

INDO-PACIFIC STRATEGIC PAPERS

Enhancing Tonga's Maritime Security

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Abstract

This paper asserts that the large size of Tonga's exclusive economic zone poses challenging problems for the government in managing the area's maritime resources and providing effective security of the region. It also notes that Tonga's geographic isolation, sparse population and weak economy make it vulnerable to the potential impact of transnational criminal activities, while illegal, unreported and unregulated fishing poses a significant threat to food security.

The paper contends that Tonga's national crisis response policy is immature, requiring further development in order to best harness its limited response capabilities. It also asserts that Tonga's maritime border security and search-and-rescue capabilities are being hampered by a lack of cooperation and coordination between the relevant agencies. The paper argues that Tonga requires a coordinated, whole-of-government policy and strategy to make the best use of the country's limited capabilities to protect Tonga's maritime security interests. The paper proposes the establishment of a maritime coordinating body as the most appropriate means to implement this intent, which it argues Tonga should establish as a matter of priority.

Enhancing Tonga's Maritime Security

Introduction

The Kingdom of Tonga is a small Polynesian archipelago in the South Pacific, with a population of about 101,000 people.¹ Its total land area is approximately 650 square kilometres, scattered over 170 islands, of which 36 are inhabited, so inter-island and international shipping play vital roles in providing transportation of both cargo and people.² These islands are sparsely located in an economic exclusive zone (EEZ)³ area of approximately 700,000 square kilometres.⁴

This vast area of ocean offers bountiful resources that can be exploited for social and economic development, as well as an abundance of fish on which the population depends for its livelihood.⁵ However, the large areas of open ocean pose challenging problems for the government in managing the area's maritime resources and providing effective security of the region.⁶

Tonga's geographic isolation, sparse population and weak economy also make it vulnerable to the impact of transnational criminal activities.⁷ Much of Tonga's maritime domain is remote and vast and, with minimal Tongan resources available for the effective provision of a wide-area maritime security patrol capability, a potential haven for illegal activities has been created.⁸

The main identified threats are the unauthorised exploitation or damage of marine resources, and the illegal movement of people and drugs into Tonga or through Tonga into a third country.⁹ For example, in 2012, more than 200 kilograms of cocaine (with an estimated street value of A\$116 million) was found in a yacht which ran aground on one of Tonga's islands.¹⁰ Compared to regional countries, particularly Australia and New Zealand, Tonga has a weak capacity to conduct law enforcement throughout the outer islands, potentially exposing the entire country to transnational criminal activities such as drug, arms and human smuggling.¹¹

Concurrently, illegal, unreported and unregulated fishing is a significant threat to food security and Tonga's aspirations to develop a sustainable and viable tuna industry. Levels of unauthorised fishing are difficult to estimate.¹² But they are a growing concern because of the potential effects on fish stocks (and non-targeted species), the loss of income to Tonga, and the reduced credibility and effectiveness of Tonga's national and international management infrastructure.

There is also research to suggest that the impact of climate change may lead certain fish stocks from other areas to relocate into the region, where they could be followed by regional fleets that have traditionally fished those stocks.¹³ All these factors suggest the potential for greater illegal, unreported and unregulated fishing to occur within or adjacent to the South and South West Pacific Ocean, which inevitably will have significant maritime security implications for Tonga.¹⁴

Ensuring safety and security in the development and exploitation of ocean resources and maritime transport capacity, while maintaining order on the oceans, is crucial to the future development of the economy and society of Tonga. Clearly, the Government of Tonga must take the necessary measures to ensure the peace and security of Tonga and its maritime zones, in order that the people may enjoy the benefits of the oceans into the future. However, this paper argues that because of its restricted economic capacity to ensure maritime security and prevent the illegal exploitation of sovereign resources, Tonga needs to formulate new security policies and adopt maritime approaches that take these realities into account.

Tonga's limited maritime security capacity also means that it has limited ability to respond to natural disasters or other maritime safety crises that may occur within waters for which it holds responsibility. This shortfall exposes both Tongans and foreign visitors alike to risks.¹⁵ For example, in August 2009, the domestic ferry MV *Princess Ashika* capsised during a voyage from Nuku'alofa to the islands, resulting in the death of 74 passengers (local and overseas, but mostly women and children).¹⁶ The subsequent Royal Commission of Inquiry highlighted shortfalls in Tonga's maritime safety and search-and-rescue capabilities.¹⁷ Tonga enjoys a prosperous tourism industry, so the occurrence of such disasters, for which the country is ill-equipped to respond, can have significant adverse impact on the country's economy.

At present, Tonga's national crisis response policy is immature, requiring further development in order to best harness its limited response capabilities and capacity.¹⁸ In the author's experience—including nine years (2004-12) as the Head of His Majesty's Armed Force (HMAF) Navy, directly responsible for the HMAF Navy's maritime patrol and surveillance operations—the utilisation of the country's limited maritime security capabilities has yet to achieve an optimum level of effectiveness.

The key reason is a lack of cooperation and coordination among the relevant agencies, especially in regard to maritime border security and search-and-rescue. While it is obviously not a threat as such, search-and-rescue should nevertheless be considered in the context of maritime security.¹⁹ One of the enabling themes of the *Tonga Strategic Development Framework, 2011-2014* is to 'ensure a more coordinated whole-of-government approach in Tonga's partnership with development partners'.²⁰ In a recent lecture at the Centre for Defence and Strategic Studies at the Australian Defence College, Alan Ryan noted that 'everybody wants coordination ... [however] no-one wants to be coordinated'.²¹ This is very true in the case of coordination tasks in relation to maritime patrol and search-and-rescue in Tonga.

In order to address the lack of cooperation and coordination in maritime affairs, this paper argues that Tonga requires a robust, whole-of-government policy and framework. A coordinated strategy is crucial in order to pool together and make the best use of the country's limited capabilities to protect Tonga's maritime security interests. Such an approach represents the most effective and efficient method to utilise Tonga's limited capabilities and provides the greatest prospect of success which, in turn, will be critical for Tonga's prosperity and security. The paper specifically proposes the establishment of a maritime coordinating body as the most appropriate means to implement this intent, which Tonga should establish as a matter of priority.

The overall aim of this paper is to propose the development of a policy framework for the creation of a joint maritime security and search-and-rescue coordinating centre for Tonga. For the purpose of this paper, it has been termed the Joint Maritime Coordination Centre (JMCC). The paper has been structured in six parts to provide background, identify problems and then offer policy solutions.

Part 1 examines Tonga's rights, international obligations and responsibilities. Part 2 analyses the current maritime security and search-and-rescue arrangements, and validates the need for a JMCC. Part 3 discusses the proposed policy framework for the creation of a JMCC. Part 4 then discusses matters that would support the effectiveness of the JMCC and be crucial for the enhancement of maritime security. Part 5 examines the resource considerations and discusses the implementation plan. Part 6 analyses the impact of a JMCC in terms of benefits and risks.

Part 1: Tonga's rights, obligations and responsibilities

Tonga's rights, national and international obligations and responsibilities regarding its EEZ, continental shelf and search-and-rescue are important for a number of reasons. Tonga is a signatory to the UN's Convention on the Law of the Sea (UNCLOS), which enshrined the concept of an EEZ into international law, wherein Tonga has not only the sovereign right to harvest the living maritime resources within its EEZ but also the responsibility to manage and police it.²²

However, there are gaps in Tonga's EEZ boundaries which inhibit full cooperation between maritime surveillance and law-enforcement authorities. Tonga's limits of maritime jurisdiction are the Royal Proclamation of 1887, the Royal Proclamation of 1972, and the *Territorial Sea and EEZ Act 1978*.²³ The Royal Proclamation of 1887 was issued by His Majesty King George Tupou the First on 24 August 1887. It is arguably the longest continuous legal claim of historic title to a maritime domain in the world.²⁴

The proclamation has resulted in the exercise of continuous jurisdiction and authority by Tonga over the land territory and the maritime spaces defined in accordance with the claim for more than 127 years.²⁵ The proclamation, claiming national jurisdiction by Tonga of an area of about 395,000 square kilometres, states that it includes:

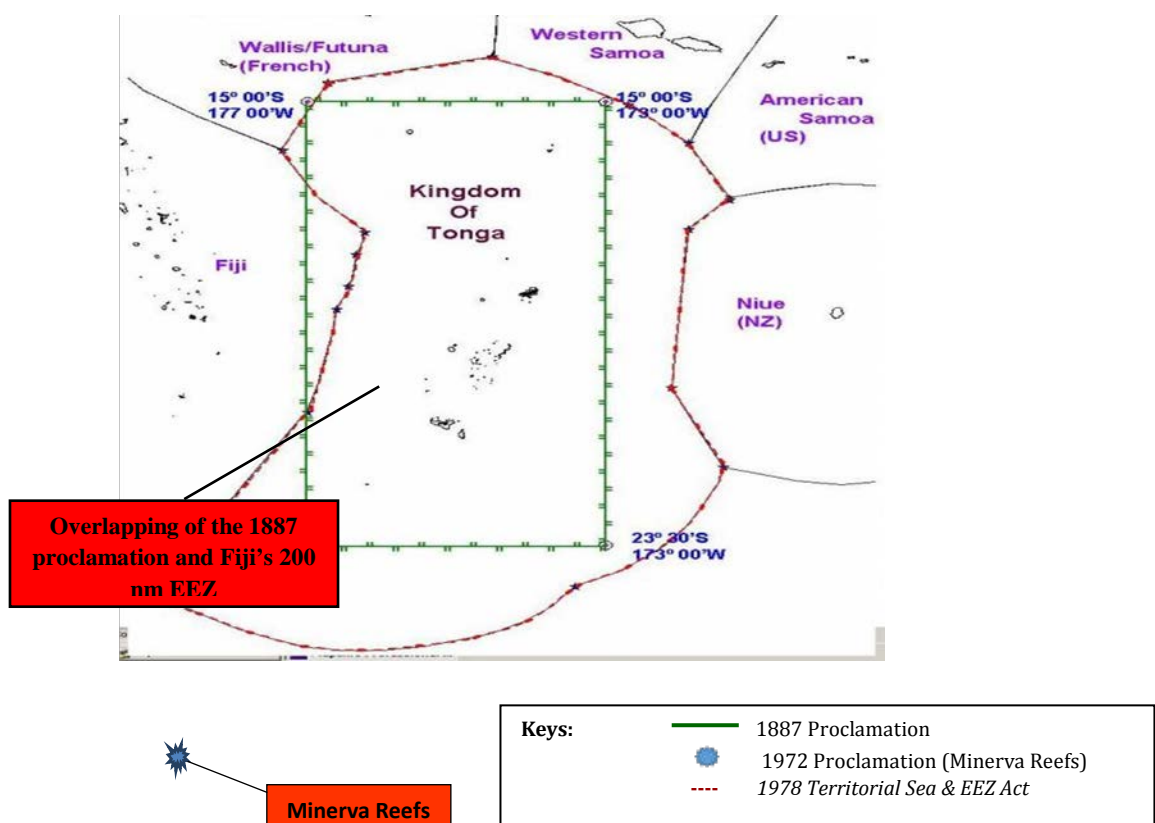
All, islands, rocks, reefs, foreshores and waters lying between the fifteenth and twenty-third and a half degrees of south latitude and between the one hundred and seventy-third and the one hundred and seventy-seventh degrees of west longitude from the Meridian of Greenwich.²⁶

The Royal Proclamation of 1972 was issued by His Majesty King Taufa'ahau Tupou the Fourth on 15 June 1972. This proclamation established Tonga's claim to 'the islands of Teleki Tokelau and Teleki Tonga [the Minerva Reefs] and all islands, rocks, reefs, foreshores and water lying within a radius of 12 miles'.²⁷ At the 1972 South Pacific Forum, the member states agreed in principle to 'Tonga's historical association with the Minerva Reefs', adding 'that there could be no question of recognising other claims to sovereignty over the reefs'.²⁸

The Territorial Sea and EEZ Act 1978 extended Tonga's claims by establishing a 200 nautical mile EEZ, adjacent to the territorial sea; it also made provision, in exercise of the sovereign rights of Tonga, for the exploration and exploitation, and conservation and management, of the resources of the zone and for matters connected with those purposes.²⁹ Although the rights of sovereignty established by *The Territorial Sea and EEZ Act 1978* (covering an area of about 700,000 square kilometres) are broader than the proclamation of 1887 (covering about 395,000 square kilometres), the final settlement of EEZ boundaries with neighbouring countries has not been determined.³⁰ Accordingly, Tonga limits the enforcement of its fishery laws to the 1887 proclamation area and the 1972 proclamation in relation to the 12-mile zone around the Minerva Reefs.³¹

Nevertheless, some challenges still exist, especially the overlapping of the 1887 proclamation and Fiji's 200 nautical mile EEZ on the western side of Tonga, and the 12-mile zone around the Minerva Reefs. Both these challenges have resulted in disputes between Tonga and Fiji over territorial boundaries. Diagram 1 (overleaf) shows Tonga's limits of jurisdiction based on the two Royal Proclamations and *The Territorial Sea and EEZ Act 1978*. It also shows the overlapping of the Royal Proclamation of 1887 and Fiji's 200 nautical mile EEZ.

Diagram 1: Tonga's maritime boundaries³²



The claim by each country adds to the complexity of the status of Tonga's sovereign rights to its maritime zone. Hence, it is crucial for the Government of Tonga to take action to address these challenges and provide the essential guidance for maritime patrols to protect Tonga's maritime interests.

Recommendation 1: The Tongan Government should formally resolve the maritime boundary issue with Fiji, by diplomatic means, thereby enabling its maritime patrol forces to protect unambiguous EEZ boundaries.

Continental shelf

For many developing nations, including Tonga, the right to exploit resources contained in or under the seabed of their extended continental shelf could be economically critical.³³ In order to do so, Tonga lodged with the UN a submission regarding the limits of its continental shelf in 2009.³⁴ Subsequently, and with the aim of securing its financial future, Tonga sought the agreement of the International Seabed Authority to give a Canadian company, Nautilus Minerals Incorporated, exclusive rights to mine '74,153 square kilometres [of seabed located] in the Clarion-Clipperton Zone of the Pacific Ocean', which was a 'marine area beyond the limits of [Tonga's] national jurisdiction'.³⁵

The request was agreed by the International Seabed Authority. However, Article 153 of the 1982 UNCLOS requires the sponsoring state to 'tak[e] all measures necessary to ensure' compliance by any contractor, which includes adopting the necessary 'laws and regulations', as well as 'administrative measures [to ensure] ... compliance by persons under its jurisdiction'.³⁶ Such legislation and administrative measures are meant to ensure the protection and preservation of the marine environment's ecosystems, to monitor risks or impact on the marine environment, and to minimise the likelihood of pollution and accidents.

To date, however, Tonga does not have a national law on seabed mineral exploration and exploitation, which has been noted by commentators such as Yoichiro Sato, who has referred to the 'absence of transparent law governing the deep-sea mining' industry in Tonga.³⁷ Countries have an obligation under international law to protect the state from liability, and to ensure that any privatisation of the country's natural resources is covered by appropriate legislation. Hence, there is an urgent need for Tonga to enact deep-sea mining legislation.

Recommendation 2: The Tongan Government should enact deep-sea mining legislation to strengthen national laws for protecting the marine environment and to accord with relevant international conventions.

Search-and-rescue

A basic, practical and humanitarian characteristic of the global aspect of search-and-rescue is that it eliminates the need for each state to provide search-and-rescue services for its own citizens when they travel world-wide.³⁸ Instead, the globe is divided into Search and Rescue Regions (SRRs), each with associated search-and-rescue services, which assist anyone in distress within the SRR without regard to nationality or circumstance.³⁹

As defined in the Convention on International Civil Aviation and the International Convention on Maritime Search and Rescue, SRRs are established to ensure the provision of adequate land-based communications infrastructure, efficient distress alert routing, and proper operational coordination to effectively support search-and-rescue services.⁴⁰

Tonga is located within New Zealand's SRR and, as such, is in a unique position with regard to the internationally-recognised search-and-rescue system. Tonga and New Zealand have an agreement whereby Tonga only assumes the lead role in coordinating search-and-rescue operations within its 12 nautical mile territorial sea.⁴¹ The New Zealand search-and-rescue authority has primary responsibility for operations in the ocean area surrounding Tonga, extending seaward of the 12 nautical mile territorial sea boundary, although Tonga is often called on to assist New Zealand with operations outside the 12 nautical mile limits. Diagram 2 shows the boundaries of New Zealand's SRR.

Diagram 2: The boundaries of the New Zealand Search and Rescue Region ⁴²



Hence, Tonga has an obligation and responsibilities to meet both national and international requirements for search-and-rescue activities. One of its key challenges, however, is the lack of coordination between the relevant agencies. The details of this challenge, other challenges and associated recommendations in regard to search-and-rescue are examined in more detail in Parts 2 and 3 of this paper.

Part 2: Current maritime security and search-and-rescue arrangements

Tonga's maritime security and search-and-rescue responsibilities are shared among various government agencies, including His Majesty's Armed Force (HMAF); Ministry of Foreign Affairs, Trade and Immigration; Tonga Police; Ministry of Infrastructure; Tonga Customs Service; and Ministry of Agriculture, Forestry and Fisheries. Protecting Tonga's sovereignty and sovereign

rights are the primary concern of these government agencies, with their maritime security roles focused in two main areas—fishery management and border protection.

In regard to fishery management, the Ministry of Agriculture, Forestry and Fisheries is responsible for the licensing of foreign vessels and monitoring all fishing vessels more than six metres in length operating inside Tonga's EEZ.⁴³ The latter relies on the operation of the vessel's monitoring system, which is monitored centrally through the Pacific Islands Forum Fishery Agency. The HMAF Navy is mandated to conduct actual fishery patrols at sea and to enforce fishery laws.⁴⁴ Other related agencies include the Tonga Customs Services, which certifies export contents (including fish),⁴⁵ the Tonga Police, which supports enforcement of the *Fishery Act*,⁴⁶ and the Marine and Ports Division of the Ministry of Infrastructure, which registers marine vessels.⁴⁷

Two other primary government agencies with a responsibility for border protection are the Tonga Customs Services and the Ministry of Foreign Affairs, Trade and Immigration. The Tonga Customs Services is responsible for 'protecting and securing the borders of Tonga, and facilitating trade in Tonga'.⁴⁸ The protection and security roles are basically conducted only at airports and wharves, because the agency does not have the capacity to enable their tasks to reach out further. The Ministry of Foreign Affairs, Trade and Immigration is also responsible for border protection with regard to immigration matters. Other related agencies include HMAF Navy and Tonga Police, which both support enforcement of the *Customs Act*.

The Tonga Police is the 'coordinating authority on all search-and-rescue incidents in the country'.⁴⁹ While Tonga Police holds the authority over coordination, it does not have the necessary capabilities for search-and-rescue tasks. Hence, other relevant agencies (Marine and Ports Division of the Ministry of Infrastructure, including provision of the Coastal Radio network; the Ports Authority; the HMAF Navy; and other local agencies) provide assistance to the Tonga Police if they are able to help. Tonga Police also works closely with the New Zealand Rescue Coordination Centre with regard to search-and-rescue.⁵⁰

The HMAF Navy is tasked as the lead agency for maritime security and has an overarching role in maritime search-and-rescue. Its primary role is the policing of Tonga's EEZ by enforcing fishing regulations, while it also undertakes a support role with regard to national immigration, customs and quarantine law, and maritime search-and-rescue.⁵¹ HMAF Navy is the only government agency with the necessary capability in terms of platforms, training and personnel to undertake maritime security.⁵²

Under Tonga and Australia's Defence Cooperation Program, three Pacific Patrol Boats were donated by the Australian Government to Tonga between 1989 and 1991, together with a range of training packages and naval advisers posted to Tonga.⁵³ In many cases, Defence Cooperation Program funding has extended to purchasing fuel for the boats, to ensure they can participate in maritime security operations and exercises. The training and assistance provided by Australia under the program has been an important contributor in enabling HMAF Navy personnel to successfully carry out their maritime security and search-and-rescue roles.⁵⁴

Under Tonga's existing arrangements for maritime security and search-and-rescue, six separate government agencies have some role in monitoring the maritime environment for their own needs. The obvious question is how well they carry out their responsibilities with regard to maritime security and search-and-rescue. Although there are very limited capabilities available in-country, it is suggested that the existing capabilities are sufficient to manage fishery, border protection and search-and-rescue if they are effectively utilised. However, this requires robust interagency cooperation and coordination, which arguably is not sufficiently developed at present.

One example is the obvious utility of information sharing. A certain level of trust needs to be developed between the various information-sharing partners. But this willingness to share does not always come easily, as most agencies have tended to operate on a 'need to share' basis. For example, information sharing between the HMAF Navy and other agencies (with expertise, for example, on fisheries, customs, immigration and policing) would clearly enhance the efficiency and effective conduct of maritime patrols, and vice versa. However, despite attempts to achieve

better cooperation and coordination, and to build relationships and trust, there is still more that should be done.⁵⁵

Another factor impacting on maritime patrols and search-and-rescue operations is the current allocation of budgetary funding. At present, each government agency has its own budget allocation for its respective role in maritime security.⁵⁶ For example, the budget for search-and-rescue is allocated to the Tonga Police. But it does not have the capacity to carry out search-and-rescue, so the burden of conducting search-and-rescue activities falls mostly on the HMAF Navy, to the detriment of its ability to conduct maritime patrols.

For example, in 2011, HMAF Navy was able to conduct only eight of its planned 12 maritime patrols because it needed to divert funding to four unplanned search-and-rescue missions.⁵⁷ It is suggested, therefore, that budget allocations to all concerned agencies should be reviewed, with a view to pooling the currently-dispersed pockets of funding to enable a centralised and more effective use of the available budget for key functions.

Time lost and *ad hoc* actions are also critical issues in search-and-rescue. While Tonga Police is the coordinating agency, its staff has limited training in coordinating search-and-rescue incidents. At times, this has resulted in a lack of coordination with other relevant agencies, or incidents being passed to the HMAF Navy without the necessary information, resulting in a critical loss of time. Such delays are frustrating to all involved, not least because the search becomes more difficult, particularly in cases where large search areas are involved, jeopardising the chances of survival of those at risk, as well as the operation costing more than it should. This could be avoided if there were better processes, readiness and coordination between the relevant Tongan departments and agencies.

Along similar lines, a 2003 UN report on *Aspects of Sea Safety in the Fisheries of Pacific Island Countries* recorded that while various Tonga government agencies are involved in recording data on sea safety incidents, the data is limited to those operations in which they were involved, highlighting the lack of a whole-of-government approach.⁵⁸ Critically, it also reported that the operators of the larger fishing companies in Tonga asserted that most incidents involving their vessels are resolved within the company fleet or between companies, as the 'cumbersome and lengthy procedures to initiate a government search-and-rescue operation ... [mean that] the companies often do their own search-and-rescue work'.⁵⁹

The Royal Commission of Inquiry into the sinking of the MV *Princess Ashika* recommended that a 'clear command structure [should be] established with the Search and Rescue HQ [Headquarters] set up'.⁶⁰ The Secretariat of the Pacific Community's report on security issues related to foreign fishing vessels operating in the Pacific Islands region also focused on the problem, saying that:

A lack of connectivity and minimal or no communication between regional agencies and between the various arms of national administrations and indeed with the fishing industry itself, was uniformly obvious to and accepted by all those spoken to during the course of this project. Just as this observation is neither unique nor new, so the reasons for poor inter-agency communications are well-known. These include staff resourcing issues, a natural tendency to resist sharing information and often a general lack of awareness of the wider impact of decisions in one area upon another.⁶¹

As far back as 2008, Sam Bateman and Anthony Bergin suggested that a possible solution is 'a whole of region and a whole of government surveillance concept to overcome the current segmented approach, with regional maritime security spread between functions and agencies both regionally and nationally'.⁶² A 2012 UN report also suggested that the absence of such an approach can inhibit progress in many areas, notably in low-income countries where limited coordination can undermine the delivery of social services and provision of physical security.⁶³

However, for a whole-of-government approach to be effective in Tonga, significant cultural and organisational change would have to occur, such that:

The distinguishing characteristic of whole of government work is that there is an emphasis on objectives shared across organisational boundaries, as opposed to working solely within an

organisation. It encompasses the design and delivery of a wide variety of policies, programs and services that cross organisational boundaries.⁶⁴

In summary, Tonga's existing maritime security and search-and-rescue arrangements need to be improved urgently so as to avoid the loss of valuable resources, time and even the loss of lives. Improved cooperation and coordination among the core government agencies is the key issue. As no single country or agency alone can tackle the full range of maritime security issues, there is an urgent need to bring together all stakeholders and their available maritime capabilities in order to put them to the best use in protecting the country's maritime interests and, most importantly, ensuring the safety and security of its people and those within Tonga's area of responsibility. To that end, this paper recommends that Tonga considers a whole-of-government approach to mitigate the challenges identified in the existing maritime security and search-and-rescue arrangements.

Recommendation 3: The Tongan Government should consider a whole-of-government approach to mitigate the challenges identified by this paper in the existing maritime security and search-and-rescue arrangements.

Part 3: Creation of a Joint Maritime Coordination Centre

This part of the paper will discuss the proposed creation of a Joint Maritime Coordination Centre (JMCC). The paper's model for Tonga is the result of research conducted on various models of maritime coordination centres, particularly Australia's Border Protection Command, the Australian Maritime Safety Authority, the New Zealand National Maritime Coordination Centre and the Rescue Coordination Centre New Zealand.

The creation of a JMCC would support the vision of the *Tonga Strategic Development Framework, 2011-2014* 'to develop and promote a just, equitable and progressive society in which the people of Tonga enjoy good health, peace, harmony and prosperity, in meeting their aspirations in life'.⁶⁵ The framework suggested that the delivery of this vision would be facilitated through 'ensuring a more coordinated whole-of-government approach in Tonga's partnership with development partners'.⁶⁶ The aspiration in establishing a JMCC would be to create a robust, whole-of-government approach to managing safety and security in the maritime domain to benefit the people of Tonga.

Failing to protect against a wide range of maritime challenges and risks may result in the seas around Tonga becoming arenas for international organised crime.⁶⁷ Tonga has an obligation and responsibility to act more quickly, even with limited resources, by strengthening cooperation and coordination between different government agencies and national authorities to protect its seas. A shared unity of purpose and effort by all involved is necessary to achieve coherence between all stakeholders, and national policies are required to enable both civil and military authorities to react effectively together.

This paper would argue that the creation of a JMCC is necessary to improve Tonga's maritime security and search-and-rescue capabilities—and that a whole-of-government approach in establishing the JMCC would be the most appropriate tool to ensure the most effective outcome. Hence, the JMCC would bring together the relevant government agencies to work across boundaries towards a shared goal, which would create greater cooperation and coordination, and encourage a sense of ownership. Also, pooling various domains of expertise, experience and ideas could cover blind spots and help lead to a systematic adoption of risk-reduction strategies.⁶⁸

A whole-of-government approach would combine the nation's limited maritime security resources to be put to best use in addressing Tonga's maritime security challenges. It is the manifold and unpredictable nature of maritime security issues, and their cross-jurisdictional complexity, that requires a coordinated response from the full range of whole-of-government

capability to achieve success and to enhance the management of security in Tonga’s maritime domain. Furthermore, a JMCC would better assist Tonga to carry out its national and international obligations for maritime security and search-and-rescue.

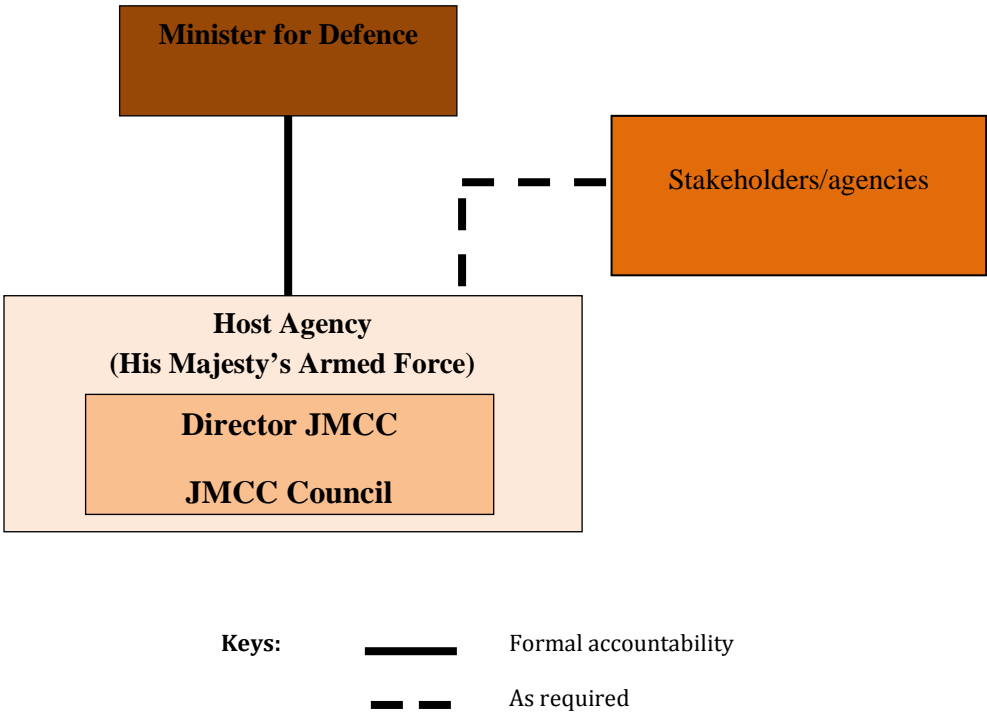
The JMCC structure

The suggested design for the JMCC would be a small, operationally-independent unit, physically located at the premises of HMAF Navy headquarters. For the JMCC, ‘operationally independent’ refers to the way in which it would carry out its functions of coordinating patrols and search-and-rescue, gathering and providing information about the maritime domain, and identifying policy gaps and issues. It would need to carry out these functions from a whole-of-government perspective and in the interests of all concerned government agencies.

The unit’s personnel and administrative support arrangements would be carried out by the host agency, and its work would be overseen by a ‘network of Chief Executives’ on behalf of the JMCC Council. It is envisaged that the operation of the JMCC would be funded by proportional contributions from agencies represented in the JMCC Council, although the services of the JMCC would be available to any government agency.⁶⁹

The JMCC’s structure would have the following key components: JMCC Council, the host agency, Director JMCC and the JMCC. Details of these components are discussed below, and the outline diagram of a JMCC governance structure and accountability relationship is shown in Diagram 3.

Diagram 3: Joint Maritime Coordination Centre governance structure and accountability relationship⁷⁰



The diagram highlights that while the governance of the JMCC would be within an agency, it would not operate in isolation. The diagram shows that the Centre would be accountable to the host agency’s Minister for the performance of the JMCC, and that agency would be linked to the Government’s wider interests through the JMCC Council, which represents other stakeholders

with a key interest in the outcomes of the JMCC, as well as providing a whole-of-government perspective.

The JMCC Council

The function of the JMCC Council would be to discuss strategic-level issues and provide strategic direction for the JMCC. This would enhance whole-of-government coordination and make the most effective use of the country's limited maritime security resources. The JMCC Council would be the key senior-level consultation group for the Chief Executive of the host agency. The purpose of the Council would be to give the Chief Executives of the host agency and the core agencies a mechanism for discussing strategic issues and trends relevant to the focus and work of the JMCC.⁷¹ It is very important to note that successful whole-of-government coordination requires leaders committed to making it work, and buy-in to the coordinated approach from all parties.

Council membership would comprise the Chief Executives of the five core government agencies with shared responsibilities in maritime security and search-and-rescue, including Tonga Custom Services, Tonga Police, Ministry of Fisheries, Ministry of Infrastructure and HMAF, as well as representatives from the Ministry of Crown Law and the Prime Minister's Office.

Host agency

The location of a JMCC would be a fundamental consideration, as it needs to be positioned in an appropriate place from where the Centre could efficiently and effectively operate. Hence, it is suggested that the JMCC should be collocated with HMAF Navy headquarters, and that the HMAF (the main provider of the ships used in patrols and search-and-rescue) should be the host agency.⁷² The Chief Executive of the host agency would be formally accountable to the agency's Minister and thereby to Cabinet for the performance and outcomes of the JMCC. The host agency would be responsible for the management and administration of the JMCC.

Director JMCC

The role of Director JMCC would require an experienced person with a comprehensive understanding of maritime security and all aspects of search-and-rescue. Since HMAF Navy officers are already trained and have gained experience from their sea times engaged in both maritime security and search-and-rescue operations, the Director JMCC position could be appropriately filled by a HMAF Navy officer of the rank of Lieutenant Commander or above. The Director JMCC would be responsible for the efficient and effective operation of the JMCC and would be accountable to the host agency's Chief Executive (and thereby to the Minister for Defence) for the operational performance of the Centre.

JMCC staff

A properly-established and staffed JMCC would bring together key stakeholders into a whole-of-government team where they would all work towards a shared goal of 'maximising the effectiveness of maritime assets for patrol and search-and-rescue'. Hence, appropriate persons who are competent in their respective areas of expertise, drawn from the following core government agencies, would be crucial for the operation of the JMCC: Tonga Customs Services, Tonga Police, Ministry of Fisheries, Ministry of Infrastructure (Marine and Ports Division) and HMAF Navy. The anticipated size of the staff for the JMCC should be five members, comprising one representative from each of the mentioned core government agencies.

The primary role of the JMCC staff would be to assist the Director JMCC in implementing the JMCC's functions so as to meet its strategically-directed outcomes. The staff members provided from the agencies do not need to be permanent staff but could be posted on a rotational basis. They could be posted to the JMCC for two to four years, and then be replaced from their respective agencies. Such a rotation would maximise the number of employees from each agency that gain JMCC experience, while building inter-departmental relationships and avoiding boredom.

Recommendation 4: The Government of Tonga should create a Joint Maritime Coordination Centre (JMCC) to coordinate maritime border protection and search-and-rescue functions. The structure of the JMCC should comprise a JMCC Council, Host Agency, Director JMCC and JMCC staff.

JMCC principles

To ensure the effectiveness of the JMCC and to be able to meet the government's needs, the following principles are proposed to guide the operation of the JMCC and the agencies that support it.⁷³ From a strategic perspective, the JMCC would support and protect the government's collective maritime interests, including the enforcement of national and international laws, fisheries management and law enforcement, including customs and immigration infringements.

The JMCC's activities would reflect a transparent, agreed, whole-of-government approach to relevant aspects of the government's priorities in the above areas. The JMCC would increase the work value through maximising cooperation, assistance and information sharing to the benefit of the government as a whole, while integrating the work of all stakeholders to support a national approach to managing maritime risks.

The principles supporting a whole-of-government approach should include that:

- The JMCC is a single, centralised, operationally-independent entity from which all maritime patrol activities and search-and-rescue operations are coordinated;
- The JMCC takes a national, whole-of-government view to all its operations and, in setting patrol priorities, will be mindful of the government's strategic maritime priorities;
- The JMCC is expected to maintain links across government agencies within the scope of its activities;
- All government maritime patrol and search-and-rescue assets are potentially available for use upon request from the JMCC; and
- Agencies involved in the JMCC (either as providers, users or both) will provide a collective approach to the overall government outcomes to be achieved.

The principles for JMCC operation should include that:

- Any agency (domestic or international) can call on the services of the JMCC through an appropriate government agency;
- The JMCC has no operational responsibilities other than to coordinate maritime patrols and search-and-rescue operations;
- Threat assessment and risk mitigation strategies remain the function of the assets contributing agency;
- The JMCC can provide advice on observed gaps and issues relating to Tonga's overall maritime domain awareness; and
- The JMCC does not own but only coordinates maritime patrol and search-and-rescue assets and related information.

Recommendation 5: Once established, the JMCC should operate under an agreed set of guiding principles, along the lines suggested in this paper.

Mission, functions and roles

At the strategic level, establishment of the JMCC would have two desired functions: to contribute to and support relevant agencies in relation to maritime sovereignty and security, marine resources management, law enforcement, maritime safety, environmental protection and external relations; and achievement of a robust, coordinated, whole-of-government approach to maritime patrol and search-and-rescue.

At the operational level, the JMCC would be responsible for two primary missions, namely to support the effective and efficient use of Tonga's maritime patrol and surveillance assets for the purposes of carrying out maritime patrols; and the coordination of search-and-rescue of human life-at-sea activities in Tonga's area of responsibility. In order to successfully carry out these missions, the JMCC would need to implement three key roles, which include the collection, analysis and dissemination of relevant maritime information; the coordination of maritime patrol and search-and-rescue operations; and the coordination and engagement at national levels with regional arrangements in maritime patrols, search-and-rescue, and operations such as the Pacific Islands Forum's fisheries maritime surveillance Operation KURUKURU and other maritime exercises.⁷⁴

To enable the successful implementation of its functions and roles, the JMCC would carry out the following activities:

- Facilitate interagency cooperation and interoperability, including planning and communications;
- Derive maximum benefit from each surveillance and patrol activity;
- Facilitate wider participation by government agencies in coordinated tasking and access to information;
- Facilitate the effective and efficient flow of relevant maritime-related information between stakeholders; and
- Provide advice on maritime domain awareness, maritime patrol, search-and-rescue, and related issues.

Recommendation 6: Once established, the JMCC should conduct operations in accordance with the missions, functions and roles suggested in this paper.

Maritime patrol strategy

Implementing an effective maritime patrol strategy would be an important part of the JMCC's functions. An inter-departmentally agreed strategy would be required to support the JMCC in maintaining a whole-of-government perspective for maritime patrols and search-and-rescue. It would also be essential to ensure that the nation's limited patrol resources are targeted in the most effective way and according to the government's priorities for the maritime domain.

In the first instance, the HMAF Navy would need to decide how many patrol boats are available for maritime patrols and then prioritise them against military needs. The HMAF Navy would need to plan the use of its patrol boats annually, scheduling known operations (such as KURUKURU), exercises, training requirements, maintenance, and its patrol needs. These annual plans would only be a guide, based on the availability of patrol boats, as the HMAF Navy's own requirements for its patrol boats can change. For example, a patrol boat might be required at short notice for search-and-rescue or other duties.⁷⁵ Nevertheless, the HMAF Navy and the JMCC would need to work closely together to develop an annual, detailed maritime patrol and surveillance plan covering Tonga's EEZ and search-and-rescue region.

Recommendation 7: The JMCC should implement an annual maritime patrol strategy.

Inter-governmental agreements

The development of bilateral or multilateral maritime patrol or search-and-rescue agreements with other Tongan agencies and organisations, and with international authorities or organisations of other nations, would be of practical value for Tonga's maritime patrols and search-and-rescue operations. Such agreements would help to fulfil Tongan domestic obligations and needs; enable more effective use of all available maritime patrol and search-and-rescue resources; build mutual commitment to support the JMCC; resolve sensitive matters in advance of time-critical distress situations (especially in search-and-rescue operations); and identify types of cooperative matters and efforts which may enhance the support of maritime patrols and search-and-rescue operations.

Recommendation 8: The JMCC should be tasked with negotiating agreements with relevant national and international stakeholders, in particular specifying the assistance they are able to provide for maritime patrol and search-and-rescue operations.

Supporting documents

There are a number of key documents which would need to be produced, related to the operation and support of the JMCC. Importantly, they would provide a whole-of-government set of operating policies and standards for agencies involved with the JMCC. These documents are a Governance Framework; a Maritime Risk Management Framework (and associated operating policies and service standards); an Information Sharing Agreement; a Communication Plan; and a Search-and-Rescue Manual.

Recommendation 9: The JMCC should develop and publish the following:

- Governance Framework to articulate a whole-of-government approach to support the effective coordination of maritime patrols and search-and-rescue operations;
- Maritime Risk Management Framework and associated operating policies and service standards for prioritising and allocating patrol resources from a national perspective;
- Information Sharing Agreement to enable the JMCC to carry out its functions;
- Communication Plan; and
- Search-and-Rescue Manual.

The JMCC should also be responsible for keeping these documents up-to-date and ensuring that core and interested agencies are familiar with their contents. Reviews of these documents would need to be carried out in consultation with the core agencies. Any core or interested agency could request a review of all or part of these documents, if and when needed.

Part 4: Supporting tools

It is considered crucial for the successful implementation of the JMCC's functions of enhancing Tonga's maritime security and search-and-rescue response capability for the Tongan Government to consider signing the Niue Treaty Subsidiary Agreement, and to provide support to its HMAF Beechcraft 18 aircraft.

Niue Treaty Subsidiary Agreement

Illegal, unreported and unregulated fishing poses a real threat to the Pacific regions, as was acknowledged in the Pacific Islands Forum Leaders' call for the implementation of a new strategy to safeguard the region's fish stocks, in the form of the Niue Treaty Subsidiary Agreement.⁷⁶

The agreement provides a robust, legal framework for countries to share resources and exchange fisheries data and intelligence to step up efficiency and save costs when it comes to monitoring fishing vessels in Pacific waters. Signatories to the agreement are at the forefront of regional cooperative endeavours, and show how Pacific island states with limited resources can find innovative ways to move towards solving complex resource protection problems and, through that, ultimately strengthen their maritime security.

The agreement is aligned with the suggestion by Bateman and Bergin that cooperation and coordination between the different agencies involved in maritime security, at both the national and regional levels, have become more important.⁷⁷ In 2012, then Australian Parliamentary Secretary for Defence, Senator Feeney, asserted that 'this [Niue Treaty Subsidiary Agreement] will significantly improve the region's ability to conduct multilateral activities, such as Operation KURUKURU'.⁷⁸

Operation KURUKURU 2012, which followed the adoption of the Niue Treaty Subsidiary Agreement in early November 2012, was a large-scale maritime surveillance operation, under the auspices of the Pacific Islands Forum, designed to stop transnational crime including unauthorised fishing, smuggling and people trafficking, with Senator Feeney noting that:

OP [Operation] KURUKURU really does show that as a region we can work together to achieve tangible outcomes for the people of our nations. This operation covered the Cook Islands, the Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Niue, Palau, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu.... Fisheries surveillance and enforcement staff from all these nations, as well as from Australia, New Zealand, France and the United States worked together over a busy two week period toward the same outcomes.⁷⁹

The Tongan Government should take advantage of the benefits available under this maritime monitoring, control and surveillance agreement, and join with other Pacific island countries in signing the Niue Treaty Subsidiary Agreement, which would become a significant tool for enhancing national and regional maritime security.

Recommendation 10: The Government of Tonga should sign the Niue Treaty Subsidiary Agreement.

HMAF Beechcraft 18 Aircraft

Air Wing is one of the smallest units of HMAF and has played a significant role in maritime patrols and search-and-rescue. It was established in 1996 and acquired two small aircraft; a Beechcraft 18 and an American Champion Citabria light trainer. The Beechcraft 18 has been used for maritime surveillance, search-and-rescue and medical evacuation, especially from the two most northern islands of Tonga. The Citabria trainer aircraft is being used for training flights by the unit's pilots.

HMAF Navy has used the combined effect of its patrol boats and the Beechcraft 18 as the basis for its maritime patrol activities. The aircraft has done most of the surveillance tasks, while a patrol boat has been stationed in the vicinity as a response platform for any requirement from the aircraft. It has proven very effective and efficient in terms of cost and the area covered in comparison to a patrol conducted by a patrol boat alone. The biggest fine ever issued to an illegal foreign fishing vessel in Tonga was in 2004, which eventuated as the result of the concept of patrolling carried out by a patrol boat together with the Beechcraft 18.⁸⁰

However, in 2007, the Beechcraft 18 aircraft suffered mechanical problems which HMAF could not afford to fix because of financial constraints. The unavailability of this aircraft has had an enormous adverse impact on the way maritime patrol and search-and-rescue activities have since been conducted. In particular, it has increased the cost of such activities because of the greater number of sea days required in using patrol boats where an extensive search has been required. Bateman and Bergin have suggested that air surveillance is the most effective method for the Pacific island countries to monitor large surface areas, including remote and uninhabited islands and reefs.⁸¹

The Beechcraft 18 is one of Tonga's vital assets, capable of making a huge difference to the efficiency and effectiveness of maritime patrols and search-and-rescue operations, and one which could contribute greatly to the enhancement of Tonga's maritime security. Hence, it is recommended that the Tongan Government considers ways to repair the Beechcraft 18 aircraft as a near-term priority.

Recommendation 11: The Government of Tonga should fund repair of the HMAF Beechcraft 18 aircraft.

Part 5: Resource considerations in creation of the JMCC

Equipment

The JMCC would not own any maritime patrol or search-and-rescue assets and it would be collocated at HMAF Navy headquarters (where no new buildings would be needed to house the JMCC and its staff). Hence, the only additional expenses would be the necessary equipment for the Centre, such as communications and office equipment.

Finance

It is suggested that the budget allocation for search-and-rescue and fuel for maritime patrols should be allocated to the JMCC, as well as all financial donations for these programs, such as the funds received from the Australian Defence Cooperation Program for these purposes. These funds (budget plus donations) are approximately A\$400,000, which should be sufficient to conduct programmed maritime patrols and anticipated search-and-rescue responses. Each agency should be responsible for the salary of their respective staff at the JMCC.

The financial requirements for the establishment and operation of the JMCC would be for the purchasing of communication and office equipment, which is estimated as a one-off cost of A\$20,000 and an annual operating cost of approximately A\$80,000. The funding of these items, and any other financial requirements the Centre might incur in the future, could be provided by proportional contributions from the agencies in the JMCC Council.⁸² The other option would be to seek additional funding from international donors, such as Australia and New Zealand, if it is required.

Table 4 below shows the estimated costs for the initial establishment of the JMCC. The annual funding required for sustaining and operating the JMCC would be less than this initial cost, since

the costs for purchasing communication and office equipment, as well as the repair of the Beechcraft 18 aircraft, would be one-off costs.

Table 4: Estimated cost for establishment and operation of the JMCC

Expenditure	Estimated cost (AUD)	Remarks
Communication & office equipment	\$20,000	Initial set-up only
Operating costs	\$80,000	For maintenance, transport, training and other operating requirements of the Centre.
Fuel for maritime patrolling and search-and-rescue activities	\$400,000	To be sourced from the existing budget for search-and-rescue and fuel for maritime patrols allocated to government agencies, supplemented by financial donations for search-and-rescue and maritime patrols, such as the funds received under Australia's Defence Cooperation Program (which recently amounted to A\$150,000).
Repair of Beechcraft 18 aircraft	\$60,000	
Total	\$560,000	

Recommendation 12: The Government of Tonga should allocate to the JMCC the current budget allocations for search-and-rescue and maritime patrols, as well as financial donations specifically for these activities from development partners.

Recommendation 13: Tonga Customs Services, Tonga Police, Ministry of Fisheries, Ministry of Infrastructure, and His Majesty's Armed Force should be responsible for the salary of their respective staffs at the JMCC, with other financial requirements to be funded by proportional contributions from these agencies.

Recommendation 14: The Government of Tonga should seek international donor contributions to assist in meeting the financial requirements of the JMCC, as needed.

It is also estimated that with an improved surveillance and maritime patrol capability, Tonga should be able to increase its general revenue by about 10 per cent from fines/seizures from illegal/unauthorised fishing.⁸³ Any such revenue could be used to assist the Tongan Government in sustaining and operating the JMCC.

Implementation strategy

This paper proposes that a strategy to establish a JMCC could be implemented across an 18-month timeframe, organised into five phases. Phase 1 would be the presentation of the concept to all stakeholders, followed by a series of consultation workshops for clarification and opportunities for the stakeholders' input. During this phase, a working committee would also be formed, ideally comprising representatives from the Tonga Custom Services, Ministry of Fisheries, Tonga Police, Ministry of Infrastructure, Ministry of Crown Law, Prime Minister's office and HMAF. This committee would oversee the implementation of the remaining phases.

Phase 2 would be the distribution of the policy to the Chief Executives of all relevant government agencies and non-government organisations. Phase 3 would be a submission to the Ministry of Crown Law in relation to any legal implications. Phase 4 would be a submission to Cabinet for approval, and Phase 5 would be preparations for the establishment of the JMCC. One of the essential components of this phase would be training focusing on the new organisational and process arrangements for maritime patrol and search-and-rescue operations, and the operating concept of the JMCC. This training would ideally need to be conducted by experts from either Australia or New Zealand and would, therefore, require a request for assistance from one or both countries.

Table 5: Proposed implementation timeline for the JMCC

Goal	Leading staff	Time line	Remarks
Phase One: Induction presentation and consultation workshops	HMAF	Months 1-4	Invitations to be extended to all interested stakeholders. Working Committee to be formed to oversee the implementation of the remaining phases.
Phase Two: Distribution of the proposed policy to the Chief Executives of relevant government agencies and non-government organisations.	JMCC working committee	Months 5-6	
Phase Three: Submission to the Ministry of Crown Law for consideration of any legal implications.	JMCC working committee	Months 8-9	

Phase Four: Submission to Cabinet for approval.	JMCC working committee	Month 10	
Phase Five: Preparations for the establishment of the JMCC	Director JMCC & the JMCC working committee	Months 11-18	Identify Director JMCC and staff of the JMCC. Submission of JMCC budget for initial financial year. Conduct of training.
Official opening of the JMCC	Director JMCC and the hoist agency, HMAF	Month 18>	

Recommendation 15: The Government of Tonga should consider an implementation strategy for the establishment of the JMCC, along the lines proposed in this paper.

Part 6: Impact analysis of the establishment of the JMCC

Benefits

The primary benefit of the creation of a JMCC would be the enhancement of Tonga's maritime security by ensuring an improved, more efficient and more effective way of conducting maritime patrol and search-and-rescue. This would be realised through the implementation of a robust whole-of-government policy and framework for the establishment of the JMCC. It is a concept that would establish a unified effort between the relevant government agencies to maximise all available maritime security and search-and-rescue resources in a collaborative effort, which would increase productivity and effectiveness through realising the synergies of teamwork and collective ownership.

As this strategy should result in a more cost-efficient approach to conducting maritime security and search-and-rescue, achieving cost efficiencies would also be a significant benefit at a time when public spending is under pressure and resources are limited. As the strategy for the JMCC is to pool together the nation's available capabilities and put them to their best use through better coordination and cooperation, the end product should be a more efficient and effective outcome. Also, pooled funding should foster integrated planning and allow for greater flexibility in support of maritime patrol and search-and-rescue activities.

Implementing a more efficient and cost-effective maritime patrol and search-and-rescue management process would also reflect Tonga's appreciation of its development partners' assistance in these areas, which prospectively would encourage the development partners to continue their support and financial assistance. As already discussed, most available assets including the Pacific Patrol Boats, training, advisers and funding support, have already been or are being donated by the Australian Government. Putting these donations to their best use for optimum results would demonstrate Tonga's appreciation of Australia's assistance. As the JMCC's primary function would be to capitalise on the efficiencies of combined maritime assets for patrol and search-and-rescue, development partners like Australia would be encouraged to continue providing assistance to that particular project.

Increased productivity and effectiveness should also be obtained through the synergies of teamwork in the JMCC. The benefits to be gained from unity of effort have been proven time and again, reflected in any successful organisation's aspiration to harness the synergies of team-work. The establishment of the JMCC would promote this concept, as it would require a coordinated

effort across the nation, including both public and private sector organisations, and with international partners. Maritime security benefits would be enhanced through the increased participation of all maritime stakeholders.⁸⁴

The JMCC would introduce governance and accountability mechanisms for the conduct of maritime security and search-and-rescue. It would be a significant benefit of the JMCC because such mechanisms provide checks and balances to ensure better management and governance in the process of achieving strategic and operational objectives. Enhanced governance and accountability would also improve the management of finances allocated to maritime activities. Historically, when departments struggle to meet their objectives because of limited budgets, those not classified as high priority are dropped, and the funds are allocated to other activities with a higher priority.

In Tonga's case, maritime security and search-and-rescue are not considered a high priority by some agencies. However, the JMCC's only purpose would be to support the effective and efficient use of Tonga's maritime patrol and surveillance assets for the purposes of carrying out maritime patrols and the coordination of search-and-rescue in Tonga's responsibility area. Therefore, this paper has proposed that the funds allocated for the purposes of maritime security and search-and-rescue would be better managed under the JMCC governance and accountability mechanisms, to ensure that all allocated funds are utilised only for their specified purposes. This would increase the number of maritime patrols conducted, and provide more effective surveillance and deterrence.

The JMCC's whole-of-government approach would also provide other benefits for individuals, agencies and for the government overall, such as development opportunities for individuals to learn together and from each other, and maximising information and communication opportunities between agencies. Collective decision-making would also be better informed, enhanced opportunities would be provided to improve government engagement with individuals and communities, and Tonga would have an improved capacity for immediate response in times of crisis.

Risks

For the purposes of this paper, risk includes both possible threats and opportunities, and the potential impact these may have on the ability of the JMCC to meet its objectives. That is, risk relates both to challenges and opportunities for the JMCC.⁸⁵ Hence, the potential key risks that the JMCC would face include the challenge of reworking existing relationship structures and building a culture of cooperation; and the challenge of bridging differences in organisational culture among the stakeholders.

Rework existing relationship structures and build a culture of cooperation

The first two steps in the successful establishment of a JMCC would be to obtain the unequivocal cooperation of the Chief Executives of the relevant government agencies, and align the necessary political interests to support the concept. It is understandable that the heads of agencies may fear losing control over human and financial resources, and may have reservations about making them available for implementing a whole-of-government approach to a JMCC.

The challenge of bridging differences in organisational culture among the stakeholders

Each agency has its own unique organisational culture, professional or technical language, and norms and definitions of success. Each agency also has a perception of other agencies which can be based on stereotypes that militate against mutual understanding and collective action. Any such differences would clearly be a challenge in trying to achieve the required unity of approach to the establishment of a JMCC. Moreover, especially in the initial establishment phases of the JMCC, any such differences could act as a disincentive for departments to work collaboratively with other government counterparts, in turn hindering the achievement of the JMCC's objectives.

Mitigation measures

Having an effective and consensually-agreed implementation strategy would mitigate the risks identified. The implementation strategy detailed in this paper should assist in enabling the process of the establishment of the JMCC to be successful. Hence, its first phase would be an awareness strategy (induction presentation and consultation workshop) to inform relevant stakeholders about the concept and the benefits of the JMCC to the country's maritime security and search-and-rescue.

It would also provide the opportunity for the stakeholders to discuss and express their views, which would be crucial inputs to the collective ideas for enhancing the policy framework of a JMCC. Phase 2, the submission of this policy to the Chief Executives of relevant government agencies, would aim to achieve their 'ownership' of the JMCC, in order that a whole-of-government approach could then be progressed with the roll-out of the remaining phases.

Phase 5 of the implementation strategy, relating to preparations for the establishment of the JMCC, would include a training focus on change management, building trust among agencies, and establishing the necessary communications and operating processes of the JMCC. Experts in these fields from development partners such as Australia and New Zealand would ideally be sought to run these trainings sessions. Additionally, change management mechanisms would need to be incorporated into the JMCC's whole-of-government approach to the conduct of operations. It is suggested that by conducting such training and incorporating change management mechanisms into the operational processes of the JMCC, the challenge of bridging differences in organisational culture among the stakeholders would be mitigated.

Conclusion

Without significant action, Tonga's sovereign rights and responsibilities to protect and exploit resources within its EEZ will continue to be limited by the gaps which exist in the delineation of its EEZ boundaries. The unresolved issue of its EEZ border with Fiji needs to be addressed as a crucial step in maintaining peace and stability between these two island nations. Additionally, there is an urgent need, under international law, for Tonga to enact appropriate laws governing the deep-sea mining industry, not least to protect the state from liability. The existing arrangements for the conduct of maritime security and search-and-rescue also feature a range of challenges which undermine safety and security within Tonga's maritime domain.

Furthermore, the nature of the challenges in the existing maritime security and search-and-rescue arrangements have, and will continue, to expose Tonga to the risk of even greater maritime security challenges unless they are urgently addressed. These maritime security challenges often cross jurisdictional boundaries, constantly change and adapt, and offer no simple solutions. This paper has argued that Tonga's strategic objectives can only be optimally achieved by the cohesive and synergistic effects of a whole-of-government approach. Hence, it has proposed the establishment of a Joint Maritime Coordination Centre, with an implementation strategy based on a robust, whole-of-government approach to address the challenges of the existing maritime security and search-and-rescue arrangements.

The recommendations made in this paper are based on a detailed analysis of the problems identified in Tonga's current approach to meeting its rights, obligations and responsibilities under UNCLOS, and the requirements to improve Tonga's maritime security and search-and-rescue arrangements. They propose policies, strategies and actions necessary to address the challenges identified. If the government implements all the recommendations of this paper, Tonga would be more capable of fulfilling its national and international obligations and responsibilities, and have greatly enhanced maritime security.

Notes

- ¹ According to the UN Convention on the Law of the Sea (UNCLOS), 'archipelago' means a group of islands, including parts of islands, interconnecting waters and other natural features which are so closely interrelated that such islands, waters and other natural features form an intrinsic geographical, economic and political entity, or which historically have been regarded as such.
- ² Halahingano Tu'akolo, *Economic Issues in the Fisheries Sector of Tonga*, University of Waikato: Waikato, 2009, p. 6.
- ³ One of the primary purposes behind establishing an EEZ is to clarify the rights of individual nations to control the fish harvests off their shores. UNCLOS defines an EEZ as a 'region that stretches a distance of no more than 200 nautical miles from a nation's baselines' and also stipulates, *inter alia*, that within its EEZ, a nation may explore for and exploit the natural resources (both living and inanimate) found both in the water and on the seabed, may utilise the natural resources of the area for the production of energy (including wind and wave/current), may establish artificial islands, conduct marine scientific research, pass laws for the preservation and protection of the marine environment, and regulate fishing : see Articles 55-57 of Part 5 of UNCLOS, available at <http://www.un.org/depts/los/convention_agreements/texts/unclos/part5.htm> accessed 23 March 2015.
- ⁴ Secretariat of the Pacific Community, 'Tonga Country Profile', Secretariat of the Pacific Community: Noumea, September 2008, p. 1.
- ⁵ Tu'akolo, *Economic Issues in the Fisheries Sector of Tonga*, p. i.
- ⁶ Anthony Bergin and Sam Bateman, 'Law and Order at Sea in the South Pacific: the contribution of the Pacific Patrol Boat Project', *Ocean & Coastal Management*, Vol. 42, Issues 6-7, June 1999, p. 2.
- ⁷ IHS Jane's, 'Transnational Crime Proves Problematic in Pacific Islands', *Jane's Intelligence Review*, Article 1, 17 November 2006, p. 2.
- ⁸ Yoichiro Sato, 'Protecting Tonga's Maritime Security', *New Zealand International Review*, Vol. 37, No. 5, September/October 2012, p. 17.
- ⁹ Sato, 'Protecting Tonga's Maritime Security', p. 17.
- ¹⁰ Pacific Transnational Crime Network, 'Transnational Crime Assessment', 2012/2013 Report, Pacific Transnational Crime Coordination Centre: Suva, 2013, p. 15.
- ¹¹ Sato, 'Protecting Tonga's Maritime Security', p. 17.
- ¹² Joe McNulty, 'Western and Central Pacific Ocean Fisheries and the Opportunities for Transnational Organised Crime: Monitoring, Control and Surveillance (MCS) Operation Kurukuru', *Australian Journal of Maritime and Ocean Affairs*, Vol. 5, No. 4, 2013, p. 146.
- ¹³ AusAID, *Valuing Pacific Fish: a framework for fisheries-related development assistance in the Pacific*, Australian Government: Canberra, November 2007, p. 2.
- ¹⁴ The term 'maritime security' is used here to cover the risks associated with drug smuggling, piracy and armed robbery against ships, stowaways, migrant smuggling and the threat of terrorism. These are all activities that involve the criminal abuse of the maritime transportation system and might involve delays and disruption to the movements of commercial shipping. See Sam Bateman, 'Capacity Building for Maritime Security Cooperation: what are we talking about?', in P. Cozens and J. Mossop (eds.), *Capacity Building for Maritime Security Cooperation in the Asia-Pacific*, a selection of papers presented at the CSCAP Study Group Meeting on Maritime Security Cooperation, held in Kunming, China in December 2004 and New Delhi, India in April 2005, Centre for Strategic Studies: Wellington, 2005, pp. 3-23.
- ¹⁵ Sato, 'Protecting Tonga's Maritime Security', p. 17.
- ¹⁶ See, for example, Pesi Fonua, 'Ferry sinks in rough Pacific waters off Tonga, dozens feared dead', *Gaea Times*, 6 August 2009, available at <<http://news.gaeatimes.com/ferry-sinks-in-rough-pacific-waters-off-tonga-dozens-feared-dead-132723/>> accessed 23 March 2015.
- ¹⁷ Royal Commission of Inquiry into the Sinking of the MV *Princess Ashika*, *Final Report of the Royal Commission of Inquiry into the Sinking of the MV Princess Ashika*, Tongan Government: Nuku'alofa, 31 March 2010, p. iv.
- ¹⁸ Ministry of Transport, *The Kingdom of Tonga: country statement*, Tongan Government: Nuku'alofa, 2010, p. 5, available at

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- <<http://www.amsa.gov.au/aphomsa/archives/Meeting%2010/Country%20Statements/Country%20Statement%20-%20Tonga.pdf>> accessed 17 September 2014.
- 19 Sam Bateman and Anthony Bergin, *Maritime Security*, Special Report, Issue 12, Australian Strategic Policy Institute (ASPI): Canberra, March 2008, p. 59.
- 20 Ministry of Finance and National Planning, *Tonga Strategic Development Framework (TSDF), 2011-2014*, Tongan Government: Nuku'alofa, 2011, p. 4.
- 21 Alan Ryan, 'Interagency Cooperation: theory and practice', lecture notes, Centre for Defence Strategic Studies, Australian Defence College: Canberra, 30 July 2014.
- 22 UN, 'Chronological lists of ratifications of, accessions and successions to the Convention and the related Agreements as at 29 October 2013', *Oceans and Law of the Sea*, UN: New York, 20 September 2013, available at <http://www.un.org/depts/los/reference_files/chronological_lists_of_ratifications.htm> accessed 2 September 2014.
- 23 Tongan Government, *Territorial Sea and the Economic Exclusive Zone Act (No. 30 of 1978)*, Tongan Government: Nuku'alofa, 23 October 1978, p. 444.
- 24 Tongan Government, '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', Submission to the Commission on the Limits of the Continental Shelf through the Secretary-General of the UN, Tongan Government: Nuku'alofa, May 2009, p. 1.
- 25 Tongan Government, *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*, p. 1.
- 26 UN, 'Regional Compendium of Fisheries Legislation (Western Pacific Region)', Vol. II, Food and Agriculture Organisation (FAO): Rome, 1984, p. 728, available at <http://books.google.com.au/books?id=21yoE7_TlHgC&pg=PA728&lpg=PA728&dq=Tonga+Royal+Proclamation+1887&source> accessed 21 September 2014.
- 27 South Pacific Forum Secretariat, 'South Pacific Forum: final press communique', South Pacific Forum Secretariat: Suva, 12-14 September 1972, p. 3, available at <<http://www.forumsec.org/resources/uploads/attachments/documents/1972%20Communique-Suva%2012-14%20Sept.pdf>> accessed 7 September 2014.
- 28 South Pacific Forum Secretariat, 'South Pacific Forum', p. 3.
- 29 UN, 'Regional Compendium of Fisheries Legislation (Western Pacific Region)', p. 728.
- 30 UN, 'Regional Compendium of Fisheries Legislation (Western Pacific Region)', p. 729.
- 31 UN, 'Regional Compendium of Fisheries Legislation (Western Pacific Region)', p. 729.
- 32 Bryan Scott, 'Tonga Maritime Boundaries by Royal Proclamation 1887', Forum Fisheries Agency: Suva, 30 July 2008, available at <<https://www.ffa.int/mcs/node/1543>> accessed 8 October 2014.
- 33 Cleo Paskal and Michael Lodge, 'A Fair Deal on Seabed Wealth: the promise and pitfalls of Article 82 on the Outer Continental Shelf', Briefing Paper 09/01, Chatham House: London, February 2009, p. 2, available at <<https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Energy.%20Environment%20and%20Development/bp0209seabed.pdf>> accessed 23 March 2015.
- 34 UN, 'Receipt of the Submission Made by the Kingdom of Tonga to the Commissions on the Limits of the Continental Shelf', UN: New York, 14 May 2009.
- 35 International Seabed Authority, 'Tonga Becomes Second Developing State to Sign Contract with ISA', International Seabed Authority: Kingston, Jamaica, 12 January 2012, available at <<http://www.isa.org.jm/en/node/714>> accessed 9 September 2014.
- 36 UN, *United Nations Convention on the Law of the Sea (UNCLOS)*, Division for Ocean Affairs and Law of the Sea, UN: New York, 1982.
- 37 Yoichiro Sato, 'Tonga's Risky Seabed Mining Ventures', *New Zealand International Review*, 1 March 2014, p. 19.
- 38 International Maritime Organisation (IMO), *International Aeronautical and Maritime Search and Rescue Manual*, Vol. I, 2008 Edition, IMO: London, 2008, p. 1-1.

-
- 39 IMO, *International Aeronautical and Maritime Search and Rescue Manual*, p. 2-1.
- 40 IMO, *International Aeronautical and Maritime Search and Rescue Manual*, p. 2-1.
- 41 International Civil Aviation Organisation, 'Asia/Pacific SAR Status', The Second Meeting of the ICAO Asia/Pacific Search and Rescue Task Force (APSAR/TF/2), Singapore, 27-30 January 2014, p. A-1.
- 42 Rescue Coordination Centre New Zealand, *Search and Rescue Region*, New Zealand Government: Wellington, undated, available at <<http://www.maritimenz.govt.nz/Publications-and-forms/Maritime-NZ-corporate-publications/Rescue-Coordination-Centre-New-Zealand-information-leaflet.pdf>> accessed 8 October 2014.
- 43 Ministry of Agriculture, Food and Fisheries, *Fisheries Management Act 2002*, Tongan Government: Nuku'alofa, 2002, p. 22.
- 44 His Majesty's Armed Force, *HMAF Navy Standing Order*, Tongan Government: Nuku'alofa, 1990, p. 1.
- 45 Tonga Custom Services, *Role of Custom Services*, Tongan Government: Nuku'alofa, undated, available at <<http://www.revenue.gov.to/Article.aspx?ID=580>> accessed 25 August 2014.
- 46 Ministry of Agriculture, Food and Fisheries, *Fisheries Management Act 2002*, p. 49.
- 47 Ports Authority, *Ports Authority (Miscellaneous Port Tariff) Standing Order 1999*, Tongan Government: Nuku'alofa, 1998, p. 2.
- 48 Tonga Custom Services, *Role of Custom Services*.
- 49 Tonga Police, *Search and Rescue*, Tongan Government: Nuku'alofa, undated, available at <<http://www.police.gov.to/index.php/about-us/85-special-functions/89-search-and-rescue.html>> accessed 25 August 2014.
- 50 Tonga Police, *Search and Rescue*, p.1.
- 51 His Majesty's Armed Force, *HMAF Navy Standing Order*, p. 8.
- 52 His Majesty's Armed Force, *HMAF Navy Annual Report 2010*, Tongan Government: Nuku'alofa, 2010, p. 3.
- 53 See, for example, <http://en.wikipedia.org/wiki/Pacific-class_patrol_boat> accessed 23 March 2015.
- 54 Bateman and Bergin, 'Maritime Security', p. 62.
- 55 The HMAF Navy, together with the Australian Maritime Adviser attached to the HMAF Navy and a representative from the New Zealand High Commission, coordinated several meetings with the Tonga Police, Tonga Customs Services, Immigration, Department of Fisheries, and Marines and Ports. These meetings aimed to maximise the effective of maritime patrols by improving coordination among the concerned agencies.
- 56 Ministry of Finance and National Planning, *Budget 2014/2015*, Tongan Government: Nuku'alofa, May 2014.
- 57 His Majesty's Armed Force, *HMAF Navy Annual Report 2011*, Tongan Government: Nuku'alofa, 2011, p. 4.
- 58 UN, 'Aspects of Sea Safety in the Fisheries of Pacific Island Countries', FAO Fisheries Circular No. 993, FAO: Suva, 2003, p. 19.
- 59 UN, 'Aspects of Sea Safety in the Fisheries of Pacific Island Countries', p. 19.
- 60 Royal Commission of Inquiry into the Sinking of the MV *Princess Ashika*, *Final Report of the Royal Commission of Inquiry into the Sinking of the MV Princess Ashika*, p. 576.
- 61 Secretariat of the Pacific Community, 'Report on Foreign Fishing Vessel Security Issues in the Pacific Islands Region', Secretariat of the Pacific Community: Suva, November 2005.
- 62 Bateman and Bergin, 'Maritime Security', p. 67.
- 63 UN, 'United Nations E-Government Survey: taking a whole- of-government approach', UN: New York, 2012, p. 56.
- 64 Australian Public Services Commission, *Leading and Shaping a Unified, High Performance APS*, Australian Government: Canberra, undated, available at <<http://www.apsc.gov.au/publications-and-media/archive/publications-archive/connecting-government/challenge>> accessed 9 September 2014.

-
- ⁶⁵ Ministry of Finance and National Planning, *Tonga Strategic Development Framework (TSDF), 2011-2014*, p. 4.
- ⁶⁶ Ministry of Finance and National Planning, *Tonga Strategic Development Framework (TSDF), 2011-2014*, p. 4.
- ⁶⁷ European Commission, *For an Open and Secure Global Maritime Domain: elements for a European Union maritime security strategy*, European Union for Foreign Affairs and Security Policy: European Commission: Brussels, 2014, p. 2.
- ⁶⁸ Australian Public Service Commission, *What is the Whole-Of-Government Approach?*, The APS Induction Program, Australian Government: Canberra, 2014, available at <<http://www.apsc.gov.au/apsinduction/module-4/what-is-whole-of-government>> accessed 27 August 2014.
- ⁶⁹ The author adapted the New Zealand National Maritime Coordination Centre's (NMCC) structure to provide the proposed Tonga JMCC structure.
- ⁷⁰ The author adapted the New Zealand NMCC accountability relationships to provide the Tonga JMCC governance structure and accountability relationship, see: New Zealand Government, *Effectiveness of Arrangements for Co-ordinating Civilian Maritime Patrols: performance audit report*, Controller and Auditor-General, New Zealand Government: Wellington, April 2010, p. 16.
- ⁷¹ The author adapted the New Zealand NMCC Reference Group to provide the Tonga JMCC Council, see: New Zealand Government, *Effectiveness of Arrangements for Co-ordinating Civilian Maritime Patrols*, p. 16.
- ⁷² Host agency means the agency approved by Cabinet to be formally responsible for the JMCC.
- ⁷³ The author adapted the New Zealand NMCC Principles to provide the Tonga JMCC Principles, see: New Zealand Government, *National Maritime Coordination Centre Governance Framework*, NMCC Working Group, New Zealand Government: Wellington, 2006, pp. 8-9.
- ⁷⁴ The author adapted the roles of the New Zealand NMCC, Australia's Border Protection Command and the Australian Maritime Safety Authority to provide the Tonga JMCC functions.
- ⁷⁵ The author adapted the New Zealand NMCC planning patrol strategy to provide the Tonga JMCC planning patrol strategy.
- ⁷⁶ Filimon Manoni, 'Niue Treaty Subsidiary Agreement consultation', *Cook Islands News*, available at <<http://www.cookislandsnews.com/item/44507-niue-treaty-subsidiary-agreement-consultation/44507-niue-treaty-subsidiary-agreement-consultation>> accessed 8 September 2014. See also South Pacific Forum Secretariat, 'The Vava'u Declaration on Pacific Fisheries Resources: our fish, our future', South Pacific Forum Secretariat: Suva, October 2007.
- ⁷⁷ Bateman and Bergin, 'Maritime Security', p. 55.
- ⁷⁸ Australian Parliamentary Secretary for Defence, *Regional Cooperation Works to Stop Transnational Crime*, Australian Government: Canberra, 23 November 2012, available at <<http://www.minister.defence.gov.au/2012/11/23/parliamentary-secretary-for-defence-regional-cooperation-works-to-stop-transnational-crime/>> accessed 10 September 2014.
- ⁷⁹ Australian Parliamentary Secretary for Defence, *Regional Cooperation Works to Stop Transnational Crime*.
- ⁸⁰ Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, *Tonga – National Report*, First Meeting of the Technical and Compliance Committee, Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean: Suva, 5-9 December 2005, pp. 10-11.
- ⁸¹ Bateman and Bergin, 'Maritime Security', p. 61.
- ⁸² The level of proportional contributions would relate to the relative budgets and size of each of the seven departments contributing to the Centre.
- ⁸³ New Zealand Government, *A Shared Vision for Ocean Resources*, New Zealand Aid, New Zealand Government: Wellington, undated, available at <https://www.aid.govt.nz/webfm_send/301> accessed 10 October 2014.
- ⁸⁴ US Government, *National Maritime Domain Awareness Plan*, National Strategy for Maritime Security, US Government: Washington DC, December 2013, p. 10, available at <http://www.whitehouse.gov/sites/default/files/docs/national_maritime_domain_awareness_plan.pdf> accessed 3 September 2014.

⁸⁵ Queensland Government, *A Guide to Risk Management*, Queensland Treasury: Brisbane, July 2011, p. 7.

Additional reading

(sources not otherwise included in the end-notes)

- Australian Maritime Safety Authority (AMSA), *Search and Rescue in Australia*, AMSA: Canberra, 2012.
- Australian Customs and Border Protection Service, *Border Protection Command*, Australian Government: Canberra, undated, available at <http://www.customs.gov.au/aboutus/protectingborders> accessed 5 August 2014.
- Bateman, Sam and Quentin Hanich, 'Maritime Security Issues in an Arc of Instability and Opportunity', *Security Challenges*, Vol. 9, No. 4, 2013, pp. 86-105.
- Bateman, Sam and Anthony Bergin, 'Staying the Course: Australia and maritime security in the South Pacific', Australian Strategic Policy Institute (ASPI) website, May 2011.
- Bell, Lui A.J., Ulunga Fa'anunu and Taniela Koloa, *Fisheries Resources Profiles Kingdom of Tonga: FFA Report 94/05*, Forum Fisheries Agency: Honiara, 1996.
- Border Protection Command, *Guide to Australian Maritime Security Arrangements*, Australian Government: Canberra, September 2013.
- Brown Pulu, Teena, 'Off the Deep End: Tonga's continental shelf politics', *Te Kaharoa*, Vol. 7, 2014.
- Jennings, Peter and David Connery, *Better Policy Handbook*, Edition 1, ASPI: Canberra, July 2014.
- Organisation for Economic Co-operation and Development (OECD), 'Whole of Government Approaches to Fragile States', OECD Governance, Peace and Security, Centre Français D'exploitation du Droitde: Paris, 1996.
- Rahman, Christopher, *Concepts of Maritime Security: a strategic perspective on alternative visions for good order and security at sea with policy implications for New Zealand*, Centre for Strategic Studies, Victoria University of Wellington: Wellington, 2009.



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