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Artificial Islands, Installations and Structures

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A. Definition

1 A large number of terms are used to refer to man-made objects in the marine environment. The terms artificial islands, installations and structures are among others used in Arts 60 and 80 United Nations Convention on the Law of the Sea ('UN Convention on the Law of the Sea'; see also → *Law of the Sea*), which set out the rights and obligations of coastal States in respect of those objects in the → *exclusive economic zone* and the → *continental shelf*. Apart from those terms the UN Convention on the Law of the Sea also employs such terms as device, machinery, equipment and platform. The UN Convention on the Law of the Sea does not provide a definition of any of these terms and there do not appear to be generally agreed definitions. At the United Nations Conference on the Law of the Sea (1973–82) (→ *Conferences on the Law of the Sea*), during which the UN Convention on the Law of the Sea was negotiated, there were a number of attempts to define the term 'installations'. These did not meet with success. Terms in the UN Convention on the Law of the Sea are not always used consistently. For instance, Art. 194 (3) refers to 'installations and devices' and Art. 209 (2) to 'installations, structures and other devices'.

2 The meaning of a specific term will have to be established in accordance with the rules applicable to treaty interpretation (→ *Vienna Convention on the Law of Treaties*; see also → *Interpretation in International Law*). That meaning may vary. For instance, the UN Convention on the Law of the Sea distinguishes between vessels and platforms, but the International Convention for the Prevention of Oil Pollution from Ships includes platforms in the definition of vessels.

3 With the above provisos in mind it is still possible to make some general distinctions between artificial islands, installations and structures and to distinguish them from other terms that are employed to designate man-made objects that are operated in the marine environment. The starting point for the definition of the term artificial island would seem to be the term island, which is defined in Art. 121 (1) UN Convention on the Law of the Sea as 'a naturally formed area of land, surrounded by water, that is above water at high tide' (→ *Islands*). In the light of this definition, it would seem that an artificial island is an area of land that is above water at high tide that is not naturally formed.

4 An island that is reinforced with coastal defences in principle remains an island in the sense of Art. 121 UN Convention on the Law of the Sea and an artificial island does not become an island in the sense of Art. 121 if there is an accretion of land that is natural in origin. Islands that are newly formed by natural processes after human intervention in the natural environment will in principle fall under Art. 121. The distinction between an island and an artificial island may require complex assessments of law and fact.

5 The distinction between artificial islands on the one hand and installations and structures on the other is significant because there are some differences in the applicable legal regime (see paras 8–19 below). Installations and structures appear to differ from artificial islands in that the latter are built from man-made or natural materials that are piled on the seabed to form an area of land. The requirement that they have to be above water at high tide does not apply to installations and structures. Man-made or natural materials that are piled on the seabed and are not above water at high tide, such as certain coastal defences, do not appear to be covered by the provisions of the UN Convention on the Law of the Sea concerning artificial islands. The rules applicable to artificial islands will arguably apply *mutatis mutandis* to such features.

6 The meaning of such terms as device, machinery, equipment and platform that are also used in the UN Convention on the Law of the Sea will have to be assessed in the context in which they are used. The terms installations and structures may in specific instances include objects that in another context may be considered to be devices, machinery, equipment, or platforms.

7 Other categories of man-made structures are not included in the terms artificial islands, installations, and structures. The UN Convention on the Law of the Sea and other international instruments treat submarine cables and → *pipelines* as a separate legal category. Another important category is ships. The distinction between ships and structures and installations in certain instances may be complex. This concerns for instance mobile offshore craft, eg floating production, storage, and offloading units. Their categorization may depend upon such factors as whether the unit is self-propelled or not, its mode of operation, and the kind of activity being regulated.

B. Legal Regime

8 The development of the legal regime of artificial islands, installations and structures primarily depended on two factors: the increased use of the sea by humanity and the proliferation of maritime zones. Traditionally, fisheries and navigation were the principal uses for which man-made objects were deployed at sea. Apart from vessels, this could for instance concern navigational aids such as buoys or lights deployed at sea or fishing gear permanently placed on the seabed (see also → *Fisheries, Sedentary*). Depending on their location, the legal regime applicable to these objects would be that of the → *territorial sea* or the → *high seas*. By the second half of the 20th century uses of the sea had multiplied and artificial islands, installations, and structures began to be used for such diverse activities as oil and gas exploration and exploitation, sand and gravel extraction, aviation, the generation of energy, and military activities. In response to the increasing economic significance of the oceans, the legal regime applicable to these objects has been elaborated in two ways. Coastal State jurisdiction has expanded seawards (see also → *Jurisdiction of States*). This has also brought the construction, operation and use of artificial islands, installations, and structures to a large extent under that jurisdiction. Secondly, the law of the sea has been further developed. In the case of installations and structures this has meant that, for instance, specific rules for their removal and the establishment of safety zones have been adopted.

9 Artificial islands, installations and structures do not possess the status of islands and they do not have a territorial sea, exclusive economic zone, or continental shelf, nor do they affect the delimitation of those zones between neighbouring States (Art. 60 (8) UN Convention on the Law of the Sea). To the contrary, in accordance with → *customary international law* land reclamation schemes along existing coasts in principle do become part of the baseline from which the breadth of maritime zones is measured (→ *baselines*). As an example, reference can be made to the seaward shift of the Netherlands baseline following construction of the Maasvlakte to enlarge the port of Rotterdam. It should not be overlooked that at times it may be controversial whether a land reclamation is an artificial island or forms part of an existing coast. A distinction between offshore constructions and constructions along the coast is also made in Art. 11 UN Convention on the Law of the Sea which stipulates that 'permanent harbour works which form an integral part of the harbour system are regarded as part of the coast'. Art. 11 UN Convention on the Law of the Sea explicitly excludes 'offshore installations and artificial islands'.

10 A limited exception to the rule that artificial islands, installations and structures do not have maritime zones concerns lighthouses or similar installations which are permanently above sea level and are built on low-tide elevations (→ *Lighthouses and Lightships*). These installations can be used as basepoints for the drawing of straight baselines and archipelagic baselines (Art. 7 UN Convention on the Law of the Sea).

11 The legal regime of artificial islands, installations and structures depends on the maritime zone in which they are located. In → *archipelagic waters* and the territorial sea, they fall under the → *sovereignty* of the coastal State. The only restriction in this respect is that the coastal State has to exercise this sovereignty subject to → *international law*.

12 In the exclusive economic zone, the coastal State has 'the exclusive right to construct and to authorize and regulate the construction, operation and use of' all artificial islands (Art. 60 UN Convention on the Law of the Sea). As far as installations and structures are concerned this right of the coastal State is limited to installations and structures for economic purposes and for installations and structures which may interfere with the exercise of the rights of the coastal State in the zone. The limitations on the right of the coastal State in this regard arguably are mostly explained by the interest of maritime States in the deployment of military devices in the exclusive economic zone of other States. Certain coastal States consider that the deployment of such devices in any case is not permitted.

13 The regime applicable to the placement of military devices in the exclusive economic zone is no doubt complex. First, Art. 60 UN Convention on the Law of the Sea extends the rights of the coastal State to installations and structures without an economic purpose which may interfere with the exercise of the rights of the coastal State in the exclusive economic zone. That qualification leaves a margin of discretion to the coastal State. Secondly, Art. 58 UN Convention on the Law of the Sea provides that other States in the exclusive economic zone enjoy the freedoms of 'navigation and overflight and of the laying of submarine cables and pipelines, and other internationally lawful uses of the sea related to these freedoms' (→ *Navigation, Freedom of*; see also → *Overflight*). This provision indicates that the placement of military devices related to these freedoms and in accordance with the relevant provisions of the UN Convention on the Law of the Sea and other rules of international law is lawful. The placement of other military devices arguably would be covered by Art. 59 UN Convention on the Law of the Sea, which provides the basis for the resolution of conflicts regarding the attribution of rights and jurisdiction where this convention does not attribute such rights and jurisdiction to the coastal State or other States.

14 Art. 60 UN Convention on the Law of the Sea imposes a number of obligations on the coastal State: 'Due notice must be given to the construction of artificial islands, installations and structures and permanent means for giving warning of their presence must be maintained'. Abandoned or disused installations and structures shall be removed. The Convention on the Continental Shelf required the complete removal of such installations and structures. Under the UN Convention on the Law of the Sea partial removal is permitted. Art. 60 (3) UN Convention on the Law of the Sea provides that abandoned or disused installations or structures 'shall be removed to ensure safety of navigation, taking into account any generally accepted international standards established in this regard by the competent international organization'. Such standards are contained in the Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone ('IMO Guidelines and Standards'), which were adopted by the → *International Maritime Organization (IMO)* in 1989. When removing abandoned or disused installations or structures, due regard shall also be paid to fishing, the protection of the marine environment, and the rights and duties of other States.

Appropriate publicity shall be given to the depth, position, and dimensions of any installations or structures that are not entirely removed (see also → *Safe-Conduct and Safe Passage*).

15 As was noted above, artificial islands, installations, and structures do not have a territorial sea, exclusive economic zone, or continental shelf. However, safety zones can be established around them. Art. 60 (5) UN Convention on the Law of the Sea provides that a safety zone shall not exceed a distance of 500 metres from the artificial island, installation, or structure concerned except as authorized or recommended by the IMO. Ships are required to respect safety zones and are to comply with generally accepted international standards regarding navigation in the vicinity of artificial islands, installations, structures, and safety zones. On the other hand, artificial islands, installations, and structures and the safety zones around them may not be established where interference may be caused to the use of recognized sea lanes essential to international navigation.

16 Art. 80 UN Convention on the Law of the Sea provides that 'Article 60 applies *mutatis mutandis* to artificial islands, installations and structures on the continental shelf'. This provision is especially relevant where a coastal State has not established an exclusive economic zone or where the continental shelf extends beyond the 200 nautical-mile limit.

17 On the high seas, all States can exercise the freedom to construct artificial islands and other installations permitted under international law. That freedom is subject to the sovereign rights and jurisdiction of the coastal State over its continental shelf, which may spatially overlap with the high seas where the coastal State has not established an exclusive economic zone or the continental shelf extends beyond the 200 nautical-mile limit.

18 The provisions on the high seas contained in the UN Convention on the Law of the Sea do not contain detailed rules on artificial islands, installations, and structures comparable to Art. 60 UN Convention on the Law of the Sea on artificial islands, installations, and structures in the exclusive economic zone. A similar provision is, however, contained in Art. 147 UN Convention on the Law of the Sea concerning installations used for carrying out all activities of exploration for and exploitation of the mineral resources of the → *international seabed area*. As far as other installations and artificial islands and structures on the high seas are concerned, the rule that States are required to pay due regard to the interests of other States in their exercise of the freedom of the high seas is applicable. To establish the exact implications of that requirement, the rules concerning the obligations of the coastal State in respect of artificial islands, installations, and structures in its exclusive economic zone and Art. 147 UN Convention on the Law of the Sea would seem to provide an appropriate point of departure, to the extent that State practice would not be conclusive as to the applicable legal regime.

19 Apart from the general rules contained in UN Convention on the Law of the Sea, other international agreements contain more detailed rules, especially concerning installations and structures. The IMO and other international organizations have also concerned themselves with this matter. Reference can for instance be made to the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms located on the Continental Shelf and the IMO Guidelines and Standards mentioned above. The International Seabed Authority has drawn up certain regulations in relation to installations that are used in connection with activities in the Area.

C. Evaluation

20 The regime of artificial islands, installations and structures has developed significantly in the last half century. The UN Convention on the Law of the Sea defines the competence of the coastal State to regulate artificial islands, installations, and structures in its maritime zones and the right and obligations of other States in those zones and in the high seas. It seems likely that those rules will not be subject to significant pressures for adjustment in the near future as is the case for some other ocean uses. The continued growth of sea-based activities can be expected to require further implementation of the general rules in connection with uses of the oceans involving artificial islands, installations, and structures.

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