











MAJOR PROJECTS REPORT 2014

1 July 2013 - 30 June 2014

Volume 1





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CONTENTS

VOLUME 1

Foreword	1
Structure of and Background to the 2014 Major Projects Report	3
Part 1: Assessment of Performance	5
Assessment of Performance	5
Performance in the 2013/14 Year	5
Schedule	6
Cost	6
Capability	6
Continuous Improvement in performance	11
Introduction into Service	12
Auditor-General's commentary	15
Part 2A Summaries of Project Status Reports	21
Readers Guide	21
A109 Training and Light Utility Helicopter	23
C-130H Life Extension	27
NH90 Medium Utility Helicopter	33
P-3K Orion Mission Systems Upgrade	37
Pilot Training Capability	41
ANZAC Frigate Platform Systems Upgrade	45
ANZAC Frigate System Upgrade	49
Maritime Helicopter Capability	53
Medium/Heavy Operational Vehicles	57
Strategic Bearer Network	63
Part 2B Summaries of Project Information Reports	67
Defence Command and Control System	67
Project Protector Remediation Multi-Role Vessel, Offshore and Inshore Patrol Vessels	71

VOLUME 2

Part 3A: Project Data Sheets	73
A109 Training and Light Utility Helicopter	73
C-130H Life Extension	91
NH90 Medium Utility Helicopter	105
P-3K Orion Mission Systems Upgrade	125
Pilot Training Capability	139
ANZAC Frigate Platform Systems Upgrade	149
ANZAC Frigate Systems Upgrade	163
Maritime Helicopter Capability	177
Medium/Heavy Operational Vehicles	191
Strategic Bearer Network	205
Part 3B: Project Information Sheets	217
Project Protector Remediation Multi-Role Vessel, Offshore And Inshore Patrol Vessels	217
Defence Command & Control System	
VOLUME 3	227
Part 4A: Project Data Sheets	237
A109 Training And Light Utility	
C-130H Life Extension	
NH90 Medium Utility Helicopter	
P-3K Orion Mission Systems Upgrade	
Pilot Training Capability	279
ANZAC Frigate Platform System Upgrade	
ANZAC Frigate Systems Upgrade	297
Maritime Helicopter Capability	305
Medium/Heavy Operational Vehicles	315
Strategic Bearer Network	325
Part 4B: Project Information Sheets	337
Defence Command And Control System	337
Project Protector Remediation Multi-Role Vessel, Offshore and Inshore Patrol Vessels	341

FOREWORD

Foreword from the Secretary of Defence and the Chief of Defence Force

This is the fifth Major Projects Report which tracks progress and project management performance across Defence's major projects (those where the Government has specifically authorised Defence to acquire new equipment).

The 10 projects in the 2013 Report are again covered in the 2014 Report. The updated information that appears in this report for those projects shows that overall, major progress has occurred over the 12 month period from 1 July 2013 to 30 June 2014, with seven of the projects achieving important milestones.

Two new projects foreshadowed in the *Defence White Paper 2010* have commenced and are reported on in this year's Report. They are the Pilot Training Capability and ANZAC Frigate Systems Upgrade, both of which were identified as priorities in the 2014 *Defence Capability Plan*.

The Government's decision to approve both of these projects follows what is in our view a much improved and more rigorous capability development process that these projects had to go through before Cabinet was asked to make decisions. There was a strong focus on getting the projects' business cases aligned with the Government's Better Business Case model. They were the subject of detailed consideration by Defence's Capability Management Board which wanted assurance that the projects' business cases were robust and ready for consideration by the Government.

These two projects have used feedback provided by the Controller and Auditor-General to improve the procurement of equipment. Critically, both projects are using technologies already used in other countries.

But, while pleasing, this progress is only part of the answer. With Defence spending approximately one third of the Government's capital expenditure, we are focussed on making further improvements to Defence's process for acquiring major military capability. This will include the introduction by the Defence Force in the near future of a contemporary portfolio, programme and project management tool, Planview. Planview can be used across Defence in order to deliver more accurate reporting and require less staff effort. We are looking also to:

- ensure on an ongoing basis that the Capability Management Framework business processes are fit for purpose and meet the demands of increasingly sophisticated projects and in particular programmes;
- further enhance the governance process to strengthen both project/programme management and the ongoing oversight of projects;
- stand up a Joint Programme Management Office between the Ministry of Defence and the New Zealand Defence Force to leverage off the existing Defence Force Programme Management Office;
- manage capability in a more dynamic and transparent way to allow for options around tradeoffs and to take into account evolving capability requirements;
- improve the costing of projects particularly with respect to whole of life costing;
- improve the management of major capability by adopting best practice project delivery; and
- putting in place business and process activities to ensure that hard won lessons from past projects inform future projects.

Benefit realisation is assuming increasing prominence for Defence. We are creating a specific framework to enable Defence to measure benefits associated with current and future projects. For those projects which are nearing the end of the acquisition phase such as the A109, NH90 helicopters, P-3K Orion and Medium/Heavy Operational Vehicles and which will have been completed by 30 June 2015, an assessment of benefits will be made using more subjective processes. We are considering how this matter might be reflected in future Major Projects Reports.

We think that if we can introduce these changes we will give the Government real assurance that Defence is serious and committed to properly and effectively managing its large capability projects.

HELENE QUILTERSecretary of Defence

February 2015

T.J. KEATINGLieutenant General
Chief of Defence Force

February 2015

STRUCTURE OF AND **BACKGROUND TO THE 2014** MAJOR PROJECTS REPORT

Structure

The 2014 Report is presented in four parts, a new approach from last year's Report:

- Part One includes a qualitative and quantitative assessment of Defence's management of the 12 current projects (though partial only in the case of the new ANZAC Frigate Systems Upgrade Project), and performance with respect to three aspects: schedule, cost, and capability in the year 1 July 2013 - 30 June 2014. Part 1 also provides an update on the progress made in addressing the actions identified in the 2010 Report for future focus in order to improve performance.
- Part Two provides project summaries for the 12 projects. The project summaries provide a description of the projects' policy objectives, capability requirements, current status, active high level risks, recent developments and financial performance.
- Part Three includes 12 more detailed, project data sheets/information sheets. These provide further information on the acquisition phase and how the capability is being introduced into service.
- Part Four contains the 12 projects' history and project definition information.

Background

The 2014 Report is the fifth to be produced. The first Report was released in 2010 to improve the quality, transparency, and usefulness of reporting on defence capability projects.

The project data sheet or information sheet for each subject project remains the centre-piece of the Report. It contains information about the schedule, cost, and capability requirements for the subject project.

The 2014 Report project data sheets/information sheets update the 10 projects included in the 2013 Report and their project status, contract payments, risks, and schedule information:

- A109 Training and Light Utility Helicopter
- C-130H Life Extension
- NH90 Medium Utility Helicopter
- P-3K Orion Mission Systems Upgrade
- ANZAC Frigate Platform Systems Upgrade
- Maritime Helicopter Capability
- Medium/Heavy Operational Vehicles
- Strategic Bearer Network
- Project Protector Remediation
- Defence Command and Control System

As in 2013, the details for Project Protector Remediation and the Defence Command and Control Project are presented in Information Sheets rather than Data Sheets to better reflect the differences of these two projects from the other 10 discussed in the Major Projects Report.

Projects not included

No projects included in the 2013 Major Projects Report have been removed from the 2014 Major Project Report.

New projects included

The criteria for inclusion of new projects in the Major Projects Report is based on the Government having specifically authorised Defence to acquire the capability and that it is being managed by the Ministry of Defence as a "major" project. On that basis two new projects are included, therefore, in the 2014 Major Project Report: Pilot Training Capability which was authorised in December 2013 and the ANZAC Frigate System Upgrade Project in April 2014.

Capital Asset Management Regime

Both the Pilot Training Capability and ANZAC Frigate Systems Upgrade projects were developed using the Government's Capital Asset Management Regime, including Treasury's Better Business Case model. The requirements of these subjected the projects to a detailed and rigorous testing of their underlying assumptions and conclusions. This was further tested by Defence's Capability Management Framework and the top governance body, the Capability Management Board.

PART 1: ASSESSMENT OF PERFORMANCE

This section provides an assessment of 11 of the 12 projects in the Report across three metrics: schedule, budget, and capability. This includes one new project, Pilot Training Capability. At the time of this report, the 12th project, Frigate Systems Upgrade, had not been in the acquisition phase long enough to enable a full assessment to be made.

ASSESSMENT OF PERFORMANCE

Defence's approach throughout all phases of a project is to ensure that the project deliverables can be realised within the approved budget, within a reasonable time frame, and compliant with the contractual requirements that align with government policy.

Part 1 of the 2010 Major Projects Report discussed the difficulty in meeting targets across all three of these performance metrics for the projects reported on in that Major Projects Report. If two of these are held steady, pressures on a project will often be felt on the third. Defence's preference has been, where possible, to hold steady on cost (through fixed price contracts) and performance, with schedule taking the pressure, if contractors fail to meet time frames specified in the respective contracts. There can, however, be operational consequences to this approach with resulting impacts for platform availability, scheduled maintenance, and training which require careful management.

For the new projects underway it is Defence's objective that there should be no slippage on time. An important means of achieving this is to buy capability "off the shelf" and minimise the amount of change to configuration including software. This approach is consistent with the comments made in 2010 by the Controller and Auditor-General for improving the management of projects.

PERFORMANCE IN THE 2013/14 YEAR

Defence has assessed that for the 2013/14 year it has achieved a good standard, especially in the delivery of capability. Further NH90 helicopters and P-3K Orion aircraft were handed over to the Air Force, new Medium/Heavy Operational Vehicles commenced delivery, and the Pilot Training Capability, Maritime Helicopter, and Defence Command and Control projects all made pleasing progress over the past year. Important milestones were also achieved in the Protector Remediation project.

Some further delays in deliveries occurred, however, in the NH90 helicopters, C-130 Hercules aircraft and P-3K Orion aircraft projects. A major reason for this was the longer than expected time required to deal with unforeseen issues which arose. The Platform Systems Upgrade Project also experienced delays and additional funding was required. The funding was sourced from savings made on other acquisition projects.

The two new projects begun during this financial year have benefited from taking into account recommendations made by the Auditor-General in 2010 (see paragraphs 19 & 20 of that report). This should be reflected in these projects' future performance.

SCHEDULE

The updated schedules for each major project were outlined in the 2013 Report. Further updates are provided in the individual project data sheets provided in Part 3 of the 2014 Report.

There was further schedule slippage across the C-130 Hercules aircraft, P-3K Orion aircraft, and NH90 helicopters projects, and the first frigate in the Phase 2 Platform Systems Upgrade project primarily due to unexpected production difficulties. The schedules for the Defence Command and Control System Project and the second frigate in Phase 2 of the ANZAC Frigate Platform Systems Upgrade Project schedules were reset.

While, in most cases, Defence is able to mitigate some of the impacts of schedule slippage this requires careful management. Achieving a balance between competing operational, training, maintenance and project demands is sometimes difficult and as a result some activities have to be revised, deferred or cancelled. For instance, in the past Defence had to renegotiate the schedule to induct future P-3K aircraft in order to maintain operational outputs.

COST

Projections of final expenditure as at 30 June 2014 show that for the past year one project, the ANZAC Frigate Platform Systems Upgrade, required additional funding as noted above. A substantial proportion of this funding was obtained by using underspends on four other Ministry of Defence acquisition projects. The remainder came from reprioritisation of New Zealand Defence Force capital funds.

With respect to the C-130 Hercules Project, the 2011 Report noted that, as advised to Cabinet, the C-130 Hercules project cost may increase as the Ministry of Defence upgrades (under its own management) the remaining three aircraft: the "production phase". After the upgrade of the first production phase aircraft was completed in early 2013, following an assessment of the costs involved in the upgrade no additional project funding was sought. Similarly, despite the second production phase C-130 Hercules requiring a substantial amount of additional work on the aircraft's airframe, no additional funding has been sought. The funding requirement for the final aircraft will be reassessed in the coming year.

A number of projects are showing favourable foreign exchange variations, in some cases substantially.

CAPABILITY

Overall, there has been no change in capability requirements for the 11 projects being fully assessed in this year's Major Projects Report. With that said, capability may, in some cases, be delivered in phases in order to meet contractual requirements or may be delivered differently from that envisaged when the project was approved for acquisition. For example, in procuring the solution to meet the Defence Command and Control System Project, the product originally chosen had been superseded by one that more readily met the requirements. This provided a better outcome for the same cost.

Projects can be affected by the lack of appropriately skilled personnel to undertake both the acquisition and introduction into service phases. At the current time this risk is being actively managed.

In addition, future capabilities encompassed by the Defence Mid-Point Rebalancing Review (the detailed consideration of how to ensure an enduring balance between defence policy,

capability and funding) and Future 35 (the New Zealand Defence Force's framework for implementing "the strategic change needed to overcome current and future challenges" 1) have been developed with personnel requirements taken into account. This will also be the case in the development of future capabilities in the 2014 Defence Capability Plan.

Table 1 on the next page summarises the situation in respect of the projects across the three metrics and operational impact as well as listing cumulative schedule variations since the beginning of the projects.

¹ Page 1 of Future35 Our Strategy to 2035

Table 1: Summary of Three Metrics and Operational Impact

Project Change in Cost (other than foreign exchange) since the 2013 Major Projects Report Cost (other than foreign exchange) since the 2013 Major Projects Report		Cumulative schedule variations since the original contract forecast	Capability changes since the 2013 Major Projects Report	Operational Impact of Delay	
A109 Training & Light Utility Helicopter	None	All helicopters were delivered by November 2011.	4 months.	None	No impact as minimal delay in delivery.
C-130H Life Extension	None	Three upgraded aircraft had been delivered to the Air Force by 30 June 2014 with a further aircraft delivered in October 2014. The remaining aircraft is now forecast to be upgraded by August 2015, an eight month slippage on that outlined in the 2013 Report.	Around 62 months total variance for the completion of the five aircraft.	None	The reduced number of aircraft has required careful management of tasking because of the risks to meeting output requirements and in response option availability. The upgraded aircraft are undertaking operational tasking.
NH90 Medium Utility Helicopter None Seven NH90 helicopters had been delivered to the RNZAF by 30 June 2014. The eighth and last helicopter was developing in October 2014, an additional five months delay over that forecast in 2013.		Around 40 months total variance for the delivery of the eight helicopters.	None	While current reduced outputs to facilitate the transition are able to be met by the Iroquois the full capability inherent in the NH90 is still being introduced.	

P-3K Orion Mission Systems Upgrade	None	Five upgraded aircraft had been delivered to the RNZAF by 30 June 2014 and the 6 th and last aircraft in July 2014. This 6 th aircraft was five months later than that projected in the 2013 Major Projects Report.	Around 46 months total variance for the completion of the six aircraft.	None	The reduced number of aircraft has required careful management of tasking because of the risks to meeting output requirements and in response option availability. Upgraded aircraft are undertaking operational tasking.
Pilot Training Capability	Not applicable. New project in 2014 Major Projects Report.	The project is in its first year of acquisition. It is currently running slightly ahead of schedule.	None	None	Not applicable.
ANZAC Frigate Platform Systems Upgrade	An additional \$28.2 million has been allocated to the project for the completion of Phase 2 (\$6 million for TE KAHA and \$22.2 million for TE MANA).	The completion of Phase 2 for <i>Te Kaha</i> was delayed by nine months to September 2014 from that expected in the 2013 Major Projects Report. With respect to <i>Te Mana</i> , as a result of Cabinet's consideration of the Platform Systems Upgrade Project's funding and schedule, a revised schedule was agreed based on the ship being inducted into the upgrade no later than January 2015. (This schedule is designed to allow <i>Te Mana</i> to be the first frigate into the Frigate Systems Upgrade Project in September 2016). This is now the new base schedule for <i>Te Mana</i> .	Nine months for <i>Te Kaha</i> .	None	No impact as the programme has been designed around the availability of the frigates.
ANZAC Frigate Systems Upgrade	Not applicable. New project in 2014 Major Projects Report.	There has been no change since the project was approved in April 2014.	None	None	Not applicable.

Maritime Helicopter Capability	None	There has been no change to the delivery schedule since the project was approved in 2013.	None.	None.	Not applicable.
Medium/Heavy Operational Vehicles	None	There has been no change to the delivery schedule since the project was approved in 2013.	None.	None.	Not applicable.
Strategic Bearer Network	None	The contractors supplying the maritime terminals are not able to do so by the planned date. This will impact on the expected completion date for the project. An additional 18 months is being built into the timetable to accommodate this.	18 months.	None	None.
Project Protector Remediation	None	The Protector vessels are in service. Remediation work is undertaken on a time and availability basis.	Running to schedule.	None	No impact as remediation work has been designed around the availability of the Protector vessels.
Defence Command and Control System	None forecast even with the acquisition of the different Global Command and Control System – Joint Product	The Defence Command and Control System is being undertaken as a phased roll out of capability. In 2014, Cabinet approved the acquisition of a more suitable product, Global Command and Control System - Joint. This has led to a reset of the schedule with the previous product, Global Command and Control System - Maritime, being terminated in October 2013 and the new product, Global Command and Control System - Joint, being scheduled for delivering full operating capability in December 2015.	Schedule re- baselined based on Global Command and Control System – Joint.	Being provided differently through acquiring the Global Command and Control System – Joint product.	No impact.

CONTINUOUS IMPROVEMENT IN PERFORMANCE

In the 2010 Report, 13 lessons learned were identified from information contained in the project data sheets, observations of project staff, and independent reviews of acquisition projects. These covered improvements, enhancements or scrutiny in or to:

Governance and Leadership:

- governance structures and strategic-level decision points;
- accountability and the need for a senior responsible owner to be allocated to projects;
- planning and prioritisation across the portfolio of capability projects;
- the making of decisions based on reducing costs in the short-term;

Project Management

- the criticality of resourcing projects with the right people;
- project management planning and having one single plan to improve coordination;
- the shortage of staff with corporate knowledge, expertise and understanding of project procedures;

Process and Execution

- enhanced integration and continuity phases of projects;
- greater scrutiny of contractor/sub-contractor competence:
- the speed of the definition and acquisition phases of projects;
- awareness of industry's ambitious and optimistic project planning;
- the technical risks around projects and the need to reduce these prior to contract signing; and
- incremental acquisition strategies where complex and high risk projects are better suited to this approach.

Defence continues to address these lessons as a way of ensuring continuous improvement in the way it manages future projects.

As well as having identified actions in the 2010 Report already taken to address the lessons, a number of planned actions were identified as well. These are listed in Table 2. Shown against these are the actions taken in the last year to address, or begin to address, the planned actions. Defence will continue to make progress in these areas in the coming year as part of a process of continuous performance improvement.

In the 2010 Report the Controller and Auditor-General suggested a number of ways in which Defence should change how it goes about procuring equipment, both in the negotiation of contracts and the procurement strategies used. The approach taken in the development of the business cases for the Pilot Training Capability and ANZAC Frigate Systems Upgrade projects (and being taken in other capability proposals currently under preparation) is consistent with the approach suggested by the Controller and Auditor-General. This includes:

- buying off the shelf as far as possible thereby maximising value for money of projects;
- being flexible and innovative in terms of the procurements, the strategies used, and relationships established; and
- adopting an integrated project management plan.

INTRODUCTION INTO SERVICE

Section 3 of the Project Data sheets outlines the intended Introduction into Service plans for each of the platforms or systems. Key points to note are:

- ANZAC Frigate Platform System Upgrade and Maritime Helicopter Capability:
 The Phase 2 Introduction into Service plan reflects the changes in the New Zealand
 Defence Force organisation to adopt Capability Management Framework
 expectations. Scheduling and sequencing of activity is contained in the Test Concept
 Document and the Operational Release Plan for both projects.
- P-3K Orion Mission Systems Upgrade: P-3K2 Orion crews commenced training in August 2013 and graduated in June 2014 meeting the Introduction into Service contractual obligations to deliver six trained crews. Initial capability outputs for Search and Rescue and Transit were achieved in 2013 under an Interim Supplemental Type Certificate and further capability role outputs have been released under this certificate. The phased release of capabilities will continue through to mid 2015.
- C-130H Life Extension: Acceptance and release of capability into service was completed for Air Logistics Support, Search and Rescue, Self Protection System and High Latitude (Antarctic) Operations. Full capability release is planned to be achieved in July 2014. The Introduction into Service Phase will be complete once all the production aircraft are delivered.
- A109 Training & Light Utility Helicopter: Training for new students and helicopter
 crewman is due to be completed in late 2014. While there are delays in final light
 utility operational capability due to staff shortages, overall the capability is considered
 ready to transition into service in July 2014.
- NH90 Medium Utility Helicopter: The eight helicopters, including the non flying "spares" helicopter, have now been delivered to the New Zealand Defence Force. Introduction into Service has been underway since initial capability release was achieved in February 2013. Subsequent capability releases were achieved in March 2014.

Across the New Zealand Defence Force's Integrated Air Transition Programme, Introduction into Service is progressing well. Personnel resignations, however, mean transition plans have had to be reviewed.

Table 2: Planned Actions

Lessons addressed	To be initiated by	Proposed Action based on that identified in 2010	Progress to date
1 - 13	2010 Defence White Paper	The 2010 Defence White Paper recommended a series of reforms for Defence's organisation and capability procurement processes. The lessons above are being used to help inform and guide these reforms. With respect to improving capability development and delivery, the White Paper focused upon:	
		 improving the governance arrangements between the Ministry of Defence and the NZDF; 	The jointly chaired Capability Management Board, which includes two external members and Capability Steering Groups continue to provide top level governance for capability projects. They are supported by the Executive Branch of the Ministry of Defence and the Programme Management Office of the New Zealand Defence Force Capability Branch.
		 the training, professionalism and integration of Defence's workforce; an organisational design that can improve outcomes and effectiveness; 	Following the Defence Mid-point Rebalancing Review the Defence organisations have made changes to the way projects are governed and managed. The Capability Management Board is increasingly taking a portfolio view of capability projects to enable better advice to the Government on options and tradeoffs. The Defence organisations have moved also to establish a programme level of management across certain maritime projects.
		 selecting capabilities which will provide the best value for money; and 	Further changes will be made to the Capability Steering Group to enable a more targeted focus on projects at the capability stage versus projects in the acquisition stage. It is intended to provide for external appointments to project boards and the Capability Steering Group to question and support projects. Business cases for capability investments are developed in

			accordance with Treasury's Better Business Case framework and are subjected to external quality assurance and the State Services Commission Gateway Review Process.
		enhancing Ministerial choices by following the Better Business Case model i.e. indicative business cases, detailed business cases, and implementation business cases as required by the new Capital Asset Management scheme.	All capability investment initiatives that require Ministerial or Cabinet approval are developed in accordance with the Capital Asset Management Regime expectations.
5 – 13	New Zealand Defence Force Capability Review Project	On completion of the Capability Review Project, Defence will have: revised, simplified and standardised its capability management process; and reviewed and updated its information technology systems for management of project information.	Work continues to embed and continuously improve on the Capability Management Framework. The New Zealand Defence Force has yet to update the information technology systems for management of project information. The in house Programme Reporting System is still in use pending the introduction of the "Planview" Enterprise Portfolio Management system. This went live on 12 November 2014.
6, 7, 8	2010 Major Projects Report	The production of future Major Projects Reports will be supported by: • the development of an improved Information Technology system for storing existing and future project data.	While the current Information Technology system has proved to be adequate in generating the required information for the 2013 Major Projects Report, nevertheless new projects being included in the Major Projects Report have highlighted the need for a greater focus on ways in which information held by both the Ministry of Defence and the New Zealand Defence Force can be integrated into the Major Projects Report. Following its 2012 Performance Improvement Framework Review, the Ministry completed a review of its back office services and has agreed to move to a single shared Information Technology infrastructure with the New Zealand Defence Force. This is being implemented at present.

AUDITOR-GENERAL'S COMMENTARY

AUDITOR-GENERAL COMMENTARY

Background

In 2008, my staff identified a need for the Ministry of Defence and the New Zealand Defence Force (together referred to as "Defence") to report better and more complete information to show how well they manage capability projects. My Office worked with Defence to improve the quality, transparency, and usefulness of Defence's reporting of how it manages major projects to procure capability and bring it into service.

From 2010 to 2013, the Ministry of Defence produced comprehensive Major Projects Reports that covered capability projects that have been approved by Cabinet and are being managed by the Ministry of Defence. My staff reviewed these reports when they were prepared.

Review of the 2014 Major Projects Report

My commentary covers the 2014 Major Projects Report. This includes 12 projects. Two of these are new projects that Cabinet approved in 2013/14. They are Pilot Training Capability and Frigate Systems Upgrade. My staff reviewed the changes to the project data sheets and project information sheets in Parts 2 and 3 of the Major Projects Report. They also reviewed the two new project data sheets. The data sheets present detailed information about how each of the projects are meeting cost, schedule, and capability needs. The results of this review are reported on pages 18-20.

My staff also reviewed Part 1 of the 2014 Major Projects Report, which provides Defence's summary assessment of its performance in managing and delivering the 12 projects.

Overall view of the 2014 Major Projects Report

Overall, I consider that Defence has realistically assessed its performance in managing the 12 projects. Its report demonstrates transparent reporting and a commitment to continuous improvement. Defence has improved the timeliness of the delivery of its new projects. Two of the three projects approved by Cabinet in 2013 are on schedule. Defence has also carried out better contract management by getting a supplier with the ability to integrate the major components in the Frigate Systems Upgrade project. However, the availability of personnel remains a risk and issue for many projects.

General commentary on the 2014 Major Projects Report

Defence has improved and continues to improve the way it manages new projects. For example, Defence has learnt from past experience that managing a digital integration project with multiple suppliers can be risky. In the Platform Systems Upgrade project, additional resources had to be employed to help in the management of the project. In the new Frigate Systems Upgrade project, a prime system integrator with experience in carrying out a similar upgrade was chosen as the preferred supplier. This means that overall management of the upgrade is the responsibility of the contractor and is part of the contract deliverable. This includes the integration of all components of the upgrade and the management of subcontractors.

I am pleased that Defence continues to buy off-the-shelf capabilities. This means that Defence has been able to minimise the investment in additional resources to modify the functionality of the equipment purchased. Defence also continues to report and consider the through-life costs for all major projects. This should enable Defence to manage its assets more effectively in the future.

Defence has improved the timeliness of the delivery of its newer projects. Of the three new major projects approved in 2013, two are on schedule. The project that has been delayed is the Strategic Bearer Network. It has been set back due to an unexpected delay by the supplier in delivering essential equipment. A separate tender process was required and the successful tenderer could not deliver the equipment by the planned date. The project was subsequently extended by 18 months after taking into account the availability of ships for the installation.

Co-operation between the Ministry of Defence and the New Zealand Defence Force is continuing to improve. This has included the use of regularly updated joint risk registers. Defence also continues to manage the increasing overlap between the acquisition and introduction into service stages through better liaison between the two organisations (this is the point at which the capability passes from the Ministry of Defence to the New Zealand Defence Force for acceptance testing and introduction into service). However, further improvements can be made. It is important that handover planning involves all stakeholders and considers the availability of resources to introduce new acquisitions into service while maintaining operational outputs.

I encourage Defence to assess whether the intended benefits of its projects are fully realised - in particular, whether the capabilities in service meet the Government's policy intentions. By doing this, Defence will know whether the intended benefits are achieved and whether the acquisitions are value for money. I look forward to seeing how Defence measures the benefits of its acquisitions and to seeing how this will be reported in future major projects reports.

Personnel risks

The availability of personnel continues to pose a significant risk to projects. Nine of the 12 projects name personnel as a risk or issue of medium to high severity. These risks and issues include the availability of staff to manage the acquisition projects and to introduce the capability into service. It can be difficult for Defence to maintain enough staff with enough training and experience to smoothly introduce new capability into service while continuing with business as usual and providing operational outputs. The operational implications if these risks eventuate are significant. Defence is actively managing these personnel risks and issues. This includes extending timelines until there are available personnel.

Detailed comments on projects

Last year, I commented on delay in the Defence Command and Control System project. An alternative solution was considered when the software trialled was found to be unsatisfactory part-way through the acquisition process. An appropriate database that meets New Zealand Defence Force requirements has now been identified. A new timeline for this project extends the completion date to December 2015. Defence expects to meet this completion date pending the evaluation of the pilot for the new database.

The three separate upgrades to the NH90 helicopters continue to affect the training and retraining of crew. Availability of the helicopters is reduced as they are taken out of use to be upgraded. This means aircrew training is affected and the availability of trained personnel is reduced. As a consequence, the difficulties of managing the availability of personnel remain unchanged this year.

I would like to thank the staff from Defence for their assistance and co-operation during the course of our review.

Lyn Provost Controller and Auditor-General

February 2015

INDEPENDENT REVIEW REPORT TO THE READERS OF

THE MINISTRY OF DEFENCE AND THE NEW ZEALAND DEFENCE FORCE'S MAJOR PROJECTS REPORT FOR THE YEAR ENDED 30 JUNE 2014

I have carried out a review of the project summaries, project data sheets, project information sheets, and project definition information (collectively referred to in this report as the "project information") included in the *Major Projects Report for the year ended 30 June 2014* prepared by the Ministry of Defence and the New Zealand Defence Force (together referred to as "Defence"). The purpose of the review is to express a conclusion on whether any matters have come to my attention to indicate that the project information provided by Defence is not fairly disclosed.

I have used my staff and resources to carry out the review.

The project summaries on pages 21 to 72, the project data sheets on pages 73 to 220, the project information sheets on pages 221 to 239, and the project definition information on pages 237 to 343 cover the following acquisition projects:

- A109 Training and Light Utility Helicopter;
- C-130H Life Extension;
- NH90 Medium Utility Helicopter;
- P-3K Orion Mission Systems Upgrade;
- Pilot Training Capability;
- ANZAC Platform Systems Upgrade;
- ANZAC Frigate Systems Upgrade;
- Maritime Helicopter Capability:
- Medium/Heavy Operational Vehicles:
- Strategic Bearer Network;
- Project Protector Remediation; and
- Defence Command and Control System.

These projects are collectively referred to as "the specified acquisition projects".

Review work carried out

The review was carried out in accordance with the Auditor-General's Auditing Standard 5: Performance Audits, Other Auditing Services and Other Work Carried Out on behalf of the Auditor-General and the External Reporting Board International Standard on Assurance Engagements (New Zealand) 3000: Assurance Engagements Other than Audits or Reviews of Historical Financial Information. The review was also carried out in accordance with the Auditor-General's Statement on Quality Control, which requires compliance with the External Reporting Board's Professional and Ethical Standard 3 (Amended): Quality Control. The review was subject to a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements and professional standards.

The procedures performed in a review vary in nature and timing from, and are less in extent than for, an audit. Consequently, the level of assurance obtained in a review is substantially lower than the assurance that would have been obtained had an audit been performed.

The review involved carrying out procedures and making enquiries in order to reach my conclusion. These procedures and enquiries included:

- agreeing the non-financial information in the project information to credible supporting documentation provided by Defence;
- agreeing selected financial information in the project information to the supporting job cost reports provided by Defence;
- reconciling selected financial information in the project information to the Ministry of Defence's audited financial statements for the year ended 30 June 2014: and
- seeking explanations from Defence staff for any questions arising from the procedures.

Inherent uncertainty in the project information

The project information contains certain future-focused disclosures about expected achievements, planned time frames, forecast expenditure, and intended capability requirements. There are also disclosures about project risks. This information is, by its nature, inherently uncertain.

The review was limited to agreeing such disclosures to credible supporting documentation and, where considered necessary, obtaining satisfactory explanations from Defence staff.

Some forecast information is reliant on the expert judgement of the Defence staff involved in the project. Whether those forecasts will eventuate depends on future events or circumstances. Because of that uncertainty, what actually occurs might be materially different from what is set out in the project information.

Responsibilities of Defence

The Secretary of Defence and the Chief of Defence Force are responsible for preparing the Major Projects Report for the Year Ended 30 June 2014 to fairly disclose the project information about the specified acquisition projects. In particular, the project information is expected to contain disclosures about how Defence manages each project. The disclosures are expected to include:

- a description of the project:
- the status of the project;
- financial performance against the budgets approved by Cabinet;
- expected achievements;
- planned time frames:
- forecast expenditure;
- intended capability requirements; and
- project risks.

Fair disclosure of the project information requires that the project information is:

- · complete;
- materially correct; and
- understandable.

Responsibilities of the Auditor-General

My responsibility is to review the project information and to reach an independent conclusion on whether the project information is fairly disclosed.

Independence

The review was carried out in accordance with the Auditor-General's Statement on *Code of Ethics for Assurance Providers* control, requires compliance with the External Reporting Board's Professional and Ethical Standard 1 (Revised): *Code of Ethics for Assurance Providers*.

The Auditor-General is constitutionally and operationally independent of the Ministry of Defence and the New Zealand Defence Force. Other than performing functions and exercising powers under the Public Audit Act 2001 as the auditor of the Ministry of Defence and the New Zealand Defence Force, we have no relationship with, or interests in, the Ministry of Defence and the New Zealand Defence Force.

Conclusion

Based on the review, nothing has come to my attention that causes me to consider that the project information included in the *Major Projects Report for the Year Ended 30 June 2014* has not been fairly disclosed.

Lyn Provost Controller and Auditor-General

Wellington, New Zealand

February 2015

PART 2A SUMMARIES OF PROJECT STATUS REPORTS

The project summaries contained in this part of the Major Projects Report provide a concise, simple and high level overview of each major project. The summaries include a basic description of each project's policy objectives and capability requirements; the current status with respect to capability, schedule and cost; active high level risks; recent developments; and financial performance. References are provided to the underlying project data sheets if greater detail or information on a specific project is required.

READERS GUIDE

The following keys should be used when reading the current project status and active risks tables contained within each summary.

Key	Key for Risk and Current Status				
	On track. The risks or issues that exist will have little or no impact on the ability to deliver project outputs, objectives or goals. Little or no resource allocation or management effort is required.				
	Medium. The risks or issues that exist may temporarily degrade the ability to deliver project outputs, objectives and goals. A moderate level of resource allocation or management effort is required.				
	High. The risks or issues that exist could degrade the ability to deliver project outputs, objectives and goals. A high level of resource allocation or management effort is required.				
	Extreme. The risks or issues that exist could significantly degrade or prevent the ability to deliver project outputs, objectives and goals. Significant resource allocation or management effort is required.				

Key for Likelihood	Key for Likelihood				
Almost certain	Very high probability of occurrence; could occur several times during the coming year.				
Likely	Likely to occur about once per year.				
Possible	Possible, likely to occur at least once over a ten year period.				
Unlikely	Very low likelihood, but not impossible, very unlikely during the next 40 years.				
Rare	Plausible, unlikely to occur during the next 10 to 40 years.				

A109 TRAINING AND LIGHT UTILITY HELICOPTER

Project Description: This project is providing the Defence Force with a training and light utility helicopter capability. Five A109LUH (New Zealand) helicopters and a flight training simulator have been acquired to replace the current training helicopters for the Air Force. An additional (sixth) helicopter has been acquired and broken down to form the majority of the spares and logistics package.

Policy Value

The A109's training capability will provide the Government with the helicopter pilot and crewmen training necessary to support the Defence Force's NH90 and Seasprite helicopter fleets and operations.

The A109's light utility capability will enhance the Government's options for:

- defending New Zealand's sovereignty, its Exclusive Economic Zone and territorial waters;
- contributing to whole of government efforts at home in resource protection, disaster relief, and humanitarian assistance; and
- operating with the Australian Defence Force to discharge our obligations as an ally of Australia.

Capability Requirements

The capability requirements necessary to support policy objectives include:

Helicopter pilot and crewmen training:

- · Basic helicopter pilot training
- Training for qualified helicopter instructors
- Training for helicopter crewmen and crewmen instructors
- Conversion to aircraft-type and consolidation flying for pilots destined for NH90 and Seasprite helicopters
- Continuation training for helicopter pilots

Light utility tasks:

- Air movement
- Command, control and communications
- Special operations, including limited counter terrorism tasks
- Search and rescue
- Aero-medical evacuation
- Aerial sustainment
- Maintenance test flying

The operational requirements necessary to support the capability can be found at Part 4, page 249

Current Project Status

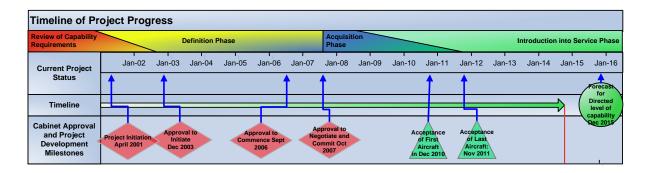
Capability: The contract's primary function and performance specifications are on track to be delivered.

Schedule: All five helicopters and flight training devices have been delivered. The Project has not been closed as there remain some outstanding matters to be resolved by the manufacturer.

Cost: The Project budget is on track. The remaining expenditure is forecast to stay within the approved budget.

Recent Developments

A109 capability release has continued as has training of maintainers and aircrew.



Active Risks and Issues at 30 June 2014

Further detail on these risks and the project's lower rated risks can be found at Part 3, pages 88-89

Issues	Phase	Impact	Treatment Actions
Introduction into service personnel resources are limited. There are single points of failure. Recent pilot resignations have exacerbated the issue.	Introduction into service	The conduct of Introduction into Service to originally planned milestones and achievement of planned flying rates has not been achieved because of the limited number of trained aircrew.	Constant management of tasks, priorities and available resources and expectation as to what can be achieved and by when. An organisational redesign process is underway.
There is an issue with the night formation lighting being incompatible with night vision goggles.	Introduction into Service	Night formation flight on Night Vision Goggles not possible.	Work is underway to modify the light circuits of the aircraft to mitigate the formation lighting issues. Resolution is expected in the later half of 2014.

Financial Performance

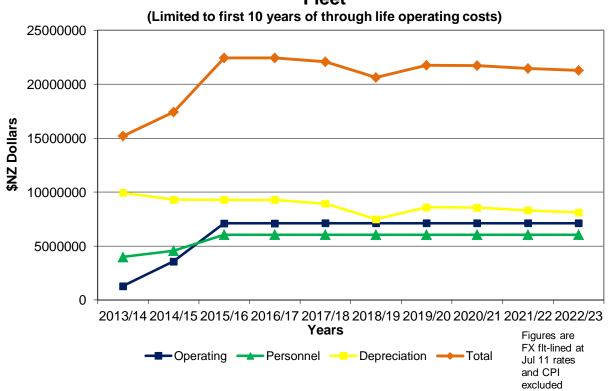
Further detail on financial performance can be found at Part 3, pages 77-80

Approved budget and expenditure

	Total (NZ\$ million)
Approved budget	140.5
Life to date expenditure	129
Total forecast expenditure	132.2
Gross project variation (forecast)	8.3 under spend
Foreign exchange impact	(4.)
Actual project variation (forecast)	4.3 under spend

Summary of Through Life Operating Cost Estimates

Summary Through Life Operating Costs A-109 LUH Fleet



C-130H LIFE EXTENSION

Project Description: This project is extending the life and availability of the five Air force C-130H Hercules aircraft for airlift and transport tasks through to at least 2020. This is being achieved by upgrading the avionics, flight deck communications, navigation, mechanical and self-protection systems as well as extensively refurbishing the airframe structure. The project is also procuring a part task trainer to assist pilot conversion training.

Policy Value

The C-130H provides essential air transport and airlift that enhances the Government's options for:

- defending New Zealand's sovereignty, its Exclusive Economic Zone and territorial waters;
- conducting operations to combat terrorism or acts of sabotage;
- operating with the Australian Defence Force to discharge our obligations as an ally of Australia;
- contributing to peace and stability operations in the South Pacific;
- contributing to whole of government efforts at home and abroad in resource protection, disaster relief, and humanitarian assistance; and
- participating in Five Power Defence Arrangements and other multilateral exercises or operations.

Capability Requirements

The capability requirements necessary to support policy objectives include:

- Provide tactical airlift operations (inter-theatre air transport) in moderate threat environments in support of Defence Force deployments.
- Conduct airlift operations as part of a coalition task force in support of our Defence partners.
- Conduct strategic airlift operations between New Zealand, the South Pacific, and the Asia Pacific.
- Assist in delivery of vital civil military tasks.

The operational requirements necessary to support the capability can be found at Part 4, page 259.

Current Project Status

Capability: While a Directed Level of Capability is scheduled to be established by November 2014 with some aircraft upgraded and crews trained, the project is continuing through to late 2015 to upgrade all five aircraft.

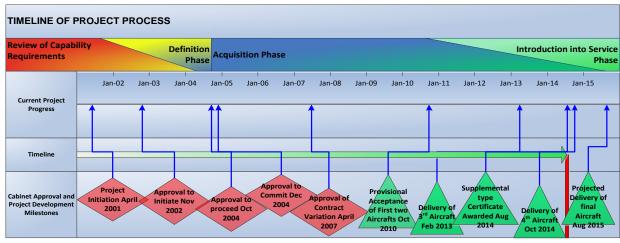
Schedule: Four upgraded aircraft have been delivered to the Air Force. The last aircraft is scheduled for delivery in August 2015, 62 months later than originally forecast at contract signing.

Cost: Defence is managing the production phase upgrade of the remaining three C-130H's for which an additional amount of NZ\$9.85 million was allocated to the Ministry of Defence, to be reviewed during the production phase. This is a provisional estimate of the potential shortfall in production phase labour costs and Part Task Trainer development costs. Now that only one aircraft remains to be upgraded on the project the requirement for additional funding to complete the programme, as signalled to Cabinet in July 2010, is currently being assessed.

Recent Developments

A fourth upgraded C-130 Life Extension transport aircraft was delivered to the Air Force for testing and evaluation in October 2014. The remaining C-130 is progressing well in the upgrade slot at the Air Force Base at Woodbourne in Blenheim. A significant amount of structural work was completed in parallel to the fourth aircraft.

Software version 120 has been delivered and accepted by the Air Force as the approved baseline software load. On 6 August 2014, a Supplemental Type Certificate was awarded which gave the upgraded aircraft full capability release.



Active Risks and Issues at 30 June 2014

Further detail on these risks and the project's lower rated risks can be found at Part 3 pages 101-103.

R	Risks	Consequences	Likelihood	Treatment Actions
L: e:	Production Phase. abour costs may exceed approved oudget.	Possible need to seek additional government funding.	Possible	Close monitoring of the project budget and further review post completion of the second production aircraft.

Production Phase. A combination of work arising increased production scope and parts lead-time may result in further delay for the completion of production aircraft.	Furthers delays may lead to increased project costs and/or a temporarily reduced operational capability.	Possible	Close monitoring and periodic review to pro-actively reduce delays. The last aircraft has had some work completed in parallel in the annex area in Woodbourne.
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Issues	Phase	Impact	Treatment
Production delays continue to affect project timelines and aircraft release dates.	Introduction into Service	Delays in achieving upgrade milestones impact upon a range of operational, training and personnel activities.	Defence Force and Ministry of Defence are actively managing the Transition Plan with ongoing internal stakeholder engagement through the Joint Project Office. Experience gained on the first Production aircraft resulted in a revised, but realistic timeline and the aircraft are on track to meet these dates.
There are Multiple System Processor Reset/Swaps.	Introduction into Service	Operational capability could be significantly affected.	Standard Operating Procedures/checklists have been put in place to mitigate effects whilst System Processor reset fixes are progressively incorporated into software builds.
Qualified Flying instructor /Qualified Aircrew Instructor manning remains critical.	Introduction into Service	Insufficient Flying Instructors and Aircrew Instructors on No. 40 Squadron to meet required personnel levels.	Qualified aircrew who have been posted to staff appointments are being used temporarily to bridge the gap until sufficient personnel are qualified.
Reduced flying hours are impacting throughput of crew members and constraining the training and advancement of personnel.	Introduction into Service	Increased training burden on No. 40 Squadron and advancement of crewmembers – Co- Pilot to Captain.	Addressed through the reduction in ab-initio aircrew to No40 Squadron. The reduction of operational tasking has enabled more crew to be trained.

Financial Performance

Further detail on financial performance can be found at Part 3, pages 92-94.

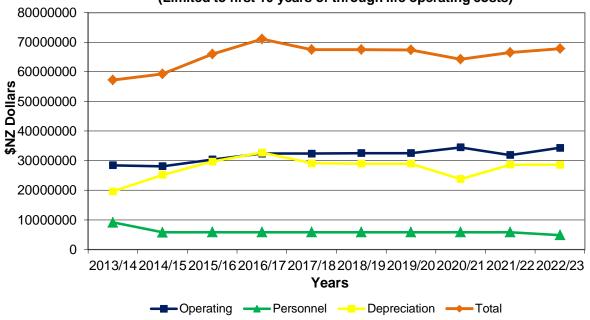
Approved budget and expenditure

	Total (NZ\$ million)
Approved budget	264.8
Life to date expenditure	253.8
Total forecast expenditure	261.3
Gross project variation (forecast)	3.5
Foreign exchange impact	(3.4)
Actual project variation (forecast)	0.1

Summary of Through Life Operating Cost Estimates

Summary Through Life Operating Costs C-130H Hercules Fleet

(Limited to first 10 years of through life operating costs)



NH90 MEDIUM UTILITY HELICOPTER

Project Description: This project is providing the Defence Force with a medium utility helicopter capability for the next 30 years. Eight NH90 helicopters with associated deliverables are being acquired from Nato Helicopters Industries to replace the Royal New Zealand Air Force Iroquois fleet. An additional (ninth) helicopter is being acquired and broken down to form the majority of the spares and logistics package.

Policy Value

The Medium Utility Helicopter provides rotary wing airlift that enhances the Government's options for:

- defending New Zealand's sovereignty;
- conducting operations to combat terrorism or acts of sabotage;
- operating with the Australian Defence Force to discharge our obligations as an ally of Australia:
- contributing to peace and stability operations in the South Pacific;
- contributing to whole of government efforts at home and abroad in resource protection, disaster relief, and humanitarian assistance; and
- participating in Five Power Defence Arrangements and other multilateral exercises or operations.

Capability Requirements

The capability requirements necessary to support policy objectives include:

- Combat Missions: air assault; special operations; and intelligence, surveillance, target acquisition and reconnaissance.
- Combat Support Missions: air movement; command, control and communications; and search and rescue.
- Combat Service Support Missions: aerial sustainment; aero-medical evacuation; search and rescue; and transport of personnel.
- Ancillary Tasks: helicopter aircrew training and maintenance test flying.

The operational requirements necessary to support the capability can be found at Part 4, page 267.

Current Project Status

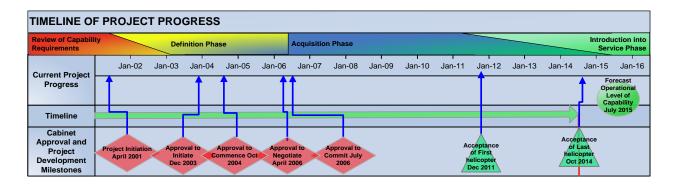
Capability: The programme for the NH90 fleet to be modified to "Final Configuration Plus" has been agreed which will see the fleet meeting the contracted capability.

Schedule: Three further NH90s were delivered during the year (for a total of seven). The last helicopter was delivered in late October 2014. The modification to "Final Configuration" Plus" is planned for April-June 2015.

Cost: The project is within budget and estimating an underspend.

Recent Developments

The last helicopter was delivered by air in October 2014.



Active Risks and Issues at 30 June 2014

Further detail on these risks and the project's lower rated risks can be found at Part 3 pages 118-123.

Risks	Consequences	Likelihood	Treatment Actions
Personnel resources. As introduction into service personnel resources are limited they may create a single point of failure.	May slow down the development and provision of capability.	Likely	Constant management of tasks, priorities and available resources and management expectation as to what can be achieved and by when.
Readiness of Role Equipment. There is a chance that some role equipment including External and Internal Auxiliary Fuel Tanks, Chaff and Flare Dispenser, Cargo Rolling Device, Ballistic Protection, Bottom Life Raft, Fast Roping and Rappelling Device, Pintle Machine-Gun Mount may not be ready prior to acceptance.	Operational Outputs. The delay in provision of this role equipment will prolong the time taken for the NH90 to reach its directed level of capability.	Likely	The Project Team is working alongside NATO Helicopter Industries to qualify and deliver most of the role equipment in the agreed timeframe. With regard to the Fast Roping and Rappelling Device, and Pintle Machine-Gun Mount the Air Force is developing solutions in concert with local industry (Rappelling) and Australia (Pintle Machine-Gun Mount).

Issues	Phase	Impact	Treatment Actions
Synthetic Training. An NH90 simulator was not acquired as part of the project.	Introduction into Service and In Service	Crew Currency and Availability. Crews have to deploy to Europe for up to a month twice a year to satisfy emergency training and currency requirements. During this time the Transition Plan is disrupted.	The Australian Defence Force simulator training in Australia will ease the time lost to travel. The preferred solution would be to use a certifiable New Zealand based synthetic training system. Discussions with Australia are underway to investigate the availability of training in Australia and New Zealand personnel are visiting the Mid Range Training Device currently being used by the French Armed Forces to assess the potential to purchase a similar system.
Personnel. Personnel have been and continue to be lost from the Introduction into Service project due to posting and/or resignation.	Introduction into Service	Personnel Availability. Trained personnel continue to be lost from the project, with aircrew resignations hitting particularly hard.	Defence Personnel Executive is aware and examining mitigation strategies. Internal postings and aircrew regeneration plans have borne fruit in the early 2014 period.
Air Transportation. The NH90 has been delivered without qualification for air transport.	Acquisition	Air Transportation. The Australian Defence Force has withdrawn its clearance for the NH90 to be transported by C- 17. Any deployment by air will require Original Equipment Manufacturer support and may result in an adjustment to the fatigue life of the helicopter.	The Ministry of Defence is working with Nato Helicopter Industries to acquire air transportation schemes for the NH90 which can be trialled in 2014.

Financial Performance

Further detail on financial performance can be found at Part 3, pages 107-108.

Approved budget and expenditure

	Total (NZ\$ million)
Approved budget	771.7
Life to date expenditure	637.5
Total forecast expenditure	677
Gross project variation (forecast)	94.7 (underspend)
Foreign exchange impact	94.7
Actual project variation (forecast)	0
Explanation	NOTE: The impact of a foreign exchange rate at any point of time in a project is constantly subject to change as the project progresses. These fluctuations are expected and mitigated by forward cover. Actual expenditure can only be measured once the project is complete and any variations resulting from foreign exchange differences are managed through forward cover.

Summary of Through Life Operating Cost Estimates

Summary Through Life Operating Costs NH90 Fleet (Limited to first 10 years of through life operating costs)

90000000 70000000 60000000 40000000 200000000 100000000 2013/14 2014/15 2015/16 2016/17 2017/18 2018/19 2019/20 2020/21 2021/22 2022/23

→ Personnel

Figures are FX flat-lined at Jul 11 rates and CPI excluded

Operating

P-3K ORION MISSION SYSTEMS **UPGRADE**

Project Description: This project is upgrading the mission management, sensors, communications, and navigation systems for the six Air force P-3K Orion surveillance and reconnaissance aircraft. Also being acquired is a flight deck trainer. The prime contractor undertaking the upgrade is L-3 Communications Integrated Systems.

Policy Value

The surveillance and reconnaissance capability of the P-3K Orion enhances the Government's options for:

- defending New Zealand's sovereignty, its Exclusive Economic Zone and territorial waters;
- protecting New Zealand's interests in the Southern Ocean and Ross Dependency;
- operating with the Australian Defence Force to discharge our obligations as an ally of Australia:
- contributing to peace and stability operations in the South Pacific;
- contributing to whole of government efforts at home and abroad in resource protection, disaster relief, and humanitarian assistance; and
- participating in Five Power Defence Arrangements and other multilateral exercises or operations.

Capability Requirements

The capability requirements necessary to support policy objectives include:

Support to civilian agencies via the conduct of air operations throughout the New Zealand Exclusive Economic Zone, and surrounding waters to assist:

- Fisheries protection
- Border protection
- Oil spill and navigation hazard response
- Conservation support
- · Search and rescue
- Police activities

Support to Defence and Foreign Policy within New Zealand's area of interest to assist:

- Air operations
- Land Forces

- Special Forces
- Maritime Forces

The operational requirements necessary to support the capability can be found at Part 4, page 277.

Current Project Status

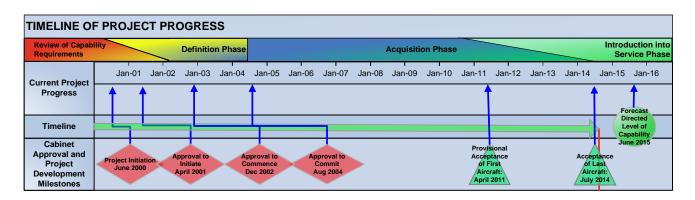
Capability: The contracted capability will be delivered once the final software update has been received.

Schedule: By early July all six upgraded aircraft had been delivered to the Air Force. The remaining deliverable of final software is expected in early 2015.

Cost: The project will deliver within the revised budget agreed in 2012.

Recent Developments

The project is focussed on the delivery of the final software.



Active Risks and Issues at 30 June 2014

Further detail on these risks and the project's lower rated risks can be found at Part 3, pages 136-138.

Risks	Consequences	Likelihood	Treatment Actions
Serviceability problems with aircraft systems may cause delays in Introduction into Service phase.	Further schedule delays could be possible.	Likely	The Defence Force has mitigated the impact of this risk by improving the logistics processes to deliver replacement equipment.

Issues	Phase	Impact	Treatment Actions
Competing Demands on Defence Force Resources. There are competing demands on finite resources for operational outputs as well as training and residual upgrade testing activities.	Acquisition / Introduction into Service	Delays in achieving remaining upgrade and Introduction into Service activities (with resulting delays in delivering upgraded aircraft and progressing the Transition Plan).	Resource allocation is being managed, by necessity, on a daily basis by the Joint Project Office.
Equipment obsolescence and compliance has impacted the acquisition and Introduction Into Service phases and will continue through the life of type of the aircraft.	Acquisition / Introduction into Service	Denial of full capability exploitation of onboard and offboard equipment, and reduced aircraft sustainability and availability.	An Obsolescence management plan is being developed. An Obsolescence Management Cell has been established by the RNZAF. Planned spiral upgrades to replace obsolete items and address obsolete compliances.

Financial Performance

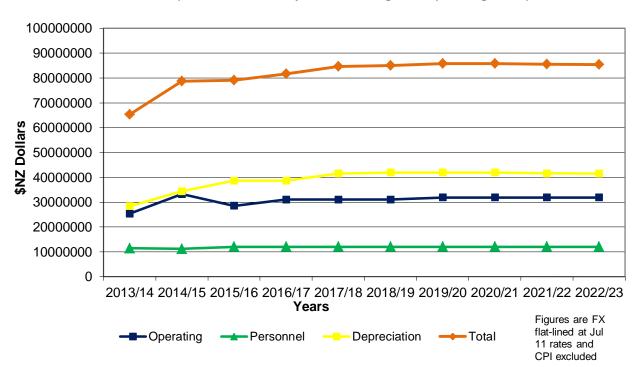
Further detail on financial performance can be found at Part 3, pages 126-129.

Approved Budget and Expenditure

	Total (NZ\$ million)
Approved budget	377.3
Life to date expenditure	325.4
Total forecast expenditure	331.4
Gross project variation (forecast)	45.9
Foreign exchange impact	(44.0)
Actual project variation (forecast)	1.9

Summary of Through Life Operating Cost Estimates

Summary Through Life Operating Costs P-3K Orion Fleet (Limited to first 10 years of through life operating costs)



PILOT TRAINING CAPABILITY

Project Description: The Pilot Training Capability Project will replace the current military pilot training system with:

- modern trainee selection tools which select those most likely to succeed as military pilots;
- flight simulation computers, flight motion simulators and part-task trainers:
- the introduction of a fleet of modern training aircraft and
- a new teaching curriculum that is matched to the pilot training requirements.

Policy Value

The New Zealand Defence Force requires about 15 new military pilots and up to 12 new Qualified Flying Instructors each year to replace those who are promoted or leave.

These pilots need to be trained to an appropriate military standard and be capable of undertaking safe military air operations across the spectrum of Defence Force operations and thereby to sustain and enhance the New Zealand Defence Force's contribution toward government options for:

- defending New Zealand's sovereignty, its Exclusive Economic Zone and territorial waters:
- operating with the Australian Defence Force to discharge our obligations as an ally of Australia:
- contributing to peace and stability operations in the South Pacific;
- contributing to whole of government efforts at home in resource protection;
- participating in Five Power Defence Arrangements and other multilateral exercises or operations;
- protecting New Zealand's interests in the Southern Ocean and Ross Dependency; and
- providing a physical demonstration of New Zealand's commitment to regional and global security, including protecting sea lines of communication.

Capability Requirements

The capability requirements necessary to support policy objectives include:

- Able to train 15-20 new pilots per year.
- Provide and maintain Military Qualified Flying Instructors.
- Develop Flying Supervision to the highest standards.
- Produce Military Pilots.
- Allow Defence Force to control Training Outcomes.

The operational requirements necessary to support the capability can be found at Part 4, page 284.

Current Project Status

Capability: The capability is targeted to be in place to commence Pilot Training in January 2016. This will encompass both the initial Pilots course and the Flight Instructors course.

Schedule: Seven (of the 11) aircraft have been completed at Beechcraft and four have been delivered to New Zealand to date. At this stage Aircraft, Simulators and training packages are all on schedule with 2015 scheduled to be an intensive year of deliveries.

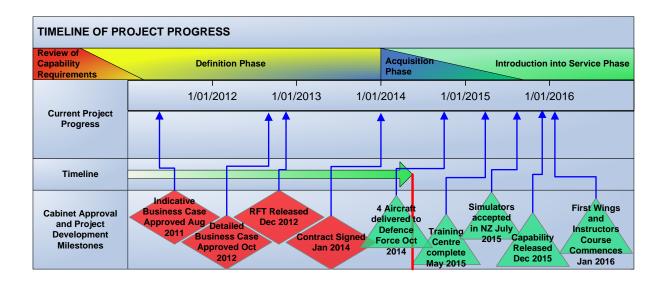
Cost: The project budget remains on track.

Recent Developments

Four aircraft have been delivered to New Zealand from Wichita and these were handed over to the Defence Force on 31 October 2014. Three more aircraft will be delivered by the end of 2014 and the remaining four New Zealand aircraft are currently progressing through the Beechcraft production line.

The two Simulators are nearing completion at CAE in Montreal and they will be shipped to CAE in Florida for assembly and testing in November 2014. Significant work is on-going between the Defence Force training specialists and CAE to produce the final training packages.

The hangar upgrade in Ohakea will be completed by the end of October 2014 and work has commenced on the new training centre.



Active Risks and Issues as at June 2014

Further detail on these risks and the project's lower rated risks can be found at Part 3, pages 146-147.

Risks	Consequences	Likelihood	Treatment Actions
The infrastructure upgrades at Ohakea are not on the scheduled critical path and are delayed. This may have a serious impact on the project.	The target of commencing the first Wings/Flight Instructor course in January 2016 will not be met.	Possible	A dedicated infrastructure manager at Ohakea has been assigned. The floor plans for the training centre have been finalised. The site for the centre has been cleared. Construction of the hangar upgrade is inwork. There is full engagement and visibility of progress with Beechcraft.
The required number of experienced Flying Instructors may not be supplied by the Air Force for the project.	The full capability may not be delivered within the existing schedule	Possible	Capability Branch are actively engaged with the Air Component Commander to ensure there is a full number of appropriately qualified instructors available.

Issues	Phase	Impact	Treatment
Fuel Tanker availability at Ohakea from January 2016 will be an issue unless additional resources are allocated to account for the increased Pilot Training Capability.	Introduction into Service	Inability to deliver capability at the desired level of effort.	Current Air Force wide solution in-work for aircraft fuel tankers.

Financial Performance

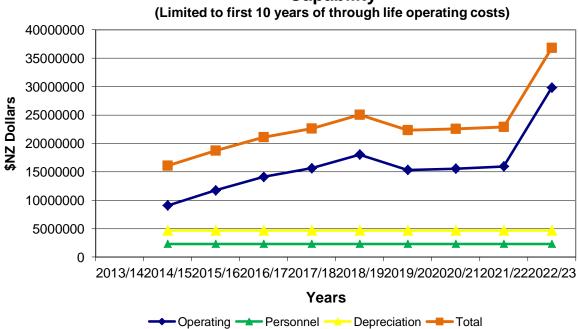
Further detail on financial performance can be found at Part 3, pages 140-141.

Approved budget and expenditure

	Total (NZ\$ million)	
Approved budget	154.61	
Life to date expenditure	74.81	
Total forecast expenditure	148.66	
Gross project variation (forecast)	5.95	
Foreign exchange impact	5.95	
Actual project variation (forecast)	0	
Explanation	This is the difference between the budget foreign exchange rates (weighted average of currency purchases: spot and forward rates) compared to the actual foreign exchange rates and current forecast rate.	

Summary of Through Life Operating Cost Estimates

Summary Through Life Operating Costs Pilot Training Capability



ANZAC FRIGATE PLATFORM SYSTEMS UPGRADE

Project Description: The Platform Systems Upgrade is addressing equipment obsolescence, performance degradation, operational limitations and compliance issues with the platform systems of the ANZAC class frigates. These platform systems are distinct from combat capabilities and enable the frigates to move, float, generate power and recover from damage.

Policy Value

The Platform Systems Upgrade will maintain the operational effectiveness and efficiency of the ANZAC frigates, Te Kaha and Te Mana, over their remaining lives. It will thereby sustain and enhance the Naval Combat Force's contribution toward government options for:

- defending New Zealand's sovereignty, its Exclusive Economic Zone and territorial
- operating with the Australian Defence Force to discharge our obligations as an ally of Australia:
- contributing to peace and stability operations in the South Pacific;
- contributing to whole of government efforts at home in resource protection;
- participating in Five Power Defence Arrangements and other multilateral exercises or operations;
- protecting New Zealand's interests in the Southern Ocean and Ross Dependency;
- providing a physical demonstration of New Zealand's commitment to regional and global security.

Capability Requirements

The capability requirements necessary to support policy objectives include:

- Increase the stability of the ANZAC Frigates after incurring damage
- Increase the ANZAC Frigates reserve buoyancy
- Improve the propulsion systems of the ANZAC Frigates
- Increase the ability of the ANZAC Frigates to operate at high temperatures
- Provide a control and monitoring system that delivers automated functions across all platform systems

The operational requirements necessary to support the capability can be found at Part 4, page 293.

Current Project Status

Capability: The first ship in Phase 2, *Te Kaha*, was substantially completed by the end of June 2014 with the commissioning phase under way to deliver the contracted capability in October 2014.

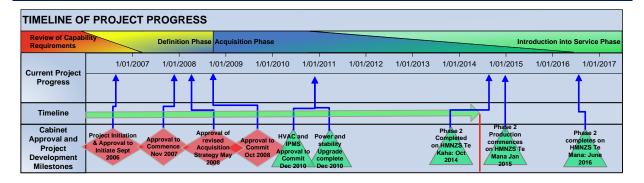
Pre-planning work began for doing Phase 2 on the second frigate, Te Mana.

Schedule: The schedule has been reset for *Te Mana* with production to start in January 2015. Detailed pre-planning is currently on schedule to achieve this.

Cost: Cabinet approved a revised budget for Phase 2 for upgrading both frigates. *Te Kaha* will be completed within the revised budget. *Te Mana* is meeting the budget.

Recent Developments

Te Kaha successfully completed its sea acceptance trials enabling the ship to be handed back to the Navy on 1 October 2014. With a new Devonport Navy Base Dockyard Management Contract agreed with Babcock, there is certainty going forward for Phase 2 on Te Mana.



Active Risks and Issues as at June 2014

Further detail on these risks and the project's lower rated risks can be found at Part 3, pages 161-162.

Risks	Consequences	Likelihood	Treatment Actions
Resources: If project staffing is inadequate this may impact on completion of the upgrades of the frigates.	This could result in a delayed return of the frigates and therefore availability for operational tasking.	Possible	Ministry of Defence Project Director and the Defence Force Capability Branch to manage requirements, including additional funding. Additional personnel have been employed and seconded from Defence Force.

	Issues	Phase	Impact	Treatment Actions
ti b w o re s	Schedule: Because iming of work is being synchronised with the Navy's operational equirements echedule forecasts can change.	Acquisition /Introduction into Service.	This could result in the second frigate entering Phase 2 later than expected, in addition to any delays in completing the first frigate.	Work with the Navy on achieving optimum entry of the second frigate. This has occurred and is being managed within the agreed timeframes.

Financial Performance

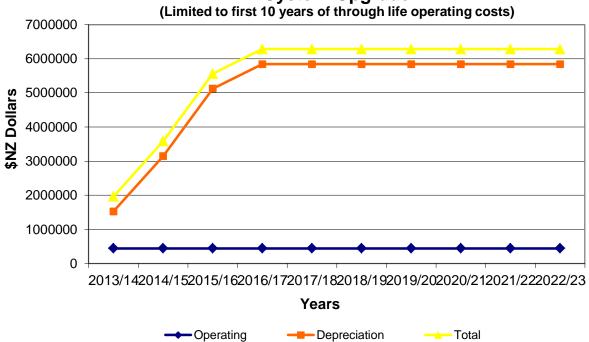
Further detail on financial performance can be found at Part 3, pages 152-154.

Approved budget and expenditure

	Total (NZ\$ million)
Approved budget	87.6
Life to date expenditure	56.2
Total forecast expenditure	86.4
Gross project variation (forecast)	1.2 under spend
Foreign exchange impact	(1.2)
Actual project variation (forecast)	0
Explanation	30 June 2013 forecast results in a negligible project variation.

Summary of Through Life Operating Cost Estimates

Summary Through Life Operating Costs Platform System Upgrade



ANZAC FRIGATE SYSTEM **UPGRADE**

Project Description: The primary objective of the ANZAC Frigate Systems Upgrade Project is to restore the frigates' ability to fulfil credible combat roles and provide high quality surveillance products in the contemporary and emerging security environment. This will ensure that the Government retains the ability to deploy the frigates to the Pacific and beyond, enabling them to operate with confidence in low to medium threat environments.

Policy Value

The Frigate System Upgrade will maintain the combat effectiveness and efficiency of the ANZAC frigates, Te Kaha and Te Mana, over their remaining lives. It will thereby sustain and enhance the Naval Combat Force's contribution toward government options for:

- defending New Zealand's sovereignty, its Exclusive Economic Zone and territorial waters:
- operating with the Australian Defence Force to discharge our obligations as an ally of Australia:
- contributing to peace and stability operations in the South Pacific;
- contributing to whole of government efforts at home in resource protection;
- participating in Five Power Defence Arrangements and other multilateral exercises or operations;
- protecting New Zealand's interests in the Southern Ocean and Ross Dependency; and
- providing a physical demonstration of New Zealand's commitment to regional and global security, including protecting sea lines of communication.

Capability Requirements

The capability requirements necessary to support policy objectives include:

- Participation |
 - Able to deliver the ability to participate in national, allied and coalition activities to the Combined Force Commander in order to maximise the effective contribution made.
- Strategic Situational Awareness
 - Able to achieve situation awareness of electromagnetic emissions to the Combined Force Commander and specified agencies in support of tactical and strategic objectives.
- Air Threat to Others
 - Able to deliver an ability for a defended surface unit to operate in an area under an air threat to the Combined Force Commander in order to undertake its designated mission.
- Surface Threat to Others
 - Able to deliver the neutralisation of a surface delivery platform prior to its weapon launch to the Combined Force Commander in order for a defended unit within 4 km to be able

to continue with its mission.

Effects Ashore

Able to deliver effects ashore from organic **weapons to** the Combined Force Commander in order to support land operations.

• Through Life

The Logistics Commander (Maritime) is able to deliver availability characteristics to the Commander Joint Forces New Zealand in order to enable completion of a mission throughout the life of the platform.

The operational requirements necessary to support the capability can be found at Part 4, pages 302-303.

Current Project Status

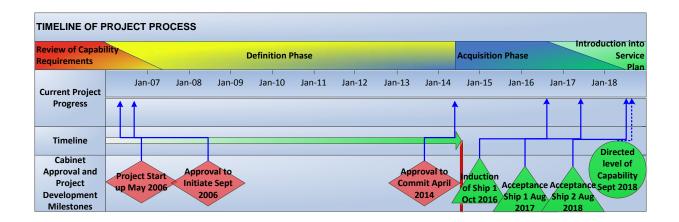
Capability: The contracted System Requirements are currently on track to be delivered.

Schedule: Since Cabinet Approval to Commit to Contract six contracts and two Foreign Military Sales cases were awarded between April 2014 and July 2014, as planned. The project is on track with the contractors achieving their scheduled milestones.

Cost: The project budget is on track with milestone payments being made to contractors as scheduled.

Recent Developments

Since the award of contracts between April and July 2014, project initiation meetings have been conducted with all contractors and the requisite System Requirements Reviews have been successfully completed. The current focus of the project is the Preliminary Design activity which has included a number of ship pre-installation inspections, and various Working Group and Integrated Project Team meetings. This phase is scheduled to complete in April 2015 with the Preliminary Design Review.



Active Risks and Issues at 30 June 2014

Further detail on these risks and the project's lower rated risks can be found at Part 3, pages 174-176.

Risk	Consequences	Likelihood	Treatment Actions
Preliminary Design. During the preliminary design period unexpected constraints may emerge that have a potential impact on cost and or schedule.	Increased cost, schedule delay or reduction in capability.	Possible	Contingency funds have been factored into overall project costs.
Detailed Design Period. If the detailed design period takes longer than currently planned it may be necessary to amend the schedule.	Schedule Disruption.	Possible	Preliminary design activity is tailored to identify potential problem areas early with participation from Prime Systems Integrator (Lockheed Martin Corporation) and likely installation facility (Seaspan).
Readiness of ships for refit. Should unforeseen programming conflicts occur the arrival of ships at the refit facility may be delayed.	Schedule delay and penalty payments.	Possible	Contingency funds have been factored into overall project costs and rescheduling the order of ships entering the refit may mitigate in extremis.
Material Condition of Ships. Should material defects be encountered during the refit process there may be an impact on cost and or schedule.	Increased cost and or schedule delay.	Likely	Pre Refit Condition Assessment will be conducted. Funding may need to be apportioned between Defence Force (Commander Logistics) and the project. Project contingency funds have been factored into overall costs.

Financial Performance

Further detail on financial performance can be found at Part 3, pages 165-166.

Approved budget and expenditure

	Total (NZ\$ million)
Approved budget	446.19
Life to date expenditure	8.63
Total forecast expenditure	431.22
Gross project variation (forecast)	14.97
Foreign exchange impact	14.79
Actual project variation (forecast)	0.18
Explanation	Foreign exchange impact

Summary of Through Life Operating Cost Estimates

Summary Through Life Operating Costs Frigate System Upgrade

(Limited to first 10 years of through life operating costs)



MARITIME HELICOPTER CAPABILITY

Project Description: This project is providing an upgraded fleet of naval helicopters for the Royal New Zealand Navy. Eight SH2G International Super Seasprite helicopters are being acquired from Kaman Aerospace with associated spares, training aids and a full-mission flight training simulator. Two additional helicopters are part of the package. These will be stored for use as attrition airframes and for spare parts. The Project will also include the acquisition of Penguin missiles to replace the current stock of Mavericks.

The existing SH2G (New Zealand) Super Seasprite fleet was scheduled for a major upgrade of avionics and mission systems by 2015 to address system obsolescence. The offer of a fleet of SH2G International Super Seasprites with these systems already upgraded was assessed to provide greater value for money and at lower project risk.

The helicopters are currently stored at Kaman's facility in Connecticut, United States of America. A Defence Project Team has been located there to oversee the regeneration of the aircraft from storage; finalise design, installation and testing of the modifications required; and undertake provisional airworthiness certification. Once delivered to New Zealand the helicopters will be offered for acceptance by the Defence Force and undergo a period of Operational Testing and Evaluation before being brought into service.

Policy Value

The Naval helicopters are a component of the Naval Combat Force and provide rotary wing surveillance, warfare and airlift that enhance the Government's options for utilising the Defence Force for the principal tasks set out in the Defence White Paper 2010, in particular:

- to defend New Zealand's sovereignty;
- to discharge our obligations as an ally of Australia;
- to contribute to and, where necessary, lead peace and security operations in the South Pacific;
- to contribute to whole-of-government efforts at home and abroad in resource protection, disaster relief, and humanitarian assistance; and
- to make a credible contribution in support of peace and security in the Asia-Pacific region.

Capability Requirements

The capability requirements necessary to support policy objectives include:

Surveillance and reconnaissance:

- Conduct military and civil surveillance
- Embark and operate from all Navy aviation capable units
- Detect threats in a hostile environment
- Conduct maritime Search and Rescue

Utility Lift

- Search and rescue
- Aero-medical evacuation
- Aerial sustainment

Offensive action:

Prosecute surface and sub-surface targets

The operational requirements necessary to support the capability can be found at Part 4, page 313.

Current Project Status

Capability: The contract's primary function and performance specifications are on track to be delivered. No major impacts on the specified operational requirements are envisaged at this stage.

Schedule: The schedule is on track.

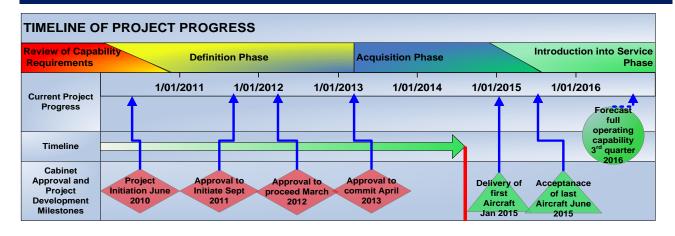
Cost: The project budget is on track.

Recent Developments

The Resident Project team established themselves at Kaman Aerospace in Connecticut, United States in July 2013.

Kaman completed the New Zealand specific modifications on four helicopters and they await only the delivery of the new Decklock components for these aircraft to be complete. The first four aircraft commenced flying in April 2014 in Connecticut to enable training to take place and for the Resident Project Team to conduct acceptance tests. Kaman remains on track to deliver the first three helicopters commencing January 2015.

A contract was signed on 29 November 2013 with Norwegian company, Kongsberg Defence Systems, for the supply of the Penguin missiles. The missiles, support equipment, spares, training and publications will be delivered in October 2015.



Active Risks as at June 2014

Further detail on these risks and the project's lower rated risks can be found at Part 3, pages 187-189.

Risks	Consequences	Likelihood	Treatment Actions
Availability of Flight Instructors. If the availability of qualified flight instructors is limited, this may lead to delays in the delivery or attainment of maritime helicopter capability.	Schedule & Cost. This may result in the capability not being delivered on time.	Possible	Treatments include reconversion of former Helicopter Instructor and greater utilisation of Naval Reserve Officer Helicopter Instructor.

Financial Performance

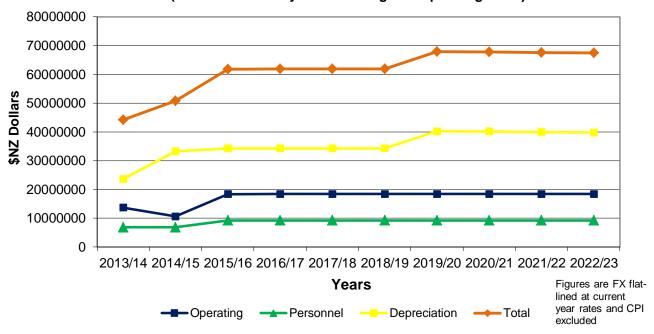
Further detail on financial performance can be found at Part 3, pages 178-180.

Approved budget and expenditure

	Total (NZ\$ million)	
Approved budget	252.3	
Life to date expenditure	44.6	
Total forecast expenditure	234.5	
Gross project variation (forecast)	19.5	
Foreign exchange impact	18.2	
Actual project variation (forecast)	1.3	
Explanation	NOTE: The impact of a foreign exchange rate at any point of time in a project is constantly subject to change as the project progresses. These fluctuations are expected and mitigated by forward cover. Actual expenditure can only be measured once the project is complete and any variations resulting from foreign exchange differences are managed through forward cover.	

Summary of Through Life Cost Estimates

Summary Through Life Operating Costs Seasprite Fleet (Limited to first 10 years of through life operating costs)



MEDIUM/HEAVY OPERATIONAL VEHICLES

Project Description: This project is replacing the New Zealand Defence Force's aging medium and heavy operational vehicle fleet with new vehicles. Trucks are essential to transport troops and supplies.

Current military operations require trucks that can operate in difficult terrain, and handle bulk loads including pallets, containers and liquids. Forces on deployment may need to be supplied with everything they need (such as fuel, food, water and ammunition) across widely dispersed operations. Trucks need to protect the occupants through the provision of armour and electronic countermeasures as required. They need to support contemporary communications equipment. They need to be reliable, efficient and easy to use and provide support even when deployed in remote places.

Up to 200 new trucks are being procured from Rheinmetall MAN Military Vehicles (Australia) replacing 290 vehicles in the current fleet. They will be delivered from November 2013 through to December 2015. On entry into operational service, they will allow the retirement of many current Mercedes Unimog and MB 2228 series trucks.

The new trucks are assembled in Vienna, Austria and then shipped to Auckland, where the manufacturer's agents (MAN) will complete New Zealand compliance. The Ministry of Defence will do final acceptance and take delivery in Auckland, and the trucks will be transferred to Defence Force ownership for distribution.

Some specific sub components (dump bodies and semi trailers) will be manufactured in New Zealand under subcontract to MAN. These components will be matched to the relevant trucks in New Zealand for final inspection prior to delivery.

Policy Value

The Medium/Heavy Operational Vehicle project provides essential land transport for the Defence Force. This enhances the Government's options for utilising the Defence Force for the principal tasks set out in the Defence White Paper 2010, in particular:

- to defend New Zealand's sovereignty;
- to discharge our obligations as an ally of Australia;
- to contribute to and, where necessary, lead peace and security operations in the South Pacific;
- to make a credible contribution in support of peace and security in the Asia-Pacific region;
- to protect New Zealand's wider interests by contributing to international peace and security, and the international rule of law; and

• to contribute to whole-of-government efforts at home and abroad in resource protection, disaster relief, and humanitarian assistance.

Capability Requirements

The capability requirements necessary to support policy objectives include:

- Can be fitted with Defence Force specified voice and data communication equipment
- Can be equipped with active and passive protection
- Comply with current safety regulations
- Transportable by air and sealift
- Transport range of military loads including bulk liquids, palletised and containerised loads, Defence Force modules, personnel, weapons and ammunition, loose loads
- Off road mobility including some self recovery
- Integrated load handling for some vehicles

- New Zealand Transport Agency Compatible
- Operate in wide range of climate and lighting conditions
- Run on standardised military fuel
- Commonality across fleet
- Proven in service
- Supportable in New Zealand
- Proven global supply chain
- Supportable within current Defence Force trades and resources
- Value for money over 20 year life

The operational requirements necessary to support the capability can be found at Part 4, page 322-323.

Current Project Status

Capability: Contracted capability is on track for delivery.

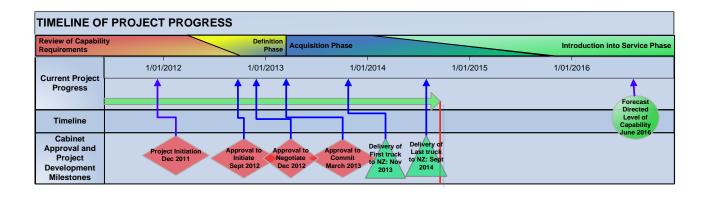
Schedule: The schedule is on track, with 130 of 194 vehicles delivered by 30 June 2014.

Cost: The project budget is on track.

Recent Developments

Remaining vehicles are now being delivered.

Specialist variants i.e. Trailer unit, Dumper, and Recovery are at various stages of design or specification.



Active Risks and Issues at June 2014

Further detail on these risks and the project's lower rated risks can be found at Part 3, pages 201-203.

Risks	Consequences	Likelihood	Treatment Action
Functional Performance Specifications: The high level user requirements for the Dumper, (semi)Trailer and Ring Mounts have been signed off. They have yet to be delivered, and until they have, there is a risk that they may not meet the requirement.	A risk that the Functional Performance Specifications will either not be met, or incur unexpected costs beyond those allowed for.	Likely	Each of these systems will have a design review to ensure the design meets the requirements before manufacture commences. Defence Force personnel will attend these reviews, along with the Ministry of Defence.
Operating Budget: If in-service support arrangements do not leverage the characteristics of modern vehicles, and apply obsolete concepts and processes, then operating costs may be higher than anticipated.	Increase in the annual operating budget, an adjustment of the level of support to be provided, or a reduction in the planned usage rate.	Likely	The Defence Force is applying the manufacturer's service requirements and is training maintainers to use modern tools / systems as required by the manufacturer. Manufacturer has reviewed and approved the training, which is also necessary to maintain the warranty.

Organisational Plan: The new Medium/ Heavy Operational Vehicle fleet is smaller than the replaced fleet, necessitating vehicles to be shared between Units for training purposes. If the mechanism for this is not effective, there is a risk to completion of training.	Less efficient management and utilisation of the Medium/ Heavy Operational Vehicles, and unnecessary additional costs with retention of legacy trucks.	Likely	Land Transport Capability Programme's Business Change Manager will work with Defence Logistics staff to support the introduction of the sharing mechanism (called the Managed Fleet Utilisation as part of the broader "consolidated logistics programme").
Recovery Vehicles: The User Requirement for recovery vehicles is not yet finalised. Depending on the eventual agreed requirement, there may not be a MAN solution for all or part of the requirement.	The Defence Force will have a capability gap in medium / heavy vehicle recovery when the current medium recovery vehicles are withdrawn from service.	Likely	A number of actions are being taken to either extend the life of the present vehicles, upgrade the present vehicles, or purchase alternative vehicles.

Issues	Phase	Impact	Treatment Actions
Operational Compliance: Successful management of vehicle compliance is essential in order to prevent illegal usage and potential loss of New Zealand Transport Agency granted exemptions.	Introduction into Service.	Ongoing manageme nt required to prevent adverse impact on usage of the vehicles	This issue was well understood prior to the Medium Heavy Operational Vehicles project being contracted. Dealing with it involves information and training. Current actions include: Initial 2-year State Highway Over-weight Permits applied for each truck (excludes local roads). Transport Compliance Manager being recruited. Training focus on compliance management including Bridge Engineering Self Supervision qualification for all drivers. Clear guidance for units receiving Medium Heavy Operational Vehicle provided in the

	Introduction into Service Instruction around compliance, and operating the vehicles safely
	Residual Risk: Medium, should drop if experience proves training sufficient and operators are operating as required.

Financial Performance

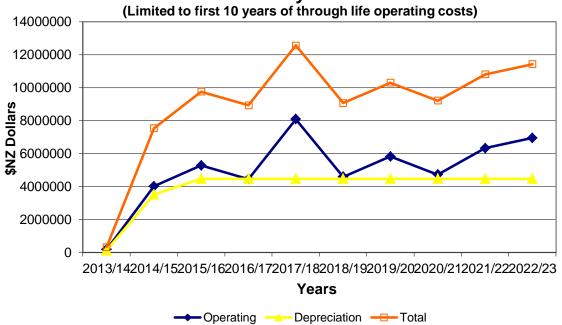
Further detail on financial performance can be found at Part 3, pages 193-194.

Approved budget and expenditure

	Total (NZ\$ million)
Approved budget	138.7
Life to date expenditure	82.0
Total forecast expenditure	132.2
Gross project variation (forecast)	6.5
Foreign exchange impact	4.8
Actual project variation (forecast)	1.7

Summary of Through Life Cost Estimates

Summary Through Life Operating Costs Medium/Heavy Vehicle Fleet



STRATEGIC BEARER NETWORK

Project Description: This project will provide Satellite Communications equipment to the New Zealand Defence Force. A number of mobile (land based) terminals, maritime terminals for the Navy and fixed anchor station terminals will be purchased. This Satellite Communications equipment will access the United States Department of Defence Wideband Global Satellite Communications constellation enabling deployed forces to meet current and future strategic information exchange requirements (and meet the growing demand for bandwidth).

The Wideband Global Satellite Communications is a constellation of nine communications satellites with a full operational date of 2018/19. Six of the satellites are operational in orbit now with the remaining three being launched over the next three years. The Defence Force have gained access to the Wideband Global Satellite Communications constellation through a Memorandum of Understanding with the United States Department of Defence. This will provide a large increase in Satellite Communications capacity for the Defence Force in return for funding a share of the build of Wideband Global Satellite Communications Satellite Nine and a share of the through life management costs.

Cabinet has approved the Satellite Communications (wideband) bearer phase of the project which is the subject of this report. A further narrowband (including High Frequency radio) phase is anticipated to begin development of a Business Case in 2015.

Policy Value

Strategic Bearer Network is an enabling project supporting a number of key Defence Force functions across several capabilities including the Network Enabled Army programme, Defence Command and Control System, the P-3 Orions and the ANZAC frigates. This project will enable the Government's options for utilising the Defence Force for the principal tasks set out in the Defence White Paper 2010, in particular:

- to defend New Zealand sovereignty;
- to contribute to and where necessary lead peace and security operations in the South Pacific;
- to make a credible contribution in support of peace and security in the Asia Pacific region;
- to protect New Zealand's wider interests by contributing to international peace and security, and the international rule of law;
- to contribute to whole of government efforts at home and abroad in resource protection, disaster relief, and humanitarian assistance; and
- to participate in whole of government efforts to monitor the international strategic environment.

Capability Requirements

The capability requirements necessary to support policy objectives include:

- Provide a computer network infrastructure with global reach, high capacity and robust design.
- Enable the Command and Control of deployed forces
- Meet the growing demands for information exchange with our deployed forces
- Provide greater levels of interoperability with security partners
- Provide Value for Money from investment in Satellite Communications

The operational requirements necessary to support the capability can be found at Part 4, page 332.

Current Project Status

Capability: The first tranche of equipment for the Defence Force has been used in a number of operational scenarios including local and overseas deployment. This has allowed the Defence Force to work through the Introduction into Service activities and it is anticipated this equipment will be declared operational capability in August 2014. The contract for maritime terminals is currently under negotiation.

Schedule: Approximately half of the mobile terminals have been delivered. The first anchor station was delivered in March 2014 and has been used continuously since then. A tender for maritime terminals is currently under evaluation for a selection in the first quarter of 2015. In 2015 the remaining terminals and another anchor station will be delivered.

Cost: The Defence Force is managing New Zealand's share of the Wideband Global Satellite Communications satellite build and launch costs (agreed under the Memorandum of Understanding). The Defence Force is also responsible for the through life support costs which are identified as a share of the Wideband Global Satellite Communications satellite project management office, and the support costs of the terminals used to access the satellite. The Ministry of Defence is responsible for the acquisition of the infrastructure (mobile and maritime terminals and fixed anchor stations). The total approved budget is NZ\$83.3 million with a contingency of NZ\$5.6 million. The Defence Force share of the budget for the Memorandum of Understanding is NZ\$51 million. The Ministry of Defence acquisition budget is NZ\$32.3 million with NZ\$26.3 million in 2012 – 2016 and NZ\$6 million in 2022.

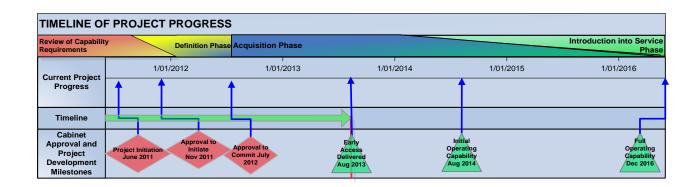
Recent Developments

Contract for the supply of Wideband Global Satellite Communications Mobile Terminals: An additional two 2.4m terminals were ordered under the existing contract for delivery in July 2014 to the Defence Force.

Impact: This additional order will allow the Defence Force to meet an operational deployment and continue with training and exercises at home and in the local region.

Contract for the supply of a Wideband Global Satellite Communications Anchor Station: The first anchor station was delivered in March 2014.

Contract for the Supply of Maritime Terminals: It is anticipated a contract for the maritime terminals will be awarded in the first quarter of 2015.



Active Risks and Issues at 30 June 2014

Further detail on this risk and the project's lower rated risks can be found at Part 3, pages 213-214.

Risk	Consequences	Likelihood	Treatment Actions
A second anchor station is in scope of the project though its location is yet to be identified which may create additional requirements for the project.	Consent and budget requirements will depend on the location.	Possible	Potential sites have been identified and radio licenses sought. Preference is for the second site to be on Defence land.

Financial Performance

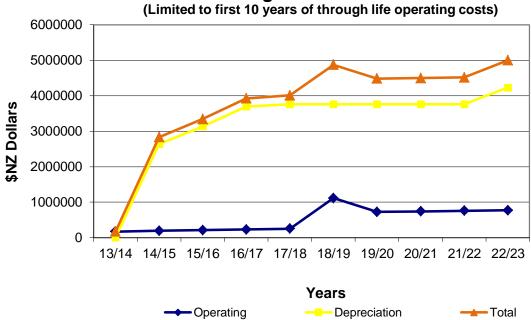
Further detail on financial performance can be found at Part 3, pages 205-206.

Approved budget and expenditure

	Total (NZ\$ million)
Approved budget	88.9
Life to date expenditure	30.4
Total forecast expenditure	83.3
Gross project variation (forecast)	5.6
Foreign exchange impact	Nil
Actual project variation (forecast)	5.6

Summary of Through Life Operating Cost Estimates

Summary Through Life Operating Costs Strategic Bearer Network



Part 2B Summaries of Project Information Reports

DEFENCE COMMAND AND CONTROL SYSTEM

Introduction: The 2010 Major Projects Report included the Joint Command and Control System Programme. It reported that of the four projects identified in that programme, only the Defence Command & Control System Project had commenced, and that the other three were still in the concept stage.

On 18 July 2011, however, Cabinet cancelled the Joint Command and Control System Programme. It did so because the capability gaps identified in the 2008 Business Case, and which were to be addressed by the three projects other than Defence Command & Control System, had significantly reduced. The previously agreed scope and structure of the Programme, therefore, were no longer appropriate.

Accordingly, this Project Information Sheet reports on the Defence Command & Control System Project only.

At the same time as the Cabinet decision, the lead for the acquisition of the Defence Command & Control System Project transferred from the Defence Force to the Ministry of Defence. Governance remains with a Ministry of Defence/Defence Force Capability Steering Group accountable to the Capability Management Board.

The Acquisition Work

The project has been managed in spirals and phases, as follows:

- Spiral 1: the implementation of Global Commanding Control System Maritime Version 4 including Intelligence features onto the Multi-Agency Network – Restricted at the National Maritime Co-ordinating Centre located at Headquarters Joint Forces New Zealand in Trentham.
- Spiral 2: the implementation of Global Commanding Control System Maritime Version 4, including Intelligence features, onto the Defence Force Secure Wide Area Network

In October 2013 the Government approved the adoption of the Global Command and Control System – Joint for all of the Defence Force networks. This is an upgrade to the Maritime version.

Schedule

With the adoption of the Joint version, the project will now complete by the end of 2015.

Active Risks and Issues as of June 2014

Further detail on this risk and the project's lower rated risks can be found at Part 3, pages 233-235.

Risks	Consequences	Likelihood	Treatment Actions
Communication Information System resources. The Defence Force Communication Information System Branch may not have the capacity, networks, or resources to support the Defence Command & Control System.	Schedule. May generate delays for the system's introduction into service.	Possible	Ensure that engagement with the Communication Information System Branch is open, ongoing and orientated toward problem resolution.

Issues	Phase	Impact	Treatment Actions
User and system requirements. Requirements are currently defined at the programme level, not the project level. In addition some requirements are only 'place holders' rather than actual, measurable requirements.	Acquisition / Introduction into Service.	Schedule. The project's progress will be delayed as the detailed operational requirements are confirmed by the project team.	The project team is leading a review of the Defence Force user requirements. Progress has been delayed by the poor performance of the Global Commanding Control System - Maritime intelligence product not the implementation of Global Commanding Control System – Joint will allow the operational requirements review to be completed by the end being as expected of 2014.

Financial Performance

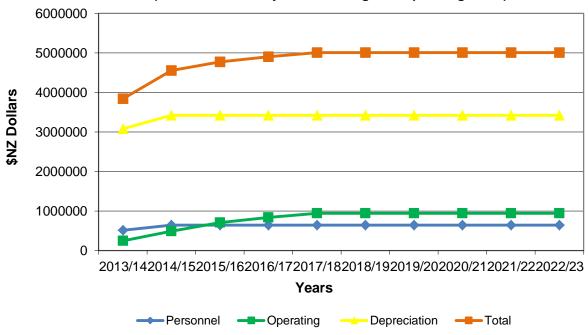
Further detail on financial performance can be found at Part 3, pages 225-227.

Approved budget and expenditure

	Total (NZ\$ million)
Approved budget	23.6
Life to date expenditure	9.1
Total forecast expenditure	22.6
Gross project variation (forecast)	0.9 under spend
Foreign exchange impact	0.7 (favourable)
Actual project variation (forecast)	0.2 under spend
Explanation	N/A

Summary of Through Life Cost Estimates

Summary Through Life Operating Costs Defence Command and Control System (Limited to first 10 years of through life operating costs)



PROJECT PROTECTOR REMEDIATION MULTI-ROLE VESSEL, OFFSHORE AND INSHORE PATROL VESSELS

Project Background: Project Protector delivered a Multi-role Vessel, two Offshore and four Inshore Patrol Vessels. These vessels were acquired to perform a range of sealift and naval patrol tasks for the Defence Force and civilian agencies.

The ships were delivered with capability shortfalls and deficiencies that were subject to a mediation claim and settlement. This project will remediate the shortfalls and deficiencies.

The Acquisition Work

A two phase programme is being undertaken:

- Phase one involves detailed planning and design work. This includes scrutiny of the costs of potential changes in relation to the level of benefit they provide and the amount of settlement funding that remains.
- Phase two involves the remediation solutions and optimisations for *Canterbury* and the rest of the Protector fleet which are priorities for implementation.

This second phase involves the implementation of the prioritised list of physical changes that have been identified during Phase One. These changes have been undertaken in six work streams:

- Priority One: Sea-keeping
- Priority Two: Canterbury's Ship to Shore Transfer system
- Priority Three: Canterbury's Mission Systems
- Priority Four: Aviation Integration on Canterbury
- Priority Five: Canterbury's Medical Systems
- Priority Six: Minor Safety and Compliance Items

A range of changes to address immediate safety and capability issues have been undertaken as well. Solutions to these issues have been identified, detailed designs for the solutions progressed, and any required physical changes scheduled for implementation. Identified work has been implemented on the ships progressively.

Schedule

Following completion of a recent major remediation of *Canterbury*, the Protector vessels are substantially delivering the intended capabilities and are being tasked accordingly. With the next phase of the Protector Remediation Project now under way, remaining contractual shortfalls will be addressed.

The macro level schedule for the project remains unchanged from the 2013 Major Projects Report and is planned to be completed by December 2015.

As at 30 June 2014 the project was 76% complete and the plan anticipates work completion of 90 % in 2015 and complete in June 2016. .

The major work package for *Canterbury* completed in May 2013, including relocating the ship boats, aviation upgrades for the new helicopters, surgical facility upgrades and the remediation of the landing craft. The Chief of Navy issued an "Interim Operational Release" on 29 May 2013 that enabled *Canterbury* to commence Operational Test and Evaluation.

The purchase of mission systems for installation across the seven Protector vessels is underway and progressive installation will occur commensurate with the 'Fleet Availability and Maintenance Plan' allowing operations of the vessels as appropriate.

Risks and Issues

The Project carries a number of risks and issues which are detailed in the Project Information Sheet at Part 3, pages 234-235.

Financial Performance

Further detail on financial performance can be found at Part 3, pages 217-219.

Approved budget and expenditure

	Total (NZ\$ million)
Approved budget	59.9
Life to date expenditure	42.1
Total forecast expenditure	59.6
Gross project variation (forecast)	0.3 (under spend)
Foreign exchange impact	0.0
Actual project variation	0.3
(forecast)	(under spend)