Interactions between management of a water column marine protected area in the high seas of the OSPAR maritime area and the exercise of sovereign rights regarding subjacent outer continental shelf

A report for WWF Germany

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1. Introduction

WWF Germany's request for this report arose in the context of ongoing discussions within the OSPAR Commission ('**OSPAR**') regarding the prospective Charlie Gibbs marine protected area. It arose in particular as a result of the first meeting of OSPAR's 'Ad Hoc Working Group on the Charlie Gibbs Fracture Zone' held on 11 November 2009, at which discussions took place on the implications of the outer continental shelf, i.e. the legal continental shelf beyond 200 nm from the baseline.

This report has three main parts—Parts 2, 3 and 4. None of these parts considers the Charlie Gibbs situation specifically; instead, the report is intended to be more general in nature, albeit still relating to the OSPAR context. Parts 2 and 3 consider a scenario in which a high seas marine protected area ('**MPA**') designated by OSPAR comprises only the water column and overlies seabed comprising the outer continental shelf of a coastal State, the latter being an OSPAR member. Thus Parts 2 and 3 consider a (future) situation in which the coastal State has lawfully established final and binding outer limits for its outer shelf. In contrast, Part 4 considers the period between the date of a submission by a coastal State to the Commission on the Limits of the Continental Shelf ('**CLCS**') and the date of the establishment by that coastal State of lawful final and binding outer limits of its outer shelf.

Part 2 of the report is entitled 'Interaction'. It aims, for specified activities, to examine whether or how the exercise of management powers of, as appropriate, OSPAR, the International Maritime Organization ('**IMO**') and relevant regional

fisheries management organisations, regarding protection of the water column MPA, may potentially constrain the ability of a coastal State to exercise its sovereign rights to undertake economic activities in respect of its subjacent outer continental shelf. The specified activities examined are as follows: **navigation by merchant shipping**; **fishing**; **mining for seabed mineral resources**; **cable laying**; **marine scientific research**; and **bioprospecting**. In discussing these activities, there is inevitably some repetition of text within Part 2 but this has been kept to a minimum. For each activity, there are one or more paragraphs concluding or summarising the discussion.

Part 3 of the report is entitled 'Collaboration'. It explores, for some of the activities listed above, possible mechanisms of collaboration between OSPAR, other relevant international organisations and the coastal State with a view to (a) facilitating protection of the water column MPA and (b) facilitating protection of the environment of the subjacent outer continental shelf of the coastal State.

Part 4 of the report is entitled 'Interim uncertainty'. As noted above, it considers the period between the date of a submission by a coastal State to the CLCS and date of the establishment of final and binding outer shelf limits. It discusses, albeit only briefly, (a) how the lack of certainty during this interim period as to who may take action to enforce against third States may have detrimental effects on the conservation status of natural features of the seabed and (b) how this undesirable situation might be addressed.

In the course of this report, reference is made to a report prepared by the author in 2006 for WWF Germany, entitled 'The powers of the OSPAR Commission and coastal State parties to the OSPAR Convention to manage marine protected areas on the seabed beyond 200 nm from the baseline'. The latter report will be referred to here as '**the 2006 report**'.

2. Interaction

2.1 Navigation by merchant shipping

Introduction

This section will discuss whether or how management of navigation by the IMO in respect of a water column MPA in the high seas may potentially constrain the ability of a coastal State to exercise its sovereign rights to undertake economic activities in respect of its subjacent outer continental shelf. Before discussing the IMO, the report will briefly consider the role of OSPAR regarding the regulation of maritime transport.

OSPAR

Article 4(2) of Annex V to the OSPAR Convention states that:

> Where the [OSPAR] Commission considers that action under this Annex is desirable in relation to a question concerning maritime transport, it shall draw that question to the attention of the International Maritime Organisation. The Contracting Parties who are members of the International Maritime Organisation shall endeavour to cooperate within that Organisation in order to achieve an appropriate response, including in relevant cases that Organisation's agreement to regional or local action, taking account of any guidelines developed by that Organisation on the designation of special areas, the identification of particularly sensitive areas or other matters.

It is notable that Article 4(2) does not expressly rule out action by OSPAR under Annex V to regulate maritime transport (in contrast to Article 4(1) regarding fisheries – see section 2.2. below). However, the provision clearly anticipates that such matters will be referred to the IMO, albeit with subsequent duties within the IMO for OSPAR members. As with fisheries (see section 2.2 below), it is also noteworthy that the provision refers to 'under this Annex', i.e. under Annex V. This raises the question whether, despite Annex V, certain programmes or measures relating to maritime transport could lawfully be adopted under the OSPAR Convention *other than* under

Annex V. In this respect, the OSPAR Convention sets out some important general obligations in Article 2 that, arguably, are broad enough to cover maritime transport management measures. This report will not seek to elaborate further on, let alone resolve, this matter. Instead, the working assumption will be adopted that OSPAR does *not* have powers to adopt maritime transport management measures.

IMO

This sub-section will focus on whether or how the exercise of management powers by the IMO regarding navigation by merchant shipping in respect of a high seas MPA may potentially constrain the ability of a coastal State to exercise its sovereign rights to undertake economic activities in respect of its subjacent outer continental shelf. (The role of the IMO is also considered briefly in sections 2.3, 2.4, 2.5 and 2.6 below, as well as in Part 3.) The IMO currently has 169 members.[1] All OSPAR members are IMO members, with the exception of the EU.

In principle, there are various measures that could be adopted by the IMO in respect of a high seas MPA. Possibilities include, in particular, a 'special area' under the MARPOL Convention,[2] a ship reporting system under the SOLAS Convention[3] or a ships' routeing system under the SOLAS Convention. In the short time available for the preparation of this report, the focus will be placed on ships' routeing systems and, in turn, on the establishment of one particular kind of routeing system – namely an area to be avoided ('**ATBA**'). This is not because an ATBA is necessarily the most likely shipping management measure for a high seas MPA but, instead, because exclusion of shipping from an area would, arguably, have the greatest potential to constrain the ability of a coastal State to exercise its outer shelf sovereign rights and is therefore an appropriate example to discuss in the context of this report.

[1] Source: website of the IMO.
[2] International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended.
[3] 1974 International Convention for the Safety of Life at Sea, as amended.

The establishment of an ATBA will be considered in the context of a 'Particularly Sensitive Sea Area' ('**PSSA**'). This is not because a PSSA is a prerequisite for the establishment of an ATBA (see further below) but, instead, because the PSSA concept may anyway be an appropriate framework for the establishment of an ATBA, or other shipping management measures, in the context of a high seas MPA. In principle, and consistent with Article 4(2) of Annex V to the OSPAR Convention, OSPAR members that are also members of the IMO could jointly propose a PSSA and an associated ATBA to the IMO (see further Part 3 below).

By Resolution A.982(24), the IMO Assembly in 2005 adopted 'Revised guidelines for the identification and designation of Particularly Sensitive Sea Areas' ('**the PSSA Guidelines**'). The PSSA Guidelines define a PSSA as 'an area that needs special protection through action by IMO because of its significance for recognized ecological, socio-economic, or scientific attributes where such attributes may be vulnerable to damage by international shipping activities' (see further below).[4] The Guidelines add that: 'At the time of designation of a PSSA, an associated protective measure, which meets the requirements of the appropriate legal instrument establishing such measures, must have been approved or adopted by the IMO to prevent, reduce, or eliminate the threat or identified vulnerability.'[5] An IMO document published in 2007 states that: 'It is noteworthy that [PSSAs] may include … sea areas beyond national jurisdiction.'[6]

PSSAs may only be designated by the IMO,[7] and there are currently eleven PSSAs in existence.[8] The criteria for the identification of a PSSA are listed in the PSSA Guidelines,[9] under three headings: 'Ecological criteria'; 'Social, cultural and economic criteria'; and 'Scientific and educational criteria'. In order to be identified as a PSSA, the area in question should meet at least one of the listed criteria.[10] Under the 'ecological' heading, the listed criteria are: uniqueness or rarity; critical habitat;

[4] PSSA Guidelines, para 1.2.
[5] PSSA Guidelines, para 1.2.
[6] *PSSA Particularly Sensitive Sea Areas*, 2007 Edition, IMO, London, 2007, p 1, para 1.3.
[7] PSSA Guidelines, para 3.1.
[8] This figure treats the Great Barrier Reef PSSA and the Torres Strait PSSA as just one single PSSA. See further the website of the IMO.
[9] PSSA Guidelines, section 4.
[10] PSSA Guidelines, para 4.4.

dependency; representativeness; diversity; productivity; spawning or breeding grounds; naturalness; integrity; fragility; and bio-geographic importance.[11] Under the 'social, cultural and economic criteria' heading, the listed criteria are: social or economic dependency; human dependency; and cultural heritage.[12] Under the 'scientific and educational' heading, the listed criteria are: research; baseline for monitoring studies; and education.[13] In addition to meeting one or more of the listed criteria, 'the recognized attributes of the area should be at risk from international shipping activities'.[14]

The discussion in this sub-section will proceed on the working assumption that at least one of the listed criteria would be met by the high seas MPA in question and that, in addition, it would be accepted by the IMO that the area's recognised attributes were 'at risk from international shipping activities'. As noted above, at the time of designation of a PSSA at least one relevant associated protective measure must have been approved or adopted by the IMO. It will be assumed for current purposes that the associated protective measure in question is an ATBA. However, it is important to point out that designation of a PSSA is not a prerequisite to the establishment of an ATBA: in principle, an area may be established as an ATBA for marine environmental protection purposes without that area also needing to be a PSSA.

The legal basis for the establishment of ATBAs by the IMO is the 1974 SOLAS Convention ('**SOLAS**'), which entered into force in 1980. SOLAS currently has 159 parties.[15] All OSPAR members are parties, with the exception of the EU. SOLAS has an annex comprising several chapters. These chapters contain the convention's detailed provisions, known as 'regulations'. The particular regulation of SOLAS providing for ATBAs is regulation 10 of Chapter V – otherwise known as '**regulation V/10**' – entitled 'Ships' routeing'. Regulation V/10 adopts the generic term 'ships' routeing systems', and states that the IMO 'is recognized as the *only* international body for developing guidelines, criteria and regulations on an international level for

[11] PSSA Guidelines, paras 4.4.1–4.4.11. Each of these terms is explained in the Guidelines.
[12] PSSA Guidelines, paras 4.4.12–4.4.14. Each of these terms is explained in the Guidelines.
[13] PSSA Guidelines, paras 4.4.15–4.4.17. Each of these terms is explained in the Guidelines.
[14] PSSA Guidelines, para 5.1. Factors to be taken into consideration in deciding whether the area's attributes are 'at risk from international shipping activities' are listed in section 5 of the Guidelines.
[15] Source: website of the IMO.

ships' routeing systems'[16] (emphasis added; see further below). ATBAs are not expressly mentioned in regulation V/10; however, it is widely acknowledged that ATBAs are a type of ships' routeing system for the purposes of that regulation.

Regulation V/10 states that: 'Ships' routeing systems contribute to safety of life at sea, safety and efficiency of navigation *and/or protection of the marine environment.*'[17] (Emphasis added.) Thus a routeing system established for the specific purpose of marine environmental protection is, in principle, compatible with SOLAS. Regulation V/10 adds that ships' routeing systems 'are recommended for use by, and may be made mandatory for, *all ships, certain categories of ships or ships carrying certain cargoes …*' (emphasis added).[18] This statement about the material scope of regulation V/10, in terms of what ships may be covered by routeing systems, is discussed further below.

Regulation V/10 goes on to state that routeing systems are recommended for use by, and may be made mandatory for, ships 'when adopted and implemented in accordance with the guidelines and criteria developed by the [IMO]'. This reference to 'guidelines and criteria' reflects the fact that regulation V/10 itself is quite short and lacking in detail. For example it sets out in broad terms the procedure for proposing a routeing system and the rights and duties of States, but it does not contain a definition of the term 'routeing system' and it provides no elaboration on what kinds of system may be adopted.

The IMO has responded by developing guidelines and criteria in the form of its 'General Provisions on Ships' Routeing' ('**the General Provisions**'). The latter were established by IMO Resolution A.572(14) (as amended), 'pursuant to regulation V/10 of the SOLAS Convention'.[19] Time does not allow detailed consideration of the General Provisions in this report. Instead, the focus will be on SOLAS itself. However, it must be emphasised that the General Provisions play an important role in

[16] SOLAS Convention, annex, Chapter V, reg 10.2.
[17] SOLAS Convention, annex, Chapter V, reg 10.1.
[18] Ibid.
[19] General Provisions, p 1, 'Introduction'.

interpreting and implementing regulation V/10.

In order to understand the potential effect of an ATBA established in a high seas MPA on the ability of a coastal State to exercise its outer shelf sovereign rights, it is necessary to understand what ships such an ATBA may apply to and what scope there is for exceptions or exemptions. Gaining this understanding is not achieved simply by looking at regulation V/10 itself. Instead, it is necessary to analyse, step-by-step, the relevant prior provisions of SOLAS before returning to the wording of regulation V/10.

The starting point is Article II of SOLAS, which states that the 'ships' covered by SOLAS, and hence by regulation V/10, are those 'entitled to fly the flag of States the Governments of which are Contracting Governments' to SOLAS.

The second step is Chapter I, containing general provisions. Regulation 1 of Chapter I states that: 'Unless expressly provided otherwise, the present regulations apply only to ships engaged on international voyages.'[20] The term 'regulations' means those regulations contained in the annex to SOLAS (i.e. including those in Chapter V). The term 'international voyage' is defined as 'a voyage from a country to which the present Convention applies to a port outside such country, or conversely'.[21] Regulation 1 goes on to state that: 'The classes of ships to which each chapter applies are more precisely defined, and the extent of the application is shown, in each chapter.'[22] Chapter I also contains certain exceptions and exemptions.[23] For example, the regulations, unless expressly provided otherwise, do not apply to cargo ships of less than 500 gross tonnage or fishing vessels.[24]

The next step in determining the ships to which regulation V/10 applies is the general provisions at the start of Chapter V. As noted in the preceding paragraph, Chapter V

[20] SOLAS Convention, annex, Chapter I, Part A, reg 1(a).
[21] SOLAS Convention, annex, Chapter I, Part A, reg 2(d).
[22] SOLAS Convention, annex, Chapter I, Part A, reg 1(b).
[23] SOLAS Convention, annex, Chapter I, Part A, regs 3 and 4.
[24] SOLAS Convention, annex, Chapter I, Part A, reg 3(a)(ii) and (vi). The term 'fishing vessel' is defined as 'a vessel used for catching fish, whales, seals, walrus or other living resources of the sea' (reg 2(i)).

may define, more precisely than in Chapter 1, the classes of ships to which it applies. In this respect, the wording of regulation 1 of Chapter V is important. First, it states that '[u]nless expressly provided otherwise, this chapter shall apply to all ships on all voyages …'.[25] The reference to 'all voyages' implies that the reference in Chapter I to (only) 'international voyages' does not apply in Chapter V, '[u]nless expressly provided otherwise'. The text of regulation V/10 does not expressly deal with the question of 'voyages', the implication therefore being that regulation V/10 applies to ships on all voyages (subject to the meaning of the phrase 'certain categories of ships' as used in regulation V/10 – see further below).

Regulation 1 of Chapter V goes on to qualify its broad statement about Chapter V applying to 'all ships on all voyages'. Of particular relevance for this report, it creates an exception for 'ships owned or operated by a Contracting Government and used only on Government non-commercial service'.[26] This exception is relevant because a coastal State with outer shelf subjacent to a high seas MPA may be using such ships for, say, marine scientific research on the shelf. However, regulation 1 of Chapter V adds that such ships 'are encouraged to act in a manner consistent, so far as reasonable and practicable, with this chapter'.[27]

Some other general provisions at the start of Chapter V are also relevant. Regulation 2 of Chapter V defines the term 'all ships' (a term used both in regulation 1 and in regulation 10 – see above) as 'any ship, vessel or craft irrespective of type and purpose'. This implies that the general exception established by Chapter I for cargo ships of less than 500 gross tonnage and fishing vessels (see above) does not apply in Chapter V. Regulation 3 of Chapter V provides discretion to the flag State to grant 'exemptions … of a partial or conditional nature' to individual ships in certain circumstances, namely:

> when any such ship is engaged on a voyage where the maximum distance of the ship from the shore, the length and nature of the voyage, the absence of general navigational hazards, and other conditions affecting safety are such as to render the full application of this chapter unreasonable or unnecessary,

[25] SOLAS Convention, annex, Chapter V, reg 1.1, *chapeau*.
[26] SOLAS Convention, annex, Chapter V, reg 1.1.1.
[27] SOLAS Convention, annex, Chapter V, reg 1.1.

provided that the [flag State] has taken into account the effect such exemptions … may have upon the safety of all other ships.[28]

In view of one of the relevant factors in the extract above being 'the maximum distance of the ship from the shore', it is perhaps unlikely that the above-mentioned provision of regulation 3 of Chapter V would be relevant in the context of the outer continental shelf, which starts at 200 nm from the baseline.

The discussion in the paragraphs above represents a brief review of the ships covered by regulation V/10, having regard to (a) Article II of SOLAS, (b) the general provisions in Chapter I and (c) the general provisions at the start of Chapter V. This review indicates that the scope of regulation V/10 is broad, in that it relates to 'all ships on all voyages' (subject to the exceptions and exemptions set out in the early provisions of Chapter V, including the government-related exception mentioned above).

At this point, it is appropriate to return to the wording of regulation V/10 itself. As noted above, the regulation enables routeing systems to apply to 'all ships, certain categories of ships or ships carrying certain cargoes'. Thus the regulation allows some fine-tuning of which ships are covered by routeing systems: such a system, including an ATBA, may potentially apply to 'certain categories of ships' or 'ships carrying certain cargoes' rather than to 'all ships'. In principle, this possibility for fine-tuning presented by regulation V/10 is relevant to understanding the potential effect of an ATBA established in a high seas MPA on the ability of a coastal State to exercise its outer shelf sovereign rights.

However, in the phrase 'certain categories of ships' it is not clear what is meant by the word 'categories' and hence it is not clear quite how finely-tuned a routeing system may be. To understand how the IMO has interpreted the word 'categories', it would be useful to survey the routeing systems, including the ATBAs, adopted by the IMO to date, both within the framework of PSSAs and more generally, to see what types of vessel have been included within or excluded from the scope of those systems. It

[28] SOLAS Convention, annex, Chapter V, reg 3.2.

would be interesting to see whether, rather than simply categorising ships on the basis of their size or cargo, the IMO has also ever categorised vessels for the purpose of routeing systems based on their function (e.g. cable laying, fishing, marine scientific research, mineral exploration and exploitation). However, it is not possible in the time available to undertake such a survey of the IMO's past practice (but see section 2.4 below regarding cable laying in relation to traffic separation schemes).

In order to understand the potential effect of an ATBA established in a high seas MPA on the ability of a coastal State to exercise its outer shelf sovereign rights, it is also relevant to consider two 'savings clauses' in regulation V/10, which read as follows:

> All adopted ships' routeing systems and actions taken to enforce compliance with those systems shall be consistent with international law, including the relevant provisions of the 1982 United Nations Convention on the Law of the Sea.[29]

> Nothing in this regulation nor its associated guidelines and criteria shall prejudice the rights and duties of Governments under international law or the legal regimes of straits used for international navigation and archipelagic sea lanes.[30]

The first of these two clauses requires any adopted ships' routeing system to be 'consistent with international law', including the 'relevant provisions' of the 1982 United Nations Convention on the Law of the Sea ('**the LOSC**'). In view of the wording used, especially when contrasted with the second clause, it is questionable whether this provision on its own would be sufficient to safeguard a coastal State's sovereign rights with respect to its outer shelf. The second clause uses the wording 'prejudice' and 'rights and duties'. It is therefore clearer that this latter clause is intended to safeguard, for example, a coastal State's sovereign rights. However, in contrast to the first clause, the second does not refer to 'adopted ships' routeing systems'. Instead, it refers to regulation V/10 itself and the associated guidelines and criteria; i.e. it refers to the *legal framework*. In referring only to the legal framework, and not to the routeing systems adopted under that framework, it is not clear whether

[29] SOLAS Convention, annex, Chapter V, reg 10.9.
[30] SOLAS Convention, annex, Chapter V, reg 10.10.

the second clause would be sufficient to preclude the adoption of a routeing system that prejudiced a coastal State's outer shelf rights.

Some light is shed on this matter by the General Provisions. Paragraph 3.4 states that the IMO 'shall not adopt or amend any routeing system without the agreement of the interested coastal States, where that system may affect … [*inter alia*] … their rights and practices in respect of the exploitation of living and mineral resources'. This provision appears to represent a mixture of parts of the first and second savings clauses referred to above. It indicates that the IMO is alert to the possibility of prejudice to coastal State sovereign rights by individual routeing systems.[31] However, some questions arise from the wording above, for example: whether 'exploitation' may be interpreted to include 'exploration'; whether 'mineral resources' may be interpreted to include other non-living resources in respect of the which the coastal State has sovereign rights under Article 77 of the LOSC; and whether the wording is broad enough to deal with, say, marine scientific research activities that the coastal State may wish to undertake.

In conclusion, on the basis of the above analysis, there are provisions in SOLAS and the General Provisions that may help to reduce the scope for a prospective ATBA in a high seas MPA to constrain a coastal State's ability to exercise its outer shelf rights. These provisions comprise, in particular, the following: first, the exception in regulation 1 of Chapter V of SOLAS regarding 'ships owned or operated by a Contracting Government and used only on Government non-commercial service'; secondly, the scope under regulation V/10 for routeing systems to be applied to 'certain categories of ships' or 'ships carrying certain cargoes' rather than necessarily to 'all ships'; thirdly, the two savings clauses in regulation V/10; and fourthly, the statement in the General Provisions that the IMO 'shall not adopt or amend any routeing system without the agreement of the interested coastal States, where that system may affect … [*inter alia*] … their rights and practices in respect of the exploitation of living and mineral resources'.

[31] With regard to the interaction between offshore exploration and exploitation and specific types of routeing system, see also General Provisions, paras 3.12, 3.13, 3.18 and 7.1–7.5. More generally, see also paras 5.1, 5.2.1, 5.2.5, 5.2.6, 5.7 and 6.3.

However, on the basis of the above analysis alone, it cannot be said with certainty that a coastal State would definitely be able to avoid any constraint on its ability to exercise its outer shelf rights. The answer will depend on the specific circumstances of any given case and on the meanings of some of the words and phrases used in the relevant provisions of the SOLAS Convention and the General Provisions, as highlighted above. It may also depend on the decision-making procedure within the IMO for the adoption of ships' routeing systems: one limitation of the above analysis is that, because of time constraints, it has not been possible to examine the said procedure to see whether it might provide some additional level of protection, in the form of procedural rights, to a concerned coastal State in the case of a routeing system being considered for the high seas.

In closing, it may be useful to reiterate that the example chosen for consideration in this sub-section of the report is an ATBA. As noted above, this example has been chosen not because an ATBA is necessarily the most likely shipping management measure for a high seas MPA but, instead, because exclusion of shipping from an area would, arguably, have the greatest potential to constrain the ability of a coastal State to exercise its outer shelf sovereign rights and is therefore an appropriate example to discuss in the context of this report. It is also important to bear in mind that there could be some *positive* aspects for a coastal State arising from management actions by the IMO in respect of shipping in the water column superjacent to the outer shelf. These are discussed in section 3.2 below.

2.2 Fishing

Introduction

Under Article 77 of the LOSC, the coastal State has exclusive sovereign rights for the purpose of exploring its continental shelf and exploiting the shelf's natural resources. The term 'natural resources', in the context of the continental shelf, is defined as 'the mineral and other non-living resources of the seabed and subsoil together with living

organisms belonging to sedentary species …'.[32] The phrase 'organisms belonging to sedentary species' is, in turn, defined as 'organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil'.[33]

In the case of the outer continental shelf, the superjacent waters are the high seas. In respect of the fisheries resources of the high seas, the coastal State does not have any sovereign rights. Instead, pursuant to Article 87(1)(e) of the LOSC, there is a qualified freedom of fishing for all States. The interaction between, on the one hand, the exclusive sovereign rights of the coastal State to exploit the sedentary species on its outer continental shelf and, on the other hand, the qualified high seas freedom of fishing is discussed in section 3.7 of the 2006 report.[34] In the current report, the focus will be on whether or how the exercise of management powers by relevant international organisations in respect of the water column superjacent to the outer shelf may potentially constrain the ability of a coastal State to exercise its sovereign rights to exploit sedentary species on that shelf.

In considering international organisations, this report will limit its attention to OSPAR and to regional fisheries management organisations ('**RFMOs**'). For reasons of time it will *not* consider organisations dealing with cetaceans (in particular the International Whaling Commission, the North Atlantic Marine Mammal Commission and the meetings of the parties to the Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas).

The relevant RFMOs in the north-east Atlantic are the following (in alphabetical order): the International Commission for the Conservation of Atlantic Tunas ('**ICCAT**'); the North Atlantic Salmon Conservation Organization ('**NASCO**'); and the North East Atlantic Fisheries Commission ('**NEAFC**'). OSPAR and each of these three RFMOs will be discussed in turn. (The three RFMOs are also considered in Part 3 below, and the NEAFC is further discussed in Part 4 below.)

[32] LOSC, Art 77(4).
[33] LOSC, Art 77(4).
[34] 2006 report, paras 225–231.

OSPAR

Article 4(1) of Annex V to the OSPAR Convention states that:

> In accordance with the penultimate recital of the [OSPAR] Convention, no programme or measure concerning a question relating to the management of fisheries shall be adopted under this Annex. However where the [OSPAR] Commission considers that action is desirable in relation to such a question, it shall draw that question to the attention of the authority or international body competent for that question. Where action within the competence of the Commission is desirable to complement or support action by those authorities or bodies, the Commission shall endeavour to cooperate with them.

It is notable that the above provision prohibits the adoption of fisheries management programmes or measures 'under this Annex', i.e. under Annex V. This raises the question whether, despite Annex V, fisheries management programmes or measures could be adopted under the OSPAR Convention *other than* under Annex V. The other annexes to the OSPAR Convention are concerned with matters unrelated to fisheries management (although Annex II, on dumping and incineration, deals, *inter alia*, with fish waste). However, the OSPAR Convention sets out some important general obligations in Article 2 that, arguably, are broad enough to cover fisheries management measures. A counter-argument to reliance on Article 2 as a basis for fisheries management measures is provided by the 12th recital of the preamble to the OSPAR Convention which recognises that 'questions relating to the management of fisheries are appropriately regulated under international and regional agreements dealing specifically with such questions'. This report will not seek to elaborate on, let alone resolve, this matter. Instead, the working assumption will be adopted that OSPAR does *not* have powers to adopt fisheries management measures.

ICCAT

The ICCAT was established by the 1966 International Convention for the Conservation of Atlantic Tunas ('**the ICCAT Convention**'), which entered into force in 1969. Amendments to this convention were adopted in 1984

and 1992, and these entered into force in 1997 and 2005 respectively. The geographical scope of the ICCAT Convention comprises 'all waters of the Atlantic Ocean, including the adjacent Seas'.[35] Its material scope consists of 'the populations of tuna and tuna-like fishes' found in such waters.[36] The objective of the ICCAT Convention is to maintain 'the populations of these fishes at levels which will permit the maximum sustainable catch for food and other purposes'.[37] The ICCAT currently has 48 members;[38] those which are also OSPAR members are as follows: the EU, France (in respect of Saint Pierre and Miquelon), Iceland, Norway and the UK (in respect of several of its overseas territories).

The ICCAT may make 'recommendations' designed to achieve the ICCAT Convention's objective.[39] Such recommendations are binding on the ICCAT's members, except for any member that has presented an objection.[40] Furthermore, the ICCAT's members agree to 'take all action necessary to ensure the enforcement' of the ICCAT Convention.[41] In practice, over the years, the ICCAT has adopted numerous conservation and management measures, including compliance measures, in the form of recommendations. Some of these relate to protection of the wider environment.[42]

As well as the ICCAT acting on its own initiative to adopt conservation and management measures, it is conceivable that OSPAR might, pursuant to Article 4(1) of Annex V to the OSPAR Convention (see above), consider that action is desirable in relation to management of fisheries for tuna or tuna-like species and draw this to the attention of the ICCAT. This situation might arise if, for example, tuna fisheries were taking a high bycatch of one or more species for which an OSPAR high seas MPA had been designated. To the author's knowledge, OSPAR has not, to date, invoked Article 4(1) in relation to the ICCAT.

[35] ICCAT Convention, Art I.
[36] ICCAT Convention, preamble.
[37] ICCAT Convention, preamble.
[38] Source: website of the ICCAT.
[39] ICCAT Convention, Art VIII(1)(a).
[40] ICCAT Convention, Art VIII(2) and (3).
[41] ICCAT Convention, Arts VIII(1)(a) and IX(1).
[42] e.g. ICCAT Recommendation 2007-07 regarding seabird bycatch.

Whether the ICCAT acts on its own initiative or in response to a request from OSPAR, the ICCAT's management measures may relate only to fisheries for tuna and tuna-like species (see above). Assuming that any fishing for such species on the high seas, including any illegal or unregulated fishing, is conducted by gears that do not affect the seabed and because such species themselves are clearly not 'sedentary species' as defined in Article 77 of the LOSC, it seems unlikely that any management measures adopted by the ICCAT in relation to the high seas, including in any OSPAR high seas MPA located above the outer continental shelf of a coastal State, would create any significant constraint on the ability of the coastal State to exercise its sovereign rights regarding sedentary species on the subjacent continental shelf.

NASCO

The NASCO was established by the 1982 Convention for the Conservation of Salmon in the North Atlantic Ocean ('**the NASCO Convention**'), which entered into force in 1983. The NASCO Convention applies to 'the salmon stocks which migrate beyond areas of fisheries jurisdiction of coastal States of the Atlantic Ocean north of 36°N latitude throughout their migratory range'.[43] The objective of the NASCO is to 'contribute through consultation and co-operation to the conservation, restoration, enhancement and rational management of salmon stocks subject to this Convention …'.[44] The NASCO's membership currently comprises Canada, Denmark (in respect of the Faroe Islands and Greenland), the EU, Norway, the Russian Federation and the USA.[45] The website of the NASCO states that 'Iceland withdrew from NASCO with effect from 31 December 2009 because of financial considerations, but has indicated that it intends to re-accede to the Convention when the economic situation improves'.

From the point of view of the high seas, the principal conservation and management measure applicable to NASCO members is established by the NASCO Convention itself. Thus Article 2(1) of the NASCO Convention states that '[f]ishing of salmon *is*

[43] NASCO Convention, Art 1(1).
[44] NASCO Convention, Art 3(2).
[45] Source: website of the NASCO.

prohibited beyond areas of fisheries jurisdiction of coastal States' (emphasis added).[46] Thus salmon fishing is prohibited in the high seas (including the high seas superjacent to any outer continental shelf). Beyond restrictions imposed by the NASCO Convention itself, the only NASCO regulatory measures currently in force relate to the Faroese salmon fishery and the West Greenland salmon fishery.[47]

The prohibition in Article 2(1) of the NASCO Convention on salmon fishing in the high seas does not necessarily mean that the NASCO itself would adopt no management measures for the high seas. After all, it may be necessary to undertake research and monitoring on salmon in the high seas and it is, of course, necessary to enforce the prohibition that Article 2(1) establishes. Appropriate management measures on such matters may therefore be necessary, either at the initiative of the NASCO or, conceivably, pursuant to a request to the NASCO from OSPAR under Article 4(1) of Annex V to the OSPAR Convention (see above). The author is not aware of OSPAR ever having made a request to the NASCO pursuant to Article 4(1).

Whether the NASCO acts on its own initiative or in response to a request from OSPAR, the NASCO's management measures may relate only to fisheries for salmon (see above). Therefore, assuming that any salmon fishing on the high seas, including any illegal or unregulated fishing, is conducted by gears that do not affect the seabed and because salmon itself is clearly not a 'sedentary species' as defined in Article 77 of the LOSC, it seems unlikely that any management measures adopted by the NASCO in relation to the high seas, including in any OSPAR high seas MPA located above the outer continental shelf of a coastal State, would create any significant constraint on the ability of a coastal State to exercise its sovereign rights regarding sedentary species on the subjacent continental shelf.

[46] See also NASCO Convention, Art 2(2), which, with certain exceptions regarding West Greenland and the Faroe Islands, states that '[w]ithin areas of fisheries jurisdiction of coastal States, fishing of salmon is prohibited beyond 12 nautical miles from the baselines …'.
[47] Source: website of the NASCO.

NEAFC

The NEAFC was established by the 1980 Convention on Future Multilateral Cooperation in North-East Atlantic Fisheries ('**the NEAFC Convention**'), which entered into force in 1982. The website of the NEAFC states that 'amendments to the [NEAFC Convention] have been adopted in 2004 and 2006 by the NEAFC Commission'. These amendments were, *inter alia*, aimed at better reflecting the UN Fish Stocks Agreement and modern concepts of ocean governance. The website adds that 'contracting parties have agreed to use the "new" convention on a provisional basis, pending ratification'. The NEAFC's membership currently comprises Denmark (in respect of the Faroe Islands and Greenland), the EU, Iceland, Norway and the Russian Federation.[48]

Because of the agreement on provisional application mentioned in the previous paragraph, the amended NEAFC Convention will be considered here. The objective of the amended NEAFC Convention is to 'ensure the long-term conservation and optimum utilisation of the fishery resources in the Convention Area, providing sustainable economic, environmental and social benefits'.[49] The term 'fishery resources' means 'resources of fish, molluscs, crustaceans *and including sedentary species*, excluding, in so far as they are dealt with by other international agreements, highly migratory species listed in Annex I of the United Nations Convention on the Law of the Sea of 10 December 1982, and anadromous stocks' (emphasis added).[50]

The express inclusion of sedentary species within the meaning of the term 'fishery resources' was a result of the 2006 amendments. Prior to those amendments, sedentary species were expressly excluded from the meaning of the term 'fishery resources': the 'old' Convention applied 'to all fishery resources of the Convention Area *with the exception of … sedentary species*, i.e. organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil …' (emphasis added). It can be seen that the 'old' NEAFC Convention drew its definition of

[48] Source: website of the NEAFC.
[49] Amended NEAFC Convention, Art 2.
[50] Amended NEAFC Convention, Art 1(b).

sedentary species word-for-word from Article 77 of the LOSC (see above). It is notable that, in contrast, the amended NEAFC Convention does not qualify its reference to sedentary species with this, or any other, definition.

The NEAFC is to perform its functions in order to fulfil the objective of the amended NEAFC Convention.[51] The NEAFC may, by a qualified majority, make 'recommendations' in relation to 'fisheries conducted *beyond* areas under the jurisdiction of Contracting Parties' (emphasis added). Such recommendation are enabled by Articles 5, 8(1) and 9(1) of the amended NEAFC Convention; they become binding on NEAFC members,[52] except as provided for in Article 12(2) of the amended NEAFC Convention. Under Article 12(2), a recommendation does not become binding on a member that has objected to the recommendation within a specified period and does not become binding on any member at all (unless they agree otherwise) if three or more members have objected to it.

In practice, over the years, the NEAFC has adopted numerous recommendations on fisheries conservation and management that have become binding on NEAFC members in respect of fisheries conducted beyond areas under their jurisdiction. Some of these recommendations relate to protection of the wider environment (for example, see further Part 4 below in relation to vulnerable marine ecosystems). OSPAR is also keenly aware of its power under Article 4(1) of Annex V to the OSPAR Convention (see above) in relation to the NEAFC (see further section 3.2 below).

The NEAFC may also make recommendations in relation to 'fisheries conducted *within* an area under the jurisdiction of a Contracting Party' (emphasis added). Such recommendations are enabled by Articles 6, 8(2) and 9(2) of the amended NEAFC Convention. However, the NEAFC may only do so 'provided that the Contracting Party in question so requests and the recommendation receives its affirmative vote'.[53] Thus a member of the NEAFC may, if it wishes, prevent a recommendation from applying to fisheries conducted within areas under its jurisdiction by not requesting

[51] Amended NEAFC Convention, Art 4(1).
[52] Amended NEAFC Convention, Art 12(1).
[53] Amended NEAFC Convention, Art 6(1), 8(2) and 9(2).

the recommendation or not voting for it. The rights of the coastal State just described are supplemented by Article 12(3) of the NEAFC Convention. Under Article 12(3), in the case of a recommendation adopted in relation to fisheries conducted within an area under the jurisdiction of a NEAFC member, *only* that member may object to the recommendation. If such an objection is validly made, the recommendation does not become binding on any member at all.

The important procedural rights of NEAFC members in their capacity as coastal States, as discussed in the previous paragraph, raise the question of what is meant by the phrase 'fisheries conducted within an area under the jurisdiction of a Contracting Party'.

In the case of the water column and seabed out to 200 nm from the baseline of a NEAFC member, assuming that the NEAFC member in question has claimed an exclusive economic zone ('**EEZ**') or an exclusive fishing zone ('**EFZ**'), *all* fisheries within that 200 nm limit may be regarded as 'conducted within an area under the jurisdiction of a Contracting Party'. This is because the EEZ or EFZ will provide coastal State jurisdiction for fisheries for all *non-sedentary* species out to 200 nm and the legal continental shelf will provide coastal State jurisdiction for fisheries for all *sedentary* species.[54] Therefore, assuming that a NEAFC member has claimed an EEZ or EFZ, any prospective NEAFC recommendation applying to fisheries conducted within 200 nm from that member's baseline will, in respect of such application, require that member's request and affirmative vote as well as an absence of objection by that member.

In the case of the outer continental shelf, the situation is more complicated and less clear. The amended NEAFC Convention makes no express reference, in its preamble or otherwise, to coastal State jurisdiction in the context of the outer continental shelf. Indeed it suggests a focus on coastal State jurisdiction out to (only) 200 nm, since the first recital of its preamble, whilst silent about the outer shelf, refers to the north-east Atlantic coastal States having 'extended their jurisdiction over the living resources of their adjacent waters *to limits of up to two hundred nautical miles from the baselines*

[54] LOSC, Arts 56(1)(a), 68 and 77.

…' (emphasis added). Other parts of the preamble to the NEAFC Convention were changed in the amendment process, but the first recital, including its silence about the outer shelf, remained unchanged despite the clear broadening of the material scope of the amended Convention to include sedentary species. Perhaps the systematic replacement of the term 'fisheries jurisdiction' in the 'old' Convention with the more generic term 'jurisdiction' in the amended Convention[55] was intended to better accommodate the concept of the outer shelf, but, if so, this is not entirely obvious.

Overall, however, it is strongly arguable that the phrase 'an area under the jurisdiction of a Contracting Party', as used in the amended NEAFC Convention, *does* include the outer continental shelf of a party, and hence that the words 'fisheries conducted within' such an area include those fisheries conducted within the outer shelf in respect of which the coastal State has sovereign rights, i.e. fisheries for sedentary species. In other words, it is strongly arguable that the phrase 'fisheries conducted within an area under the jurisdiction of a Contracting Party', as used in the amended NEAFC Convention, includes fisheries conducted for sedentary species on the outer shelf. An interesting question is whether the words 'fisheries conducted within' the outer shelf *also* mean fisheries for non-sedentary species using gear that contacts the seabed of the outer shelf. However, in the time available, this report will not seek to resolve this matter.

In conclusion, on the basis of (a) the procedural rights offered to coastal States by virtue of Articles 6, 8(2), 8(3) and 12 of the amended NEAFC Convention regarding NEAFC recommendations concerning 'fisheries conducted within an area under the jurisdiction of a Contracting Party' and (b) the interpretation of the phrase 'fisheries conducted within an area under the jurisdiction of a Contracting Party' proposed in the preceding paragraph, it is strongly arguable that a NEAFC member may, if it chooses to exercise the said procedural rights, avoid its ability to exercise its sovereign rights to exploit sedentary species on the outer shelf being constrained by the NEAFC. (See further Part 4 below for discussion of a recent NEAFC recommendation, and how this recommendation appears to deal with those areas of

[55] See Arts 5(1), 5(2)(a) and (b), 6(1), 8(1) and (2), 9(1) and (2), 12(3), 13(2), 15(1), 18 and 20(2).

seabed that are both protected by the recommendation and included within NEAFC members' respective submissions to the CLCS.)

2.3 Mining for seabed mineral resources

This section will consider mining for mineral resources located on or under the seabed. The exploitation of such resources may involve a ship, sometimes with a remotely operated vehicle, or an artificial island, installation or structure. Prior exploration may involve, *inter alia*, the use of seismic surveys (involving the use of airguns) and sonar.

Under Article 77 of the LOSC, a coastal State has exclusive sovereign rights to explore its continental shelf and to exploit the shelf's natural resources.[56] The 'natural resources' of the shelf include, *inter alia*, 'the mineral and other non-living resources of the seabed and subsoil'.[57] Thus only the coastal State may permit the exploitation of mineral resources on its continental shelf. Despite this, it is relevant to consider whether or how OSPAR may potentially constrain the exercise by an OSPAR member of its sovereign rights under Article 77, in the case where a high seas MPA comprising only the water column overlies the extended shelf of that OSPAR member.

A water column MPA, depending on its conservation objectives, is potentially susceptible to impacts from exploration and exploitation of mineral resources on the subjacent continental shelf. In particular, impacts might arise from accidental or operational pollution. In principle, OSPAR may be interested in protecting a water column MPA from the impacts of pollution, including pollution arising from exploration and exploitation of mineral resources on the subjacent continental shelf. It should be noted that under both the LOSC and the OSPAR Convention, the definition of the terms 'pollution of the marine environment' and 'pollution',

[56] See further, *inter alia*, LOSC, Arts 79, 80 and 81.
[57] LOSC, Art 77(4).

respectively, includes not only 'substances' but also 'energy'.[58] Thus, under both the LOSC and the OSPAR Convention, pollution may exist in the form of energy, rather than just in the form of substances.

In the time available, it is not possible to consider all aspects of the interaction between management of a water column MPA and exercise of shelf rights in respect of mineral resources. So, instead, an example will be used. The example relates to the undertaking of seismic surveys by the coastal State as a part of its exploration activities for minerals on the outer shelf. Seismic surveys are recognised as having a deleterious effect on cetaceans (whales and dolphins) in certain circumstances. Let us assume that cetaceans are a feature of the water column MPA and that minimisation of disturbance to such cetaceans is one of the MPA's conservation objectives. In principle, OSPAR may be interested in prohibiting, by means of a decision, the undertaking of seismic surveys during particular times of year in which cetaceans are present.

To the extent that the coastal State's exploration activities rely on the undertaking of seismic surveys at those times of year, a prohibition on the use of such surveys at those times would presumably be of concern to the coastal State. At this point, it is necessary to consider the way in which decisions may be adopted under the OSPAR Convention. Article 13 of the OSPAR Convention provides for two methods. The first is unanimous vote of the parties. In the current example, a unanimous vote in favour of the decision in question ('**the seismic decision**') would be unlikely because the coastal State is unlikely to be in favour of it. The second method under Article 13 is a three-quarters majority vote '[s]hould unanimity not be attainable'.[59] Of course, it is reasonable to ask whether, in practice, the OSPAR parties would be prepared to resort to a three-quarters majority vote in the circumstances of the current example, and this is considered further below. Meanwhile, the consequences of a three-quarters majority vote will be considered here.

[58] LOSC, Art 1(1)(4); OSPAR Convention, Art 1(d).
[59] There are two conditions for a three-quarters majority vote. The first has just been mentioned. The other is 'unless otherwise provided in the [OSPAR] Convention'. In the current example, something other than a three-quarters majority is not 'otherwise provided' in the OSPAR Convention.

Let us suppose that a three-quarters majority of the OSPAR members, *excluding* the coastal State, adopts the seismic decision. Article 13 of the OSPAR Convention provides some protection to the coastal State. In summary, it provides that a decision shall be binding for those parties that have voted for it and that have not notified the Executive Secretary that they are unable to accept the decision. Thus a party, such as the coastal State, will not be bound by the decision if it does not vote for it and/or if it notifies the Executive Secretary that it is unable to accept the decision. However, what would be the consequences of the seismic decision being non-binding on the coastal State? The answer would depend on the content of the decision. Let us assume that the decision were to prohibit parties from allowing their flag vessels or nationals to undertake seismic surveys in the water column MPA during the specified periods.

The coastal State would be able to carry out seismic surveys in the water column MPA. However, it would not be able to use vessels flagged to bound parties or use the services of nationals of bound parties because of the prohibition applying to those parties. If the coastal State were able to source sufficient specialised vessels and nationals from itself or from States not bound by the decision, it might be able to conduct the necessary seismic surveys. However, if it were a State without sufficient specialised vessels and nationals itself and had difficulty in sourcing these from non-bound States, it might in practice find it difficult to conduct the necessary seismic surveys.

In the event that the coastal State in practice found it difficult to conduct the necessary seismic surveys because of the seismic decision, it becomes relevant to consider the validity of the seismic decision in terms of the LOSC. As noted at the start of this section, a coastal State has exclusive sovereign rights under Article 77 of the LOSC to explore its continental shelf and to exploit the shelf's natural resources. If the coastal State were to find it difficult to conduct seismic surveys because of the seismic decision, it is arguable (a) that the seismic decision would have undermined the coastal State's ability to exercise its sovereign rights under Article 77 of the LOSC and (b) that, as a result, the seismic decision would represent a breach by those States adopting it of the coastal State's rights under Article 77. It is important to emphasise

that, at this stage, this is merely being presented as an argument. In the time available, it has not been possible to consider more fully the legal merits of the argument.

At this point, it is necessary to consider questions of practicality and politics. In particular, how likely is it that a three-quarters majority of OSPAR members would adopt a decision that, indirectly, as described above, might significantly prejudice the economic interests of a fellow OSPAR member? OSPAR members might be unwilling to take such an approach, as suggested by the fact that, to the author's knowledge, three-quarters majority voting has been used only very rarely within OSPAR to date. In particular, there might be concerns about the possibility of reciprocation in equivalent situations where one of the three-quarters majority becomes the isolated coastal State on a future occasion (because several OSPAR members potentially have outer continental shelves). However, against this, there is the point that OSPAR might want to be seen to be effectively protecting the water column MPA in order to avoid being perceived as an ineffective management body.

At first sight, it is tempting to seek to make a distinction between, on the one hand, a decision that seeks to regulate an activity, such as seismic surveys, taking place in the water column MPA itself and, on the other hand, one that seeks to regulate an activity, such as drilling, taking place on the subjacent continental shelf. There might be a feeling among certain members of OSPAR that a measure in the former category had more political legitimacy, on the grounds that the activity in question originated in the water column, which is itself an MPA. However, it is important to point out that whether the activity subject to the decision takes place in the water column or on the subjacent shelf, the argument made above about compatibility with Article 77 of the LOSC applies so long as that activity is necessary for the coastal State to exercise its sovereign rights.

If a three-quarters majority of OSPAR members were to adopt the seismic decision, it is also relevant to consider Article 208 of the LOSC. Article 208 is entitled 'Pollution from seabed activities subject to national jurisdiction'. It places coastal States under an obligation to 'prevent, reduce and control pollution *of the marine environment*

arising from or in connection with seabed activities subject to their jurisdiction and from artificial islands, installations and structures under their jurisdiction …' (emphasis added).[60] It is notable that the duty in Article 208 refers to 'the marine environment' rather than, say, to 'the continental shelf'. The scope of the duty therefore applies, *inter alia*, to the water column superjacent to the continental shelf and therefore would apply to the water column MPA in the scenario considered in this report.

Under Article 208, the 'laws, regulations and measures' adopted by the coastal State to implement the duty referred to in the previous paragraph 'shall be *no less effective* than international rules, standards and recommended practices and procedures' (emphasis added).[61] This raises the question whether, by virtue of Article 208, the seismic decision could *indirectly* end up binding the coastal State. The answer would depend on whether seismic surveys fall within the scope of Article 208 and on whether the seismic decision fell within the meaning of the phrase 'international rules, standards and recommended practices and procedures' (despite having been adopted by a three-quarters majority that did not include the coastal State).

In the time available, it is not possible to address the second of the above points. As to whether seismic surveys fall within the scope of Article 208, it can be seen that Article 208 refers to (a) 'pollution … arising from or in connection with seabed activities subject to' coastal State jurisdiction and (b) 'pollution … from artificial islands, installations and structures under' coastal State jurisdiction. The wording in Article 208 is quite specific. Assuming that seismic surveys are always conducted by vessels, they would not be covered by '(b)' above. Whether they are 'seabed' activities, and hence potentially covered by '(a)' above, depends in part on whether the adjective 'seabed' is intended to refer to the location of the activity or to the purpose of the activity (or both). If 'seabed' is intended to refer (only) to the location of the activity, it is arguable that seismic surveys are *not* subject to the duty in Article 208. However, some confusion arises from the words 'pollution … arising from or in

[60] LOSC, Art 208(1) and (2).
[61] LOSC, Art 208(3). See also LOSC, Art 214.

connection with': arguably, the words 'in connection with' provide a way of bringing seismic surveys taking place in the water column within the scope of Article 208.

In this section, mention should also be made of the IMO. The IMO is discussed at more length in section 2.1 above. In section 2.1, there was discussion of the scope for an 'area to be avoided' established by the IMO in a water column MPA to constrain a coastal State's ability to exercise its shelf sovereign rights. That discussion will not be duplicated here, but the general points made in section 2.1 above apply to mining for seabed mineral resources.

In summary, this section has considered the adoption by OSPAR of a decision prohibiting the use of seismic surveys during certain times of year in order to protect a water column MPA. Whether the exercise by a coastal State of its procedural rights under Article 13 of the OSPAR Convention would prevent the coastal State being affected in practice by such a decision would depend on the content of the decision and other circumstances. It is arguable that an OSPAR decision that undermined a coastal State's ability to exercise its sovereign rights under Article 77 of the LOSC would represent a breach of Article 77. In practice, it is anyway questionable whether a three-quarters majority of OSPAR members would be willing to adopt a decision that might significantly prejudice the economic interests of a fellow OSPAR member. This section has also considered the application of Article 208 of the LOSC: questions arise about whether seismic surveys fall within the scope of Article 208 and whether an OSPAR decision adopted by a three-quarters majority excluding the coastal State could validly set the minimum standards for the 'laws, regulations and measures' of the coastal State required by Article 208. Brief mention is also made of the IMO, with a cross-reference to the fuller discussion in section 2.1 above.

2.4 Cable laying

Under Article 77 of the LOSC, a coastal State has exclusive sovereign rights to explore its continental shelf and to exploit the shelf's natural resources. The 'natural resources' of the shelf include, *inter alia*, 'the mineral and other non-living resources

of the seabed and subsoil'.[62] It seems reasonably clear that the 'non-living resources of the seabed' do *not* include the continental shelf's seabed itself in its capacity as a platform for cables, not least because Article 79 of the LOSC (see below) contains rights for third States that are incompatible with the concept of coastal State exclusivity in that respect.

Of course, some cable laying on the continental shelf may well relate to the exercise by a coastal State of its shelf sovereign rights. For example, installations related to exploitation of mineral resources on the shelf may need to be connected to the land, or to each other, by cables. This is reflected in Article 79 of the LOSC, which states that nothing in Part VI of the LOSC, on the continental shelf, affects the coastal State's 'jurisdiction over cables … constructed or used in connection with the exploration of its continental shelf or exploitation of its resources …'.[63] Thus the laying of cables 'constructed or used in connection with' the exercise by a coastal State of its shelf sovereign rights may be seen as a product of such rights and, as can be seen above, the LOSC acknowledges that the coastal State has 'jurisdiction' over such cables.

This section will consider cables *other than* those 'constructed or used in connection with' the exercise by a coastal State of its continental shelf sovereign rights. This is because discussion of cables associated with shelf sovereign rights would involve a good deal of duplication with section 2.3 above, which is about an activity (mining) that falls fully within a coastal State's shelf sovereign rights. Strictly speaking, discussion of cables that are not a product of the shelf sovereign rights of the coastal State falls outside the scope of this report (see Part 1 above). However, such cables do raise some points of interest and these are discussed below.

The principal types of cable that are not constructed or used in connection with the exercise by a coastal State of its shelf sovereign rights are long-distance cables relating to telecommunications and power transmission. However, this section will focus on long-distance *telecommunications* cables, on the basis that (a) the author is unaware of any long-distance power transmission cables, actual or proposed, crossing

[62] LOSC, Art 77(4).
[63] LOSC, Art 79(4).

the seabed beyond 200 nm in the OSPAR maritime area and (b) long-distance power transmission cables are perhaps anyway unlikely to cross the outer shelf in view of its distance offshore.

Article 79 of the LOSC establishes the regime relating to cable laying on the continental shelf, and makes no distinction between the shelf within 200 nm and the outer shelf. The high seas freedom to lay submarine cables referred to in the LOSC is stated to be subject to, *inter alia*, Article 79.[64] As already noted above, Article 79 contains a provision acknowledging that nothing in Part VI of the LOSC, and hence nothing in Article 79 itself, affects a coastal State's jurisdiction over cables constructed or used in connection with its exercise of its shelf sovereign rights. Article 79 seeks to strike a balance between the interests of the coastal State (in respect of its continental shelf) and the interests of third States that may wish to use that part of the seabed comprising the shelf as a platform for laying a cable. Its basic proposition is that '[a]ll States are entitled to lay submarine cables … on the continental shelf, in accordance with the provisions of this article'.[65]

The balance struck in Article 79 delimits the extent to which a coastal State has a say over (a) the laying of cables and (b) the course they may take over the seabed. Article 79 states that a coastal State may not impede the laying of cables, '[s]ubject to its right to take reasonable measures for the exploration of the continental shelf, the exploitation of its natural resources and the prevention, reduction and control of pollution from pipelines'.[66] Thus the LOSC acknowledges the coastal State's shelf sovereign rights and seeks to safeguard the coastal State's ability to exercise these. Beyond this, however, the coastal State's rights are somewhat limited. Whilst Article 79 requires delineation of the course of *pipelines* on the shelf to be subject to coastal State consent,[67] it contains no equivalent provision in respect of cables. The implication is that delineation of the course of cables on the shelf is not subject to coastal State consent.

[64] LOSC, Art 87(1)(c).
[65] LOSC, Art 79(1).
[66] LOSC, Art 79(2).
[67] LOSC, Art 79(3).

Things may be different if a cable is to enter the territory or territorial sea of a coastal State. Article 79 states that nothing in Part VI of the LOSC, and hence nothing in Article 79 itself, affects a coastal State's right 'to establish conditions for cables … entering its territory or territorial sea'.[68] It is not clear what 'conditions' may be established in such circumstances. For example, it is not clear whether, if a cable passing over the shelf is to enter the territory or territorial sea, the relevant coastal State may impose conditions on the route that the cable is to take over the shelf. Further research would be needed to understand better what types of 'conditions' are permissible under Article 79.

The discussion above illustrates that the options of a coastal State to have a say over the laying of a long-distance telecommunications cable on its outer shelf are limited. There are two points of leverage. For a cable that is *not* entering its territory or territorial sea, the coastal State may invoke some ability to impede the laying of the cable on account of 'its right to take reasonable measures for the exploration of the continental shelf, the exploitation of its natural resources and the prevention, reduction and control of pollution from pipelines' (see above). For a cable that *is* entering its territory or territorial sea, it may additionally invoke its right to establish conditions for cables (subject to the meaning of 'conditions', as noted in the previous paragraph).

For a cable that is *not* entering its territory or territorial sea, and hence in which the coastal State may not have a vested interest other than wishing to safeguard its ability to exercise its sovereign rights, the interests of the coastal State and those of OSPAR may potentially coincide regarding the protection of a water column MPA superjacent to the outer shelf. The discussion of the powers of OSPAR in the 2006 report,[69] if applied *mutatis mutandis* to the outer shelf, is therefore potentially relevant in this regard.

For a cable that *is* entering the territory of a coastal State, the situation is different. The cable would presumably be entering the coastal State's territory either because

[68] LOSC, Art 79(4).
[69] 2006 report, paras 58–77.

the coastal State wished to enjoy access to the cable's services (i.e. access to telecommunications links) or in order to charge a fee for being the landing point that enables access by the cable to a broader market (or both). In those circumstances, the interests of the coastal State and those of OSPAR may not coincide: the coastal State wishes to promote the cable laying across its outer shelf en route to its territory whilst OSPAR wishes to protect the water column MPA superjacent to the outer shelf. It is this scenario that will be explored further in the remaining part of this section.

A water column MPA, depending on its conservation objectives, is potentially susceptible to impacts from cable laying on the subjacent continental shelf. To take an example from the United Nations document referred to in the 2006 report, '[b]ottom-founded undersea cables may … generate electromagnetic fields and there are concerns that they may effect wildlife'.[70] However, a recent report prepared for OSPAR suggests that electromagnetic effects are confined to power transmission cables, rather than telecommunications cables.[71] A threat to the water column might also arise from, say, the suspension of sediment caused by the cable laying activity, especially if this involved digging a trench though contaminated sediment. In addition, there is the threat posed by operational or accidental pollution from vessels laying the cable or maintaining it.

For the sake of argument, it will be assumed that OSPAR, with the exception of the coastal State promoting the cable, wishes to prohibit, by means of a decision, the participation by its members in cable laying on the outer shelf subjacent to the water column MPA. The procedures for adopting decisions under the OSPAR Convention have already been discussed in section 2.3 above. If the decision in question ('**the cables decision**') were to be adopted by a three-quarters majority of the OSPAR members, excluding the coastal State, the same points made in section 2.3 above about the 'seismic decision' would apply to the cables decision: i.e. the coastal State need not be bound by the cables decision but potentially it could still be affected by that decision through practical considerations (e.g. by the availability of cable laying ships).

[70] 2006 report, para 28, which refers to United Nations document A/59/62/Add. 1, para 234.
[71] Merck, T and Wasserthal R, *Assessment of the environmental impacts of cables*, 2009, p 8, Table 1.

In contrast to mining for seabed mineral resources, discussed in section 2.3 above, it is doubtful whether a valid argument could be mounted by the coastal State for breach of Article 77 of the LOSC in respect of the cables decision. This is because, as noted above, the cable in question would not be one constructed or used in connection with the exercise by a coastal State of its continental shelf sovereign rights. (That is not to say that other possible grounds of challenge to the decision, such as perhaps under international trade law, would not arise. However, this would require further research.)

In section 2.3 above, the role of Article 208 of the LOSC, on 'Pollution from seabed activities subject to national jurisdiction', was examined in respect of seismic surveys in the context of mining for seabed mineral resources. The question arises whether Article 208 is relevant to the laying and operation of long-distance telecommunications cables. Article 208 refers to (a) 'pollution … arising from or in connection with seabed activities subject to' coastal State jurisdiction and (b) 'pollution … from artificial islands, installations and structures under' coastal State jurisdiction. In the case of a long-distance telecommunications cable, it will assumed that '(b)' would not be relevant. The question then is whether the laying and operation of a long-distance telecommunications cable, even one that is promoted by the coastal State and ultimately lands in the coastal State, may be regarded as a seabed activity 'subject to' the coastal State's jurisdiction.

In the territorial sea or in internal waters, it seems clear that the cable would be 'subject to' the coastal State's jurisdiction, because of the coastal State's territorial sovereignty in those areas. On the continental shelf, however, the situation is less clear. In the time available, it is not possible to resolve this matter. However, *if* laying and operation of a long-distance telecommunications cable on the continental shelf of a coastal State were indeed 'subject to' the coastal State's jurisdiction, the coastal State would be under a duty, pursuant to Article 208, to 'prevent, reduce and control pollution of the marine environment arising from or in connection with' that cable. The question raised in section 2.3 above about whether an OSPAR decision adopted by a three-quarters majority excluding the coastal State could in turn validly

set the minimum standards for the 'laws, regulations and measures' of the coastal State would then apply to the cables decision.

Mention should also be made here of the IMO. The IMO is discussed at more length in section 2.1 above. In section 2.1, there was discussion of the scope for 'an area to be avoided' established by the IMO in a water column MPA to constrain a coastal State's ability to exercise its shelf sovereign rights. The question arises whether an area to be avoided established by the IMO could validly restrict cable laying that, whilst not an exercise of the coastal State's shelf sovereign rights, is still in the interests of the coastal State.

In this respect, it is relevant to recall from section 2.1 above that Chapter V in the SOLAS Convention does not apply to 'ships owned or operated by a Contracting Government and used only on Government non-commercial service' and, furthermore, that there is scope under regulation V/10 for routeing systems to be applied to 'certain categories of ships' or 'ships carrying certain cargoes' rather than necessarily to 'all ships'. That the IMO has shown itself to understand the importance of cable laying specifically is demonstrated by Rule 10(l) of the 1972 Collision Regulations,[72] which exempts from certain rules regarding traffic separation schemes '[a] vessel restricted in her ability to manoeuvre when engaged in an operation for the laying, servicing or picking up of a submarine cable, within a traffic separation scheme, … to the extent necessary to carry out the operation'. However, beyond these observations, it is not possible in the time available to comment further on the question posed in the previous paragraph.

In summary, this section has focused on long-distance telecommunications cables and, in particular, on the promotion by a coastal State of the laying of such cables on its outer shelf. The section has considered the adoption by OSPAR of a decision restricting this activity in order to protect a water column MPA. Whether the exercise by a coastal State of its procedural rights under Article 13 of the OSPAR Convention would prevent the coastal State being affected in practice by such a decision would depend on the content of the decision and other circumstances. In practice, it is

[72] International Regulations for Preventing Collisions at Sea, 1972, as amended.

questionable whether a three-quarters majority of OSPAR members would be willing to adopt a decision that might significantly prejudice the economic interests of a fellow OSPAR member. This section has also considered the application of Article 208 of the LOSC: questions arise about whether the laying and operation of a long-distance telecommunications cable on the outer shelf can be regarded as a seabed activity 'subject to' a coastal State's jurisdiction and whether an OSPAR decision adopted by a three-quarters majority excluding the coastal State could validly set the minimum standards for the 'laws, regulations and measures' of the coastal State required by Article 208. The scope for an area to be avoided, adopted by the IMO in a water column MPA, to restrict cable laying on the outer shelf is also considered briefly.

2.5 Marine scientific research

Marine scientific research ('**MSR**') may take place both in the high seas superjacent to the outer shelf and on the outer shelf itself. What is more, much MSR aimed at the outer continental shelf will inevitably take place from vessels located in the high seas. The LOSC establishes a high seas freedom of scientific research, but this is expressly subject to both Part VI of the LOSC (on the continental shelf) and Part XIII (on MSR).[73] The LOSC also establishes a regime for MSR on the continental shelf (see below). In the interests of time, this section will only consider MSR that is subject to the LOSC's regime for MSR on the continental shelf; it will not consider MSR that constitutes an exercise of the high seas freedom of scientific research.

In turn, this section will focus on MSR *other than* that undertaken in connection with the exercise by a coastal State of its continental shelf sovereign rights. This is because discussion of MSR associated with such rights would involve a good deal of duplication with section 2.3 above, which is about an activity (mining) that falls fully within a coastal State's shelf sovereign rights, and with section 2.6 below (on bioprospecting). Strictly speaking, discussion of MSR on the shelf that is not a product of the shelf sovereign rights of the coastal State falls outside the scope of this

[73] LOSC, Art 87(1)(f).

report (see Part 1 above). However, such MSR does raise some points of interest and these are discussed below.

In broad terms, MSR is rather like cable laying, in that the coastal State does not have the exclusive right to conduct or regulate all MSR on the continental shelf but can, however, regulate the conduct of MSR by third States (or competent international organisations) to ensure that it does not prejudice the coastal State's continental shelf sovereign rights. In contrast to cable laying, there is no specific regime for MSR set out in Part VI of the LOSC (i.e. the Part of the LOSC dealing with the continental shelf). Instead, there are provisions on MSR in Part XIII of the LOSC, and some of these relate to MSR on the continental shelf.

Within Part XIII, the most relevant provision for the purposes of this report is Article 246. In summary, this subjects MSR projects by third States (or competent international organisations) on the continental shelf to coastal State consent but requires the coastal State to grant its consent to such projects if (a) 'normal circumstances' apply and (b) the MSR is 'to be carried out in accordance with [the LOSC] exclusively for peaceful purposes and in order to increase scientific knowledge of the marine environment for the benefit of all mankind'.[74] However, the coastal State may in its discretion withhold its consent if certain criteria are met.[75] Put briefly, most of these criteria relate to the coastal State's shelf sovereign rights and are aimed at avoiding prejudice to such rights. Of particular note, the coastal may withhold its consent if the MSR 'is of direct significance for the exploration and exploitation of natural resources …'.[76]

Article 246, in paragraph 6, also contains an important provision of specific relevance to the *outer* continental shelf: in respect of the outer shelf, the coastal State may use its power referred to in the previous paragraph to withhold consent for the conduct of MSR on the grounds that it 'is of direct significance for the exploration and exploitation of natural resources …' *only* if the MSR is to be conducted within areas that have been publicly designated by the coastal State 'as areas in which exploitation

[74] LOSC, Art 246(3). See also Art 246(1), (2) and (4).
[75] LOSC, Art 246(5).
[76] LOSC, Art 246(5)(a).

or detailed exploratory operations focused on those areas are occurring or will occur within a reasonable period of time'. If those areas have not been so designated, the coastal State may not use the above grounds to withhold its consent to the MSR.

As with some forms of cable laying (see section 2.4 above), it can be seen that for MSR that is *not* being conducted by, or on behalf of, the coastal State, and hence in which the coastal State may not have a vested interest other than wishing to avoid prejudice to its sovereign rights, the interests of the coastal State and those of OSPAR may potentially coincide regarding the protection of a water column MPA superjacent to the outer shelf. (This may particularly be the case if the public designation referred to in Article 246, paragraph 6 (see previous paragraph) has not been made.) The discussion of the powers of OSPAR in the 2006 report,[77] if applied *mutatis mutandis* to the outer shelf, is therefore potentially relevant in this regard.

For MSR that *is* being conducted by, or on behalf of, the coastal State, the situation is different. In these circumstances, the interests of the coastal State and those of OSPAR may not coincide: the coastal State wishes to see the MSR take place on its outer shelf whilst OSPAR wishes to protect the water column MPA superjacent to the outer shelf. It is this scenario that will be explored further in the remaining part of this section.

A water column MPA, depending on its conservation objectives, is potentially susceptible to impacts from MSR projects on the subjacent continental shelf. Examples from the United Nations document referred to in the 2006 report include the following:[78] (a) research vessels and equipment causing 'disturbances in the water column …, especially with frequent visits and repeated sampling of the same areas'; (b) the introduction of light, noise and heat in areas where these are absent causing 'stress to organisms in the area'; (c) 'chemical or biological contamination' having an impact on biodiversity; and (d) removal of an entire hydrothermal vent causing 'the extinction of associated fauna'. In addition, there is the threat posed by operational or accidental pollution from vessels undertaking MSR.

[77] 2006 report, paras 134–140.
[78] 2006 report, para 117, which refers to United Nations document A/60/63/Add. 1, para 174.

For the sake of argument, it will be assumed that OSPAR, with the exception of the coastal State promoting the MSR, wishes to prohibit, by means of a decision, the participation by its members in certain forms of MSR on the outer shelf subjacent to the water column MPA. The procedures for adopting decisions under the OSPAR Convention have already been discussed in section 2.3 above. If the decision in question ('**the MSR decision**') were to be adopted by a three-quarters majority of the OSPAR members, excluding the coastal State, the same points made in section 2.3 above about the 'seismic decision' would apply to the MSR decision: i.e. the coastal State need not be bound by the MSR decision but potentially could still be affected by that decision through practical considerations (e.g. by the availability of ships capable of undertaking the forms of MSR in question).

In contrast to mining for seabed mineral resources, discussed in section 2.3 above, it is doubtful whether a valid argument could be mounted by the coastal State for breach of Article 77 of the LOSC in respect of the MSR decision. This is because, as noted above, the MSR in question would not be being undertaken in connection with the exercise by a coastal State of its continental shelf sovereign rights. (That is not to say that other possible grounds of challenge to the decision would not arise. However, this would require further research.)

In section 2.3 above, the role of Article 208 of the LOSC, on 'Pollution from seabed activities subject to national jurisdiction', was examined in respect of seismic surveys in the context of mining for seabed mineral resources. The question arises whether Article 208 is relevant to MSR. Article 208 refers to (a) 'pollution … arising from or in connection with seabed activities subject to' coastal State jurisdiction and (b) 'pollution … from artificial islands, installations and structures under' coastal State jurisdiction. MSR can take many forms, and so it is possible that in some circumstances it could be covered by '(b)'. Furthermore, it is strongly arguable that MSR being conducted by, or on behalf of, the coastal State would fall under '(a)' to the extent that it was a 'seabed activity'. If the MSR is covered by either '(a)' or '(b)' (or both), the coastal State would be under a duty, pursuant to Article 208, to 'prevent, reduce and control pollution of the marine environment arising from or in connection

with' that MSR. The question raised in section 2.3 above about whether an OSPAR decision adopted by a three-quarters majority excluding the coastal State could in turn validly set the minimum standards for the 'laws, regulations and measures' of the coastal State would then apply to the MSR decision.

Mention should also be made here of the IMO. The IMO is discussed at more length in section 2.1 above. In section 2.1, there was discussion of the scope for an 'area to be avoided' established by the IMO in a water column MPA to constrain a coastal State's ability to exercise its shelf sovereign rights. The question arises whether an area to be avoided established by the IMO could validly restrict MSR that, whilst not an exercise of the coastal State's shelf sovereign rights, is still in the interests of the coastal State.

In this respect, it is relevant to recall from section 2.1 above that Chapter V in the SOLAS Convention does not apply to 'ships owned or operated by a Contracting Government and used only on Government non-commercial service' and, furthermore, that there is scope under regulation V/10 for routeing systems to be applied to 'certain categories of ships' or 'ships carrying certain cargoes' rather than necessarily to 'all ships'. However, beyond these observations, it is not possible in the time available to comment further on the question posed in the previous paragraph.

In summary, this section has focused on MSR conducted on the outer shelf by, or on behalf of, the coastal State *other than* MSR associated with shelf sovereign rights. The section has considered the adoption by OSPAR of a decision restricting certain kinds of MSR in order to protect a water column MPA. Whether the exercise by a coastal State of its procedural rights under Article 13 of the OSPAR Convention would prevent the coastal State being affected in practice by such a decision would depend on the content of the decision and other circumstances. In practice, it is questionable whether a three-quarters majority of OSPAR members would be willing to adopt a decision that might significantly prejudice the economic interests of a fellow OSPAR member. This section has also considered the application of Article 208 of the LOSC. For MSR that (a) falls within the meaning of 'seabed activities

subject to' coastal State jurisdiction or (b) is conducted from 'artificial islands, installations and structures under' coastal State jurisdiction, the question arises whether an OSPAR decision adopted by a three-quarters majority excluding the coastal State could validly set the minimum standards for the 'laws, regulations and measures' of the coastal State required by Article 208. The scope for an area to be avoided, adopted by the IMO in a water column MPA, to affect MSR on the outer shelf is also considered briefly.

2.6 Bioprospecting

As with MSR, bioprospecting may take place both in the high seas superjacent to the outer shelf and on the outer shelf itself. What is more, again as with MSR, much bioprospecting aimed at the outer continental shelf will inevitably take place from vessels located in the high seas. Bioprospecting is not mentioned in the LOSC, and the 2006 report considers how the LOSC may apply to this activity in the high seas and on the continental shelf.[79] As far as the continental shelf is concerned, the current report will assume that bioprospecting falls within the sovereign rights of the coastal State regarding its shelf, and hence that the coastal State has the exclusive right to undertake, or authorise, bioprospecting in respect of sedentary species on its shelf.

In broad terms, the various points made in section 2.3 above, regarding mining of seabed mineral resources, may be applied to bioprospecting on the shelf for sedentary species. In both cases the coastal State has an exclusive sovereign right. In principle, the scope for intervention by OSPAR in the exercise by the coastal State of both rights is broadly the same. The example of the 'seismic decision' is probably not particularly appropriate to bioprospecting, but an alternative example could be considered in its place (e.g. whereby OSPAR is concerned about the effects of the removal by bioprospecting of sedentary species on non-sedentary species in the water column MPA and so, by three-quarters majority, adopts a decision prohibiting parties from participating in bioprospecting of sedentary species on the subjacent shelf).

[79] See further 2006 report, paras 144–156 and 199–204.

In principle, a decision by OSPAR on bioprospecting aimed at protecting a water column MPA could be designed to exclude bioprospecting for sedentary species on the outer shelf of relevant OSPAR members. This would presumably make such a decision more acceptable to the relevant coastal States. However, a question then arises about enforcement: namely, how easy would it be to enforce a ban on bioprospecting for non-sedentary species if bioprospecting for sedentary species was not banned, especially in locations where these two categories of species occur in very close proximity?

Bioprospecting also invites some comparisons with fishing. In section 2.2 above, sedentary species were considered in the context of the NEAFC. A preliminary question is whether the term 'fishery resources' in the amended NEAFC Convention could be regarded as including bioprospecting resources. However, for reasons of time, this question will not be considered further here and for current purposes it will be assumed that the answer to this question is 'no'.

It should be added that the points made in section 2.1 above about the IMO are potentially pertinent to bioprospecting on the outer shelf for sedentary species.

3. Collaboration

3.1 Introduction

This part of the report will explore, for some of the activities considered in Part 2 above, possible mechanisms of collaboration between OSPAR, other relevant international organisations and the coastal State with a view to (a) facilitating protection of a water column MPA in the high seas and (b) facilitating protection of the environment of the subjacent outer continental shelf of a coastal State. The words 'collaboration' and 'cooperation' will be treated as synonymous and so will used interchangeably. In terms of international organisations, this part of the report will consider OSPAR, the NEAFC, the ICCAT, the NASCO, the IMO and the International Seabed Authority ('**ISA**'). This selection of organisations is not

comprehensive, but some selection is necessary for reasons of time. References in this part of the report to 'the coastal State' or 'a coastal State' should be taken to mean a coastal State that is a member of the above organisations (and that is also a party to the LOSC). For reasons of time, it is not possible to consider the European Union and, in particular, its competence for fisheries conservation under the Common Fisheries Policy; however, this would merit further consideration.

3.2 Facilitating protection of a high seas water column MPA

OSPAR collaboration with other international organisations

OSPAR cooperation with the NEAFC (as well as with the ICCAT and the NASCO) is relevant because water column features could be protected from fisheries impacts by appropriate management action by RFMOs. A memorandum of understanding ('**MOU**') between OSPAR and the NEAFC has been applicable since September 2008.[80] The underlying justification for the MOU is the recognition that 'NEAFC and the OSPAR Commission have *complementary competences and responsibilities* for fisheries management and environmental protection, respectively, within the North-East Atlantic including in areas beyond national jurisdiction …' (emphasis added).[81] This wording reflects Article 4(1) of Annex V to the OSPAR Convention (see section 2.2 above). It remains to be seen how effective the MOU will be in practice. However, good practice under this MOU may stimulate additional MOUs between OSPAR and each of the ICCAT and the NASCO (or possibly even a multilateral MOU between OSPAR and all three RFMOs).

As with RFMOs, collaboration between OSPAR and the IMO is relevant because certain water column features could be protected from some shipping impacts by the IMO. This is reflected by Article 4(2) of Annex V to the OSPAR Convention (see section 2.1 above). It is noteworthy that Article 4(2) places obligations on OSPAR members in terms of how they are to progress matters within the IMO. Thus, once a

[80] OSPAR Agreement 2008–4.
[81] MOU, p 2.

question concerning maritime transport has been brought by OSPAR to the attention of the IMO, '[t]he Contracting Parties who are members of the [IMO] shall endeavour to cooperate within that Organisation in order to achieve an appropriate response, including in relevant cases that Organisation's agreement to regional or local action …'. A letter on the OSPAR's website, from the IMO to OSPAR dated 30 November 1999, states that the IMO Assembly approved an 'Agreement of Co-operation' with OSPAR on 25 November 1999, whereupon it entered into force. The text of the Agreement is set out in an annex to the letter.

OSPAR cooperation with the ISA has already been discussed in the 2006 report.[82] However, that discussion was in the context of the Area. In the context of a water column MPA overlying the outer continental shelf of a coastal State, the relevance of cooperation between OSPAR and the ISA becomes reduced. Any mining on the seabed subjacent to the water column would be undertaken by, or on behalf of, the coastal State, because the seabed concerned would be within national jurisdiction. Of course, it is possible that mining in the Area, laterally adjacent to the MPA, could still affect the water column of the MPA (e.g. through sediment drift or noise) and cooperation between OSPAR and the ISA could be relevant to that degree. The latest available annual report of the Secretary-General of the ISA states that the OSPAR Heads of Delegation, in November 2008, *inter alia*, 'welcomed a suggestion to develop a [MOU] between the OSPAR Commission and the [ISA] in order to ensure appropriate coordination of measures between the two organizations'.[83]

Coastal State collaboration with international organisations

Cooperation between a coastal State and international organisations is also relevant to protecting a water column MPA. The potential for a coastal State, through the exercise of its sovereign rights regarding the outer shelf or otherwise, to affect the superjacent water column has already been discussed in Part 2 above. Thus there may be scope for fisheries for sedentary species, mining for seabed mineral resources,

[82] 2006 report, paras 99–116.
[83] *Report of the Secretary-General of the International Seabed Authority under Article 166, paragraph 4, of the United Nations Convention on the Law of the Sea*, ISBA/15/A/2, 23 March 2009, para 21 (and see also paras 19–21 generally and para 105).

cable laying, MSR or bioprospecting to affect aspects of the water column. The possible collaboration of a coastal State with OSPAR, the NEAFC (and the ICCAT and the NASCO) and the IMO will be considered in turn below. It should be noted that coastal State cooperation with the ISA is probably not relevant to protecting the water column superjacent to the coastal State's outer shelf because (a) the seabed of the outer shelf is, necessarily, not a part of the Area and (b) the water column above the outer shelf is not of direct relevance to the ISA.

Coastal State cooperation with OSPAR could take the form of either a binding or a voluntary commitment. Regarding a water column MPA, the relevant coastal State could, in principle, agree to be bound by an OSPAR decision (whether adopted unanimously or by a three-quarters majority *including* the coastal State). The possible strength and content of such a decision would depend, *inter alia*, on what activities by the coastal State are being addressed. However, it is important to bear in mind that a coastal State may well be cautious about over-committing itself to not exercising its shelf sovereign rights or its other legitimate interests. A voluntary commitment could take the form of an OSPAR recommendation, since recommendations have no binding force.[84]

Regarding coastal State collaboration with the NEAFC, the context under consideration in this section of the report is protection of the water column MPA. In practice, whether pursuant to the existing MOU mentioned above or otherwise, the NEAFC may have some form of cooperation with OSPAR in place regarding the water column MPA in question. For example, it may have agreed to adopt a suitable area closure. So the question arises whether anything could be added by coastal State collaboration with the NEAFC. Here it becomes necessary to distinguish between fisheries for sedentary species on the outer shelf and fisheries conducted pursuant to the qualified high seas freedom of fishing. Let us assume that the NEAFC area closure mentioned above covers the latter. If fisheries for sedentary species on the outer shelf were liable to affect the water column MPA, what would be the best means of collaboration to deal with this?

[84] OSPAR Convention, Art 13(5).

Could the matter be covered by cooperation between the coastal State and OSPAR? Thus, for example, could the coastal State agree to be bound by an OSPAR decision prohibiting the undertaking by the coastal State of fisheries for sedentary species on its outer shelf? As noted in section 2.2 above, Article 4(1) of Annex V to the OSPAR Convention states that 'no programme or measure concerning a question relating to the management of fisheries shall be adopted under this Annex'. An OSPAR decision of the type mentioned above, if adopted under Annex V, would be a 'measure' of the kind referred to in Article 4(1). Therefore it appears that OSPAR has precluded itself from reaching, under Annex V, a binding agreement with a coastal State under which the coastal State would agree not to conduct fisheries for sedentary species within its own jurisdiction.

Alternatively, could the matter be covered by cooperation between the coastal State and the NEAFC? There is clearly more scope here. As noted in section 2.2 above, the amended NEAFC Convention expressly covers sedentary species. A coastal State could opt for a NEAFC area closure to apply not just to fisheries conducted pursuant to the qualified high seas freedom of fishing but also to its own fisheries for sedentary species. However, as noted above regarding coastal State cooperation with OSPAR, it is important to bear in mind that a coastal State may well be cautious about over-committing itself to not exercising its shelf sovereign rights, including those regarding fisheries for sedentary species.

As far as RFMOs other than the NEAFC are concerned, i.e. the ICCAT and the NASCO, the fisheries falling within the competence of these organisations are those for tuna and tuna-like species (ICCAT) and for salmon (NASCO). The undertaking of fisheries for these species by the coastal State superjacent to the outer shelf would not be an exercise by the coastal State of its sovereign rights. Instead, regulation of such fisheries, including regulation of their impact on a water column MPA, would be a matter for the ICCAT and the NASCO – with scope for collaboration between these organisations and OSPAR (on which, see above).

There is scope for collaboration between a coastal State and the IMO. Although section 2.1 above focused on whether or how management actions by the IMO may

potentially constrain the ability of a coastal State to exercise its shelf sovereign rights, it is important to bear in mind that, for the coastal State, there could be some *positive* aspects to IMO management measures. For example, a coastal State might in some circumstances welcome an area to be avoided superjacent to its outer continental shelf if the design of that area were such that (a) the sovereign rights and other interests of the coastal State regarding its outer shelf were not prejudiced and (b) the amount of shipping above the shelf was otherwise reduced. Similarly, a coastal might welcome a 'special area' under the MARPOL Convention that meant that the amount of pollution liable to reach its continental shelf was reduced. In this respect, there is clearly scope for a coastal State to be amongst other OSPAR members working within the IMO, pursuant to Article 4(2) of Annex to the OSPAR Convention, to promote suitable shipping management measures for a water column MPA.

3.3 Facilitating protection of the subjacent outer shelf

This section assumes that the seabed of the outer continental shelf subjacent to a water column MPA, whilst not part of an MPA, contains natural features whose protection by the coastal State would be beneficial. It should be noted that the powers of a coastal State to protect seabed features located on its outer shelf are discussed in the 2006 report (in respect of cable laying, mining for mineral resources, MSR, bioprospecting and bottom-trawling).[85] This section will not repeat the discussion in the 2006 report. Instead, it will focus on possible mechanisms of collaboration between the coastal State and international organisations with a view to facilitating protection of the environment of the outer shelf subjacent to the water column MPA.

As far as cooperation with OSPAR is concerned, the mechanisms discussed in section 3.2 above regarding coastal State cooperation with OSPAR in respect of the water column MPA apply equally to the subjacent seabed.

Regarding collaboration with the NEAFC, there are at least two possible directions. The first is about ensuring that the exercise by States of their qualified freedom of

[85] 2006 report, section 3.

fishing on the high seas does not affect the seabed features in question. This could be addressed by a NEAFC closure supported by the coastal State. The second direction is about ensuring that fishing for continental shelf sedentary species does not affect (other) seabed features. In the context of collaboration with the NEAFC, this could be pursued by the coastal State expressly agreeing that a closure that otherwise related only to States exercising their qualified freedom of fishing on the high seas could *also* apply to fisheries for sedentary species on the outer shelf. Although such a closure would clearly constrain the ability of a coastal State to exercise its shelf sovereign rights regarding sedentary species, it would also mean that the closure could potentially be enforced against illegal fishing of shelf sedentary species by means of any relevant compliance measures that have been adopted by the NEAFC.

It will be assumed for the purposes of this section that fisheries falling within the competence of the ICCAT or the NASCO would not anyway affect the seabed of the outer shelf and so, for the purpose of protecting seabed features of the outer shelf, the coastal State would not need to enter into collaborative arrangements with the ICCAT or the NASCO.

Cooperation between the coastal State and the IMO could be relevant to protecting the seabed – for example with a view to reducing pollution effects on the outer shelf from shipping in the superjacent water column. Assuming that IMO measures were anyway being progressed for the superjacent water column (see section 3.2 above), the approach would be the same as for the water column: thus there is clearly scope for a coastal State to be amongst other OSPAR States working within the IMO, pursuant to Article 4(2) of Annex to the OSPAR Convention, to promote the relevant shipping management measures.

Collaboration between the coastal State and the ISA to protect seabed features of the outer shelf could be relevant if exploration or exploitation of mineral resources of the adjacent Area could affect the outer shelf (e.g. through sediment drift). One specific aspect of this is reflected in Article 142(1) and (2) of the LOSC, which relates to 'resource deposits in the Area which lie across limits of national jurisdiction', i.e. straddling deposits. For such deposits, Article 142(1) requires that activities in the

Area[86] 'shall be conducted with due regard to the rights and legitimate interests of any coastal State across whose jurisdiction such deposits lie' and Article 142(2) establishes some important safeguards for the coastal State. More generally, Article 142(3) of the LOSC states that:

> Neither this Part [i.e. Part XI of the LOSC] nor any rights granted or exercised pursuant thereto shall affect the rights of coastal States to take such measures consistent with the relevant provisions of Part XII [on protection and preservation of the marine environment] as may be necessary to prevent, mitigate or eliminate grave and imminent danger to their coastline, or related interests from pollution or threat thereof or from other hazardous occurrences resulting from or caused by any activities in the Area.

4. Interim uncertainty

This part of the report considers the period between the date of a submission by a coastal State to the CLCS and the date of the establishment by that coastal State of lawful final and binding outer limits of its outer shelf. It discusses, albeit only briefly, (a) how the lack of certainty during this interim period as to who may take action to enforce against third States may have detrimental effects on the conservation status of natural features of the seabed and (b) how this undesirable situation might be addressed.

This matter has previously been considered by the author in the 2006 report.[87] The matter is complex, and a brief consideration in this report cannot do justice to it. Fundamentally, the matter revolves around Articles 77(3) and 76(8) of the LOSC. On the one hand, Article 77(3) states that a coastal State's sovereign rights over its shelf 'do not depend on occupation, effective or notional, or on any express proclamation'. On the other hand, the outer limits of a coastal State's outer shelf may not lawfully become final and binding until the process set out in Article 76(8) has been duly completed. So although a coastal State need not claim its continental shelf in order to enjoy sovereign rights there (in contrast to an EEZ, which does have to be claimed), it

[86] This term is defined in Article 1(1)(3) of the LOSC.
[87] 2006 report, paras 247–252.

does not know with certainty the geographical extent of its outer shelf until the Article 76(8) process has been completed.

For some coastal States, completion of the Article 76(8) process may end up taking several years. So it may be several years before a coastal State knows with certainty the geographical extent of its outer shelf. One consequence of this uncertainty is a lack of clarity over *who* may take action to protect the natural features of the seabed. In particular, who may take action to protect those features against damaging activities by third States?

In some cases, this lack of certainty may not matter in practice. For example, sedentary species may be damaged by bottom trawling targeting non-sedentary species. Bottom trawling targeting non-sedentary species on the high seas is undertaken pursuant to the qualified freedom of fishing on the high seas. As such, in the north-east Atlantic, it may be regulated by the NEAFC, which may additionally use certain compliance measures against third States. A prohibition against bottom trawling for non-sedentary species in a given area of the high seas should in practice protect the sedentary species on the seabed in that area from damage by such trawling. That protection will arise irrespective of the legal status of the seabed – i.e. even while a coastal State's submission in respect of that seabed is being considered by the CLCS. (In contrast, in some other areas of the world's oceans lacking a relevant RFMO, the uncertainty would be more problematic.)

An example of this is provided by a NEAFC recommendation adopted in April 2009, which established some areas in which '[t]he use of fishing gear which is likely to contact the seafloor during the normal course of fishing operations'[88] is prohibited in order to protect vulnerable marine ecosystems. The recommendation in question is available for download on the website of the NEAFC in the 'Current Measures List', although it is presented there as still being a 'proposal' (by the EU, Denmark, Iceland, Norway and the Russian Federation, i.e. all the existing members of the NEAFC). The recommendation has, since its adoption, become binding on all NEAFC

[88] Para 1.

members.[89] That the recommendation is intended to apply (only) to fisheries conducted *beyond* areas under the jurisdiction of the NEAFC members is suggested in particular by its title, which states that the recommendation is 'in accordance with Article 5' of the NEAFC Convention: as noted in section 2.2 above, Article 5 is a legal basis for adoption of recommendations concerning 'fisheries conducted *beyond* areas under the jurisdiction of Contracting Parties' (emphasis added).

As observed in section 2.2 above, it is strongly arguable that the phrase 'fisheries conducted within an area under the jurisdiction of a Contracting Party', as used in the amended NEAFC Convention, includes those fisheries conducted within the outer shelf in respect of which the coastal State has sovereign rights, i.e. fisheries for sedentary species. On that basis, it is correspondingly arguable that the phrase 'fisheries conducted beyond areas under the jurisdiction of Contracting Parties' does *not* include outer shelf fisheries for sedentary species. If so, and if the 2009 recommendation does indeed apply only to fisheries conducted beyond areas under NEAFC members' jurisdiction, the recommendation does not apply to outer shelf fisheries for sedentary species.

Nonetheless, the recommendation includes a declaration stating that the closures are 'without prejudice' to 'any sovereign rights of Coastal States over the continental shelf in accordance with the [LOSC], including sovereign rights of Coastal States to exploit sedentary species on the continental shelf.'[90] If it is right that the recommendation does not anyway apply to outer shelf fisheries for sedentary species, the question arises as to why such a declaration is necessary. One explanation may relate to the existing period of uncertainty over the position of final and binding limits of NEAFC members' outer shelves. Thus the declaration may derive from the fact that the NEAFC members accept that a NEAFC recommendation is necessary to protect vulnerable marine ecosystems but, at the same time, wish to avoid any prejudice by such a recommendation to their legal interests in respect of those areas of seabed that are both protected by the recommendation's area closures and included within the NEAFC members' respective submissions to the CLCS.

[89] NEAFC secretariat, personal communication.
[90] Para 6.

In other cases, the lack of certainty over who make take action to protect the natural features of the seabed may be more problematic. One example is mining for seabed mineral resources. In the case of seabed beyond 200 nm from the baseline, if such seabed is not outer shelf it must instead be a part of the Area. If it is outer shelf, the coastal State has the exclusive right to undertake mining; if it is the Area, the mining is in principle regulated by the ISA. Let us suppose that a third State chooses to start exploration for minerals in the seabed beyond 200 nm. Whilst this area of seabed is subject to the workings of the Article 76(8) process mentioned above, who is entitled to enforce against the third State? Is the prospective coastal State entitled to do so? Or would the ISA be prepared to take action?

A third State may be interested in exploiting the uncertainty. Perhaps the example in the previous paragraph is rather unrealistic, because (a) exploration for seabed minerals would be a prelude to exploitation and by the time exploitation was a possibility, the status of the seabed might well have been resolved and (b) in political terms, such an action might well be rather unlikely. But what about bioprospecting or invasive MSR? Neither bioprospecting nor MSR is regulated by the ISA (in respect of the Area), but both activities are potentially subject to coastal State control.

Regarding MSR, as noted in section 2.5 above, the coastal State can limit this activity in certain circumstances. For example, it can withhold consent for MSR on the shelf that 'involves … the introduction of harmful substances into the marine environment'.[91] Such a power could help to protect the seabed. Regarding bioprospecting, as noted in section 2.6 above, it has been assumed in this report that (a) bioprospecting on the continental shelf falls within the sovereign rights of the coastal State regarding its shelf and (b) bioprospecting resources do not fall within the meaning of the term 'fishery resources' in the amended NEAFC Convention.

Let us suppose that a third State chooses to start bioprospecting or some damaging form of MSR on seabed beyond 200 nm that is included within a submission to the CLCS. Pending the outcome of the Article 76(8) process mentioned above, may the

[91] LOSC, Art 246(5)(b).

coastal State enforce against the third State? As noted above, this is a complex matter. Faced with uncertainty, the coastal State may feel more confident about taking enforcement action if the site in question is located very close to the 200 nm line (and hence perhaps more likely to be considered by the CLCS as falling within the limits of the outer shelf) than if the site is located far beyond that line. If the coastal State is not willing to take action, might it be willing to allow a regional seas agreement, such as OSPAR, to take any action that may be lawfully possible? Or might it consider that allowing the regional seas agreement to take action would be detrimental to its submission before the CLCS?

Overall, it can be seen that in certain circumstances, the lack of certainty about the legal status of seabed beyond 200 nm that is included within a submission to the CLCS could be problematic for the purposes of environmental protection of the seabed. It may mean that seabed features end up being damaged. Because the uncertainty could potentially last for several years, the damage could accrue over several years. This situation is far from satisfactory, especially when large areas of the seabed of a regional sea (e.g. the north-east Atlantic) may have been included within submissions to the CLCS. It begs a solution.

Perhaps a short term solution could be to make more use of the kind of declaration used by NEAFC members in the 2009 NEAFC recommendation referred to above. In other words, if the purpose of that declaration is indeed to seek to avoid any prejudice to coastal States' legal interests in respect of those areas of seabed that are both protected by an international organisation's management measure and included within the coastal States' respective submissions to the CLCS, could a similar kind of declaration be used in the text of OSPAR management measures intended to protect the seabed beyond 200 nm? This may merit further consideration by OSPAR, subject to clarification from those OSPAR members that are also NEAFC members as to what purpose the declaration in the 2009 NEAFC recommendation is intended to serve. Of course, in any event, the idea of using a declaration of this kind in an OSPAR management measure as a way of gaining support for that measure by the relevant coastal State would presumably only have a future if the coastal State was

anyway amenable to the nature of the restriction that would be imposed by the measure.

Regarding the longer term, in view of the fact that the period of interim uncertainty may in some cases last for several years, perhaps it is now time for the United Nations to adopt guidelines for coastal States, third States, the ISA, regional seas agreements and others on how to deal with the period prior to the establishment of final and binding limits – whether in relation to environmental protection in pressing cases or indeed more generally. Such guidelines, because of their multilateral status, would presumably help to provide confidence to States and organisations. Equally, however, they would need to strike a careful balance in their treatment of rights.