The Exclusive Economic Zone: an Instrument of National Security?

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Christopher David Swan

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Abstract

New Zealand's exclusive economic zone is one or the world's largest, and is disproportionately large compared to New Zealand's terrestrial claim. This maritime claim promises the benefit of perpetual resource exploitation, and potentially forms a useful buffer in the defence of New Zealand's terrestrial claims. As such, it would seem reasonable to consider the exclusive economic zone to be an instrument of national security. However, is this claim assured and are the expected benefits being realised?

This thesis examines New Zealand's maritime claims in the context of national security. To achieve this, it analyses the United Nations Convention on the Law of the Sea, and then comparatively assesses New Zealand's claims in the context of the New Zealand national security framework. It also examines the legitimacy and assurance of those claims.

Finally, the thesis examines the contribution to national security provided by the exclusive economic zone. In doing so, it identifies an unexpected threat to New Zealand's national security, related to the manner in which New Zealand manages matters of strategic importance.

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Introduction

On 1 April 1978, New Zealand declared sovereignty over the world's fourth largest exclusive economic zone (EEZ).[1] The right to declare sovereignty over this zone is established under the United Nations Convention on the Law of the Sea (UNCLOS). The sovereign rights afforded New Zealand include the exclusive right to exploit both the living and non-living resources contained therein. The better known resources contained within the exclusive economic zone include the wild fish stocks, the natural gas and oil reserves and the mineral deposits.[2] However, New Zealand's benefit extends beyond the exploitation of resources.

In addition to the exclusive right to exploit the EEZ's natural resources, the UNCLOS allows, and in some cases obligates, New Zealand to regulate most matters related to the management and exploitation of the EEZ. New Zealand's exercise of these rights has included a comprehensive wild-catch quota management system (QMS), based on the concept of individual transferable quota (ITQ). New Zealand also has primacy on research and development, and carries responsibility for preservation of the marine environment. Thus, New Zealand assumes a wide range of benefits and obligations by virtue of its claim to an EEZ. However, this claim comes with additional obligations.

The instrument by which New Zealand claims its EEZ – the United Nations Convention on the Law of the Sea – cannot be ratified in part. For New Zealand to claim an EEZ, it must commit to the UNCLOS in its entirety. The UNCLOS has been described as one of the world's most comprehensive agreements, and it includes almost all aspects of the maritime environment: not just the EEZ.[3] As such, the benefit derived from claiming an EEZ must be tempered against the

[1] Ministry for Primary Industries, "Fisheries: Environmental," http://www.mpi.govt.nz/fisheries/environmental (accessed 27 January, 2013); New Zealand Government, "Territorial Sea, Contiguous Zone, and Exclusive Economic Zone Act 1977," 28 (1977); New Zealand Government, "Territorial Sea and Exclusive Economic Zone Act Commencement Order 1978," 62 (1978).
[2] United Nations, "United Nations Convention on the Law of the Sea" (United Nations Conference on the Law of the Sea, New York, 1982), 40-49.
[3] Hinrichsen, Don, *Coastal Waters of the World: Trends, Threats, and Strategies* (Washington, D.C.: Island Press, 1998), 41.

consequential, and possibly unintended, consequences of accepting the wider convention.

The wider convention – although brokered by the United Nations – is essentially an international treaty. This means there is no intrinsic enforcement right other than that afforded by the convention itself. Thus, the assurance provided by the UNCLOS is determined by the degree to which it is ratified and honoured by the States of the world. Whilst many States have ratified the UNCLOS, the United States has not.[4] As such, the utility of the international treaty as the sole means by which New Zealand assures its claim to an EEZ should be questioned.

The combination of these three factors: New Zealand's disproportionately large exploitation rights, the comprehensiveness of the UNCLOS, and the questionable enforcement regime introduce the objective of this thesis. New Zealand's claim to an exclusive economic zone is disproportionately large with respect to other States of the world. As such, it is arguable that the potential exploitation dividend is such that it should economically advantage New Zealand with respect to other States. New Zealand's national security system lists "sustaining economic prosperity" as one of seven key objectives that underpin New Zealand's national security.[5] Hence, it is arguable that New Zealand's EEZ should be considered as an instrument of national security: a key asset that contributes to the well being of all New Zealanders in perpetuity.

However, the claim to an EEZ cannot be considered in isolation. If the wider implications of the UNCLOS were to seriously compromise other key national security objectives, then this would diminish the EEZ's utility as an instrument of national security. This would also be true if the EEZ did not achieve the expected economic benefits. Finally, if New Zealand has no assurance that other States will respect its claim, and it has no other means by which to enforce that claim, then this too would reduce the EEZ's utility in the context of national security.

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[4] United Nations, "Chronological Lists of Ratifications of, Accessions and Successions to the Convention and the Related Agreements as At 07 November 2012," http://www.un.org/Depts/los/reference_files/chronological_lists_of_ratifications.htm (accessed 16 January, 2013).

[5] Department of the Prime Minister and Cabinet, "New Zealand's National Security System," (2011).

This presents the purpose of this thesis. The thesis will argue that New Zealand does not manage its EEZ as an instrument of national security, because it has not taken a comprehensive and strategic approach to its maritime claims as a whole. Further, the thesis will argue that New Zealand has not evaluated those claims in the context of all of its national security objectives. This is an important topic of study, because if New Zealand does not realise the benefits of its EEZ claim, then it will be in net debt with respect to national security, potentially jeopardising the security and well being of its citizens.

Although the study of this combination of factors is relatively unique, other academic works address related issues. For example, Oliver's 2009 thesis "Could UAVs improve New Zealand's Maritime Security?" comprehensively examines the degree to which New Zealand is assuring the physical security of its maritime claims. In his conclusion, he highlights the potential value of the EEZ and notes the introduction of the protector fleet to improve surface surveillance. However, he also highlights the dearth of aerial surveillance capability, and advocates the use of unmanned aerial vehicles (UAVs) to achieve this.[6]

A significant number of other academic works have focussed on the quota management system and the sustainability of wild-catch fishing. For example, Boyd and Dewees examine the effectives of the individual transferable quota system, and conclude that it is a materially effective system and is working well for New Zealand.[7] Batstone and Sharp evaluate the evolution of the quota management system, and note the significant improvements over its predecessor.[8]

With respect to a managing the seafood industry as a whole, Bess' thesis "The Building of Strategic Capabilities for Sustainable Competitive Advantage: Case Studies in the New Zealand Seafood Industry" notes the need for the Government

[6] Oliver, Brian, "Could UAVs Improve New Zealand's Maritime Security?" (Massey University, 2009).
[7] Boyd, Rick O., and Christopher M. Dewees, "Putting Theory Into Practice: Individual Transferable Quotas in New Zealand's Fisheries," *Society & Natural Resources: An International Journal* 5, no. 2 (1992): 179-98.
[8] Batstone, C.J., and B. M. H. Sharp, "New Zealand's Quota Management System: The First Ten Years," *Marine Policy* 23, no. 2 (1999): 177-90.

to provide better overall strategic direction to industry in the form of co-management. He asserts that this is necessary to ensure the future competitiveness of the industry, and suggests that the full benefit is not currently being achieved from New Zealand fisheries resources.[9]

From a national strategy perspective, Cozens has called for, not only a comprehensive oceans policy, but also an Australasian policy. In his article, "An Australasian Oceans Policy?" he notes the increasing pressure from the northern hemisphere fishing industry and advocates the pooling of defensive resources between Australia and New Zealand.[10] Separately Greener examines the New Zealand approach to national security and questions whether a new whole of government defence establishment is required.[11]

The relatively unique nature of this thesis is partially due to its specificity to New Zealand. As such, it will draw largely on primary sources of information, for example international agreements, Government policy documents and legislation. It will also consider the assertions and statements of politicians and government officials. Academic works will be used to investigate parallels in other jurisdictions, or principles that apply in any jurisdiction.

In terms of structure, the thesis will first examine the definition of the Realm of New Zealand and the extent of the claim to an EEZ. This will include analysing the stability of its current form, and any likely transitions that will occur in the near future. The thesis will argue that New Zealand's claim is disproportionately large with respect to other States.

Having considered the definition of New Zealand and its maritime claims, the thesis will then examine the legal basis for those claims. This will be achieved by analysing the international agreement on which they are based: the United Nations Convention on the Law of the Sea. Noting that the UNCLOS must be accepted in

[9] Bess, J. Randall, "The Building of Strategic Capabilities for Sustainable Competitive Advantage: Case Studies in the New Zealand Seafood Industry" (Massey University, 2001).
[10] Cozens, Peter, "An Australasian Oceans Policy?," *Victoria Economic Commentaries* 17, no. 2 (2000): 27-34.
[11] Greener, Bethan K., "Security, Defence, Politics and the New White Paper," *New Zealand International Review* 35, no. 1 (2010): 12-15.

its entirety, the thesis will determine whether key objectives of national security have been compromised because of ratification.

Following on from the analysis of the UNCLOS, the thesis will consider the degree to which the nations of the world have accepted the UNCLOS. This is important because it will gauge the solidity of New Zealand's claims. In particular, the thesis will examine the specific case of the United States, which is yet to ratify the UNCLOS.

The thesis will then consider New Zealand's notion of national security. It will do this by analysing the national security framework, and then considering national security from the perspective of a lead agency: the Ministry of Defence and its associate, the New Zealand Defence Force. The analysis of national security will also consider climate change as a specific topic, even they it does not figure significantly in New Zealand's published national security framework.

At this point, the thesis will examine the benefits of the maritime claims in the context of the national security framework. The point of this work is to determine the national security dividend of the maritime claims. In particular, the thesis will consider the potential economic benefit of the claims and their contribution to economic prosperity.

Finally, the thesis will examine the tangible threats to New Zealand's maritime claim. This will include threats identified in the national security framework, as well as the threat posed by New Zealand's national approach to the management of its maritime environment.

The thesis will then conclude by arguing that New Zealand's claim to an exclusive economic zone *could* materially contribute to New Zealand's net national security. However, it will also argue that the expected benefits are not being achieved, and this failure is due to New Zealand's fragmented governance structure and the absence of a truly strategic national security system.

CHAPTER 1

The Realm of New Zealand and its Mariime Zones

This chapter examines the definition of the Realm of New Zealand, and its associated maritime zones. It is important to examine the definition of the Realm of New Zealand for two reasons. The first is that New Zealand's maritime claims are materially defined in reference to New Zealand's terrestrial claims. As such, changes or ambiguities in sovereign territory will reflect through to changes and ambiguity in New Zealand's maritime claims. The second reason is that the Realm of New Zealand is arguably in transition, with a number of territories heading towards independent statehood.

The Realm of New Zealand is defined in the Letters Patent Constituting the Office of Governor-General of New Zealand. The letters patent establish the office of the Governor-General and Commander-in-Chief, and define the territory over which the office resides. That territory includes: New Zealand, the Cook Islands, Niue, Tokelau and the Ross Dependency in Antarctica.[1] However, such a claim is open to challenge.

The concept of a Sovereign State is complex, as there is no tangible (discounting religious beliefs) higher power to authorise such an entity. Krasner provides a useful exposition of Statehood, recounting four distinct models: international legal sovereignty, Westphalian sovereignty, domestic sovereignty and interdependence sovereignty.[2]

Although these models are quite dissimilar, the concept of a modern state can be distilled from these definitions. Fundamentally, a modern State comprises a physical area and population, with a stable, authoritative and competent system of self-governance, which is recognised by similar but independent entities. Such recognition can be provided by military strength and/or membership of

[1] New Zealand Government, "Letters Patent Constituting the Office of Governor-General of New Zealand," 1983/225 (2006).
[2] Krasner, Stephen D., *Sovereignty: Organized Hypocrisy* (Princeton, NJ: Princeton University Press, 1999), 1-7; Toffe, Josef, "Rethinking the Nation-State: The Many Meanings of Sovereignty," *Foreign Affairs* 78, no. 6 (1999): 122-127.

international organisations that facilitate cooperative recognition. The United Nations is the entity through which most international recognition occurs, and New Zealand is a long-standing member.[3]

As a member of the United Nations New Zealand works in sympathy with its principles and resolutions, and participates in many of its committees. A particularly relevant committee is the Special Committee on Decolonisation. Decolonisation is an established principle of the charter of the United Nations. Since the formation of the United Nations in 1945, 80 countries have achieved self-governance or independence. However, 16 territories are still not self-governed.[4] Of the territories listed in the Realm of New Zealand, three have the particular attention of the United Nations.

The Cook Islands and Niue are defined as "Governments in free association with New Zealand" (or 'Trusts' as defined by the United Nations). As Trusts, these territories enjoy self-governance despite not being recognised as full members of the United Nations. In part, this stems from the responsibility that New Zealand still assumes on behalf of these territories: defence and foreign policy. However, both of these responsibilities are assumed with consent, and both territories participate in selected United Nations forums. For example, both the Cook Islands and Niue are signatories to the Law of the Sea Convention.[5] However, Tokelau does not enjoy self-governance.

Tokelau is one of 16 territories that is currently a dependency, and has been prioritised by the United Nations for self-governance. New Zealand shares this aspiration, however, Tokelau itself has rejected such a move. In a 2008 referendum, Tokelau voted to remain a New Zealand dependency. Nevertheless, self-governance is still a United Nations priority, and any decisions over future

[3] Ministry of Foreign Affairs and Trade, "New Zealand in the United Nations," http://www.mfat.govt.nz/Foreign-Relations/2-International-Organisations/United-Nations/index.php.
[4] United Nations, "The United Nations and Decolonisation: History," http://www.un.org/en/decolonization/history.shtml (accessed 13 January, 2013).
[5] United Nations, "Chronological Lists of Ratifications of, Accessions and Successions to the Convention and the Related Agreements as At 07 November 2012," http://www.un.org/Depts/los/reference_files/chronological_lists_of_ratifications.htm (accessed 16 January, 2013); United Nations, "The United Nations and Decolonisation: Trust and Non-Self-Governing Territories (1945-1999)," http://www.un.org/en/decolonization/nonselfgov.shtml (accessed 13 January, 2013).

governance have been deferred. As such, the thesis will assume that – in time – Tokelau is likely to form a government in free association with New Zealand, in a similar manner to that of the Cook Islands and Niue.[6]

The prospect of three Governments in free association with New Zealand has special relevance to the subject of this thesis. The decision to ratify the United Nations Convention on the Law of the Sea and declare an exclusive economic zone rests with each of the freely associated Governments. In turn, they will benefit from the resources derived from their declared zones. However, New Zealand will likely retain responsibility for the foreign policy and defence requirements for these extended territorial claims. This is significant, because it supports an argument that New Zealand should assume a leadership role for the collective defence of the exclusive economic zones of a number of Southwest Pacific nations, possibly including Fiji, Samoa and Tonga.

New Zealand's fourth potentially challengeable claim is that of the Ross dependency in Antarctica. New Zealand's claim to the Ross dependency predates New Zealand. The claim was enacted under the British Settlements Act in 1887, and was transferred to New Zealand has part of her decolonisation.[7] Unlike Tokelau, the United Nations does not have a view on decolonisation of the Antarctic region, as the Antarctic has no indigenous population.[8] However, the long-term basis for territorial claims in Antarctica is still uncertain.

The status of territorial claims in Antarctica is captured by the Antarctic Treaty System. The treaty itself was signed in 1959 by those nations who had an active interest in its territory. Those nations were: Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, United Kingdom, United States and the (then) Union of Soviet Socialist Republics. The treaty came into

[6] New Zealand Press Association, "Tokelau Decolonisation High on Agenda," (2008); United Nations, "Special Committee on Decolonisation Concludes Session With Adoption of Resolutions on Tokelau, New Caledonia" (General Assembly GA/COL/3244, New York, 2012).
[7] New Zealand Government, "Order in Council Under the British Settlements Act, 1887 (50 & 51 Vict C 54), Providing for the Government of the Ross Dependency," SR 1923/974 (1887).
[8] United Nations, "The United Nations and Decolonisation: Non-Self-Governing Territories," http://www.un.org/en/decolonization/nonselfgovterritories.shtml (accessed 13 January, 2013); United Nations, "The United Nations and Decolonisation: Trust and Non-Self-Governing Territories (1945-1999)."

force in 1961, when all 16 States ratified it. Since then 38 additional States have acceded to the treaty, thus providing a significant measure of international acceptance.[9]

The Antarctic Treaty contains 14 articles covering a range of agreements. In the context of this thesis, the most significant agreements are located in Articles IV, VI, VII and VIII. Article IV effectively freezes all claims as they were at the time of the agreement, whereas Articles VI, VII and VIII of the treaty deal with its physical definition, rights of inspectional and jurisdiction respectively. Under Article IV, no State was required to relinquish any claim it had made, nor were any States required to resolve any disputed claims. Article IV also prevents any future claim while the treaty is in force. As such, New Zealand's claim to the Ross Dependency is effective for at least the duration of the treaty. Further, supported by customary international law (covered later in the thesis), it is likely that other States would continue to recognise New Zealand's claim to the Ross dependency in any future Antarctic agreement.[10]

The Antarctic Treaty did not directly address the issue of resource exploitation. However, it did provide a forum whereby these issues could be subsequently agreed. These agreements are reflected in a further series of agreements including the Convention for the Conservation of Antarctic Seals (1972), the Convention for the Conservation of Marine Living Resources (1980) and the Convention for the Regulation of Antarctic Mineral Resource Activities (1988). There is also an extensive Environmental protocol (1991).[11]

The net result of these agreements is that Antarctica is now used primarily for peaceful scientific research, with very little resource exploitation other than fisheries. However, management of these fishing resources is undertaken under

[9] Ministry of Foreign Affairs and Trade, "Antarctic Treaty System," http://www.mfat.govt.nz/Foreign-Relations/Antarctica/2-Antarctic-Treaty-System/index.php (accessed 14 January, 2013); Secretariat of the Antarctic Treaty, "Parties," http://www.ats.aq/devAS/ats_parties.aspx?lang=e (accessed 14 January, 2013).
[10] Conference on Antarctica, "The Antarctic Treaty," (1959); Watts, Arthur, *International Law and the Antarctic Treaty System* (Cambridge: Grotius Publications Limited, 1992).
[11] Secretariat of the Antarctic Treaty, "Compilation of Key Documents of the Antarctic Treaty System," (2011).

the authority of the Convention for the Conservation of Marine Living Resources, which is separate from New Zealand's claim to an exclusive economic zone.[12]

Considering the evolving definition of the Realm of New Zealand, the thesis will focus on the value provided by the exclusive economic zone related to New Zealand proper. New Zealand proper includes: the North Island, South island and coastal islands, the Chatham Islands, the Kermadec Islands, the Antipodes Island Group, the Auckland Islands, the Bounty Islands, the Snares Islands and Campbell Island.[13] However, when considering the management and defence of the asset, the thesis will also include the obligations New Zealand has to its wider Realm.

The exclusive economic zone of New Zealand proper is a 4,053,049km^2 sea zone, over which New Zealand claims special rights with respect to exploration, exploitation, conservation and management of marine resources.[14] The geographic limits of the zone are specified in Part 2 of the Territorial Sea, Contiguous Zone, and Exclusive Economic Zone Act 1977, which states:

> *The exclusive economic zone of New Zealand comprises those areas of the sea, seabed, and subsoil that are beyond and adjacent to the territorial sea of New Zealand, having as their outer limits a line measured seaward from the baseline described in Section 5 and 6 and 6A of this Act, every point of which line is distant 200 nautical miles from the nearest point of the baseline.*[15]

The total land area of the Realm of New Zealand is approximately 267,710km^2, which makes the EEZ more than 15 times larger than terrestrial claim.[16]

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[12] Ministry for Primary Industries, "Fishing in the Ross Sea," http://www.fish.govt.nz/en-nz/International/Fishing+in+the+Ross+Sea.htm (accessed 14 January, 2013).
[13] Land Information New Zealand, "New Zealand Offshore Islands," http://www.linz.govt.nz/topography/topo-maps/nz-offshore-island (accessed 14 January, 2013).
[14] Blezard, R. H., "Calculated Sea Area of the New Zealand 200 Nautical Mile Exclusive Economic Zone," *New Zealand Journal of Marine & Freshwater Research* 14, no. 2 (1980), 137.
[15] New Zealand Government, "Territorial Sea, Contiguous Zone, and Exclusive Economic Zone Act 1977," 28 (1977).
[16] Central Intelligence Agency, "Country Comparison: Area," https://www.cia.gov/library/publications/the-world-factbook/rankorder/2147rank.html (accessed 25 January, 2013).

This ratio (15:1) is significantly larger than that of most other States (most States' maritime claims are smaller than their terrestrial claims). Of those States with larger maritime claims, the most significant include the United Kingdom (28:1), Portugal (19:1), France (18:1) and Japan (12:1). However, the distinguishing factor between New Zealand's claim and those of the United Kingdom and France is that New Zealand's claim is largely contiguous, and is centred on New Zealand proper.[17] This arguably makes it easier to defend, and more efficient to exploit.

These figures show that New Zealand's claim to an exclusive economic zone is disproportionately large with respect its terrestrial claim. As such, it is argued that this claim should form a significant component of New Zealand's sovereign resources, and should hence be assessed for its contribution (or otherwise) to national security.

However, since the EEZ extends beyond the sovereign territory of New Zealand, it requires the support of an international agreement. In the next chapter, the thesis will consider the implications of that agreement in its totality.

[17] Aquatic Ecosystems Research Laboratory, "Sea Around Us Project: Fisheries, Ecosystems and Biodiversity," http://www.seaaroundus.org/eez/ (accessed 10 April, 2011).

CHAPTER 2

United Nations Convention on the Law of the Sea

The international agreement that supports New Zealand's claim to an exclusive economic zone is the United Nations Convention on the Law of the Sea (UNCLOS). The UNCLOS was an international response to the twentieth century technological advances that were becoming increasingly 'at odds' with the seventeenth century "freedom of the seas" doctrine. Advances in long-distance fishing, the increased threat of pollution from oil tankers (and other transport ships), and the increasing discovery of natural resources on the seabed were all factors that prompted nations to assert sovereign rights over their surrounding seabeds and oceans.[1]

The first nation to assert significant sovereignty beyond the traditional three-mile limit was the United States. In 1945, US President Harry S. Truman declared sovereignty over all natural resources on the nation's continental shelf. This unilateral action by the United States prompted a flurry of claims from other nations: by 1967 nations from all over the world were embroiled in claims, counter-claims and sovereignty disputes over access to oceanic resources.[2] The increasing incidence of dispute prompted Malta's ambassador to the United Nations, Arvid Pardo, to call for "an effective international regime over the seabed and the ocean floor beyond a clearly defined national jurisdiction."[3] Consequently, in 1973, the United Nations convened the Third United Conference on the Law of the Sea.

The United Nations Third United Conference on the Law of the Sea lasted nine years. It concluded in 1982 with the adoption of the UNCLOS. At the time, United Nations Secretary General Perez de Cuellar described it as "possibly the most

[1] United Nations, "The United Nations Convention on the Law of the Sea: A Historical Perspective," http://www.un.org/Depts/los/convention_agreements/convention_historical_perspective.htm (accessed 24 May, 2010).
[2] Ibid.
[3] Pardo, Arvid, "Speech to the United Nations General Assembly, Twenty Second Session" New York, 1 November 1967).

significant legal instrument of this century."[4] One of the reasons for this acclaim was its comprehensiveness: the document's preamble noting, "the problems of ocean space are closely interrelated and need to be considered as a whole."[5] This point is mandated in Article 309, which states: "No reservations or exceptions may be made to this Convention unless expressly permitted by other articles of this Convention." Therefore, although Article 310 allows States to make "declarations and statements…with a view…to the harmonization of its laws and regulations with the provisions of the Convention," no State is permitted to ratify the UNCLOS in part or subject to conditions.[6]

This prohibition on partial or conditional ratification of the UNCLOS has two important implications on the utility of the UNCLOS as an instrument for New Zealand's claim for special rights over the EEZ. The first is that New Zealand must be prepared to accept the obligations and implications of the UNCLOS as a whole (the scope of which reaches far beyond the establishment of an EEZ). The second implication is that a significant majority of States, or at least all those with an interest in the New Zealand's EEZ, must also agree to and ratify the UNCLOS. Hence the thesis will now examine the UNCLOS in its entirely, in order to identify the implications and obligations presented by New Zealand's 1996 ratification.

The UNCLOS consists of 17 Parts, 9 Annexes and 2 subsequent Agreements. Part I of the UNCLOS provides an introduction, and a number of key definitions. The thesis considers each of these as they are encountered in main body of the UNCLOS.

Territorial Sea and Contiguous Zone

Part II of the UNCLOS covers the territorial sea and the contiguous zone. First, it defines the "normal baseline," which is essentially the agreed coastline of a State. The UNCLOS allows a State to extend qualified sovereignty on those waters within twelve nautical miles from its coastline (referred to as the territorial sea) and full sovereignty on those waters that fall within its coastline (referred to as the

[4] Hinrichsen, Don, *Coastal Waters of the World: Trends, Threats, and Strategies* (Washington, D.C.: Island Press, 1998), 41.
[5] United Nations, "United Nations Convention on the Law of the Sea" (United Nations Conference on the Law of the Sea, New York, 1982), 25.
[6] Ibid., 140.

internal waters). It also specifically includes sovereignty over the air space over the territorial sea, and the territorial sea's bed and subsoil. The only qualification to a State's sovereignty in the territorial sea is that it must yield the "right of innocent passage" through the territorial sea to "ships of all States."[7]

The UNCLOS allows New Zealand to constrain the right of innocent passage through the territorial sea by passing laws and enacting regulations. These constraints can exist for various purposes, including: safety, protection of infrastructure, conservation of marine-life and the maintenance of law and order. However, none of these constraints may be so constructed to "have the practical effect of denying or impairing the right of innocent passage."[8] As such, this constraint is at odds with the intent of New Zealand's nuclear free legislation.

The New Zealand Nuclear Free Zone, Disarmament, and Arms Control Act 1987 defines the "New Zealand Nuclear Free Zone" as including both the internal waters and the territorial sea. However, ratification of the UNCLOS means that New Zealand is unable to deny the right of innocent passage through the territorial sea. This limitation is reflected in the legislation, which states: "Nothing in this Act shall apply to or be interpreted as limiting the freedom of… Any ship exercising the right of innocent passage (in accordance with international law) through the territorial sea of New Zealand." Further, the legislation that prohibits the entry of nuclear propelled ships prohibits them only from the internal waters.[9] Thus, ratification of the UNCLOS means that New Zealand is unable to prevent nuclear propelled ships, or ships containing nuclear material, from exercising their right of innocent passage through New Zealand's territorial sea, despite it being part of the New Zealand nuclear free zone.

A 'true' nuclear free zone extending to the limits of New Zealand's exclusive economic zone was proposed on 25 May 2000, by Jeanette Fitzsimons. The private members bill – The New Zealand Nuclear Free Zone Extension Bill – provided for the specific prohibition of nuclear armed or propelled vessels, and

[7] United Nations, "United Nations Convention on the Law of the Sea" (United Nations Conference on the Law of the Sea, New York, 1982), 27-35.
[8] Ibid.
[9] New Zealand Government, "New Zealand Nuclear Free Zone, Disarmament, and Arms Control Act 1987," 86 (1987).

vessels carrying nuclear waste or reprocessed fuel, from New Zealand's territorial sea and exclusive economic zone. The bill was never enacted into law, being ultimately rejected on its second reading on 29 May 2002.[10] When questioned in Parliament as to why the bill was rejected, then Minister for Disarmament and Arms Control Phil Goff responded: "It had something to do with UNCLOS. It's international law, Jeanette."[11] Goff's reference to the UNCLOS highlights the conflict between the intent of New Zealand's nuclear free legislation, and the use of the UNCLOS as an assertion of sovereignty.

The assertion of sovereignty in the territorial sea also imposes obligations on New Zealand. The first obligation is to give "due publicity" to the definition of the normal baseline. This to be in the form of either suitable scaled charts or a list of geographical coordinates of points that specify the geodetic datum. Such information must also be deposited with the Secretary-General of the United Nations. Further, the imposition of constraints on the right of innocent passage, including the imposition of sea-lanes etc., must also be given due publicity.[12]

The implication of due publicity for New Zealand is that it must maintain sufficient expertise and survey capability to periodically determine, publish and defend the normal baseline (through the relevant international bodies). It must also maintain a regulatory body for managing access through and via the territorial sea. Thus, Part II of the UNCLOS reveals two important implications for New Zealand: the dilution of its nuclear free zone, and the requirement to establish and maintain expertise and capability in order to meet the requirements of due-publicity.

Part III of the UNCLOS covers straits used for international navigation. It provides for the right of transit passage for ships and aircraft, for the purpose of "international navigation between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone."

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[10] Fitzsimons, Jeanette, "New Zealand Nuclear Free Zone Extension Bill," http://www.greens.org.nz/bills/new-zealand-nuclear-free-zone-extension-bill (accessed 20 March, 2011).
[11] Goff, Phil, "New Zealand Parliament - Daily Debates," http://www.parliament.nz/en-NZ/PB/Debates/Debates/Daily/d/6/9/48HansD_20070612-Volume-639-Week-46-Tuesday-12-June-2007.htm (accessed 23 September, 2012).
[12] United Nations, "United Nations Convention on the Law of the Sea," 27-35.

The exception to this right is where the straight is formed by an island and the mainland of a State, and it would be of "similar convenience" to go around the seaward side of the island.[13] As such, the predominant impact on New Zealand is that it must allow for the right of transit passage through the Cook Strait. While this situation is similar to that of innocent passage described in Part II of the UNCLOS, the need for transit passage through Cook Strait is arguably more justified than that for casual innocent passage through New Zealand's territorial waters. This further emphasises the conflict between the intent of New Zealand's nuclear free legislation, and the use of the UNCLOS as an assertion of sovereignty.

Another significant consideration – and potential conflict – concerning the right of transit passage is the potential for Cook Strait as a generator of tidal marine energy. The New Zealand Electricity Authority has identified Cook Strait as New Zealand's primary potential tidal resource, estimating its capacity as 45MW with an ability to provide up to 39.4 GWh/year. Resource consent has been granted, and the first trial of tidal power generation in Cook Strait was expected to begin in 2011.[14] Whilst the UNCLOS allows for the declaration of sea-lanes and traffic separation schemes, this is a further potential conflict of interest that must be managed. Finally, as for Part II, Part III of the UNCLOS requires due publicity of all regulations and restrictions.

Part IV of the UNCLOS defines the archipelagic state, and outlines the special conditions that apply to such States. Essentially, it allows an archipelagic state to extend the baselines (from which the territorial sea is derived), to include those areas of water that naturally fit within the area bounded by its archipelago. Two significant special conditions apply to the resultant archipelagic waters. The first is that the archipelagic state must respect existing agreements with other States, as well as the "traditional fishing rights and other legitimate activities of immediately adjacent neighbouring States." The second significant special condition is that the

[13] Ibid., 36-39.
[14] However, as at January 2013 there is no evidence that such a trial has started; Doesburg, Anthony. "Green Light for Cook Strait Energy Generator Trial." *New Zealand Herald*, 2008. ; New Zealand Electricity Authority, "Development of Marine Energy in New Zealand," http://www.ea.govt.nz/industry/modelling/long-term-generation-development/development-of-marine-energy-in-new-zealand-2/ (accessed 20 March, 2011); New Zealand Electricity Authority, "List of Generation Projects," http://www.ea.govt.nz/industry/modelling/long-term-generation-development/list-of-generation-projects/ (accessed 20 March, 2011).

archipelagic state must allow access for maintenance and replacement of other State's submarine cables that pass through its waters.[15]

It is worth noting that the access rights for submarine cable maintenance is potentially in conflict with a State's right of cabotage: the right of a State to restrict transport services within its own region to that State's own vessels. Indonesia's Shipping Law 17/2008 is an example of such a conflict. The Indonesian law requires that non-Indonesian flagged or crewed vessels obtain a permit before they undertake various works in Indonesia's territorial waters. This restriction includes repairs to submarine cables.[16]

This point is a significant because many of the world's telecommunications cables pass through Indonesian territorial waters. Since there is no cable repair ship owned by an Indonesian entity, repairs to these cables can only be undertaken by foreign vessels under permit. The current time to obtain a permit is significantly longer than the required repair time and hence there is an unresolved threat to the availability of the world's telecommunications infrastructure.[17]

The provision for access to submarine cables is important, as submarine cables are increasingly being considered as critical national infrastructure: requiring a high degree of protection.[18] This is the first of several references to submarine cables in the UNCLOS and these references are important to New Zealand. This importance stems from New Zealand's high dependence on international telecommunications for its banking and other essential activities.[19]

The majority of New Zealand's international telecommunications are carried on the Southern Cross Cable, and this cable routes through archipelagos in Fiji and

[15] United Nations, "United Nations Convention on the Law of the Sea," 40-43.
[16] Bressie, Kent, and Madeleine Findley, "Indonesia's 2008 Shipping Law: Unintended Harms to Undersea Cable Installation and Maintenance," *Submarine Telecoms Forum* 57 (2011): 28-32.
[17] Ibid.
[18] Carter, Lionel, et al., "Submarine Cables and the Oceans – Connecting the World," *UNEP-WCMC Biodiversity Series* 31 (2009).
[19] State Services Commission, E-Government Unit, "Protecting New Zealand's Infrastructure From Cyber-Threats," (2000), 17-18.

Hawaii (avoiding Indonesia).[20] Thus, even though New Zealand is not an archipelagic State, it benefits from the provision of the UNCLOS for archipelagic States.

Exclusive Economic Zone

Part V of the UNCLOS defines the exclusive economic zone, and outlines the rights, obligations and concessions applicable to those States declaring an EEZ. The EEZ is an area that extends up to 200 nautical miles beyond the same baseline from which the territorial sea is measured. The rights afforded a coastal State declaring an EEZ are a combination of sovereign rights and jurisdiction.[21]

The sovereign rights of the coastal State in its EEZ include the exploration, exploitation, conservation and management of all living and non-living natural resources within the sea and the seabed, and all activities related to its economic exploration and exploitation. In this context, energy production from water currents and winds is cited as an example of economic exploitation. In addition to sovereign rights, the coastal State has jurisdiction over artificial islands and structures, marine scientific research and the protection and preservation of the marine environment.[22] However, these rights are tempered by the rights of other States within the coastal State's EEZ.

In a coastal State's EEZ, other States are entitled to many of the rights they enjoy within the high seas. Specifically, this includes those elements of Article 87 (freedom of the high seas) that are not overridden by the coastal State's sovereignty rights in the EEZ. These include freedom of passage and the right to lay undersea cables and pipelines. However, in exercising these rights, other States are required to have "due regard" for the rights and duties of the coastal State, abiding by all laws and regulations that are not contradicted by the

[20] Southern Cross Cables, "Southern Cross Cables Network," http://www.southerncrosscables.com/public/Network/default.cfm (accessed 27 March, 2011); TeleGeography Inc., "Submarine Cable Map," (2011).
[21] United Nations, "United Nations Convention on the Law of the Sea," 43-53.
[22] Ibid.

UNCLOS.[23] Thus, the EEZ is an area of complex governance including aspects of sovereignty, jurisdiction and high seas freedom.

Recognising the potential for disagreement resulting from this complex governance, the UNCLOS includes – as Article 59 – the "basis for the resolution of conflicts regarding the attribution of rights and jurisdiction in the exclusive economic zone." For all conflicts not related to the defined areas of sovereignty and jurisdiction, Article 59 stipulates that the conflict should be resolved "on the basis of equity." Thus – generally speaking – the party most impacted by the outcome will also be most favoured in any resolution. However, equity is not limited to the parties in conflict: Article 59 also stipulates that the interests of the international community as a whole are to be considered.[24] This is an important point, as the nutritional needs of a State are cited as an equitable consideration. However, Articles 61-68 (which prescribe the means by which the living resources will be managed) temper these needs.

Article 61 covers the "Conservation of the living resources," and specifies that the coastal State shall be responsible for determining the "allowable catch of the living resources in its exclusive economic zone." However, it also requires the coastal State to cooperate with "competent international organisations" and to consider the "best scientific evidence available to it," in order to ensure that the living resources are not endangered by over-exploitation, whilst ensuring the maximum sustainable harvest. The coastal State is also required to contribute and exchange statistics "relevant to the conservation of fish stocks."[25] Further, as outlined in Articles 63 and 64, where living resources migrate or habituate across multiple zones, the States with an interest in those resources must seek to agree on the measures required to maintain the optimum stock levels.[26]

These are all important points, as they require the coastal State to maintain scientific expertise and ongoing research, for the purpose of achieving the optimum balance between conservation and exploitation of the living resources

[23] Ibid.
[24] Ibid.
[25] Ibid., 45-46.
[26] Ibid., 47-48.

within its EEZ, and globally. The thesis will later discuss New Zealand's quota management system, which is one of the means by which New Zealand fulfils this obligation.

Article 62 allows for the exploitation of the living resources in a coastal State's EEZ by another State. It does this by requiring the coastal State to make available to other States, that proportion of the allowable catch that it does not have the capacity, or ability, to exploit itself. This places a significant emphasis on the coastal State's ability to scientifically determine the allowable catch, and to specify it in terms that may be subsequently be licensed to another State. This can include specification by species, age, size and method of harvest.[27] The implication of not maintaining this capability is that the coastal State will be unable to maximise the value of its own EEZ to itself, and may impinge on the legal right of a coastal State to even declare an EEZ.

Article 65 relates to marine mammals, and provides for a State to exclude marine mammals from the exploitation provisions: even to the point of prohibiting their exploitation at all. States are required to cooperate in the conservation of marine mammals, and – in particular – are required to work through international organisations for the conservation, management and study of cetaceans (whales, dolphins, and porpoises).[28] This is potentially significant for New Zealand, because conservation of whales is described as being an important aspect of New Zealand foreign policy.[29]

The true importance of this aspect of New Zealand foreign policy is a matter for debate. Protagonists argue that such a policy could change if there was ever any

[27] Ibid., 46-47.
[28] Ibid., 48.; Wilson, Don E., and DeeAnn M. Reeder, eds. *Mammal Species of the World: A Taxonomic and Geographic Reference* (Baltimore: John Hopkins University Press, 2005), 723.
[29] Clark, Helen, "Oxford Union - New Zealand's Foreign Policy," http://www.beehive.govt.nz/node/30838 (accessed 2 April, 2011); McCully, Murray, "New Zealand Welcomes Early End to Whaling Season," http://www.beehive.govt.nz/release/new-zealand-welcomes-early-end-whaling-season (accessed 2 April, 2011); Ministry of Foreign Affairs and Trade, "Explanation of New Zealand's Policy on Whales," http://www.mfat.govt.nz/Foreign-Relations/1-Global-Issues/Environment/7-Species-Conservation/expwhales.php (accessed 2 April, 2001); Ministry of Foreign Affairs and Trade, "New Zealand's Policy on Protecting Whales," http://www.mfat.govt.nz/Foreign-Relations/1-Global-Issues/Environment/7-Species-Conservation/whalesnzpos.php (accessed 2 April, 2011).

real cost associated with maintaining it.[30] Notwithstanding these opposing views, the UNCLOS (and the EEZ in particular) provides a mechanism by which New Zealand can exercise its foreign policy with respect to the conservation of marine mammals. However – and conversely – the UNCLOS does not prevent other States from exploiting mammals within their own EEZs, provided they pay due consideration to the requirement to prevent their extinction.[31]

In addition to their rights to exploit marine mammals within their own EEZs, countries such as Japan have used the international organisations (in particular, the International Whaling Commission) to establish a further right to exploit marine mammals for the purpose of scientific research. Such rights are established by Article VIII of the International Convention for the Regulation of Whaling, which authorises a member state to issue a permit to kill whales for scientific purposes.[32] Such a permit is valid in any region where the exploitation of marine mammals is not prohibited by a sovereign nation. Effectively, this enables Japan to continue the exploitation of marine mammals within its own EEZ as well as on the high seas: in particular, the Southern Ocean.

New Zealand has publicly objected to Japan's scientific whaling program, and these objections have the support of both major political parties. Former Prime Minister Helen Clark stated that she commends the anti whaling program, adding that she believed it "reflected the values of New Zealanders." At the same time, then leader of the opposition John Key stated that his party did not support the killing of endangered species, adding "we're pretty bipartisan with the mainstream view on our abhorrence of whaling." However, efforts to effect a change in the International Convention for the Regulation of Whaling have failed, due to the requirement to achieve a 75% majority. This led New Zealand whaling

[30] Friedheim, Robert L., ed. *Toward a Sustainable Whaling Regime* (Seattle: University of Washington Press, 2001), 215.
[31] Ibid., 53.
[32] International Whaling Commission, "International Convention for the Regulation of Whaling" Washington, 1946); International Whaling Commission, "Scientific Permit Whaling: Information on Scientific Permits, Review Procedure Guidelines and Current Permits in Effect," http://www.iwcoffice.org/conservation/permits.htm (accessed 10 April, 2011).

commissioner Sir Geoffrey Palmer to describe the International Whaling Commission as "one of the worst international organisations in the world."[33]

This opposition to Japanese whaling was such that it prompted Australia and New Zealand to investigate legal action, with a view to forcing Japan to cease its whaling programme in the Southern Ocean. However, New Zealand has subsequently backed down. New Zealand Prime Minister John Key stated that New Zealand would not support Australia's decision to continue with legal action. He conceded that such legal action carried a risk of failure, and subsequent consequences.[34] Thus – despite its strong opposition – New Zealand's ratification of the UNCLOS and the subsequent obligation to work through the International Whaling Commission, has limited New Zealand's ability to effectively challenge Japan's Southern Ocean whaling.

Articles 69-72 deal with the rights of land-locked and geographically disadvantaged States.[35] Whilst these are important issues, there are no such land-locked or geographically disadvantaged states in the proximity of New Zealand's EEZ.

Article 73 provides for the enforcement of laws and regulations by the coastal State. Significantly, it prohibits imprisonment (or any other form of corporal punishment) as a penalty for violation of the laws or regulations, unless the coastal State has entered into a specific agreement with the flag State.[36] Being a sovereign State, New Zealand's only recourse internationally is through these agreements. From New Zealand's perspective, one of the most significant issues in relation to the EEZ is that of illegal, unregulated and unreported fishing (IUU).[37] Subsequently, New Zealand's approach has been to support the United Nations

[33] Beaumont, Nathan. "PM Backs Anti-Whaling Campaign." *Dominion Post*, 2007.
[34] Bray, Garth. "NZ Won't Follow Australia's Legal Action on Whaling." *One News*, 2010.
[35] United Nations, "United Nations Convention on the Law of the Sea," 49-52.
[36] Ibid., 73.
[37] Food and Agriculture Organization of the United Nations, "Illegal, Unreported and Unregulated (IUU) Fishing," http://www.fao.org/fishery/topic/3195/en (accessed 2011, 10 April); Heatley, Phil, "NZ Signs Port State Measures Agreement to Fight Illegal, Unregulated and Unreported Fishing," http://www.beehive.govt.nz/release/nz-signs-port-state-measures-agreement-fight-illegal-unregulated-and-unreported-fishing (accessed 10 April, 2011); Ministry of Fisheries, "New Zealand Plan of Action to Prevent, Deter and Eliminate Illegal, Unregulated & Unreported Fishing," (2004), 7-9.

conventions and agreements on the same. It is significant to note that, as of December 2009, New Zealand and ninety other States are signatories to the United Nations "Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing," described as "the first ever global treaty focused specifically on the problem of IUU fishing."[38]

Article 74, "Delimitation of the exclusive economic zone between states with opposite or adjacent coasts," provides for those situations where the theoretical maximal extent of the exclusive economic zones of two States intersect. Where such a situation exists, the UNCLOS refers initially to "Article 28 of the Statute of the International Court of Justice," which effectively allows (in the first instance) for the two States to 'agree amongst themselves.'[39] There are several such situations where this intersection potentially arises. The most significant of these – where the EEZs do intersect – is in the Tasman Sea between Australia and New Zealand. The other situations are: in the Ross Sea, where New Zealand claims a dependency; in the waters surrounding Tokelau, which is still technically a territory of New Zealand; and the waters surrounding the Cook Islands and Niue, which are self-governing in free association with New Zealand.[40]

New Zealand's EEZ intersects that of Australia, in the areas between Norfolk Island and the Three Kings Island, and between Macquarie Island and the Campbell and Auckland Islands. New Zealand and Australia settled an agreement in July 2004, which came into effect on 25 January 2006 after ratification.[41] The agreement is a definitive settlement of the maritime boundaries between the two

[38] Food and Agriculture Organization of the United Nations, "New Treaty Will Leave 'Fish Pirates' Without Safe Haven," http://www.fao.org/news/story/en/item/29592/icode/ (accessed 10 April, 2011); Heatley, Phil, "NZ Signs Port State Measures Agreement to Fight Illegal, Unregulated and Unreported Fishing," http://www.beehive.govt.nz/release/nz-signs-port-state-measures-agreement-fight-illegal-unregulated-and-unreported-fishing (accessed 10 April, 2011).
[39] United Nations International Court of Justice, "Statute of the International Court of Justice," (1945); United Nations, "United Nations Convention on the Law of the Sea," 52.
[40] Aquatic Ecosystems Research Laboratory, "Sea Around Us Project: Fisheries, Ecosystems and Biodiversity," http://www.seaaroundus.org/eez/ (accessed 10 April, 2011); New Zealand Government, "Cook Islands Constitution Act 1964," 69 (1964); New Zealand Government, "Niue Constitution Act 1974," 42 (1974); New Zealand Government, "Order in Council Under the British Settlements Act, 1887 (50 & 51 Vict C 54), Providing for the Government of the Ross Dependency."; New Zealand Government, "Tokelau Act 1948," 24 (1948).
[41] "Treaty Between the Government of Australia and the Government of New Zealand Establishing Certain Exclusive Economic Zone Boundaries and Continental Shelf Boundaries," in *Law of the Sea Bulletin No.55* (New York: United Nations, 2004).

States, and is registered with the United Nations. Within New Zealand, it is enacted by the "Territorial Sea, Contiguous Zone, and Exclusive Economic Zone (Australia) Order 2005."[42] Thus, any area of potential conflict with States with opposing coastlines has been averted through the application of treaty.

Article 75, the last relating specifically to the EEZ, requires the coastal State to "give due publicity to … charts or lists of geographical coordinates" that define the outer limit of the EEZ, including the lines of delineation agreed in accordance with Article 74.[43] The Government department responsible for providing due publicity is Land Information New Zealand (LINZ).

LINZ describes its responsibilities as including "providing authoritative hydro-graphic information for navigational purposes." It achieves this by producing and publishing the official New Zealand charts, tide tables, notice to mariners and other information considered critical to navigation. It also publishes the annual Nautical Almanac for New Zealand waters, which includes the definition of the New Zealand maritime boundaries. The definition of the maritime boundaries is the joint responsibility of LINZ and the New Zealand Ministry of Foreign Affairs and Trade.[44]

Thus, LINZ is responsible for meeting obligations of due publicity with respect to both the territorial sea and the exclusive economic zone. However, as previously outlined, this requires that New Zealand must maintain sufficient expertise and survey capability in order to periodically determine, publish and defend both the normal baseline and the outer limits of the territorial sea and the exclusive economic zone.

In summary, Part V of the UNCLOS provides the legal basis by which New Zealand can benefit, by the exploitation of both living and non-living resources in

[42] Goff, Phil, "NZ, Australia Sign Treaty Settling Maritime Boundaries," http://www.beehive.govt.nz/release/nz-australia-sign-treaty-settling-maritime-boundaries (accessed 11 April, 2011); Land Information New Zealand, "The New Zealand - Australia Maritime Treaty," http://www.linz.govt.nz/hydro/projects-programmes/continental-shelf/treaty/index.aspx (accessed 11 April, 2011); New Zealand Government, "Territorial Sea, Contiguous Zone, and Exclusive Economic Zone (Australia) Order 2005," SR 2005/325 (2005).
[43] United Nations, "United Nations Convention on the Law of the Sea," 52-53.
[44] Land Information New Zealand, "LINZ's Responsibilities," http://www.linz.govt.nz/about-linz/organisation/linzs-responsibilities/index.aspx#hydro (accessed 11 April, 2011).

the exclusive economic zone. However, in doing so, New Zealand cedes to other States the right to exploit marine mammals in other zones, provided such exploitation does not threaten the survival of the species. This is contrary to New Zealand foreign policy, which calls for a global ban on the exploitation of marine mammals, and in particular, whales. The exploitation of the living resources is not exclusive, in that New Zealand must allow other States to exploit those resources not able or required to be exploited by New Zealand, provided such exploitation is undertaken in a sustainable manner. However, the exploitation of the non-living resources is exclusive, and the rights to exploit these are a complex combination of rights within the exclusive economic zone and the continental shelf.[45]

Continental Shelf

Part VI of the UNCLOS covers the continental shelf. The continental shelf of a coastal state is an area of seabed and subsoil of "the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin." Its exact definition is further qualified, and automatically includes (at a minimum) the 200 nautical mile limit of the exclusive economic zone. It also sets a maximal limit of 350 nautical miles from the baseline, as well as a 100 nautical mile limit from the 2,500m isobath.[46]

Where the continental shelf extends beyond the 200 nautical mile limit, the coastal State is required to establish the outer edge of the continental shelf and to submit this information to the Commission on the Limits of the Continental Shelf. The Commission then makes recommendations back to the coastal State, which is required to establish a final and binding limit based on these recommendations. The final limits are deposited with the Secretary General of the United Nations, who gives them due publicity. The only qualifier on this process is the delimitation of the limits of the continental shelf between States with opposing or adjacent coastlines.[47]

[45] Sharma, Satyendra Kumar, *Law of Sea & Exclusive Economic Zone* (New Delhi: Taxmann, 2008), 107-111.
[46] United Nations, "United Nations Convention on the Law of the Sea," 53-54.
[47] Ibid.

With respect to a claim for an outer continental shelf, New Zealand has opposing coastlines with Australia, France, Fiji and Tonga. New Zealand and Australia have agreed their delineation in their treaty of 2004.[48] New Zealand's submission was not challenged by France, Fiji or Tonga, on the basis that there was sufficient agreement that no party considered the New Zealand claim would prejudice future delineation of their respective claims.[49] Further, France, Australia and New Zealand have all subsequently made submissions to the United Nations, and adopted the resulting recommendations.[50] Notably, of the 55 submissions received as at 24 February 2011, only 11 have progressed to this stage, although this appears to be more a function of process, rather than an indication of territorial disputes.[51] Hence, this supports the utility of the UNCLOS as a means by which these claims are reconciled.

Article 77 of the UNCLOS extends exclusive sovereign rights to the coastal State to explore and exploit the natural resources of the continental shelf. These rights

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[48] "Treaty Between the Government of Australia and the Government of New Zealand Establishing Certain Exclusive Economic Zone Boundaries and Continental Shelf Boundaries."

[49] Government of Fiji, "A Partial Submission By the Republic of the Fiji Islands for the Establishment of the Outer Limits of the Continental Shelf of Fiji Pursuant to Article 76, Paragraph 8 of the United Nations Convention on the Law of the Sea," (2009); Government of France, "The French Continental Shelf: Partial Submission to the Commission on the Limits of the Continental Shelf Pursuant to Article 76, Paragraph 8 of the United Nations Convention on the Law of the Sea in Respect of the Areas of French Guiana and New Caledonia," (2007); Government of Tonga, "A Partial Submission of Data and Information on the Outer Limits of the Continental Shelf of the Kingdom of Tonga Pursuant to Part VI of and Annex II to the United Nations Convention on the Law of the Sea," (2009).

[50] United Nations Commission on the Limits of the Continental Shelf, *AUS Summary of the Recommendations of the Commission on the Limits of the Continental Shelf (CLCS) in Regard to the Submission Made By Australia 15 November 2004* (New York: United Nations, 2008); United Nations Commission on the Limits of the Continental Shelf, *FRA Summary of the Recommendations of the Commission on the Limits of the Continental Shelf (CLCS) in Regard to the Submission Made By France in Respect of French Guiana and New Caledonia on 22 May 2007* (New York: United Nations, 2009); United Nations Commission on the Limits of the Continental Shelf, *NZL Summary of the Recommendations of the Commission on the Limits of the Continental Shelf (CLCS) in Regard to the Submission Made By New Zealand 19 April 2006* (New York: United Nations, 2008).

[51] Boyle, Alan E., "Dispute Settlement and the Law of the Sea Convention: Problems of Fragmentation and Jurisdiction," *International and Comparative Law Quarterly* 46 (1997): 37-54; Macnab, Ron, and Lindsay Parson, "Continental Shelf Submissions: The Record to Date," *The International Journal of Marine and Coastal Law* 21, no. 3 (2006): 309-322; Macnab, Ron, "The Case for Transparency in the Delimitation of the Outer Continental Shelf in Accordance With UNCLOS Article 76," *Ocean Development & International Law* 35, no. 1 (2004): 1-17; United Nations Commission on the Limits of the Continental Shelf, "Submissions, Through the Secretary-General of the United Nations, to the Commission on the Limits of the Continental Shelf, Pursuant to Article 76, Paragraph 8, of the United Nations Convention on the Law of the Sea of 10 December 1982," http://www.un.org/Depts/los/clcs_new/commission_submissions.htm (accessed 23 April, 2011).

are further clarified in Articles 81 and 85, which relate to drilling and tunnelling respectively. Unlike the case of the exclusive economic zone, the coastal State is not obligated to allow other States to exploit the resources that it is unable or unwilling to exploit itself. However, for clarity, Article 77 specifically states that the resources in question only include the mineral and other non-living resources, together with the sedentary species excluded (by Article 68) from the exclusive economic zone's living resources. Thus, the combination of the exclusive economic zone and the continental shelf grant the coastal State the exclusive right to exploit minerals and non-living or sedentary resources to the limit of the continental shelf, and the non-exclusive right to exploit living resources to the limit of the exclusive economic zone. Further, if a coastal State chooses not to determine and deposit the definition of the limit of its continental shelf, then these two zones effectively become the same zone: at the 200 nautical mile limit.[52]

This complexity has led States to challenge the utility of establishing both zones. Opponents to the establishment of both zones argue that the two regions are materially the same, and the separation of juridical regimes means that potentially conflicting rules could apply to the same physical area. Protagonists usually argue on the basis that their continental shelf comprises an area larger that the exclusive economic zone. Several scenarios were debated during law of the sea conference. However, the net outcome has been that two areas were defined, but their judicial parameters were deconflicted to the point that they have essentially become a single jurisdiction. This has been achieved by Part V of the UNCLOS focussing on the living resources, and Part IV focussing on the non-living resources. However, Sharma argues strongly that the UNCLOS drafters did not intend to create this distinction.[53]

Sharma points out several distinctions that remain between the exclusive economic zone and the continental shelf. The first (he argues) is that, although deconflicted, the exclusive economic zone covers all resources, whereas the continental shelf only covers non-living and sedentary resources. The second point he argues is that the rights to the continental shelf exist *ipso-facto*, whereas

[52] United Nations, "United Nations Convention on the Law of the Sea," 53-54.
[53] Sharma, Satyendra Kumar, *Law of Sea & Exclusive Economic Zone*, 107-109.

the establishment of an exclusive economic zone requires a proclamation by the coastal State. The third significant point he argues, is that, despite being *materially* common in area, they are not *actually* common in area.[54] However, for the purpose of this thesis, the point is not whether they are materially the same, but whether the security of one is inextricably tied to the security of the other. In the thesis' later examination of benefit and threat, it will assume that they are inextricably tied. In support of this stance, it is worth noting that New Zealand has assumed some commonality with respect to the continental shelf and the exclusive economic zone. For example, the treaty with Australia covers the delineation of both.[55]

Articles 78, 79, 80, 83 and 84 all have parallels in other areas of the UNCLOS. Article 78 provides for freedom of passage by other States, and Article 79 provides for the right of other States to lay cables and pipelines. This effectively applies these provisions to the exclusive economic zone as well. Article 83 requires States with opposing or adjacent coastlines to agree on the delineation of the continental shelf – in the same manner as they are required to do for the exclusive economic zone – while Article 84 covers due publicity of the coastal States delineation of the continental shelf.[56] However, Article 82 introduces a new obligation.

Article 82 places an obligation on the coastal State to "make payments and contributions in kind with respect of the exploitation of the non-living resources of the continental shelf beyond 200 nautical miles," i.e. the outer continental shelf excluding the exclusive economic zone. This requirement is relaxed for developing states that are net importers of the resources in question. These contributions, up to seven per cent of the value or volume of exploitation in the longer term, are then to be redistributed to States that are party to the UNCLOS. This redistribution is made "on the basis of equitable sharing criteria, taking into account the interests and needs of the developing State's, particularly the least developed and land-

[54] Ibid., 109-111.
[55] "Treaty Between the Government of Australia and the Government of New Zealand Establishing Certain Exclusive Economic Zone Boundaries and Continental Shelf Boundaries."
[56] United Nations, "United Nations Convention on the Law of the Sea," 54-56.

locked among them."[57] This obligation presents significant challenges to States declaring an outer continental shelf.

Although challenging, the concept of royalties for exploitation of non-living resources has precedence. Those states exploiting sections of the seabed that are not part of a territorial claim are obligated to pay royalties to the International Seabed Authority. The purpose of those payments is similar to that of Article 82, i.e. to be apportioned globally "with particular emphasis on the needs of developing countries and land-locked States." However, Article 82 is the only provision in the UNCLOS that demands a royally payment for an activity undertaken within a State's national jurisdiction. Thus, although the obligations of Article 82 are not yet in effect, States declaring an outer continental shelf must make choices with respect to how such obligations can be implemented, whilst still respecting their own Sovereign laws, regulations, and the means by which the resources are to be exploited.[58]

The harmonisation of Article 82 payment obligations with the means of exploitation has critical bearing on the potential return on investment for exploitation of non-living resources in the outer continental shelf. For example, Article 82 requires that payments begin after the fifth year of exploitation and reach their maximum of seven per cent of gross production by the end of the eleventh year. Both Mingay and Paskal point out that this payment is based on the gross (rather than the net) production, and suggests that this may be sufficient to make a portion of exploitations commercially unviable. Mingay points out that even an unprofitable venture would attract this obligation for payment, because the payment is based on "all production" rather than total profits.[59] Also under question is the five-year grace period, and whether this is sufficient to recover exploration costs and other costs.

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[57] Ibid., 55-56.
[58] Paskal, Cleo, and Michael Lodge, "A Fair Deal on Seabed Wealth: The Promise and Pitfalls of Article 82 on the Outer Continental Shelf," C*hatham House (The Royal Institute of International Affairs)* EEDP BP 09/01 (2009).
[59] Mingay, George, "Article 82 of the Los Convention—Revenue Sharing—The Mining Industry's Perspective," *The International Journal of Marine and Coastal Law* 21, no. 3 (2006), 343; Paskal, Cleo, and Michael Lodge, "A Fair Deal on Seabed Wealth: The Promise and Pitfalls of Article 82 onthe Outer Continental Shelf," 5.

In order to prepare its claim for an outer continental shelf, New Zealand undertook a programme of marine survey, at a cost in excess of NZ$44 million.[60] Therefore, a significant question for New Zealand is whether to treat the cost of establishing an outer continental shelf as a national strategic investment, or a cost to recover in the form of levies imposed against exploration/exploitation licences. Mingay asserts that, although the obligation for costs and payments associated with Articles 76 and 82 rests with the State, it is 'unlikely' that the States concerned will absorb these costs. Inevitably, these will be passed onto the mining companies licensed to explore and exploit the resources, thus significantly challenging the economic viability of the resources.[61] However, economic viability is not the only challenge raised by the transfer of these costs.

In order to recover the 'royalties' associated with Article 82, the seabed authority, the State owning the resource and the entity licensed to exploit the resource must agree on the volume or value of production. To agree, there must be a mechanism for reliable assessment and – internationally and historically – this has been a significant challenge. For example, in 2005, the Nigerian Attorney-General conceded that it had taken 40 years to establish a reliable system of confirming payments to the State. Notably, this issue is still not resolved with an estimated 10-15% of production being stolen annually.[62] Collectively, these challenges question the commercial viability of any State declaring an outer continental shelf, for the purposes of exploitation of the non-living resources.

The question of the commercial viability of the outer continental shelf is only relevant in so much as it relates to the subject of this thesis: the security of New Zealand's exclusive economic zone. The thesis has already shown the existence of an exclusive economic zone is dependent on the acceptance of the UNCLOS as a whole, which allows for the possibility of a State to declare an outer continental shelf. However, acceptance of the UNCLOS does not *require* the declaration of an outer continental shelf. Nevertheless, the provision for an outer

[60] Wright, Ian C., et al., "New Zealand Continental Shelf Project– a Status Report of the Survey Programme" (Paper presented at the 2002 NZ Petrol Conference, Auckland, New Zealand, 2002).
[61] Mingay, George, "Article 82 of the Los Convention—Revenue Sharing—The Mining Industry's Perspective."
[62] Ibid.

continental shelf exists to allow States to assert sovereignty in those regions that arguably fall into its economic zone, but do not fall into the definition of the exclusive economic zone. Should a State not declare an outer continental shelf, the consequence would be that an area that was arguably a part of the same resource as that of the exclusive economic zone would be exploitable by another State. This further supports the thesis' assertion that the security of the continental shelf and exclusive economic zones are inextricably tied.

High Seas

Part VII of the UNCLOS refers to the high seas. It defines the high seas as "all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State." Notably, it includes the seas covering the State's claim of an outer continental shelf, since those claims relate to the seabed only. In general terms, it grants freedom of navigation, over-flight, installation of cables and pipelines, fishing and scientific research. These freedoms apply to all States, including both coastal and land-locked States.[63] Hence, by accepting the UNCLOS, States effectively yield all sovereignty claims on the high seas, and assume certain conditions, constraints and obligations.

Articles 91-97 outline the basics of jurisdiction, and the regime under which ships associate with a single State: and fall under that State's exclusive jurisdiction.[64] Articles 99-110 cover transport of slaves, piracy, illicit traffic in narcotic drugs and unauthorised (radio) broadcasting. These articles define the acts and the relevant jurisdictions, and require States to cooperate in the suppression of them. Effectively, this places two obligations on New Zealand. The first is that New Zealand must legislate to make these activities illegal on all New Zealand-flagged vessels. The second is that New Zealand must cooperate with other States to ensure these activities are brought to the attention of the flag State, or otherwise

[63] United Nations, "United Nations Convention on the Law of the Sea," 57-68.
[64] Ibid., 58-60.

dealt with for those vessels with no State affiliation.[65] The first point is already dealt with under New Zealand legislation.

The New Zealand legislation that prohibits the transport of slaves, piracy, illicit traffic in narcotic drugs and unauthorised broadcasting includes the: Crimes Act 1961; Maritime Crimes Act 1999; Misuse of Drugs Act 1975; Radiocommunications Act 1989; and Radiocommunications Regulations 2001.[66] Of particular note, Section 92 and 95 of the Crimes Act reference "the law of nations," thus effectively outlawing piracy in both New Zealand jurisdiction and on the high seas.[67] However, the second of New Zealand's obligations under Articles 99-109 of the UNCLOS is less definitive.

Article 100 of the UNCLOS, "Duty to cooperate in the repression of piracy," places an obligation on New Zealand to "cooperate to the fullest possible extent in the repression of piracy on the high seas or in any other place outside the jurisdiction of any State." Further, Article 107, "Ships and aircraft which are entitled to seize on account of piracy," states that seizures because of piracy may only be carried out "by warships or military aircraft, or other ships or aircraft clearly marked and identifiable as being on government service." Given the requirement to cooperate *to the fullest possible extent*, it is reasonable to expect that this would include detection of piracy in New Zealand's immediate geographical region, and the possible seizure of vessels used for the purpose of piracy. As such, Articles 99-110 place an obligation on New Zealand to maintain sufficient surveillance and naval capability to detect and disrupt piracy in New Zealand's immediate geographic region, in cooperation with other States in that region.

Article 111, provides the basis of 'hot pursuit' of vessels caught violating the laws and regulations of a particular State, as they apply in the particular zone of the State in which the violation is detected. It lays down the condition of "continuous

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[65] Ibid., 60-62.
[66] New Zealand Government, "Crimes Act 1961," 43 (1961); New Zealand Government, "Maritime Crimes Act 1999," 56 (1999); New Zealand Government, "Misuse of Drugs Act 1975," 116 (1975); New Zealand Government, "Radiocommunications Act 1989," 148 (1989); New Zealand Government, "Radiocommunications Regulations 2001," SR (2001/240), no. 2001/240 (2001).
[67] United Nations, "2301080-V1-Piracy_-_Crimes_Act_Excerpts," http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/NZN_crimes_act_1961.pdf (accessed 29 May, 2011).

pursuit," and sets various conditions that determine whether this has been fulfilled. These conditions also include the requirement to use "warships or military aircraft, or other ships and aircraft clearly marked and identifiable as being on government service."[68] This requirement reinforces New Zealand's need to maintain sufficient surveillance and naval capability, if it is to be able to enforce its laws and regulations in its declared maritime zones.

Articles 112-115 relate to the protection of the submarine infrastructure, including cables and pipelines. They obligate New Zealand to enact specific legislation that makes it an offence to wilfully damage such infrastructure, and requires those acting within its jurisdiction to assume liability for any accidental damage to other parties' infrastructure. It also provides for the recovery of losses incurred by vessels that take action to prevent damage to such infrastructure.[69] New Zealand has fulfilled this obligation by enacting the Submarine Cables and Pipelines Protection Act 1996. This act fulfils the requirement of Articles 112-115, and further provides for the definition of protected areas around New Zealand's critical infrastructure, and empowers protection and enforcement offices to enforce the same.[70]

Section 2 of Part VII of the UNCLOS covers the "Conservation and Management of the Living Resources of the High Seas." Article 116 establishes the right for the nationals of any State to fish on the high seas. However, Articles 116-119 temper this right with an obligation to cooperate with other States – particularly those with an interest in the same or co-located resources – with a view to conserving and managing the living resources of the world's oceans. States are required to use and exchange the "best scientific evidence available," with a view to achieving the maximum sustainable yield fish stocks.[71] Article 120 references Article 65, which provides for – but does not require – States to further restrict the exploitation of

[68] United Nations, "United Nations Convention on the Law of the Sea," 63-63.
[69] Ibid., 64-65.
[70] New Zealand Government, "Submarine Cables and Pipelines Protection Act 1996," 22 (1996).
[71] United Nations, "United Nations Convention on the Law of the Sea," 65-66.

marine mammals through international agreement.[72] Such cooperation with other States is the responsibility of New Zealand's Ministry of Fisheries.

New Zealand's Ministry of Fisheries manages New Zealand's fishing interests in both the exclusive economic zone and the high seas. The obligation to manage sustainable fish stocks is expressed in their Outcome 2 "Fishing is managed to support the health of the aquatic environment." Their international fisheries objective is to "maximise the value to New Zealand from the sustainable utilisation of fisheries resources beyond the New Zealand exclusive economic zone."[73] This is achieved through a number of international and regional agreements, including the 1995 United Nations Fish Stocks Agreement, the Commission for the Conservation of Antarctic Marine Living Resources, the Commission for the Conservation of Southern Bluefin Tuna and the Western and Central Pacific Fisheries Commission.[74] Collectively, these agreements constitute material fulfilment of the obligations under Section 2 of Part VII of the UNCLOS.[75]

Parts VIII, IX and X of the UNCLOS cover islands, enclosed or semi-enclosed seas and the rights of land-locked States respectively.[76] These parts have little significance to this thesis.

Search and Rescue

Article 98 of the UNCLOS provides for a duty to render assistance to vessels in distress. It requires, not only that ships render assistance as necessary, but also that each coastal State promotes "the establishment, operation and maintenance of an adequate and effective search and rescue service regarding safety on and over the sea." Where necessary, it mandates cooperation with neighbouring

[72] Ibid., 66.
[73] Ministry of Fisheries, "Statement of Intent 2011-2014," C.5 SOI (2011), 50.
[74] Ministry of Fisheries, "Management of NZ's International Fishing Interests," http://www.fish.govt.nz/en-nz/International/default.htm (accessed 5 June, 2011).
[75] Lodge, Michael W., et al., "Recommended Best Practices for Regional Fisheries Management Organizations: Report of an Independent Panel to Develop a Model for Improved Governance By Regional Fisheries Management Organizations," (2007), 2-3.
[76] United Nations, "United Nations Convention on the Law of the Sea," 66-69.

States.[77] Thus, acceptance of the UNCLOS obligates New Zealand to assume search and rescue responsibilities over a wide area of ocean.

New Zealand fulfils its obligation by being party to a number of international agreements, each of which imposes a number of distinct search and rescue obligations. These agreements include: The Convention on International Civil Aviation 1944; The International Convention on Maritime Search and Rescue 1972; and the COSPAS-SARSAT Agreement. Each of these agreements will be briefly analysed to determine the extent to which New Zealand fulfils these obligations, and to get a sense of the challenges faced in doing so.

The Convention on International Civil Aviation 1944 (also known as the Chicago Agreement) is a multilateral agreement that came into being on 4 April 1947, upon ratification by the 26th State signatory. The Chicago agreement primarily relates to matters of international civil aviation. However, Annex 12 (Search and Rescue) outlines "recommended practices on the establishment, maintenance and operation of search and rescue services in the territories of contracting States and over the high seas, and on the coordination of such services between States."[78] An important factor in this agreement is that it sets the principle that States have responsibilities beyond their own waters, i.e. States must assume responsibility for a portion of the high seas.

The agreement that defines New Zealand's specific obligations and responsibilities is the International Convention on Maritime Search and Rescue 1979 (the SAR Convention). This agreement requires New Zealand to "establish national machinery for the overall coordination of search and rescue services." Further, the SAR Convention provides the framework by which the International Maritime Organisation defined the world's 13 search and rescue areas, within which New Zealand's specific search and rescue region is defined.[79]

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[77] Ibid., 60.
[78] International Civil Aviation Organisation, "Convention on International Civil Aviation - Doc 7300," http://www.icao.int/publications/pages/doc7300.aspx (accessed 8 July, 2012); Ministry of Foreign Affairs and Trade, "Review of Maritime Patrol: MFAT Submission," (2000), 20-21.
[79] International Maritime Organisation, "International Convention on Maritime Search and Rescue (SAR)," http://www.imo.org/about/conventions/listofconventions/pages/international-convention-on-

New Zealand's obligation to provide assistance to international search and rescue extends beyond the limits of New Zealand's exclusive economic zone. Further, the assistance obligation applies to nationals of any country that require assistance in the search and rescue region. New Zealand's search and rescue region covers approximately 25 million square kilometres, and extends as far north as the Cook Islands and as far south as Antarctica: more than six times the area of New Zealand's exclusive economic zone. Further, New Zealand has signed agreements with Fiji and the Cook Islands, the net effect of which is to assume many of their regional responsibilities in addition to New Zealand's own.[80]

The significant third agreement to which New Zealand is a part is the COSPAS-SARSAT Programme Agreement. The COSPAS-SARSAT Programme Agreement relates to an agreement between the governments of Canada, the United States, the former Union of Soviet Socialist Republics and France. However, the agreement is also open to accession by other States, and available for use by all States. The programme – commonly known as the emergency locator-beacon service – provides "accurate, timely, and reliable distress alert and location data to help search and rescue authorities assist persons in distress." New Zealand's obligation under this agreement is to provide a ground segment (or local user terminal), by which New Zealand is able to determine the location of distress signals, and notify search and rescue authorities as appropriate. New Zealand maintains two terminals in Lower Hutt.[81]

New Zealand's obligations under these three agreements are also reflected in two instruments of New Zealand domestic legislation: the Civil Aviation Act 1990 and the Maritime Transport Act 1994. The Civil Aviation Act requires the Ministry of transport to establish, maintain and operate a National Rescue Coordination Centre, whilst the Maritime Transport Act 1994 establishes Maritime New Zealand,

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maritime-search-and-rescue-(sar).aspx (accessed 8 July, 2012); Ministry of Foreign Affairs and Trade, "Review of Maritime Patrol: MFAT Submission," 21.

[80] Government of Fiji, and Government of New Zealand, "Exchange of Letters Constituting an Agreement Between the Government of Fiji and the Government of New Zealand on Search and Rescue Operations," (1984); Maritime New Zealand, "NZ Updates Search and Rescue Ties With Cook Islands," (2012); Ministry of Foreign Affairs and Trade, "Review of Maritime Patrol: MFAT Submission," 20-21.

[81] International Cospas-Sarsat Programme, "About the Programme," http://www.cospas-sarsat.org/ (accessed 8 July, 2012); Ministry of Foreign Affairs and Trade, "Review of Maritime Patrol: MFAT Submission," 21.

also under the Ministry of Transport, that assumes responsibility for Maritime rescue coordination. Given the extreme size of New Zealand's search and rescue region, Maritime New Zealand is heavily dependent on the New Zealand Defence Force, and in particular the P3-Orion capability.[82] However, New Zealand has no standing search and rescue capability.

In 2005, the Civil Aviation Authority of New Zealand (CAA) undertook a compliance assessment. The assessment found that New Zealand has achieved high compliance with matters related to domestic legislation and regional agreements, but has made no investment in standing capability. In response to Section 2.5.1 of Annex 12 of the Chicago agreement, CAA states, "there are no dedicated Search and Rescue Units … in New Zealand." Instead, the statement refers to the use of New Zealand Defence force capability through agreements incorporating response time objectives, the use of the volunteer coastguard for close-to-shore operations and the use of "merchant vessels in the vicinity of a distress incident at sea." Further, the statement highlights the large degree of noncompliance with the equipment available for search and rescue operations, specifically in the area of location finding and communications.[83]

The Ministry of Foreign Affairs and Trade in its submission to the 2000 review of maritime patrol, highlights the need for robust and long-ranging airframes from which to conduct search and rescue operations in New Zealand's area of responsibility. Further, it highlights the reputational risk that New Zealand would suffer, were it unable to adequately conduct operations in its search and rescue area of responsibility. The report does not comment on the adequacy of existing resources, but does describe the P3-Orion's as "an effective surveillance/reconnaissance platform" that makes a "useful contribution."[84]

[82] Ministry of Foreign Affairs and Trade, "Review of Maritime Patrol: MFAT Submission," 21-25; New Zealand Government, "Civil Aviation Act 1990," 98 (1990); New Zealand Government, "Maritime Transport Act 1994," 104 (1994).
[83] Civil Aviation Authority of New Zealand, "New Zealand's Compliance With the Standards and Recommended Practices of Annex 12 – Search and Rescue – Incorporating All Amendments Up to and Including Amendment 17 Applicable 25 November 2004," (2005).
[84] Ministry of Foreign Affairs and Trade, "Review of Maritime Patrol: MFAT Submission," 20-25,64-65.

The (former) Maritime Safety authority shares this view on the utility of the P3-Orion. In its 2001 maritime patrol review, it described the P3-Orions as "the only aerial search platform that is suitable and available." However, in the same report the Maritime safety authority was critical of the volunteer resources available, describing them as often "more of a hindrance than help." It was also heavily critical of the organisation of maritime search and rescue in New Zealand, and stated that it was "fragmented amongst too many organisations and individuals to be truly effective."[85]

Overall, New Zealand has clearly undertaken a number of obligations with respect to search and rescue. These obligations support New Zealand's accession to the UNCLOS and are reflected in domestic legislation. Further, responsibility for meeting this obligation has been assigned to a number of organisations and structures (albeit fragmented). However, in terms of tangible assets with which to realise these obligations, New Zealand relies disproportionately on a small number of NZDF assets.

The Area

Part XI of the UNCLOS is the last part defining a geographical area. It defines "the area," which is – essentially – those parts of the seabed beneath the high seas that are not the subject of a continental shelf claim. Articles 136-137 declare the area and its resources to be "the common heritage of mankind," and prevent any claim of sovereignty over the same. Recovery of resources is only permitted in accordance with the UNCLOS Part XI, and the rules, regulations and procedures of the International Seabed Authority (the Authority), as defined in Section 4 of Part XI of the UNCLOS.[86] Part XI was subject to some subsequent discussion and became the subject of a separate agreement in 1994.[87] This agreement was

[85] Maritime Safety Authority of New Zealand, "Maritime Patrol Review: Marine Environment & Safety," (2001).
[86] United Nations, "United Nations Convention on the Law of the Sea," 69-100.
[87] United Nations, "Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982," (1994).

subject to its own ratification process, with 143 States having ratified as at January 2013.[88]

New Zealand has ratified both the UNCLOS and the agreement relating to the Implementation of Part XI, and played a significant role in the widespread adoption of both by other States.[89] Although Part XI was controversial, and seen negatively by many participants and observers, ratification is assessed as having less negative impact on New Zealand than other States. [90] This is due to New Zealand's disproportionately large continental shelf and the wealth of mineral resources available for exploitation there. By establishing a claim for its continental shelf, New Zealand has secured resources that would otherwise be part of the area. These resources are subsequently subject to the less restrictive regime of Article 76. However, notwithstanding this advantage, New Zealand still has obligations under Part XI.

As a sovereign State, New Zealand can elect not to participate in the exploitation of the area: indeed, there seems to be very little incentive to do so. However, Section 2 of Part XI requires that all States assume responsibility for their own State's activities as well as those of entities or persons claiming that State's nationality.[91] Thus, New Zealand must legislate to ensure that all New Zealand entities that choose to conduct activities in the area do so assuming the obligations of Part XI. This is covered by the United Nations Convention on the Law of the Sea Act 1996, the purpose of which is stated as "to give effect in the law of New Zealand to provisions of Part XI of the Convention." Essentially, it makes it illegal for a New Zealand entity to conduct activities in the area, unless it first obtains a licence, or satisfies the Minister that it is conducting its activity under

[88] United Nations, "Chronological Lists of Ratifications of, Accessions and Successions to the Convention and the Related Agreements as At 07 November 2012."
[89] Ministry of Foreign Affairs and Trade, "Treaties and International Law: Law of the Sea and Fisheries: United Nations Convention on the Law of the Sea," http://www.mfat.govt.nz/Treaties-and-International-Law/04-Law-of-the-Sea-and-Fisheries/index.php (accessed 6 June, 2011); United Nations, "Chronological Lists of Ratifications of, Accessions and Successions to the Convention and the Related Agreements as At 07 November 2012."
[90] Bräuninger, Thomas, and Thomas König, "Making Rules for Governing Global Commons: The Case of Deep-Sea Mining," *The Journal of Conflict Resolution* 44, no. 5 (2000): 604-629; Wright, Ian C., "Ocean Mapping for a Geologic and Legal Framework of New Zealand's Marine Estate" (Paper presented at the 2005 New Zealand Minerals and Mining Conference, 2005).
[91] United Nations, "United Nations Convention on the Law of the Sea," 71.

the jurisdiction of another State.[92] This fulfils New Zealand's first obligation under Part XI of the UNCLOS. New Zealand's other obligation is to participate in the International Seabed Authority.

New Zealand is, *ipso facto*, a member of the International Seabed Authority, and is required to fulfil, "in good faith," all of the obligations assumed in accordance with Part XI of the UNCLOS. These obligations include New Zealand representation at regular annual and special sessions of the Authority, a share of funding of the expenses of the authority, and the granting of legal status, privileges and immunities similar to those granted to diplomatic representatives.[93] New Zealand's Ministry of Foreign Affairs and Trade fulfils the first two of these obligations. However, representation is largely diplomatic rather than specialist, and the 2006 representative noted that the cost of participation was high in comparison to the benefits.[94] The Diplomatic Privileges and Immunities Act 1968 fulfils the third obligation.[95]

Protection and Preservation of the Marine Environment

Part XII of the UNCLOS covers the protection and preservation of the marine environment. Much of the impetus to include conservation in the UNCLOS came from the 1972 Stockholm Conference on the Human Environment, as expressed in Principle 7 of its declaration:

> *States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.*[96]

[92] New Zealand Government, "United Nations Convention on the Law of the Sea Act 1996," 69 (1996).
[93] United Nations, "United Nations Convention on the Law of the Sea," 82-97.
[94] Ministry of Foreign Affairs and Trade, "International Seabed Authority 12th Session: Assembly: Statement By Ms Jennifer McIver, New Zealand Representative," http://www.mfat.govt.nz/Media-and-publications/Media/MFAT-speeches/2006/0-16-August-2006.php (accessed 4 July, 2011).
[95] New Zealand Government, "Diplomatic Privileges and Immunities Act 1968," 36 (1968).
[96] United Nations, "Declaration of the United Nations Conference on the Human Environment" (United Nations Conference on the Human Environment, Stockholm, 1972).

Guided by the Conference on the Human Environment's principles, the Conference on the Law of the Sea faced the task of establishing a legal framework under which sovereign States would cooperate to achieve conservation of the world's oceans.

Section 1 of Part XII of the UNCLOS covers the general provisions for protection and preservation of the marine environment. Article 192 obligates States to protect and preserve the marine environment, whilst Article 193 acknowledges the sovereign right of States to exploit their natural resources. Article 194 further obligates States to take all measures necessary, "in accordance with their capabilities," to control, prevent or reduce pollution in the marine environment, from any source. There are two significant consequences of this regime. The first is that States are only obligated to act to the extent of their capabilities, which means that developing nations may not be expected to achieve the same balance of exploitation versus environmental impact (a point contested by the developed nations). The second is that an entity operating in one jurisdiction may be the source of pollution in another jurisdiction. For example, consider the case of a vessel flagged to one State, operating in the EEZ of another State. If such a vessel were to cause pollution, the obligation to manage the pollution would fall on the coastal State. Hence, this obligation is tempered with an authority to impose regulations to prevent another jurisdiction from causing pollution in the first case.[97]

The disparity in obligations significantly complicated the development of the framework, and forced a complex breakdown of sources of pollution and jurisdictions. Articles 207-212 of he UNCLOS reference six distinct sources of pollution: pollution from land-based sources; pollution from seabed activities subject to national jurisdiction; pollution from activities in the area; pollution by dumping; pollution from vessels; and pollution from or through the atmosphere. Each article obligates States to "adopt laws and regulations to prevent, reduce and control pollution of the marine environment" from the pollution source in question. However, not all pollution sources are within the sovereign jurisdiction of the State,

[97] United Nations, "United Nations Convention on the Law of the Sea," 100-101; Vallarta, Jose Luis, "Protection and Preservation of the Marine Environment and Marine Scientific Research At the Third United Nations Conference on the Law of the Sea," *Law and Contemporary Problems* 46, no. 2 (1983): 147-154.

and hence these obligations are supplemented with an obligation to "establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control such pollution." Further, the laws and regulations of the sovereign State are to be "no less effective in preventing, reducing and controlling pollution than the global rules and standards." A significant reason for the emphasis on the global standards was to allow states to use their own technologies and means to exploit the seabed, whilst ensuring that all such operations were conducted in accordance with internationally recognised minimum safety standards.[98]

These articles raised considerable debate as to whether coastal States' jurisdiction over the control of pollution should extend to the exclusive economic zone and continental shelf. However, this was eventually agreed because of existing customary international law, and the increasing recognition of the exclusive economic zone (jurisdiction in the area would remain the responsibility of the seabed authority).[99] The more complex issue of jurisdiction was that of pollution from vessels.

Pollution from vessels presents issues with respect to jurisdiction because, by their very nature, vessels constantly move between jurisdictions. Further, vessels within the exclusive economic zone operate under the jurisdiction of their flag State. However, the impact of pollution within the EEZ would be felt most by the coastal States, as the pollution would affect the living resources of their EEZ (which the coastal state does have sovereign jurisdiction over). A compromise was eventually reached that saw flag States retain sovereignty over vessels in the EEZ. However, this sovereignty was tempered by the ability of the coastal State to enforce international rules and standards within their own EEZs, such enforcement to be limited to cases that seriously affected the EEZ.[100]

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[98] United Nations, "United Nations Convention on the Law of the Sea."; Vallarta, Jose Luis, "Protection and Preservation of the Marine Environment and Marine Scientific Research At the Third United Nations Conference on the Law of the Sea," 148-149.
[99] Vallarta, Jose Luis, "Protection and Preservation of the Marine Environment and Marine Scientific Research At the Third United Nations Conference on the Law of the Sea."
[100] United Nations, "United Nations Convention on the Law of the Sea."; Vallarta, Jose Luis, "Protection and Preservation of the Marine Environment and Marine Scientific Research At the Third United Nations Conference on the Law of the Sea."

Articles 213-22 of the UNCLOS deal with enforcement of laws and regulations related to pollution of the marine environment, and attempts to clarify which source of pollution is the responsibility of which jurisdiction. In sum, pollution resulting from an activity in any particular area is generally the responsibility of the entity having jurisdiction over that area. This includes pollution from land-based sources, pollution from seabed activities and pollution from activities in the area: the latter being the responsibility of the seabed authority.[101] However, jurisdiction becomes more complicated with respect to pollution by dumping.

Article 216 covers enforcement with respect to pollution by dumping. In this article, the UNCLOS obligates coastal States and flag States (with respect to dumping of waste) and all States (with respect to loading of waste) to enforce its laws and regulations. However, when any State enforces its laws and regulations with respect to any one event, then the obligation of other States (who may also claim jurisdiction) is waived. This situation complicates the determination of which State has primacy (this is not specified by the UNCLOS), and requires consistency of laws and regulations between States that share jurisdiction. The only mitigation of these issues is the requirement for "international rules and standards established through competent international organisations or diplomatic conference." This effectively means 'to be decided elsewhere,' thus obligating New Zealand to be a party to further international agreements to manage the issue of marine pollution through dumping. This is primarily provided through the International Maritime Organisation's 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter and its eventual replacement, the 1996 Protocol.[102]

Articles 217, 218 and 220 seek to define the responsibilities of flag States, port States and coastal States. Fundamentally, flag States are responsible for assuring and certifying the compliance (to international standards) of vessels flying their flag. Port States, where a vessel has voluntarily entered that State's port, may undertake investigations and institute proceedings related to any discharge that occurs outside the port State's internal waters, territorial sea or exclusive

[101] United Nations, "United Nations Convention on the Law of the Sea." 108.
[102] International Maritime Organisation, "Convention on the Prevention of Marine Pollution By Dumping of Wastes and Other Matter" London, 1972); United Nations, "United Nations Convention on the Law of the Sea," 108.

economic zone when requested by a State with a material interest in the discharge. Coastal States may also undertake investigations and institute proceedings of vessels voluntarily within a port of the coastal State. However, such investigations may also include physical inspection and detention of the vessel, subject to the safeguards of Section 7.[103]

These complex issues with respect to protection and preservation of the marine environment – the segmented nature of pollution sources and the variety of jurisdictions under which each applies – means that New Zealand has been slow to fully implement all the legislation required to meet its obligations under Part XII of the UNCLOS. The Resource Management Act 1991 covers land-sourced pollution and activities within the inland waters and territorial sea and the Maritime Transport Act 1994 covers the requirements for vessels to meet international standards and to comply with international regulations. New Zealand has only just passed legislation covering activities within the exclusive economic zone or the continental shelf, and this legislation has not yet become law. This gap with respect to activities in the exclusive economic zone and continental shelf will be closed when the Exclusive Economic Zone and Continental Shelf (Environmental Effect) Act 2012 comes into force in July 2014. This will coincide with the establishment of the Environmental Protection Authority.[104]

The enactment of the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Bill was significant, in that it transferred international obligations directly into New Zealand Law. Specifically, Section 11 requires that "This Act must be interpreted, and all persons performing functions and duties or exercising powers under it must act consistently with New Zealand's international obligations under the Convention." Whilst probably necessary, this aspect of the Bill will complicate the resource exploitation consent application and appeal processes. Such applications will now also need to consider international law as

[103] United Nations, "United Nations Convention on the Law of the Sea," 108-116.
[104] Geddis, Elana, "The Law in International Waters," *NZ Lawyer* 174 (2011); New Zealand Government, "Environmental Protection Authority Act 2011," 14 (2011); New Zealand Government, "Exclusive Economic Zone and Continental Shelf (Environmental Effects) Bill," 321-1 (2011); New Zealand Government, "Maritime Transport Act 1994."; New Zealand Government, "Resource Management Act 1991," 69 (1991); Simons, Christopher, and Lisa Brooks, "The RMA at sea?," *NZ Lawyer* 169 (2011); New Zealand Government, "Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012," 72 (2012).

well as New Zealand legislation. Further, New Zealand is also a signatory to other conventions that impose environmental obligations – such as the Convention on Biological Diversity – and these too must be accounted for in the consent application and appeal process.[105] Thus, to fulfil its obligations under Part XII of the UNCLOS, New Zealand must create and administer an environmental management regime that is possibly even more complicated than that established by the Resource Management Act 1991. This will potentially lead to a high compliance cost associated with resource exploitation.

Research, Development and Technology Transfer

Parts XIII and XIV of the UNCLOS deal with the research, development and transfer of marine science. During the UNCLOS conference, marine scientific research was another area that caused tension between the developed and the developing States. The developed States asserted that freedom of marine scientific research would be "a blessing for mankind as a whole." However, the developing States felt that they would achieve little benefit from this research unless they retained a degree of control over foreign research within their jurisdiction. The compromise that was eventually reached means that all foreign research in a coastal State's exclusive economic zone or continental shelf, will require the consent of that coastal State. However, such consent cannot be reasonably withheld.[106]

Articles 238-244 of the UNCLOS set out the general conditions for marine scientific research, and define the requirement for international cooperation. As well as granting all States the right to conduct research, these articles also obligate all States to promote such research in accordance with the UNCLOS. Research is defined as being "for peaceful purposes only" and is required to be unobtrusive and compliant with agreed international standards. Further, research activities cannot be used to assert a claim over any part of the marine environment. However, Articles 245-262 temper these rights with the right of the

[105] Geddis, Elana, "The Law in International Waters."; Wright, Jan, "Exclusive Economic Zone and Continental Shelf (Environmental Effects) Bill: Submission to the Local Government and Environment Select Committee," (2011).
[106] United Nations, "United Nations Convention on the Law of the Sea," 117-129; Vallarta, Jose Luis, "Protection and Preservation of the Marine Environment and Marine Scientific Research At the Third United Nations Conference on the Law of the Sea," 153-154.

coastal State to regulate, authorise and conduct their own research within their natural jurisdiction.[107]

Within its territorial waters, a coastal State has exclusive jurisdiction over the regulation, authorisation and conduct of marine scientific research. Whilst coastal States enjoy the same right in their exclusive economic zone and continental shelves, such rights are not exclusive; coastal States are required to grant consent in accordance with the UNCLOS "in normal circumstances."[108]

Article 246 defines the conditions under which a coastal State may refuse consent for a foreign State to conduct scientific marine research in the coastal State's exclusive economic zone or the seabed of its continental shelf. Valid conditions for withholding consent include research for the purpose of exploring or exploiting the natural resources, potential damage to the marine environment or the construction of artificial islands or other structures.[109] This first of these points is significant, in that it provides a further legal basis by which New Zealand can prevent exploitation of marine mammals for "marine research purposes" within its natural jurisdiction. However, as already noted, New Zealand's maritime claims fall under both the UNCLOS and the Antarctic treaty, and not all States recognise the latter. This is a significant factor in Japan's continued whaling activity in the Southern Ocean, and the inability of Australia and New Zealand to mount an effective legal challenge.

In return for consenting to foreign research within its natural jurisdiction, a coastal State is awarded a number of rights, as outlined in Article 249. These rights include the right of the coastal State to participate in the research, as well as full access to all data, findings and assessments resulting from the research. Further, Article 248 requires that researchers provide full and detailed descriptions of the proposed project six months before the commencement of the research (including the extent to which the coastal State can participate or be represented). The coastal State also has the right to suspend the research in the event of non-compliance or other breaches on conditions. However, these rights are not the

[107] United Nations, "United Nations Convention on the Law of the Sea," 117-124.
[108] Ibid., 118-120.
[109] Ibid., 119-120.

exclusive domain of the coastal State: Article 254 gives land-locked and geographically disadvantaged States neighbouring the coastal State the right to be informed in relation to the research, and the right to participate (as appropriate).[110]

The research provisions in the UNCLOS are significant to New Zealand's interest in its exclusive economic zone for two reasons. The first is that the EEZ is the single largest subject of scientific marine research in New Zealand, accounting for 42% of all investment. Second, that research is undertaken by a significant number of diverse providers of marine research, including approximately 70 private providers (approximately 10% foreign). Whilst diversity benefits research generally, the research itself will only benefit New Zealand if it focuses on subjects of interest to New Zealand. Such focus requires coordination and understanding of the relationships between research projects. The UNCLOS research provisions appear to provide a reasonable mechanism for retaining control over research in New Zealand's natural jurisdiction, while encouraging the extent and diversity of the same.[111]

The research provisions of the UNCLOS are complimented by Articles 266-278, which cover development and transfer of marine technology. Fundamentally, these articles require States to cooperate and foster an environment that facilitates the ready transfer of marine technology. States are encouraged to participate in regional and global programmes, which is ultimately to New Zealand's benefit. Arguably, the security of New Zealand's exclusive economic zone is tightly coupled to the security of the South Pacific as a whole. Hence, the security of New Zealand's EEZ is enhanced through the consensual and coordinated management of the South Pacific as a whole, leveraging off New Zealand and international research, development and technology.[112]

Dispute Resolution Process

Part XV of the UNCLOS provides for settlement of disputes on all matters except those related to the area (which is covered in Part XI, Section 5). The general

[110] Ibid., 120-123.
[111] Chapman, Ralph, and Carol Lough, "Marine Research in New Zealand: A Survey and Analysis," (2003).
[112] United Nations, "United Nations Convention on the Law of the Sea," 125-129.

provisions (Section 1) place two specific obligations on participating States: States must settle disputes by peaceful means, and States are obliged to exchange views. Although Article 279 specifies the dispute settlement process defined in the UN charter, Articles 280 and 282 allow the parties to agree through other means. These means could include general, regional or bilateral agreements, which would take precedence over the UN charter, although the obligation to settle by peaceful means remains in all cases.[113]

Should States not agree under Section 1, they are obliged to follow the process defined in Section 2 (Articles 286-296). This process defines four means by which States can choose to settle disputes, and each State is free to choose (by written declaration) one or more means that it will agree to use. The four means are: the International Tribunal for the Law of the Sea; the International Court of Justice; an arbitral tribunal constituted in accordance with Annex VII; and a special arbitral tribunal constituted in accordance with Annex VIII. If two States have agreed to the same means, then that means shall be used. Otherwise, the dispute is referred to arbitration in accordance with the UNCLOS Annex VII. Although at least 41 States have declared their preference of dispute settlement, New Zealand has not. The consequence of this decision, effectively a null choice, means that disputes must be settled by specific agreement, or passed straight to arbitration in accordance with Annex VII.[114]

New Zealand's apparent ambivalence towards the dispute resolution process appears to be in direct contradiction to New Zealand's foreign policy. Phil Goff, in his former role as New Zealand Minister of Foreign Affairs and Trade, listed "effective international dispute settlement and judicial bodies" as one of the four fundamental aspects of the "international system" that underpins international legal order. Referencing New Zealand's success in utilising the World Trade Organisation's dispute settlement system with respect to butter exports to Europe

[113] Ibid., 129-130.
[114] Mom, Ravin, "ITLOS and Dispute Settlement Mechanisms of the United Nations Convention on the Law of the Sea," (2005); Rayfuse, Rosemary, "The Future of Compulsory Dispute Settlement Under the Law of the Sea Convention," *Victoria University of Wellington Law Review* 36, no. 4 (2005); United Nations Division for Ocean Affairs and the Law of the Sea Office of Legal Affairs, "Law of the Sea Bulletin" New York, 1996); United Nations, "United Nations Convention on the Law of the Sea," 131-134.

and the removal of tariffs from lamb exports to the United States, Goff praises the "growing acceptance by states of the need to give teeth to their international commitments through adopting enforcement mechanisms, and establishing specialist judicial bodies that can address international wrongs."[115] Notwithstanding this apparent contradiction, New Zealand was one of the first States to bring a claim in the newly formed International Tribunal for the Law of the Sea.

The first fishery dispute heard by the International Tribunal for the Law of the Sea (ITLOS) was that brought by Australia and New Zealand against Japan. The case contested (amongst other issues) Japan's proposal for an experimental fishing program within the context of the Convention for the Conservation of Southern Bluefin Tuna. Australia and New Zealand agreed in principle with the concept of such a program; an experimental fishing program would improve certainty in the southern Bluefin tuna stock assessment. However, they objected to its consumptive nature. Australia and New Zealand asserted that the scientific catch should be included in Japan's existing quota, rather than in addition to it, and they put this proposition to the ITLOS.[116]

On 27 August 1999, the ITLOS prescribed six provisional measures that effectively paused all progress on the experimental fishing program, and froze annual catch quotas at previously agreed levels pending the decision by the arbitral tribunal. The measures also required Australia, New Zealand and Japan to resume negotiations.[117] However, the arbitral tribunal subsequently revoked these provisional measures.

Japan asserted that the dispute had arisen under, and hence should be settled solely under, the Conservation of Southern Bluefin Tuna agreement. Further, they asserted that the Southern Bluefin Tuna agreement should be considered *lex*

[115] Goff, Phil, "International Institutions and Governance: A New Zealand Perspective" (Paper presented at the Australia-New Zealand Society of International Law, Wellington, 2003).
[116] Schiffman, Howard S., "The Southern Bluefin Tuna Case: ITLOS Hears Its First Fishery Dispute," *Journal of International Wildlife Law & Policy* 2, no. 3 (1999).
[117] Ibid.

specialis with respect to the UNCLOS; that the general nature of the UNCLOS was overridden by the specific nature of the Bluefin Tuna agreement.[118]

The arbitral tribunal rejected Japan's argument of *lex specialis*, and instead asserted that the Bluefin Tuna Agreement (and other regional agreements) could co-exist with the UNCLOS. However, citing Article 281 of the UNCLOS, the arbitral tribunal determined that the parties had effectively contracted out of the compulsory arbitration provided by the UNCLOS and hence the tribunal did not have the jurisdiction to rule on the merits of the case.[119] Further, the tribunal noted that Article 16 of the Bluefin Tuna agreement was based on Article XI of the 1959 Antarctic Treaty, and found that it was "obvious that these provisions are meant to exclude compulsory jurisdiction." This finding was in apparent direct contradiction to Article 16 of the Bluefin Tuna convention. Article 16 states that unresolved disputes related to the interpretation or implementation of the conventions shall "be referred for settlement to the International Court of Justice or to arbitration," such arbitration being defined as binding in the annex to the agreement.[120]

There are subject matter experts who opine that, in this case, the arbitral tribunal made an incorrect ruling, and hence there may be no valid precedent from that ruling. Further, the same experts conclude that the ruling was essentially based on matters of legal interpretation rather than the basis of the dispute – fishing – and that in future, the international community might be better served by an arbitral tribunal of fishing experts rather than legal experts.[121] Notwithstanding this view, it is clear in retrospect that an alternate wording in the Bluefin Tuna agreement could easily have placed arbitration within the jurisdiction of the UNCLOS. This, potentially, would have forced rulings on matters of fishery and would have provided important precedent for future dispute resolution. Unfortunately, this was not the case, and hence the Southern Bluefin Tuna dispute is not a good barometer for the effectiveness of the dispute resolution process of the UNCLOS.

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[118] Boyle, Alan E., and Malcolm D. Evans, "The Southern Bluefin Tuna Arbitration," *The International and Comparative Law Quarterly* 50, no. 2 (2001): 447-452.
[119] Ibid.
[120] Australia-New Zealand-Japan, "Convention for the Conservation of Bluefin Tuna," *1819 UNTS 360 (entered into force 30 May 1994)* (1993).
[121] Boyle, Alan E., and Malcolm D. Evans, "The Southern Bluefin Tuna Arbitration."

However, it does illustrate the potential for the UNCLOS to create fragmentation in international law.

One of the early criticisms of the dispute resolution process of the UNCLOS was the proliferation of tribunals available to hear and rule on UNCLOS disputes. Such a wide range of tribunals, and hence backgrounds and expertise, could potentially lead to inconsistent rulings on similar subject matters. In turn, this could lead to "substantive and procedural fragmentation of the law of sea," and of international law in general.[122]

Rayfuse notes that disputes to date have been largely confined to issues of prompt release of detained vessels, requests for provisional measures from the ITLOS and matters of jurisdiction. With respect to provisional measures, the Southern Ocean Bluefin Tuna case is considered one of the most important to date. However, since it was determined that the case did not fall within the arbitral tribunal's jurisdiction, it did not run to conclusion.[123] A case that did fall within the tribunal's jurisdiction was that of the MOX Plant.

The MOX plant case was a dispute between the Republic of Ireland and the United Kingdom related to the transport of MOX fuel by the United Kingdom. The United Kingdom argued that the case was not within the ITLOS's jurisdiction and, in any event, Ireland had not participated in an exchange of views on the matter. The ITLOS rejected both arguments on the basis that the UNCLOS stood alongside other regional agreements and that Ireland was not obliged to exchange views in the circumstance where it had determined that an agreement could not be reached (both situations previously condemned by the Southern Bluefin Tuna case).[124] However, despite having jurisdiction, the ITLOS chose not to prescribe provisional measures.

The decision by the ITLOS not to prescribe provisional measures was based on two factors. First, there was to be a relatively short period of time between the

[122] Rayfuse, Rosemary, "The Future of Compulsory Dispute Settlement Under the Law of the Sea Convention."
[123] Ibid.
[124] Ibid.

findings of the ITLOS and the establishment of the arbitral tribunal. Second, the United Kingdom had provided unilateral assurances that it would not transport MOX fuel before the establishment of the arbitral tribunal. The ITLOS thus concluded that there was no urgency, and that the United Kingdom and Ireland should continue to cooperate.[125]

In a subsequent case concerned with land reclamation in the straits of Johor (Malaysia vs. Singapore), the ITLOS reconfirmed its finding that once a State had concluded that no agreement could be reached, then it was no longer obliged to participate in an exchange of views. However, the ITLOS adjusted the manner in which it assessed urgency. Whereas previously it had considered the period between its own finding and the formation of the arbitral panel, it now included the likely period of the arbitral tribunal's deliberations. Nevertheless, it still refrained from prescribing provisional measures on the basis that Singapore's actions would not create irreversible damage to Malaysia's rights, and hence prudence and caution would again prevail.[126]

By now the ITLOS was receiving criticism on two distinct points. The first was that it was too liberal in determining that it had jurisdiction. The second was that it was blurring the bounds between urgency and appropriateness, and has "behaved less as a court of law and more as an agency of diplomacy." This view is supported by Rayfuse, who notes that the ITLOS's provisional measures have seldom solved disputes. Rather, they have usually served to push parties back to negotiation.[127]

Returning to the issue of fragmentation of international law, Rayfuse asserts that the net effect is that the UNCLOS's dispute resolution process is neither comprehensive nor compulsory. This arises from three factors. The first is that States can avoid UNCLOS jurisdiction by either not ratifying it, or by filing declarations that exempt certain activities from the compulsory provisions of the UNCLOS. Second, the range of authorities will eventually create a range of rulings, which may end up inconsistent with each other, yet still binding. Finally,

[125] Ibid.
[126] Ibid.
[127] Ibid.

the plethora of parallel treaties (encouraged by the UNCLOS) could place more and more disputes out of the jurisdiction of the UNCLOS.[128]

Overall, it is too early in the life of the UNCLOS to determine whether it has an effective dispute resolution process. However, initial assessments appear to be less positive than initial aspirations.[129] Hence, the thesis asserts that the protection provided to New Zealand's exclusive economic zone, by virtue of its ratification of the UNCLOS, is potentially partially compromised the Convention's unproven dispute resolution process.

Other Provisions

Part XVI of the UNCLOS wraps up a number of provisions that have no place in other parts of the agreement. It includes articles that promote good faith and the peaceful use of the seas as well as the discovery at sea of archaeological and historical objects. Article 302 preserves the right of States to withhold information that would otherwise be contrary to its national security, and Article 303 paragraph 4 and Article 304 preserve the integrity of wider international agreements.[130]

Part XVII of the UNCLOS, "Final provisions" covers issues related to the agreement itself. Of special note is Article 305, which outlines the eligibility of States and territories for signature of the UNCLOS. Item 1(a) opens the UNCLOS to signature by "all States." However, items 1(c) and 1(d) restrict signature to only those self-governing associated States that "have competence over the matters governed by this Convention, including the competence to enter into treaties in respect of those matters." Further, item 1(e) places the same restrictions on those territories that "enjoy internal self-government … but have not attained full independence."[131] Thus, if the Cook Islands, Niue or Tokelau did not meet the competence threshold, then New Zealand would be required to assume their responsibilities. However, although not members of the United Nations, both Niue

[128] Ibid.
[129] Chakraborty, Anshuman, "Dispute Settlement Under the United Nations Convention on the Law of the Sea and Its Role in Oceans Governance" (Victoria University of Wellington, 2006); Rayfuse, Rosemary, "The Future of Compulsory Dispute Settlement Under the Law of the Sea Convention."
[130] United Nations, "United Nations Convention on the Law of the Sea," 137-138.
[131] Ibid., 139.

and the Cook Islands have independently ratified the UNCLOS.[132] Tokelau's dependence on New Zealand legislation is reflected in the Tokelau (Territorial Sea and Exclusive Economic Zone) Act 1977.[133]

Article 308 specifies that the UNCLOS shall "enter into force 12 months after the date of the deposit of the sixtieth instrument of ratification or accession." This milestone was achieved on 16 November 1994, 12 months after Guyana's ratification.[134] Article 309 requires that the UNCLOS be accepted in its entirety, unless expressly permitted by the UNCLOS, although States may make declarations as described in Article 310.[135]

The UNCLOS' relationship to other international agreements is specified in Article 311. The UNCLOS is stated as prevailing over the historic 1958 Geneva Convention on the Law of the Sea, but does not otherwise impact existing international agreements. The right of States to bilaterally reach agreement on issues pertaining to the UNCLOS is preserved. However, such bilateral agreements are not permitted to create "provision derogation" with respect to the object and purpose of the UNCLOS.[136] The remaining articles in Part XVII are largely administrative.

This concludes the analysis of the UNCLOS as the legal instrument by which New Zealand has been able to declare an exclusive economic zone. The UNCLOS is clearly a comprehensive agreement. However, the totality of the agreement has led to compromises in New Zealand's foreign policy, including the extent of its nuclear free zone and the effectiveness of its anti-whaling stance. The thesis will later show that these issues link to New Zealand national security objectives, and hence have an overall detrimental effect on national security.

[132] United Nations, "Chronological Lists of Ratifications of, Accessions and Successions to the Convention and the Related Agreements as At 07 November 2012."
[133] New Zealand Government, "Tokelau (Territorial Sea and Exclusive Economic Zone) Act 1977," SR 1977/125 (1977).
[134] United Nations, "The United Nations Convention on the Law of the Sea: A Historical Perspective."
[135] United Nations, "United Nations Convention on the Law of the Sea," 140.
[136] Ibid., 140-141.

The UNCLOS clearly provides New Zealand with significant rights with respect to exploitation of the living resource of the EEZ and the non-living resources of the continental shelf. However, these rights come with obligations that include a fisheries management regime, a search and rescue obligation and the need to maintain naval and surveillance capability. These obligations are only partially being fulfilled.

The dispute resolution process with the UNCLOS is currently unproven. However, initial assessments are less positive than the initial aspirations. The thesis will now consider the degree to which the UNCLOS has been accepted internationally.

CHAPTER 3

Universal Ratification of the Law of the Sea

The United Nations Convention on the Law of the Sea is the international agreement that supports New Zealand's claim to an exclusive economic zone. It also provides the basis for most of New Zealand's other maritime claims. However, for such an agreement to have meaning, it must be widely adopted amongst the world's sovereign nations. The thesis will now analyse the degree to which States have recognised the UNCLOS, with a view assessing the international acceptance of its principles.

Although the UNCLOS was initially agreed in 1982, it did not come into effect until 1994: one year after the 60th ratification. As of 16 January 2013, the UNCLOS has been ratified by 164 sovereign nations, the most notable of those yet to ratify being the United States.[1]

The United States Secretary of State publicly stated in 2009 that ratification is a "long overdue" priority.[2] However, as at January 2013, the United States has still not ratified the UNCLOS. As such, the thesis will now examine the circumstances surrounding the United States' non-ratification to determine if it constitutes a threat to New Zealand's ability to sustain its claim to an EEZ.

The United States' first credible attempt to ratify the UNCLOS was in October 2003. A series of hearings were held by the United States Senate Foreign Relations Committee on the matter of accession to the UNCLOS and ratification of the associated implementation agreement. At the conclusion of the hearings in February 2004, the committee unanimously voted to support accession and ratification and referred the matter to the full Senate for consideration. However, even though the matter of United States accession and ratification of the UNCLOS was on the schedule for the 108th Congress, it was never brought to a vote.

[1] United Nations, "Chronological Lists of Ratifications of, Accessions and Successions to the Convention and the Related Agreements as At 07 November 2012."
[2] Clinton, Hilary R., "Transcript of Hillary Clinton's Confirmation Hearing," http://www.cfr.org/publication/18225/transcript_of_hillary_clintons_confirmation_hearing.html (accessed 19 July, 2010).

Subsequently the Congress concluded without resolution, which effectively nullified the Foreign Relations Committee's recommendation. As such, the matter would now need to be reconsidered by a new Foreign Relations Committee before it could be put to the Senate again.[3]

The lack of action by the United States Senate cannot simply be attributed to administration oversight. Rather, it is indicative of deep divide within the United States with respect to the manner in which it conducts its foreign affairs. This divide is compounded by the comprehensiveness of the UNCLOS, which would have a significant influence on how the United States should conduct itself within the international community. As such, those in opposition to the UNCLOS may have sought to avoid bringing the issue to a final vote, choosing obstruction rather than debate as a way to advance their interests. This deep divide relates back to the strategic importance that the United States places on its maritime environment.

In order to counter the perceived strategic threat of the British Royal Navy, the United States made a strategic decision during the 1890s to establish itself as a naval power. It sought to project influence beyond its immediate geography, and to displace Great Britain's influence in the Western hemisphere. The strategy was largely successful, and by the early twentieth century, the United States became a significant participant in international affairs.[4] As such, the United States has come to consider freedom of movement of its naval vessels as synonymous with its ability to project influence on the international community.[5] However, this was not the only value that the United States attributed to the world's oceans.

The United States set an international precedent in 1945, when President Harry S. Truman proclaimed exclusive jurisdiction over "the natural resources of the subsoil and sea bed of the continental shelf … beneath the high seas but contiguous to the coast of the United States."[6] The intent of the claim was to secure the

[3] Duff, John A., "The United States and the Law of the Sea Convention: Sliding Back From Accession and Ratification," *Ocean and Coastal Law Journal* 11, no. 1&2 (2005), 2.
[4] Kissinger, Henry, *Diplomacy* (New York: Simon & Schuster, 1994), 38.
[5] Duff, John A., "The United States and the Law of the Sea Convention: Sliding Back From Accession and Ratification," 3.
[6] Truman, Harry S., "Proclamation 2667, Policy of the United States With Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf," (1945).

identified wealth of natural resources surrounding the United States, for the United States, for prosperity. However, to secure this claim, President Truman would need to successfully invoke the international law concept of "claim and response." The international community responded with a myriad of similar claims by the world's maritime powers. The volume of claims effectively accelerated the transition from claim to customary international law: such acceptance being achieved within 4-5 years instead of decades. As such, the United States proclamation was effectively accepted.[7] Ironically, the United States proclamation and the subsequent precedent in customary international law is now the basis of much of the existing UNCLOS: still unratified by the United States.

This irony is compounded by the United States' long history of support for various aspects of the UNCLOS. United States support for an internationally governed seabed began during the term of the second United States president, John Adams, who proclaimed that:

> *Neither nature nor art has partitioned the sea into empires. The ocean and its treasures are the common property of all men. Upon this deep and strong foundation do I build, and with this cogent and irresistible argument do I fortify our rights & liberties.*[8]

President Lyndon Johnson supported this proclamation in 1970, when he declared that:

> *Under no circumstances, we believe, must we ever allow the prospects of rich harvest and mineral wealth to create a new form of colonial competition among the maritime nations. We must be careful to avoid a race to grab and to hold the lands under the high seas. We must ensure that the deep seas and the oceans bottoms are, and remain, the legacy of all human beings.*[9]

[7] Duff, John A., "The United States and the Law of the Sea Convention: Sliding Back From Accession and Ratification," 4.
[8] Kraska, James, *Maritime Power and the Law of the Sea: Expeditionary Operations in World Politics* (New York: Oxford University Press, 2011).
[9] Nandan, Satya N., and Michael W. Lodge, *The Development of the Regime for Deep Seabed Mining* (Jamaica: International Seabed Authority, 1982), 12.

Following a review of United States policy on the use of the ocean, President Richard Nixon proposed in 1970 that:

> *All nations adopt as soon as possible a treaty under which they renounce all national claims to the natural resources of the seabed beyond the point where the high seas reach a depth of 200 meters and agreed to regard these resources as the common heritage of mankind.*[10]

Unfortunately, these sentiments have not been reflected in unilateral United States support for ratification of the UNCLOS.

United States reservations with respect to ratification of the UNCLOS began during final negotiations in 1982. The United States objected to both the governance framework related to deep seabed mining activities, and to the commercial and economic reigning principles related to exploitation of the area. President Reagan placed six conditions on United States ratification, and deemed that these had not been met in the final draft of the UNCLOS. Since conditional acceptance of the UNCLOS was unavailable, the United States subsequently declined to ratify the agreement. These concerns were shared by many developed nations: Duff notes that only one of the first 60 ratifications was by an industrialised State. Although Duff's point is possibly overstated, this hesitancy amongst the developed nations required significant further negotiations to achieve resolution.[11]

In part, the protracted nature of the negotiations was due to the intensive lobbying by United States Special Envoy on the Law of the Sea Treaty Donald Rumsfeld. Rumsfeld was appointed by President Ronald Reagan and charged with convincing developed nations to withhold ratification and to renegotiate Part XI with a view to developing a set of terms more palatable to the United States. Eventually the United Nations agreed and, between 1990 and 1994, implementation details related to Part XI of the UNCLOS were renegotiated. These

[10] Duff, John A., "The United States and the Law of the Sea Convention: Sliding Back From Accession and Ratification," 5-6.
[11] Ibid., 6.; United Nations Statistics Division, "Standard Country and Area Codes Classifications (M49): Composition of Macro Geographical (Continental) Regions, Geographical Sub-Regions, and Selected Economic and Other Groupings," http://unstats.un.org/unsd/methods/m49/m49regin.htm#developed (accessed 20 May, 2012); United Nations, "Chronological Lists of Ratifications of, Accessions and Successions to the Convention and the Related Agreements as At 07 November 2012."

negotiations resulted in a separate “Agreement Relating to the Implementation of Part XI of the Convention” (the Implementation Agreement.)[12]

On 29 July 1994, 41 States, including the United States, Australia, Canada, France Germany, New Zealand and the United Kingdom signed the Implementation Agreement. The Implementation Agreement and the UNCLOS Part XI were to be “applied together as a single instrument.” However, in the event of an inconsistency, the Implementation Agreement would have precedence. The Implementation Agreement would come into effect 30 days after 40 States “have established their consent to be bound in accordance with Articles 4 and 5.” However, this condition was also subject to the proviso that those 40 states must include at least seven “pioneer States,” as defined in paragraph 1(a) of Resolution II of the third United Nations Conference on the Law of the Sea. Further, at least five of those seven (or more) pioneer States must also be developed States. Finally, States could only consent to be bound by the Implementation agreement after having first consented to being bound by the UNCLOS.[13] However, as already noted, the United States has neither ratified nor consented to be bound by the UNCLOS, despite being a signatory to the Implementation Agreement. Ironically, this apparent contradiction did not prevent the United States from being a significant beneficiary of the Implementation Agreement.

The United States benefited from being a signatory to the Implementation Agreement in two ways. The first was that the United States was subsequently permitted to participate in the establishment of structural components of the International Seabed Authority. Since the United States did not subsequently ratify the UNCLOS, this privilege has since expired. The second benefit was that the signing of an international agreement, and subsequent attempt at domestic

[12] Duff, John A., “The United States and the Law of the Sea Convention: Sliding Back From Accession and Ratification,” 6-8.
[13] Ibid., 8-9.; United Nations, “Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982.”; United Nations, “Chronological Lists of Ratifications of, Accessions and Successions to the Convention and the Related Agreements as At 07 November 2012.”; United Nations. “Final Act of the Third United Nations Conference on the Law of the Sea: Extract From the Official Records of the Third United Nations Conference on the Law of the Sea, Volume XVII (Plenary Meetings, Summary Records and Verbatim Records, as Well as Documents of the Conference, Resumed Eleventh Session and Final Part Eleventh Session and Conclusion).” Third United Nations Conference on the Law of the Sea, Montego Bay, Jamaica, 10 December 1982.

ratification, led to a condition in domestic United States law referred to as "reflection."[14]

In 1994, President Clinton declared that the UNCLOS was now ready for United States ratification and forwarded the Implementation Agreement and the UNCLOS to the United States Senate. Despite strong support from Clinton's Democrat controlled Senate, hearings were never held. This was because control of the Senate shifted to the Republican Party shortly after submission. However, since the UNCLOS now enjoyed widespread support from the International community, the United States Executive Branch of Government now claimed that the UNCLOS had effectively become customary international law. As such, it recognised – as customary international law – those aspects of the UNCLOS that were to its benefit, and materially ignored the rest. Of course, the realisation of this policy would have to be endorsed by the Legislative Branch of the Government, who would be responsible for reflecting UNCLOS into United States domestic law.[15]

The reflection of the UNCLOS into United States domestic law was somewhat piecemeal, due to existing case law and precedents resulting from UNCLOS I and other historical agreements. Nevertheless, a number of key components of the 1982 UNCLOS were adopted by the United States. These components include: the declaration of a Territorial Sea by President Reagan in 1988; the declaration of a Contiguous Zone by President Clinton in 1999; and increasing use of the 1982 UNCLOS by United States domestic courts, including the Court of Appeal, as a reflection of customary international law: although not as international treaty law.[16]

Although not regarded as international treaty law, some United States domestic courts have expressed the view that they have an obligation to "refrain from acts which would defeat the object and purpose of treaty." This view stems from the belief that the act of the President submitting the UNCLOS for consideration to the Senate means that the United States is tentatively a party to that treaty. As such, it must be viewed has having "the weight of law" from the date of submission. This

[14] Duff, John A., "The United States and the Law of the Sea Convention: Sliding Back From Accession and Ratification," 9.
[15] Ibid., 10.
[16] Ibid., 10-12.

concept stems from the Vienna Convention on the Law of Treaties, which the United States recognises without being a party to.[17]

The United States use of the UNCLOS as a reflection of customary international law provides an interesting contrast to New Zealand's reflection of the UNCLOS into its own domestic legal system. As already outlined, New Zealand has passed a significant amount of domestic legislation to ensure that the obligations imposed by the UNCLOS are clearly reflected by equivalent terms in New Zealand domestic legislation. As such, there is little ambiguity when it comes to resolution by the courts. In contrast, United States courts have not consistently applied the principle of the UNCLOS as a reflection of customary international law, with some jurisdictions ruling that the UNCLOS does not apply when one party to the dispute is not a signatory. Consequently, different precedents are being set by different United States domestic jurisdictions.[18] Nevertheless, there was no compelling incentive for the United States to ratify the UNCLOS, as it was materially achieving its maritime objectives through its reflection policy. This situation would change on 11 September 2001.

Following the Al-Qaida terrorist attacks of 11 September 2001, the United States was forced to reconsider its foreign policy and consequential standing in the international community. However, the next opportunity to reconsider ratification of the UNCLOS was in 2003, with the retirement of United States Senator Jesse Helms.[19]

Senator Helms had held the position of Chairman of the Senate Committee on Foreign Relations whilst most of the deliberation over ratification was occurring, and he was a significant proponent of the policy that the UNCLOS was a reflection of international customary law. In January 2003, Senator Richard Lugar took over as Chairman of the Senate Committee on Foreign Relations. Senator Lugar was much more in favour of United Nations cooperation than Senator Helms, and was clearly a proponent of United States ratification of the UNCLOS. The renewed ratification effort began in October 2003, when Senator Lugar reconvened

[17] Ibid., 13-15.
[18] Ibid., 16.
[19] Ibid., 16-17.

hearings, citing global security and international leadership as the two compelling motives for ratification of the UNCLOS. However, submissions were heard from a wide range of interests including the petroleum industry, environmental groups, academics, commercial shipping, other Senate groups and defence.[20]

The events of 11 September 2001 had forced the United States to refocus on international security, and the UNCLOS was seen as a key enabler of the new United States Defence policy. The United States Department of Defence argued that, although reflection afforded the United States most rights with respect to navigational matters, ratification would allow the United States to participate in international entities that had been established in support of the UNCLOS. Participation in these entities would provide the United States with a forum in which to champion navigational freedom, and would afford it more influence in matters related to the maritime carriage of weapons of mass destruction. Further, ratification would clarify the right of the United States to undertake interdiction operations.[21]

The only hesitancy on the part of the Department of Defence was related to the clarity with which a State is able to declare particular activities as "military." The Department of Defence recommended ratification on the condition that declaration of activities as military would be the exclusive right of the State undertaking those activities, and would not itself be subject to dispute resolution.[22] In addition to the Department of Defence, the Department of State also supported ratification of the UNCLOS.

The diplomatic perspective, provided by the United States Department of State, was simple: by not ratifying the UNCLOS, the United States risked being seen as a follower, rather than a leader, with respect to international affairs. During his testimony Assistant Secretary of State John F. Turner, pointed out that most of the world's States (143 at the time) and most of the United State's allies had ratified

[20] Ibid.
[21] Ibid.
[22] Ibid., 17-20.; Ivey, Mathew W., "National Security Implications in the Global War on Terrorism of the United States' Accession to the United Nations Convention on the Law of the Sea," *Dartmouth Law Journal (*2009); Moore, John Norton, "Prepared Testimony of John Norton Moore Before the Senate Committee on Armed Services," (2004).

the UNCLOS. He saw ratification as way by which the United States could demonstrate leadership with respect to maritime issues and urged the Foreign Relations Committee to push for immediate ratification. It is arguable that the United States had already lost the opportunity to demonstrate leadership; nevertheless, this was the Department of State's position.[23]

The argument with respect to United States leadership in matters of international maritime law was supported by academics Professor Bernard Oxman and Professor John Norton Moore. Oxman was critical of the policy of reflection, pointing out that United States interpretation of customary international law was only half the equation. He asserted that the perception and interpretation of other States was more likely to be the ultimate factor in the success or failure of this policy. Oxman had previously been appointed an ad-hoc judge on the International Tribunal for the Law of the Sea, and was thus a credible commentator. Moore opined that the United States would benefit by participating in the entities established because of the UNCLOS. These entities included the Council of the International Seabed Authority, the International Tribunal for the Law of the Sea, the Commission on the Limits of the Continental Shelf and the annual meeting of the UNCLOS. He also asserted that ratification would provide a more tangible basis on which to contest illegal maritime claims.[24]

The increasing issue of contested maritime claims was mirrored by the increasing incidence of continental shelf claims. Senator Ted Stevens pointed out that two thirds of the United States continental shelf (in the eyes of the United States) was situated off Alaska, and that Russia had also been recently active in asserting its claims in that region. Duff points out that the United States is actively researching the potential for continental shelf claims in these areas, and suggests that this is in preparation for a future claim under Article 76 of the UNCLOS.[25] The prospect of a continental shelf claim introduces the prospect of United States commercial exploitation beyond its immediate territory.

[23] Duff, John A., "The United States and the Law of the Sea Convention: Sliding Back From Accession and Ratification," 20.
[24] Ibid., 22-23.
[25] Ibid., 23-24.

Paul Kelly (Senior Vice President, Rowan Companies, Inc.) testified on behalf of the United States commercial energy exploitation industry at the Foreign Relations Committee hearings. Kelly asserted that United States commercial entities were willing and capable to undertake deep-water (2km) extraction of gas and oil, and that the UNCLOS was the only treaty-based method they had to legitimise a claim in the wider United States continental shelf. Further, Kelly indicated that United States commercial interests were anxious to set the precedent for operating in an "environmentally sound" manner in the zone beyond 200 nautical mile limit.[26] The Ocean Conservatory, a United States-based non-government advocacy group, delivered a similar environmental message.

Speaking in his role as President of the Ocean Conservatory, former United States Coast Guard Vice Admiral Roger Rufe presented a relatively balanced view of the pros and cons of United States ratification of the UNCLOS, from the perspective of environmental protection. In support of ratification, Rufe referenced the need for the United States to be participative in order to increase its international creditability. Further, he referenced the Pew and Federal Oceans Commission's recommendations for accession based on securing "a positive environmental framework for U.S. ocean management." However, he qualified these positive statements with concern over "potential ambiguities between the Convention's terms and the United States' own statutory framework."[27]

Rufe asserted that the UNCLOS was a self-executing treaty, and that the United States did not need to pass domestic legislation in order to give it domestic legitimacy (an illustration of the constitutional differences between the United States and New Zealand). However, this raised the prospect of interpretation of the UNCLOS within the United States judicial system, and Rufe went on to highlight eight issues that required "interpretative statements."[28]

These issues included: the rights a coastal State had to protect itself against pollution from ships; the treatment of invasive specifies via water ballast;

[26] Ibid., 25.
[27] Rufe, Roger, "Statement of Roger Rufe, President of the Ocean Conservancy, Before the Senate Committee on Foreign Relations" Washington D.C., (2003).
[28] Ibid.

conditions of port State entry; enforcement of non-monetary penalties in the territorial sea; environmental protection in the contiguous zone; regulation of polluting operations at sea; the definition of grounds for inspection; and the compromises involved in the dispute resolution process. The last of these was possibly the most significant, and certainly a common objection amongst most lobbyists.[29]

Rufe asserted that the UNLCOS's dispute settlement provisions could be used as a block to enforcement of domestically legislated trade measures and sanctions. Although the UNCLOS was never intended to include such powers, Rufe remained concerned that other States might leverage the UNCLOS dispute resolution process to discredit United States domestic legislation, leading to advantage in the World Trade Organisation. For this, and the seven other issues, Rufe recommended that the Senate develop "interpretive language" that clarified the United States position, and reserved certain rights and expectations. This appears to come dangerously close to qualified ratification, which is specifically not allowed under the UNCLOS. However, once again this highlights a significant difference between the United State's and New Zealand's attitude towards International Relations: reservation versus adoption. Nevertheless, in sum, Rufe strongly supported United States ratification of the UNCLOS, and recommended incorporating the various measures outlined during his testimony.[30]

The other significant view during the Senate hearings was that of commercial shipping. Chamber of Shipping of America (CSA) president Joseph Cox raised concerns that non-ratification would deny the United States a forum by which it could challenge the arguably unreasonable regulations being imposed by a number of coastal States. He referenced recent actions off Western Europe as examples of the unsubstantiated declarations relating to particularly sensitive sea areas. Cox also highlighted the importance of ratification of Annex VI of the Convention to Prevent Pollution From Ships, thus emphasising the environmental benefits that ratification of these two conventions would bring. Finally, Cox asserted that lack of ratification would significantly disadvantage United States

[29] Ibid.
[30] Ibid.

shipping interests with respect to the application and interpretation of the Law of the Sea principles.[31]

Having considered the many submissions from many varied entities, the Foreign Relations Committee voted unanimously (19-0) in support of United States ratification of the UNCLOS. The UNCLOS and Implementation Agreement were then placed on the Senate schedule (11 March 2004) for final agreement. However, against convention, a number of Senate and House committees requested further hearings before the matter was put to the Senate. These committees included: the Senate Committee on Environment and Public Works; the Senate Armed Services Committee; the House Committee on International Relations; and the Senate Select Intelligence Committee. While no substantive new issues were raised, opponents to ratification reasserted their concerns with respect to United States sovereignty and matters related to exploitation of the area.[32]

In light of this renewed opposition, proponents renewed their support of United States ratification. Between February and July 2004, the Chair of the Foreign Relations Committee, Senator Richard Lugar, wrote a series of twenty letters to the Senate arguing for ratification. In September 2004, in its report, the United States Commission on Ocean Policy declared, “the United States shall accede to the United Nations Convention on the Law of the Sea.” President Bush agreed with the Commission, and reasserted “the Bush administration is committed to United States accession to the United Nations Convention on the Law of the Sea.” However, the Senate never voted on the matter.[33]

According to Senate Rules, any matter that is submitted, but not voted on before the Congress term concludes, is to be resumed at the next congress “as if no proceedings had previously been had.” This effectively negated all support that

[31] Duff, John A., “The United States and the Law of the Sea Convention: Sliding Back From Accession and Ratification,” 21-22.
[32] Ibid., 26.
[33] Ibid., 26-28.

had been accumulated through the series of hearings, and invalidated the unanimous vote of the Foreign Relations Committee.[34]

The failure of the United States to ratify the UNCLOS prompted ongoing debate, particularly amongst academics. However, proponents and opponents continue to reassert old arguments, debating the threat to United States Sovereignty versus the ability of the United States to participate in international agreements. As outlined earlier, this debate is symptomatic of a deeper debate with the United States as to how it should conduct its international relations.[35]

Despite this apparent impasse, the passage of time continues to change the strategic environment within which the debate is being conducted. As such, the Foreign Relations Committee once again debated this matter: with hearings being held on 23 May 2012 and 14 June 2012. The arguments posed in this round of hearings are relatively unchanged, but a further eight years of experience have further changed the context.[36]

In the 2012 hearings, Committee Chairman John Kerry, Secretary of State Hillary Clinton, Secretary of Defence Leon Panetta, Joint Chiefs of Staff Chairman General Martin Dempsey, Joint Chiefs of Staff Vice Chairman Admiral James Winnefeld Jr., Chief of Naval Operations Admiral Jonathon Greenert, Coast Guard Commandant Admiral Robert Papp and many other current military commanders and former senior United States Government officials all spoke strongly in support of United States Ratification of the UNCLOS. Chairman Kerry's opening statements set the scene for those in favour of ratification:

> *Some may ask why now, why consider a Treaty that's been untouched by the Senate for the last five years, and been hanging around for more than that. I think the real question is why we wouldn't have this discussion, now, when today, we have the worst of all worlds. We've effectively lived by the*

[34] Ibid., 28.
[35] Ibid., 28-34.; Moore, John Norton, and William L. Schachte Jr., "The Senate Should Give Immediate Advice and Consent to the Law of the Sea Convention: Why the Critics Are Wrong," *Columbia Journal of International Affairs* 59, no. 1 (2005); Ridenour, David A., "Ratification of the Law of the Sea Treaty: A Not-So-Innocent Passage," *National Policy Analysis*, http://www.nationalcenter.org/NPA542LawoftheSeaTreaty.html (accessed 18 June, 2012).
[36] United States Senate Committee on Foreign Relations, "Hearings," http://www.foreign.senate.gov/hearings/ (accessed 18 June, 2012).

terms of the Treaty for 30 years but, as a non-party, we're on the outside looking in. We live by the rules but we don't shape the rules.

Proponents modernised their arguments, referencing recent global security issues and the rapid growth of international telecommunications. They also reasserted the traditional arguments related to deep-sea exploration, military effectiveness, international credibility and energy security. As at June 2012, the only significant testimony from an opponent was that of former Secretary of Defence, Donald Rumsfeld.[37]

In his testimony, Rumsfeld described the UNCLOS as "a sweeping power grab that could prove to be the largest mechanism for the worldwide redistribution of wealth in human history." He went on to reassert his historical opposition based on the threat posed to United States sovereignty, but presented no compelling contemporary argument against ratification.[38]

Overall, proponents of United States ratification of the UNCLOS have made a compelling argument as to why the United States should accede to this convention. Despite this reason, to date every attempt to ratify the UNCLOS has been subverted by administrative process: arguably a deliberate tactic of opponents to ratification. However, from New Zealand's perspective, the most important issue is the impact that this action has on the substantiveness of the UNCLOS as a legal basis for its EEZ, and other maritime interests.

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[37] Clinton, Hillary R., "Written Testimony of Hillary Rodham Clinton, Secretary U.S. Department of State Before the Senate Foreign Relations Committee on May 23, 2102" (Paper presented at the Hearings on the Law of the Sea Convention (Treaty Doc. 103-39), Washington D.C., 2012); Dempsey, Martin E., "Statement of General Martin E. Dempsey, USA Chairman Joint Chiefs of Staff Before the Senate Committee on Foreign Relations Law of the Sea" (Paper presented at the Hearings on the Law of the Sea Convention (Treaty Doc. 103-39), Washington D.C., 2012); Kerry, John, "Kerry Statement" (Paper presented at the Hearings on the Law of the Sea Convention (Treaty Doc. 103-39), Washington D.C., 2012); Panetta, Leon E., "Secretary of Defence Leon E. Panetta Law of the Sea Convention - Submitted Statement Senate Foreign Relations Committee" (Paper presented at the Hearings on the Law of the Sea Convention (Treaty Doc. 103-39), Washington D.C., 2012); United States Senate Committee on Foreign Relations, "Hearings: The Law of the Sea Convention (Treaty Doc. 103-39): Perspectives From the U.S. Military," http://www.foreign.senate.gov/hearings/the-law-of-the-sea-convention-treaty-doc-103-39-perspectives-from-the-us-military-am.

[38] Rumsfeld, Donald, "Senate Foreign Relations Committee Prepared Testimony By Former Secretary of Defence Donald Rumsfeld" (Paper presented at the Hearings on the Law of the Sea Convention (Treaty Doc. 103-39), Washington D.C., 2012).

The United States appears likely to ratify the UNCLOS as some stage: if not immediately, then possibly after the retirement of the Cold War-generation of opponents to accession. Even if the United States does not ratify the UNCLOS, the sheer volume of nations that have ratified it will see the majority of its constructs becoming legitimised as customary international law, as opined by Geddis:

> *The Convention was one of the landmark treaties of the twentieth century. Described on its adoption as a "constitution for the oceans", it codified and established international rules governing all aspects of the world's oceans. Much of its content has now gained the status of customary international law binding on all States, even those that have not become party to it.*[39]

Vallarta is not so optimistic, opining that non-ratification will bind States "to the principles, but not to the detail of the UNCLOS."[40]

Hence, the non-ratification by the United States appears to be a temporary aberration in the global ratification of the UNCLOS. As such, the thesis asserts that the UNCLOS is well accepted globally, and that it is likely to be an effective instrument on which to base New Zealand's claim to an exclusive economic zone.

[39] Geddis, Elana, "The Law in International Waters," *NZ Lawyer* 174 (2011): 18.
[40] Vallarta, Jose Luis, "Protection and Preservation of the Marine Environment and Marine Scientific Research At the Third United Nations Conference on the Law of the Sea."

CHAPTER 4

New Zealand's National Security Framework

In 2011, the New Zealand Department of Prime Minister and Cabinet published a report that outlined its view of New Zealand's national security interests, and provided direction to New Zealand Government agencies on how to cooperate to achieve national security. This document is the most recent statement from the New Zealand Government on matters of national security.

In order to get a sense of New Zealand's approach to national security, this chapter will analyse the structure of the framework described in the national security report. However, analysis of the security dividend provided by New Zealand's maritime claims is deferred until Chapter 7 "Security Dividend of the Maritime Claims."

The national security report set seven objectives that would underpin New Zealand national security:

1. Preserve sovereignty and territorial integrity;
2. Protect lines of communication;
3. Promote security by strengthening international order;
4. Sustain economic prosperity;
5. Maintain democratic institutions and national values;
6. Ensure public safety; and
7. Protect the natural environment.

In order to achieve these objectives, the report directs a "risk-managed" approach to national security, supported by "good practice": metrics, standards and transparency. It further specifies that risks are to be managed at the level closest

to those most directly affected, whilst acknowledging that "the more complex the risk, the greater the need for active partnerships between multiple stakeholders." [1]

Acknowledging the need to tailor the scale of the response to the potential impact of the issue, the report defines three tiers of response. The first tier is the responsibility of first line responders such as the police, fire and ambulance services, using established practise, and coordinated by a Coordinated Incident Management System (CIMS) as necessary. Events on a greater scale such as regional natural disasters would be managed by regional entities such as district health boards, civil defence and regional councils. However, issues of national security would be the responsibility of central government.[2]

At the heart of central government, three specific groups (in addition to the individual government agencies) manage matters of national security. The Cabinet Committee on Domestic and External Security Co-ordination (DES) is the decision making body, and its membership can be tailored for the particular issue at hand. DES has standing Cabinet authority – the Power to Act – in order to provide timely decision-making in response to issues of national security. Reporting to DES are the Officials' Committee for Domestic and External Security Co-ordination (ODESC) – a body of central government chief executives – and watch or working groups of senior officials. The watch and/or working groups are established as required. These watch groups are formed from relevant central government agencies, and are expected to monitor and evaluate emerging risks and to subsequently recommend courses of action. The report also acknowledges that central government agencies – or a range of government agencies – are responsible for developing national policies and strategies.[3]

The last point, that groups of government agencies are responsible for developing national policies and strategies, addresses two significant historical failures of New Zealand national security. The first is that central government agencies, working in isolation, do not have the necessary range of expertise or authority to

[1] Department of the Prime Minister and Cabinet, "New Zealand's National Security System," (2011), 3-6.
[2] Ibid., 6.
[3] Ibid., 6-8.

comprehensively develop national security policies and strategies. The second point, less clearly made but potentially more important, is that national security is arguably better achieved through strategic planning, rather than tactically responding to crises as they occur. Looking forward, the report highlights (what DPMC consider to be) the seven components of a successful national security system: leadership, accountabilities, lead agencies, intelligence community, value for money, balancing security and liberty, and external relationships.[4]

In order to address this issue of leadership, ODESC's terms of reference have been redefined. Whilst retaining its tactical response role, it is now also clearly responsible for providing policy leadership "from the centre." The purpose of this central leadership includes coordination of strategic direction of individual agencies and the ability to "address structural impediments to improved performance." ODESC has been instructed to take a strategic approach to the identification and prioritisation of national security issues. This has effectively provided a mandate to shift from a tactical approach to national security, to a more comprehensive strategic approach. Recent tangible results of this shift in direction include the assignment of the role of National Security Advisor to the Chief Executive of the Department of the Prime Minister and Cabinet, and the establishment of the Director of Security and Risk and the Director of Intelligence Coordination. Central government has also committed to the periodic publication of a National Security Statement, the purpose of which is to "put national security interests in the context of the Government's overall objectives and set priorities for managing the various risks that face the nation."[5]

In considering the second point, accountabilities, DPMC highlight two broad processes by which national security issues are managed. The first – everyday risks – are the accountability of individual government departments and agencies: this is aided by the assignment of lead agencies for particular issues. The second, whole of government risk management, is the accountability of ODESC. ODESC, in support of the Cabinet Domestic and External Security Committee (DES), "may establish and define responsibilities for any officials' committees, sub-committees,

[4] Ibid., 6-12.
[5] Ibid.

working groups or watch groups, it considers necessary to assist in performing its functions." Further, it is ODESC's role to "assess the quality of strategic national security risk management advice coming to government from agencies" and to provide oversight on national security exercises.[6]

The DPMC report claims that the exercise programme has proven "invaluable" in recent years and has tested the nation's ability to respond to natural calamities, a pandemic, a bio-security compromise and a cyber attack.[7] While this may well be true, these measures represent a continuation of the notion that national security is achieved through management of risks to national security, rather than the creation of a strategic environment in which national security is assured. So, although ODESC has been instructed to take a more strategic approach to national security, and has the ability to create a whole of government group whose function it is to develop such a strategy, much of their effort is still based on response rather than shaping the strategic environment. This seems somewhat at odds with the apparent strategy of achieving maritime security through membership of international agreements: the UNCLOS. This juxtaposition could be due to the inappropriateness of such a methodology, or the difficulty in achieving inter-departmental cooperation.

The third component of national security highlighted by the DPMC report also touches on the disparity of government agencies by introducing the concept of lead agencies. In their guidance, DPMC assign responsibility for managing specific risks to national security to lead agencies. This assignment is based on each agency's expertise, experience and authority. DPMC states that many risks will be managed within the resources of a single department – presumably the lead agency – with more complex or unusual risks being managed by the national security system.[8] However, there are two drawbacks with this approach. The first is the presumption that external risks will naturally align with the somewhat arbitrary division of responsibilities between government agencies. The second is the consequential requirement to manage the most complex and unusual risks,

[6] Ibid., 12-14.
[7] Ibid., 13-14.
[8] Ibid., 14.

arguably the most difficult to deal with, using ad-hoc committees established by ODESC.

The assignment of lead agencies is described as “indicative.” Further, since this is the first time such an assignment has been undertaken, it is to be the subject of further consultation.[9] The assignment itself appears somewhat arbitrary. There is no consistent theme for assignment, with some assignments appearing to be based on strategic impact, while others appear to be based on the agency’s ability to operationally respond. For example, “Telecommunications international communications loss” is the responsibility of the Ministry of Economic Development (now the Ministry of Business, Innovation and Employment). This is arguably a strategic assignment under the umbrella of “Sustaining economic prosperity.” The alternative would have been to make an operational assignment to the organisation responsible for the protection of national critical infrastructure: the Government Security Communications Bureau.[10] However, the lead agency for “Maritime threats (NZEEZ, etc.)” is the New Zealand Defence Force as operational responders, rather than the Ministry of Foreign Affairs and Trade in their role with respect to managing international relations. Thus, there is an inconsistency in lead agency assignment.

The fourth component of national security highlighted by the DPMC report is that of the intelligence community. The report criticises the historical isolation of the intelligence agencies, and their marginal alignment with the broader national security objectives. However, it goes on to highlight the establishment of the intelligence coordination group – an outcome of the 2010 intelligence review – and predicts a closer relationship between the intelligence and law enforcement agencies. The report does not acknowledge the role that intelligence has in shaping strategy, but focuses solely on the support provided to operational decision-making. It is not clear whether this failure to focus on strategic advice results from DPMC’s misunderstanding of the role that intelligence agencies could play, or from the inability of the intelligence agencies to provide such advice. The

[9] Ibid., 25-26.
[10] New Zealand Government, “Government Communications Security Bureau Act 2003,” 9 (2003), 6-8.

report hints at the latter: lack of alignment with the broader national security objectives on the part of the intelligence agencies.[11]

The DPMC report's fifth component of national security, value for money, only briefly touches on the actual issue of national security. It notes that "defining value for money in the national security space is not straight-forward," but attributes this to the difficulty in publicising classified information. The report ignores the issue of the value of national security itself, and instead advocates an aggregated view across all government agencies that deal with "contemporary security issues." To achieve this, it leans on system engineering constructs, including: coherence across elements connectedness between elements, completeness of the system, clarity of understanding of the whole, and consistency of process and standards.[12] In effect, the report focuses on value for money in the provision of intelligence reporting, a further indicator of the focus on operational response, rather than strategic security.

This focus on intelligence reporting is carried into the sixth component of national security highlighted in the DPMC report: balancing security and liberty. The report highlights the need to meet the expectations of an open and accountable government, and goes on to explain the mechanisms by which the intelligence agencies are subjected to oversight. Whilst this is an important function in an open and democratic society, the report does not attempt to provide guidance on where the balance of security and liberty should lie. Rather it asserts "regular reporting to the Domestic and External Security Committee, and periodic public statements will reassure those members of the public who hold concerns."[13]

The final component of national security highlighted in the DPMC report is that of external (foreign) relationships. The report correctly identifies that New Zealand has "several dozen" bilateral relationships that the nation "derives considerable benefits from." It further identifies that these relationships are "not well understood collectively," and that there is "no mechanism to understand the relative value of each." Unfortunately, the report is somewhat fatalistic in its approach to external

[11] Department of the Prime Minister and Cabinet, "New Zealand's National Security System," 15.
[12] Ibid.
[13] Ibid., 16.

relationships and hints that their existence is largely historical rather than planned. Although the report clearly identifies the benefit that New Zealand derives from these relationships, it stops short of providing strategic advice that; for example, stating that New Zealand *chooses* to enhance national security through external relationships.[14]

In its conclusion, the DPMC report advocates 'more of the same,' acknowledging that the historical national security system has "served the national interest well." It tempers this praise with a statement that points to "a compelling need for more strategic prioritisation, resource coordination, unambiguous leadership, and sharper accountabilities."[15] However, the question for this thesis is the extent to which this framework provides a suitable platform on which to secure the nation's exclusive economic zone. To answer this question, it is helpful to review past efforts in this area.

The previous New Zealand report on national security was released in December 2000, when DPMC published "Securing our Nation's Safety: How New Zealand manages its security and intelligence agencies." This report was little more than a 'pull-together' of each of the intelligence agencies' mission statements, headed with a forward by (then) Prime Minister Helen Clark and a comment by Sir Geoffrey Palmer.[16] In comparison, the 2011 paper seriously looks at national security from a whole of government perspective, and attempts to provide meaningful guidance in the form of: seven key objectives; four guiding principles; seven components of success; a strategic context and 'riskscape'; and a register of lead agencies. This represents a significant step forward since 2000, but still leaves many strategic issues unaddressed.

The 2011 DPMC report does not establish, nor identify the need to establish an entity to develop and coordinate a national security strategy (for example a Ministry of National Security, headed by the National Security Advisor). Such an entity would produce the New Zealand national strategy that would answer such

[14] Ibid.
[15] Ibid., 17.
[16] Department of the Prime Minister and Cabinet, "Securing Our Nation's Safety: How New Zealand Manages Its Security and Intelligence Agencies," (2000).

fundamental strategic questions as (for example): should New Zealand seek security through bilateral external relationships, unilateral external relationships, through military isolationism, or through a combination of these approaches?

These questions are so fundamental that it is easy to think that the answers are obvious. However, in reality, the answers are not obvious but assumed, and they are likely to be assumed inconsistently amongst government agencies. Hence, New Zealand agencies operate in a continual state of tension – possibly anarchy – where each agency develops its own interpretation of national security and develops its own strategy accordingly. The national security system described in the 2011 DPMC report provides a vehicle for managing this tension. Potentially, this vehicle will increase efficiency in, and improve cooperative between, government agencies. However, this is simply a more efficient version of the status quo.

In considering the national security framework in the context of the thesis, it is argued that a secure exclusive economic zone would best be served by a coordinated national strategy that identified the value and strategic importance of the EEZ and other maritime claims. This strategy would set the environmental conditions that would secure the EEZ, and would provide strategic direction to those government agencies that were in a position to influence that environment. However, in the absence of such a national plan, a secure EEZ would most pragmatically be achieved through the efforts of a number of like-minded champions: a group of government agencies who each had the will and the means to cooperate for the purpose of securing the EEZ for New Zealand.

CHAPTER 5

Implications of Climate Change

The DPMC report analysed in the previous chapter did not recognise climate change as a specific national security issue, other than under the general heading of "environmental catastrophe" (for which the Ministry for the Environment has lead agency responsibility).[1] However, if the proponents of the risks associated with climate change have accurately assessed that sea levels are likely to rise because of global warning, then the very definition of the exclusive economic zone is potentially set to change.

As such, the thesis will now consider climate change as a particular and unique issue of national security, and will assess its potential impact in the context of New Zealand's sovereign claims and responsibilities. In particular, the thesis will consider the situation in which the landmass of a New Zealand dependency, such as Tokelau, totally succumbs to the ocean.

According to the Ministry for the Environment, the New Zealand Emissions Trading Scheme is New Zealand's "principal policy response to climate change." New Zealand's Chief Science Advisor, Professor Sir Peter Gluckman assesses that global temperatures could rise by 3.3°C (mid-point of International Panel on Climate Change estimates) by 2090, unless there is "effective control" of "the current pattern of emissions production and rates of deforestation." He further notes that an increase of 2°C would be sufficient to cause a rise in sea levels that would "dramatically affect some of our Pacific Island neighbours." He promotes the trading scheme as the "effective control" required to check the global temperature increase at 2°C or less.[2] Of course, this statement assumes that all other States adopt similar measures.

[1] Department of the Prime Minister and Cabinet, "New Zealand's National Security System."; New Zealand Government, "Climate Change Response Act 2002," 40 (2002).
[2] Gluckman, Peter, "Climate Change," (2009); Ministry for the Environment, "Reducing Greenhouse Gas Emissions," http://www.mfe.govt.nz/issues/climate/policies-initiatives/index.html (accessed 26 August, 2012).

The effectiveness of the trading scheme as a means for addressing climate change is beyond the scope of this thesis. However, two factors do need to be considered: the impact that climate change has on the exclusive economic zone, and the consequential effect that this would have on New Zealand's national security. Hence, the thesis will now examine the effect that rising sea levels will have on the actual size and shape of the EEZ itself.

The potential for structural change to the exclusive economic zone lies in the UNCLOS definition of the normal baseline:

> *Except where otherwise provided in this Convention, the normal baseline for measuring the breadth of the territorial sea is the low-water line along the coast as marked on large-scale charts officially recognised by the coastal State.*[3]

Since the exclusive economic zone is determined with reference to the baseline, any changes to the baseline would have a consequential effect on the structure of the EEZ. In the context of rising sea levels, this definition presents a challenge.

The challenge presented by the UNCLOS's definition of the normal baseline was such that it prompted the formation of the International Law Association Committee on Baselines under the International Law of the Sea, which met in Sofia in November 2008. The committee had two objectives: "identify the existing law on the normal baseline," and to "assess if there is a need for further clarification or development of that law." In particular, the committee was to consider their objectives in the context of the consequential effects on "low-lying, small island developing states."[4]

The Committee quickly established that there was a significant issue related to the definition of the baseline. Specifically, it was unclear whether it was defined by the line on the officially recognised chart, or the physical line on the ground. The Committee also noted the considerable scope for variation between these two

[3] United Nations, "United Nations Convention on the Law of the Sea," 28,43.
[4] International Law Association, "Baselines Under the International Law of the Sea," (2012), 1.

lines, and that rising sea levels would exasperate this difference. Thus, they concluded that this was an issue with "significant real-world consequences."[5]

In terms of significance, the Committee identified three factors. The first was the use of the baseline as the legal definition of a maritime nation's coastline, and the consequential definition of the State's land area. The second was the consequential definition of the territorial sea, the contiguous zone, the exclusive economic zone and (in some circumstances) the continental shelf. Finally, they recognised that the baseline was the instrument by which conflicting interests of overlapping maritime States were resolved. The committee cited the case of the low-lying small island developing State as the ultimate consequence of the shrinking baseline. Specifically, that certain States could lose their coastline, and hence their land claim, entirely. In the extreme, this could potentially negate their right to exist as a State at all.[6]

At face value, this situation could be avoided if Article 5 of the UNCLOS was interpreted to mean that the officially recognised charts defined the baseline, and the threatened States simply avoid amending these charts. However, the Committee identified two challenges to this approach. The first was that States had no uniform standard that specified the manner in which they should determine the low-water mark. Hence, the committee asserts, the reference to the chart was an attempt to provide more certainty rather than an attempt to create primacy. The second challenge was in the form of international judicial precedence.[7]

The Committee referenced two international judicial decisions that created precedent in favour of the actual low-water marks over those on officially recognised charts. Those two cases involved Nicaragua vs. Honduras and Guyana vs. Suriname. In both cases, the premise of the case was that "the baseline depicted on the chart did not reflect the situation on the ground." In both cases, it was the approach rather than the judgement that was of legal significance. At no stage in either case did the concerned States argue that the chart defined the baseline. Instead, each side submitted surveys and low tide

[5] Ibid., 4.
[6] Ibid., 4-7.
[7] Ibid., 13.

elevations in support of their arguments, and the International Court of Justice and arbitral tribunal (respectively) accepted these arguments.[8]

In order to provide greater surety, the Committee also considered the variety of manners in which various States defined their baseline within their own jurisdictions and the associated legal precedent in their domestic law. The Committee found that States were inconsistent in their use of the recognised charts in their domestic definitions. Further, it concluded that the use of charts was more of an expression of the baseline definition, rather than the definition itself. In terms of domestic legal precedent, the Committee found inconsistent rulings, although all States allowed the definitions provided by the charts to be challenged.[9]

Finally, the Committee considered the views of experts and scholars, and concluded that there was generally less support for the chart as the determinative definition of the normal baseline. However, it is worth noting that there were also strong proponents for the use of the chart as the determinative definition of the normal baseline. The final word appears to have come from a group of technical experts assembled by the United Nations. This group concluded: “the low-water line along the coast is a fact irrespective of its representation on charts.”[10]

Two more issues considered by the Committee were those of reefs and low-tide elevations. The Committee concluded that although they presented unique circumstances, they required no further consideration once it was established that charts were the expression rather than the definition of the normal baseline.[11]

In its conclusion, the Committee determined that – in current law – the normal baseline is ambulatory, in that it can extend seaward to accommodate valid reclamations, and landward to accommodate erosion and rising sea levels. It also notes that these changes could be so severe as to result in total territorial loss,

[8] Ibid., 13-18.
[9] Ibid., 17-23.
[10] Ibid., 22-25.
[11] Ibid., 25-26.

and the consequential loss of status as a State. It also recommended that a Committee be established to consider this specific issue.[12]

This finding – that States could cease to exist because of climate change – is significant in that many of these States are located within the South Pacific. Further, this issue directly affects Tokelau, which is currently a New Zealand dependency and has a maximum elevation of five metres above sea level.[13] Article 121(3) of the UNCLOS declares: "rocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf."[14] As such, the transformation of a New Zealand Island or Island State in which New Zealand has an interest could have a significant impact on the exclusive economic zone and/or New Zealand's national interests.

With respect to diminishment of New Zealand's maritime claims, a report prepared in 2001 for the Ministry for the Environment identifies no significant territorial losses (resulting from changes to the baseline) attributed to climate change. Rather, it highlights the urban centres, ports and holiday resorts as areas that will be affected due to their functional, recreational and aesthetic value. As such, New Zealand's prime concern, territorially, is the impact on Tokelau, Niue, the Cook Islands and other Pacific States in which New Zealand has a vested interest.[15]

In a paper considering the issue of uninhabitable States resulting from receding maritime zones, the Foundation for International Environmental Law and Development (FIELD) highlights that two of Kiribati's uninhabited islands have already disappeared. According to Article 1 of the Montevideo Convention on Rights and Duties of States, for a State to exist it should possess a permanent population, a defined territory, effective government and the capacity to enter into

[12] Ibid., 33.
[13] Taloa, Foua, et al., "Country Report for UNCED: Tokelau" (Apia: South Pacific Regional Environment Programme, 1992).
[14] United Nations, "United Nations Convention on the Law of the Sea," 66-67.
[15] Bell, R.G., et al., "Planning for Climate Change Effects on Coastal Margins: A Report Prepared for the Ministry for the Environment as Part of the New Zealand Climate Change Programme," (2001), 15-17.

relations with other States.[16] With this in mind, FIELD considers four options for dealing with "climate exiles."[17]

The first option proposed for a climate-exiled State is to acquire new territory from another State. This is considered unlikely, but has precedent. The second option is for the climate-exiled State to merge with another State. It is postulated that if the climate-exiled State could retain its maritime zones, then this would effectively be a purchase of additional sovereign territory by the other State (in exchange for citizenship rights). The third option described is that of Government in exile. Although this option has precedent, such precedent stems from illegal foreign occupation. As such, Government in exile is viewed as a temporary measure rather than an enduring solution. The final option articulated is that of "de-territorialised international personality."[18]

One existing example of a de-territorialised international personality is that of the Sovereign Order of St John of Jerusalem, of Rhodes and of Malta. The Order maintains formal diplomatic relations with 102 states and is an observer at the United Nations. Although this notion could be expanded to include climate refugees, it raises many issues related to emigration etc., and would be unworkable without a formal treaty with another State. This is the likely scenario, that New Zealand would enter into bilateral or regional agreements involving Australia and other Pacific nations for the purpose of ensuring the enduring preservation of Pacific culture and identify, and allowing the survival of elements of Pacific statehood within Australia or New Zealand.[19]

For the purpose of this thesis, there are three significant points. The first is that the definition of an EEZ could change because of sea-level fluctuations. The second is that New Zealand must start preparing for a radical change in the sovereign status of many of its Pacific neighbours. The third is that efforts to protect and develop

[16] League of Nations, "Convention on Rights and Duties of States" (Convention signed at the Seventh International Conference of American States, Montevideo, 1933).
[17] Wei, David, et al., "Receding Maritime Zones, Uninhabitable States and Climate Exiles: How International Law Must Adapt to Climate Change," http://www.field.org.uk/files/climate_exiles_dw.pdf (accessed 23 November, 2011), 1-4.
[18] Ibid., 3-6.
[19] Ibid., 5-9.

the New Zealand's maritime assets must focus on the protection and development of the South Pacific maritime region as a whole, in cooperation with other Pacific States. Thus, the thesis argues that climate change is a potential facto related to New Zealand's claim to an EEZ within the context of national security.

CHAPTER 6

Perspective of a Lead Agency

As already highlighted by this thesis, New Zealand has made significant progress with respect to its whole of Government response to tactical and operational threats to national security. However, New Zealand has yet to develop a comprehensive framework that supports the development of a whole of Government national security strategy. As such, this thesis must look to the strategic plans of those individual Government agencies that have responsibilities related to matters of national security. Two such agencies are the Ministry of Defence, and its associate, the New Zealand Defence force.

The Ministry of Defence is headed by the Secretary of Defence. The Secretary of Defence's responsibilities include the periodic preparation of a defence assessment, from which a procurement plan for the New Zealand Defence Force is produced.[1] This document, the defence assessment, by necessity includes a scan of New Zealand's strategic security environment. The last defence assessment was published in July 2010. The thesis will now analyse this document, and its successor the defence white paper (published in November 2010), in order to determine its consideration of, and relevance to, New Zealand's maritime claims. The thesis will also assess these documents' fit with DPMC's view of New Zealand's national security system.

Defence Assessment 2010

The defence assessment's introduction notes that regular defence assessments are important, but then states that the last formal assessment was completed in 1997. It notes that there is a "strong case for undertaking assessments at more regular intervals." This argument is easily justified, as a large number of global events with direct relevance to New Zealand have occurred in the intervening period. These events include the Al-Qaida terrorist attacks of 11 September 2001, the granting of independence to Timor Leste, the collapse of governance in the Solomon Islands and New Zealand's participation in Operation Enduring Freedom

[1] New Zealand Government, "Defence Act 1990," 28 (1990), 29.

and the International Security Assistance Force (ISAF) mission in Afghanistan. In addition to these global events, the defence assessment also highlights climate change and the increased incidence of illegal immigration as two other factors that have significantly changed the international security environment.[2]

The need for defence to be considered within a national security framework is noted in Section 2 of the assessment. It continues to note that New Zealand does not have a formal national security policy and that it is not the purpose of the defence assessment to create one. Notwithstanding this lack of mandate, the defence assessment highlights four areas where it believes defence contributes to national security. The four areas are: border and lines of communication security; a rules-based international order that respects national sovereignty; a network of strong international partnerships; and a sound global economy that supports free trade and enterprise.[3]

Whilst these principles of national security differ from the objectives of national security subsequently published by the Department of Prime Minister and Cabinet (DPMC) in 2011, they are materially in sympathy with those objectives. Thus, they set a reasonable framework within which to evaluate the strategic environment.

With respect to the first principle – a secure border and approaches to New Zealand – the defence assessment acknowledges the importance of New Zealand's exclusive economic zone. In particular, it highlights its size and the abundance of both the living and non-living resources contained therein. Further, it opines that this abundance will increase in importance as the world's population grows. Finally, it acknowledges the NZDF's role in maintaining the security of New Zealand's borders through maritime patrol and surveillance, as well as its interdiction capability.[4]

The remaining principles – a network of strong international partnerships, a rules-based international order, and a network of strong international partnerships – appear to support the (at the time) unofficial but apparently ubiquitous

[2] Ministry of Defence, "Defence Assessment," (2010), 1-6.
[3] Ibid., 7.
[4] Ibid., 8.

understanding that New Zealand achieves national security through measures based on the liberal theory of international relations.[5] In Chapter 7, the thesis will agree that this approach has been endorsed by DPMC in its 2011 description of New Zealand's national security system.

The defence assessment's emphasis on participation in the international order is balanced with the stated need for New Zealand to participate in specific regional groups. However, it also notes that New Zealand must continue to ally with nations "who share our interests, values and concerns," and in particular, where those "relationships are grounded in common traditions, experiences and values." Australia is highlighted as the single most important example of such a relationship, followed by United States, the United Kingdom and Canada. The assessment also notes that traditional regional alliances are now more fluid than in the past, and notes the growing relationship with NATO as an example of this.[6]

Section three of the defence assessment considers New Zealand's strategic context and the outlook to 2035. It examines three themes: the nature of conflict, an assessment of the strategic outlook by geographic region, and an examination of trans-national issues such as terrorism and the environment.[7]

With respect to the nature of conflict, the paper highlights that the distinction between inter-state and intra-state conflict is blurring. However, it does predict that intra-state conflict, possibly involving irregular forces and regional intervention, will be the most common form of conflict in the period to 2035. Referencing the interventions in Timor Leste and the Solomon Islands, it also notes that the period of intervention required to achieve stability is "often long and frequently underestimated."[8] The significant point is that the Ministry of Defence appears to be signalling an ongoing (human) resource-intensive commitment to regional stability operations.

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[5] Berger, Thomas, "Set for Stability? Prospects for Conflict and Cooperation in East Asia," *Review of International Studies* 26, no. 3 (2000), 407-411; Department of the Prime Minister and Cabinet, "New Zealand's National Security System," 25-26.
[6] Ministry of Defence, "Defence Assessment," (2010) 8-10.
[7] Ibid., 13.
[8] Ibid.

Following on from the nature of conflict, the defence assessment considers the Realm of New Zealand and its exclusive economic zone. It opines that state-sponsored illegal fishing and resource extraction are likely to be the most serious threats to New Zealand's sovereign territory. It also notes the need to include the defence of the Cook Islands, Niue and Tokelau in its assessment. Further, it references the possibility of facilitated illegal immigration, remote cyber-attacks on critical infrastructure and the need to maintain the Antarctic treaty system.[9]

With respect to regional relationships, the paper states that New Zealand's closest security relationship is with Australia, and that New Zealand will provide leadership within the Pacific Islands for the near future. However, it warns that New Zealand's reputation with the Pacific nations is under threat, and that efforts must be made to remain "a trusted friend." The paper also highlights the need to continue to reengage with the United States.[10]

With respect to Asia, the defence assessment notes the importance of economic relationships, but also warns against the possibility of conflict between Pakistan and India. Beyond Asia and the Pacific, the most noteworthy point is the increasing instability in the Middle East and sub-Saharan Africa. The United Nations and military alliances such as NATO are presented as the most effective – and legitimate – counter to this growing unrest. The paper then proffers terrorism, possibly involving weapons of mass destruction, as the consequential direct threat presented by this instability to New Zealand.[11]

Finally, the paper considers climate change and an increasing global population as pressure points for future stability. In terms of the unforeseeable, the paper suggests five classes of event that could cause a paradigm shift in New Zealand's strategic environment and the subsequent defence posture required. It then suggests that early warning is the key to mitigating these risks, and emphasises the need for regular environmental scans, accurate and timely assessment of intelligence and a willingness to adapt in response to environmental changes.[12]

[9] Ibid., 14-15.
[10] Ibid.
[11] Ibid., 17-19.
[12] Ibid., 19-22.

Whilst the defence assessment goes some way towards setting a strategic environment on which to base national security policy, it falls short in a number of areas.

The defence assessment falls short because it does not examine the consequential effects of combinations of factors in the strategic environment. For example, the paper highlights the possibility of a foreign State, with a military presence close to New Zealand's exclusive economic zone, sponsoring the illegal extraction of resources. It also highlights the need to retain the allegiance of the Pacific nations, and the pressure points presented by an increasing global population.[13] However, it does not draw these together in an attempt to predict the nature of the potential major shifts in the environment. Specifically, it does not consider the implications of Fiji's "look north" policy in the context of China's increasingly growing population, and China's need to acquire more and more of the earth's resources.[14] As such, it ignores the possibility of a Chinese military or resource exploitation base in Fiji, and the consequential effect on regional security. Such a situation – arguably foreseeable – would radically change the strategic environment in the Pacific.

This scenario was foreseen in the Australian Defence White Paper 2009, which states:

> *Our strategic outlook would be altered profoundly if we were faced with the prospect of major powers with potentially inimical interests operating on a sustained basis in our air and sea approaches, or if they were otherwise able to project force against us in relatively uninhibited ways.*

This position is further reinforced when the paper considers the immediate neighbourhood to Australia, including the South Pacific Island States:

> *…from a strategic point of view what matters most is that they are not a source of threat to Australia, and that no major military power that could*

[13] Ibid., 17-19.
[14] Hayward-Jones, Jenny, "Fiji: The Flailing State," (2009); Kumar, Avinash, "The International Community and Democracy Promotion: The Role of Australia in Post-Coup Fiji" (Paper presented at the 5th OCIS Conference, Sydney, 2012); Yang, Jian, "China in Fiji: Displacing Traditional Players?," *Australian Journal of International Affairs* 65, no. 3 (2011): 305-321.

> *challenge our control of the air and sea approaches to Australia has access to bases in our neighbourhood from which to project force against us.*

This concern can be directly related to Fiji's political instability, and its look north policy, with the additional statement:

> *We would also be concerned about challenges to the stability and cohesion of our neighbours, not least because that could make them vulnerable to external influences that might be inimical to Australia's interests.*

Finally, New Zealand's role in this scenario is specifically outlined in the statement:

> *We share many of these strategic interests with New Zealand, and maintaining a strong bilateral defence and broader security relationship with that country is itself in our strategic interests in terms of ensuring a secure immediate neighbourhood.*

This statement complements New Zealand's statement that its closest security relationship is with Australia and that it would be inconceivable that New Zealand would not respond to a direct attack on Australia.[15] Whilst the Australian stance focussed much on the military effect of a Chinese presence in Fiji, the same is also arguably true of a significant resource exploitation presence in the area.

Another example where the defence assessment falls short is with respect to the nature of inter-state conflict. Whilst the paper notes the reduction in incidence of traditional inter-state conflict, it does not consider the possibility that this is simply due to the changing nature of that conflict. It notes that New Zealand is increasingly becoming vulnerable to external cyber attack on its critical infrastructure, but does not analyse the possibility that this is the future form of interstate conflict: despite the fact that this issue is raised in the New Zealand's cyber security strategy.[16]

Although these issues are arguably a valid criticism of a *New Zealand* security strategy, it is timely to recall that the defence assessment noted the absence of such a national strategy. Further, such assessment would possibly have been outside the scope of a single lead agency. However, it does reinforce the need for

[15] Australian Department of Defence, "Defending Australia in the Asia Pacific Century: Force 2030, Defence White Paper 2009," (2009), 41-43.; Ministry of Defence, "Defence Assessment," (2011), 14,25.
[16] Ministry of Economic Development, "New Zealand's Cyber Security Strategy," (2011).

a New Zealand National Security Advisor, and a more whole of Government approach to strategy, and not just a coordinated response to threats *as they occur*. Were these issues to be viewed more holistically, it would allow deterrent measures to be employed as a means of preventing adverse changes in the strategic environment.

The principal tasks for the New Zealand Defence Force are defined in Chapter 4 of the defence assessment. Fundamentally, it defines the role of the NZDF as providing "military capability options" to enable the New Zealand Government to promote and protect its national security interests. It proposes eight principal tasks in apparent order of relevance or perceived significance. First in the list is the requirement to have a credible Defence Force capable of responding to sovereign threats. The implication is that this force would deter most aggressors.[17]

The means by which this deterrence would be achieved are stated as "military capability in the maritime approaches to New Zealand," "land forces" and the ability to conduct "a range of surveillance and patrol tasks in the maritime zone." It defines New Zealand's interests as being inclusive of the Southern Ocean and Antarctica, as also previously identified in the thesis.[18]

The next four items on the NZDF's list of proposed principal tasks are the alliance with Australia, contribution to peace and stability in the Pacific, support to peace and stability in the Asia-Pacific region and contribution to international peace and security, in that order.[19] This supports the argument for achieving national security through regional security.

The final three tasks are: contribution to whole of Government security efforts within New Zealand, whole of Government efforts to monitor the strategic environment and maintaining capability to respond to unexpected shifts in the strategic environment. The assessment notes that New Zealand should not be

[17] Ministry of Defence, "Defence Assessment," (2010), 23-25.
[18] Ibid., 24-25.
[19] Ibid., 24-27.

wholly, or even primarily, dependent on the NZDF to assess the strategic environment.[20]

In reference to whole of government security efforts, the assessment notes that this includes “EEZ resource protection,” and “maritime border security.” Overall, the eight principal tasks provide a significant emphasis of the importance of the exclusive economic zone: both in terms of the ‘buffer zone’ it provides to mainland New Zealand and the wealth of resources it holds for New Zealand.[21]

In the recommendations of Chapter 4, the assessment recommends a number of principal roles and tasks for the NZDF. Of these, it notes that the highest priority should be “the protection of New Zealand, our people, land, territorial waters, natural resources and critical infrastructure.” Further, first on the list of tasks is to “ensure the sovereignty of New Zealand’s EEZ and territorial waters.”[22] Therefore, whilst the assessment may not have correctly gauged the strategic environment and the possible form of future conflict, it does recognise the importance and strategic value of the EEZ as an instrument of national security.

Turning to capability choices, Chapter 5 of the assessment starts by defining the difference between equipment and capability. Fundamentally, it notes that capability includes the harnessing of equipment, personnel, doctrine, training etc. in order to achieve a desired effect. The assessment opines that such capability is of no benefit as a deterrent unless it can be maintained in a state of readiness, and fielded as required. However, it also highlights the need to balance the need for continual readiness against the expense of the same. The assessment concludes that maximum efficiency is achieved by utilising capability that is multi-role wherever possible.[23]

Noting New Zealand’s unique geographical environment (Antarctic to equator), the assessment suggests four distinct capabilities. These are: deployable ground forces, strategic projection and logistic capability to support those ground forces,

[20] Ibid., 26-29.
[21] Ibid.
[22] Ibid., 32.
[23] Ibid., 34-40.

intelligence, surveillance and reconnaissance capabilities to understand the operational environment and credible combat capabilities that support ANZAC and other coalition operations.[24] The third of these, intelligence, surveillance and reconnaissance, directly supports situational awareness and the provision of operational security in the exclusive economic zone.

In terms of achieving intelligence, surveillance and reconnaissance capability, the assessment starts by noting that the existing non-defence maritime patrol requirements are currently unable to be met. Further, it claims that current platforms are used inefficiently, because there is no wide area surveillance network and an incorrect asset mix. To redress this situation, it considers three acquisition pathways: low, middle and high.[25]

The low pathway provides for replacement of existing assets – P3 Orions, offshore patrol vessels (OPVs) and inshore patrol vessels (IPVs) – at end of life. However, it does note that these assets could be replaced with equivalent rather than identical capability, for example replacing P3 Orions with unmanned air systems (UAVs). However, such a scenario would presumable retain the same limitations as the current capability, i.e. inefficient mode of operation.[26]

The middle pathway retains existing assets (or equivalent replacements) and upgrades the sensors and armaments. This capability is then complimented by a short-range maritime air patrol capability and satellite imagery capability to provide "wide area surveillance." The assessment asserts that wide area surveillance would provide "more effective tasking of … platforms." If this is what the assessment considers is missing in terms of "wide area surveillance network," then this would be considered the baseline capability for meeting existing maritime patrol requirements.[27] Considering the vast space over which New Zealand has maritime responsibility, this is arguably a credible assessment.

[24] Ibid.
[25] Ibid., 42-43.
[26] Ibid.
[27] Ibid.

The high pathway does not appear materially different from the mid pathway, except that enhancements to sensors and weapons systems are taken further.[28] The assessment also discusses the low, mid and high paths for the other three defence capabilities. However, other than noting that some capabilities are inter-dependent, they are outside the scope of the thesis.

In concluding Chapter 5, the assessment opines that the middle pathway is the appropriate response in the current strategic environment. It consequently recommends development of a capability plan reflecting those priority areas. It then contradicts its own distinction between capability and equipment, by stating that this plan should include a specific list of equipment, including platform types and quantities. The list does not reference in any detail the corresponding capability provided by these platforms.[29]

Analysis of the defence workforce receives attention in Chapter 6 of the defence assessment. The chapter starts by highlighting the growing disparity between the legislative classification of the elements of its workforce (regular, reserve and civilian) and the current requirements of NZDF staff. In particular, it highlights the need to integrate these three classes of the workforce so they are as “seamless as possible.” It then draws a distinction between those personnel requiring military skills (generate, deploy and sustain a military force) and those requiring generic skills (lead, manage and administer any large organisation). However, the assessment acknowledges there is considerable overlap between these two categories. Nevertheless, it advocates military personnel for the former and civilians for the latter.[30]

The assessment highlights that there are a number of unique aspects to the NZDF’s workforce. These include the acceptance that elements of the workforce will deliberately be placed in harm’s way, and that the measurement of effectiveness needs to be considered in a lifecycle (of an individual career) rather than a snapshot in time. This requirement stems from the diversity of skills

[28] Ibid.
[29] Ibid., 46-50.
[30] Ibid., 51-52.

required of NZDF personnel, the changing policy objectives and the sheer time taken to achieve the specific skills.[31]

The three pathways, low, middle and high are then considered in the context of personnel. However, the focus of analysis appears to be to determine the total number of staff required, and the relative split between uniformed and civilian personnel. Whilst this is an important consideration, it is based on the premise of continuing the current modus operandi – albeit more efficiently – rather than seeking to reduce the NZDF's dependence on its personnel.[32]

The defence assessment identifies that the NZDF's greatest asset is the quality of its people, citing honesty, impartiality, cultural sensitivity and civil accountability as the manifestation of this quality.[33] This position is defendable: Transparency International has ranked New Zealand as the (perceived) least corrupt country in the world. Further, human rights studies by the US Department of State, the United Nations and Amnesty International generally praise New Zealand for its performance in relation to human rights. Amnesty International notes that this performance is in danger of eroding, but possibly carries a bias in this assessment. That bias stems from an arguably disproportionate emphasis on the activities of New Zealand Special Forces in Afghanistan, and the potential for delays while the New Zealand authorities assess the status of asylum-seekers before granting them residency status.[34]

Separately, the assessment references the ongoing efficiency initiative required by Government, and the ongoing need to reduce the size of the NZDF.[35] It is thus apparent that there are several distinct initiatives working in disharmony with each other. The defence assessment correctly notes that that the NZDF's capability is

[31] Ibid., 52-54.
[32] Ibid., 54-62.
[33] Ibid., 29-30.
[34] Amnesty International, "Amnesty International Report 2012: The State of the World's Human Rights," (2012); Transparency International, "2011 Corruption Perceptions Index Ranks New Zealand as the Least Corrupt Country," http://www.transparency.org.nz/index.php/component/content/article/8-news/116-2011-corruption-perceptions-index-ranks-new-zealand-as-the-least-corrupt-country (accessed 7 October, 2012); United Nations, "Draft Report of the Working Group on the Universal Periodic Review: New Zealand," (2009); United States Department of State, "2009 Human Rights Report: New Zealand," http://www.state.gov/j/drl/rls/hrrpt/2009/eap/136003.htm (accessed 7 October, 2012).
[35] Ministry of Defence, "Defence Assessment," (2010), 62.

directly linked to its skilled and respected workforce. However, four personnel reviews identify that the skilled and respected workforce is a major cost to the organisation, and hence the structure and size of the workforce is critical to ongoing efficiency measures.[36] Thus, the unexpressed consequence is that any move to reduce or alter the constituency of the workforce is likely to have a direct and possibly unintended effect on the capability of the NZDF.

The four personnel reviews – the Defence Transformation Programme, the Right Cost Project, the Force Structure Review and the Cost Down Diagnostic – appear to start with the premise that the current modus operandi is to be preserved, albeit more efficiently. For example, The Defence Transformation Programme starts with a statement that the NZDF "strives to do everything it does simpler and better." It then lists five change programmes that appear to focus on efficiency measures and technology refresh rather than "transformation." However, it does acknowledge that Inter-Department/Agency Collaboration "continues to take on increased importance," even though it is not listed in the five change programmes.[37]

Fundamentally, the defence assessment and the plethora of associated reviews have failed to recognise a key physical constraint. That is, an increase in efficiency is always premised by the fact of an existing inefficiency. However, once all inefficiencies are eliminated, any subsequent changes will affect capability. Once this point is reached, better value for money is only achieved by making fundamental – strategic – changes to the way in which the nation's objectives are achieved. As already argued by the thesis, this same issue is apparent in New Zealand's treatment of national security, i.e. the belief that better security is achieved by more efficiently responding to threats, rather than strategically eliminating the threats in the first place.

An example relevant to this thesis is the use of technology as the primary means by which the exclusive economic zone is monitored and defended. The assessment identifies the potential for intelligence, surveillance and

[36] Ibid.
[37] New Zealand Defence Force, "Statement of Intent 2008-2011," G55 SOI (2008), 50.

reconnaissance resources in the area of maritime patrol. However, this potential is positioned as a compliment to existing capability (the P3 Orions) rather than an alternate means by which security is achieved. In particular, technological advances mean that there is considerable potential for effects to be achieved through deterrence, rather than threat reaction.[38] This recurring issue – reaction as a 'strategy' – is further developed later in the thesis.

Continuing with the defence assessment, Chapter 7 considers the financial issues both generally, and in the context of the three pathways. Generally, three issues stand out: an overall significant reduction in appropriation between 1989 and now (1% of GDP, down from 1.7% of GDP in 1989), a committed capital acquisition programme including new helicopters and upgrades to existing platforms and the significant unfunded depreciation costs associated with capital purchases.[39]

The scale of the capital acquisition program and its associated depreciation costs means that there will be financial pressure on other operating costs: in particular, personnel costs. Despite this immediate pressure on operating expenses, the assessment notes that the current fiscal pressure is unlikely to persist for the entire 25-year period under consideration. The assessment notes the uncertainties associated with projections at the end of this period, but highlights the large number of platforms due for renewal during this period. It also highlights a number of new technologies, such as UAVs, referring to them as capabilities. In concluding its consideration of financial matters, the assessment summarises that the NZDF is entering a phase where its 2002 platform acquisition programme is nearing completion.[40]

When considering the assessment's financial analysis, several points stand out. The first is that New Zealand's spending on defence is significantly below that of the world as a whole. The sum total of defence spending, for the world, is approximately 2.5% of the world's GDP. At 1.1%, New Zealand's spending is significantly less. Further, New Zealand's spending is the lowest of its closest

[38] Cook, K.L.B., "The Silent Force Multiplier: The History and Role of UAVs in Warfare" (Paper presented at the Aerospace Conference, IEEE, 2007); Embar-Seddon, Ayn, "Cyberterrorism: Are We Under Siege?," *American Behavioral Scientist* 45, no. 6 (2002).
[39] Ministry of Defence, "Defence Assessment," (2010), 71-74.
[40] Ibid., 74-84.

allies: Australia, the United States, the United Kingdom and Canada, who spend 1.9%, 4.7%, 2.6% and 1.4% respectively. Compared with countries of similar GDP (Algeria, Romania, Kazakhstan, Peru, Qatar, Ukraine, Kuwait, Hungary, Vietnam, Iraq, Bangladesh, Angola), New Zealand has the second lowest spending on defence, with only Bangladesh spending less (1.0% c.f. 1.1%).[41]

When comparing New Zealand to countries of similar population (Norway, Ireland, Central African Republic, Georgia, Costa Rica, Lebanon, Croatia, Liberia, Republic of the Congo), New Zealand's defence expenditure is low, but not the lowest (c.f. 0.6% for Ireland and Costa Rica). However, the largest disparity in defence spending is in comparison to those countries that have similarly sized exclusive economic zones. New Zealand's contribution of 1.1% of GDP is well short of that of Russia (3.9%), the United Kingdom (2.6%), Indonesia (est. 3%) and Canada (1.4%).[42]

The second issue that stands out of the assessment's financial analysis is the focus on capital expenditure. Whilst the authority to incur capital expenditure is included in a Government department's appropriation, the accounting of that expenditure is made in the department's annual operating expenses. Under this model – accrual accounting – the cost of a capital item is amortised over the life of the capital asset, and is expensed against the outputs the department is contracted to provide. As such, any Government department that incurs capital expenditure is required to fund the depreciation of those capital assets from its operating appropriation.[43] In its assessment, the Ministry of Defence notes that it had essentially overlooked this point, and emphasises the need to improve its balance between operating and capital expenditure.[44] This accounts for the

[41]Stockholm International Peace Research Institute, "SIPRI Military Expenditure Database," http://www.sipri.org/databases/milex (accessed 22 October, 2012).
[42] Central Intelligence Agency, "CIA World Factbook: Country Comparison: Military Expenditure," https://www.cia.gov/library/publications/the-world-factbook/rankorder/2034rank.html (accessed 22 October, 2012); Stockholm International Peace Research Institute, "SIPRI Military Expenditure Database."
[43] New Zealand Government, "Public Finance Act 1989," 44 (1989); Simpkins, Kevin, "Budgeting and Accounting Issues - New Zealand" (Paper presented at the Federation of Accountants Public Sector Committee: Executive Forum, Washington DC, 1998); The Treasury, "A Guide to the Public Finance Act," (2005).
[44] Ministry of Defence, "Defence Assessment," (2010), 90.

pressure on the personnel budget, which should have been foreseen under the accrual accounting regime.

Accrual accounting is a method used more in the private than the public sector. The reason for this is that it more accurately reflects the pragmatic reality of private sector investment. However, the use of these accounting practices in the public sector has long been a source of debate.[45]

Barton notes that accrual accounting was one of many public sector reforms adopted by the Australian Government in the 1980s, and that it was widely supported by the accounting profession, and governments worldwide. Although Barton's analysis focuses on the Australian experience, the argument is equally applicable to the New Zealand Government's adoption of accrual accounting, which Champoux argues was "the most comprehensive that any country has undertaken."[46]

Noting that accounting exists to provide relevant information to stakeholders, Barton examines two matters. The first is why accrual accounting was applied to the public sector, and the second is whether the public and private sectors are sufficiently similar to warrant the application of a practice from one to the other.[47]

With respect to the first point – why private accounting practices were applied to the public sector – Barton notes three arguments. The director of the Australian Accounting Research Foundation, Mr W. McGregor, presented the first argument. McGregor argued that the assets used by the private sector were essentially the same as the assets used by the public sector, and hence the entities were fundamentally the same, i.e. that sector location (public or private) was not a distinguishing factor. Barton counters by arguing that this is only partially true,

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[45] Barton, Allan, "Professional Accounting Standards and the Public Sector—A Mismatch," *ABACUS* 41, no. 2 (2005): 138-158; Champoux, Mark, "Accrual Accounting in New Zealand and Australia: Issues and Solutions," *Harvard Law School, Federal Budget Policy Seminar, Briefing Paper No. 27* (2006); Jones, Rowan, "Public Versus Private: The Empty Definitions of National Accounting," *Financial Accountability & Management* 16, no. 2 (2000): 167-178; Van Peursem, Karen A., "Public Benefit Vs Private Entities: A Fresh Look At Accounting Principles," *University of Waikato, Department of Accounting, Working Paper Series* 89 (2006).
[46] Champoux, Mark, "Accrual Accounting in New Zealand and Australia: Issues and Solutions," 6.
[47] Barton, Allan, "Professional Accounting Standards and the Public Sector—A Mismatch," 138-139.

noting that assets used for defence, public infrastructure and environmental purposes might not mirror those used for commercial purposes, because of their contribution to the collective good.[48]

The second argument, made by (then) New South Premier Nick Greiner, was that adopting private accounting practices would improve government efficiency by making the government 'more business-like.' This view was apparently encouraged by private accounting firms, and possibly exploited a vacuum that occurred during the development of specific public accounting standards. Christensen stops short of accusing the private accounting firms of serving their own financial interests, but suggests instead that they were motivated by the relative 'certainty' of the private sector system with respect to the relative uncertainty (at that time) of the public sector system.[49]

The third argument came from Barton's 'public choice theory,' which essentially advocates privatisation of many Government activities. The goal of privatisation would be increased efficiency.[50] Essentially, all three arguments are similar: private sector practice would improve government efficiency, if it could be shown that their activities were sufficiently similar.

Barton argues that there are fundamental differences between the private and public sectors, and that it was a mistake to apply accrual accounting to the latter. The first difference Barton notes is that between individual interest and collective interest. Whilst private firms intentionally compete with one another, public entities do not. Essentially, financial reporting for Government should focus on the collective good being achieved, whereas private sector reporting needs to focus on the viability of the business entity.[51]

Barton extends this argument by examining the nature of assets, and the role they play in achieving collective good. He eventually concludes that there are two

[48] Barton, Allan, "Professional Accounting Standards and the Public Sector—A Mismatch," 139-140.
[49] Ibid., 140-141.; Christensen, Mark, "The 'Third Hand': Private Sector Consultants in Public Sector Accounting Change," *European Accounting Review* 14, no. 3 (2005), 463-466.
[50] Barton, Allan, "Professional Accounting Standards and the Public Sector—A Mismatch," 140-141.
[51] Ibid., 141-155.

classes of government asset: those that can be modelled commercially, and those essentially held 'in trust' on behalf of the nation's citizens.[52] Champoux, who argues that the introduction of accrual accounting in New Zealand was followed by a significant improvement in fiscal management and accountability, materially supports this view. He also notes the consequential problems associated with treating government agencies as market competitors, when there is actually no competitive market.[53]

In the context of this thesis, it is argued that assets related to national security, including the exclusive economic zone, are clearly non competitive. Thus, they are not well served by accrual accounting. Once again, this points to a lack of strategic consideration of the asset.

Returning to the consideration of the defence assessment, the assessment concludes by reviewing the historic reports and reviews, and subsequently provides a summary of recommendations. From the perspective of this thesis, the most significant recommendation is that the NZDF should "ensure the sovereignty of New Zealand's EEZ and territorial waters."[54]

Defence White Paper 2010

The companion to the defence assessment is the defence white paper. The latest defence white paper was published in November 2010, and was the first published since 1997. It is largely reflective of the defence assessment published in July 2012, but also crystallises some of the specific intentions to be carried forward.[55]

In its strategic outlook, it notes a looming period of instability due to technological advances and continuing economic power shifts. It does not predict a direct military threat to New Zealand, describing such an event as "highly unlikely." However, it does point to terrorism, pressure on the maritime resources, illegal migration and regional governance as issues of strategic importance.[56] This stance is supported by the New Zealand Defence Force 2011 Annual Report,

[52] Ibid., 148-150.
[53] Champoux, Mark, "Accrual Accounting in New Zealand and Australia: Issues and Solutions."
[54] Ministry of Defence, "Defence Assessment," (2010), 119.
[55] Ministry of Defence, "Defence White Paper 2010," (2010), 9.
[56] Ibid., 10-11.

which states “the primary mission of the NZDF is to secure New Zealand against external threat, to protect our sovereign interests, including in the exclusive economic zone, and to be able to take action to meet likely contingencies in our strategic area of interest.”[57]

In order to meet these challenges, the paper proposes, “to retain and enhance existing NZDF capabilities.” It plans to achieve this by focussing on strategic projection, including deployable ground forces, supported by improved intelligence, surveillance and reconnaissance capabilities. The stated result is a force structure that “enables the NZDF to operate in places similar to where it is today, alongside current partners and friends.”[58] This proposed course of action does not appear to focus on the stated strategic priorities. Instead, it appears to position the NZDF for participation in future coalition operations, similar to the current NATO-led ISAF effort in Afghanistan.[59] In particular, the white paper does not appear to consider the looming withdrawal of coalition forces, including the NZDF, from Afghanistan.

This misplacement of capability was criticised by Oram, who argued that the white paper “misses one huge threat and two big opportunities” for New Zealand. The threat missed is that to the exclusive economic zone. Oram believes that New Zealand is placing too much faith in “the rule of law,” and that the policing of the EEZ is under-resourced.[60] This is a view supported by this thesis, which has already shown that New Zealand has ‘signed up’ to many international agreements, but has not always supported its obligations with tangible capability.

In terms of missed opportunities, Oram suggests one in mission, and one in capability. First, he advocates a New Zealand-led “new organisation” to manage the exclusive economic zones of New Zealand and its close partners. He describes such an enterprise as daunting in scope, but potentially creating new sources of wealth for the nation. However, he warns that the nation is currently unfit to undertake such a venture, pointing to the need to improve “cooperation

[57] New Zealand Defence Force, “Annual Report 2011,” (2011), 8.
[58] Ministry of Defence, “Defence White Paper 2010,” 10-12.
[59] Ibid., 32.
[60] Oram, Rod, “Defence Plan Imperils EEZ,” *Sunday Star Times* (2010): D2.

and integration between the military and civilian sectors," in particular with respect to high technology. He highlights this point as the second missed opportunity.[61]

This view was shared by Greener, who asserted that the white paper presented an opportunity to 'reconceptualise' New Zealand's defence establishment. Greener notes that many complex issues – defence, security, intelligence, foreign policy, humanitarian relief, border management etc. – have become increasingly inter-related, and can no longer be considered in isolation. Consequently, Greener highlighted the need for the NZDF to consider its role in this defence establishment and its evolution to a "more fluid and amorphous security sector."[62] The white paper does not provide such consideration. Instead, it states that its contribution to the security of the exclusive economic zone is achieved "through its surveillance efforts and interdiction capabilities."[63]

While it is true that the NZDF contributes to the security of the exclusive economic zone through surveillance and interdiction, it cannot undertake these activities on its own. Instead, it must cooperate with the surveillance and border security agencies, in order to provide a national capability. With respect to intelligence, surveillance and reconnaissance, the white paper notes that the NZDF does not meet existing requirement for non-defence maritime patrol. However, despite this shortfall, the paper essentially advocates 'more of the same.'[64]

The only new capability advocated is "satellite imagery capability." No further details are provided, and there is no mention whether this is to be achieved by acquisition of a national asset, or through existing international alliances. Further, there is no indication that this capability will be nationally administered. With respect to other new capability, the paper does suggest that "a number of low-end regional surveillance tasks (for both defence and other agencies) could be performed more cost-effectively by using maritime patrol aircraft with short take-off

[61] Ibid.
[62] Greener, Bethan K., "Security, Defence, Politics and the New White Paper," *New Zealand International Review* 35, no. 1 (2010): 12-15.
[63] Ministry of Defence, "Defence White Paper 2010," 17.
[64] Ibid., 52.

and landing and sufficient range," but has no firm proposal to introduce such capability.[65]

With respect to human resources, the white paper is somewhat introspective, advocating a "total defence workforce." The paper describes the core principle of the total defence workforce as being the ability for any NZDF employee to apply for any non-operational position, with selection being based on competency and availability. Little or no mention is made on the transition of personnel across the whole of government. Instead, the total defence workforce appears to be an initiative focussed on breaking down internal NZDF parochial structures.[66] This is arguably justified if internal parochial structures were an impediment to cooperation across the whole of government. However, it would take the focus off whole of government cooperation in the short term.

The white paper addresses financial management in a section titled "affordability." It notes that such issues have not been comprehensively addressed in previous white papers. Significantly, the need to budget an appropriate amount of depreciation for the committed capital expenditure programme is noted, although the source of this funding is not identified. However, significant emphasis is placed on "efficiency studies" and internal reorganisation. In particular, there is a stated intention to shift operating expenditure from "the middle and back" to "front line activities," although nowhere is it stated what this actually means.[67] It is possible that this intention is targeted more at political pacification than any real efficiency outcome.

In Chapter 9, the white paper focuses on organisational reform. It would have been in this chapter that the white paper could have addressed the concerns of Oram and Greener, i.e. the need to determine the NZDF's role in a wider security entity. However, instead it focussed on the NZDF's relationship with the Ministry of Defence and the authority of the Chief of Defence Force (CDF).[68]

[65] Ibid., 53.
[66] Ibid., 57-66.
[67] Ibid., 75-82.
[68] Ibid., 83-88.

With respect to the authority of the CDF, the white paper notes the need to broaden the expertise of the NZDF executive leadership team. In particular, it notes the need for "civilian management skills." [69] This is likely to be particularly necessary as an increased number of positions within the military become civilianised: such individuals not being subject to military command. However, looking forward, the increased focus on management and the introduction of professional public servants may provide the impetus to address the concerns raised by Oram and Greener.

This concludes the analysis of the view of a lead agency. In summary, the defence assessment provides a comprehensive scan of *a* strategic environment, and the defence white paper provides a high level outline of how the NZDF will develop over the next 25 years. The strategic environment contemplated by the defence assessment is that facing the defence forces, and not that necessarily facing New Zealand: although the two are not entirely mutually exclusive. However, as pointed out by the Ministry of Defence in its executive summary, this was the instruction levied on the Ministry by Cabinet. This supports the previous finding of this thesis – that New Zealand currently has no mechanism by which to develop a national security strategy.

The defence white paper compounds this anomaly. First, it has a narrow strategic perspective in that it ignores the call for wider government integration. Second, it arguably advocates the development of capability that supports its current operational tempo, rather than supporting the strategic direction provided by the defence assessment. Specifically, it appears to focus on continuing global coalition operations, rather than providing situational awareness and force projection within the immediate Pacific region and maritime zones: despite having identified these areas as those in which New Zealand should act to ensure sovereignty.

[69] Ibid., 83.

CHAPTER 7

Security Dividend of the Maritime Claims

The thesis will now consider the value – *the security dividend* – of New Zealand's maritime claims in the context of national security. The most recent exposition of New Zealand's national security framework is provided in the DPMC report on New Zealand's national security system, published in 2011. The DPMC report outlines seven key objectives for national security. The thesis will examine each of these objectives to determine the degree to which each is advanced by virtue of a secure exclusive economic zone.[1]

The first objective tabled in the report is "preserving sovereignty and territorial integrity," which DPMC defines as "protecting the physical security of citizens, and exercising control over territory consistent with national sovereignty." The exclusive economic zone (and associated continental shelf) is outside of the sovereign territory of New Zealand. However, through its maritime claims, New Zealand does claim special sovereign rights over these areas. As such, it is argued that this is a case where New Zealand is "exercising control over territory consistent with national sovereignty." Hence, the ability to project influence over this territory is seen as a key component to achieving this first objective.[2]

Another manner in which the exclusive economic zone supports control over the integrity of New Zealand sovereign territory is its utility as a buffer zone. Historically, it is argued that the definition of the territorial sea (as sovereign territory) stems back to the range of land-based cannon, and that this claim was originally adopted by many states as a buffer zone. Although the nature of warfare (and threats generally) has made the use of the territorial sea as a buffer zone obsolete, this concept of a territorial buffer zone is still a function that can be usefully fulfilled by the exclusive economic zone.[3] In some respects, a buffer zone that is not an integral part of the sovereign territory is more beneficial than an

[1] Department of the Prime Minister and Cabinet, "New Zealand's National Security System," 3.
[2] Ibid.
[3] Dellapenna, Joseph W., and Ar-Young Wang, "The Republic of China's Claims Relating to the Territorial Sea, Continental Shelf, and Exclusive Economic Zones: Legal and Economic Aspects," *Boston College International and Comparative Law Review* 3, no. 2 (1980): 353-376.

extended sovereign territory that does not support human habitation. This is largely because it affords sovereign rights without the associated cost of administering and protecting a population contained within it.

The New Zealand Ministry of Foreign Affairs and Trade (MFAT) asserts, “Illegal immigration has taken on new prominence in the region.” Further, leveraging off Australia’s experience in the detection of illegal immigration, it highlights the need for effective maritime surveillance to facilitate early detection of a possible landing attempt. Citing the UNCLOS, the Convention on the Safety of Life at Sea and the Transnational Organised Crime Convention’s Protocol on the Smuggling of Migrants, MFAT points out that New Zealand’s obligation to prevent people smuggling must be balanced with its obligation to render assistance to vessels within our search and rescue jurisdiction. The general poor seaworthiness of the vessels used, and the possible deliberate scuttling of these vessels by smugglers, heightens this tension.[4] MFAT’s view is shared by New Zealand Prime Minister John Key, who stated in 2010 that New Zealand needed to address “the increasing risk of people-smuggling boats hitting our shores.”[5]

Lead agency responsibility for illegal migrants rests with the (then) Department of Labour (now the Ministry of Business, Innovation and Employment), supported by the New Zealand Customs Service, the New Zealand Police, the New Zealand Defence Force, the Ministry of Foreign Affairs and Trade and the Government Communications Security Bureau. This wide range of government agencies represents the complexity of the issue of people smuggling, and the range of counters, including: international cooperation, long range warning of smuggling activity and incident response (should the previous two fail). The New Zealand Customs Service lists “people smuggling” as one of their seven “priority risk areas” and conducted a comprehensive whole of government exercise in 2012, aimed at testing response preparedness.[6]

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[4] Ministry of Foreign Affairs and Trade, “Review of Maritime Patrol: MFAT Submission,” 18.
[5] New Zealand Press Association, “Key: NZ Not Immune to People-Smuggling,” http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10656953 (accessed 5 August, 2012).
[6] Department of the Prime Minister and Cabinet, “New Zealand’s National Security System.”; New Zealand Customs Service, “Briefing for the Incoming Customs Minister,” (2011).

Exercise Barrier, a whole of Government exercise designed to test New Zealand's readiness for mass arrivals, was held over May and June 2012. The exercise was jointly led by Immigration New Zealand and the New Zealand Customs Service, and simulated the tracking and mass arrival of 100 illegal immigrants. The exercise was hailed a success, in that it proved New Zealand's ability to process (health, customs and immigration) a large number of illegal migrants on arrival. However, it is not clear whether it tested New Zealand's ability to be forewarned of such an arrival (such forewarning would presumably be the responsibility of Government Communications Security Bureau and the New Zealand Defence Force).[7]

The New Zealand Defence Force's role in providing forewarning of a potential mass landing of illegal immigrants is by virtue of its responsibly to provide maritime patrol in support of Maritime New Zealand. Clearly, such an activity would be best served by virtue of an intelligence 'tip-off.' However, in terms of patrol requirements, the possibility remains that maritime patrol would often be the first alert: albeit the first alert of last choice. In such a scenario, an effectively patrolled exclusive economic zone would provide a degree of notice to response authorities. This would enable them to prepare for a controlled landing and subsequent processing. Thus, a proactively monitored EEZ would clearly provide a time and distance buffer to effect such notice.

The second objective of national security defined by the DPMC report is that of "protecting lines of communication." The report states that these can be both physical and virtual, and they allow New Zealand to "communicate, trade and engage globally." Although listed as one of the seven objectives for national security, this objective has not been directly included in the table of lead agencies. As such, lead responsibility needs to be extrapolated from the three listed components: communication, trade and engagement.[8] For the purpose of this study, the thesis will assume: *communication* primarily relates to the physical means by which communications occur, i.e. transport and telecommunications;

[7] Guy, Nathan, and Maurice Williamson, "Exercise Barrier Shows New Zealand's Readiness for Mass Arrivals," (2012); Guy, Nathan, "Joint Exercise to Prepare for Possible Mass Arrival," (2012).
[8] Department of the Prime Minister and Cabinet, "New Zealand's National Security System," 3-4, 25-26.

trade refers to the ability and willingness of other countries to conduct commerce with New Zealand; and *engagement* refers to the international forums and conferences that New Zealand participates in, both diplomatic and industrial.

Communication is the first component of New Zealand's lines of communication. Many of the "issues" listed in Annex D of the DPMC report could potentially result in threats to New Zealand's lines of communication. However, the two most specific are: "International sea lane and air lane closures" and "International (tele)communication loss." These issues are the responsibility of the Ministry of Transport (MOT) and the Ministry of Business Innovation and Employment (MBIE, formerly the Ministry of Economic Development) respectively. However, many other issues are relevant, including: armed conflict and maritime threats (New Zealand Defence Force); regional disasters and international terrorism (Ministry of Foreign Affairs and Trade); and fuel supply and cyber security (MBIE).[9] The second component of lines of communication is trade.

Trade, the second component of lines of communication is also not directly assigned a lead agency. Issues listed in the DPMC report that are relevant to trade include: "smuggling" (New Zealand Customs Service), "global financial crisis" (The Treasury), "banking service failure or attack" (Reserve Bank of New Zealand), "commodities price collapse, international supply chain failure, essential commodities, fuel supply, industrial espionage, loss of intellectual property and cyber security" (MBIE), "internet manipulation or restraint" (Department of Internal Affairs) and "biosecurity" (Ministry of Primary Industries). Of note is the fact that the Ministry of Foreign Affairs and Trade (MFAT) is not the lead agency for any of these matters. However, *engagement*, the third component of lines of communication, is largely covered by the "international initiatives" and "security of NZ's interests abroad" issues, both of which MFAT has lead responsibility for.[10] However, the important issue for this thesis to examine is the overall impact that maritime security has on New Zealand's lines of communication.

[9] Ibid., 25-26.
[10] Ibid.

One line of communication issue that is directly affected by maritime security is that of international telecommunications. This is due to the large number of submarine cables in the world's oceans, and the high proportion of the world's communications that they carry. The other issue, not directly addressed, is that of transport and carriage of goods through the high seas and the claimed waters of New Zealand and other States. However, both these issues are well covered by the UNCLOS. Hence, by virtue of being a signatory to the UNCLOS, New Zealand has availed itself of the legal protection of this instrument of international law. So, even though New Zealand's approach to national security has tended to be based on operational 'issue response', this international agreement has provided a form of strategic cover that would otherwise be lacking (with respect to lines of communication). As such, being a signatory to the UNLCOS directly advances New Zealand's national security objectives.

The third objective of national security is "Strengthening international order to promote security." DPMC describe this as "contributing to the development of a rules-based international system, and engaging in targeted interventions offshore to protect New Zealand's interest." This objective is noteworthy, in that it provides true strategic guidance. Arguably, it directs a liberal approach to international relations that highlights security through established international rules and institutions. Further, it directs that New Zealand will selectively participate in the enforcement of those international rules. The Ministry of Foreign Affairs and Trade is lead agency for the former, and the New Zealand Defence Force is lead agency for the latter, as would be expected.[11]

The absolute level of security achieved by adopting such an approach to national security is questionable. However, if the approach were accepted, then the value of the UNCLOS as an instrument of national security is easily argued, as it clearly establishes such international rules. Hence, the value of the exclusive economic zone as a tangible expression of national security is also easily argued. Specifically, being a signatory to the UNLCOS directly contributes to New Zealand's national security objectives, by providing the international order that

[11] Berger, Thomas, "Set for Stability? Prospects for Conflict and Cooperation in East Asia," 407-411; Department of the Prime Minister and Cabinet, "New Zealand's National Security System," 25-26.

secures New Zealand's assertions of sovereignty, in the eyes of most States of the world.

The fourth objective of national security is that of "sustaining economic prosperity," which DPMC describe as "maintaining and advancing the economic well-being of individuals, families, businesses and communities." Given the potential wealth contained in the exclusive economic zone, it would be reasonable to expect the management of this primary resource to be high on the list of national security matters. However, given the 'respond to a threat' nature of New Zealand's national security system, the only direct assignments of lead agency are: "illegal fishing" (Ministry of Primary Industries) and arguably "critical infrastructure and assets" (MBIE). MBIE's annual report contains no register of national assets, and does not refer to the exclusive economic zone as a nationally managed asset.[12] It follows therefore, that the asset is managed in terms of the primary resources that are contained within the exclusive economic zone.

The Ministry of Primary Industries (formerly the Ministry of Fisheries) actively manages New Zealand's fishery stocks; in its annual report, it includes "maintain the effective management of New Zealand's fisheries" as one of its three roles.[13] However, the resource value of the exclusive economic zone is not limited to fish-stocks. It also includes petroleum, gas and minerals.

Management of New Zealand's oil, gas, minerals and coal resources (the Crown Mineral Estate) is the responsibility of MBIE. MBIE's role is to provide advice on policy and operational regulation and promotion of investment in the exploitation of these resources. It describes its aim as "to maximise the returns to New Zealand from the development of oil, gas and mineral resources, in line with the Government's objectives for energy and economic growth."[14]

Thus, responsibility for management of the primary resources of the exclusive economic zone – *the tangible asset* – is divided between the Ministry of Primary

[12] Department of the Prime Minister and Cabinet, "New Zealand's National Security System," 25-26; Ministry of Economic Development, "Annual Report 2010/11," (2011).
[13] Ministry of Fisheries, "Annual Report - 2010/11," (2011), 4.
[14] Ministry of Economic Development, "NZ Petroleum & Minerals Business Unit," http://www.nzpam.govt.nz/cms/about (accessed 13 August, 20112).

Industries and MBIE. However, no single department is responsible for the management of the exclusive economic zone as a single asset, or as an instrument of national security. These issues, including a more detailed examination of the economic value of the exclusive economics zone and continental shelf, are examined later in the thesis.

The fifth objective of national security is to "maintain democratic institutions and national values," which DPMC describe as "preventing activities aimed at undermining or overturning government institutions, principles and values that underpin New Zealand society." This objective is clearly focussed at domestic security and law enforcement, with the New Zealand Police (sometimes assisted by the New Zealand Security Intelligence Service) being the lead agency on all but one of the national security issues. The exception is "management of systemic risk," which is the responsibility of DPMC.[15] There is no specific component related to the exclusive economic zone.

The sixth objective of national security is "ensuring public safety." This is described as "providing for, and mitigating risks to, the safety of citizens and communities (all hazards and threats, whether natural or man-made)." A review of lead agency responsibilities shows that public safety is much focussed on response to abnormal situations such as earthquakes, tsunamis, extreme meteorological events, pandemics and chronic disease. One issue that is directly significant to the exclusive economic zone is that of "hazardous materials." The thesis has already shown that the UNCLOS requires New Zealand to allow vessels carrying hazardous materials (e.g. nuclear waste) the right of passage through the exclusive economic zone. However, given that lead agency responsibility for hazardous goods has been assigned to the New Zealand Fire Service (NZFS), it is likely that this was not a consideration in the formation of the New Zealand's national security system. In their annual report, the NZFS only refers to hazardous

[15] Department of the Prime Minister and Cabinet, "New Zealand's National Security System," 4-5,25-26.

materials in the context of “hazardous substance emergency response capability.”[16]

The DPMC table of lead agency assignments does not clearly articulate which Government agency is required to consider the strategic implications of carriage of hazardous materials in the exclusive economic zone. The New Zealand Defence Force has lead agency responsibility for maritime threats (including the exclusive economic zone) and the Ministry for the Environment has lead agency responsibility for environmental catastrophes and pollution. Similarly, the Ministry of Foreign Affairs and Trade has lead agency responsibility for international initiatives, e.g. the UNCLOS itself. However, the consequences of a nuclear waste incident in the exclusive economic zone – international sea-lane closure and international supply chain failure – are the responsibilities of the Ministry of Transport and Ministry of Business, Innovation and employment respectively. As such, the process of identifying the carriage of hazardous materials in the exclusive economic zone as a threat to national security, and the subsequent mitigation of that threat would require at least six disparate government agencies to cooperate to achieve an effective outcome.[17]

The fact of government agencies being required to cooperate in order to identify and mitigate strategic threats to national security is not, in itself, an issue. By definition, strategic threats are likely to be complex and cross over many traditional demarcations. However, the matter for consideration by this thesis is the manner in which this influences the ability of the exclusive economic zone to be managed as an instrument of national security. Hence, the primary consideration is leadership. As previously outlined, DPMC’s national security system assigns responsibility to the Chair of ODESC, that Chair being the Chief Executive of DPMC supported by the Director of Security and Risk. The Director of Security

[16] Ibid., 3, 25-26.; New Zealand Fire Service, “Annual Report for the Year Ended 30 June 2011,” (2011).
[17] Department of the Prime Minister and Cabinet, “New Zealand’s National Security System,” 25-26.

and Risk was established in 2009, along with the position of Director of Intelligence Coordination.[18]

The Director of Security and Risk leads DPMC's Security and Risk group, whose role includes coordination and advice during times of crisis, and the development of long terms strategies for "mitigation, preparation, and management of these risks by appropriate agencies."[19] Whilst this clearly assigns responsibility for the strategic coordination of disparate government agencies, the questions of effectiveness and appropriate need to be examined. These issues will be considered later in the thesis.

The seventh and final objective of national security is that of "protecting the natural environment: contributing to the preservation and stewardship of New Zealand's natural and physical environment." Apart from assigning the lead agency responsibilities, the DPMC report pays little attention to environmental issues other than to note: "protection of the environment and maintaining our clean-green reputation are important for New Zealanders." While this may be true, no attempt is made to define "clean-green," or to balance the importance of promoting an image of cleanliness versus actively pursuing a state of cleanliness. No mention is made of climate change other than to acknowledge that it is a trans-boundary challenge, along with cyber-attack, terrorism and proliferation of weapons of mass destruction.[20]

Having considered DPMC's published view on national security, the economic benefit derived from exploiting the exclusive economic zone's natural resources is arguably the greatest national security dividend derived from the claim. As such, economic benefit will be examined in more detail in the next chapter.

[18] Ibid., 12.
[19] Department of the Prime Minister and Cabinet, "Security and Risk Group," http://www.dpmc.govt.nz/dess (accessed 19 August, 2012).
[20] Department of the Prime Minister and Cabinet, "New Zealand's National Security System."

CHAPTER 8

Economic Value of the Maritime Claims

The thesis will now examine the economic benefit – both current and potential – of New Zealand's exclusive economic zone and continental shelf. In particular, economic benefit will be examined in the context of its contribution to the fourth objective of national security: "sustaining economic prosperity."[1]

The UNCLOS separates the resources of the exclusive economic zone into two categories: living and non-living. However, as already shown by the thesis, the living resources are primarily the focus of the exclusive economic zone section of the UNCLOS, whereas the non-living resources are primarily focus of the continental shelf section. As such, the thesis will examine the economic value of both the exclusive economic zone and the continental shelf, as if they were one zone. Both will be considered in the context of the living and non-living resources.

Living Resources

Exploitation of the living resources of the exclusive economic zone is predominantly in the form of wild capture of the fish stocks in the pelagic (upper layers of the open sea) and deep-water zones. Wild capture refers to the fact that the stock are not managed or farmed in any particular fashion, and must be pursued and captured rather than harvested. The alternative to wild capture is aquaculture, where specific areas of the sea are established and managed as 'fish farms.'

Aquaculture is generally conducted in the littoral zone: that portion of the ocean closest to the shore. As such, it cannot truly be considered an economic benefit of New Zealand's exclusive economic zone or continental shelf, since it occurs materially within the territorial and inland waters.[2] Exploitation of resources within the territorial sea and inland waters would be New Zealand's sovereign right with or without an extended maritime claim. However, the significance of aquaculture in

[1] Ibid., 3.
[2] Ministry of Fisheries, "Aquaculture in New Zealand," (2008).

this context is that it is rapidly displacing wild capture as the primary means of acquiring seafood for the purpose of feeding the world's population.

Total world production from aquaculture overtook production from wild capture in the pelagic zone in 1995. Since then the worldwide yield from aquaculture has continued to rise, and is expected to represent over half of all fish production by 2030.[3] By contrast, New Zealand's aquaculture production is less than both the deep-water and pelagic catches (separately), and accounts for less than 15% of New Zealand's total seafood export earnings. It is not immediately clear whether this deviation from the worldwide trend is attributable to the high value of New Zealand's EEZ stocks, or because of under-investment in aquaculture. What is known is that aquaculture and wild capture are not isolated activities, and the impact of one upon the other is an important consideration.[4]

Aquaculture is often dependent on wild capture. The primary reason for this is that aquaculture of carnivorous species requires wild-catch to sustain the carnivorous species. In many cases, the amount of fish protein provided as feed to carnivorous species is greater than the subsequent production of equivalent fish protein. The only meaningful benefit derived is the conversion from an unattractive species (cuisine-wise) to an attractive species: for example, the use of anchovy to produce salmon and shrimp. However, not all aquaculture requires wild-catch.[5]

Generally, herbivorous species such as carp and milkfish are sustained without any wild-catch. However, these species are not valued, and tend to be used exclusively for the domestic low-income market: typically in Asia. The other significant impact of aquaculture on wild capture is that of habitat modification, although this largely affects the wild stocks of the same species, rather than the other species found in the pelagic and deep-water zones. Consequently,

[3] Tidwell, James H., and Geoff L. Allan, "Fish as Food: Aquaculture's Contribution: Ecological and Economic Impacts and Contributions of Fish Farming and Capture Fisheries," *European Molecular Biology Organisation Reports* 2, no. 11 (2001).
[4] Ministry for Primary Industries, "September Quarter 2012," (2012).
[5] Naylor, Rosamond L., et al., "Effect of Aquaculture on World Fish Supplies," *Nature* 405 (2000): 1017-1024.

aquaculture still constitutes a net gain on the world's net seafood production, albeit with a dependency on the pelagic wild-catch.[6]

With respect to exploitation of fish stocks in the exclusive economic zone, New Zealand has invested significant resources and intellectual property in the development of a quota management system. This quota management system is recognised as world leading, and is used by the New Zealand Government to meet its obligations under the UNCLOS and ensure that fish stocks remain at an optimum level for ongoing exploitation. The quota management system has stabilised the fish stocks in New Zealand's exclusive economic zone, and current exploitation appears to be indefinitely sustainable.[7] However, despite being New Zealand's fifth largest export, fisheries still only accounts for 3% of the revenue derived from New Zealand's merchandise exports (the single largest being dairy, at 31%).[8]

The effective yield from the exclusive economic zone is relatively small, and has not significantly increased in over twenty years. Already, New Zealand accounts for only 1.2% of the world's seafood trade, and this figure could potentially decrease as the emphasis shifts from wild capture to aquaculture. This relatively low yield is partially attributable to the greater than normal ocean depth of New Zealand's exclusive economic zone, and the associated scarcity of stock-sustaining nutrients.[9] However, there is still an opportunity to increase the net worth of the harvested stocks by participating in the post-harvest processing of wild-catch.[10]

New Zealand-owned entities do not materially participate in the post-harvest processing of wild-catch. Over the past 15 years, all but one of New Zealand's largest seafood companies has shifted their post-catch processing to China. The

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[6] Ibid.
[7] Knight, Benjamin R., and Weimin Jiang, "Assessing Primary Production Constraints in New Zealand Fisheries," *Fisheries Research* 100, no. 1 (2009): 15-25.
[8] Ministry for Primary Industries, "September Quarter 2012."; Zealand, Seafood New, "Our Industry," http://www.seafoodnewzealand.org.nz/our-industry/ (accessed 7 January, 2013).
[9]Centre for Advanced Engineering, "Economic Opportunities in New Zealand's Oceans: Informing the Development of Oceans Policy," (2003), 9-12.
[10] Stringer, Christina, et al., "Shifting Post Production Patterns: Exploring Changes in New Zealand's Seafood Processing Industry," *New Zealand Geographer* 67 (2011): 161-173.

rationale for this move is simple: Chinese post-catch processing produces higher quality product and is less expensive. However, these economic benefits do not accrue to New Zealand.[11]

When wild-catch is exported to China, New Zealand industry loses control of the retail product. In most cases, New Zealand sells its wild-catch directly to Chinese processing companies, rather than to retail distributors. The wild-catch is headed, gutted and frozen at sea, and then transported directly to China. From there, it is filleted, deboned and exported – by Chines processing companies – to the world market. Chinese workers are achieving fillet yields of around 70% compared with yields of less than 60% by European nations. The Chinese advantage is attributed largely to the significantly lower labour rates and the sheer volume of production. However, it is noteworthy that they still employ a largely manual process.[12]

European nations – in particular, Iceland and Norway – have invested in automated processing systems to counter the China advantage. Although these plants have not been operating long enough to provide empirical evidence, they are expected to provide significant efficiency gains over the manual system. Such a strategy has been discounted by the New Zealand industry on the basis that it lacks the resources and will to embark on such a venture. Further, it is likely that the current free trade agreement with China is not providing the appropriate signals to local industry. Industry sources acknowledge that their decisions to move processing offshore and employ foreign charter vessels make economic sense, but are not necessarily good for the country.[13]

In tangible terms, from a baseline of nil in 1988, China now accounts for over 40% of all New Zealand frozen fish exports. In contrast, between 2000 and 2008, the export of New Zealand finfish to Japan has dropped from 25% to 10% of national export. Predictably, Chinese fish exports to Japan grew in the same period. However, this attrition of commerce is not restricted to fish exports.[14]

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[11] Ibid.
[12] Ibid.
[13] Ibid.
[14] Ibid.

New Zealand fisheries expertise, in terms of both capture and processing is disappearing. Foreign charter vessels are effectively sold quota by domestic interests, and are now harvesting most of New Zealand's wild-catch. Further, the post-catch production is now primarily undertaken overseas. Consequently, the New Zealand industry is predicting an eventual total loss of domestic expertise. This situation arguably arises because other States do not have the labour market protections enjoyed by New Zealand workers.[15]

Of significant concern is that the New Zealand Government has refuted these claims. Despite having commissioned the research, the Minister of Fisheries Phil Heatley claimed that the report of Stringer et al was inaccurate. Further, the Minister of Labour Kate Wilkinson denied that there is a problem related to the work conditions on foreign charter vessels.[16]

Therefore, despite having the world's fourth largest exclusive economic zone and a world leading – and sustainable – quota management system, the potential for wild capture in New Zealand's exclusive economic zone is quickly losing significance as an asset of national significance. Further, the New Zealand Government has not acknowledged that this is an issue of national concern.

Non-Living Resources

The non-living resources of the exclusive economic zone and continental shelf include oil and natural gas, minerals and ocean energy. To date, most of New Zealand's exploitation has been of natural gas.

The Maui gas and oil field was first discovered in 1969, with commercial yield being achieved in 1979. At the time of its discovery, Maui was one of the largest known gas fields in the world. At the peak of its operation in 2002, Maui was responsible for 75% of all New Zealand's hydrocarbon production. Output was in the form of gas (168 billion cubic feet p.a.), oil (5.5 million barrels p.a.), gas condensate (6 million barrels p.a.) and liquid petroleum gas (168,000 tonnes p.a.).

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[15] Ibid.
[16] Fields, Michael, "Kiwi Fishermen Between the Devil and the Deep Blue Sea," *Sunday Star*Times* (2011): A6; Stringer, Christina, et al., "Shifting Post Production Patterns: Exploring Changes in New Zealand's Seafood Processing Industry."

In terms of production value, these combined to provide revenues of $370 million in 2002. However, the true value to the economy was the availability of a local and efficient energy source. This energy source enabled other local industries that would not otherwise have been cost-effective.[17]

In 2002, Business and Economic Research Limited estimated that Maui's production of methane was directly responsible for $1.4 billion of gross output and $480 million of 'added value' output to the New Zealand economy. Further, it had contributed 640 full time jobs to the economy. This contribution improved New Zealand's international competitiveness and provided a significant boost to its economic performance. However, the Maui gas field is now materially depleted, and exploitation has shifted to the Maari, Pohokura, Kapuni and Kupe fields (although only the Kupe and Maari fields lie beyond the territorial waters).[18]

There are two significant factors related to the exploitation of gas and oil reserves in the exclusive economic zone. The first is the extent to which the reserves exist, and the second is the ability for the energy industry to locate and exploit them. The decision to prospect for new oil and gas fields is generally one made by industry. Further, the capital backing comes from multi-national conglomerates and is subject to intense international competition. Hence, the ability to construct an ongoing programme of exploration and exploitation is dependent on the New Zealand Government's ability to prove the economic value of such a programme to foreign commercial interests.[19]

Whilst it is believed that there are significant deposits of oil and gas in the deep-water basins of New Zealand's exclusive economic zone, there has been very little activity to date in their active exploration. Instead, foreign investment has focussed

[17] Engineering, Centre for Advanced, "Economic Opportunities in New Zealand's Oceans: Informing the Development of Oceans Policy," 3-5; McBeath, D.M., "Gas-Condensate Fields of the Taranaki Basin, New Zealand," *N.Z. Journal of Geology and Geophysics* 20, no. 1 (1977): 99-127.
[18] Engineering, Centre for Advanced, "Economic Opportunities in New Zealand's Oceans: Informing the Development of Oceans Policy," 3-5; Ministry of Economic Development, "New Zealand Energy Data File 2012," (2012), 125-145.
[19] Engineering, Centre for Advanced, "Economic Opportunities in New Zealand's Oceans: Informing the Development of Oceans Policy," 3-5.

on deep-water discovery and exploitation in the Atlantic Ocean. Without a programme of commercial incentives, this situation is unlikely to change.[20]

The second potentially significant exploitable non-living resources in the exclusive economic zone and continental shelf are the mineral deposits. These deposits include: silica and iron (sand), gold, phosphates, polymetallic nodules, sulphides and salt. Of these, only sand and salt are currently being exploited and this exploitation occurs largely in the coastal areas: the exclusive economic zone and continental shelf are largely unexploited.[21]

The significant issue with resect to exploitation of the minerals in the exclusive economic zone and continental shelf is one of technology. To date, exploitation of these minerals has largely been possible using existing techniques in accessible areas, e.g. terrestrial mining. However, as land-based resources are exhausted, the importance of deep sea and continental shelf exploitation will increase. For this to become feasible, the cost/benefit balance must shift. This could be achieved through technology that is more efficient or an increase in the commodity price of the minerals themselves.[22]

In terms of overall value of the base commodity, preliminary studies were conducted in 1995. One study examined the incidence of phosphates on the Chatham rise, and tentatively valued the stock at $10 billion gross. Another study examined the incidence of polymetallic nodules at various locations in the exclusive economic zone. Polymetallic nodules, also known as manganese modules, typically contain manganese, iron, cobalt, copper and. The study speculatively valued these mineral reserves at $80-250 billion gross. However, in both the case of the manganese nodules and the phosphates, technology shifts were required to make their exploitation economic.[23] The other significant minerals

[20] Ibid.
[21] Ibid., 5-7.
[22] Ibid.
[23] Ibid.

in the exclusive economic zone and continental shelf are the volcanic massive sulphides.[24]

Volcanic massive sulphides are ejected from the hydrothermal vents of active underwater volcanoes. The most significant incidence of this in New Zealand's continental shelf is along the 1,200km Kermadec arc. This arc is at a significantly shallower depth than similar arcs in other oceans, making it a more attractive exploitation proposition. The central Pacific has also been shown to have higher concentrations of minerals than other areas of the world's oceans.[25]

The potential value of the volcanic massive sulphides in the Kermadec arc is currently unknown. However, a mining license has been issued and exploitation is expected within the next five years.[26] The third significant non-living resource of the exclusive economic zone is that of ocean energy.

Ocean energy sources include currents, wind-generated waves and thermal gradients. It is also possible to create offshore wind farms that operate in a similar manner to terrestrial wind farms.

Offshore wind farming is a developing technology that is finding application in the North Sea. However, engineering complexities and transmission losses currently limit their utility. The advantages of offshore wind farming include greater wind strengths than terrestrial farms and lower population density, resulting is less visual and audible pollution.[27]

Akin to wind farming is the generation of energy through the application of ocean bottom currents to undersea turbines. The advantage of these currents over tidal

[24] Ibid.; Glasby, G.P., and I.C. Wright, "Marine Mineral Potential in New Zealand's Exclusive Economic Zone" (Paper presented at the Offshore Technology Conference, Houston, Texas, 1990).
[25] de Ronde, Cornel E. J., et al., "Hydrothermal Fluids Associated With Seafloor Mineralization At Two Southern Kermadec Arc Volcanoes, Offshore New Zealand," *Mineralium Deposita* 38 (2002): 217-233; Engineering, Centre for Advanced, "Economic Opportunities in New Zealand's Oceans: Informing the Development of Oceans Policy," 5-7; Hein, James R., et al., "Seamount Mineral Deposits: A Source of Rare Metals for High-Technology Industries," *Oceanography* 23, no. 1 (2010).
[26] Engineering, Centre for Advanced, "Economic Opportunities in New Zealand's Oceans: Informing the Development of Oceans Policy," 5-7.
[27] Ibid., 7-9.

energy is that they are more constant, and hence able to achieve a high and sustained energy yield (load factor up to 80%). However, wind, current and tidal energy harvesting are all likely to occur near to the coastline, rather than taking advantage of the wider exclusive economic zone.[28]

The final method of energy generation is through ocean thermal exchange. This technique takes advantage of the temperature differential occurring at different ocean depths, and operates much like a conventional heat pump. Such thermal exchange is extremely efficient, but requires a differential of around 20°C over 1000m. Unfortunately, due to New Zealand's southern latitude, such differentials do not occur in New Zealand's domestic or extended maritime zones.[29]

Other Economic Factors

The potential economic benefit of the exclusive economic zone extends beyond the resources contained within it. New Zealand derives a significant amount of intellectual property from its management of its maritime zones. This is largely because of the high degree of bio-technological diversity within New Zealand's marine environment.[30]

New Zealand's exclusive economic zone is one of the world's most diverse areas of ocean, incorporating flora and fauna across the full biotechnology spectrum. This presents the opportunity to lead the world in the research and development of bio-production: the use of biosynthesis as an alternative to complex industrial processes. Biosynthesis has particular application in the development of pharmaceutical and nutraceutical products. However, as with oil and gas, exploitation is likely to require considerable foreign investment, which has not been forthcoming.[31]

[28] Ibid.
[29] Ibid.
[30] Ibid., 12-18.
[31] Ibid., 12-18.

New Zealand also benefits from the relatively cost effective transport provided by the ocean, as well as its productive marine industry. However, these benefits could arguably be achieved without the extended maritime claims.[32]

This concludes the analysis of the economic value of New Zealand's maritime claims. In summary, the most tangible economic value provided by New Zealand's exclusive economic zone and continental shelf is the (approximately) $1 billion p.a. catch of wild fish stocks. This value is noteworthy in that it is potentially indefinitely sustainable. However, there is little opportunity to grow the capacity beyond the current limit without risking the depletion of the stocks. More to the point, the value of this asset is being rapidly eroded due to the increasing practice of awarding quote to foreign-chartered vessels and the use of offshore processing for wild-catch. Further, the New Zealand government appears to have missed the fact that increased exports to China are at the expense of high value exports to other countries. Rather, it is actively encouraging the practice and failing to provide a domestic focus to counter the threat reduced return on investment for the country as a whole.[33]

Another proven asset is the gas and oil fields contained with the exclusive economic zone and coastal waters. The Maui field was the first significant example of gas and oil exploitation, and it continues to contribute to New Zealand's energy requirements. Successful ongoing exploitation of oil and gas is potentially the most beneficial contribution of the EEZ, in that it has a significant flow-on effect into the economy. However, significant ongoing exploration is required, and this cannot be achieved without foreign investment, which has not been forthcoming.

Mineral and phosphide deposits provide a significant potential for exploitation. However, the value of these is currently difficult to quantify. There is also significant potential for the development of New Zealand biosynthesis industry, but this too requires foreign investment.

[32] Ibid., 12-18.
[33] Ministry of Foreign Affairs and Trade, "Opening Doors to China: New Zealand's 2015 Vision," (2012); New Zealand Trade and Enterprise, "New Zealand Seafood Industry," (2012).

CHAPTER 9

Threats to New Zealand's Maritime Environment

A secure exclusive economic zone is largely predicated on a secure maritime environment. In the 2001 Maritime Patrol Review undertaken by New Zealand's Department of Prime Minister and Cabinet, Government officials highlighted four areas in which a maritime nation's sovereign interests could be challenged. The four areas were: illegal resource exploitation, disregard of national or international law, illegal transportation of goods or people, and creation of environmental hazards.[1] The thesis will now assess significance of these threats in the context of national security, along with the threat posed by New Zealand's approach to managing national security.

Illegal Resource Exploitation

The most significant threat posed by illegal resource exploitation is the potential reduction or elimination of fish stocks, due to undetected illegal fishing outside the New Zealand quota management system. The thesis has already identified that wild-catch is a potentially significant resource, but that it must be contained within a sustainable annual yield. Any incidence of fishing outside this management structure will either deplete the fish stocks, or force a reduction in the programmed permissible catch from which New Zealand derives its economic value.

There are two forms of illegal catch: 'quota busting' and poaching. Quota busting is the situation where authorised fishing operators exceed their authorisation by catching more fish than their quota allows. New Zealand's counter to quota busting has been incorporated into its management system. Specifically, New Zealand tightly monitors the flow of fish from its wild habitat through to production. This requires that all fish stocks be managed through licenced fish receivers, which provides a reconcilable account of all fish at all points through the production chain. Although there is very little in terms of hard evidence, there is a general

[1] Department of the Prime Minister and Cabinet, "Maritime Patrol Review," (2001), 5-6.

belief that quota busting is mostly a problem for high value inshore fish stocks, where there are more opportunities to trade in stocks outside the quota system.[2]

The second threat to the wild capture is that of poaching: wild-catch obtained in violation of international law. The United Nations Food and Agricultural Organisation (FAO) estimates that illegal fishing can constitute as much as 30% of the total catch in any particular jurisdiction. A study in 2009 put the total global value of illegal fishing at between US$5-10 billion. Significantly, almost 70% of this illegal catch is thought to occur in the Pacific Ocean, although less than 1% of that is thought to occur in the southwest Pacific (which incorporates New Zealand's exclusive economic zone).[3]

The recent operation KURUKURU 2012 corroborates that study's findings. Operation KURUKURU 2012 was a multinational surveillance operation covering 30 million square kilometres in the central Pacific. The operation involved boarding 206 vessels in the area and examining them for evidence of transnational crime, including illegal, unregulated and unreported fishing, smuggling and people trafficking. Post operation analysis concluded that up to US$1 billion is lost annually due to illegal tuna fishing.[4] Therefore, while there is clearly an issue with illegal tuna fishing in the Pacific, there is no evidence that this constitutes a threat to New Zealand's maritime assets, since there are little or no tuna stocks within New Zealand exclusive economic zone.

Whilst operation KURUKURU provided empirical data regarding the incidence of illegal tuna fishing in the wider Pacific region, New Zealand does not appear to have any credible information regarding the incidence of illegal wild capture in New Zealand's exclusive economic zone. The main reason for this is that New Zealand conducts very little maritime surveillance. In its submission to the

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[2] Annala, John H., "New Zealand's ITQ System: Have the First Eight Years Been a Success Or a Failure?," *Reviews in Fish Biology and Fisheries* 6 (1996): 43-46; Boyd, Rick O., and Christopher M. Dewees, "Putting Theory Into Practice: Individual Transferable Quotas in New Zealand's Fisheries," *Society & Natural Resources: An International Journal* 5, no. 2 (1992): 179-198.
[3] Agnew, David J., et al., "Estimating the Worldwide Extent of Illegal Fishing," *PLoS ONE* 4, no. 2 (2009); Ministry of Fisheries, "New Zealand Plan of Action to Prevent, Deter and Eliminate Illegal, Unregulated & Unreported Fishing," (May 2004).
[4] Pacific Islands Forum Secretariat, "Illegal Tuna Fishing Crackdown in Pacific Can Save $1billion," (2012).

maritime patrol report, the Ministry of Fisheries stated: “there is a substantial gap between the aerial surveillance hours required by MFish and what it currently receives from both the RNZAF and ad-hoc civilian service providers.”[5] In its white paper of 2010, the Ministry of Defence confirmed this point, stating that: “non-defence maritime patrol requirements cannot currently be met by the NZDF.”[6] The white paper does signal an intention to address these requirements, but these plans are conceptual and not coordinated across the whole of Government (as shown earlier in this thesis).

Therefore, there is no particular evidence to indicate that New Zealand is suffering because of illegal fishing in its exclusive economic zone. However, the absence of tangible data signals a failing in New Zealand’s situational awareness.

Disregard for National or International Law

As already shown in this thesis, New Zealand has invested heavily in the legal instrument – the United Nations Convention on the Law of the Sea – that underpins its claim on its exclusive economic zone and continental shelf. However, the current unresolved and complex dispute resolution process provides States with a means by which they may block or defer disputes. This diminishes the value of the instrument, although it stops short of totally invalidating it.

The other significant challenge to universal acceptance is the United States continuing refusal to ratify the UNCLOS. The 2012 attempt ended with the decision of Senators Portman and Ayotte to oppose ratification. Their rationale was that there was no international body better able to consider United States interests than the United States itself, and that security would best be achieved “by maintaining U.S. naval power beyond challenge.”[7]

Notwithstanding the United States’ reluctance to ratify, the thesis has already shown that the UNCLOS is one of the world’s most significant instruments of international law. However, because New Zealand has had to ratify the UNCLOS

[5] Ministry of Fisheries, “Review of Maritime Patrol Requirements,” (2000), 2.
[6] Ministry of Defence, “Defence White Paper 2010,” 52.
[7] Portman, Rob, and Kelly Ayotte, “Letter to Harry Reid, Majority Leader United States Senate, on the Matter of Accession to the United National Convention on the Law of the Sea,” (16 July 2012).

in its entirety, it has created conflict with New Zealand's Nuclear-free and anti-whaling policies. Further, there is a general reluctance on the part of the New Zealand populace, motivated by issues related to environmental preservation, to embrace the exploitation of its resources.[8] Hence, the most significant threat to the UNCLOS as a legal instrument may come from New Zealand itself, and its sometimes emotive and divided public opinion with respect to commercial exploitation of natural resources.

Illegal Transportation of Goods or People

The thesis has already shown that illegal transportation of goods or people represents a threat to national security. However, it is also true that the expansive exclusive economic zone presents an opportunity to provide an intelligence 'tip-off' well in advance of any actual landing in New Zealand sovereign territory. However, the availability of such a tip-off is directly proportional to degree of surveillance undertaken in the exclusive economic zone.

In its submission to the maritime patrol review, the New Zealand Customs Service asserted that the degree of surveillance in New Zealand's maritime zones was inadequate. It highlighted the need for comprehensive monitoring, noting that a weakness in any specific area will quickly be exploited. In particular, the problem of advance notification of small craft was highlighted as a vulnerability, and that there was historic precedent of this vulnerability being exploited.[9]

In terms of its surveillance capability, the Customs Service relies on the Royal New Zealand Air Force (RNZAF) and charted civilian aircraft for aerial surveillance, and the Royal New Zealand Navy (RNZN) for interdiction. There is also some incidence of "coast watch," but this relies on volunteer advice and is

[8] Maritime Union of New Zealand, "Government Must Improve Offshore Exploration Safety," (2011); New Zealand Herald. "Brazilian Oil Giant Petrobras Dumps NZ Exploration Permits." *New Zealand Herald,* 2012. ; New Zealand Parliament, "Exclusive Economic Zone and Continental Shelf (Environmental Effects) Bill — Third Reading," 683 (2012): 4779. 3 News, "Lawyer: Oil Exploration License Given Without Environmental Consideration," http://www.3news.co.nz/Lawyer-Oil-exploration-license-given-without-environmental-consideration/tabid/1160/articleID/256729/Default.aspx (accessed 10 January, 2013); Abadia, Karina, "Climate Justice Say 'No' to Oil Exploration in Taranaki," *Te Waha Nui: An AUT University Journalism Publication* 41 (2011); Vance, Andrea, "Halt Oil Exploration, Govt Urged," *Dominion Post,* (2012).

[9] New Zealand Customs Service, "New Zealand Customs Service Maritime Enforcement Needs," (2001).

only possible in habited areas. It also receives intelligence reports from surveillance agencies and overseas liaison. At the time of the submission, none of these measures was deemed adequate.[10]

Commercial charter of civilian aircraft was inadequate because the platforms were not equipped with the required search tools, and their range was insufficient for offshore operations. Although the RNZAF P-3 Orions did have the requisite capability and range, they were expensive, often unavailable and were unsuitable for littoral operations. Overall, at the time of the submission, the Customs service did not believe that it had any real situational awareness other than that provided by the RNZAF on an ad-hoc basis, or by members of the public on a voluntary basis.[11]

Since the submission, the RNZN has acquired the protector fleet, and has provided significant support to the New Zealand Customs Service using this resource. Further, the RNZAF has since allocated dedicated mission time on the P3 Orions. However, the P3-Orions continue to be on reduced availability due to the protracted upgrade programme. This is noted by the NZDF as significantly affecting core training as well as its ability to meet the directed level of capability.[12]

Creation of Environmental Hazards

There are two major potential environmental threats to the maritime environment. The first is that vessels present in the exclusive economic zone could deliberately or accidently introduce toxic waste or pollutants into the environment. This could take the form of fuel or toxic cargo. The second potential threat is environmental disruption caused by exploitation of the non-living resources of the exclusive economic zone or the continental shelf.

As already discussed in thesis, the UNCLOS comprehensively addresses protection of the maritime environment. However, the resultant agreement is necessarily complex, and is a compromise of competing interests. In order to give

[10] Ibid.
[11] Ibid.
[12] New Zealand Defence Force, “Annual Report 2011,” 27, 96.

local effect to these provisions, New Zealand introduced the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Bill.

Following its third reading, the Bill was enacted into legislation on 3 September 2012. Critics described the bill as contentious, significantly more permissive than the Resource Management Act 1991 and inconsistent with New Zealand's obligations under the UNCLOS. Further, they described the bill as being focussed on enabling exploitation rather than environmental protection.[13]

The coincidently timed grounding of the Rena, and the catastrophic failure of the Deepwater Horizon oil platform in the Gulf of Mexico, fuelled this disquiet.[14] The disquiet has possibly been a factor in the recent decision of Petrobras to withdraw from oil exploration in New Zealand waters.[15] As such, it is arguable that the greatest environmental risk to the exclusive economic zone is the reduction in foreign investment in the exploration and exploitation of New Zealand's maritime resources, resulting either from an unworkable regulatory regime, or contrary public opinion on matters of environmental exploitation, or both.

In rational terms, the Deepwater Horizon failure was caused by human error and equipment failure. While such events cannot be categorically eliminated, their probability of occurrence can be reduced to a point where their total impact is within the planet's ability to absorb.[16]

The key to effective minimisation of environmental catastrophe is effective regulation. However, regulation is generally a hindrance to investment and hence must be proportionate to the risk being managed. As such, the effectiveness of the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 is a critical step in environmental risk mitigation, provided its practical application strikes an effective balance with preservation of exploitation interests.

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[13] New Zealand Parliament, "Exclusive Economic Zone and Continental Shelf (Environmental Effects) Bill — Third Reading."
[14] Bellingham, Mark, and Bruce Goff, "Head to Head: Greenies V Oil Industry," *Dominion Post* (2012).
[15] New Zealand Herald, "Brazilian Oil Giant Petrobras Dumps NZ Exploration Permits." (4 December 2012).
[16] Gaskill, Melissa, "Deepwater Horizon: One Year on," *Nature* (2011).

National Approach

Arguably, the single biggest threat to New Zealand's maritime claims is New Zealand's ad-hoc approach to matters of strategic importance. As already shown by the thesis, New Zealand's approach to national security has largely been one of managing risks and external threats. Watch groups are stood up on an ad-hoc basis, and the national planning to date has largely been to identify those Government agencies that will lead the response to external threats, *as they occur*. However, this can hardly be described as a strategic approach:

> *He who excels at resolving difficulties does so before they arise. He who excels in conquering his enemies triumphs before threats materialise.*[17]

Gray defines strategy as "the bridge that relates military power to political purpose."[18] However, in a contemporary world, this definition should be viewed in a wider, yet sympathetic, context. Specifically, strategy can be viewed as the bridge that relates a State's *instruments of power* to political purpose. In this context, an instrument of power could be military power, or any economic, cultural or natural resources that could achieve international advantage. As such, New Zealand's exclusive economic zone can be considered an instrument of power (as could the All Blacks). As already examined by this thesis, New Zealand's political purpose is captured by the seven objectives of national security, which include economic prosperity, preservation of sovereignty and maintaining national values.

As already shown, the issue with the development of New Zealand national security is that the national strategy is effectively the sum of the individual strategies of the individual government agencies. Unfortunately, no single government agency is responsible for the maritime claims, and hence there is no single comprehensive coordinated strategy. As such, the 'power' provided by this resource is not being optimally utilised and hence is failing to deliver on the objectives of national security. The obvious example already raised by this thesis is the situation with respect to the exploitation of the wild-catch in the exclusive economic zone.

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[17] Tzu, Sun, *The Art of War,* trans. Griffith, Samuel B., 1 ed. (New York: Oxford University Press, 1963), 77.
[18] Gray, Colin S., *Modern Strategy*, 1 ed. (New York: Oxford University Press, 1999), 17.

As already shown, New Zealand has expended significant resources to assure the legitimacy of its claim to its extended maritime zones. Further, it has developed a world-leading quota management system to ensure that the wild fish stocks in the exclusive economic zone are maintained at a sustainable level, indefinitely. However, the catch is undertaken by foreign-chartered fishing vessels that deliver the catch directly to China for processing. China then sells the processed catch to New Zealand's former customers (including the New Zealand domestic market) at a higher price. The seafood industry admits that this is "not really good for the country," but argues that it makes "economic sense." It is arguable that such economic sense is only possible because of cheap labour exploitation in the foreign fishing vessels and China, and this would clearly be at odds with New Zealand's national values.

Fortunately, New Zealand is making progress with respect to comprehensive national security. A comparison between the 2000 publication "Securing our Nation's Safety: How New Zealand manages its security and intelligence agencies" and the 2011 publication "New Zealand's National Security System" shows that New Zealand now recognises that national security is the responsibility of the whole of government, and not just of the security and intelligence agencies.[19] Tangible evidence of the new comprehensive approach to national security is provided in the recently published National Cyber Security Strategy.

New Zealand's Cyber Security Strategy brings together a number of government agencies and private sector organisations, and sets three clear objectives for the nation. It also defines the role of government, and the roles of the individual agencies. However, most significantly, within the Department of Prime Minister and Cabinet it establishes the National Cyber Policy Office, "responsible for oversight and coordination of the development, implementation and review of

[19] Department of the Prime Minister and Cabinet, "New Zealand's National Security System."; Department of the Prime Minister and Cabinet, "Securing Our Nation's Safety: How New Zealand Manages Its Security and Intelligence Agencies."

national cyber security policy and strategies."[20] Such an approach could also be taken with the management of New Zealand's maritime environment.

Academics, policy-makers and philanthropists are calling for a new and comprehensive approach to the management of New Zealand's maritime environment. In his Ocean Governance Summary Report, McGinnis criticizes New Zealand's 'balkanized' resource management regime, stating that the "sector-by-sector approach has been proven to be ineffective and unresponsive." He goes on to advocate "evidence-based policymaking" but stresses the need to separate the generation of specialist advice from the process of making policy.[21]

He argues that scientific research must be objective, and remain distinct from the generation of policy. Scientists would inform policymakers, who would consider their advice in the context of society and the ecological environment. As already raised in this thesis, this approach is consistent with that adopted in New Zealand's Cyber-Security strategy, where the policy office has been created as a standalone entity under the Department of Prime Minister and Cabinet. McGinnis reflects this in his report's recommendations by calling for an overall marine policy that supports (but is independent of) place-based planning, and the development of a public trust approach to management and ownership of the exclusive economic zone.[22]

A review of New Zealand's Ocean legislation and policy prepared for the Oceans Policy Secretariat found that "there is no unifying thread or theme across the various strategies." Further, it highlighted the fact that the disparate policies did not even have commonality of high-level goals, and that there was no attempt to deconflict each policy's implementation.[23]

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[20] Department of Prime Minister and Cabinet, "National Cyber Policy Office," http://www.dpmc.govt.nz/ncpo (accessed 15 January, 2013); Ministry of Economic Development, "New Zealand's Cyber Security Strategy," (2011).
[21] McGinnis, M.V., "Ocean Governance: The New Zealand Dimension," (2012), 26-32.
[22] Department of Prime Minister and Cabinet, "National Cyber Policy Office."; McGinnis, M.V., "Ocean Governance: The New Zealand Dimension," 36-54.
[23] Willis, Gerard, et al., "Oceans Policy Stocktake: Part 1 – Legislation and Policy Review," (2002), 43.

Providing a populist view, Morgan asserts that 'we' (as New Zealanders) do not understand oceans management and cites the lack of a "coherent oceans policy or minister," as evidence. He highlights the range of government ministries that have responsibility for marine matters and questions their ability to take a coordinated and consistent approach. He cites the separation between the fishing and mining regulatory environments as an example of uncoordinated resource exploitation.[24] While Morgan's argument is only loosely substantiated, it is consistent with the criticism being levelled by academics and policymakers.

Overall, there are two threats presented by an inconsistent national approach. The first is that New Zealand will not realise the full benefit of exploitation of its economic resources, thus reducing its potential wealth and prosperity. In the extreme case, these resources could be exploited by another State to the detriment of future exploitation by New Zealand. The second threat is that of damage to the marine environment. Uncoordinated exploitation of disparate resources in the same environment could lead to unexpected consequences, including loss of resources or degradation of the environment overall.

This concludes the analysis of threats to New Zealand's maritime environment. In summary, the greatest threats appear to come from New Zealand itself. There is little evidence to suggest that New Zealand suffers from widespread illegal fishing. However, since New Zealand carries out very little maritime surveillance, this is a tenuously held view. This lack of maritime surveillance also inhibits situational awareness regarding the illegal transport of goods and people into New Zealand.

With respect to the legal instrument that supports New Zealand's extended maritime claims, the thesis has shown that certain provisions of the UNCLOS are in conflict with deeply held national values. These values include an aversion to whaling and nuclear energy. Further, the New Zealand populaces' attachment – rational or otherwise – to environmental issues appears to be inhibiting foreign investment in the exploration of New Zealand's oil and gas fields.

[24] Morgan, Gareth, "Vast Marine Zone Requires Top Governance," (2012).

Finally, New Zealand does not take a national approach to its oceans or resource management. This lack of a ‘big picture’ is having the unintended consequence of reducing New Zealand’s potential wealth and prosperity, by having foreign interests profit from the exploitation of New Zealand’s wild fish stocks.

Conclusion

The purpose of this thesis was to examine New Zealand's claim to an exclusive economic zone, to determine the extent to which it constituted an instrument of national security. The initial hypothesis was based on New Zealand's right – under the United Nations Convention on the Law of the Sea – to claim an exclusive economic zone that was disproportionately large with respect to both its terrestrial claim, and the claims of other States.

This disproportionately large claim included the right to exploit the living resources within the exclusive economic zone, and the non-living resources within both the exclusive economic zone and continental shelf. As such, the claim would arguably provide New Zealand with a significant economic asset, with which it could assure the sustained economic prosperity of the State. Since sustaining economic prosperity is a key objective of New Zealand's national security framework, there is a prima facia case that the exclusive economic zone is an instrument of national security. The thesis then tested this hypothesis.

The first consideration was the definition of the realm of New Zealand and the consequential definition of New Zealand's exclusive economic zone. It was argued that the Realm of New Zealand is a complex combination of dependencies (Tokelau), governments in free association (Niue and the Cook Islands) and claimed territories currently in moratorium (the Ross Dependency). The consequence of this complex jurisdiction is that New Zealand must assume defence and management responsibility for the maritime claim of the extended Realm of New Zealand, but will only benefit from exploiting the resource of that associated with New Zealand proper. However, the thesis determined that even this smaller claim – that associated with New Zealand proper – is still disproportionately large with respect to those of other States.

After considering the claim itself, the thesis then identified the United Nations Convention on the Law of the Sea as the international legal basis by which New Zealand was able to assert its claim to an exclusive economic zone. However, it noted that the UNCLOS is caveated such that it cannot be ratified in part: States

must ratify the UNCOS in its entirety. The UNCLOS is a comprehensive agreement covering many aspects of international maritime law. As such, it was necessary to analyse the UNCLOS in detail, to determine the consequences of accepting the entire agreement.

Whilst much of the UNCLOS was found to confirm existing customary international law, some aspects conflicted with established New Zealand foreign policy. The first significant conflict argued by the thesis was that with respect to New Zealand's anti-nuclear policy and legislation.

New Zealand has declared itself nuclear free. However, ratification of the UNCLOS meant that New Zealand is unable to deny the right of innocent passage to nuclear powered or equipped ships within New Zealand's territorial waters and exclusive economic zone: despite the territorial waters being included within the declared nuclear free zone. As such, ratification of the UNCLOS prevented the New Zealand Nuclear Free Zone Extension Bill from passing its second reading. Thus, the claim to an exclusive economic zone was argued to have a negative impact on a significant and popular component of New Zealand's foreign policy.

It was then argued that the UNCLOS also had an adverse impact on New Zealand's foreign policy position with respect to whaling. The UNCLOS supported New Zealand's prohibition on whaling within the New Zealand economic zone, but compromised its position elsewhere. New Zealand's ratification of the UNCLOS requires that it recognise the right of other States to undertake whaling within their own exclusive economic zones and on the high seas (albeit for scientific research). New Zealand has since had to abandon its legal challenge against Japanese whaling in the Southern Ocean.

With respect to the exclusive economic zone claim itself, the UNCLOS was found to assure New Zealand's rights of exploration, exploitation, conservation and management of all living and non-living natural resources within the sea and the seabed, and all activities related to its economic exploration and exploitation. However, such rights are tempered with a complex regulatory regime, and the need to accommodate certain rights of other States. For example, New Zealand

must grant other States the right to exploit fisheries that it does not have the capacity to exploit itself. Thus, the dividend of the claim would only be achieved if New Zealand implemented a regularity and quota management regime to meet its obligations. It was argued that New Zealand had met some of these obligations comprehensively (for example, the quota management system), but was lagging in other areas such as maritime surveillance.

With respect to the continental shelf, the UNLCOS provides New Zealand with the right to exploit the non-living resources, provided New Zealand is able to substantiate a claim to its continental shelf (which it has done). However, the exploitation of such resources incurs a royalty levy, the economic effect of which is still to be determined. Further, it was argued that New Zealand was heavily dependent on foreign investment to continue the exploration for oil and gas. This investment has not been forthcoming, and hence the potential value of these resources is still materially unknown.

In its treatment of the high seas, the UNCLOS obligates New Zealand to establish an extensive search and rescue capability and to maintain sufficient naval and surveillance capability to participate in anti-piracy enforcement. The thesis analysed New Zealand's search and rescue obligations and argued that insufficient standing capability was available for New Zealand to meet its obligations. Further, it was identified that New Zealand faces significant reputational risk should these resources be tested and found wanting.

The thesis then examined the UNCLOS's dispute resolution process and found that it is yet unproven. Further analysis showed that experience to date was less positive than initial aspirations, thus bringing into question the long term effectiveness of the UNCLOS should any significant dispute arise. Separately, it was determined that New Zealand did not have the maritime surveillance capability to enforce its claims through other means.

In order to examine further the long-term validity of the UNCLOS, the thesis then considered the degree to which States were adopting the UNCLOS. Although many States had ratified the UNCLOS, the United States had not. As such, the US

position was analysed to determine the significance of US non-ratification. It was argued that US non-ratification was largely a product of US domestic politics, and did not materially reduce the effectiveness of the UNCLOS as the legal basis on which New Zealand has based its maritime claims.

The next consideration was that of New Zealand's national security framework. Predominantly, this was reflected in the Department of Prime Minister and Cabinet report on national security. It argued that there were two major failings with New Zealand's approach to national security. The first was that there was no overall New Zealand strategy. Therefore, individual government departments were left to develop individual strategies, with no guidance provided by a national strategy. The second was that national security was to be a 'risk-managed ' affair, i.e. that New Zealand would adopt a tactical rather than strategic approach to national security. However, on the positive side, the report did signal an intention for more cohesive strategy in the future, and was a significant improvement over the previous report, ten years earlier.

Although not consider by DPMC, the thesis then analysed the impact of climate change on the exclusive economic zone its consequential impact on national security. It argued that existing claims by Tokelau, Niue and the Cook Island are likely to stand, even if significant portions of those islands were to be assumed by the ocean. As such, there would be a distinct likelihood that New Zealand would have to assume their citizens as 'climate exiles,' potentially swapping nationality claims for access to the terrestrially challenged State's resources.

Noting the lack of a coherent national strategy, the thesis instead analysed the strategic plans of one of the lead national security agencies: the Ministry of Defence. Specifically, the defence assessment and the defence white paper were analysed in the context of both national security and the maritime claims. Although both identified the exclusive economic zone as critical to national security, neither comprehensively outlined a strategy for its security. It was also noted that New Zealand's defence spend is significantly below that of comparable countries, and that the defence forces had suffered by their inability to adapt to accrual accounting.

With respect to the defence white paper, it was argued that it somewhat ‘missed the point.’ While the white paper did signal a high level intention to invest in maritime surveillance, it appeared to focus primarily on maintaining the NZDF’s ability to continue to deploy to global coalition operations. As such, it was focusing on ‘more of the same’ rather than attempting to transition to an already signalled changing environment. This was argued to be further evidence of New Zealand’s reactive and ‘stove-piped’ focus with respect to matters of national security.

The thesis then considered the security dividend of New Zealand’s maritime claims, i.e. how they contributed to national security. It argued that the exclusive economic zone provided a significant physical buffer, which potentially provided a degree of protection to New Zealand’s sovereign territory. This was particularly true with respect to people smuggling, but the effectiveness of that buffer was found to be heavily dependent on effective surveillance of the maritime approaches. New Zealand’s ratification of the UNCLOS itself was found to provide legal protection for the integrity of New Zealand’s external telecommunications and trade, as well as providing a solid vehicle on which New Zealand could advocates a rule-based international community.

Whilst acknowledging the value of a buffer zone, the thesis argued that the greatest potential contribution to national security was the economic benefit derived from exploitation of the resources of the maritime claims. However, the benefit of exploiting the living resources was argued to be rapidly eroding due to the offshoring of both wild capture the subsequent post-catch processing. Further, the exploitation of the non-living resources was suffering from lack of exploration and foreign investment, and its potential was materially unfulfilled, and unquantified.

Finally, consideration was given to the most significant threats to New Zealand’s maritime claims. Based on DPMC’s identified threats, the thesis considered: illegal resource exploitation, disregard for national or international law, illegal transportation of goods or people and creation of environmental hazards. However, it was argued that the greatest threat to achieving an economic return on New Zealand’s Maritime claims came from New Zealand itself.

New Zealand's national approach is arguably the single biggest threat to national security. This applies, not only in the context of the exclusive economic zone, but also in almost all aspects of New Zealand governance. New Zealand has no overall maritime plan, has no Minister for the Oceans, has no National Security Adviser and arbitrarily spreads responsibility for the maritime environment and national security across a plethora of uncoordinated government agencies.

However, the point of this thesis was to consider the extent to which New Zealand's maritime constituted an instrument of national security. Overall, the thesis concludes that New Zealand's exclusive economic zone and continental shelf claims are well founded and have the potential to underwrite a substantial portion of New Zealand's economic well being in perpetuity. This benefit is reduced by the compromises required by accepting the United Nations Convention on the Law of the Sea in its entirety, but not unduly so. However, it is also concluded that the potential benefit is largely going unrealised, or is being deprecated by the lack of a cohesive and comprehensive maritime strategy. Further, the New Zealand government currently lacks the structure and will to develop and implement such a strategy. These are issues of strategic national importance, and have not yet been comprehensively addressed by the State of New Zealand.

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