



Performance audit report

Effectiveness of arrangements for co-ordinating civilian maritime patrols





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This is an independent assurance
report about a performance audit
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Auditor-General's overview

New Zealand has significant economic, environmental, and other interests in the extensive oceans over which we have rights and responsibilities (the maritime domain). Maritime patrols are used to protect these interests, by detecting and deterring illegal activities, and by gathering information about activities that are occurring in the maritime domain. Patrol costs are substantial; in 2009/10, the Government budgeted about \$277 million for a range of civilian and military maritime patrol activities.

Many government agencies use maritime patrols for civilian purposes. Mostly, they rely on the New Zealand Defence Force (NZDF) to provide the aircraft and ships for the patrols because its aircraft and ships are capable of operating over the long distances and in the difficult conditions that characterise our maritime domain. NZDF decides how much aircraft or ship patrol time is allocated for civilian patrol purposes.

The National Maritime Co-ordination Centre (the NMCC) co-ordinates access to aircraft and ships on behalf of government agencies. The NMCC also has a role in co-ordinating maritime information. The NMCC is hosted by the New Zealand Customs Service but operates as a whole-of-government arrangement because many government agencies are involved or have an interest in maritime patrols.

My staff carried out a performance audit to examine how effectively maritime patrols were co-ordinated to support New Zealand's maritime interests. The audit focused on the NMCC, but also included the government agencies that use maritime patrols and the providers of patrol aircraft and ships. A core group of six government agencies are the main users of maritime patrols (the core agencies), and the major provider agency is NZDF. There are many other organisations with an interest in maritime patrols, including the Department of the Prime Minister and Cabinet.

The NMCC's effectiveness in co-ordinating maritime patrols is still evolving and should improve as new systems and patrol resources are introduced. At the time of our audit, the NMCC was in a consolidation and improvement phase, with its operations being defined further and changes being made.

In general, my staff found that the NMCC had an appropriate framework in place to support the effective co-ordination of maritime patrols. The audit identified some matters that need attention if the NMCC is to have a clear strategic direction, enhance its whole-of-government co-ordination role, and make the most effective use of the improved patrol resources. The NMCC was aware of the need for many of these improvements and had started, or was planning, work to introduce them.

Operating a whole-of-government arrangement is not easy. I acknowledge that it is rare to find a simple solution when managing whole-of-government issues. The NMCC was established in 2002. Since then, different governance arrangements have been trialed, and more structure is now in place to support the co-ordination of patrol aircraft and ships. The NMCC's ability to support effective and efficient maritime patrols has been limited by the availability and suitability of aircraft and ships. It has also been limited by its own resourcing. This situation is expected to change as NZDF's projects for improving patrol aircraft and ships are completed and the NMCC builds on additional resourcing received in 2008/09.

Improving strategic guidance for the National Maritime Co-ordination Centre

The NMCC has to look at maritime patrols from a whole-of-government perspective. At the time of our audit, it was seeking to improve how it gets the core agencies and the other interested organisations more strategically involved. The NMCC has a reference group for discussing strategic issues. This is a useful and important consultation mechanism in the NMCC's governance framework. However, my staff noted uncertainties about how effectively this group is meeting the NMCC's strategic leadership needs. The group's effectiveness can be improved by further defining its roles and responsibilities to ensure that strategic input is maximised.

There was minimal strategic guidance to provide a whole-of-government perspective on the goals, objectives, and risks for maritime patrols and the maritime domain. The NMCC and the core agencies were working to put this strategic guidance in place (in the form of a maritime patrol strategy). Reconciling the range of views on what this guidance should be was not easy and progress was slow. We consider this guidance is essential for ensuring that the limited patrol resources are targeted in the most effective way and according to the Government's priorities for the maritime domain.

Clear leadership is needed in arrangements where there are different priorities for different agencies. Although the NMCC's current governance framework is appropriate, there may be a place for more discussion and direction from the Officials Committee for Domestic and External Security Co-ordination. This would be helpful in providing greater clarity and direction to the NMCC in managing the whole-of-government perspective.

Clarifying the mandate for separate patrol co-ordination arrangements

There were some separate patrol co-ordination arrangements that did not align with the whole-of-government approach the NMCC was set up to achieve. These separate co-ordination arrangements did not appear to have a significant effect on the NMCC's ability to co-ordinate access to patrol aircraft and ships. However, co-ordinating patrols will become more complex as NZDF's patrol resources improve and options for patrol broaden. It will be more important to ensure that new and upgraded patrol resources are fully used and that systems in place for co-ordination ensure that agencies' access to ships and aircraft is prioritised from a whole-of-government perspective.

Separate patrol co-ordination arrangements could undermine the NMCC's efforts to effectively prioritise and co-ordinate patrols. Because of this risk, the mandate for any separate patrol co-ordination arrangements needs to be clear, robust, and documented. Separate co-ordination arrangements should be visible to the NMCC and to all the interested organisations.

Improving patrol planning and measuring effectiveness

The NMCC was introducing changes to its patrol planning system to provide more rigour in planning patrols and measuring patrols' effectiveness. Although it was too early to assess the effectiveness of this new planning system, we expect it to be useful in better targeting patrols. Collecting consistent information about patrols will help identify gaps and issues, and support more complete evaluations of the patrols' effectiveness.

Because patrol resources are improving, it is important that the NMCC can robustly show how the patrol aircraft and ships are used. A critical part of this will be establishing better guidance on an appropriate level of patrolling. There are some longstanding estimates of government agencies' patrol needs, but these estimates far exceed what NZDF has planned for civilian and military patrols combined. Given this large gap, there needs to be a better base for monitoring and evaluating the use of patrol aircraft and ships, and whether patrol resources are adequately meeting needs. This will be valuable information for using in government decision-making about how aircraft and ships are used in supporting agencies' maritime patrol needs and where changes need to be made.

Effective use of new and upgraded patrol capability

The investment in NZDF's new and existing maritime patrol resources is substantial. It is important that both the Project Protector fleet (seven new ships) and the upgraded P-3K Orion aircraft are fully used to meet the range of maritime patrol needs. Having more patrol options will place more demands on the NMCC to ensure that the fleet and aircraft are fully used. Making the most of improved patrol capability also requires effort from everyone involved. The effectiveness of patrols will depend on having enough NZDF staff to crew the patrols, and enough staff from the government agencies for patrolling and for analysing patrol information.

Given these increasing demands, there needs to be:

- more strategic guidance for maritime patrols;
- wider discussion about patrol needs, commitments, and the effectiveness of patrols;
- a clear mandate for any separate patrol co-ordination arrangements; and
- robust information to show where gaps exist and where effort is effective.

This will help in generating wider involvement in the NMCC. Because the NMCC operates as whole-of-government arrangement, the matters my staff identified require consideration from not just the NMCC but from all the organisations involved or interested in maritime patrols.

I would like to thank staff from many government agencies for the information and valuable assistance they provided throughout our audit. These agencies include: the NMCC; New Zealand Customs Service; Ministry of Fisheries; Ministry of Foreign Affairs and Trade; NZDF; Department of Conservation; New Zealand Police; the Department of the Prime Minister and Cabinet; and Maritime New Zealand.



Lyn Provost
Controller and Auditor-General

12 April 2010

Our recommendations

Improving strategic guidance for the National Maritime Co-ordination Centre

1. We recommend that the National Maritime Co-ordination Centre and all organisations involved or interested in maritime patrols review the governance of the National Maritime Co-ordination Centre's Reference Group to ensure that it is effective in meeting strategic leadership needs and that the benefits from this whole-of-government arrangement are maximised.
2. We recommend that the National Maritime Co-ordination Centre, the New Zealand Defence Force, and government agencies using maritime patrols re-assess civilian patrol requirements to establish better guidance on an appropriate level of patrolling. This information is necessary for monitoring and evaluating the use of new and upgraded maritime patrol ships and aircraft. Guidance on an appropriate level of patrolling should be a starting point and should be reconsidered periodically as information on patrol needs and use improves, and as needs change over time.

Clarifying the mandate for separate patrol co-ordination arrangements

3. We recommend that the National Maritime Co-ordination Centre and government agencies using maritime patrols review whether separate patrol co-ordination arrangements are still needed. Where separate co-ordination arrangements are still needed, the rationale and mandate for these should be recorded.
4. We recommend that the National Maritime Co-ordination Centre monitor any separate patrol co-ordination arrangements and report on their effectiveness to the Officials Committee for Domestic and External Security Co-ordination to help ensure that these arrangements do not lessen the effectiveness of patrol co-ordination.

Improving patrol planning and measuring effectiveness

5. We recommend that the National Maritime Co-ordination Centre, the New Zealand Defence Force, and government agencies work together to better understand the timing of the agencies' patrol needs. This information can then be used in more effectively scheduling and planning civilian and military use of maritime patrol aircraft and ships.

6. We recommend that the National Maritime Co-ordination Centre ensure that the information it collects on patrols enables it to robustly assess how effectively patrol aircraft and ships are used, so that any identified gaps or issues can be raised through the appropriate governance mechanism for consideration and action.

Part 1

Introduction

- 1.1 In this Part, we discuss:
- the purpose of our audit;
 - how we carried out our audit; and
 - what we did not audit.

The purpose of our audit

- 1.2 We carried out a performance audit to examine how effectively civilian maritime patrols are co-ordinated to support New Zealand's many maritime interests.
- 1.3 Maritime patrols involve patrolling New Zealand's exclusive economic zone (EEZ)¹ and territorial waters, to help protect and maintain the country's maritime interests. These interests include maritime sovereignty and security, marine resource management, law enforcement, environmental protection, maritime safety, and external relations. New Zealand also provides maritime patrols to support some Pacific nations in protecting their maritime interests.
- 1.4 As well as protecting and maintaining maritime interests, maritime patrols gather information about the maritime domain and contribute to the awareness of activities occurring there.
- 1.5 Some of these activities pose risks to New Zealand. These risks include illegal fishing, drug trafficking, illegal immigration, and smuggling of contraband. Maritime patrols are an essential tool for detecting and deterring these activities. Countering these activities is important because they have high economic, social, and environmental costs. For example, about 9000 full-time equivalent jobs are associated with fishing and it is a large export earner (in 2008, fishing exports generated sales of about \$1.3 billion). The Ministry of Fisheries' 2007/2008 annual report stated that the estimated value of illegal and unregulated fishing in the Pacific was about \$500 million.
- 1.6 New Zealand's ocean area is the fourth largest in the world. Outer regions of New Zealand's EEZ lie about 500 nautical miles from mainland New Zealand. As well as the vast area and distances involved, responsibilities for patrols in the Pacific region and in the Southern Ocean also make patrolling a challenging activity.²

1 New Zealand's EEZ is the area of sea and seabed that extends from 12 nautical miles to 200 nautical miles offshore. Within this EEZ, New Zealand has certain rights and obligations.

2 Department of the Prime Minister and Cabinet (2001), *Maritime Patrol Review*, Wellington, page 7.

- 1.7 Patrol costs are substantial. In 2009/10, the Government budgeted about \$277 million³ for a range of civilian and military maritime patrol activities.
- 1.8 New Zealand is a small country with few aircraft and ships available for maritime patrols. We have a large area of ocean to patrol, and maritime patrols have to meet the diverse needs of many government agencies. It is essential that patrol aircraft and ships are used as effectively as possible. We consider that the importance and range of New Zealand's maritime interests and the associated costs make it worthwhile to provide assurance that maritime patrols are co-ordinated and carried out effectively.

How we carried out the audit

- 1.9 Maritime patrolling is a whole-of-government activity that involves a co-ordinating unit, the providers of patrol aircraft and ships, and government agencies that use maritime patrols. Our audit focused on the co-ordinating unit, the National Maritime Co-ordination Centre (the NMCC). However, because the NMCC is a whole-of-government arrangement, our audit included the providers of aircraft and ships and the users of maritime patrols.
- 1.10 The main provider of the aircraft and ships used in patrols is the New Zealand Defence Force (NZDF).⁴
- 1.11 The NMCC's services are available to any government agency. A core group of six agencies make the most use of maritime patrols. In this report, we refer to this group of six as the "core agencies". The core agencies are:
- the New Zealand Customs Service;
 - the Ministry of Fisheries;
 - the Department of Conservation;
 - the Ministry of Foreign Affairs and Trade;
 - the New Zealand Police; and
 - Maritime New Zealand.
- 1.12 Appendix 1 sets out more information about the core agencies.
- 1.13 When we refer to NZDF, the core agencies, and the other government organisations with an interest in maritime patrols, such as the Department of the Prime Minister and Cabinet (the DPMC), we use the term "other interested organisations". This term does not refer to the NMCC.

³ This figure is a combined total of the two main output classes associated with maritime patrols. These output classes are for aerial patrol ("maritime patrol forces") and surface patrol ("naval patrol forces"). The figure includes New Zealand Defence Force costs for training and military readiness activities. These activities are necessary for NZDF to maintain levels of capability expected by the Government.

⁴ Other providers are the New Zealand Customs Service, the New Zealand Police, and the Department of Conservation. See Figure 1 for more information.

- 1.14 Part 2 provides more information about the NMCC and the other interested organisations.
- 1.15 Our audit examined the NMCC's governance and communication arrangements, patrol planning, and how the effectiveness of patrols is assessed. We expected:
- governance arrangements, communication, and working relationships that supported the effective co-ordination of maritime patrols and information gathering;
 - planning systems for maritime patrols that were effective, providing for timely and relevant contributions from government agencies and the providers of patrol aircraft and ships;
 - systems for monitoring and evaluating the effectiveness of maritime patrols; and
 - information that was reviewed to ensure that maritime patrols were effective in supporting New Zealand's maritime interests.
- 1.16 We based our audit expectations on guidance in the following audit reports and good practice guides:
- State Services Commission (2008), *Factors for Successful Coordination – A Framework to Help State Agencies Coordinate Effectively*;
 - Australian National Audit Office (2008), *Illegal, unreported and unregulated fishing in the Southern Ocean: Australian Customs Service*; and
 - Office of the Auditor-General (2008), *The Auditor-General's observations on the quality of performance reporting*.
- 1.17 We examined relevant documentation of the NMCC and other interested organisations. We also interviewed staff from:
- the NMCC;
 - the New Zealand Customs Service;
 - NZDF;
 - the Ministry of Fisheries;
 - the Ministry of Foreign Affairs and Trade;
 - the Department of Conservation;
 - the New Zealand Police;
 - the DPMC; and
 - Maritime New Zealand.

What we did not audit

- 1.18 We did not examine how the core agencies assessed their individual maritime risks or whether the aircraft and ships used for patrols were the most appropriate for patrolling needs. We excluded the appropriateness of patrol aircraft and ships because several other organisations have already reviewed this area. We did not include maritime patrols conducted for military purposes.

Part 2

Organisational roles and resources

2.1 In this Part, we provide background information on the roles of the NMCC and the other interested organisations. We also discuss projects for improving patrol capability. We focus on:

- the role of the NMCC;
- the NMCC's current governance arrangements; and
- the providers of patrol aircraft and ships.

The role of the National Maritime Co-ordination Centre

2.2 According to a governance framework document⁵ produced in 2006 (the *Governance Framework*), the NMCC's main purposes are to:

- *support the effective and efficient use of New Zealand's maritime patrol and surveillance assets for civilian purposes;*
- *contribute to maritime domain awareness in relation to the risks in the maritime environment that could impact on the sovereignty, security, safety, economy, environment or foreign policy interests of New Zealand; and*
- *support and facilitate the effective use and accessibility of maritime information from multiple sources (both open and classified) that supports the core business of government agencies.*

2.3 The NMCC's functions are to:

- *co-ordinate the provision of a maritime picture to participating agencies;*
- *co-ordinate tasking of available maritime patrol assets, using a transparent process for the planning and prioritisation of asset tasking; and*
- *identify policy gaps and related issues with respect to effective maritime patrol.*⁶

2.4 The NMCC exists to support the effective use of aircraft and ships for the purposes of carrying out civilian maritime patrols. It co-ordinates access to aircraft and ships for a variety of government agencies. It is responsible for prioritising the use of those aircraft and ships from a national perspective. In doing this, the NMCC works with NZDF and mostly with the core agencies, whose roles are described in Figure 1.

2.5 As well as matching patrol requests with available aircraft and ships, the NMCC has an important role in supplying government agencies with information on the maritime domain.

⁵ National Maritime Co-ordination Centre (2006), *National Maritime Co-ordination Centre Governance Framework*, Wellington, page 10.

⁶ National Maritime Co-ordination Centre (2006), *National Maritime Co-ordination Centre Governance Framework*, Wellington, page 10.

Figure 1
Roles of the National Maritime Co-ordination Centre, the New Zealand Defence Force, and the core agencies

	Roles
National Maritime Co-ordination Centre	Co-ordinates civilian maritime patrols. Collates and provides information on the maritime domain.
New Zealand Defence Force*	Provides patrol ships and aircraft. Decides how patrol time (aerial patrol hours or sea days) is allocated for civilian maritime patrols. Contributes to regional and global security using maritime patrols.
New Zealand Customs Service	Uses maritime patrols to detect and gather information on customs infringements and risks, and to provide deterrence. Provides information on maritime patrol needs. Can provide vessels for maritime patrols, largely for coastal purposes (inshore/harbours). Host agency for the National Maritime Co-ordination Centre.
Ministry of Fisheries	Uses maritime patrols to gather information on fishing activities. Provides information on maritime patrol needs.
Department of Conservation	Uses maritime patrols to re-supply its bases on remote islands, for enforcement activity in marine reserves, and for conservation programmes covering sea birds and marine mammal species. Provides information on maritime patrol needs. Can provide vessels for maritime patrols, largely for coastal purposes (inshore/harbours).
Ministry of Foreign Affairs and Trade	Uses maritime patrols to fulfil regional obligations for Pacific region patrols and patrols in the Southern Ocean for foreign policy and resource protection interests. Provides information on maritime patrol needs.
New Zealand Police	Uses maritime patrols to support search and rescue operations, and for occasional police operations. Provides information on maritime patrol needs. Can provide vessels for maritime patrols, mostly for coastal purposes (inshore/harbours).
Maritime New Zealand	Uses maritime patrols in fulfilling responsibilities for marine environmental protection, maritime safety, maritime security, and search and rescue. Provides information on maritime patrol needs.

* Royal New Zealand Air Force and Royal New Zealand Navy.

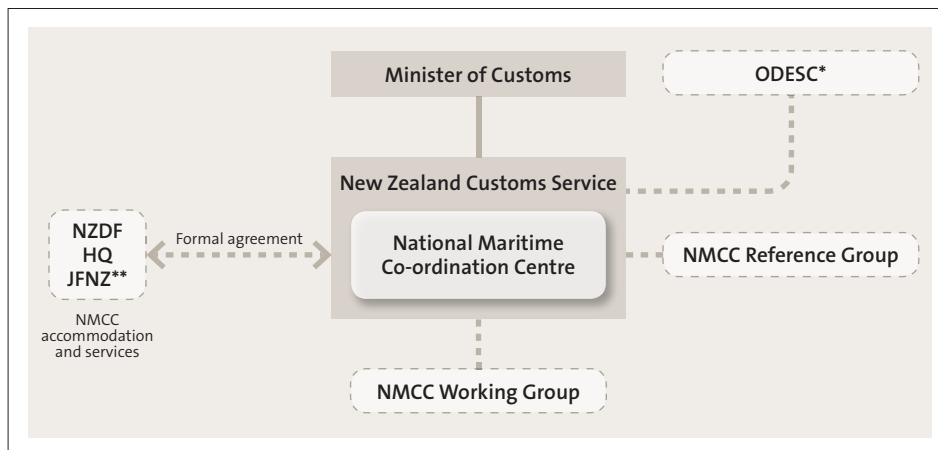
- 2.6 The NMCC does not decide on risks or patrol needs for government agencies. It does not own any ships or aircraft, or any information that is collected during maritime patrols.
- 2.7 The NMCC has a small staff, comprising:
- a manager;
 - an operations manager;
 - two operations officers; and
 - an executive assistant.
- 2.8 The New Zealand Customs Service, the Ministry of Fisheries, and NZDF have liaison officers that form an important contact point between these agencies and the NMCC.

Current governance arrangements

- 2.9 The NMCC's current operating model was approved by Cabinet in December 2006. The NMCC is an operationally independent unit hosted by the New Zealand Customs Service and located at NZDF Headquarters Joint Forces New Zealand in Upper Hutt. Appendix 2 describes how the NMCC was established and its earlier governance arrangements.
- 2.10 For the NMCC, "operationally independent" refers to the way in which it carries out its functions of co-ordinating patrols, gathering and providing information about the maritime domain, and identifying policy gaps and issues. It must carry out these functions from a whole-of-government perspective and in the interests of civilian government agencies. The chief executive of the NMCC's host agency – the New Zealand Customs Service – is formally accountable for the NMCC's outcomes and performance.⁷
- 2.11 Figure 2 outlines the accountability relationships for the NMCC. Solid lines denote the formal accountability relationship. Dotted lines denote groups that have an interest in the NMCC. These relationships are explained in paragraphs 2.12-2.15.

⁷ National Maritime Co-ordination Centre (2006), *National Maritime Co-ordination Centre Governance Framework*, Wellington.

Figure 2
The National Maritime Co-ordination Centre's accountability relationships



Adapted from the NMCC's *Governance Framework*.

* Officials Committee for Domestic and External Security Co-ordination.

** Headquarters Joint Forces New Zealand.

- 2.12 As the host agency, the New Zealand Customs Service is responsible for the NMCC's performance and how it carries out its functions. The NMCC is funded through Vote Customs and the host agency role involves making business cases for increased funding to operate the NMCC. The host agency does this on behalf of government agencies.
- 2.13 The National Maritime Co-ordination Centre Working Group (the NMCC Working Group) contributes to the NMCC's work, and acts as a forum for discussing issues affecting the NMCC's governance and operations. It is designed to provide a multi-agency resource for producing standards and addressing issues that affect day-to-day operations. (For example, the NMCC Working Group was involved in producing a new patrol planning system). In practice, the NMCC Working Group is a useful "check and balance" on the NMCC's work and it contributes a whole-of-government perspective. The NMCC's manager chairs the NMCC Working Group and members include staff from the core agencies. Staff from other interested organisations, such as the DPMC, can also be members. The NMCC Working Group meets on an "as needed" basis.
- 2.14 The National Maritime Co-ordination Centre Reference Group (NMCC Reference Group) provides a forum for discussing strategic issues and trends relevant to the NMCC. The NMCC Reference Group is chaired by the Comptroller of Customs (as the chief executive of the host agency). Other members include chief executives of the core agencies and of the DPMC, as well as the Chief of Defence Force. The group meets annually and allows the New Zealand Customs Service, as the host agency, to consult at a senior level with other interested organisations.

- 2.15 The Officials Committee for Domestic and External Security Co-ordination (ODESC) has policy oversight for security matters, including maritime security, and therefore has an interest in the NMCC. ODESC is a committee of government officials that provides strategic policy advice to the Prime Minister.

Providers of maritime patrol aircraft and ships

- 2.16 NZDF is the main provider of the aircraft and ships used in patrols because its aircraft and ships can operate in the difficult weather conditions and long distances that are a feature of our maritime domain. NZDF decides how much patrol time is allocated for civilian purposes.
- 2.17 There has been significant investment in improving NZDF's patrol capability. Figure 3 describes the background to projects aimed at improving patrol capability.

Figure 3

Background to projects for improving maritime patrol capability

Maritime Patrol Review conclusions on patrol capability

The 2001 Maritime Patrol Review considered New Zealand's civilian and military requirements for patrolling its oceans. The review concluded that:

- aerial patrol in support of customs and fisheries work was patchy, poorly co-ordinated, and not occurring frequently enough to contribute to effective surveillance or deterrence; and
- for sea patrol, there was very little routine surveillance carried out around New Zealand and that the Royal New Zealand Navy did not have ships appropriate for this task.

To address this situation, the review report made several recommendations about maritime patrol capability. These included that the capacity of surface maritime patrol be developed and the capacity of long-range air maritime patrol be maintained. This led to projects for upgrading existing resources, and acquiring new NZDF resources to improve patrol capability.

Acquiring ships and upgrading aircraft

In April 2001, Cabinet agreed that a study be completed to identify the optimum mix of ships for the surface fleet, taking into consideration civilian requirements for coastal and mid-range offshore patrol capabilities. The Maritime Forces Review was carried out in January 2002. Subsequently, Project Protector was initiated to acquire seven ships, consisting of a multi-role ship, two offshore patrol ships, and four inshore patrol ships.

Cabinet also agreed that the long-range air patrol capability (six P-3K Orion aircraft) was to be retained and upgraded to meet civilian requirements, to provide a contingent military capability against surface targets, and to contribute to the Government's foreign and security policy objectives in the South Pacific and the Asia-Pacific region.

Delays in project delivery

There were delays in both projects. Initially, the last Protector ship was planned to be accepted by December 2007. This slipped to April 2010 (when the last offshore patrol ship is scheduled for delivery) because of delays in design, construction, and testing of the various ships. The P-3K Orions were scheduled to be upgraded by the end of 2010. There were difficulties with the prototype aircraft and completion is now expected by the second half of 2012.

These projects have affected NZDF's ability to provide suitable aircraft and ships for civilian maritime patrols. Maritime patrol capability has been reduced as aircraft are phased in and out of service for upgrade work, and because of delays in delivery of the Project Protector ships.

Aerial maritime patrol capability

- 2.18 The Government has budgeted to spend about \$168 million⁸ in 2009/10 on aerial maritime patrol forces (for military and civilian patrols of New Zealand's EEZ, the Pacific region, and the Southern Ocean). Activities include:
- maritime surveillance and reconnaissance;
 - EEZ patrols;
 - anti-submarine warfare;
 - anti-surface unit warfare; and
 - search and rescue missions.
- 2.19 The Royal New Zealand Air Force (RNZAF) has a fleet of six P-3K Orion aircraft to provide these patrol services. NZDF allocates about 2500 hours a year for these patrol activities. Of these 2500 hours, 720 hours are planned for supporting government agencies' civilian patrol needs (note: planned flying hours are a guide rather than a target). Of these 720 hours, about 400 hours are made available for patrols in New Zealand's EEZ, and about 320 flying hours are planned to provide civilian maritime patrols in the Pacific region.

Surface maritime patrol capability

- 2.20 The Government has budgeted to spend about \$109 million⁹ on naval patrol forces in 2009/10. This spending covers both military and civilian patrols. More specifically, it provides for offshore and inshore patrol ships able to conduct maritime operations in support of other government organisations and for the security and protection of the EEZ. To meet these needs, between 438 and 518 sea days were planned for the inshore patrol ships and between 93 and 113 sea days for the offshore patrol ships – when these came into service. The offshore patrol ships are expected to conduct sovereignty and resource protection operations in the Southern Ocean, the South Pacific region, and further afield when directed.
- 2.21 Once the inshore patrol and offshore patrol ships are in service and available for operations, NZDF expects each ship to provide around 140 sea days a year (a total of 840 sea days) to cater for civilian patrol requirements, military tasking, and training.

⁸ This figure includes NZDF costs for training and military readiness activities. These activities are necessary for NZDF to maintain levels of capability expected by the Government.

⁹ The figure includes NZDF costs for training and military readiness activities. These activities are necessary for NZDF to maintain levels of capability expected by the Government.

Other maritime patrol capability

- 2.22 The NMCC can assign any government agency's vessels to patrolling tasks if the vessels are available. Usually, however, the vessels are not appropriate for maritime patrols because they cannot operate in difficult weather conditions and over long distances.

Part 3

Working relationships, governance, and sharing information

3.1 In this Part, we discuss:

- how everyone worked together (both operationally and strategically);
- the strategic and operational guidance for the NMCC;
- patrol co-ordination arrangements; and
- sharing information about the maritime domain.

Summary of our findings

3.2 The NMCC's established governance arrangements, communication, and working relationships provided an appropriate framework to support effective maritime patrol co-ordination. Several documents set out the roles and responsibilities of the various organisations involved in maritime patrols and provided guidance on how organisations should work together. The NMCC had several systems that enabled communication and consultation with different groups in its governance structure. The core agencies and NZDF generally understood the governance arrangements, and worked together to find solutions to operational problems. The core agencies and NZDF were positive about the improvements in maritime patrol co-ordination since the NMCC was established.

3.3 Although an appropriate framework was in place, some improvements and more clarity were needed to support more effective co-ordination. Getting everyone working together strategically was difficult because of their differing priorities. This lack of strategic involvement was a potential barrier to further progress and to achieving effective co-ordination.

3.4 There was little strategic and operational guidance in place to support and guide the NMCC in its patrol co-ordination activities and to underpin its governance arrangements. The NMCC was working to put this guidance in place. We consider this guidance critical for supporting the NMCC and its patrol co-ordination activities, for ensuring that these activities are targeted to best effect, and for supporting cross-agency discussion about the effectiveness of patrols.

3.5 There are some patrol arrangements that are not co-ordinated by the NMCC. These separate co-ordination arrangements do not align well with the whole-of-government approach the NMCC was set up to achieve. There is a risk that these separate co-ordination arrangements could result in less effective patrol co-ordination and use of patrol resources. As NZDF's new and upgraded ships and aircraft increase the maritime patrol capability, it will be important to ensure that these ships and aircraft are used effectively to meet all of the country's maritime patrol interests and that separate patrol co-ordination arrangements do not impede this.

- 3.6 We make four recommendations in this Part about reviewing strategic leadership arrangements, establishing better guidance on an appropriate level of patrolling, clarifying patrol co-ordination arrangements, and monitoring any separate patrol co-ordination arrangements.
- 3.7 Some work was already under way to address matters that we considered important. Because the work was already under way, we have not made specific recommendations but will maintain an interest in the work's progress. The pieces of work included:
- consolidating governance documentation, including the NMCC Working Group's terms of reference;
 - finalising strategic and operational guidance; and
 - establishing information requirements and improving information systems to support more effective information sharing.

How organisations worked together on operational issues

The NMCC, NZDF, and the core agencies worked together to find solutions to operational problems. The organisations generally understood the governance arrangements and their respective roles and responsibilities.

- 3.8 Guidance on governance arrangements, roles, and responsibilities was set out in several documents. This guidance was comprehensive and included advice on where the NMCC, NZDF, government agencies, and other interested organisations could expect to contribute to direction setting, planning, and aircraft or ship allocation. Information sharing and communication protocols were also provided for. The guidance provided an appropriate framework to work within, and it allowed some flexibility to accommodate different organisations' needs.
- 3.9 The core agencies were positive about the improvements that had occurred in maritime patrol co-ordination since the establishment of the NMCC. They told us they were comfortable with their access to NZDF's aircraft or ships within the resources available and how the NMCC prioritised their needs. When conflicting needs arose, the core agencies told us that they were usually able to resolve these themselves. The core agencies considered that they had a good understanding of each others' needs. In our interviews, several people recalled only one situation where the NMCC had to decide which agency should get access to a patrol aircraft or ship. The agencies involved accepted the decision and considered that this showed that systems were working as they were supposed to.
- 3.10 Generally, the NMCC, NZDF, and the core agencies had a clear sense of the NMCC's operational independence, and an understanding of where roles and

responsibilities stopped and started and of procedures to be followed. Where people tried to operate outside established procedures, it was a matter of educating or reminding them of the procedure to be followed. This was done through NMCC Working Group meetings, co-ordination meetings (see paragraph 4.18), and informal discussions and feedback.

- 3.11 When the NMCC's governance arrangements were established, some of the organisations involved or interested in maritime patrols noted a potential risk that the NMCC's operational independence could be compromised by its co-location at NZDF's Headquarters Joint Forces New Zealand, or its hosting arrangement with the New Zealand Customs Service. We did not find any evidence to suggest that these arrangements had affected the NMCC's operational independence.
- 3.12 Staff from the NMCC, NZDF, and the core agencies were positive about the co-location of the NMCC at Headquarters Joint Forces New Zealand. This arrangement provided access to secure information systems and to NZDF's planners and decision-makers. Not only was this access useful when it came to operations, but it was important for building relationships and understanding each others' work.

How organisations worked together on strategic issues

The NMCC found it difficult to get everyone working together strategically because of the differing priorities among the various government agencies, and between the agencies and the NMCC. This lack of strategic involvement was a potential barrier to making further progress and achieving effective co-ordination.

- 3.13 The NMCC's ability to function well as a whole-of-government arrangement relied heavily on relationship management, communication, and the active participation of everyone involved. The NMCC had several systems enabling communication and consultation with different governance groups. The NMCC consulted the NMCC Reference Group, the NMCC Working Group, and also consulted through its occasional reporting to ODESC. The NMCC planned to improve the governance of the NMCC Working Group through terms of reference covering its role, purpose, membership, and frequency of meetings. We consider that terms of reference would be useful guidance.
- 3.14 We saw that the NMCC was actively seeking to engage more widely with everyone involved. The NMCC acknowledged that one of its major challenges was in getting everyone involved to engage at more strategic levels.

- 3.15 The NMCC's governance arrangements allowed for leadership from the host agency and strategic involvement through the NMCC Reference Group. As a service provider, the NMCC needed government agencies to get involved and to specify their needs so that the NMCC could tailor its services to meet those needs. Achieving this, in practice, was difficult because the NMCC must strive for a balance between encouraging agency involvement, reconciling different agencies' interests, maintaining operational independence, and being seen to operate in a transparent way.
- 3.16 Achieving effective co-ordination was challenging because the NMCC had to work with the differing priorities of government agencies. Maritime patrol co-ordination was the bulk of the NMCC's work and it aimed to take a whole-of-government perspective. In contrast, maritime patrols were a smaller activity for the agencies. For the agencies, maritime patrols helped them to achieve some of the many goals and outcomes they were expected to deliver. At times, these differing priorities made it difficult for the NMCC to work with the agencies and get their support for initiatives that had a whole-of-government focus.
- 3.17 The NMCC Reference Group had an important function in the NMCC governance structure because it was supposed to operate as a mechanism for generating strategic involvement in the NMCC. However, during our interviews, people questioned the NMCC Reference Group's effectiveness in getting everyone involved to engage at a strategic level. They considered there was overlap with the NMCC Working Group and questioned whether the NMCC Reference Group was attended by the most appropriate organisational representatives. The NMCC Reference Group met annually and meetings were supposed to be attended by the chief executives of the core agencies, the DPMC, and the Chief of Defence Force. In practice, NMCC Reference Group members often delegated their attendance to less senior staff.
- 3.18 The progress made in establishing the NMCC as a whole-of-government arrangement should not be underestimated. However, the lack of involvement at more strategic levels was a potential barrier to further progress and to achieving effective maritime patrol co-ordination. Research identifies that important dimensions of successful whole-of-government co-ordination are leaders committed to making it work, and buy-in to the co-ordinated approach from all parties.¹⁰
- 3.19 We consider that there would be value in examining whether the NMCC Reference Group, in its current form, is best placed to provide the necessary strategic leadership and to support the effective co-ordination of maritime patrols and use of patrol resources. Defining who should attend meetings and how often the

¹⁰ State Services Commission (2008), *Factors for Successful Coordination – A Framework to Help State Agencies Coordinate Effectively*, Wellington, page 11.

NMCC Reference Group should meet may be useful in improving the structure of the NMCC Reference Group and its effectiveness. Terms of reference, similar to those planned for the NMCC Working Group, could also be useful.

Recommendation 1

We recommend that the National Maritime Co-ordination Centre and all organisations involved or interested in maritime patrols review the governance of the National Maritime Co-ordination Centre's Reference Group to ensure that it is effective in meeting strategic leadership needs and that the benefits from this whole-of-government arrangement are maximised.

Strategic and operational guidance for the National Maritime Co-ordination Centre

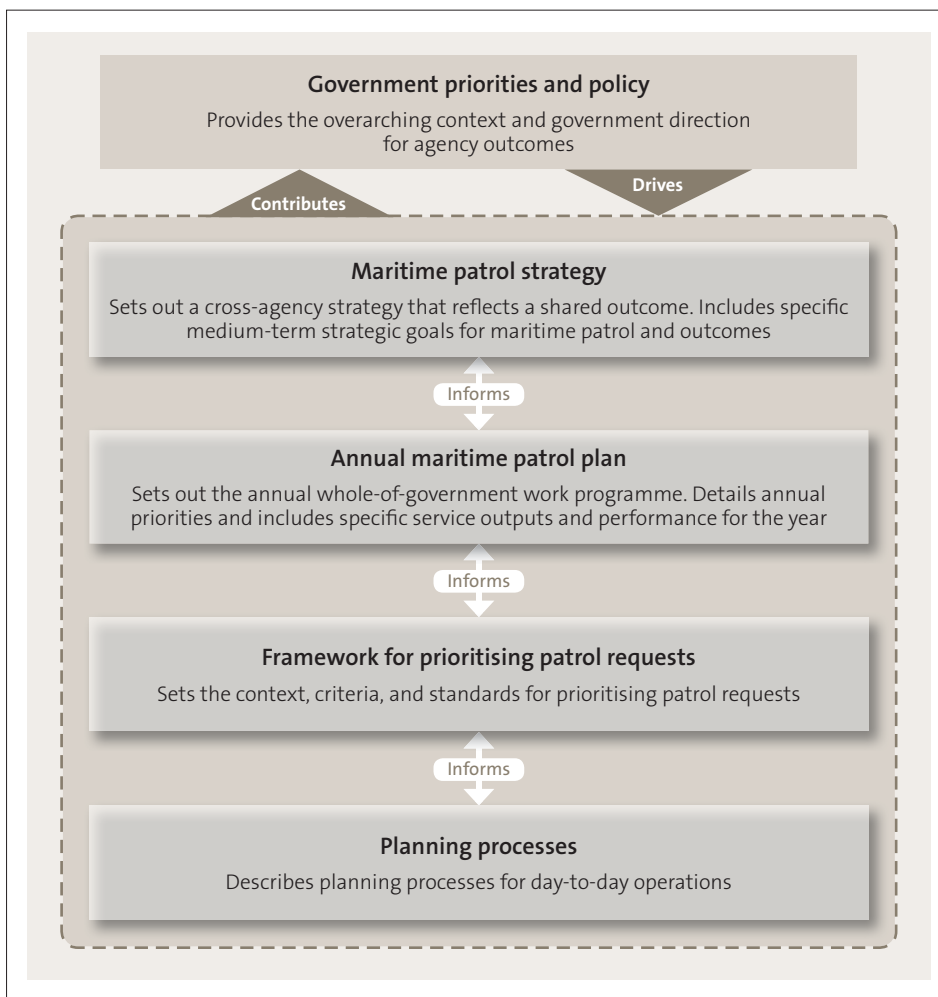
Strategic and operational guidance supporting the NMCC's purpose and functions was minimal. The NMCC was working to put this guidance in place.

- 3.20 Although there was a framework for NMCC governance, there was little strategic and operational guidance underpinning this and supporting the NMCC and its patrol co-ordination activities. This gap existed despite there being clear direction in the NMCC's *Governance Framework* on the form and content that strategic and operational guidance should take. Figure 4 shows the relationship between strategic and operational guidance for maritime patrols.

A maritime patrol strategy

- 3.21 The NMCC's *Governance Framework* identified that a maritime patrol strategy was an important part of the NMCC's governance. The strategy was to support the NMCC in maintaining a whole-of-government perspective for maritime patrols and the maritime domain. It would provide direction to the NMCC and everyone involved by identifying:
- specific government goals and objectives;
 - specific environmental and operational issues affecting high-level maritime patrol interests;
 - major areas of focus;
 - responsibilities for reporting; and
 - how the strategy is reviewed.

Figure 4
Framework for the strategic and operational guidance of maritime patrols



Adapted from the NMCC's *Governance Framework*.

- 3.22 At the time of our audit, the New Zealand Customs Service (in its host agency role), the NMCC, government agencies, and other interested organisations had been working on a maritime patrol strategy for about 18 months. Reconciling the range of views about what the strategy should be, along with the requirement that organisations and Ministers agree on the strategy's content, meant it was not easy to co-ordinate. Consequently, progress with the strategy was slow. Some organisations considered that the strategy was intended to be focused on the NMCC and others thought it should be whole-of-government focused. During our interviews, several people commented that government direction on the strategy would be helpful.

- 3.23 We consider that having a longer-term view of what maritime patrols are trying to achieve, and the risks or barriers to achieving those objectives, is critical. Clear and well-stated strategic objectives provide direction for more current work and ensure that this work is targeted to best effect. There is scope to improve how everyone involved works together. A strategy will support the NMCC's mandate and all organisations will be able to see how current projects relate to the longer-term view and what the NMCC and the Government are trying to achieve.
- 3.24 We were concerned by how long it has taken to write and agree on a strategy. It is an important document for ensuring that maritime patrols are co-ordinated effectively, making the best possible use of the country's limited patrol resources, and fully supporting broader maritime interests. We consider that progressing work on the strategy is a matter of priority.

Subsequent progress on the maritime patrol strategy

- 3.25 After our audit fieldwork, the NMCC submitted a draft strategy to the NMCC Reference Group for its consideration. After final comments were incorporated, the draft strategy was to be resubmitted at a NMCC Reference Group meeting in March 2010.
- 3.26 We note two proposed actions from the draft strategy. These are:
- reviewing current maritime information to identify knowledge gaps and test assumptions; and
 - monitoring existing patrol and surveillance requirements, and identifying requirements for future capability.
- 3.27 In our view, these activities are a critically important part of ensuring the effectiveness of maritime patrols, and we encourage the NMCC and all organisations involved or interested in maritime patrols to ensure that these actions are carried out.

Annual planning and operational guidance

- 3.28 The NMCC's *Governance Framework* identified the preparation of an annual plan as a crucial planning process for supporting the NMCC in maintaining a whole-of-government perspective. The annual plan was to provide an integrated picture of maritime patrol needs and commitments from the NMCC and government agencies. The NMCC's *Governance Framework* specified that the annual plan should include:
- annual objectives and tasks from the maritime patrol strategy;
 - risks that might arise within the planning time frame;

- annual patrol requirements;
- planned NMCC and aircraft/ship provider outputs;
- a schedule of planned meetings; and
- reporting requirements.

- 3.29 Some operational guidance did already exist (for example, the NMCC business plan and the risk-based surveillance plans of the core agencies). However, there was no single document that addressed the requirements set out in the *Governance Framework*.
- 3.30 We consider that there is value in having an overview of the likely annual needs and contributions of the NMCC, the core agencies, and NZDF, possible risks, and the objectives to be achieved. This information can be useful when planning for patrol aircraft and ship use, and can provide direction for patrolling activities (we describe the need for this further in Part 4). The *Governance Framework* noted that this information provided a way to consider service levels and outputs at the end of the planning period, to generate discussion about these results, and to contribute to the next year's patrol planning. We consider that this review and discussion would be useful.
- 3.31 With the introduction of the new planning process (described in Part 2), the NMCC was writing documentation to support its day-to-day activities. We consider that having this documentation in place is important for managing business continuity risks and ensuring that institutional knowledge is retained.

Planning and the frequency of patrols

- 3.32 The Maritime Patrol Review concluded that more frequent patrols were needed to provide effective surveillance and deterrence. Delays in acquiring and upgrading patrol aircraft and ships limited NZDF's ability to increase the frequency of patrolling. However, even with the additional patrol capability that these aircraft and ships are intended to provide, NZDF's planned allocations fall short of estimated civilian patrol requirements. Figure 5 compares the estimated annual civilian patrol requirements with what NZDF has allocated. Paragraphs 3.33-3.35 discuss the information summarised in Figure 5.
- 3.33 In 2001, the Maritime Patrol Review estimated a need for 2000 to 3000 flying hours just for civilian patrol purposes. At the time of our audit, the RNZAF had allocated 2500 flying hours annually to fulfil a range of military and civilian patrol tasks. From this total, 720 flying hours were made available for civilian patrols (400 for patrols in New Zealand's EEZ and 320 hours for patrols of Pacific nations' EEZs).

Figure 5
Estimated annual civilian patrol requirements compared with the New Zealand Defence Force's planned allocations

	Aerial patrol time (hours)	Surface patrol time (sea days)
Estimated civilian patrol requirements	2000-3000*	1371**
Planned NZDF patrol outputs (civilian and military needs, including core training and military combat readiness)	2500 The 2500 hours includes: <ul style="list-style-type: none"> • 400 hours planned for government agencies' civilian patrols; and • 320 hours planned for Pacific patrols. 	To be delivered by four inshore patrol ships: 438-518 To be delivered by two offshore patrol ships: 93-113

* From the 2001 Maritime Patrol Review.

** From the 2002 Maritime Forces Review.

- 3.34 Surface patrol requirements were defined by the 2002 Maritime Forces Review. The Royal New Zealand Navy (the Navy) carried out this work to identify the optimum mix of naval capability. Part of the work involved identifying the number of sea days required to meet the civilian patrol requirements. Consultation with government agencies¹¹ established that about 1371 days were needed to meet their collective patrol requirements in the EEZ.
- 3.35 For 2009/10, NZDF had planned for collective patrols amounting to between 438 and 518 sea days (covering both civilian and military tasks). Between 93 and 113 sea days were planned for the offshore patrol ships (which were still to be delivered). Once the inshore patrol and offshore patrol ships are in service and available for operations, NZDF expects each ship to provide about 140 sea days a year (a total of 840 sea days) to cater for civilian patrol requirements, military patrol requirements, and training.
- 3.36 There is a big gap between the estimated civilian requirements and what NZDF has planned for, even when additional capacity from NZDF's new and upgraded ships and aircraft is taken into account. Because of this large gap, and because the original estimates of civilian requirements were made nearly 10 years ago, there is a clear need to re-assess the civilian patrol requirements. This assessment should draw on government agencies' own assessments of needs, risks, and resources.
- 3.37 We acknowledge that NZDF's commitment to supporting civilian patrols with its ships and aircraft has to be balanced against NZDF's own training and military readiness needs. However, a good understanding of government agencies' civilian

11 The 2002 Maritime Forces Review did not identify which agencies were consulted.

patrol needs would link into wider planning of patrol needs and commitments. Robust information about agencies' patrol needs would be helpful to inform discussions about patrols, especially when decisions are made about the balance of NZDF's civilian and military patrol time, funding, and the need for NZDF to maintain the desired levels of capability.

- 3.38 As a starting point for monitoring and evaluating the use of the new and upgraded patrol ships and aircraft, we would expect the NMCC, NZDF, and the core agencies to establish better guidance on an appropriate level of patrolling. We consider that work in this area is fundamental to supporting a broader evaluation of patrol effectiveness and assessing whether patrol capability is adequately meeting needs.

Recommendation 2

We recommend that the National Maritime Co-ordination Centre, the New Zealand Defence Force, and government agencies using maritime patrols re-assess civilian patrol requirements to establish better guidance on an appropriate level of patrolling. This information is necessary for monitoring and evaluating the use of new and upgraded maritime patrol ships and aircraft. Guidance on an appropriate level of patrolling should be a starting point and should be reconsidered periodically as information on patrol needs and use improves, and as needs change over time.

Patrol co-ordination arrangements

There are some separate arrangements for co-ordinating maritime patrol that do not align well with the whole-of-government approach to patrol co-ordination that the NMCC was set up to achieve.

- 3.39 The Maritime Patrol Review's vision for a maritime co-ordination centre was for a single, independent, national centre that combined information management and operational activities for the civilian security of New Zealand's maritime areas. It would have responsibility for co-ordinating civilian maritime patrols for:
- *fisheries and marine resources management;*
 - *customs, immigration and [detecting or deterring] illegal activities;*
 - *marine safety, and search and rescue;*
 - *services provided to other countries (including those for military or foreign policy reasons); and*
 - *conservation, pollution monitoring and dealing with environmental contingencies.*¹²

¹² Department of the Prime Minister and Cabinet (2001), *Maritime Patrol Review*, Wellington, page 35.

- 3.40 Cabinet directed the establishment of the NMCC with a mandate to manage “tasking” to meet civilian maritime surveillance needs. Governance documentation stated that the NMCC was the “entity from which all civilian-related maritime patrol and surveillance activities are co-ordinated.”¹³
- 3.41 In our view, this was clearly stating that the NMCC should be a centralised co-ordination point for all civilian maritime patrols.
- 3.42 Although most government agencies’ patrol requests were co-ordinated through the NMCC, there were some exceptions. The Ministry of Foreign Affairs and Trade and the New Zealand Police participated in the NMCC but had separate patrol co-ordination arrangements. Figure 6 summarises the various patrol co-ordination arrangements in place at the time of our audit.

Figure 6
Patrol co-ordination arrangements for maritime patrols

Patrol area	Patrol co-ordination arrangement
EEZ patrols	National Maritime Co-ordination Centre co-ordinates patrols for civilian government agencies (excluding New Zealand Police). New Zealand Police liaises directly with the New Zealand Defence Force. National Maritime Co-ordination Centre not involved.
Southern Ocean patrols	Ministry of Foreign Affairs and Trade leads cross-agency patrol co-ordination arrangement. National Maritime Co-ordination Centre involved in patrol co-ordination arrangement.
Pacific region patrols	Cross-agency patrol co-ordination arrangement involving a range of government agencies with maritime patrol interests. National Maritime Co-ordination Centre involved in patrol co-ordination arrangement including chairing of cross-agency group.

- 3.43 Some of the patrol arrangements that were not co-ordinated by the NMCC were informal arrangements that were in place before the NMCC was established. The New Zealand Police had a memorandum of understanding with NZDF that provided for wider access to NZDF’s capability. Under this arrangement, the Police could request NZDF’s aircraft or ships without involving the NMCC. The New Zealand Police’s use of aircraft or ships would be deducted from NZDF’s allocation of civilian maritime patrol hours or sea days.
- 3.44 At the time of our audit, NZDF did not have any surface patrol capability for use in the Southern Ocean. The Ministry of Foreign Affairs and Trade used aircraft to patrol this area. The Ministry’s patrol use was deducted from the 400 flying hours made available for civilian maritime patrols.

¹³ National Maritime Co-ordination Centre (2006), *National Maritime Co-ordination Centre Governance Framework*, Wellington, page 8; and *NMCC Memorandum of Understanding between Reference Group Members*, page 2.

- 3.45 Pacific region patrols had a dedicated allocation of 320 flying hours. NZDF provided these hours under a Chief of Defence Force Directive.¹⁴ There was no dedicated surface patrol resource for Pacific region patrols at the time of our audit.
- 3.46 The Ministry of Foreign Affairs and Trade considered that its patrol planning needs for Southern Ocean patrols and Pacific region patrols differed from those of other government agencies. It believed that:
- it needed a separate patrol planning forum because its sensitive information could not always be able to be discussed openly, and using the NMCC for patrol co-ordination would impede discussion;
 - its patrols were different in that they needed co-ordination with other countries' patrol activities; and
 - foreign policy considerations needed to be incorporated into patrol co-ordination activities.
- 3.47 The Ministry of Foreign Affairs and Trade considered that its separate patrol co-ordination arrangements did not impede effective co-ordination because:
- its membership of the NMCC Working Group enabled the Ministry of Foreign Affairs and Trade to keep the NMCC informed of its patrol needs;
 - the NMCC's participation in separate patrol co-ordination arrangements (see Figure 6) enabled the NMCC to be kept informed of any issues relating to wider maritime patrol co-ordination; and
 - the Ministry of Foreign Affairs and Trade's understanding was that Southern Ocean patrol needs would be prioritised alongside other New Zealand EEZ patrol requirements and, if another agency's need for patrol had a higher priority, then this would take precedence.
- 3.48 In our view, although separate patrol co-ordination arrangements did not align well with the single, centralised, co-ordination model envisaged by the Maritime Patrol Review, the arrangements did not appear to have a significant effect on the NMCC's ability to co-ordinate maritime patrol from a whole-of-government perspective. We also noted that the NMCC was involved in the Ministry of Foreign Affairs and Trade's alternative arrangements, and the Ministry of Foreign Affairs and Trade and the New Zealand Police were, in general, small users of maritime patrols. Between January and December 2008, for example, those two agencies used 3% and 6% respectively of all maritime patrols.
- 3.49 The NMCC could not be sure that these figures accurately reflected these agencies' patrol use, because their patrol requests were not always processed through the NMCC. The New Zealand Police also noted disparities between its own records of patrol use and the NMCC's figures. After our audit, the New

14 Chief of Defence Force Directive 08/2000: NZDF Maritime Surveillance Operations in the South Pacific and Economic Exclusion Zones of Member Nations of the Forum Fisheries Agency.

Zealand Police agreed with NZDF and the NMCC that Police requests for maritime patrol aircraft or ships would be submitted through the NMCC planning process.¹⁵ We consider this helpful in ensuring that accurate information about patrol use is recorded and supporting more effective co-ordination.

- 3.50 We consider that the need to discuss sensitive information does not necessarily require a separate co-ordination arrangement. We understand that all staff of the NMCC, and staff of all the organisations involved or interested in maritime patrols who attend NMCC planning meetings, have appropriate security clearances. We also understand that separate and private discussions can be held if need be. We found it difficult to understand the justification for Pacific patrols receiving a dedicated patrol allocation on the basis that these patrols support foreign policy and security interests. These interests are still New Zealand's interests and, as such, should probably be considered alongside New Zealand's EEZ patrolling needs – as was originally envisaged by the Maritime Patrol Review and Cabinet's directive to establish the NMCC. This joint consideration would enable the NMCC to take account of all government agencies' patrol needs when prioritising patrols. In our view, this was the original intent of establishing the NMCC.
- 3.51 We note that patrol co-ordination will become more complex as NZDF's new and upgraded aircraft and ships expand options for meeting government agencies' maritime patrol needs, and as agencies request more from these patrols. In this environment, the NMCC's role as a single, centralised, co-ordination centre will be crucial to ensuring that aircraft and ships are used effectively to meet all New Zealand's maritime patrol needs.
- 3.52 There is a risk that separate patrol co-ordination arrangements may result in less effective overall patrol co-ordination. The NMCC should monitor separate patrol co-ordination arrangements to ensure that this does not occur.
- 3.53 We understand that the NMCC intends to consolidate its governance documentation. As part of this task, there would be value in reviewing all existing patrol co-ordination arrangements to ensure that the reasons for separate arrangements are sound. Where they are still sound, the rationale and mandate for the separate arrangements should be recorded. It is important that these arrangements are visible to everyone involved, and do not lessen the effectiveness of patrol co-ordination. We consider that ODESC is the most appropriate group within the NMCC's governance structure to ensure this.

¹⁵ In situations where the New Zealand Police needs access to NZDF capability that is not co-ordinated by the NMCC, the New Zealand Police will continue to put these requests to NZDF's Strategic Commitments Branch in keeping with the Police/NZDF memorandum of understanding.

Recommendation 3

We recommend that the National Maritime Co-ordination Centre and government agencies using maritime patrols review whether separate patrol co-ordination arrangements are still needed. Where separate co-ordination arrangements are still needed, the rationale and mandate for these should be recorded.

Recommendation 4

We recommend that the National Maritime Co-ordination Centre monitor any separate patrol co-ordination arrangements and report on their effectiveness to the Officials Committee for Domestic and External Security Co-ordination to help ensure that these arrangements do not lessen the effectiveness of patrol co-ordination.

Sharing information about the maritime domain

The NMCC was establishing what the government agencies' maritime information needs were, to inform improvements to its information-sharing systems.

- 3.54 The NMCC's roles include promoting the sharing of maritime information and contributing to awareness of maritime risks. The NMCC's success in these roles will, in part, depend on government agencies specifying their information needs. Successful information sharing is also limited by:
- a lack of information about the maritime domain;
 - the concern of some agencies that the NMCC was trying to overstep its role;
 - technology and system compatibility issues between organisations; and
 - sensitivities about sharing classified information.
- 3.55 The NMCC had a significant work programme to define whole-of-government information needs about the maritime domain. This would contribute to its information-sharing systems. Ideally, the systems would enable a good understanding of the maritime domain from a whole-of-government point of view. This is about helping government agencies in managing risks, by allowing for early identification and communication of abnormal activities in the maritime domain. It complements rather than replaces the agencies' processes for identifying and acting on abnormal activities.

- 3.56 The NMCC was clear that this work was about tailoring what it produced to support the work of government agencies in managing their own risks. It was not about assuming responsibility for the agencies' risks. The NMCC also noted that any expansion of the NMCC's role would need careful co-ordination with all the organisations involved or interested in maritime patrols.
- 3.57 Distributing information on the maritime domain to all the organisations involved or interested in maritime patrols was an important task for the NMCC in fulfilling its information co-ordination role. The NMCC's ability to produce and distribute information about the maritime domain in a timely way was limited by the compatibility of government agencies' technology. Processes were labour-intensive because information had to be compiled manually. The NMCC was looking to automate these processes. There were also delays in introducing a common network for distributing information.
- 3.58 The security classifications used in collating maritime domain information were a further limitation. These security classifications meant that some collated information could not be shared fully with all organisations involved or interested in maritime patrols.
- 3.59 Having systems that support timely information sharing and risk identification will be increasingly important because more information is likely to be gathered from NZDF's new and upgraded ships and aircraft. We support the NMCC's efforts to establish more effective information sharing. We will maintain an interest in the progress of this work because encouraging the sharing of information about the maritime domain is an important part of the NMCC's role.

Part 4

Patrol planning

- 4.1 In this Part we discuss:
- establishing a new patrol planning system;
 - planning patrols; and
 - factors that limit the effectiveness of patrol planning.

Summary of our findings

- 4.2 At the time of our audit, the NMCC was introducing changes to its patrol planning system. These changes were too recent for us to assess their effectiveness. However, the NMCC intended the changes to make patrol planning more transparent and consistent. The changes were also intended to provide more robust data from which to decide whether patrols were meeting needs. We support the efforts made by the NMCC, NZDF, and the core agencies to improve patrol planning.
- 4.3 The NMCC's patrol planning systems provided for relevant input from NZDF and government agencies. There was some flexibility in the planning system to adapt planned patrols in response to changing needs or priorities. However, uncertainty about the availability of aircraft and ships, and having few options for patrols, limited the effectiveness of patrol planning and patrols. This was beyond the NMCC's control, because NZDF makes the decisions about aircraft or ship deployment.
- 4.4 The NMCC, NZDF, and the core agencies expected options for patrols and the availability of aircraft and ships to improve as NZDF's projects to upgrade and acquire new aircraft and ships were completed. To ensure that the best use was made of these new resources, some matters needed attention. These included ensuring:
- that the core agencies' patrol needs were incorporated into NZDF's scheduling and planning for maritime patrol aircraft and ship use in a timely way; and
 - that improvements in the availability of NZDF's aircraft and ships could be shown, and that gaps or issues were identified and addressed.
- 4.5 We make two recommendations about improving patrol planning.

Establishing a new patrol planning system

Improving the effectiveness of patrol planning was a focus for the NMCC.

- 4.6 The NMCC was introducing a new system for planning and co-ordinating maritime patrols. The system was created in consultation with the core agencies and based on a methodology created by Australia's Border Protection Command. This new system would:
- provide more rigour in planning patrols and measuring their effectiveness;
 - bring about more consistency in risk assessment, and more transparency about assigning patrol requests;
 - take into account risk from a whole-of-government perspective; and
 - provide a consistent method for evaluating individual patrols.
- 4.7 The new system, the "Risk and Effects Based Plan", requires the government agencies making patrol requests to focus on what they are trying to achieve with a patrol as opposed to making a request for a particular patrol aircraft or ship. When making patrol requests, agencies must identify a specific objective for the patrol, assign a risk rating, and specify the "effect" they want from the patrol. An independent risk standard helps agencies in assessing their risks consistently. In specifying the patrol effect, agencies choose from a defined list. Once a patrol is completed, the NMCC records whether the effect was achieved (and if not, why not).
- 4.8 Because individual government agencies are using a consistent system to make patrol requests, risk- and effects-based planning enables the NMCC to:
- compare individual agencies' risks and assess the risks to New Zealand on a common basis;
 - assess and prioritise risks; and
 - assign resources according to these risks.
- 4.9 We were unable to assess the effectiveness of the new patrol planning system because it had not been in use for long and the NMCC did not expect the system to mature for some time. However, staff from NZDF and the core agencies considered it an improvement and a "step in the right direction". The NMCC, the core agencies, and NZDF anticipated that the planning system would continue evolving as they worked with it.
- 4.10 Using systematic data collection will provide meaningful and consistent information about what patrols are achieving. We consider that the new planning system will encourage government agencies to better target their patrol requests, improve their understanding of how well patrols are meeting their

needs, and collect information to contribute to larger-scale evaluations of patrol effectiveness. We consider that this information is crucial for making the most effective use of new patrol resources. We support the efforts made by the NMCC, NZDF, and the core agencies to establish more effective patrol planning.

Planning patrols

Patrol planning systems provided for relevant information from NZDF and government agencies. There was some flexibility in the planning system to adapt plans in response to changing needs or priorities.

- 4.11 One of the NMCC's main purposes is to support effective and efficient use of maritime patrol aircraft and ships. Co-ordinating access to patrol aircraft and ships for government agencies is an important part of the NMCC's role.
- 4.12 Figure 7 shows the process for planning and carrying out patrols and where the NMCC, NZDF, and government agencies can contribute. Paragraphs 4.13-4.18 describe this process in more detail.

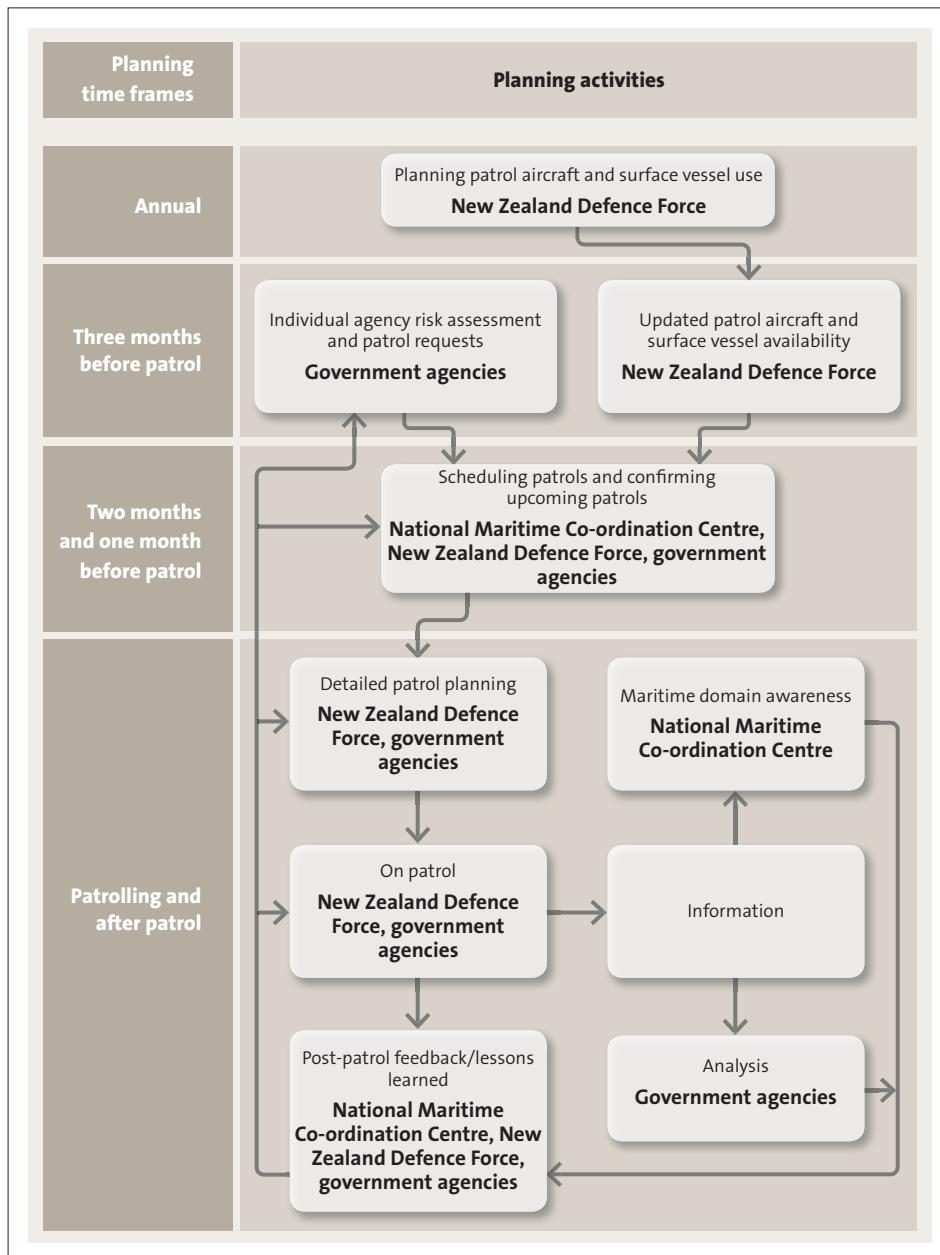
Planning patrol aircraft and ship availability

- 4.13 NZDF is funded to provide aircraft and ships for a range of military and civilian patrol needs. It decides how aircraft and ships are made available for civilian maritime patrols and must prioritise these against military needs. NZDF planned its aircraft and ship use annually, scheduling known exercises, training requirements, maintenance, and government agencies' patrol needs. Some agencies have seasonal patrol requirements, which NZDF can incorporate into its plans. NZDF's annual plans are only a guide to aircraft and ship availability, because NZDF's own requirements of its aircraft and ships can change. For example, an aircraft might be required at short notice for search and rescue duties or for representational duties.

Scheduling patrols and detailed patrol planning

- 4.14 Patrols are scheduled three months in advance at monthly planning meetings attended by planning staff from the NMCC, government agencies, and NZDF. As described in paragraph 4.7, agencies prepare patrol requests and submit these to the NMCC. The requests are matched with available patrol aircraft or ships. Upcoming patrols are discussed at these monthly planning meetings and confirmed, rescheduled, or cancelled as aircraft and ship availability or agency needs change.

Figure 7
How maritime patrols are planned and carried out



Adapted from the National Maritime Co-ordination Centre's documents for patrol planning processes.

- 4.15 Government agencies work directly with NZDF for planning the specific details of a patrol. There are standing patrol orders that provide guidance about roles and responsibilities when on patrol. Individual patrol briefs and orders are produced through operational planning processes. The NMCC does not have much involvement in the detailed operational planning, which is in keeping with its role of co-ordinating access to aircraft and ships.

On patrol, and analysis of information from patrols

- 4.16 Relationships on patrols were largely between the government agencies and NZDF. Analysing and processing patrol information was done by agencies' liaison officers or agency analysts because they are the subject-matter experts. They used information coming from patrols to cross-check and verify information against other intelligence sources, and to inform decisions about whether further action was needed.
- 4.17 The NMCC used information from patrols to build an understanding of what was happening in the maritime domain and to contribute to maritime domain awareness. Patrol information fed into collated maritime domain information that could be distributed to all organisations involved or interested in maritime patrols.

Post-patrol feedback and lessons learned

- 4.18 The NMCC, NZDF, and the core agencies had recently improved their evaluation of post-patrol feedback and lessons learned from the patrols. Alongside the new planning system, the NMCC introduced a separate meeting for sharing feedback and considering lessons learned (which are referred to as "co-ordination" meetings). NZDF had its own existing post-patrol evaluations, which included recording operational details and lessons learned into a database. NZDF was encouraging government agencies to add their own information to this database. The Navy produced an assessment tool to help agencies to define the success of a patrol (see paragraph 5.25).

Responding to changing needs or priorities

- 4.19 Although elements of maritime patrols can be routine and planned, the dynamic nature of patrolling means that it needs to accommodate changing needs or priorities. There is some flexibility to respond to emerging situations, but any response will be limited by the availability of a suitable patrol aircraft or ship.
- 4.20 "Response" patrols are not common but can be carried out when an agency identifies a situation requiring a response outside scheduled patrols. For the financial year 2008/09, four response patrols were recorded (out of the 107 patrols carried out).

- 4.21 The NMCC co-ordinated the requests for response patrols. When a request is made, NZDF's planners work out what is available to respond to the request, and assign an aircraft or ship to the task – if there is a suitable aircraft or ship available. Aircraft or ships on military tasks can be redeployed to meet response requests. For example, an NZDF training flight was diverted to conduct an infringement action on a fishing vessel.
- 4.22 Dealing with these situations comes down to operational priorities. Decisions about deployment or redeployment rest with NZDF. The NMCC's co-location is beneficial in these situations, because there is direct contact between NMCC's staff, NZDF's planning staff, and the commanders with oversight of NZDF's patrol aircraft and ships.

Factors that limit the effectiveness of patrol planning

Effective maritime patrol co-ordination was difficult because of uncertainty about patrol aircraft and ship availability, and limited aircraft and ship options for patrols.

Uncertainty about patrol aircraft and ship availability

- 4.23 Demands on NZDF's aircraft or ships could change at short notice, and the NMCC did not always get timely information about aircraft or ship availability. Decisions about deploying aircraft or ships were NZDF's responsibility and largely beyond the NMCC's control, so although the NMCC could request access to aircraft or ships it not command their use. The NMCC must manage this uncertainty about aircraft or ship availability, knowing that although it can schedule patrols it does so knowing that these planned patrols could change.
- 4.24 We examined patrol data to see whether there were any trends in changes to planned patrols.
- 4.25 In 2008/09, 23 patrols were recorded as cancelled. The most common reasons for cancelled patrols were:
- other "tasking", such as search and rescue (six cancellations);
 - agency requests (five cancellations); and
 - weather conditions (five cancellations).
- 4.26 Other patrols were cancelled because of, for example, unavailable NZDF crews and unplanned maintenance.
- 4.27 The data showed a fairly even balance between NZDF cancelling patrols and the government agencies cancelling patrols. Also, patrols were often cancelled for reasons beyond the control of NZDF, the agencies, and the NMCC. The agencies accept that search and rescue situations take priority over planned patrols.

- 4.28 The planning cycles of the core agencies and NZDF were not well aligned, and this contributed to the uncertainty about the availability of aircraft or ships.
- 4.29 NZDF planned its aircraft and ship use annually. The core agencies planned their patrols three months in advance. This did not support effective patrol co-ordination, because NZDF's annual planning could schedule other tasks during times when agencies had a high need for patrols.
- 4.30 NZDF staff told us that three months is a short time frame for military planning. NZDF considered that earlier notification of government agencies' patrol needs would allow it to incorporate these needs into its planning, and make it easier for NZDF to meet patrol requests. The NMCC was working towards better alignment of the planning cycles. Through the new planning process, the agencies were required to produce an annual risk-based surveillance plan.
- 4.31 For patrols to be effective, it is important that government agencies can access patrol aircraft and ships in a timely way. We consider that better information on agencies' annual patrol needs can help NZDF staff to better plan how aircraft and ships are used for military and civilian tasks. Understanding the anticipated agency need for patrol capability at different times in the year could improve NZDF's scheduling and planning, ensuring that patrol aircraft and ships are available for government agencies at times of high demand.

Recommendation 5

We recommend that the National Maritime Co-ordination Centre, the New Zealand Defence Force, and government agencies work together to better understand the timing of the agencies' patrol needs. This information can then be used in more effectively scheduling and planning civilian and military use of maritime patrol aircraft and ships.

Limited options for meeting patrol needs

- 4.32 Limited options for meeting patrol requests constrained the effectiveness of patrol planning and patrols. The 2001 Maritime Patrol Review identified a need for improved patrol capability, which led to projects for acquiring and upgrading NZDF's patrol capability – Project Protector to acquire seven ships, and a project to upgrade the six P-3K Orion aircraft (see Figure 3 for more information.)
- 4.33 Delays in these projects, coupled with phasing aircraft in and out of service, affected NZDF's ability to provide aircraft and ships. In particular, delays in the delivery of Project Protector ships meant there were few options for surface patrols.

- 4.34 In 2008/09, for example, 39 of 45 unmet requests were the result of unavailable or unsuitable aircraft and ships. Almost all (91%) of these unmet requests were for ships. If no suitable patrol ship was available, an aircraft was often the only patrol option, irrespective of whether an aerial patrol was the best way of achieving the patrol's objective.
- 4.35 The lack of available patrol aircraft and ships, and the limited options for carrying out patrols, meant it was sometimes not easy for the NMCC to meet government agencies' patrol requests. However, the agencies told us that they were comfortable with their access to NZDF's patrol aircraft and ships within the resources available, and accepted that NZDF's ability to respond to their patrol needs was limited. They commented that the limited patrol resources made them carefully prioritise their needs.
- 4.36 The core agencies told us (and patrol data showed) that, when requests could not be met, alternatives were sought. Some requests were able to be met by rescheduling the request to other weeks or months. This flexible response was made much easier because of the generally positive relationships between the NMCC, NZDF, and the agencies. However, rescheduling patrols is not ideal if patrols are to be targeted in the most timely and effective way.

Improving patrol capability

- 4.37 The NMCC, NZDF, and the core agencies anticipated that NZDF's new and upgraded patrol ships and aircraft would provide broader options for patrols and improve access to aircraft and ships. It would enable complementary surface and aerial patrols to be used. Ship availability would increase and ships would be able to patrol farther and longer.
- 4.38 Some of NZDF's new patrol ships were coming into service at the time of our audit. Initial indications were that ship availability continued to be a challenge for patrol planning. Crew availability was part of this. Delays in delivering the patrol ships led to some loss of crew skills and people needed to be retrained. Having NZDF staff available to operate patrol ships and agency staff able to go on patrols is important when it comes to making the most of improved patrol capability.
- 4.39 NZDF expected improvements in the availability of its aircraft and ships once the Project Protector ships were in service and the P-3K upgrades were complete (this was likely to happen during 2012/2013). However, there will continue to be some uncertainty in the short to medium term because NZDF needs to carry out operational testing and evaluation, adapt tactics, and train crews. Consequently, it is likely that some unexpected or short notice cancellations of civilian patrols will occur.

Demonstrating improvements in patrol capability

- 4.40 It was difficult to robustly assess the extent to which the unavailability of patrol aircraft and ships limited the effectiveness of patrol co-ordination. Some limitations in patrol data made it difficult to form an accurate picture of patrol needs and use. We discuss this further in Part 5.
- 4.41 It is important that the potential of increased patrol capability is realised for government agencies and that improvements in the availability of, and access to, NZDF's aircraft and ships can be demonstrated. To do this, there needs to be better information about agencies' patrol needs and how the aircraft and ships are used.
- 4.42 As we note in paragraph 4.10, the new patrol planning system will provide some of this information. We consider that the NMCC should ensure that the information it collects enables a thorough assessment of patrol aircraft and ship use. Such information would provide robust evidence for identifying gaps or issues and the need to act on these. This information could include:
- how requests for response patrols were met, whether an aircraft or ship was available, or if redeployment was needed; and
 - the proportion of civilian relative to military patrol tasks.

Recommendation 6

We recommend that the National Maritime Co-ordination Centre ensure that the information it collects on patrols enables it to robustly assess how effectively patrol aircraft and ships are used, so that any identified gaps or issues can be raised through the appropriate governance mechanism for consideration and action.

Part 5

Monitoring and evaluating the effectiveness of civilian maritime patrols

- 5.1 In this Part, we describe:
- the NMCC's systems for monitoring and evaluating the effectiveness of maritime patrols;
 - limitations in the NMCC's systems for monitoring and evaluating the effectiveness of maritime patrols;
 - improvements made by the NMCC and NZDF to systems for monitoring and evaluating the effectiveness of maritime patrols; and
 - our views on the monitoring and evaluating activities.

Summary of our findings

- 5.2 The NMCC had a mix of formal and informal systems for monitoring and evaluating the effectiveness of patrol co-ordination and maritime patrols. These systems had some limitations that made robust evaluation difficult. Evaluation activities tended to have an operational focus and did not provide a broader strategic perspective on how well maritime patrols were meeting New Zealand's needs. The NMCC's information for evaluating the overall effectiveness of maritime patrols was minimal and more systematic data collection and analysis was needed.
- 5.3 Improvements were already under way. The NMCC and NZDF were introducing systems to provide better information for evaluating patrols' effectiveness, and to support more robust evaluations of how well patrols were meeting needs.
- 5.4 A more comprehensive performance framework (including strategic and annual planning) and using a range of information for evaluating patrol needs and use would support a better understanding of patrols' effectiveness. The NMCC was working to establish this framework.
- 5.5 Because a range of work was under way to improve how the performance of patrols was measured and evaluated, we have not made any recommendations for improvements. However, we note that having information on patrols' effectiveness is critically important for demonstrating that patrols are adequately meeting New Zealand's needs in the maritime domain. We will maintain an interest in progress with work intended to support better monitoring and evaluation of maritime patrols.

Systems for monitoring and evaluating the effectiveness of maritime patrols

The NMCC's evaluation activities tended to have an operational focus and did not provide a broader strategic perspective on how well maritime patrols were meeting New Zealand's needs.

- 5.6 The NMCC had a mix of formal and informal systems for monitoring and evaluating the effectiveness of patrol co-ordination and maritime patrols. Systems included:
- monitoring performance against the NMCC's output measures;
 - seeking comments from other interested organisations;
 - reporting to other interested organisations;
 - collecting and analysing patrol data; and
 - discussing patrols at planning and co-ordination meetings, and recording the lessons learned.
- 5.7 Most evaluation activities had an operational focus. The NMCC and NZDF were introducing improvements to provide more regular evaluations of patrols and better information for analysing how well patrols were meeting needs. These improvements are described in paragraphs 5.21-5.29. Before these improvements were introduced, the effectiveness of individual patrols was not regularly evaluated in a meaningful way in cross-agency discussions.
- 5.8 The 2001 Maritime Patrol Review identified that there was little understanding of the strategic effectiveness of maritime patrols. We found little progress in this area. However, the NMCC, NZDF, and government agencies were establishing systems to better evaluate patrols' effectiveness; over time, these systems would improve the wider understanding of patrols' strategic effectiveness.

Limitations in systems for monitoring and evaluating the effectiveness of patrols

Existing measures and outcomes and patrol information did not always provide meaningful information with which to evaluate effectiveness.

Limitations in measures and outcomes

- 5.9 The NMCC's output measures provided only limited information about the NMCC's performance. They did not provide robust information about how well maritime patrols were meeting the needs of government agencies.

- 5.10 The NMCC had two output measures. One measure counted the allocations of available patrol aircraft and ships; the other measured other organisations' satisfaction with the NMCC's co-ordination.
- 5.11 The NMCC's ability to allocate an aircraft or ship depended on the aircraft or ship's availability, the government agencies having a patrolling task to do, and the suitability of the available aircraft or ship to fulfil that task. Therefore, counting allocations was not a good measure of the NMCC's performance.
- 5.12 The NMCC measured the satisfaction of other interested organisations through an externally co-ordinated annual survey. The survey response rate was poor (a 47% response rate in 2008, 69% in 2009) and the number of organisations surveyed was small. This made the survey data unreliable for making useful inferences about the NMCC's co-ordination performance. The NMCC told us it was considering how to better measure the organisations' satisfaction with the NMCC's performance.
- 5.13 Having commonly agreed outcomes and a way of measuring progress against those outcomes is considered a success factor for co-ordination arrangements.¹⁶ There were broad outcomes identified in the *Governance Framework* that had been agreed to by everyone involved, but there was little detail for evaluating performance or progress against those outcomes. There were no measures that provided information on how well maritime patrols were supporting New Zealand's strategic maritime interests.
- 5.14 The *Governance Framework* outcomes made it clear that the NMCC contributed to the work of government agencies using maritime patrols for the aspects of their work that occur in the maritime domain. Because the NMCC is a unit supporting the delivery of other agencies' goals, it seems appropriate that the NMCC has some understanding of what those agencies are trying to achieve with patrols as a way of focusing effort and informing assessments of patrols' effectiveness. It was difficult for the NMCC to gain this understanding because some of the agencies considered it outside the NMCC's mandate.
- 5.15 The lack of strategic guidance also made it difficult to evaluate progress and effectiveness. Because the maritime patrol strategy was still to be finalised, there were no specific goals or objectives to link performance to.

16 State Services Commission (2008), *Factors for Successful Coordination – A Framework to Help State Agencies Coordinate Effectively*, Wellington, page 13.

Limitations in patrol information

- 5.16 The NMCC had a basic system for recording some information on patterns of patrol use by agency and by aircraft or ship. The information that was recorded included:
- programmed, completed, and cancelled patrols;
 - the aircraft or ship used for the patrol;
 - the agency requesting the patrol;
 - the area covered by the patrol and the number of vessels seen;
 - sea days and aircraft hours;
 - general comments about the patrol, such as reasons why patrols were cancelled; and
 - available and unallocated aircraft or ships.
- 5.17 In 2008/09, the NMCC started recording information on agency patrol requests that could not be met and the reasons why these requests could not be met. We consider this useful information for forming a more comprehensive view of government agencies' patrol needs and use.
- 5.18 There were limitations in patrol information, which made it difficult to form an accurate picture of patrol needs and use. These limitations included:
- data was recorded inconsistently, or how the data was recorded changed over time;
 - concerns that the government agencies might not be making requests for patrols because they knew aircraft or ships were not available or because they wanted to preserve patrol days/hours for future tasks, potentially hiding unmet need; and
 - a lack of measures or baselines to show what might be an appropriate level of patrolling.
- 5.19 We looked at the NMCC's patrol data for three financial years (2006/07, 2007/08, and 2008/09). We were able to examine general patrol trends, such as which government agencies were using patrols and which aircraft or ships were used for patrols. However, the data did not provide a full picture of patrol use, because not all patrol requests were processed through the NMCC.
- 5.20 It was more difficult to use recorded information to see how response patrols were used, reasons why patrol aircraft or ships were not available, and whether there was any unmet need. It was not always easy to track with certainty what happened when planned patrols were cancelled or rescheduled. Information on results from patrols was recorded only occasionally.

Improving systems for monitoring and evaluating the effectiveness of patrols

The NMCC and NZDF were improving systems to provide better information for evaluating patrols' effectiveness, and to support more strategic evaluation of how well patrols were meeting needs.

Incorporating evaluation through the new planning process

- 5.21 The new planning process incorporated evaluation in two ways:
- It enabled the purpose of patrols and what the patrol achieved to be measured more precisely.
 - The new co-ordination meetings were a forum for government agencies to share lessons learned (the NMCC encouraged regular reporting on patrol activities in this forum).
- 5.22 As we discussed in paragraphs 4.6-4.10, systematic data collection was built into the new planning process to provide meaningful and consistent information about what patrols were achieving. The new planning system would provide information on:
- risk in relation to EEZ coverage;
 - whether patrol objectives were met;
 - whether a patrol request could not be met because of unavailable aircraft or ships;
 - whether aircraft and ships were available but were not used because they did not fit with the needs for the patrol;
 - whether aircraft or ships used on patrol were the best fit to achieve the patrol objective; and
 - whether a patrol did not occur because of unavailable crew or agency staff.
- 5.23 The NMCC's new system was yet to mature, but over time this information could be analysed to identify trends, gaps, and issues. Having robust data available to support the need for changes, such as more resourcing (staffing, technology, and patrol aircraft or ships) or a different mix of these resources, is important. Based on this information, the NMCC should be in a good position to:
- show what was working well;
 - identify where there were gaps or capability shortfalls;
 - show where refinements or changes were needed; and
 - share any identified issues with all organisations involved or interested in maritime patrols for their consideration or action.

Working with government agencies to improve patrol performance information

- 5.24 NZDF had existing systems for its own post-patrol evaluations. Operational details and lessons learned were recorded in a database. NZDF was encouraging government agencies to add their own information to this database.
- 5.25 At the time of our audit, the Navy was aiming to get better information about the performance of patrols. It produced an assessment tool to help government agencies in defining the success of a patrol. This tool was a scoring template including a series of questions that covered planning and carrying out a patrol. Answers to these questions were combined to produce a measurement score. The Navy anticipated that, over time, it would have better information about what was working and why. This would result, in turn, in more effective decisions about how ships were used to support maritime patrol activities. Agencies were providing comments on the scoring template at the time of our audit.
- 5.26 These systems help in evaluating operational activities and allow for improvements in planning and carrying out patrols. Collecting data over time also allows for analysis that can provide a more strategic view of what is or is not working, so changes can be made to provide more effective patrol planning and more effective patrols.

Changing the focus from measurement to effectiveness

- 5.27 The NMCC, NZDF, and the core agencies were moving their focus from simple output measures (for example, the number of hours or sea days), to a focus on effectiveness (that is, getting the best effect from the patrol hours and days available).
- 5.28 NZDF anticipated that introducing new ships and upgraded aircraft would provide more capacity to meet maritime patrol needs and enable them to get more from the patrols that were carried out. Aircraft upgrades would improve technological surveillance capabilities and make it likely that more could be achieved within the flying hours available. Ship availability would increase and ships would be able to patrol farther and longer, maintaining a presence (which is an important deterrent). Surface and aerial patrols could also be used in a complementary way to get better results from patrol activity.
- 5.29 The NMCC was encouraging government agencies (through its processes and informal discussions) to consider what they were trying to achieve from patrols. The new planning process introduced more meaningful measures of what patrols achieved, rather than just measuring the hours or sea days used for patrols.

Our views on monitoring and evaluating the effectiveness of patrols

- 5.30 We were pleased that the NMCC, NZDF, and the core agencies were putting systems in place to improve how they monitor and evaluate patrols. In our view, having information on the effectiveness of patrols is critically important to show that patrols are adequately meeting New Zealand's needs in the maritime domain, and to identify any issues or gaps that may be limiting the effectiveness of patrols.
- 5.31 We acknowledge that measuring the effectiveness of maritime patrol is not a simple exercise. For example, it is hard to measure the deterrent effect of patrols. If a patrol does not find something, is the deterrent effect working or was the patrol looking in the wrong place? If illegal activities are found, is this evidence of effectiveness or ineffectiveness? Also, it is difficult for government agencies to know whether activities (including illegal activities) are occurring but not being found.
- 5.32 Because of the difficulties associated with evaluating the effectiveness of patrols, we consider that there is value in using a range of information to form a view about the performance of maritime patrols and their broader effectiveness. As well as data on patrol coverage of the EEZ, use, capability, and staffing, information contributing to a broader assessment could include:
- patrol requests compared with patrols completed;
 - reasons for cancelled patrols and whether an alternative was found;
 - numbers of ships sighted, boarded, and apprehended;
 - actions resulting from patrols, such as prosecutions;
 - costs of patrols; and
 - assessments by government agencies about how well patrols are meeting their needs.
- 5.33 The NMCC had a role in identifying gaps and issues for maritime patrols and was establishing systems that would help in doing this. As a unit supporting the delivery of the goals of other government agencies, the NMCC needed participation from those agencies to maximise the effective use of patrol aircraft or ships and to feed into broader NMCC evaluations of its effectiveness.
- 5.34 Overall, we consider that the evaluation of effectiveness should be more comprehensive. More comprehensive evaluation will be supported by the NMCC

completing work already under way and by addressing our recommendations. The specific actions that we consider will support more comprehensive evaluation are:

- completing the strategic and annual planning content specified in the NMCC's *Governance Framework* (work in this area was under way);
- establishing better guidance on what an appropriate level of patrolling might be as a starting point for monitoring and evaluating the use of new and upgraded aircraft and ships (see Recommendation 2);
- collecting better information through changes introduced with the new patrol planning system to enable better assessment of patrol planning and tasking; and
- ensuring that collected information enables the identification of knowledge gaps, testing of assumptions, and monitoring of existing requirements, so that unmet needs or future requirements are identified and supported with robust evidence (see Recommendation 6).

5.35 We will maintain an interest in progress with work intended to support better monitoring and evaluation of the effectiveness of patrols.

5.36 Evaluating the effectiveness of patrols is not an end in itself. Information demonstrating successes as well as aspects to improve can be useful for getting government agencies actively participating in discussions about needs and commitments.

Appendix 1

Information about the core agencies

New Zealand Customs Service

The New Zealand Customs Service has broad responsibilities for ensuring the legitimate movement of people, craft, and goods across the border, and for law enforcement to protect New Zealand's border and revenue. Maritime patrols support the New Zealand Customs Service in identifying threats to the border, and actively monitoring and responding to identified threats. Its major interests include illegal drugs and other contraband, and illegal movements of people and exports – including endangered species. Countering these illicit activities is important because they are associated with high economic, social, and cultural costs.

Ministry of Fisheries

The Ministry of Fisheries (the Ministry) administers legislation and delegated legislation for managing fishing in New Zealand. It also administers regulations for managing fishing outside New Zealand's EEZ.

The Ministry manages fishing with a system of quotas, permits, and registration of fishing vessels. It is responsible for maintaining the integrity of fisheries management within New Zealand's EEZ. To fulfil these responsibilities, the Ministry provides compliance services that include education, enforcement, and prosecution. The Ministry has similar responsibilities for international fisheries in the Pacific. It provides compliance services to counter illegal, unreported, and unregulated (IUU) fishing and supports Pacific nations in improving their fishing management capacity.

As well as using quotas, permits, and registration to maintain the fisheries management system, the Ministry uses several other monitoring, control, and surveillance tools. In conjunction with these tools, maritime patrols have an important role in protecting New Zealand's fishing interests, encouraging compliance with fishing laws, gathering information, and fulfilling international fisheries management obligations.

Fishing is a major industry for New Zealand. It is a large export earner and a significant source of employment. IUU fishing is a serious global problem because it undermines international, regional, and national efforts to conserve and manage fisheries. It is a considerable risk to New Zealand's fishing interests.

Department of Conservation

The Department of Conservation is the third largest user of maritime patrols. It uses maritime patrols to re-supply its bases at remote islands (for example, Raoul Island and the Sub-Antarctic Islands) and for monitoring activity in marine reserves.

Ministry of Foreign Affairs and Trade

The Ministry of Foreign Affairs and Trade is the Government's lead advisor and operational agency on foreign and trade policy, diplomatic and consular issues, and overseas development assistance. The Ministry of Foreign Affairs and Trade uses maritime patrols to support foreign policy and resource protection interests in the Southern Ocean. Of particular importance is the toothfish fishery, which contributes about \$20 million a year to New Zealand's economy. The Ministry of Foreign Affairs and Trade also uses maritime patrols to support New Zealand's broader interests in the Western and Central Pacific.

New Zealand Police and Maritime New Zealand

The New Zealand Police and Maritime New Zealand are not large users of maritime patrols. Maritime New Zealand has some patrol needs in relation to commercial fishing craft. The New Zealand Police uses maritime patrols occasionally in its operations and in search and rescue work.

Appendix 2

Establishing the National Maritime Co-ordination Centre

The Maritime Patrol Review

In February 2001, the Department of the Prime Minister and Cabinet conducted a maritime patrol review to consider New Zealand's civilian and military requirements for patrolling its oceans. The review found that about nine or ten government agencies were independently monitoring the oceans for their own needs, and there was little understanding of how well maritime patrols were carried out from a national perspective.

The report of the Maritime Patrol Review recommended establishing a maritime co-ordination centre. This was to be set up under the oversight of the Officials Committee for Domestic and External Security Co-ordination (ODESC). The maritime co-ordination centre would collect information and manage "tasking" for all forms of military and civilian maritime surveillance to meet civilian needs in:

- *New Zealand oceanic areas, including littoral waters, the NZ EEZ, the legal continental shelf extension, and the New Zealand Search and Rescue Area;*
- *those areas of the South Pacific over which we have constitutional responsibilities or other arrangements;*
- *the Ross Dependency, and that sector of the Southern Ocean; and*
- *some ocean areas beyond those (to cover Customs and Police needs).¹⁷*

These areas were elaborated through later work of the National Maritime Co-ordination Centre (the NMCC).

In April 2001, Cabinet agreed to establish a maritime co-ordination centre under ODESC oversight. This would be co-located with NZDF Headquarters Joint Forces New Zealand. NZDF and civilian government agencies would provide the staff. The co-ordination centre's mandate was to manage "tasking" to meet civilian maritime surveillance needs.

¹⁷ Department of the Prime Minister and Cabinet (2001), *Maritime Patrol Review*, Wellington, page 41.

The National Maritime Co-ordination Centre pilot

After Cabinet's directive, the NMCC was piloted in 2002 to test how arrangements would work in practice. Initially, the NMCC comprised one person working at the New Zealand Customs Service's national office. An executive assistant was soon hired. An evaluation at the end of 2003 found that the pilot proved the benefits of government agencies working together through the NMCC. It was agreed that the NMCC should continue to function and be located at Headquarters Joint Forces New Zealand. Agencies using maritime patrols were to promote awareness of the NMCC in their own organisations.

The NMCC was established permanently as a small independent unit physically located in NZDF premises, with the New Zealand Customs Service managing personnel and administrative arrangements, and the NMCC's work overseen by a network of chief executives on behalf of ODESC. The NMCC was funded by equal contributions from the agencies in the chief executives' network. The NMCC's services were available to any government agency. A cross-agency Working Group was established to help in its management.

In 2005, the NMCC's staffing expanded to include an operations manager, replacing a seconded NZDF operations officer. Two operations officer positions were added at the end of 2008.

By 2006, it became apparent that the shared governance arrangements, in particular the "club funding" arrangement, were no longer sustainable. More direct lines of accountability were needed to clarify responsibilities and provide certainty of future funding. A working group that included central agencies (such as the Treasury) produced the *Governance Framework*.¹⁸ Cabinet endorsed this framework in December 2006, under which the NMCC became a separate unit within the New Zealand Customs Service.

In 2006, the Cabinet Policy Committee established a new output expense for the NMCC within Vote Customs. Under this, the Minister of Customs would purchase co-ordination services for civilian purposes that support the effective and efficient use of New Zealand's whole-of-government maritime patrol and surveillance assets.

¹⁸ National Maritime Co-ordination Centre (2006), *National Maritime Co-ordination Centre Governance Framework*, Wellington.

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