565, 2 December 2004, *A More Secure World: Our Shared Responsibility*, Report of the High-Level Panel on Threats, Challenges and Changes, paras 17–23, 44–58.

¹⁶⁶ UNGA A/63/63 para 127.

¹⁶⁷ Simona Piattoni, 'Multi-Level Governance: A Historical and Conceptual Analysis' (2009) 31(2) *J Eur Integr* 163–180; Christian Bueger and Timothy Edmunds, 'Beyond Seabindness: A New Agenda for Maritime Security Studies' (2017) 93(6) *International Affairs* 1293, 1302–1303; Bueger, Edmunds and McCabe (2021) 4.

¹⁶⁸ UNSC S/23500, 31 January 1992, Note by the President of the Security Council, paras 139, 143.

7.4.2 *Operations under the Authorisation of the Security Council*

Efforts to secure greater law enforcement powers for the coastal State in relation to maritime security threats beyond the territorial sea have largely been resisted because of the preference accorded to upholding exclusive flag State jurisdiction over vessels. Besides seeking flag State authorisation through international conventions and bilateral agreements, another critical source of rights for intervention to respond to certain imminent maritime security threats comes from the UNSC.¹⁶⁹ The role of the UNSC in the law of sea has significantly evolved since the end of the Cold War and again after the 9/11 terrorist attacks on the United States.¹⁷⁰ The UNSC has primary responsibility for the maintenance of international peace and security and it may authorise various enforcement actions to deal with breaches of the peace, threats to the peace or acts of aggression, with or without the use of armed force.¹⁷¹ These measures include sanctions, embargoes, demonstrations, blockades and other operations by air or sea forces of Member States, which may completely or partially interrupt sea communications.¹⁷²

Resolutions adopted by the UNSC to enforce prescribed measures are legally binding on the Member States of the UN under the collective security system.¹⁷³ Naval forces of Member States, on call from the UNSC, undertake to make available 'armed forces, assistance, and facilities, including rights of passage' to implement these peacekeeping operations at sea.¹⁷⁴ The relevant maritime operations carried out by Member States are primarily in relation to the enforcement of economic sanctions, arms and export embargos, preventing and combatting piracy or terrorism, and proliferation of WMD, where their warships and military aircraft are authorised to halt and inspect international shipping.¹⁷⁵

For example, the potential threat of the development or proliferation of illegal nuclear weapons and ballistic missiles by the Democratic People's Republic of Korea (North Korea) has long been a serious

¹⁶⁹ Churchill, Lowe and Sander (2022) 283.

¹⁷⁰ Rothwell and Stephens (2010) 262.

¹⁷¹ Charter of the United Nations (26 June 1945, in force 24 October 1945), 557UNTS 143, Articles 24(1), 39 (UN Charter).

¹⁷² *Ibid* Articles 41–42.

¹⁷³ *Ibid* Articles 24–25; Malcolm N. Shaw, *International Law* (8th ed., Cambridge University Press 2017) 85, 946–947; Crawford (2019) 732.

¹⁷⁴ UN Charter Articles 43(1), 45.

¹⁷⁵ Rothwell and Stephens (2010) 262–263; Klein (2011) 276–285.

concern of the UNSC.¹⁷⁶ The UNSC has repeatedly affirmed that the proliferation of nuclear, chemical and biological weapons and their means of delivery constitute a threat to international peace and security, and that the actions taken by North Korea pose a danger to ‘peace and stability in the region and beyond’.¹⁷⁷ Resolution 1874 (2009) called on all Member States to not only take action against their own flagged vessels, but also to ‘inspect vessels, with the consent of the flag State, on the high seas, if they have information that provides reasonable grounds to believe’ that the vessel was carrying prohibited cargo.¹⁷⁸ This effectively gives all States enforcement jurisdiction, with flag State consent, over suspected vessels engaged in illicit trafficking of nuclear, chemical and biological weapons and related materials in the EEZ. The UNSC authorisation of maritime interdiction of cargo vessels has been reinforced in subsequent resolutions and numerous Member States have submitted reports on their implementation of these measures.¹⁷⁹

Protracted internal conflict and the absence of an effective government since the early 1990s led to a situation where pirates could operate without hindrance in the waters around Somalia.¹⁸⁰ The situation continued to decline in the early 2000s, interrupting major shipping routes in the Western Indian Ocean, the Gulf of Aden and the Red Sea.¹⁸¹ The situation in and around Somalia was identified as ‘a threat to international peace and security in the region’ by the UNSC in Resolution 1816 (2008).¹⁸² The UNSC subsequently issued a series of *ad hoc* resolutions encouraging a package of measures for certain prescribed times aimed at repressing Somali piracy. The intention was to fill some of the

¹⁷⁶ UNSC Res S/RES/825 (1993), 11 May 1993, Democratic People’s Republic of Korea; UNSC SC/14841, 25 March 2022, Security Council Extends Mandate of Expert Panel Overseeing Sanctions against Democratic People’s Republic of Korea Until 30 April 2023 <https://press.un.org/en/2022/sc14841.doc.htm>.

¹⁷⁷ UNSC Res S/RES/1718 (2006), 14 October 2006, Non-Proliferation/Democratic People’s Republic of Korea, Preamble; UNSC Res S/RES/1874 (2009), 16 June 2009, Non-Proliferation/Democratic People’s Republic of Korea, Preamble; UNSC Res S/RES/2375 (2017), 11 September 2017.

¹⁷⁸ UNSC Res S/RES/1874 (2009) paras 11–12.

¹⁷⁹ UNSC Res S/RES/2627 (2022), 25 March 2022; UNSC S/2022/132, 1 March 2022, Note by the President of the Security Council, Annex, Report by the Panel of Experts.

¹⁸⁰ Guilfoyle (2009) 61–62.

¹⁸¹ Ved P. Nanda, ‘Maritime Piracy: How Can International Law and Policy Address this Growing Global Menace?’ (2010–2011) 39(2) *Denv J Int’l L & Pol’y* 177, 178–180; Doris König, ‘Maritime Security: Cooperative Means to Address New Challenges’ (2014) 57 *German YB Int’l L* 209, 213.

¹⁸² UNSC Res S/RES/1816 (2008), 2 June 2008, Somalia, Preamble.

gaps in the current international legal framework relating to piracy by expanding enforcement jurisdiction and encouraging cooperation among States to enhance their ability to combat Somali piracy. Naval vessels and military aircraft of Member States were encouraged to ‘increase and coordinate their efforts to deter acts of piracy and armed robbery at sea in cooperation with the Transitional Federal Government (TFG)’, and these vessels were authorised to ‘enter the territorial waters of Somalia’ for this purpose.¹⁸³

The international community responded by undertaking naval operations to deter pirates and to ensure the safety of sea lane communications and international navigation. These operations have been coordinated by the North Atlantic Treaty Organization (NATO) Operations Allied Protector and Ocean Shield, the EU Naval Force counter-piracy mission (Operation Atalanta) and the Combined Maritime Forces’ Combined Task Force 151, in addition to several countries that have deployed naval ships and military aircraft in the region to patrol and escort merchant ships.¹⁸⁴ As a means to tackle the enforcement challenges, all States and regional organisations fighting piracy off the coast of Somalia were invited to conclude ‘shiprider’ agreements with countries prepared to prosecute pirates, particularly regional States, in order to facilitate investigation and prosecution of those captured while undertaking suspected pirate attacks.¹⁸⁵ In addition, the UNSC resolutions repeatedly called for States to take domestic legislative measures to criminalise piracy and armed robbery at sea, and to prosecute captured or transferred suspected offenders.¹⁸⁶ These counter-piracy measures have been renewed on an annual basis since they were initially authorised in Resolutions 1846 (2008) and 1851

¹⁸³ Ibid paras 2, 7.

¹⁸⁴ UNSC S/2011/662, 25 October 2011, Report of the Secretary-General Pursuant to Security Council Resolution 1950 (2010), paras 39–50; UNSC S/2013/623, 21 October 2013, Report of the Secretary-General on the Situation with respect to Piracy and Armed Robbery at Sea off the Coast of Somalia, paras 37–41. States operating on their own include China, India, Indonesia, Islamic Republic of Iran, Japan, Malaysia, Republic of Korea, Pakistan, Russian Federation, Saudi Arabia and Yemen.

¹⁸⁵ UNSC Res S/RES/1851 (2008) para 3; UNSC Res S/RES/1897 (2009) para 6.

¹⁸⁶ UNSC Resolutions concerning the situation in Somalia S/RES/1814 (2008), S/RES/1816 (2008), S/RES/1838 (2008), S/RES/1844 (2008), S/RES/1846 (2008), S/RES/1851 (2008), S/RES/1897 (2009), S/RES/1918 (2010), S/RES/1950 (2010), S/RES/1976 (2011), S/RES/2015 (2011), S/RES/2020 (2011), S/RES/2077 (2012), S/RES/2125 (2013), S/RES/2184 (2014), S/RES/2246 (2015), S/RES/2316 (2016), S/RES/2383 (2017), S/RES/2442 (2018), S/RES/2500 (2019), S/RES/2554 (2020) and S/RES/2608 (2021).

(2008).¹⁸⁷ Moreover, the UNSC collaborated with the African Union and the federal government of Somalia to establish and support the work of the African Union Mission in Somalia (AMISOM), which was established in 2007. AMISOM was reconfigured into the African Union Transition Mission in Somalia (ATMIS) in 2022 and takes a comprehensive approach to addressing the domestic challenges and building long-lasting peace and stability in Somalia.¹⁸⁸

Notably, although the powers endowed to the UNSC under Chapter VII of the UN Charter are 'extremely far-reaching and subject to very few express limitations',¹⁸⁹ its exercise of these powers in regard to both North Korea and Somalia have been rather cautious. In both cases, it was the determination that the specific situations constituted a threat to international peace and security in the region that triggered the prescription of enforcement authorisation from the UNSC.¹⁹⁰ When prescribing specific enforcement measures, the resolutions required the States exercising such measures to also obtain authorisation from the flag State when boarding suspected vessels or from the TFG for entering the territorial waters of Somalia. Hence, the UNSC authorisations do not alter the legal framework under UNCLOS and international law.

7.4.3 *Collective Regional Approach to Maritime Security*

A regional approach is a common theme in international relations that can promote beneficial cooperation under the framework of 'collective self-reliance' and provide institutional mechanisms in various fields for the development and growth of regional State entities, including for issues relating to regional security.¹⁹¹ Regional cooperation is also promoted in UNCLOS, principally in regard to the conservation of living

¹⁸⁷ UNSC Res S/RES/2608 (2021), 3 December 2021; UNSC S/2021/920, 3 November 2021, The Situation with respect to Piracy and Armed Robbery at Sea off the Coast of Somalia, Report of the Secretary-General.

¹⁸⁸ African Union Mission in Somalia (AMISOM), <https://amisom-au.org/>; UNSC Res S/RES/1744 (2007), 20 February 2007; UNSC Res S/RES/2568 (2021), 12 March 2021; UNSC Res S/RES/2628 (2022), 31 March 2022.

¹⁸⁹ Bruno Simma (ed.), *The Charter of the United Nations: A Commentary*, Vol. I (2nd ed., Oxford University Press 2002) 705–707.

¹⁹⁰ UNSC Res S/RES/1718 (2006) Preamble; UNSC Res S/RES/1816 (2008) Preamble; Guilfoyle (2009) 65; Shaw (2017) 947–950.

¹⁹¹ Bharti Chhibber, *Regional Security and Regional Cooperation: A Comparative Study of ASEAN and SAARC* (New Century Publications 2004) 2–8.

resources, the protection of the marine environment, and the development and transfer of marine scientific technology.¹⁹² In practice, regional solutions have also been advocated as a possible solution to address threats to maritime security, in particular in relation to piracy.¹⁹³ Collective measures taken at a regional level would avoid the traditional jurisdictional competition between coastal States and other States in the EEZ and promote cooperation in sharing of information, building capacity and conducting joint enforcement activities among all participating States. Several collective regional approaches to maritime security promoted by States in Africa and Asia are examined below. The discussion focuses on the multi-level cooperative framework fostered in both regions that crosses maritime boundaries among States, as well as different threats to maritime security. The selected frameworks share the features of a formal multilateral instrument adopted by the participating States, a coordinating body and having taken practical measures to fulfil its mandates.

The first example is the collective response to piracy off Somalia. In 2009, under the auspice of IMO, twenty regional States, out of twenty-one eligible States, adopted the Djibouti Code of Conduct (Djibouti COC).¹⁹⁴ The purpose of the Djibouti COC is, consistent with the participating States' capacities and applicable laws, to promote regional cooperation to the fullest possible extent, thereby enhancing their effectiveness in the prevention, interdiction, prosecution and punishment of those individuals suspected of engaging in piracy and armed robbery at sea.¹⁹⁵ With support from IMO and the international community, the cooperative framework of the Djibouti COC consists of four

¹⁹² UNCLOS Articles 61(2), 63, 118, 123, 197–200, 207(3)–(4), 208(4)–(5), 210(4), 211(3), 268(e), 270, 272, 276–277.

¹⁹³ Samuel Pyeatt Menefee, 'Maritime Terror in Europe and the Mediterranean' (1988) 12 *Marine Policy* 143, 149; Keyuan Zou, 'Enforcing the Law of Piracy in the South China Sea' (2000) 31(1) *J Mar L & Com* 107, 115–116; Robert C. Beckman and J. Ashley Roach, 'The Way Forward: Enhancing Legal Cooperation between ASEAN Member States', in Robert C. Beckman and J. Ashley Roach (eds.), *Piracy and International Maritime Crimes in ASEAN: Prospects for Cooperation* (Edward Elgar 2012) 234–238.

¹⁹⁴ Djibouti Code of Conduct, 29 January 2009 (Djibouti COC); IMO, 'The Djibouti Code of Conduct' www.imo.org/en/OurWork/Security/Pages/Content-and-Evolution-of-the-Djibouti-Code-of-Conduct.aspx. The 20 signatory States are: Djibouti, Ethiopia, Kenya, Madagascar, Maldives, Seychelles, Somalia, Tanzania and Yemen, Comoros, Egypt, Eritrea, Jordan, Mauritius, Mozambique, Oman, Saudi Arabia, South Africa, Sudan and the United Arab Emirates.

¹⁹⁵ IMO C.102/14, 3 April 2009, Protection of Vital Shipping Lanes, Annex, Code of Conduct Concerning the Repression of Piracy and Armed Robbery against Ships in the Western Indian Ocean and the Gulf of Aden, Article 2(1).

thematic pillars: sharing information and raising MDA; enhancing national legislation; delivering national and regional training; and building counter-piracy capacity.¹⁹⁶

Following the successful repression of Somalia pirates, States in the region adopted the 2017 Jeddah Amendment to the Djibouti COC, extending its scope to cover other threats to maritime security, including trafficking in arms and drugs, illegal trade in wildlife, human trafficking and smuggling, illegal dumping of toxic waste and IUU fishing.¹⁹⁷ The implementation of the Jeddah Amendment is delivered under a governance framework comprised of a Steering Committee, a Working Group on Information Sharing and a Working Group on Capacity Building Coordination.¹⁹⁸ Two noticeable developments following adoption of the Jeddah Amendment are the commitment of participating States to establish multi-agency, multidisciplinary national maritime security and facilitation committees, and the increased cooperation with relevant States to coordinate activities to facilitate rescue, interdiction, investigation and prosecution of suspected illegal activities.¹⁹⁹

In response to the increasing threats of piracy, armed robbery against ships and other illicit maritime activities in the Gulf of Guinea, the Economic Community of Central African States, the Economic Community of West African States and the Gulf of Guinea Commission, with the assistance of IMO, adopted the Yaoundé Code of Conduct (Yaoundé COC) in 2013.²⁰⁰ Modelled after the Djibouti

¹⁹⁶ Djibouti COC Articles 4–11.

¹⁹⁷ Revised Code of Conduct Concerning the Repression of Piracy and Armed Robbery against Ships in the Western Indian Ocean and the Gulf of Aden, 12 January 2017, Article 1(3)–(4) <https://dcoc.org/about-us/jeddah-amendment/> (The Jeddah Amendment). Sixteen of the 20 Djibouti COC signatory States have signed the Jeddah Amendment: Comoros, Djibouti, Ethiopia, Jordan, Kenya, Madagascar, Maldives, Mauritius, Mozambique, Oman, Saudi Arabia, Seychelles, Somalia, United Arab Emirates, United Republic of Tanzania and Yemen.

¹⁹⁸ Djibouti Code of Conduct, 'Steering Committee' <https://dcoc.org/steering-committee/>; UNSC S/2021/920 (2021) para 37.

¹⁹⁹ The Jeddah Amendment Articles 3(2), 8(2); IMO, 'Djibouti Code of Conduct' www.imo.org/en/OurWork/Security/Pages/DCoC.aspx.

²⁰⁰ Code of Conduct Concerning the Repression of Piracy, Armed Robbery against Ships, and Illicit Maritime Activity in West and Central Africa, 25 June 2013 (Yaoundé COC) www.prc.cm/files/f7/26/ec/8acea8ec3a597473a76bd03c76140019.pdf; IMO, 'Maritime security in West and Central Africa' www.imo.org/en/OurWork/Security/Pages/West-and-Central-Africa.aspx. UNSC SC/11091, 14 August 2013, Security Council, in Statement, Welcomes Adoption of Code of Conduct by Regional Leaders to Prevent Piracy in Gulf of Guinea <https://press.un.org/en/2013/sc11091.doc.htm>. Signatory States

COC, the Yaoundé COC sets out another comprehensive regional strategy and framework concerning the prevention and repression of piracy, terrorism, illegal arms and drug trafficking, human trafficking and smuggling, marine pollution, IUU fishing and other transnational organised crime in the maritime domain of West and Central Africa.²⁰¹ Under the Yaoundé COC, signatory States set up the Interregional Coordination Centre, the Regional Centre for Maritime Security of West Africa and the Regional Centre for Maritime Security of Central Africa to facilitate information sharing and coordination.²⁰² The work of the three regional centres is supported by five zone-based Multinational Maritime Coordination Centres that oversee nineteen national Maritime Operations Centres.²⁰³ Similar to the Djibouti COC, the Yaoundé COC is a non-binding instrument that relies on the goodwill of the signatory States to implement these commitments and measures to address maritime security threats.²⁰⁴

The development of both regional approaches to maritime security is aligned with the increasing emphasis on the blue economy in Africa, which recognises the financial costs of unlawful activities at sea.²⁰⁵ In 2016, Member States of the African Union adopted the Charter on Maritime Security and Safety and Development in Africa (Lomé Charter) under the auspice of the 2050 Africa's Integrated Maritime Strategy.²⁰⁶ The Lomé Charter covers the prevention and control of all transnational crimes at sea, all measures to prevent or minimise navigational accidents

to the Yaoundé COC include Angola, Benin, Burkina Faso, Cameroon, Cabo Verde, Chad, Congo, Democratic Republic of Congo, Côte d'Ivoire, Gabon, the Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone and Togo.

²⁰¹ Yaoundé COC Article 1.

²⁰² Yaoundé COC Preamble, Article 11; European Union External Action, EU Maritime Security Factsheet: The Gulf of Guinea, 25 January 2021, www.eeas.europa.eu/eeas/eu-maritime-security-factsheet-gulf-guinea_en.

²⁰³ Yaoundé COC Preamble, Articles 7, 11–14, 17; EU Maritime Security Factsheet: The Gulf of Guinea.

²⁰⁴ Edwin E Egede, 'Gulf of Guinea and Maritime (In)Security: Musings on some Implications of Applicable Legal Instruments' (2022) 46(2) *Brook J Int'l L* 369, 391–401; UNSC S/RES/2634 (2022), 31 May 2022.

²⁰⁵ Curtis Bell et al., *Pirates of the Gulf of Guinea: A Cost Analysis for Coastal States* (Stable Seas November 2021) www.unodc.org/documents/Maritime_crime/UNODC_Pirates_GoG_A_Cost_Analysis_for_Coastal_States.pdf.

²⁰⁶ African Union, *African Charter on Maritime Security and Safety and Development in Africa* (15 October 2016, not in force) (Lomé Charter) <https://au.int/en/treaties/african-charter-maritime-security-and-safety-and-development-africa-lome-charter>.

and all measures for the sustainable development of natural resources.²⁰⁷ By emphasising social economic measures and developing the blue economy as a means to increase State parties' capacities, the Lomé Charter attempts to reconcile the traditional approach of restrictions to counter maritime instability with human developmental aspects.²⁰⁸

The range of maritime security challenges within the Southeast Asian region includes terrorism, illicit trafficking of weapons, drug trafficking, people smuggling, piracy, environmental deterioration and IUU fishing.²⁰⁹ These challenges affect some of the busiest shipping lanes in the Straits of Malacca and Singapore, through the archipelagic waters of Indonesia and the Philippines, and in and around the South China Sea.²¹⁰ Maintaining the safe passage of international commercial trade lanes through this region is essential – not just to the coastal States but also to the global economy.²¹¹ The increasing number of incidents in this region and the transnational nature of these threats call for concerted efforts among the regional States and other States to combat these threats effectively.²¹² Collective measures to promote maritime security in Asia on an organisational basis are taken under the auspices of ASEAN, which is an important diplomatic and legal forum to 'foster cooperation in the furtherance of the cause of peace, harmony, and stability in the region' and 'achieve regional prosperity and security'.²¹³ These measures can be

²⁰⁷ Ibid Article 4.

²⁰⁸ Ibid Articles 5, 19–24; Pieter Brits and Michelle Nel, 'African Maritime Security and the Lomé Charter: Reality or Dream?' (2018) 27(3-4) *African Security Review* 226, 230–232.

²⁰⁹ UNODC, Regional Office for Southeast Asia and the Pacific, 'Transnational Organised Crime' www.unodc.org/roseap/en/what-we-do/toc/index.html; Rommel C. Banlaoi, 'Maritime Security Threats in Post-9/11 Southeast Asia: Regional Responses', in Rupert Herbert-Burns, Sam Bateman and Peter Lehr (eds.), *Lloyd's MIU Handbook of Maritime Security* (CRC Press Taylor & Francis Group 2009) 254–262; Rachel Baird, 'Transnational Security Issues in the Asian Maritime Environment: Responding to Maritime Piracy' (2012) 66 *Australian J Int'l Affairs* 501, 501–502.

²¹⁰ Rommel C. Banlaoi, 'Maritime Security Outlook for Southeast Asia', in Joshua Ho and Catherine Zara Raymond (eds.), *The Best of Times, the Worst of Times: Maritime Security in the Asia-Pacific* (World Scientific Publishing 2005) 65–67.

²¹¹ Andrew S. Erickson, 'Maritime Security Cooperation in the South China Sea Region', in Shicun Wu and Keyuan Zou (eds.), *Maritime Security in the South China Sea: Regional Implications and International Cooperation* (Ashgate 2009) 51–53.

²¹² Termsak Chalermpanupap and Mayla Ibanez, 'ASEAN Measures in Combating Piracy and other Maritime Crimes', in Beckman and Roach (2012), 139.

²¹³ Association of Southeast Asian Nations (ASEAN), Treaty of Amity and Cooperation in Southeast Asia (24 February 1976, in force 15 July 1976) 1025 UNTS 297, Articles 9, 12. The ten Member States are: Brunei Darussalam, Cambodia, Indonesia, Lao, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. ASEAN, 'ASEAN Member

viewed both from within the ASEAN framework and those developed by ASEAN as a block with external partners.

ASEAN mechanisms to address issues relating to maritime security are both comprehensive and fragmented.²¹⁴ From the institutional perspective, maritime security is mainly dealt with under one of the three ASEAN community pillars, the Political-Security Community, in accordance with the principle of comprehensive security.²¹⁵ Within the Community, various sectoral ministerial bodies have mandates to address certain issues relating to maritime security including the ASEAN Ministerial Meeting on Transnational Crime, ASEAN Defence Ministers Meeting, ASEAN Ministers/Attorneys-General Meeting of the Central Authorities on Mutual Legal Assistance in Criminal Matters and the ASEAN Ministerial Meeting on Drug Matters.²¹⁶ Each of these ministerial bodies may have under its purview the relevant senior officials and subsidiary bodies to undertake its functions. From the policy perspective, ASEAN has developed numerous non-binding declarations, statements, plan of actions and work plans, guidelines and terms of references that directly or indirectly address maritime security issues.²¹⁷ There are also a number of binding instruments, including the 2004 Treaty on Mutual Legal Assistance in Criminal Matters, the 2007 ASEAN Convention on Counter Terrorism, and the 2015 ASEAN Convention Against Trafficking in Persons, Especially Women and Children.²¹⁸

States' <https://asean.org/about-asean/member-states/>. Charter of the Association of Southeast Asian Nations (20 November 2007, in force 15 December 2008) 2624 UNTS 223 Article 1 (ASEAN Charter).

²¹⁴ Edwards (2022) 94–99.

²¹⁵ ASEAN, 'ASEAN Political Security Community' <https://asean.org/our-communities/asean-political-security-community/>.

²¹⁶ ASEAN Charter Annex 1: ASEAN Sectoral Ministerial Bodies; ASEAN Plan of Action in Combating Transnational Crime (2016–2025), 20 September 2017 https://asean.org/wp-content/uploads/2021/01/ASEAN-Plan-of-Action-in-Combating-TC_Adopted-by-11th-AMMTC-on-20Sept17-1.pdf.

²¹⁷ ASEAN Document Series on Transnational Crime: Terrorism and Violent Extremism; Drugs; Cybercrime; and Trafficking in Persons (ASEAN Secretariat 2017) <https://asean.org/wp-content/uploads/2012/05/ASEAN-Documents-on-Combating-Transnational-Crime-and-Terrorism-3.pdf>.

²¹⁸ Treaty on Mutual Legal Assistance in Criminal Matters (29 November 2004, in force for each party upon ratification, last ratification on 31 January 2013); ASEAN Convention on Counter Terrorism (13 January 2007, in force 27 May 2011); ASEAN Convention Against Trafficking in Persons, Especially Women and Children (21 November 2015, in

Recognising that national and regional efforts alone will not be suffice in effectively dealing with maritime security threats, Member States of ASEAN have cooperated closely with dialogue partners and regional and international organisations.²¹⁹ In 1993, the ASEAN Regional Forum (ARF) was established as a consultative Asia-Pacific Forum for promoting open dialogue on political and security cooperation in the region.²²⁰ In 2008, the Inter-Sessional Meeting on Maritime Security was established under the ambit of ARF as a dedicated platform to discuss maritime security.²²¹ Maritime security issues have also been considered under the auspices of the ASEAN Plus Three Cooperation since 1997,²²² the East Asia Summit established in 2005²²³ and the Expanded ASEAN Maritime Forum established in 2012.²²⁴

ASEAN functions in an ‘ASEAN way’, upholding the practice of intense dialogues and exhaustive consultations to generate consensus among participating States on contentious issues facing the region whereby votes and binding instruments are uncommon.²²⁵ The priority areas of cooperation on maritime security are centred on building

force 8 March 2017). All available from ‘ASEAN Legal Instruments’ <https://agreement.asean.org/>.

²¹⁹ ASEAN Charter Articles 44–45; ASEAN, ‘External Relations’ <https://asean.org/our-communities/asean-political-security-community/outward-looking-community/external-relations/>.

²²⁰ ‘Twenty-Sixth ASEAN Ministerial Meeting, Singapore, 23–24 July 1993, Joint Communique’ (1993) 10(2) ASEAN Economic Bulletin 191.

²²¹ ASEAN, ‘Maritime Security, Priority Areas of Cooperation’ <https://asean.org/our-communities/asean-political-security-community/peaceful-secure-and-stable-region/maritime-security/priority-areas-of-cooperation/>.

²²² The three countries are China, Japan and Republic of Korea. ‘ASEAN Plus Three Cooperation, Overview’ <https://asean.org/asean-plus-three/>; ASEAN Plus Three Cooperation Work Plan 2023 – 2027, 4 August 2022 <https://asean.org/asean-plus-three-cooperation-work-plan-2023-2027/>.

²²³ ASEAN, Chairman’s Statement of the First East Asia Summit, Kuala Lumpur, 14 December 2005, <https://asean.org/chairmans-statement-of-the-first-east-asia-summit-kuala-lumpur-14-december-2005/>; ASEAN, Chairman’s Statement of the 16th East Asia Summit, 28 October 2021 <https://asean.org/chairmans-statement-of-the-16th-east-asia-summit/>. Participating countries included ASEAN, Australia, China, India, Japan, New Zealand, Republic of Korea, Russia and the United States.

²²⁴ ASEAN, Chairman’s Statement, 1st Expanded ASEAN Maritime Forum, Manila, 9 October 2012 <https://asean.org/chairmans-statement-1st-expanded-asean-maritime-forum-manila/>. The dialogue partners are: Australia, China, India, Japan, New Zealand, Republic of Korea, Russia and the United States.

²²⁵ S. Jayakumar, ‘UNCLOS – Two Decades On’ (2005) 9 Singapore YB Int’l L 1, 6–7; Banlaoi (2009) 262–263.

confidence and trust, sharing information and developing capacities through training and joint exercises. Although cooperation measures among ASEAN members and with external partners show progress in terms of practical security cooperation, they remain largely dialogue-based and are far from achieving collective regional maritime security.²²⁶

These regional approaches will provide a platform under which the regional States and the international community can cooperate and coordinate their efforts to prevent and suppress maritime security threats through increasing the capacity of the countries, enhancing effective border controls and promoting information sharing. The key characteristics for a functional regional governance system are the existence of political goodwill, shared concern of a common threat, the availability of rule-based regulation, the commitment of resources of cooperation and the expected gain from coordinated cooperation.²²⁷

Increasingly, States recognise that they have shared interests and responsibilities to ensure the security of the uses of sea areas. There is a growing willingness among States to develop bilateral and multilateral cooperative measures to combat threats to maritime security. As the above discussion illustrates, these actions remain within the legal framework of UNCLOS in exercising enforcement jurisdiction over maritime security threats in the EEZ. The most influential mechanism to promote collective maritime security is the establishment of international and regional resolutions to improve cooperation that facilitates the exchange and sharing of information, sustained capacity-building in the affected States and the commitment to take concrete operations to promote the granting of flag State authorisation.

7.5 The Way Forward

Ensuring open and protected ocean space and sea routes is critical for international trade and access to natural resources. In addition to the traditional concerns of sea power balance and the legal framework

²²⁶ I. Gusti Bagus Dharma Agastia, 'Maritime Security Cooperation within the ASEAN Institutional Framework: A Gradual Shift towards Practical Cooperation' (2021) 9(1) *Journal of ASEAN Studies* 25, 28–29.

²²⁷ Indra Alverdian, Marko Joas and Nina Tynkkynen, 'Prospects for Multi-level Governance of Maritime Security in the Sulu-Celebes Sea: Lessons from the Baltic Sea Region' (2020) 12(2) *Australian Journal of Maritime & Ocean Affairs* 108, 111–113.

governing the ocean, maritime security measures need to recognise the interconnectivity of multifaceted threats and different stakeholders, the novel forms of governance and order at sea and the promotion of competence and capacity-building.²²⁸

As a general proposition established under UNCLOS, the rights and jurisdiction of a coastal State over its maritime zones diminishes with the greater distance of the zone from its coast. In the EEZ, the coastal State's intent to extend and tighten its jurisdiction over maritime security threats once again clashes with other States' efforts to maximise the freedoms of navigation and overflight. However, there are two important features with regard to maritime security that have potential implications for the attribution of the rights to protect maritime security interests in the EEZ. First, all States share an interest in maintaining the security of navigation and other communication rights where the divergence between coastal State and other States blurs. Hence, there is a tendency to share concurrent jurisdiction over certain activities through international instruments or under the authorisation of the UNSC. Second, although interdicting suspicious vessels far from the coast may be the most effective way to protect the coastal State's maritime security, it remains a restricted approach. This is further complicated by the incapability or reluctance of some States to undertake effective measures within the vast area of the EEZ, which highlights the importance for States to cooperate and collaborate, in particular on regional basis, to this end.

UNCLOS continues to play an important role in shaping the contemporary international legal framework for ensuring maritime security.²²⁹ Although UNCLOS does not explicitly attribute rights or jurisdiction over the protection of maritime security in the EEZ, it is fairly clear on the allocation and exercise of jurisdiction over various threats to maritime security. Current developments show an emerging willingness by States to develop new rules directed towards specific threats, including efforts to establish jurisdiction through multilateral agreements and for coastal States to obtain comprehensive information under the framework of the MDA. However, apart from some procedural steps to promptly obtain a flag State's consent to take action against a foreign vessel under certain conditions, there is no obvious deviation from the principle of

²²⁸ Germond (2015) 74–75; Bueger and Edmunds (2017) 1294.

²²⁹ Rothwell and Klein (2010) 22.

exclusive flag State jurisdiction in the EEZ.²³⁰ The fact that the flag State maintains exclusive jurisdiction requires that the coastal State recognises the existence of such enforcement rights in its EEZ and does not unreasonably impede its implementation. Where the flag State is unable or unwilling to exercise such enforcement power over certain maritime security threats that are of concern to the coastal State, it should cooperate with the coastal State to effectively combat such threats.

There is also an emerging trend for States to cooperate at the international and regional levels to address maritime security threats. While *ad hoc* operations are well suited as a short-term solution for a particular threat, a comprehensive approach and multilateral cooperation are the only means to effectively address the root causes of the maritime security phenomena. This is particularly true in situations where the relevant State lacks capacity to prevent and combat certain imminent threats in areas under its jurisdiction and the situation threatens the peace and security of a region or even the international community. State practice in both Asia and Africa has shown that regional efforts improve information and resources sharing, enhance capacity-building and enforcement techniques of the coastal State and, in some situations, allow third States, with the consent of the flag State, to exercise a degree of authority over foreign vessels in the EEZ.

With regard to maritime security in the EEZ, the coastal State is gaining prescriptive jurisdiction to promote awareness and readiness in order to prevent potential threats. Although the flag State retains exclusive enforcement jurisdiction, there is an increasing tendency for them to relinquish it under treaty obligations or through authorisations under the UNSC. Finally, all States are required to cooperate to protect the interests of the international community as a whole. The rules of international law that address maritime security threats are in a state of transition, but the UNCLOS system and subsequent special international agreements and regional measures are flexible enough to face these new challenges.²³¹

²³⁰ M. D. Fink, 'Book Review on "N. Klein, Maritime Security and the Law of the Sea, Oxford 2011"' (2011) 58 *Netherlands Int'l L Rev* 438, 439.

²³¹ Rüdiger Wolfrum, 'Security At Sea', in UN Audiovisual Library of International Law, Lecture Series, https://legal.un.org/avl/ls/Wolfrum_LS.html.



Annex

Table 7A.1 *International laws relating to maritime security threats*

Maritime Security Threats	International Conventions	Other Relevant Instruments
Piracy	1958 Convention on the High Seas ^a 1982 UNCLOS 1988 Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA Convention) and the 2005 Protocol ^b	United Nations Documents on Piracy ^c International Maritime Organization (IMO) Guidance and Documents on Piracy ^d
Terrorist Acts	1974 International Convention for the Safety of Life at Sea, as amended (SOLAS) ^e 1982 UNCLOS 1988 SUA Convention and 2005 SUA Protocol 1988 Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (SUA Platforms Protocol) and the 2005 Platforms Protocol ^f	Currently, there are 55 instruments pertaining to international terrorism. Of those, 19 are universal and 36 are regional ^g UN Documents and Resolutions ^h 2001 IMO Review of Measures and Procedures to Prevent Acts of Terrorism which Threaten the Security of Passengers and Crews and the Safety of Ships ⁱ
Illicit Trafficking of Arms and Weapons of Mass Destruction	1982 UNCLOS 1992 Convention on the Prohibition of the Development,	2001 Programme of Action to Prevent, Combat and Eradicate the Illicit Trade in Small Arms

Table 7A.1 (*cont.*)

Maritime Security Threats	International Conventions	Other Relevant Instruments
Smuggling of Illicit Drugs	Production, Stockpiling and Use of Chemical Weapons and on their Destruction ^j 2000 United Nations Convention against Transnational Organized Crime (UNTOC) ^k	and Light Weapons in All Its Aspects (PoA) ⁿ 2005 International Tracing Instrument (ITI) ^o Disarmament Treaties Database ^p
	2001 Protocol against the Illicit Manufacturing of and Trafficking in Firearms, Their Parts and Components and Ammunition, supplementing the UNTOC ^l	
	2005 SUA Protocol 2013 Arms Trade Treaty ^m	
	1961 Single Convention on Narcotic Drugs, as amended by the 1972 Protocol ^q	2006 IMO Revised Guidelines for the Prevention and Suppression of the Smuggling of Drugs, Psychotropic Substances and Precursor Chemicals on Ships Engaged in International Maritime Traffic ^t
	1971 Convention on Psychotropic Substances ^r	
1982 UNCLOS;		
1988 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances ^s		
Human Trafficking and Illegal Migrants	1965 Convention on Facilitation of International Maritime Traffic (FAL) ^u	
	1979 International Convention on	

Table 7A.1 (*cont.*)

Maritime Security Threats	International Conventions	Other Relevant Instruments
	Maritime Search and Rescue (SAR) ^v	2016 IMO Interim Measures for Combating Unsafe Practices
	1982 UNCLOS	Associated with the Trafficking, Smuggling or Transport of Migrants by Sea ^z
	2000 Protocol against the Smuggling of Migrants by Land, Sea and Air, supplementing UNTOC (Migrants Smuggling Protocol) ^w	2018 Global Compact for Safe, Orderly and Regular Migration ^{aa}
	2000 Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children, supplementing UNTOC (Trafficking Protocol) ^x	
IUU Fishing	1982 UNCLOS	1995 Food and Agriculture Organization of the United Nations (FAO) Code of Conduct for Responsible Fisheries ^{ee}
	1993 Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas ^{bb}	2001 FAO International Plan of Action to Prevent, Deter and Eliminate IUU Fishing (IPOA-IUU) ^{ff}
	1995 Agreement for the Implementation of the Provisions of the UNCLOS relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (Fish Stocks Agreement) ^{cc}	2015 FAO Voluntary Guidelines for Flag State Performance ^{gg}
	2009 Agreement on Port State Measures to	

Table 7A.1 (*cont.*)

Maritime Security Threats	International Conventions	Other Relevant Instruments
Environmental Security	Prevent, Deter and Eliminate IUU Fishing ^{dd}	
	1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter and the 1996 Protocol (London Convention/Protocol) ^{hh}	1990 International Atomic Energy Agency (IAEA) Code of Practice on the International Transboundary Movement of Radioactive Waste ^{ll}
	1973/78 International Convention for the Prevention of Pollution from Ships, as amended (MARPOL) ⁱⁱ	2018 IAEA Regulations for the Safe Transport of Radioactive Material ^{mmm}
	1974 SOLAS ^{jj}	
	1982 UNCLOS	
	1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention) ^{kk}	

^a 29 April 1958, in force 30 September 1962, 450 UNTS 11

^b SUA Convention: 10 March 1988, in force 1 March 1992, 1678 UNTS 221; 2005 Protocol: 14 October 2005, in force 28 July 2010

^c For the up-to-date document, see 'United Nations Documents on Piracy' www.un.org/depts/los/piracy/piracy_documents.htm (Updated 21 June 2024); 'UN Documents for Piracy' www.securitycouncilreport.org/un-documents/piracy/

^d IMO, 'Piracy and Armed Robbery against Ships' www.imo.org/en/OurWork/Security/Pages/PiracyArmedRobberydefault.aspx

^e 1 November 1974, in force 25 May 1980, 1184 UNTS 2

^f 1988 SUA Platforms Protocol: 10 March 1988, in force 1 March 1992, 1678 UNTS 304; 2005 Platforms Protocol: 14 October 2005, in force 28 July 2010

^g UNGA A/78/221, 24 July 2023, Measures to Eliminate International Terrorism, Report of the Secretary-General, para 41; United Nations, Office of Counter-Terrorism, 'International Legal Instruments' www.un.org/counterterrorism/international-legal-instruments

- ^h United Nations, Office of Counter-Terrorism, 'UN Documents' www.un.org/counterterrorism/un-documents
- ⁱ IMO Res A.924(22), 20 November 2001
- ^j 3 September 1992, in force 29 April 1997, 1975 UNTS 45
- ^k 15 November 2000, in force 29 September 2003, 2225 UNTS 209
- ^l 31 May 2001, in force 3 July 2005, 2326 UNTS 208
- ^m 2 April 2013, in force 24 December 2014, 3013 UNTS 269
- ⁿ *Report of the United Nations Conference on the Illicit Trade in Small Arms and Light Weapons in All Its Aspects, New York, 9-20 July 2001*, A/CONF.192/15 (United Nations 2001)
- ^o UNODC, International Instrument to Enable States to Identify and Trace, in a Timely and Reliable Manner, Illicit Small Arms and Light Weapons www.unodc.org/documents/organized-crime/Firearms/ITI.pdf
- ^p United Nations, Office for Disarmament Affairs, 'Disarmament Treaties Database' <https://treaties.unoda.org/>
- ^q Convention: 30 March 1961, in force 13 December 1964, 520 UNTS 151; 1972 Protocol: 25 March 1972, in force 8 August 1975
- ^r 21 February 1971, in force 16 August 1976, 1019 UNTS 175
- ^s 20 December 1988, in force 11 November 1990, 1582 UNTS 164
- ^t IMO Res MSC.228(82), 7 December 2006,
- ^u 9 April 1965, in force 5 March 1967, 591 UNTS 265
- ^v 27 April 1979, in force 22 June 1985, 1405 UNTS 118; a revised Annex to the SAR Convention was adopted in May 1998 and entered into force in January 2000
- ^w 15 December 2000, in force 28 January 2008, 2241 UNTS 507
- ^x 15 December 2000, in force 25 December 2003, 2237 UNTS 319
- ^y IMO Res A.920(22), 29 November 2001
- ^z IMO MSC.1/Circ.896/Rev.2, 26 May 2016
- ^{aa} UNGA A/RES/73/195, 11 January 2019, Resolution adopted by the General Assembly on 19 December 2018
- ^{bb} 24 November 1993, in force 24 April 2003, 2221 UNTS 91
- ^{cc} 4 August 1995, in force 11 December 2001, 2167 UNTS 3
- ^{dd} 22 November 2009, in force 5 June 2016 www.fao.org/port-state-measures/resources/detail/en/c/1111616/
- ^{ee} 31 October 1995 <https://www.fao.org/fishery/en/publication/56346?lang%2C%20B%20Cen=>
- ^{ff} 2 March 2001 www.fao.org/documents/card/en/c/71be21c9-8406-5f66-ac68-1e74604464e7
- ^{gg} Adopted at the Thirty-First Session of FAO Committee on Fisheries, Rome, 9–13 June 2014, COFI/2014/4.2/Rev.1
- ^{hh} Convention: 29 December 1972, in force 30 August 1975 1046 UNTS 120; 1996 Protocol: 17 November 1996, in force 24 March 2006

- ⁱⁱ 1973 Convention: 2 November 1973, not in force; 1978 Protocol: 17 February 1978, in force 2 October 1983, 1340 UNTS 67 (MARPOL); 1997 Protocol (Annex VI): 26 September 1997, in force 19 May 2005
- ^{jj} SOLAS, Chapter VII, 2001 International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on Board Ships (INF Code); 2004 International Maritime Dangerous Goods (IMDG) Code
- ^{kk} 22 March 1989, in force 5 May 1992, 1673 UNTS 126
- ^{ll} IAEA INFCIRC/386, 13 November 1990 www.iaea.org/sites/default/files/infcirc386.pdf
- ^{mmm} IAEA, *Specific Safety Requirements*, No. SSR-6 (Rev. 1) www.iaea.org/publications/12288/regulations-for-the-safe-transport-of-radioactive-material