should not be allowed to get away with committing them. What remains to be seen is whether international criminal tribunals are always the proper answer; while they may result in punishing individuals, often the states concerned manage to escape any form of responsibility, and there is room for the argument that whatever the merits of punishment, it may not always be conducive to reconciliation. And where people have to continue to live together on the same territory, reconciliation is not something to ignore.

FURTHER READING

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The Seas, the Air, and Outer Space

INTRODUCTION

With almost three-quarters of the globe covered by water, regulation of the seas has always been of crucial importance to the international community. Some of this importance stems from security concerns, but much of it resides in the economic relevance of the seas. This relevance, in turn, stems from two uses to which the seas can be put. They are, first, media of communication, allowing the transport of goods from point X to point Y, and for a long time provided the most obvious means available. Second, the seas and their subsoil are rich in resources, from fish stocks via oil and natural gas reserves to manganese nodules. What holds for the seas also holds, with only minor differences, for the air and outer space. These, too, are vital channels of communication, be it by means of aircraft or by means of radio waves, and, to some extent, have resources to offer as well. The latter applies in particular to the moon and other celestial bodies.

For Grotius, writing his classic *Mare Liberum* more than four centuries ago, there could be no doubt that the seas should be free. For one thing, this was clearly God's wish; otherwise He would have made sure that the same animals and spices would exist everywhere, and maritime transport would not be necessary, so Grotius suggested. More pragmatically, Grotius also held that the seas were incapable of being possessed; the oceans are too vast to be controllable by a single power, and since legal title has to start with actual possession, it followed that ownership of the seas was impossible.[1]

Ever since, the law of the sea, mainly dealing with what states are allowed to do, has been an ever-changing compromise between freedom, on the one hand, and the exercise of jurisdiction by coastal states, on the other. This was already visible in Grotius' own work. In a reply to a contemporary critic, he conceded that even though the seas could not be possessed, coastal states might exercise jurisdiction over them.[2] And in his magnum opus, published a decade and a half later, he had come round to the idea that states owned the

[1] Hugo Grotius, *The Free Sea*, trans. R. Hakluyt (Indianapolis, IN: Liberty Fund, 2004 [1609]).
[2] Both the critique by William Welwod and Grotius' reply are reproduced in Grotius, *Free Sea*. The concession regarding jurisdiction is most explicitly spelled out at 128–30.

territorial seas off their coasts, his earlier misgivings notwithstanding.[3] Presently, most of the seas are still free, in that states cannot claim ownership of most parts of the sea. Yet states have managed to appropriate some zones over which they exercise exclusive, or functional, jurisdiction. This chapter will discuss these maritime zones and their regimes, as well as delimitation between them, before moving on to a brief discussion of air and space law.

OUTLINE OF THE MARITIME REGIME

The general law of the sea used to be governed, and to some extent is still governed, by customary international law. For all practical purposes, though, much of it can be found in a large treaty concluded in 1982, the UN Convention on the Law of the Sea (UNCLOS), the product of almost a decade of intense negotiations. This convention entered into force, belatedly and with the dubious distinction of effectively having been amended even before entry into force, in 1994. The main reason why negotiations lasted so long, and why the original version was no longer deemed acceptable, probably resides in the fact that the convention aims to introduce an element of distributive justice into international law by using the possible proceeds of deep seabed mining for the greater good of mankind. It thus manifests a more or less 'leftist' approach to global resources, and it is possibly no coincidence that the United States, under the Republican president Reagan, was instrumental in blocking the convention.

In line with customary international law, the convention divides the seas into a number of maritime zones. Inside a state's territory, naturally, are its internal waters: its rivers, lakes, and canals. These are simply considered as part of the national territory, although delimitation issues may arise with boundary rivers or boundary lakes. Here, the middle of the navigable channel (the so-called *thalweg*) often marks the boundary between adjacent states,[4] but states are free to agree on a different regime, including full sovereignty for one of them in conjunction with specific rights for the other.[5]

Closest to the coastline, and considered an integral part of a state's territory, is the aptly named territorial sea. This may (but need not) be accompanied by a contiguous zone, an exclusive fisheries zone or, most commonly, an exclusive economic zone (EEZ). While the territorial sea is considered part of the state and need not be claimed, these other zones must be claimed. States are entitled to them, but may also waive their rights. Finally, beyond the EEZ, there are the high seas, and these cannot be claimed. They are deemed to be *res communis* – common property.

Also of interest are the soil and subsoil underneath the seas. Closest to the coast is the continental shelf but this, geographically, is a tricky concept. Sometimes the continental shelf hardly exists (this happens where the seabed 'dives' steeply), whereas in other cases

[3] Hugo Grotius, *On the Law of War and Peace*, trans. A. C. Campbell (London, 1814 [1625]), book II, Ch. 3.
[4] See e.g. Ian Brownlie, *Principles of Public International Law*, 7th edn (Oxford University Press, 2008), at 160.
[5] This is the situation of the San Juan River between Costa Rica and Nicaragua, as confirmed by the ICJ in *Dispute Regarding Navigational and Related Rights (Costa Rica* v. *Nicaragua)*, [2009] ICJ Rep. 213.

the geographical continental shelf can extend for hundreds of miles[6] into the sea. Beyond the continental shelf lie the deep seabed and the ocean floor.

UNCLOS was not the first attempt to codify the law of the sea. In particular, the 1950s saw the conclusion of a number of separate multilateral conventions on the law of the sea, concluded in Geneva. While these functioned reasonably well, they quickly became outdated on the development of technology enabling, for instance, large-scale fisheries, and, dealing as they did with separate aspects of the law of the sea, these treaties did not form a coherent whole. Hence the impetus arose to come to a comprehensive convention, and negotiations started in 1973.

These negotiations were as much about experimenting with negotiating techniques as they were about codifying international law. It turned out that many states were open to back-scratching deals: you do me a favour on topic X, in return for which I will do you a favour on topic Y or Z. While this is conducive to productive negotiations, it also ends up bringing the existing law into question, and it is fair to say that there is some lack of clarity at present about which parts of UNCLOS represent customary international law (and therewith are also binding upon non-members) and which do not. While the problem may seem largely academic in the light of the circumstance that 167 states and the EU[7] are parties to the convention, there is a strong practical consideration here; the United States is not a party. And since the United States is not only a naval superpower but also has a lengthy coastline and an extensive continental shelf, its non-participation is of considerable relevance.

Many of the ratifications of UNCLOS, and in particular those of a large number of Western states and Japan, date from the second half of the 1990s. This owes much to Western dissatisfaction with the earlier provisions on the deep seabed. When the United States had led the opposition thereto, a compromise was reached in the form of an additional treaty, concluded in 1994, to replace the earlier Part XI of UNCLOS, and it was this 'amendment' which spurred a number of states to proceed with ratification.[8] This separate treaty has 149 parties as at summer 2016.

UNCLOS, it is fair to say, has a strong economic focus: many of its provisions regulate the exercise of jurisdiction of states for purposes of exploration and exploitation of natural resources, although there is also a strong section on marine environmental protection.[9] Still, additional conventions have been required to regulate activities that cannot easily be subsumed under headings of exploration or exploitation; one example is the 2001 UNESCO

[6] In the law of the sea, the term 'miles' refers to 'nautical miles'.
[7] The EU has some powers over maritime issues which render its membership pertinent, as the EU powers preempt its member states from acting. For more detail see Jan Klabbers, *The EU in International Law* (Paris: Pédone, 2012).
[8] Its official name is Agreement Relating to the Implementation of Part XI of the Convention of 10 December 1982.
[9] Part XII UNCLOS. Note that the first article of part XII, article 192, listing a general obligation to protect the marine environment, is immediately followed (article 193) by a reminder that states have a sovereign right to exploit their natural resources. In June 2015, the UN General Assembly adopted a resolution (A/RES/69/292) calling for the conclusion of a convention on the conservation and sustainable use of marine biodiversity beyond national jurisdiction – the process dates back to 2006.

Convention on the Protection of Underwater Cultural Heritage.[10] Likewise, the rules regulating armed conflict at sea are not to be found in UNCLOS, but largely in the law of armed conflict, discussed in Chapter 11 above. And the convention having been concluded in the 1980s, it seems that in some respects technological developments have caught up with the regime, creating new areas of dispute or at least of interpretation. One of these is the status of mobile oil drilling units, used for deepwater and ultra-deepwater drilling, and not well known in the 1980s. It remains unclear whether these units (note also the neutral description) are to be considered as vessels or more as offshore installations and, concomitantly, how they affect the traditional division of jurisdiction: if vessels, they generally fall within the jurisdiction of the flag state; if platforms, that of the coastal state. Some of these issues came to the surface when in 2010 British Petroleum's *Deepwater Horizon* rig exploded and created huge damage in the Gulf of Mexico.[11]

Institutionally, many relevant activities with respect to shipping take place in the IMO, in existence since 1948 (originally named IMCO) and headquartered in London. This international organization has as its main task the security and safety of shipping and the prevention of marine pollution, and at the time of writing has 171 member states and three associate members (the Faroes, Hong Kong, and Macau – all of them part of another state but with a certain degree of autonomy). The IMO has sponsored the conclusion of some important conventions, the best known of which is the 1974 Convention for the Safety of Life at Sea (SOLAS). This contains fire safety regulations, as well as regulations concerning lifeboats and lifejackets, and addresses in particular the safety of transport of dangerous products at sea. Also of great import is the International Convention for the Prevention of Pollution from Ships (MARPOL) of 1973, including two later protocols.[12]

Disputes concerning the law of the sea have been one of the staples of the ICJ's work since 1945, with a prominent place in particular for cases involving maritime delimitation, as will be seen below. The entry into force of UNCLOS marked the creation of a separate court – the International Tribunal for the Law of the Sea, located in Hamburg. ITLOS has no fewer than twenty-one judges, appointed for renewable periods of nine years, and it allows for the appointment of ad hoc judges. A separate chamber of eleven judges can dedicate itself to issues relating to deep seabed mining, while other chambers exist in order to address specific issues, such as fisheries disputes or delimitation disputes. There is even a chamber of summary procedure, which can be activated if the parties to a dispute so request. Since the judges, except for the Tribunal's president, work part-time, much of the intermediate work (e.g. fixing time limits) is done by the president. The president is elected by his (or, possibly, her) colleagues. In addition to its contentious jurisdiction, ITLOS can

[10] This gives considerable force to two general provisions in UNCLOS, articles 149 and 303. The leading study is Sarah Dromgoole, *Underwater Cultural Heritage and International Law* (Cambridge University Press, 2013).

[11] For an excellent discussion, see James E. Hickey, Jr, 'Law-Making and the Law of the Sea: The BP *Deepwater Horizon* Oil Spill in the Gulf of Mexico', in Rain Liivoja and Jarna Petman (eds.), *International Law-Making* (Abingdon: Routledge, 2013), 270–82.

[12] See also Chapter 14.

also render advisory opinions, both through its seabed disputes chamber[13] or in plenary, despite the fact that the latter is not specifically mentioned in UNCLOS.[14]

INTERNAL WATERS

Waters on the landward side of the baseline are usually referred to as internal waters, and may include rivers, lakes, canals, bays, and, importantly, ports. Over its internal waters, the territorial state exercises jurisdiction, and this includes, as a matter of principle, criminal jurisdiction. None the less, states usually tend to exercise their jurisdiction only when their interests are at stake; for minor offences taking place on board a vessel lying in port or sailing on a river, they readily defer to the jurisdiction of the flag state. Should a ship have been seized on allegations of breaching the coastal state's EEZ laws, the ship and its crew must be promptly released on posting a reasonable bond or security.[15]

Importantly, ships have no right to enter another state's ports or waters in the absence of a treaty provision to that effect, and while it is generally conceded that there is a presumption that ports and waterways are open to foreign merchant ships, this presumption has not crystallized into a customary right. The one exception relates to ships in distress, but even this is limited to situations where human life is at risk – it is not generally accepted, for instance, that this also extends to saving a ship's cargo.

A different regime relates to internationalized waterways, typically canals that have been dug to facilitate shipping between different seas, such as the Suez Canal and the Panama Canal. These are open, depending on the precise terms of the treaty by which the regime was created, to ships of all nations. Thus article 1 of the Suez Canal treaty provides that the canal 'shall always be free and open, in time of war as in time of peace, to every vessel of commerce or of war, without distinction of flag'.[16]

TERRITORIAL SEA AND CONTIGUOUS ZONE

When Grotius wrote his *Mare Liberum*, the main economic interest in the seas resided in navigation and fishing. This is no longer the case. The sea and its subsoil are rich in resources, ranging from oil and natural gas to all sorts of mineral products that can be found in the deep seabed. In addition, there is a security consideration; states have found out that they may be vulnerable to attacks from the sea, the result being that they may be

[13] Article 191 UNCLOS.

[14] In its *Sub-Regional Fisheries Commission* opinion, ITLOS based its advisory jurisdiction on article 21 of its Statute (itself part of UNCLOS), which enables it to hear requests submitted on the basis of other agreements closely connected to UNCLOS. In this case, it held that the West African fisheries treaty at issue, the Convention on the Determination of the Minimal Conditions for Access and Exploitation of Marine Resources within the Maritime Areas under Jurisdiction of the Member States of the Sub-Regional Fisheries Convention, was such a treaty. ITLOS, Case No. 21, *Request for an Advisory Opinion Submitted by the Sub-Regional Fisheries Commission (SRFC)*, advisory opinion, 2 April 2015, esp. paras. 62–3.

[15] Article 73 UNCLOS; this will be further addressed below.

[16] This is the Constantinople Convention Respecting the Free Navigation of the Suez Maritime Canal, concluded in 1888 between the great European powers of the late nineteenth century.

highly interested in being able to patrol their coasts and control everything that goes on there. Of more recent origin are additional threats, real or perceived; the seas can be (and have been) polluted, with sometimes dire consequences for the coastal state, and all kinds of illicit trafficking goes on at sea, from drugs to migrants.

Traditionally, the outer limit of the territorial sea was set at three miles, to be measured from the so-called 'baseline'. This baseline is the low-water line along the coast, as it is officially depicted in accepted charts. The three-mile rule had several possible explanations. Some suggested that this was the theoretical distance of the horizon as seen from the beach, while for others it marked the range of a cannon when shot from the beach.[17] Either way, the current rule is more extensive; states may proclaim a maximum width of twelve miles, but are allowed to settle for less. Still, most coastal states have opted for the twelve-mile zone.[18] States typically adopt national legislation to this effect,[19] specifying the width by means of geographical coordinates, and notify the UN, which has a Division for Ocean Affairs and the Law of the Sea. The territorial sea itself does not need to be claimed, but the UN should be informed about the claimed or delimited width.

While states enjoy exclusive jurisdiction over their territorial waters (as well as the seabed, subsoil and superjacent air space), there is one important exception; states have to allow the 'innocent passage' of ships through their territorial waters, and this innocent passage is defined as all passage which 'is not prejudicial to the peace, good order or security' of the coastal state. Certain activities are automatically deemed to be non-innocent; these include threats or use of force (obviously), but also exercises with weapons, unlawful loading or unloading of commodities, currencies, or persons, and fishing.[20] 'Passage', to be sure, is not empty of content either: a permanent or semi-permanent fixture is not exercising 'passage'. Submarines must navigate on the surface and show their flags,[21] while nuclear-powered ships or ships with nuclear cargo must observe special precautionary measures.[22] In principle, the coastal state must not exercise either criminal or civil jurisdiction over ships availing themselves of the right of innocent passage.[23]

Sometimes, due to geographical configurations, territorial waters also function as international straits; the Strait of Gibraltar is a prominent example, as is the Strait of Hormuz – a vital waterway for the transport of oil from the Middle East. In such a case, ships and aircraft enjoy a right of 'transit passage'.[24] This is similar to the right of innocent passage, but with the important caveat that no specific conditions for 'innocence' are attached. Thus, one might say that the rights of the coastal state are diminished in comparison with the regular regime relating to the territorial sea, although ships and aircraft exercising transit passage are under an obligation to refrain from the threat or use of force. Transit passage may not be suspended by the coastal state except, perhaps, in self-defence.[25]

[17] J. E. S. Fawcett, *The Law of Nations* (New York: Basic Books, 1968), at 71.
[18] Except in situations of overlapping claims, as is the case, e.g., between Greece and Turkey.
[19] See e.g. the Netherlands Territorial Sea (Demarcation) Act of 9 January 1985, available at www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/NLD_1985_DemarcationAct.pdf (visited 4 January 2012).
[20] Article 19 UNCLOS. [21] Article 20 UNCLOS. [22] Article 23 UNCLOS. [23] Articles 27–8 UNCLOS.
[24] Articles 37–44 UNCLOS.
[25] R. R. Churchill and A. V. Lowe, *The Law of the Sea*, 3rd edn (Manchester University Press, 1999), at 107.

States would sometimes get worried about ships dedicated to smuggling lying just outside their territorial waters and enact so-called 'hovering laws', especially during the eighteenth century. As a result, a custom arose to the effect that states could exercise some control over shipping outside their territorial waters properly speaking, and nowadays it is generally accepted that states can exercise powers in a so-called 'contiguous zone' for the enforcement of customs, fiscal, migration, and sanitary laws. Under article 33 UNCLOS, the contiguous zone may not extend more than twenty-four miles off the coast. Hence, if a state's territorial sea measures twelve miles, it can proclaim an additional twelve miles as contiguous zone. Unlike the territorial sea, the contiguous zone must be claimed; reportedly, by 2016, some ninety states had done so, with most of them claiming an outer limit of twenty-four nautical miles.[26]

EXCLUSIVE ECONOMIC ZONE (EEZ)

The EEZ is a relatively novel phenomenon, and comprises a band of water up to 200 miles wide off the baseline. As the name suggests, states may exercise economic rights here; the concept arose predominantly to safeguard local fishing industries against fishing by distant-water Western states, and the first claims to this effect were made by African states in the early 1970s,[27] while Latin American states made similar claims relating to what was called the 'patrimonial sea'. By the late 1970s, Western states had started to claim exclusive fisheries zones, and these concepts would merge during the course of the negotiations leading to UNCLOS. By the 1980s the EEZ had become part of customary international law, as confirmed by the ICJ.[28] Most coastal states have claimed an EEZ, although some (such as Algeria and Malta) are still content with a fisheries zone,[29] while the United Kingdom only adopted EEZ legislation in 2014. Earlier, it felt that the EFZ and continental shelf regimes together offered sufficient protection to its interests. In some cases of states bordering semi-enclosed seas, the claims have been smaller; claiming the full 200 miles may simply not be possible.[30]

In the EEZ the coastal state has sovereign rights related to the natural resources present there, whether living or not. This applies to the seabed and subsoil as well as to the superjacent waters and to possible ancillary economic activities, such as the production of energy from water, currents or wind. Moreover, the coastal state has jurisdiction relating to

[26] The UN's Division for Ocean Affairs and the Law of the Sea produces a very useful chart, summarizing the maritime claims of all states, including non-parties to UNCLOS. Available at http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/table_summary_of_claims.pdf (visited 19 August 2016).
[27] This is a recurring theme: ITLOS' *Sub-Regional Fisheries Commission* opinion of April 2015 was also inspired by predominantly Western over-fishing of African waters. ITLOS held that flag states fishing in others' EEZs are none the less obliged to ensure that their nationals and vessels flying their flag are not engaged in illegal, unreported and unregulated fisheries (para. 124), and while the acts of fishing vessels cannot normally be attributed to flag states, those flag states may incur responsibility for failing to exercise due diligence (para. 129).
[28] *Continental Shelf (Libya/Malta)*, [1985] ICJ Rep. 13, para. 34.
[29] Denmark and Spain are content with a fisheries zone around parts of their territory: Spain in the Mediterranean, and Denmark around Greenland and the Faroes.
[30] Donald Rothwell and Tim Stephens, *The International Law of the Sea*, 2nd edn (Oxford: Hart, 2016), at 88–89.

the establishment and use of artificial islands and installations (think of oil drilling platforms in particular), as well as marine scientific research and the protection and preservation of the marine environment.[31] Other states enjoy the traditional freedoms of the high seas, with one major exception; there is no freedom of fisheries in the EEZ. Still, those other states still enjoy freedom of navigation and overflight and of laying submarine cables and pipelines.

Since the EEZ usurped part of the high seas, states entirely surrounded by land (such as Switzerland, Chad, or Ethiopia since the split with Eritrea) felt that the creation of EEZs has worked to their disadvantage; these landlocked states have a smaller share of the high seas available for fishing. Consequently, a complicated compromise was reached in UNCLOS. The coastal state is to determine the total amount of fish that may be caught in its EEZ, in the light of conservation and other concerns. This 'total allowable catch' is then divided between the coastal state, determining its own capacity to harvest the natural resources, and other states, on the basis of bilateral or regional agreements. Here landlocked states have the right to participate on an equitable basis. The same right appertains to so-called 'geographically disadvantaged states' – that is, states that have a small coastline, are bordering semi-enclosed seas, or are otherwise dependent on the exploitation of someone else's resources. Where 'landlocked' is easy to verify, 'geographically disadvantaged' is a more problematic category, dependent on political decision-making. And to make things more complicated still, neither of these two groups has exploitation rights in the EEZ of a coastal state whose economy is 'overwhelmingly dependent' on its own EEZ.[32] Be that as it may, the system does not seem to work very well, or at all; landlocked states typically have no fishing fleet, and the cost of building up a fleet in order to partake of the possible surplus of other states probably far outweighs any benefits.[33] Moreover, as Rothwell and Stephens note, the system is judicially unenforceable: coastal state decisions determining the total allowable catch and the allocation of surpluses form exceptions to the compulsory dispute settlement system of UNCLOS.[34]

CONTINENTAL SHELF

The continental shelf came to prominence, as discussed above,[35] during the 1940s, when states discovered oil and natural gas deposits and started to develop the technology to explore and exploit these. Following US President Harry Truman's proclamation, other states too claimed a continental shelf, and the concept rapidly crystallized into customary international law. It is now well settled that the continental shelf is to be considered as an extension of the state's territory where states may exercise sovereign rights.

Except for situations of overlapping claims, the continental shelf extends at least 200 miles from the coast, and like the EEZ, it too covers the seabed and subsoil (but not the superjacent waters). Consequently, states may have two independent bases for rights relating to exploration and exploitation of natural resources, and this, one might say, constitutes unnecessary duplication. There are at least two important differences, though.

[31] Article 56 UNCLOS. [32] Articles 69–71 UNCLOS. [33] Churchill and Lowe, *Law of the Sea*, 437–40.
[34] Rothwell and Stephens, *International Law of the Sea*, at 92. [35] Chapter 2 above.

First, whereas the EEZ must be claimed, the continental shelf is generally accepted to belong to coastal states as prolongation of their territory: there is no need to claim the continental shelf. Second, where geologically the shelf extends further than 200 miles (which is not always the case: some states' shelves have a sudden and steep decline long before that point is reached), states may claim a shelf up to 350 miles, albeit that a special regime applies beyond 200 miles (more on this below).

Importantly, the legal status of the continental shelf does not affect the status of the superjacent waters or airspace, and the coastal state is under a general obligation, while exercising its rights, not to interfere unjustifiably with navigation or other rights and freedoms enjoyed by other states, including the freedom to lay pipelines and cables.

The coastal state has sovereign rights of exploration and exploitation of its continental shelf which, in practice, mostly means that the coastal state can drill for oil and natural gas. It can do so by exclusion of all others, but may issue drilling licences. Where the shelf extends beyond 200 miles, UNCLOS envisages a system of global solidarity. States having an extended shelf are to contribute a small percentage of the surplus value (at most 7 per cent), to be distributed by the International Seabed Authority (which will be discussed below). In particular this provision is a bone of contention for the United States, with some conservatives claiming that this constitutes an international tax. On the other hand, the US government has pointed out that the revenue-sharing obligation was developed with input from representatives of the US oil and gas industry, and that this industry largely supports the regime.[36]

HIGH SEAS

The high seas are free for ships of all nations, and traditionally the regime recognizes four particular freedoms: the freedom to navigate, freedom of overflight, the freedom to lay submarine pipelines and cables, and freedom of fisheries. Article 87 UNCLOS added two newer freedoms: the freedom to construct artificial islands and other installations, and the freedom of scientific research. These freedoms, while extensive, are not unlimited; their exercise must take place with 'due regard' for the interests of other states, and the high seas may only be used for peaceful purposes. The latter is a broad notion – it is generally accepted that military training exercises and even weapons testing are allowed.[37]

While the result of all this freedom could be veritable anarchy, none the less the high seas are a regulated area, and the key to understanding regulation of the high seas, as Evans puts it, resides in the notion of flag-state jurisdiction.[38] All vessels must be registered and thereby have a nationality, and on the high seas the flag state has, in principle, exclusive jurisdiction over things happening on board. This covers not merely legislative jurisdiction, but enforcement jurisdiction as well. In cases of collisions (the *Lotus* scenario),[39] article 97

[36] See the position as reproduced in Sean D. Murphy, *Principles of International Law* (St Paul, MN: Thomson/West, 2006), at 365–7.
[37] Churchill and Lowe, *Law of the Sea*, at 206.
[38] Malcolm D. Evans, 'The Law of the Sea', in Malcolm D. Evans (ed.), *International Law*, 4th edn (Oxford University Press, 2014), 651–87, at 665.
[39] Chapter 2 above.

UNCLOS provides that penal measures may be instituted by the flag state or by the state of nationality of the responsible individual.

Certain activities are actively prohibited on the high seas. This applies to the transport of slaves, illicit traffic in narcotics, unauthorized broadcasting, and, most prominently, piracy. States have a general obligation to cooperate in combating these activities (although this is not made explicit with respect to transport of slaves), and in addition have an obligation to cooperate 'in the conservation and management of living resources'.[40] To this end, in 1995 the Straddling Fish Stock Convention was concluded under UN auspices, addressing the problem of managing migratory species (tuna, swordfish, and sharks, among others); it entered into force in 2001 and at the time of writing has eighty-three parties.

It can easily be imagined that a vessel is engaged in illicit activities in a state's maritime zone, and aims to flee from local authorities. In such a case, it would not be very useful if pursuit had to stop on reaching the high seas; hence international law traditionally recognizes a right of 'hot pursuit', codified in article 111 UNCLOS. Hot pursuit must commence in a state's maritime zones and must continue without interruption (otherwise it is no longer 'hot'), but ceases when the vessel enters the territorial waters of its own state or a third state. It may only be exercised by warships or military aircraft, or vessels otherwise clearly identifiable as under the authority of the state.

While many thought for a long time that the crime of piracy had become more or less obsolete, recent experience suggests otherwise.[41] UNCLOS defines piracy as illegal acts of violence or detention, or depredation, committed for private ends by the crew of a private ship or aircraft against another private ship or aircraft on the high seas or otherwise outside any state's jurisdiction.[42] The main characteristic of piracy is the absence of governmental authority or sanction; therefore government ships by definition cannot engage in piracy, unless the crew revolts and turns against the government.[43]

Of great relevance is the jurisdictional point. It is generally accepted that all states can exercise universal jurisdiction over piracy,[44] yet piracy itself is defined as taking place outside the reach of any particular state's jurisdiction. Hence acts of violence, detention, or depredation taking place in a state's territorial sea do not qualify as piracy for the purposes of international law; they take place within a single state's jurisdiction. For these purposes, a serious argument can be made that the EEZ and other maritime zones still qualify as high seas, with the result that acts of violence taking place in a state's EEZ can still be considered as piracy.[45]

[40] Article 118 UNCLOS.

[41] The Security Council has even authorized action against piracy off the Somali coast, in a string of resolutions, including Resolution 1816 (2008) and Resolution 1851 (2008). See generally Panos Koutrakos and Achilles Skordas (eds.), *The Law and Practice of Piracy at Sea: European and International Perspectives* (Oxford: Hart, 2014).

[42] Article 101 UNCLOS.

[43] See the authoritative study by Douglas Guilfoyle, *Shipping Interdiction and the Law of the Sea* (Cambridge University Press, 2009), at 36.

[44] Chapter 5 above.

[45] Guilfoyle, *Shipping Interdiction*, 42–5.

THE DEEP SEABED

In the late nineteenth century it was discovered that the deep seabed was rich in certain metallic nodules, comprising valuable metals such as manganese, iron, nickel, and cobalt. At the time, exploitation was a pipe dream, but by the 1960s and 1970s the technology to mine these nodules had been developed and although start-up costs are prohibitive, deep seabed mining started to look like a viable commercial activity. This would have the effect of depriving some states, in particular developing states, of their current share of the world market, and thus a movement gathered force to establish a regime to share the spoils, all the more so since the deep seabed lies outside the jurisdiction of any state and, thus, no single state can claim the resources as belonging to it. This regime would take the form of Part XI of UNCLOS, establishing an intricate system to be managed by a newly created International Seabed Authority. As explained earlier in this chapter, this result was a bit too *dirigiste* for most Western states, and the original Part XI has been modified by a later Agreement on the Implementation of Part XI which, to some extent, bowed to Western demands.

The basis of the system is still that the deep seabed, ocean floor and subsoil thereof (commonly referred to, in Orwellian terms, as the 'Area') are to be considered the 'common heritage of mankind'. No state can claim sovereign rights here; all rights relating to resources in the Area 'are vested in mankind as a whole', represented by the (also rather Orwellian) Authority – the International Seabed Authority – and activities are to be carried out 'for the benefit of mankind as a whole'.[46] The Authority is set up as an international organization. All parties to UNCLOS are its member states, and it has a plenary body (Assembly), an executive body (Council), a secretariat, and two functional organs: a Finance Committee and a Legal and Technical Commission.

The basic idea is that deep seabed mining is to be carried out by private consortia, either alone or jointly with a possibly to be created Enterprise,[47] under auspices of the Authority. The proceeds are then to be distributed by the Authority. Given the high costs of exploitation, those private consortia typically comprise Western companies, while distribution of the proceeds would obviously involve a redistribution of wealth, to the benefit of the poorer nations. In addition, the convention envisages a compulsory transfer of technology, also to the benefit of poorer nations. At the time of writing, the Authority has concluded contracts with a number of consortia and governments.

For private consortia to participate, they must be sponsored by a state party; this, in turn, has given rise to the question of the exact responsibilities and obligations of those sponsoring states. When Nauru and Tonga both sponsored consortia but became worried about the possible financial implications (what to do, for instance, if a consortium does not deliver, or violates applicable regulations?), the Council of the Authority submitted a request for an advisory opinion to the Seabed Disputes Chamber of ITLOS, which held that while the sponsoring state was under a due diligence obligation to make sure that a consortium complied with laws and regulations and conducted such activities as an

[46] Articles 136–40 UNCLOS.

[47] The Enterprise would be the commercial arm of the Authority, but will only be set up once deep seabed mining becomes commercially viable – and this, so some suspect, may never happen.

environmental impact assessment, none the less the sponsoring state was not directly liable for the acts or omissions of the contractors it sponsored. In passing the Chamber also treated regulations issued by the Authority as binding, despite the absence of a clear provision to this effect in UNCLOS or in the basic documents of the Authority.[48]

MARITIME DELIMITATION

In much the same way as it is useful to establish boundaries on land, so, too, is it useful to have maritime boundaries delimited. Most boundary delimitations are the result of negotiations between the states concerned – given the number of boundaries in the world, litigation is still rather rare. Still, this is one area in which the ICJ has been highly active over the years, while other bodies (arbitration panels, ITLOS) have also started to make their mark. As noted, normally speaking delimitation will start from the baseline, but there may be circumstances justifying a departure. One of these is the possible existence of a historic right, as with Norway's coastline, often dubbed *skjaergaard*.[49] UNCLOS also allows straight baselines to be drawn over smaller bays and historically recognized larger ones, and around archipelagos.[50]

In principle, two different situations can be envisaged: states can be located opposite each other, or can be located next (adjacent) to each other. UNCLOS treats both situations in the same way, and instead makes a distinction based on the zones concerned. With the delimitation of territorial waters, the basic rule (article 15 UNCLOS) is the so-called 'equidistance rule'; the boundaries must follow the baseline and be equally distant at every point, unless the states concerned agree otherwise.

This would not easily work with the much larger EEZ and continental shelf, largely for two reasons. First, there is a considerable possibility of overlap where states are located opposite each other, such as the Netherlands and the United Kingdom, or South Korea and Japan. The seas in between are too narrow to grant both coastal states the full 200 miles. Second, the application of equidistance following the configuration of the coastline leads to fairness issues if a state happens to have either a well-rounded coastline, or rather a hollow one. Hence, with the EEZ and the continental shelf, the basic rule (in both cases) is that states should agree on how their zones will be delimited, 'in order to achieve an equitable solution'.[51]

The problem came to the fore, in highly visible manner, in the 1969 *North Sea Continental Shelf* cases, involving the then West Germany, Denmark, and the Netherlands. The three states are adjacent to each other, with Germany's coast being squeezed in between those of the other two states, and being concave.[52] As a result, application of the equidistance

[48] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, advisory opinion, ITLOS case no. 17, 1 February 2011. Its constituent document, so to speak, is section 4 of Part XI of UNCLOS, articles 156–85.
[49] Chapter 2 above. [50] Confusingly to Scandinavians, the word 'skjaergaard' translates as 'archipelago'.
[51] Articles 74 and 83 UNCLOS.
[52] The concave Bangladeshi coastline was likewise taken into account by ITLOS in its case no. 16, *Dispute Concerning Delimitation of the Maritime Boundary between Bangladesh and Myanmar in the Bay of Bengal (Bangladesh/Myanmar)*, judgment of 14 March 2012, paras 290–7. It is not the concavity as such that matters, but the possible resulting unfairness that needs to be corrected.

principle would have resulted in Germany having a rather small continental shelf, which was all the more painful as surveys indicated nice reserves of oil and natural gas. The Netherlands and Denmark argued, among other things, that the equidistance rule had become customary international law, but the ICJ disagreed, and ordered the parties to negotiate an equitable settlement. The Court even suggested, in a rather unprecedented move, what a negotiated settlement should include: the parties should take into account

> the general configuration of the coasts of the Parties, as well as the presence of any special or unusual features ... the physical and geological structure, and natural resources, of the continental shelf areas involved, [and] the element of a reasonable degree of proportionality.[53]

This set the tone for later cases of maritime delimitation, which are to a large extent about reaching equitable solutions, even though the Court has come to accept that the equidistance principle is a useful starting point.[54] Thus, in 2002, it suggested that the start of any investigation resided in the equidistance principle and, from there, should go on to consider whether there were factors that needed to be taken into account in order to reach an equitable result.[55] That is not to say that the Court should always take all kinds of factors into consideration; in establishing the maritime boundary between Romania and Ukraine, it reached the conclusion that none of the circumstances invoked by the parties warranted a departure from the provisional equidistance line.[56]

Still, in particular the presence of islands off the coast may be a relevant factor; islands tend to generate their own zones (including continental shelves), but giving full effect to these islands may result in unfairness – an extreme example would be the British Channel Islands, located off the French coast. Giving them full effect would deprive France of much of its maritime zone; giving them no effect at all would be unfair to the United Kingdom. Hence the Court's typical suggestion has been to give 'partial effect' to islands: take them into account but without giving them full weight. In the *Tunisia/Libya* case, the Court suggested this with respect to the Kerkennah Islands off the Tunisian coast.[57] The Court also issued a wise word of warning:

> Clearly each continental shelf case in dispute should be considered and judged on its own merits, having regard to its peculiar circumstances; therefore, no attempt should be made here to overconceptualize the application of the principles and rules relating to the continental shelf.[58]

Indeed, specifically with respect to islands, ITLOS expressed much the same thought: '[N]either case law nor State practice indicates that there is a general rule concerning the

[53] *North Sea Continental Shelf (Germany/Denmark; Germany/Netherlands)*, [1969] ICJ Rep. 3, para. 101 D.
[54] Whether equidistance, accompanied by the need to reach an equitable result, qualifies as customary international law, is uncertain, but either way, it is 'not possible to predict how the various factors will be taken into account'. Evans, *Law of the Sea*, at 679.
[55] *Land and Maritime Boundary between Cameroon and Nigeria (Cameroon v. Nigeria; Equatorial Guinea Intervening)*, [2002] ICJ Rep. 303, para. 288.
[56] *Maritime Delimitation in the Black Sea (Romania v. Ukraine)*, [2009] ICJ Rep. 61.
[57] *Continental Shelf (Tunisia/Libya)*, [1982] ICJ Rep. 18, para. 129. [58] Ibid., para. 132.

effect to be given to islands in maritime delimitation. It depends on the particular circumstances of each case.'[59] And it further suggested that 'the effect to be given to islands in delimitation may differ, depending on whether the delimitation concerns the territorial sea or other maritime areas beyond it'.[60]

Given that islands can potentially generate their own maritime zone, the classification of a reef, atoll or rock as 'island' can have a tremendous impact on a coastal state's economy.[61] This helps to explain why the legal status of small elevations often becomes the subject of political dispute. One example is that China is very unhappy with Japan's attempts to get Okinotorishima, a remote atoll 'about the size of a small bedroom' in the Pacific, recognized as having its own EEZ.[62] At the same time, other states complain about China's practice of artificially enlarging coral reefs to turn them into islands in the hope of generating maritime zones. When confronted with a complaint by the Philippines, in 2016 an arbitral panel held as a general matter that human modification is not relevant for purposes of classifying elevations as islands or rocks – what matters is the 'earlier, natural condition, prior to the onset of significant human modification'.[63]

If islands can be taken into account in maritime delimitation, great disparities in the lengths of the coastline may also constitute a relevant factor.[64] While the Court has rejected the argument that economic poverty per se is a relevant factor in boundary delimitation (a country may be poor one day, but rich the next upon the discovery of some valuable resource), it has accepted that the presence of oil wells in contested areas may be a factor,[65] and has accepted in the abstract that security and defence concerns may also be of relevance.[66]

Given the size of the areas involved, it is inevitable that the delimitation of zones between two states will often also come to affect the interests of others; delimitation of the shelf between Tunisia and Libya is bound somehow to affect Malta and Italy, located on the other side of the Mediterranean Sea. Accordingly, when Tunisia and Libya went to the ICJ, Malta tried to intervene in the proceedings on the basis of article 62 ICJ Statute, and when later Malta and Libya seized the Court, Italy tried to do the same. In both cases the Court rejected the request, and indeed it has been decidedly stingy in granting requests to intervene in proceedings. The main reason for this reluctance is that it would be practically impossible to protect the intervening state without at the same time also saying something about the validity of that state's maritime claims, yet without giving the real parties to the dispute the chance to contest the intervening state's claims. Since judgments are only binding between the parties to the dispute (article 59 ICJ Statute),[67] there is no chance of

[59] ITLOS Case no. 16, *Bangladesh/Myanmar Maritime Boundary*, para. 147. [60] Ibid., para. 148.
[61] Article 121 UNCLOS, with paragraph 3 holding that rocks which cannot sustain human habitation or economic life shall not generate an EEZ or continental shelf.
[62] T. Y. Wang, 'Japan Is Building Tiny Islands in the Philippine Sea. Here's Why', at https://www.washingtonpost.com/news/monkey-cage/wp/2016/05/20/the-japanese-islet-of-okinotori-is-the-size-of-a-tokyo-bedroom-but-the-basis-of-a-big-claim/ (visited 14 August 2016).
[63] PCA case No. 2013–19, *In the Matter of the South China Sea Arbitration (Philippines* v. *People's Republic of China)*, award of 12 July 2016. para. 306. The panel found overwhelmingly in favour of the Philippines.
[64] *Continental Shelf (Libya/Malta)*, para. 73. [65] *Continental Shelf (Tunisia/Libya)*, para. 107.
[66] *Continental Shelf (Libya/Malta)*, para. 51. [67] See more generally Chapter 8 above.

Italy being bound by a judgment between Malta and Libya; in those circumstances, allowing Italy to intervene would give it a preferential status, to the disadvantage of Malta and Libya. In 1999, however, the Court unanimously allowed Equatorial Guinea to intervene in a demarcation dispute between Cameroon and Nigeria, partly because with the states being adjacent and Cameroon being sandwiched with a concave coastline between Nigeria and Equatorial Guinea, it seemed that the legal interest of Equatorial Guinea was sufficiently established, perhaps partly also because neither Cameroon nor Nigeria had any objections.[68]

Since both the EEZ and the continental shelf can run to a maximum of 200 miles off the baseline, there is some merit in drawing a single boundary line, and it would seem that with negotiated boundaries, this is indeed more or less the standard practice.[69] Yet the ICJ is usually asked to focus on one maritime zone at a time, mostly the continental shelf. The most prominent exception was the explicit request by Canada and the United States to come to a single boundary in the *Gulf of Maine* case.[70]

Often enough, boundary delimitation is inspired most of all by the desire to achieve clarity in rights over natural resources, be they fish or oil and natural gas.[71] Instead of drawing up a boundary, states can also decide to collaborate and set up joint fisheries zones, or joint exploration zones. Several examples exist, for instance between South Korea and Japan, or between Norway and the United Kingdom. Typically, the states concerned decide to manage and exploit the resources together, and then divide the proceeds. As long as these zones are located within overlapping claims of the states concerned, it would seem that no interests of third parties are immediately affected.

PROMPT RELEASE, PROVISIONAL MEASURES

The expansion of maritime zones over the years set in motion a number of different practical issues, chief among them the concern that coastal states, eager to assert their jurisdiction, might unduly interfere with the freedom of navigation and fishing. Hence, seafaring nations started to argue that some system should be devised to make sure that coastal states would not abuse their newly found jurisdiction. As a result, UNCLOS came to include provisions aimed at finding a compromise: under article 73(1), coastal states have the right to enforce their jurisdiction in the EEZ in certain matters but, under paragraph 2 of the same article, they are under an obligation to secure the prompt release of vessels and crew upon the posting of a 'reasonable bond or other security'. In order to make this enforceable, tribunals (including ITLOS) are given compulsory jurisdiction to hear and address such claims 'without delay', and without regard to the

[68] *Land and Maritime Boundary between Cameroon and Nigeria (Cameroon* v. *Nigeria)*, application to intervene, Order, [1999] ICJ Rep. 1029.
[69] Churchill and Lowe, *Law of the Sea*, at 192–3.
[70] *Delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada/USA)*, [1984] ICJ Rep. 246.
[71] The maritime boundaries in arctic waters are usefully discussed in Michael Byers, *International Law and the Arctic* (Cambridge University Press, 2013).