



MAJOR PROJECTS REPORT 2017

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Volume 2

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PART 3A: PROJECT DATA SHEETS

ANZAC FRIGATE PLATFORM SYSTEMS UPGRADE

Project Description: The Platform Systems Upgrade (PSU) 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.

For information on Policy Value, Better Business Case Milestones, Capability Definition Phase and/or Summary of Acquisition Phase, refer to the Major Projects Report, Volume 3.

SECTION 1: ACQUISITION PHASE

The acquisition phase procures the capability solution. Deeper analysis of requirements and options may be required once defence industry is engaged. Included in this stage are processes for tendering, contract negotiation and acceptance of the deliverables.

1.1 Summary of acquisition phase

Description of acquisition work

In November 2007 Cabinet approved Defence's Main Gate investment case for the project and authorised the commencement of the acquisition phase (Approval to Proceed). The budget was not to exceed NZ$57.6 million. Cabinet authorised Joint Ministers (Defence and Finance) to approve the final costs. The Secretary of Defence was delegated authority to enter into contractual arrangements for the project.

The preferred acquisition strategy was to appoint thyssenkrupp Marine Systems Australia (tkMSA) to be the project design authority, and to tender a prime contract on the international market. The November 2007 Cabinet paper also noted that Defence had a strong preference for the work to be undertaken at the Devonport Naval Base.

Revised Acquisition strategy

In May 2008 Defence sought Joint Ministers' (Defence and Finance) authorisation to adopt a revised acquisition strategy. The propulsion systems component of the PSU had been envisaged from the start of the project as taking place in conjunction with the replacement of the Anzac frigates' engines in order to avoid duplication of work and significant extra cost. It became apparent after the Main Gate approval, however, that the engine replacements had to be done within a tight timeframe during the frigates' extended maintenance periods in 2009 and 2010. It would not have been feasible to ready the entire PSU work package under a prime contract in time for these maintenance periods.

Defence proposed, consequently, that four separate contracts be tendered, covering:

- the power upgrade
- stability enhancement and compartment changes

- Integrated Platform Management System (IPMS) replacement
- Heating, Ventilation, and Air Conditioning (HVAC) upgrade.

The power upgrade contract would be initiated in time for work to be carried out in conjunction with the engine replacement.

Joint Ministers authorised the revised acquisition strategy, as well as the commitment of NZ$4.5 million for the purchase of long lead items, and the commitment of $4.75 million as project start up costs. The Ministers noted that the heating, ventilation and air condition systems and the IPMS replacement would go through an international tender process.

Phase One

Following approval of the revised strategy, work proceeded on a first phase, which included the power upgrade, as well as the stability enhancement and compartment changes. The project team appointed tkMSA as the design authority and awarded MTU Detroit Diesel Australia Pty Ltd (and partners, VT Fitzroy and Australian Marine Technologies) a contract to conduct a Preliminary Design Study on the power upgrade element in order to firm up costs and clarify the design.

On 23 October 2008 Joint Ministers delegated authority to the Secretary of Defence to enter into contractual arrangements for the power upgrade. The Phase One budget was finalised through two separate approvals. The first approval covered the long lead items and project start up costs totalling NZ$9.25 million. The second approval covered NZ$7.5 million to achieve the power upgrade element and NZ$7.5 million to achieve the stability enhancement and compartment changes.

Contractor	Contract
thyssenkrupp Marine Systems Australia	Design Authority Services.
Australian Marine Technologies	Stability Enhancement and Compartment Changes.
MTU Detroit Diesel Australia Pty Ltd	Preliminary Design Study – power upgrade Long Lead Items – power upgrade Power Upgrade system design solution.

HMNZS *Te Kaha* and HMNZS *Te Mana* completed their power upgrade and stability enhancement upgrades during their extended maintenance periods.

Phase Two

On 22 December 2010 Joint Ministers delegated authority to the Secretary of Defence to enter into contractual arrangements for the IPMS and HVAC elements of the project.

The project team undertook Phase Two on the basis of using individual contracts for each element. Accordingly, the contractors listed in the below table were engaged:

Contractor	Contract
thyssenkrupp Marine Systems Australia	Provision of Design Authority Services.
Australian Marine Technologies	Provision of Design Integration Services.
Noske Kaeser NZ	Provision of the HVAC element and the MCR and Bridge Consoles.

Siemens NZ	Provision of the IPMS element including the Integrated Bridge System (IBS).
MTU Detroit Diesel Australia Pty Ltd	Provision of the Propulsion Diesel Control System (PDCS) interface between the Siemens S7 software and the MTU diesel engines.
L-3 Communications MAPPS Inc, Canada	Replace existing Gas Turbine Advanced Engine Control Module (GT-ECM), which is obsolete.
Babcock Fitzroy Babcock (NZ) Limited	Installation work at Devonport Naval Base under the existing dockyard management contract.

HMNZS *Te Kaha* completed platform systems upgrade phase 2 and was released for operational tasking in August 2014. HMNZS *Te Kaha* has subsequently completed a work up, deployment to Gallipoli for ANZAC Centenary commemorations, a maritime interdiction operation in the Indian Ocean and was deployed to exercise RIMPAC in Hawaii.

HMNZS *Te Mana* was inducted into the platform systems upgrade production Phase in December 2014 and completed Contractor Sea Acceptance Trials in April 2016. HMNZS *Te Mana* was released for operational tasking in early May 2016 and is operating in accordance with the RNZN Fleet Plan.

The On Board Operational Trainer has been contracted to Siemens to deliver the software system to operate on existing hardware. The software is programmed for delivery in mid 2017 and the project transferred this minor work to the Capital Project Minor portfolio as part of project closure.

The project team is progressing towards project closure.

1.2 Project Budget

Budget variation

	Date Approved	Approved Amount (NZ$ million)
Original budget at Approval to Commit- Total (Phases 1 & 2)	**19 November 2007**	**57.6[1]**
Approved budget- Phase 1	**(See Note 1)**	**23**
Budget – Phase 2	**(See Note 2)**	**64.6**
Total Approved Budget		87.6
Transfer to other project (Note 3)	11 July 2016	(1.5)
Total Approved Budget (after transfer)		86.1
Note 1	The Phase 1 budget was finalised through two separate approvals. • 29 May 2008: Approval covered Long Lead Items (NZ$4.5 million), Design Authority (NZ$4.0 million), Project management (NZ$0.5 million), Preliminary Design Study (NZ$0.25 million). • 31 October 2008: Approval covered NZ$7.5 million to achieve the power upgrade element and NZ$7.5 million to achieve the stability enhancement and compartment changes. This approval also accepted that the original estimate	

[1] Budget limit set but no contract had been negotiated or signed.

	has been exceeded by NZ$3.6 million and this will impact the total project contingency. • 21 January 2011: The underspend within Phase 1 (NZ$1.3 million) has been transferred to the Phase 2 budget.
Note 2	• 22 December 2010: Cabinet approved the Phase 2 budget ($33.3 million). A baseline increase to the overall project budget of NZ$1.8 million was approved to cover forecasted additional costs in relation to project management and installation costs and provide additional contingency cover. • 21 January 2011: $1.3 million transferred to Phase 2 from Phase 1. • Information to hand by 30 June 2013 indicated that in order to complete the Platform Systems Upgrade to the specified capability requirements, additional funding will be required in the coming year. • 10 December 2013: An additional $6 million was approved to complete work on *Te Kaha*. • 8 April 2014: An additional $22.2 million was approved in April 2014 to complete work on *Te Mana.*
Note 3	• 11 July 2016: Cabinet approved a transfer of $1.5 million to the Strategic Bearer Network Project.

1.3 Financial Performance

Project expenditure to date (30 June 2017)

	Total (NZ$ million)
Life to date expenditure (cumulative)	81.5
Remaining balance of approved budget- Phase 1 and phase 2	4.6
Forecast commitments	0.0

Total forecast expenditure

Forward Cover

To remove uncertainty from a future cash flow in a foreign currency, Forward Exchange Contracts are used to purchase the funds required to satisfy the forecasted project costs. A Forward Exchange Contract is a contract to buy/sell a nominated amount of currency on a given date. The rate is struck at the time of the contract and becomes the contract rate. This is the rate that will be used on the agreed future date to settle the contract and receive/pay the foreign currency regardless of what the market rate is on the day. The resulting gain or loss when the contract is compared to the market rate on the day – or at any point in the timeline – is the price of certainty of future cash flows.

	Total (NZ$ million)
Approved budget	86.1
Total forecast expenditure	81.5
Gross project variation (forecast)	4.6
Foreign exchange impact	(1.6)
Actual project variation (forecast)	3.0
Explanation	Variance is comprised of underspend and unfavourable foreign exchange impact.

Project Contingency (as at 30 June 2017)

	Total (NZ$ million)
Contingency built into the budget	1.2
Contingency expended	2.5
Previous Balance	-1.3
Funding to provide additional contingency cover	
March 2012	0.7
December 2013	1.6
April 2014	3.8
Contingency expended 2016/17 financial year	4.2
Remaining balance	0.7
Note: The original assessment of the allocated contingency was based on the prime contract outlined in the 2007 Comprehensive Capability Investment Proposal. The contingency allocated in the budget for phase two needed to be updated due to the project's change in strategy and the additional project definition work that has been completed.	

Explanation of major contingency draw downs

Draw down	Total (NZ$ million)	Explanation
1. Gas Turbine Engine Control Module (GT-ECM)	0.9	The draw down covered the cost of the GT-ECM. At the time of seeking Cabinet approval the requirements had not been defined in sufficient detail to allow tenders to be called. As a result accurate costing could not be included as a specific line item.
2. Transfer	+0.7	Additional contingency cover as part of the fiscally neutral transfer from the Anzac Frigate Close In Weapon System project approved March 2012.
3. Transfer	+1.6	Additional contingency cover as part of the fiscally neutral transfer from other projects. Approved December 2015.
4. Siemens/TKMSA/Noske-	1.6	The draw down covered the costs of spare parts for both ships and a set of depot level spares, additional programming units, claim for delay (Siemens), rebuild design data (tkMSA), Console update claim delay (Noske-Kaeser) and covered foreign exchange impacts. Approved in October 2014.
5. Additional funding	+3.8	Additional Contingency Cover approved by Cabinet [CAB Min(14) 13/4] 11 April 2014.
6. Transfer	2.7	Drawdown for transfer to the Anzac Frigate Sytems Upgrade Project for the provision of a Navigation Radar System integrated into the PSU Integrated Bridge System
7. Transfer	1.5	For transfer to Strategic Bearer Network Project.

1.4 Schedule/Timeframe Progress

Variations in forecast acceptance date.

	Initial Estimate	30 June 2017 Forecast / Achieved	Variation in Acquisition phase (months)
Acceptance Date Phase 1 (power upgrade, stability enhancement) Coordinated with *Te Kaha* and *Te Mana*'s planned extended maintenance period	*Te Kaha* December 2009	8 February 2010 (achieved)	2
	Te Mana Late 2010 (scheduled maintenance period)	3 December 2010 (achieved)	0

Acceptance Date Phase 2- (heating, ventilation, air conditioning and the integrated platform management systems) Co-ordinated with *Te Kaha* and *Te Mana's* planned extended maintenance period.	*Te Kaha* December 2012	21 September 2014 (achieved)	21
	Te Mana December 2012	April 2016 (achieved)	2 (early)

History of variations to schedule

Date of individual variation	Variation length (months)	Explanation
April 2009	2	The RNZN deferred the start of *Te Kaha*'s maintenance period by two months to ensure that the power upgrade work could be undertaken in conjunction with the engine replacement.
December 2011	24	The decision was confirmed by the December 2011 meeting of the Defence Capability Management Board that *Te Kaha* would be the lead ship for the installation of PSU Phase 2 in 2013 and that *Te Mana* would follow in 2014. This action means a delay to the project schedule and comes with attendant costs but less risk.
June 2013	5	*Te Mana* was not likely to be available to commence PSU until early 2015, once she returned from an operational deployment in early 2014, and *Te Kaha* has achieved a suitable level of operational capability post her upgrade.
April 2014	N/A	As a result of Cabinet consideration of the PSU project's funding and schedule, a revised schedule was agreed for *Te Mana* based on the ship being inducted into the upgrade no later than January 2015. This now forms the new base schedule.
July 2015	N/A	A formal reprogramme established a *Te Mana* completion window of April-June 2016. Project Closure occurred in December 2016.

SECTION 2: INTRODUCTION INTO SERVICE PHASE

The introduction into service phase develops the force elements required to generate NZDF outputs at a specific level of capability. Part of this stage is the test and evaluation process, which demonstrates the capability has met specific standards of safety and is operationally effective in accordance with the suite of operational concept documentation.

2.1 Summary of Introduction into Service phase

Description of Introduction into Service phase

The Configuration Management Plan developed by the Anzac Ship Design Authority describes the procedures for accepting and introducing the Platform Systems Upgrade into service.

As noted in the Project Management Plan for the Platform Systems Upgrade, the upgrades were verified through analysis, inspection, demonstration and test activities. Verification spanned the design stage until the end of contractor Category 5 sea trials and included:

- Category 0 design verification through reviews;
- Category 3 to test ship fit;
- Category 4 Harbour Acceptance Trials; and
- Category 5 Sea Acceptance Trials.

Category 0-5 Verification completed with Contractor Sea Acceptance Trials during the acquisition phase (Categories 1 and 2 are contractor quality assurance testing stages).

An Operational Test and Evaluation (OT&E) phase conducted on HMNZS *Te Kaha* as first of class completed in December 2014.

Following OT&E, an Operational Capability Statement was issued.

Status of Introduction into Service phase

As of 30 June 2017 OT&E is complete. An Operational Capability Statement was prepared and Full Operational Release took place in October 2016.

2.2 Schedule of Introduction into Service

The schedule of introduction into service is detailed in the below table:

Ship	Implementation	Initial Operational Release	Category 6 Trials Complete	Category 7 Trials Complete	Full Operational Release
HMNZS *TE KAHA* – Phase I[2]	April – December 2009	13 February 2010	To be confirmed	To coincide with Phase two	To coincide with Phase two
HMNZS *TE MANA* – Phase I	April – October 2010	07 December 2010	To be confirmed	To coincide with Phase two	To coincide with Phase two
HMNZS *TE KAHA* – Phase 2	January 2013 – TBA	21 September 2014	19 December 2014	19 December 2014	November 2016
HMNZS *TE MANA* – Phase 2	June 2014 – May 2015	March 2016	N/A All trials completed on *Te Kaha*.	N/A All trials completed on *Te Kaha*.	October 2016

[2] See Section 1.1 above for an explanation of Phases 1 and 2.

SECTION 3: OPERATIONAL CAPABILITY

3.1 PROGRESS TOWARDS DELIVERY OF CAPABILITY AND OPERATIONAL REQUIREMENTS

Capability Requirement	Operational Requirement	Requirements Likely to be met	Explanation
Damage Stability and Reserve Buoyancy	• A minimum weight growth margin of 100 tonne. • Conformance to the requirements of DEF AUST 500, Australian Defence Force Maritime Materiel Rule Set, Volume 3, Hull System Requirements, Part 2 Stability of Surface Ships and Boats.	Achieved	Implementation on HMNZS *Te Kaha* and *Te Mana* was successful with some phases of operational testing complete. Full operational release will coincide with completion of Phase II.
Anzac Operational Profile – the propulsion configuration system	• With respect to the propulsion systems, the diesel engines shall, in combination, provide sufficient power to drive the ship not less than 20 knots under the specified design environmental conditions at a maximum displacement of 3700 tonnes.	Achieved	
High Temperature Operating	• Adopt the ISO 7547-2002 standard for heating, ventilation and air conditioning. • An environmental control system which is capable of controlling the ship's internal air temperatures. • A chilled water cooling capacity of not less than 986 kw.	Implemented on *Te Kaha/Te Mana*	
Control and Monitoring System that delivers automated functions across all platform systems	• Integrated platform management systems. • Simplified propulsion control. • Gas turbine engine control module. • Integrated bridge system. • Onboard operational trainer. • Enhanced battle damage control system. • Remote monitoring capability.	Implemented on *Te Kaha/Te Mana*	
Operational Capability Statement and Operational Release took place in October 2016.			

ANZAC FRIGATE SYSTEMS UPGRADE

Project Description: The primary objective of the Anzac Frigate Systems Upgrade (FSU) 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 Anzac frigates to the Pacific and beyond, enabling them to operate with confidence in low to medium threat environments.

For information on Policy Value, Better Business Case Milestones, Capability Definition Phase and/or Summary of Acquisition Phase, refer to the Major Projects Report, Volume 3.

SECTION 1: ACQUISITION PHASE

The acquisition phase procures the capability solution. Deeper analysis of requirements and options may be required once defence industry is engaged. Included in this stage are processes for tendering, contract negotiation and acceptance of the deliverables.

1.1 Summary of acquisition phase

Description of acquisition work

On 6 November 2012 the Cabinet Committee on State Sector Reform and Expenditure Control authorised the Secretary of Defence to:

a. Issue Requests for Tender for the lead contractor, supply of components and other items as required to deliver the capability level; and

b. Include in the Requests for Tender an option of acquiring a full combat inventory of missiles.

How Defence decided to acquire the Capability Solution

Requests for Tender were issued in February 2013. Evaluation of the five tenders for the Combat System Integrator (CSI) resulted in a clear preferred supplier. Two respondents offered a baselined[3] solution that was approximately 15 – 20% less expensive than the other three. The higher cost proposals would have resulted in a compromise in capability to maintain the total project cost within that agreed to at the Detailed Business Case stage. Of the two lower cost solutions, one tender had a noticeably lower evaluation score, and posed a higher level of project and schedule risk. Conversely, the Lockheed Martin Canada (LMC) tender was a thorough response with a lower level of risk reflective of FSU being an extension of LMC's existing Halifax Class Frigate upgrade for the Royal Canadian Navy.

A number of preferred Original Equipment Manufacturers (OEMs) were also evaluated and identified as being able to provide the stand-alone systems not offered by the CSI, but which are required to meet the level of capability directed by Cabinet.

On 14 April 2014, Cabinet approved the Project Implementation Business Case and authorised the Secretary of Defence to award contracts to LMC and others as required for equipment and services not forming part of the LMC contract. Cabinet approved NZ$446.193M of capital

[3] In order to evaluate on an equitable basis, responses were baselined by adding or subtracting components and costs from the responses where they differed.

expenditure for the acquisition and introduction into service of the FSU project (based on Fx rates as at 1 April 2014). This included up to $20M as a special contingency against risk in the design and installation stages.

Contract Status (as at 30 June 2017):

Parent Company	Lockheed Martin Canada
Prime Contractor at contract signing	Lockheed Martin Canada
Current prime contractor	Lockheed Martin Canada

1.2 Project Budget

Developments post 30 June 2017

As noted in Volume 1 of this edition of the Major Projects Report, Cabinet approved additional funding for the Frigate Systems Upgrade project in December 2017. A contract change proposal for the installation phase was signed with Lockheed Martin Canada in December 2017. The project schedule and costs above have been rebaselined to reflect these changes. The details in this report, however, reflect the project's status as at 30 June 2017.

Budget variation

	Date Approved	Total (NZ$ million)
Original budget at Approval to Commit	14 April 2014	446.2
Current approved budget	16 November 2015	490.9
Variation on original approved budget		44.8

Explanation of major budget variations

Date of individual variation	Total (NZ million)	Explanation
16 November 2015	44.8	Additional NZ$44.8 million approved as a non-cash technical adjustment for FX movement 2015 October Baseline Update

1.3 Financial Performance

Project expenditure to date (30 June 2017)

	Total (NZ$ million)
Life to date expenditure (cumulative)	314.1
Remaining balance of approved budget	176.8
Forecast commitments	134.6

Total forecast expenditure

Forward Cover

To remove uncertainty from a future cash flow in a foreign currency, Forward Exchange Contracts are used to purchase the funds required to satisfy the forecasted project costs. A forward Exchange Contract is a contract to buy/sell a nominated amount of currency on a given date. The rate is struck at the time of the contract and becomes the contract rate. This is the rate that will be used on the agreed future date to settle the contract and receive/pay the foreign currency regardless of what the market rate is on the day. The resulting gain or loss when the contract is compared to the market rate on the day – or at any point in the timeline- is the price of certainty of future cash flows.

	Total (NZ million)
Approved Budget	490.9
Total forecast expenditure	448.7
Gross project variation (forecast)	42.2
Foreign exchange impact	(42.2)
Actual project variation (forecast)	0.0
Variance explanation	Foreign exchange impact

Nature of variation (forecast)	Total ($million)	Explanation
Actual project variation	42.2	Foreign exchange impact and uncommitted cost
Foreign exchange impact	(42.2)	
Total	0.0	

Project Contingency (as at 30 June 2017)

	Total (NZ$ million)
Contingency built into the budget	30.2
Total contingency expended	0
Remaining Balance	30.2

Explanation of contingency draw downs

Drawdown	Total (NZ$ million)	Explanation
N/A		
Total		

1.4 Schedule/Timeframe Progress

Variations in forecast acceptance date.

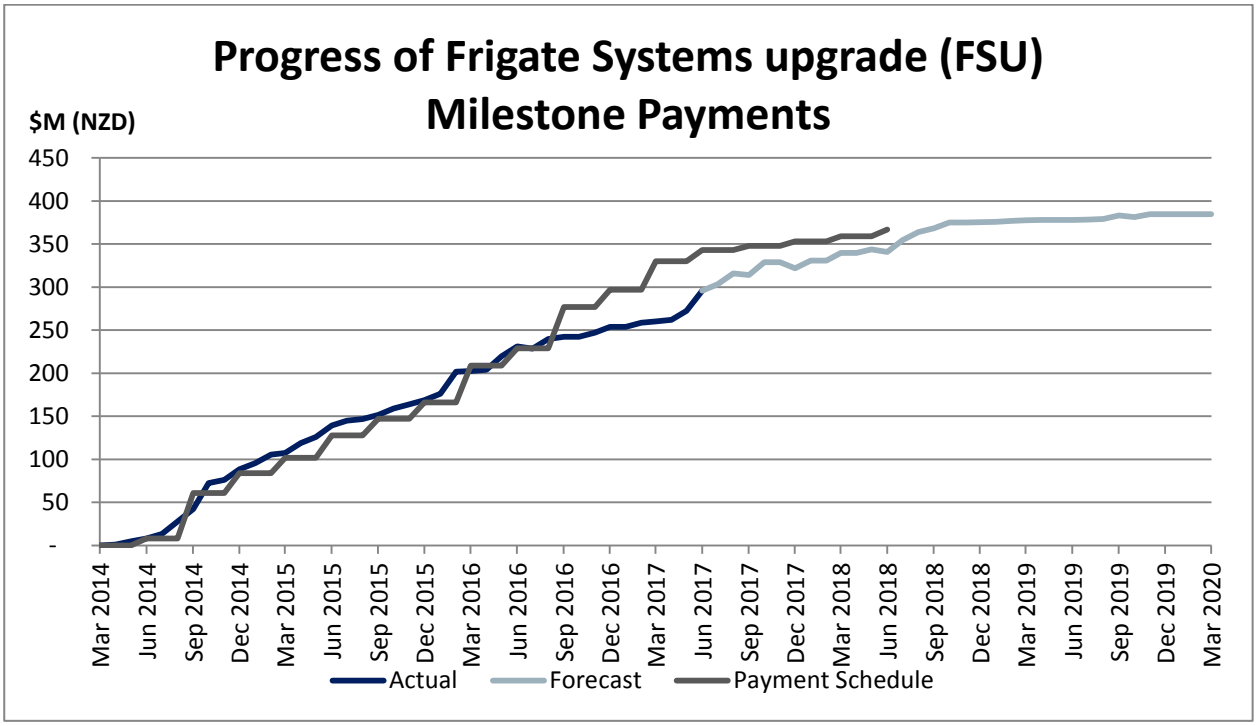
		Original forecast at Approval to Commit	30 June 2017 forecast/achieved	Variation in Acquisition Phase (months)
Acceptance Date	Ship One	March 2017	September 2018	18
	Ship Two	February 2018	September 2019	19
Comment		The June 2017 Forecast reflects a proposed refit schedule based on a refit start date of September 2017 for Ship 1 and July 2018 for Ship 2.		

History of variations to schedule

Date of individual variation	Variation length (months)	Explanation
Detailed Design Contract Change Proposal	8	Change to refit start date from November 2016 (as reported in the June 2015 report) to July 2017 due to the longer preliminary design phase.

Progress of Anzac Frigate Systems Upgrade against the Milestone and Ancillary Payments Schedule[4]

NOTE: This graph displays the project's progress by comparing actual milestone payments against the milestone payments schedule agreed to in the prime contact.[15] Milestone payments are made upon the contractor's provision of key deliverables and are therefore a good way to identify timing and size of schedule slippage.



[4] This graph represents the Prime contract and Ancillary contract. It does not include the $12 million Project Management or the $10 million & $20 million contingencies.

SECTION 2: INTRODUCTION INTO SERVICE PHASE

2.1 Summary of Introduction into Service Phase

The introduction into service phase develops the force elements required to generate NZDF outputs at a specific level of capability. Part of this stage is the test and evaluation process, which demonstrated the capability has met specific standards of safety and is operationally effective in accordance with the suite of operational concept documentation.

Description of Introduction into Service Phase

An Introduction into Service Plan has been developed to coordinate the test and evaluation processes required to bring the upgraded frigates back into operational service.

The main activities will be:

Engineering change process: The overarching framework against which IIS will be conducted is the RNZN Engineering Change Process. This is a well-established structured process which ensures all elements of IIS are completed.

Data Management and Documentation Deliveries: documentation delivered by the contractors will be reviewed and then entered into the Logistic Information Management System (LIMS).

Acceptance Testing: Acceptance testing will be based on the Royal Australian Navy (RAN) Test and Evaluation procedures. Testing will include Factory, Harbour and Sea Acceptance Tests.

Acceptance testing of the Sea Ceptor missile system will include a significant amount of modelling analysis that will be achieved through collaboration with partner navies.

The first ship to be upgraded will need to meet sufficient test requirements to attain an Initial Operating Capability prior to the second ship entering refit.

Operational Test and Evaluation: will be conducted by the NZDF in order to satisfy that the delivered suite of products meets the original intent. Additionally it baselines the delivered systems and identifies its capabilities and limitations.

Training: Three types of training deliverables will be provided; training systems, training data/documentation and training courses. These deliverables will be managed by the project's ILS manager liaising with the end users.

Leveraging Partner Defence Force Relationships: In order to both meet system requirements and provide through life support, arrangements will be leveraged with partner defence authorities. Implementation Arrangements are now in place with both Canada and the UK.

Prior to IIS, safety case data will be provided by the FSU Project to allow Defence to raise relevant safety cases for approval by the Naval Capability and Armament Certification boards as appropriate. Similarly, prior to classified data being held on any delivered system, the system must be certified to recognised security standards.

2.2 Schedule of Introduction into Service

Levels of Capability

Initial Operating Capability: this is the first time the capability being introduced can achieve some or all of the operational requirements

Operational Level of Capability: the generation of military capability so that force elements are able to carry out specific military tasks in accordance with the NZDF Output Specifications.

Directed Level of Capability: the maintaining of military capability at a minimum capacity from which force elements may be generated within a specified response time to achieve the operational level of capability

	Initial Estimate	30 June 2017 Estimate	30 June 2017 Actual	Variance (months)
Date Platform accepted by Crown	Ship 1 March 2017 Ship 2 February 2018	Ship 1 September 2018 Ship 2 September 2019	N/A	18 21
Commence operational test and evaluation	May 2017	October 2018	N/A	17
Finish operational test and evaluation	February 2018	June 2019	N/A	16
Achieve initial operating capability	May 2017	October 2018	N/A	17
Establish directed level capability	TBC	June 2019	N/A	N/A
Explanation	The initial schedule estimates were at the time of submitting the Project Implementation Business Case. The dates were under review at 30 June 2017 and were agreed in the contract change proposal for the installation phase, which was signed with Lockheed Martin Canada in December 2017.			

SECTION 3: OPERATIONAL CAPABILITY

3.1 Progress towards Delivery of Capability Operational Requirements

Operational Requirements:	Requirement likely to be met:	Explanation:
Combat Management System (CMS).	Yes	The Lockheed Martin CMS 330 represents a significant upgrade over the current system that will integrate all the necessary sensors being provided under FSU.
Intelligence Systems	Yes	Both Radio and Radar electronic support measures will be enhanced by the provision of separate systems that will bring the Signals Intelligence capability up to date.
Radar Systems (Surveillance and Reconnaissance).	Yes	Provision of Thales SMART S 3 Dimensional Multi Function Radar and Sharp Eye surface surveillance radar will address obsolescence issues and provide systems capable of detecting modern threats.
Optronics (Surveillance and Reconnaissance).	Yes	A Sagem Vampir Infra Red Search & Track (IRS&T) system will provide additional surveillance plus target indication for the air defence missile system.
Air Defence	Yes	The Sea Ceptor active missile system will provide state of the art defence against the latest types of anti-ship missile.
Anti-Surface	Yes	The new surveillance sensor package combined with improved Command and Control will improve the ship's ability to defend itself against asymmetric surface threats. A new 5 inch gun control system will contribute to this as well as providing additional flexibility for Naval Fire Support to troops ashore.
Under-Sea Warfare	Yes	Modernisation of the Hull Mounted Sonar (HMS) will significantly enhance performance of the detection and tracking of submarines. The introduction of the Sea Sentor Torpedo Defence system will provide for the first time the ability to detect, classify and track torpedoes whilst responding with an integrated set of defensive measures.

Support to Joint Task Force	Yes	The overall upgrade will generate an escort that is capable of maintaining a presence in a contemporary threat environment. It will be able to significantly contribute to the Intelligence, Surveillance and Reconnaissance objectives of a task force commander and provide local area air defence to high value units.
ASSESSMENT: Contracts to achieve all of the above operational requirements have been awarded. Benefits realisation is scheduled for full implementation in 2019.		

INDIVIDUAL WEAPON REPLACEMENT

Project Description: The purpose of the Individual Weapon Replacement project is to replace the existing New Zealand Defence Force (NZDF) 5.56mm Steyr rifle and the 40mm grenade launcher with a new individual weapon and grenade launcher of the same capability. To meet the needs of future operating environments, the Individual Weapons Replacement Project requires a move from a closed to open architecture design, to provide an individual weapon that delivers modularity in capability.

For information on Policy Value, Better Business Case Milestones, Capability Definition Phase and/or Summary of Acquisition Phase, refer to the Major Projects Report, Volume 3.

SECTION 1: ACQUISITION PHASE

The acquisition phase procures the capability solution. Deeper analysis of requirements and options may be required once industry is engaged. Included in this stage are processes for tendering, contract negotiation and acceptance of the deliverables.

1.1 Summary of Acquisition Phase

Description of acquisition work

As part of the business case approval, Defence received approval to approach the market with a Request for Tender. This was issued on 14 August 2014 with a deadline for response of 12 November 2014.

Eleven companies responded, and eight responses were evaluated as compliant and were recommended to go through the trial evaluation process. All eight companies provided weapons for evaluation.

The trials took place over three months. This involved a comprehensive range of tests including both practical firing and technical analysis.

Overall, the evaluation had three broad streams:

- Technical testing – including aspects such as inherent accuracy at various ranges, actual motion and dynamics (for example, recoil and muzzle jump on firing), muzzle flash, noise levels, weight distribution;
- User testing – including overall usability of both the rifle, the rifle/grenade launcher combination, and the grenade launcher in ‘stand-alone’ mode, and the results of comprehensive shooting trials; and
- The overall commercial package, including in service support arrangements, price, and technical and service information compliance.

Lewis Machine & Tool Limited (LMT) was the clear choice across the full range of user trials. It met the technical evaluation and was within the fiscal envelope allowed. An added benefit was that the LMT grenade launcher was also preferred. This meant that the overall solution was a ‘turn-key’ solution from one provider, rather than having to consider matching a rifle from one provider and a grenade launcher from another.

Due diligence was undertaken on LMT by the Ministry of Defence and through an independent evaluation.

The major contract is a commercial purchase of the rifles, parts, a two year spares package, along with nominated ancillaries and services from LMT.

In addition to the overall contract, the project includes the modification of armouries and other infrastructure across the Defence Force; project management and an allowance for simulation. Logistic Support is part of the overall package. Maintenance arrangements are in line with current provision.

Two components of the overall weapons system - the primary x4 power sight and the combat torch - are contracted direct from their respective suppliers (Trijicon for the sight, and Quality Imports NZ Ltd for the combat torch). Both these components are standardised in service already. The tender requirements stipulated that these components be integral to the overall system.

Overall, project governance and management is in accordance with approved Capability Management Framework practices.

Contracts: Status as at 30 June 2017

Individual Weapon

Contractor– Lewis Machine & Tools Inc USA - Signed 23 December 2015.

Delivered in 4 tranches, Tranches 1 to 3 factory acceptance tests were completed and all weapons passed as being fit for purpose. Tranche 1 weapons were delivered and accepted in October 2016 and Tranche 2 weapons were delivered and accepted in March 2017. Tranche 3 was shipped but had not arrived in New Zealand – due date was 25 July 2017. Tranche 4 factory acceptance test commenced on 12 June 2017 and completed 7 July 2017. All weapons were passed fit-for-purpose and readied for shipment.

Advanced Combat Optical Gunsight (ACOG)

Contractor – Trijicon, Inc USA – Signed 18 December 2015.

Delivered in 7 tranches – from May 2016 to November 2016. All sights have been delivered and accepted.

Combat Torches

Contractor – Quality Imports Limited New Zealand – Signed 21 December 2015.

Delivered in one batch on 28 June and accepted on 8 July 2017.

1.2 Project Budget

Budget variation

	Date Approved	Total (NZ$ million)
Original budget	2 December 2015	59.2
Current approved budget	2 December 2015	59.2
Variation on approved budget		0

Explanation of major budget variations

Date	Total	Explanation
N/A		

1.3 Financial Performance

Project expenditure to 30 June 2017

	Total (NZ$ million)
Life to date expenditure	41.3
Remaining balance of approved budget	17.9
Forecast commitments	16.1

Total forecast expenditure

Forward Cover

To remove uncertainty from a future cash flow in a foreign currency, Forward Exchange Contracts are used to purchase the funds required to satisfy the forecasted project costs. A Forward Exchange Contract is a contract to buy/sell a nominated amount of currency on a given date. The rate is struck at the time of the contract and becomes the contract rate. This is the rate that will be used on the agreed future date to settle the contract and receive/pay the foreign currency regardless of what the market rate is on the day. The resulting gain or loss when the contract is compared to the market rate on the day – or at any point in the timeline – is the price of certainty of future cash flows.

	Total (NZ$ million)
Approved budget	59.2
Total forecast expenditure	57.4
Gross project variation (forecast)	1.8
Foreign exchange impact	(1.8)
Actual project variation (forecast)	0

Variance explanation

Nature of variation (forecast)	Total (NZ$ million)	Explanation
N/A		
Total	N/A	

Project contingency as at 30 June 2017

	Total (NZ$ million)
Contingency	2.7
Total contingency allocated	0
Remaining balance	2.7

Explanation of major contingency draw downs

Draw down	Total (NZ$ m)	Explanation
N/A		
Total	**N/A**	

1.4 Schedule/Timeframe Progress

Variations in forecast acceptance date

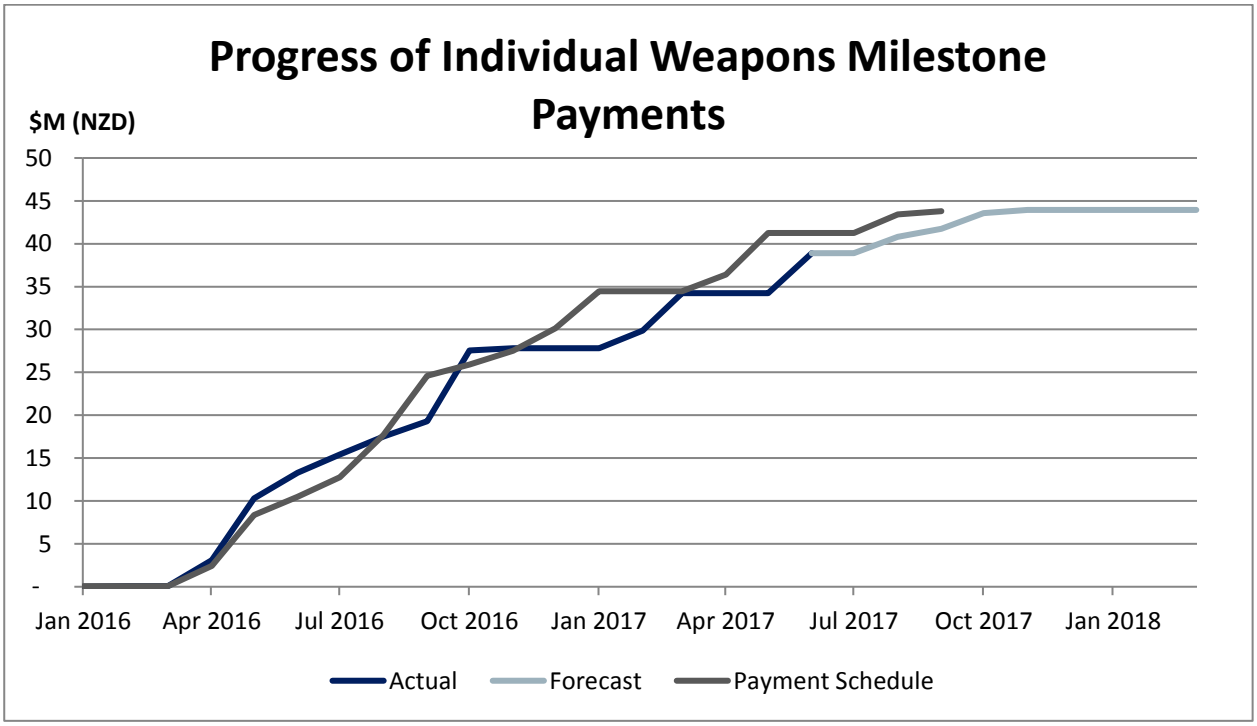
		Original forecast at Contract Signing	30 June 2017 forecast/achieved	Variation in Acquisition phase (months)
Acceptance Date	Individual Weapon Final	July 2017	November 2017 (forecast)	4 months
	Advanced Combat Optical Gunsight Final	November 2016	November 2016 (actual)	nil
	Torches	August 2016	July 2016 (actual)	nil

History of variations to schedule

Date of individual variation	Variation length (months)	Explanation
13 July 2016	4 months	Delay in obtaining the necessary export approvals from the US Government and a re-calculation of production/delivery dates from LMT to cover off manufacturing processes.

Progress of Individual Weapon Replacement Project against the Milestone Payments Schedule

NOTE: This graph displays the project's progress by comparing actual milestone payments against the milestone payments schedule agreed to in the prime contract[5]. Milestone payments are made upon the contractor's provision of key deliverables and are therefore a good way to identify timing and size of schedule slippage.



[5] The milestone payments schedule has cumulative payments that are less than the total budget because it excludes the ancillary and discretionary costs of the project.

SECTION 2: INTRODUCTION INTO SERVICE

The introduction into service phase develops the force elements required to generate NZDF outputs at a specific level of capability. Part of this stage is the operational test and evaluation process, which demonstrates the capability has met specific standards of safety and is operationally effective in accordance with the suite of operational concept documentation.

2.1 Summary of Introduction into Service Phase

Description of Introduction into Service phase

Maintainer training commenced in March 2016. It was conducted at the LMT facility in the US. Maintainers drawn from all services, received training from the manufacturer, then, while still in the United States, conducted a factory acceptance test on the first tranche. Those maintainers then conducted cascade training for the remaining maintainers. This has coincided with delivery site acceptance testing of each tranche.

As all active personnel involved in weapons training are already familiar with multiple weapon types, no particular challenges were envisaged with the introduction of either the rifle or its key ancillaries (which were also already in operational service within Defence, albeit on not such an extensive scale). The project includes rifles and grenade launchers specifically adapted for use in the mobile and static weapons training systems simulators, simulation training, and simulation testing and documentation.

Operator training commenced in October 2016, conducted by LMT instructors. Ten weapon instructors were drawn from all services. These instructors have been conducting cascade training throughout the main camps and bases in New Zealand, with phase 1 of the initial training completed in April 2017.

It should be noted that, should operational circumstances require accelerated release, priority will be given to operationally tasked personnel and appropriate pre-deployment training provided on the Modular Assault Rifle System - Light (MARS-L).

Racking in armouries (including aboard ships) is included in the project and a specific infrastructure allocation is allowed. Armoury modifications will be undertaken as the rifles are delivered. Rifle rack requirements within operational vehicles are being determined, with the project to undertake modifications to vehicles within the overall infrastructure allocation.

Status of Introduction into Service phase

The Introduction into Service concept document was presented to the Project Board in August 2016 (This was used to prepare the detailed introduction into service plan). The Introduction into Service plan was released by the Project Board in October 2016.

2.2 Schedule of Introduction into Service

Levels of Capability

Initial Operating Capability: this is the first time the capability being introduced can achieve some or all of the operational requirements.

Operational Level of Capability: the generation of military capability so that force elements are able to carry out specific military tasks in accordance with the NZDF Output Specifications.

Directed Level of Capability: the maintaining of military capability at a minimum capacity from which force elements may be generated within a specified response time to achieve the operational level of capability.

NZDF Output Plan, 2009, S1-12

	Initial estimate	30 June 2017 estimate	Actual	Variance
Maintainer training commences	March 2016	N/A	April 2016	1 month
Operator training commences	October 2016	February 2017	N/A	4 months
First issue to users	November 2016	February 2017	N/A	3 months
Issue complete	November 2017	November 2018	N/A	12 months
Full Operational Test &Evaluation complete	June 2018	June 2018	N/A	-
Explanation	Delay in obtaining the necessary export approvals from the US Government and a re-calculation of production/delivery dates from LMT to cover off manufacturing processes.			

SECTION 3: OPERATIONAL CAPABILITY

3.1 Progress towards Delivery of Operational Requirements

Progress as at 30 June 2017 The Explanations are Subject to Change as the Project Progresses and Solutions are Implemented		
Operational Requirements	**Delivery**	**Comment**
Increased ability to effectively detect, recognise, identify and engage targets	Yes	The rifle has an open architecture to allow additional equipment to be fitted.
Comply with current safety regulations	Yes	The individual weapon safety case is being scoped.
Improve ability to monitor usage rates.	Yes	Fitment of radio frequency identification tags that enable usage to be electronically recorded.
Commonality across NZDF	Yes	All services will be issued with the same type of weapon.
Proven in Service	Yes	Supplied to military and police organisations.
Proven supply chain	Yes	Contractor has representatives in NZ and is entering into a support contract with the NZDF.
Supportable within current NZDF trades and resources	Yes	The Introduction into Service Plan includes conversion training for maintainers and initial train the trainer for operators.
Value for money	Yes	The cost model in the Implementation Business Case demonstrates this.
Assessment: Benefits realisation is scheduled for full implementation by 2020.		

STRATEGIC BEARER NETWORK

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

For information on Policy Value, Better Business Case Milestones, Capability Definition Phase and/or Summary of Acquisition Phase, refer to the Major Projects Report, Volume 3.

SECTION 1: ACQUISITION PHASE

The acquisition phase procures the capability solution. Deeper analysis of requirements and options may be required once defence industry is engaged. Included in this stage are processes for tendering, contract negotiation and acceptance of the deliverables.

1.1 Summary of acquisition phase

Description of acquisition work

There are two parts to the Strategic Bearer Network acquisition. The first is the share allocated to the NZDF for the build and launch of WGS Satellite Nine. These costs are detailed in the MoU with the US DoD, are fixed and are managed by the NZDF. The second part is the acquisition of the infrastructure to enable the NZDF to access the WGS satellites. This includes the acquisition of mobile (land based) terminals, maritime terminals and fixed anchor stations. This part is managed by the Ministry of Defence.

It was agreed with the NZDF to split the first acquisition of WGS infrastructure across three financial years, with an iterative approach to delivering the capability. These three stages were:

- Early Access (EA) in FY 12/13. Early Access delivered a limited number of mobile terminals and a means of operating a temporary anchor station so that the NZDF was able to start using the WGS constellation to establish communications links. This will allow the NZDF to develop tactics, techniques and procedures, identify logistics requirements, integrate the equipment into Defence networks and familiarise itself with the new technology. Options were included for maritime terminals and fixed anchor stations. This met approximately 10% of the project's total deliverables.
- Initial Operating Capability (IOC) in FY 13/14. This delivered the first fixed anchor station, maritime terminals and additional mobile terminals. This built on the lessons learned in Early Access, and met approximately 40% of the project's total deliverables.
- Full Operating Capability (FOC) in FY 14/15. This will deliver the remaining anchor stations and terminals to the users in the NZDF. This will meet approximately 80% of the project's total deliverables. Note FOC was not able to be achieved until the full capacity of the WGS constellation became available, post-launch of WGS Satellite Nine in 2017/18. The satellite was

successfully launched in March 2017, resulting in 100% of the project's total deliverables being achieved.

The project has delivered the remaining land mobile terminals and negotiated a Foreign Military Sale order for the maritime terminals with the US Government. The location for the second anchor station will be on or near RNZAF Base Whenuapai.

A number of documents were used to develop the requirements for Early Access. These included:

- The NZDF Strategic Communications Operational Concepts Document
- The NZDF Strategic Communications Operational Requirements Document
- The Memorandum of Understanding concerning the joint production, operations and support of Wideband Global Satellite Communications
- The Introduction Into Service Plan for the strategic bearer network.

How Defence decided to acquire the Capability Solution

The strategic bearer network acquisition project team commenced a tender process in November 2012 for Early Access. Twelve responses were received and, from the nine compliant tenders, two successful tenderers were chosen to enter into contract negotiations. These were GigaSat Asia Pacific for the supply of mobile terminals and Rockwell Collins Australia for the supply of a fixed anchor station.

The tender included a detailed section on the tenderers' background, relevant experience, and proven track record of the proposed solution. The response to this was included in the tender evaluation and the ability to provide proven equipment was a mandatory requirement. In addition all equipment has to be certified by the US Government to access the WGS satellites. This provides a level of interoperability built into the system.

The option for the maritime terminals was not taken up as the operational and commercial tender evaluation criteria were not met. The option for the fixed anchor station was taken up as this allowed a head start into the delivery of Initial Operating Capability.

Contracts were signed with GigaSat Asia Pacific on 1 May 2013 and with Rockwell Collins Australia on 26 June 2013. Deliveries commenced in August 2013 and the first connection through the WGS satellite was scheduled for the last week in August.

Maritime terminals were the subject of a dedicated tender which was developed in September 2013 and released to industry in early October 2013. Despite an extended tender process in 2014 there were no successful tenderers for the maritime terminals. The MoD then engaged with the US Government to purchase the terminals directly through a Foreign Military Sale, signing a contract in August 2016.

Contractor for Mobile Terminals	GigaSat Asia Pacific, operating out of Canberra.
Contractor for Anchor Stations	Rockwell Collins Australia, operating out of Sydney.

1.2 Project Budget

Budget variation

	Date approved	Total (NZ$ million)
Original budget at Approval to Commit (Note1)	14 November 2011	88.9
Including budget for NZDF to manage the MoU	14 November 2011	51.0
Including budget for MoD acquisitions (Note 2)	14 November 2011	32.3
Original approved budget		88.9
Transfer from other projects (Note 3)	11 July 2016	11.7
Variation on original approved budget		11.7
Total approved budget		100.6

NOTE 1. The approved budget includes a contingency fund of NZ$5.6 million.

NOTE 2. The MoD currently has NZ$26.3 million of its acquisition budget appropriated. The remaining $6 million is intended to replace obsolete equipment at the mid-point of the MoU as the Satellite has a longer life than the user terminals, in particular the mobile terminals. The MoU will provide the NZDF with 20+ years' access to the constellation but most mobile terminals will reach their end of life after approximately 10 years.

NOTE 3. In July 2016, Cabinet approved the transfer of $11.7 million of funding from various projects in the Defence portfolio that have delivered under budget. It was also agreed that the contingency funding held for the Strategic Bearer Nerwork project of $5.6 million can be used for acquisition of equipment and infrastructure.

Explanation of major budget variations

There are no major budget variations.

1.3 Financial Performance

Project expenditure to 30 June 2017

	Total (NZ$ million)
Life to date expenditure (cumulative)	82.9
Remaining balance of approved budget	17.7
Forecast commitments MoU	1.3
Forecast commitments MoD	15.3

Total forecast expenditure

Forward Cover

To remove uncertainty from a future cash flow in a foreign currency, Forward Exchange Contracts are used to purchase the funds required to satisfy the forecasted project costs. A Forward Exchange Contract is a contract to buy/sell a nominated amount of currency on a given date. The rate is struck at the time of the contract and becomes the contract rate. This is the rate that will be used on the agreed future date to settle the contract and receive/pay the foreign currency regardless of what the market rate is on the day. The resulting gain or loss when the contract is compared to the market rate on the day – or at any point in the timeline – is the price of certainty of future cash flows.

	Total (NZ$ million)
Approved budget	100.6
Total forecast expenditure	97.4
Gross project variation (forecast)	3.2
Foreign exchange impact	(2.9)
Actual project variation (forecast)	0.3
Variance explanation	Unfavourable foreign exchange impact.

Project Contingency (as at 30 June 2017)

	Total (NZ$ million)
Contingency built into the budget	5.6
Total contingency expended	2.0
Additional funding (see note 3 above)	0.0
Remaining balance	3.6

Explanation of major contingency draw downs

Draw down	Total (NZ$ m)	Explanation
11 July 2011	5.6	[CAB-16-MIN-0354] allows for the use of the $5.6 million in the original Cabinet approval to be used for the acquisition of equipment and infrastructure.
Total	**N/A**	

1.4 Schedule/Timeframe Progress

The following dates are those in the MoU and those for contract acceptance of acquisitions.

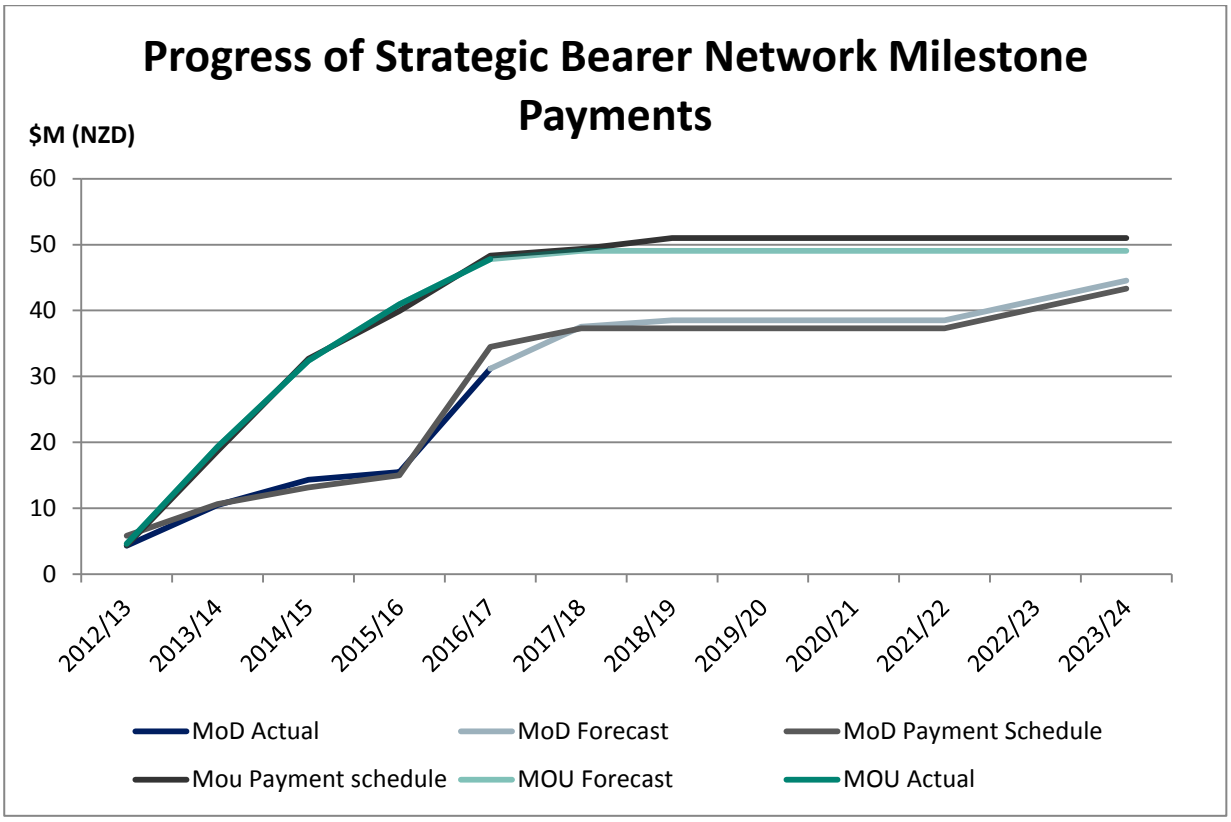
		Original forecast at Approval to Commit	30 June 2017 forecast / achieved	Variation in acquisition phase (months)
Acceptance Date	WGS Satellite Nine	2018	2018 (forecast)	Nil
	Early Access	30 June 2013	20 August 2013 (achieved)	2
	Initial Operating Capability	30 June 2014	30 September 2014 (achieved)	3
	Final Operating Capability	30 June 2015	30 December 2017 (forecast)	30

History of variations to schedule

Date of individual variation	Variation length (months)	Explanation
30 June 2013	2	There was a delay in producing the supporting documentation.
30 June 2014	3	There was a delay in producing the supporting documentation and processes to operate and maintain the mobile terminals.
30 June 2015	18	Delivery times for the maritime terminals are longer than expected. This long lead time combined with fitting into the Navy ship installation schedule delayed the project by over 12 months. There have also been delays in the identification of a location for the second anchor station.
30 June 2016	12	Arrangements to complete the acquisition of the maritime terminals and second anchor station has added 12 months to the schedule.

Progress of Strategic Bearer Network Phase 1 against the Milestone Payments Schedule

NOTE: This graph displays the project's progress by comparing actual milestone payments against the milestone payments schedule agreed to in the MoU and acquisition contracts. Milestone payments are made upon the contractor's provision of key deliverables and are therefore a good way to identify timing and size of schedule slippage.



SECTION 2: INTRODUCTION INTO SERVICE

The introduction into service phase develops the force elements required to generate NZDF outputs at a specific level of capability. Part of this stage is the test and evaluation process, which demonstrates the capability has met specific standards of safety and is operationally effective in accordance with the suite of operational concept documentation.

2.1 Summary of Introduction into Service Phase

Description of Introduction into Service phase

Over the reporting period an additional seven small mobile land terminals have been contractually accepted by the MoD and delivered to the NZDF for completion of introduction into service activities.

Contract acceptance involved the following activities and deliverables:

- Inspection and inventory of the equipment.
- Installation, Set to Work, and Acceptance Tests (ISAT) of the equipment including integration with defence networks.
- Operations and maintenance training and manuals.
- Technical documentation, software applications and drawings.
- Spares.
- Recommended Through Life Support Plans (TLSP).
- Warranties.

Since delivery the NZDF (units from the NZ Army and RNZAF) has undertaken the following introduction into service activities:

- Initial Operational Test and Evaluation (IOT&E).
- Deployment of mobile equipment on operations and exercises.
- Development of Standard Operating Procedures (SOPs) for the use of the equipment.
- Codification / entry of equipment into asset and engineering management.
- Evaluation of training, documentation and Through Life Support Plan (TLSP) for suitability.
- Evaluation of equipment operation for reliability, availability and maintainability.
- Development of ILS documentation, integration of training documentation and maintenance SOPs.

The equipment has performed to specification and exceeded it in most scenarios. It has also been successfully integrated into the Defence networks. There has been a delay in declaring interim operating capability as some peripheral equipment was not part of the main order.

Status of the Introduction into Service Plan

Separate Introduction into Service plans are being developed for each family of terminals. This has been completed for the large mobile land terminals and is underway for the small terminals. The plan for maritime terminals will be developed as they are delivered and we move towards Full Operating Capability (FOC).

The NZDF Satellite Network Operations Centre (SATNOC) has been established and manages all NZDF WGS communications and the MOU with the US Department of Defence.

2.2 Schedule of Introduction into Service

Levels of Capability

Initial Operating Capability: this is the first time the capability being introduced can achieve some or all of the operational requirements.

Operational Level of Capability: the generation of military capability so that force elements are able to carry out specific military tasks in accordance with the NZDF Output Specifications.

Directed Level of Capability: the maintaining of military capability at a minimum capacity from which force elements may be generated within a specified response time to achieve the operational level of capability.

NZDF Output Plan, 2009, S1-12

	Initial Estimate	30 June 2017 Estimate	30 June 2017 Actual	Variance (months)
Early Access accepted by Crown	30 June 2013	N/A	20 August 2013	2
Early Access Introduction into Service by NZDF	30 June 2013	N/A	29 November 2013	5
IOC accepted by Crown	30 June 2014	N/A	17 June 2014	-
IOC Introduction into Service by NZDF	30 June 2014	N/A	30 September 2014	3
FOC accepted by Crown	30 June 2015	30 December 2017	N/A	30
FOC Introduced into Service by NZDF	December 2018	December 2018	N/A	-
Explanation	FOC accepted by the Crown is when the entire infrastructure has been acquired and delivered to the NZDF. There is a longer lead time in the tender evaluation, contract negotiation, delivery and installation of the maritime terminals than originally forecast and this has led to the slip in FOC by 30 months. The dates for FOC Introduction into Service by the NZDF are significantly later than the delivery of the MoD acquisition as the full capabilities of the WGS constellation are not available until all nine satellites are launched and operational.			

SECTION 3: OPERATIONAL CAPABILITY

3.1 Progress towards Delivery of Operational Requirements

Operational Requirements	Delivery	Comment
The primary focus for SBN will be the South Pacific but the required support area is global.	100%	The nine WGS satellites launched provide global coverage.
SBN will facilitate the transfer of information and data: • to support deployed forces; • to conduct network enabled operations (all deployed forces on the network); and • to support Command and Control of the deployed forces (primarily through systems such as DC2S).	100%	WGS has already been used to support NZDF operations and exercises in New Zealand, the South Pacific and further afield. NZDF networks have been implemented over the WGS bearer and testing will continue as DC2S is rolled out to the deployed forces.
SBN will provide connectivity into the deployed maritime and land environments by providing these units with SATCOM terminals.	66%	Mobile terminals have been used to support both NZ Army, RNZAF and Joint operations. As yet no maritime terminal has been installed.
SBN must operate within NZ and international radio frequency regulations governed by the International Telecommunications Union.	75%	Radio licenses have been issued for use of mobile and fixed WGS terminals though further work is required for the operation of maritime terminals.
SBN will need to support a minimum of three networks on the strategic bearer (an intelligence network, the defence network, and welfare).	100%	The Defence networks have been proven to work over WGS.
SBN must provide the data throughput requirements for maritime and land units as provided in the NZDF Strategic Communications Operational Requirements Document.	50%	Mobile and fixed terminals have met the specifications required of the ORD. Maritime terminals are yet to be tested.

SBN deployed terminals must be capable of meeting a minimum E1 (2.048Mbps) data throughput for each user.	75%	All terminals delivered to date exceed the specifications required. Maritime terminals are yet to be tested.
The NZDF will establish the Satellite Communications Management Cell within the NZDF Network Operations Centre.	100%	The NZDF has established the Satellite Network Operations Centre (SATNOC) in the Freyberg Building.
SBN will support up to six deployed maritime and six deployed land units simultaneously.	66%	The current anchor station can support sixteen deployed units. Maritime deployments are yet to be tested.
Assessment: Benefits realisation is scheduled for full implementation by 2020.		

MARITIME SUSTAINMENT CAPABILITY

Project Description: The Maritime Sustainment Capability (MSC) will replace the Navy's existing replenishment tanker HMNZS *Endeavour*. The replacement vessel will provide an enhanced capability which is better able to support land operations and is polar code compliant, allowing the ship to operate to Antarctica in the summer season.

For information on Policy Value, Better Business Case Milestones, Capability Definition Phase and/or Summary of Acquisition Phase, refer to the Major Projects Report, Volume 3.

SECTION 1: ACQUISITION PHASE

The acquisition phase procures the capability solution. Deeper analysis of requirements and options may be required once defence industry is engaged. Included in this stage are processes for tendering, contract negotiation and acceptance of the deliverables.

1.1 Summary of acquisition phase

Description of acquisition work

In July 2016 Cabinet approved the Implementation Business Case for the Maritime Sustainment Capability, and authorised the Secretary of Defence to commit to contracts and authorise expenditure of public money.

Following this, the Secretary of Defence signed contracts with Hyundai Heavy Industries (HHI) on 25 July 2016. HHI was the preferred supplier of the four shipyards that participated in the tender process and will act as the Prime Contractor for the design, build, acceptance and delivery of the ship. HHI carries full responsibility and risk for any subcontract agreements that it makes with other suppliers.

How Defence decided to acquire the Capability Solution

Tender Process

Following Cabinet approval to proceed to tender as part of the Detailed Business Case, the Ministry of Defence issued a Request for Tender based on detailed technical requirements (specification) for a Maritime Sustainment Capability. Included in the Request for Tender was a costed option for support to Antarctica.

Tender responses were received from four shipyards. A fifth company provided an un-costed proposal. The responses were assessed in accordance with the Maritime Sustainment Capability Tender Evaluation Plan, and following this two companies were down-selected for further evaluation.

Risk reduction and clarification activities

Risk reduction and clarification activities were undertaken in September 2015, which complemented the best and final offer process. The risk reduction activities provided the Project with:

a. confidence that both Shipyards could deliver a credible solution;
b. clarification of the achievability of the Maritime Sustainment Capability requirements; and
c. an opportunity to ask questions regarding the Project Team's observations of their Tender response.

Following risk reduction activities, a tailored request for Best and Final Offer was submitted to the two down-selected companies.

Best and final offer process

The best and final offer process addressed the following issues with the two down-selected companies, prior to selection of the preferred proposal:

a. addressed clarification questions that had been generated from the Tender evaluation activities;
b. committed to equipment selection for key systems, aligned with the Project's Makers List or agreed alternatives; and
c. provided a firm Antarctic support option, with an amended cost structure, project schedule and technical specification.

The evaluation of the best and final offers identified Hyundai Heavy Industries as the preferred Tenderer to provide an enhanced naval tanker and an Antarctic support option.

Due diligence

Due diligence was undertaken with Hyundai Heavy Industries at their shipyard in Ulsan, South Korea. The due diligence activity provided further opportunity to clarify the vessel requirements, view key shipbuilder's internal processes and systems, and support the selection of cost saving options in preparation for contract negotiations.

Contractual arrangements

At contract negotiations, the Crown and Hyundai Heavy Industries negotiated an agreed Contractor's Technical Specification, logistic support including Life Cycle Costing Analysis, an acceptance regime and preliminary selection of major items of equipment (significantly lowering the risk to both the Contractor and the Crown). This strategy supported the aligning of both parties' expectations as well as minimising contingency components built into the negotiated price. The accurate and comprehensive project costs and data were then incorporated in the Implementation Business Case.

Separate tenders and contracts will be established with suppliers of services or systems; examples of this will be the shipyard superintendence services and the supply of government furnished equipment. The Project Team will be responsible for the facilitation and management of these contracts.

Prime Contractor for enhanced naval tanker and Antarctic support option	Hyundai Heavy Industries

1.2 Project Budget

Budget variation

	Date approved	Total (NZ$ million)
Pre-contract capital	30 June 2014	0.8
Original budget at approval to commit	29 June 2016	492.1
Current approved budget		492.9

1.3 Financial Performance

Project expenditure to 30 June 2017

	Total (NZ$ million)
Life to date expenditure (cumulative)	101.7
Remaining balance of approved budget	391.2
Forecast commitments	372.5

Total forecast expenditure

Forward Cover

To remove uncertainty from a future cash flow in a foreign currency, Forward Exchange Contracts are used to purchase the funds required to satisfy the forecasted project costs. A Forward Exchange Contract is a contract to buy/sell a nominated amount of currency on a given date. The rate is struck at the time of the contract and becomes the contract rate. This is the rate that will be used on the agreed future date to settle the contract and receive/pay the foreign currency regardless of what the market rate is on the day. The resulting gain or loss when the contract is compared to the market rate on the day – or at any point in the timeline – is the price of certainty of future cash flows.

	Total (NZ$ million)
Approved budget	492.9
Total forecast expenditure	474.0
Gross project variation (forecast)	19.0
Foreign exchange impact	(18.3)
Actual project variation (forecast)	0.6
Variance explanation	Due to Foreign exchange impacts the actual project variation is a lot lower than the gross project variation.

Project Contingency (as at 30 June 2017)

	Total (NZ$ million)
Contingency built into the budget	45.0
Total contingency expended	0.0
Remaining balance	45.0

Explanation of major contingency draw downs

There have been no major contingency draw downs to date.

1.4 Schedule/Timeframe Progress

The following dates are those in the MoU and those for contract acceptance of acquisitions.

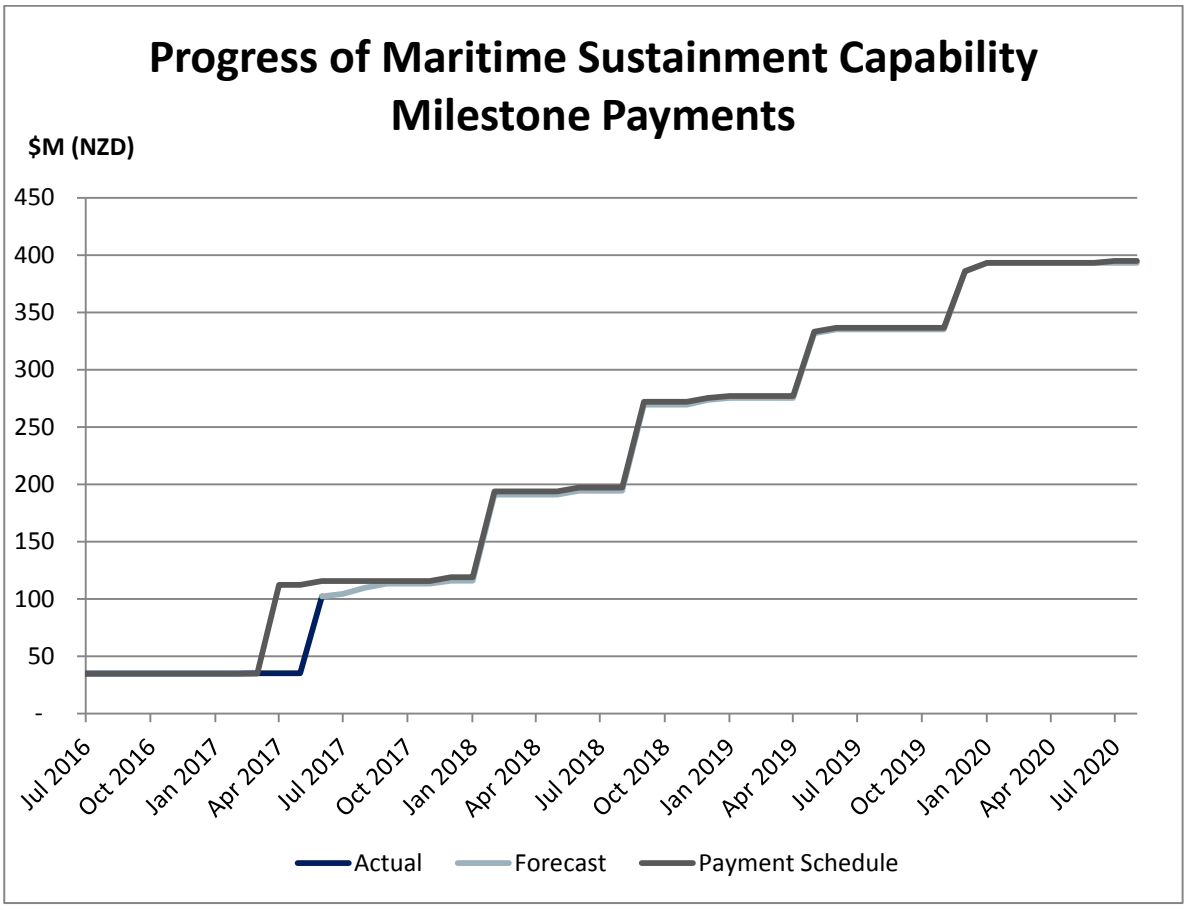
		Original forecast at Approval to Commit	30 June 2017 forecast / achieved	Variation in acquisition phase (months)
Acceptance Date	Contract Award	July 2016	25 July 2016 (achieved)	0
	Preliminary Design Review	April 2017	30 June 2017 (forecast but not achieved)	2

History of variations to schedule

Date of individual variation	Variation length (months)	Explanation
30 June 2017	2	HHI did not meet the scheduled completion date for PDR of 25 Apr 2017 and in May the project was forecasting anticipated completion by end June. This was not achieved and HHI have provided an action plan but their assessment of potential schedule impact is still awaited.

Progress of Maritime Sustainment Capability against the Milestone Payments Schedule

NOTE:



SECTION 2: INTRODUCTION INTO SERVICE

The introduction into service phase develops the force elements required to generate NZDF outputs at a specific level of capability. Part of this stage is the test and evaluation process, which demonstrates the capability has met specific standards of safety and is operationally effective in accordance with the suite of operational concept documentation.

2.1 Summary of Introduction into Service Phase

Description of Introduction into Service phase

At the time of the Project Implementation Documentation v2.0. (3 December 2012) either an introduction to service phase or a capability integration phase concept plan was yet to be developed.

However, at the Project Implementation Business Case, it was envisaged that the Introduction into Service Stage would run concurrently with some earlier stages of the project and increase in tempo as the emphasis increases on the NZDF being able to receive and safely operate the MSC.

Introduction into Service would be at its peak after Contractor Sea Trials when the Defence Force tests and measures 'total system performance' against the original User/System Requirements, in order to advise whether or not the originally envisaged holistic capability is realisable. Introduction into Service is completed when a point is reached (Operational Release) where the Project Sponsor (Chief of Navy) agrees that the project outcome reflects the User Requirements Document.

Status of the Introduction into Service Plan

The MSC Capability Integration Plan (CIP) is currently in draft.

2.2 Schedule of Introduction into Service

Levels of Capability

Initial Operating Capability: this is the first time the capability being introduced can achieve some or all of the operational requirements.

Operational Level of Capability: the generation of military capability so that force elements are able to carry out specific military tasks in accordance with the NZDF Output Specifications.

Directed Level of Capability: the maintaining of military capability at a minimum capacity from which force elements may be generated within a specified response time to achieve the operational level of capability.

NZDF Output Plan, 2009, S1-12

	PIBC	30 June 2017 Estimate	Variance (months)
Intial Operational Release	December 2020	December 2020	-
Operational Release	November 2021	November 2021	-
Benefits Realisation	January 2022	January 2022	-
Explanation			

SECTION 3: OPERATIONAL CAPABILITY

3.1 Progress towards Delivery of Operational Requirements

Operational Requirements	Requirement likely to be met	Comment

Conduct Maritime Force Logistic Support/Maintain Deployable Bulk Fuel Reserves
• Replenishment at Sea (RAS), including light jackstay, and RAS(L) systems.
• Organic Aviation systems, including Vertical Replenishment (VERTREP), Helicopter In-flight Refuelling (HIFR) and maintenance support systems for organic helicopter.
• Stowage and distributions systems for bulk supply Classes:
  ○ 1 (food and water)
  ○ 2 (general stores)
  ○ 3 (petroleum, oils, liquids)
  ○ 5 (ammunition)
  ○ 9 (repair parts)
	Yes	All operational requirements will be satisfied during OT&E between Initial Operational release in December 2020 through to full operational release in November 2021.

Provide an Effective and Appropriate Maritime Platform. • Endurance, speed and range. • Navigation and manoeuvring systems. • Communications systems. • Conduct maritime force logistic support • Basic Damage Control systems. • Role 1 Medical Facility. • Quality of Life systems.		

Provide a Maritime Platform that can integrate effectively with a military force. • Self protection systems. • Local Intelligence, Surveillance Reconnaissance (ISR) systems. • Military communications/network systems. • Provide organic anti-piracy self defence.		

Provide support to Land Operations
• Operate and be interoperable with other NZDF naval and allied/coalition naval forces and non naval NZDF/non naval allied/coalition forces.
• Stowage and distributions systems for bulk supply Classes:
  ○ 1 (food and water)
  ○ 2 (general stores)
  ○ 3 (petroleum, oils, liquids)
  ○ 5 (ammunition)
  ○ 9 (repair parts)		

Support maintenance systems for non-organic helicopters.		
Assessment: Benefits realisation is scheduled for full implementation by January 2022.		

SPECIAL OPERATIONS VEHICLES

Project Description: The Special Operations Vehicle (SOV) project is to provide the NZDF with a fully supported special operations (SO) land mobility capability to enable the conduct of the New Zealand Special Operations Forces (NZSOF) core tasks in delivering directed operational outputs. The project will focus on the enabling of special reconnaissance and direct action operations to meet the challenges of the contemporary operating environment, emerging threats, and future operating concepts.

For information on Policy Value, Better Business Case Milestones, Capability Definition Phase and/or Summary of Acquisition Phase, refer to the Major Projects Report, Volume 3.

SECTION 1: ACQUISITION PHASE

The acquisition phase procures the capability solution. Deeper analysis of requirements and options may be required once defence industry is engaged. Included in this stage are processes for tendering, contract negotiation and acceptance of the deliverables.

1.1 Summary of acquisition phase

Description of acquisition work

In June 2015 Cabinet approved the expenditure of up to $28 million on Special Operations Vehicles and associated support and infrastructure. The Secretary of Defence was authorised to commit and approve expenditure of up to $14.400 million for the acquisition of Supacat vehicles.

The Secretary was further authorised, in conjunction with the Chief of Defence Force, to commit and approve expenditure up to $13.600 million for multiple small separate acquisitions of the other vehicles, equipment, infrastructure and support relating to the Special Operations Vehicles project, as outlined in the Single Stage Business Case.

Accordingly a contract was negotiated and signed with Supacat PTY Ltd on 26 August 2016 for a Heavy Mobility platform. The Business Case identified Thales' Bushmaster as the preferred solution for the Protected Mobility vehicle. A Memorandum of Sale was negotiated and signed on 12 May 2017 with the Australian Department of Defence to transfer vehicles and associated equipment from surplus Australian Defence Force stock. Low Profile vehicles were purchased following a successful tender response for the Low Profile Utility. A contract was signed on 22 December 2016 with Jankel Armouring Ltd. Infrastructure requirements are being delivered by Defence Estate and Infrastructure following the receipt of tenders and selection of a preferred contractor. A contract was signed with Downers Construction Ltd.

How Defence decided to acquire the Capability Solution

Four broad options were considered for replacing the Pinzgauer.

Option	Description	Capital Cost (NZ$m)	Whole of Life[6] Cost (NZ$m)
1	Replace current fleet 'like for like'	25.3	28.8
2	Adopt a Minimum mixed fleet	24.8	30.2
3	Adopt a Balanced mixed fleet	28.0	34.2
4	Adopt a Maximum mixed fleet	38.3	46.9

1. The Option 1 (Like for Like) fleet was heavily optimised towards the Special Reconnaissance mission, but less effective in the other three, leaving the same limitations that the current fleet imposes, with the major difference being that new vehicles would be more capable and more reliable than those they replace. Because this fleet would only have the Mobility Heavy vehicle, which is the most expensive vehicle type, the overall capital cost would be $25.3 million.
2. The Option 2 (Minimum) fleet covered all the missions, but increases the probability that for any given mission the number of vehicles could be inadequate, especially if a vehicle is unavailable due to damage or breakdown. Should this occur, then Special Operations Forces may be forced to borrow, lease, or purchase other vehicles at short notice, which would increase whole-of-life costs and impact on readiness. There are also no additional vehicles to allow for training, as any mission deployment would probably involve all vehicles. Capital cost is $24.8 million.
3. The Option 3 (Balanced) fleet allowed for training in the event of deployment and provides limited cover against the possibility of loss. It also minimises the need for excessive support and other costs associated with vehicle fleets. Capital cost is $28 million.
4. Option 4 (Maximum) provided the maximum number of vehicles in each category. This would allow for a significant deployment based on just one particular vehicle type, while maintaining a New Zealand-based training and replacement capability. However, the last decade of operations experience proves this is unlikely – the preference is to deploy a vehicle mix to provide more flexibility. At $38.3 million, the cost of acquisition is well in excess of the agreed funding, and the ongoing cost of supporting and maintaining the additional vehicles would exceed the current resourcing of the Special Operations Forces.

Option 3, for a Balanced Mixed fleet, was recommended.

Contractor for Heavy Mobility	Supacat
Contractor for Protected Heavy	Bushmasters
Contractor for Low Profile/Utility	Jankel

[6] Note that the Whole-of-Life Cost includes the capital and operating costs over a notional 10 year life of type, as well as the costs of asset disposal.

1.2 Project Budget

Budget variation

	Date approved	Total (NZ$ million)
Original budget at Approval to Commit	17 June 2015	28.0
Current approved budget	17 June 2015	28.0
Variation on original approved budget		0.0

1.3 Financial Performance

Project expenditure to 30 June 2017

	Total (NZ$ million)
Life to date expenditure (cumulative)	16.2
Remaining balance of approved budget	11.8
Forecast commitments	12.3

Total forecast expenditure

Forward Cover

To remove uncertainty from a future cash flow in a foreign currency, Forward Exchange Contracts are used to purchase the funds required to satisfy the forecasted project costs. A Forward Exchange Contract is a contract to buy/sell a nominated amount of currency on a given date. The rate is struck at the time of the contract and becomes the contract rate. This is the rate that will be used on the agreed future date to settle the contract and receive/pay the foreign currency regardless of what the market rate is on the day. The resulting gain or loss when the contract is compared to the market rate on the day – or at any point in the timeline – is the price of certainty of future cash flows.

	Total (NZ$ million)
Approved budget	28.0
Total forecast expenditure	28.5
Gross project variation (forecast)	(0.5)
Foreign exchange impact	0.5
Actual project variation (forecast)	0.0
Variance explanation	Foreign exchange gain

Project Contingency (as at 30 June 2017)

	Total (NZ$ million)
Contingency built into the budget	2.5
Total contingency expended	0.0
Remaining balance	2.5

Explanation of major contingency draw downs

There have been no major contingency draw downs to date.

1.4 Schedule/Timeframe Progress

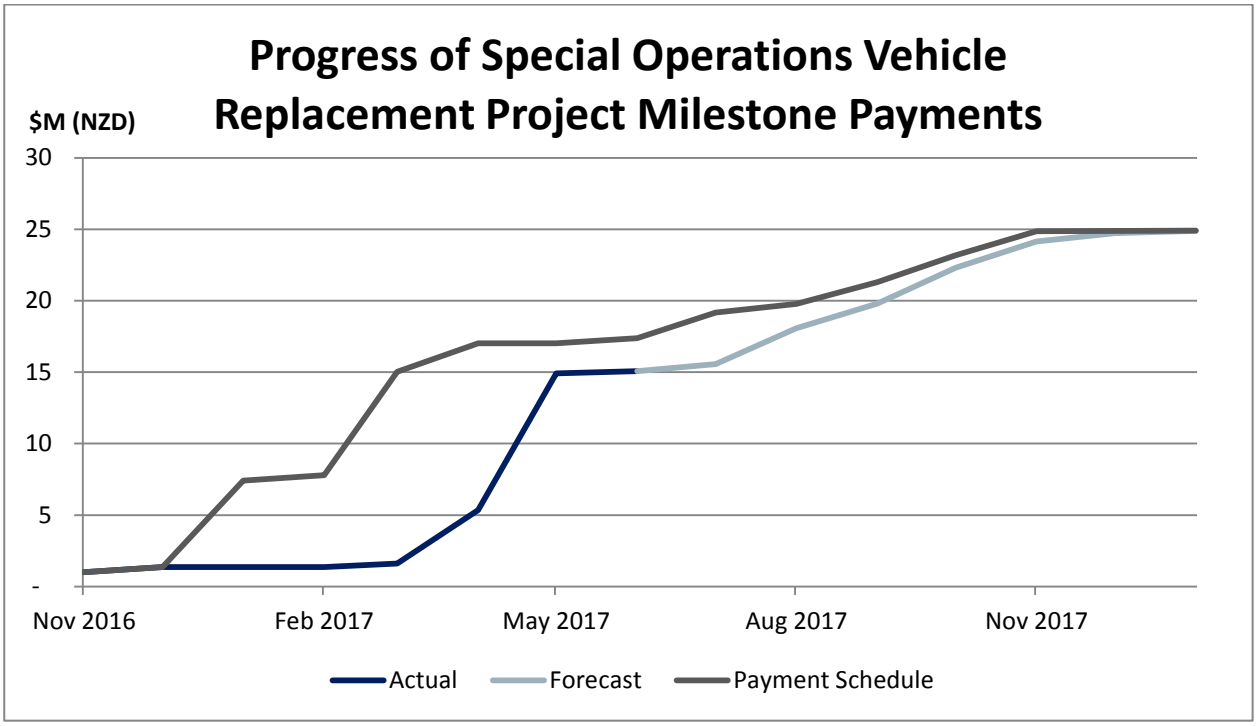
The following dates are those in the MoU and those for contract acceptance of acquisitions.

		Original forecast at Approval to Commit	30 June 2017 forecast / achieved	Variation in acquisition phase (months)
Acceptance Date	Heavy Mobility delivery	September to November 2017	November 2017 (forecast)	0
	Protected Heavy delivery	May 2017	June 2017 (achieved)	<1
	Low Profile/ Utility delivery	June –July 2017	September 2017 (forecast)	2

History of variations to schedule

Date of individual variation	Variation length (months)	Explanation
Protected Heavy	1	Vehicles were shipped in May and arrived in New Zealand on 12 June 2017, less than a month later than originally forecast.
Low Profile/Utility	2	Delays in shipping and delivery to the contracted supplier's UK-based factory, along with that factory being relocated in the lead up to delivery contributed to this minor schedule variation.

Progress of Special Operations Vehicles Replacement Project against the Milestone Payments Schedule



SECTION 2: INTRODUCTION INTO SERVICE

The introduction into service phase develops the force elements required to generate NZDF outputs at a specific level of capability. Part of this stage is the test and evaluation process, which demonstrates the capability has met specific standards of safety and is operationally effective in accordance with the suite of operational concept documentation.

2.1 Summary of Introduction into Service Phase

Description of Introduction into Service phase

The project will use the Project to Unit methodology for the Introduction Into Service (IIS) of SOV. This approach is based upon the Original Equipment Manufacturer (OEM) and Australian Defence Force (ADF) providing Train the Trainer instruction to 1st New Zealand Special Air Services Regiment (1NZSAS Regt) instructors who then cascade the training down throughout the remainder of the Unit.

Integrated Logistic Support (ILS) contracts are being negotiated with the OEMs and the ADF for through life support of the SOV fleet.

Status of the Introduction into Service Plan

The IIS Plan was signed on 12 April 2017 and preparations are ongoing to implement the plan.

2.2 Schedule of Introduction into Service

Levels of Capability

Initial Operating Capability: this is the first time the capability being introduced can achieve some or all of the operational requirements.

Operational Level of Capability: the generation of military capability so that force elements are able to carry out specific military tasks in accordance with the NZDF Output Specifications.

Directed Level of Capability: the maintaining of military capability at a minimum capacity from which force elements may be generated within a specified response time to achieve the operational level of capability.

NZDF Output Plan, 2009, S1-12

	Initial Estimate	30 June 2017 Estimate	30 June 2017 Actual	Variance (months)
Initial Capability Release				
1: Heavy Mobility	1: April 2018	1: April 2018	1: N/A	N/A
2: Protected Mobility	2: May 2017	2: N/A	2: 12 June 2017	<1
3: Low Profile/Utility	3: Aug 2017	3: Aug 2017	3: N/A	N/A
Operational Test and Evaluation by NZDF				
1: Heavy Mobility	1: July 2018	1: July 2018	1: N/A	N/A
2: Protected Mobility	2: Sept 2017	2: Sept 2017	2: N/A	N/A
3: Low Profile/Utility	3: Oct 2017	3: Oct 2017	3: N/A	N/A

Full Operational Release **1: Heavy Mobility** **2: Protected Mobility** **3: Low Profile/Utility**	 1: July 2018 2: Oct 2017 3: Nov 2017	 1: July 2018 2: Oct 2017 3: Nov 2017	 1: N/A 2: N/A 3: N/A	 N/A N/A N/A
Explanation	The Bushmaster vehicles were shipped in May, arriving in New Zealand on 12 June 2017, less than a month later than originally forecast.			

SECTION 3: OPERATIONAL CAPABILITY

3.1 Progress towards Delivery of Operational Requirements

Operational Requirements	On Track for Requirements Delivery	Comment
• **Special Reconnaissance:** The traditional long-range reconnaissance task, where the primary objective is intelligence gathering rather than contact with the enemy. These missions can involve weeks away from base with no external support. (Mobility Heavy)	Yes	Scheduled for delivery in November 2017.
• **Direct Action:** Engaging an adversary, rather than observing or avoiding them. (Protected Heavy)	Yes	Protected Heavy (Bushmaster) vehicles were delivered to New Zealand on 12 June 2017, where New Zealand compliance work commenced.
• **Combating Terrorism:** Includes responding to hostage incidents and/or protecting civilians from terrorist attack, often in populated and urbganised environments. (Low Profile/Utility)	Yes	Scheduled for delivery in September 2017.
Assessment: Benefits realisation is scheduled for full implementation by December 2020		

UNDERWATER INTELLIGENCE, SURVEILLANCE AND RECONNAISSANCE

Project Description: The Underwater Intelligence, Surveillance and Reconnaissance project is being undertaken to restore the underwater surveillance capabilities of the P-3K2 Orion to contemporary standards.

For information on Policy Value, Better Business Case Milestones, Capability Definition Phase and/or Summary of Acquisition Phase, refer to the Major Projects Report, Volume 3.

SECTION 1: ACQUISITION PHASE

The acquisition phase procures the capability solution. Deeper analysis of requirements and options may be required once defence industry is engaged. Included in this stage are processes for tendering, contract negotiation and acceptance of the deliverables.

1.1 Summary of acquisition phase

Description of acquisition work

The acquisition contract with Boeing is for the commercial purchase of new underwater surveillance systems to be fitted to the Royal New Zealand Air Force's P-3 fleet. The contract will deliver a turnkey solution and includes all necessary hardware, software development and integration, upgrades to the ground-based P-3 training and software testing facility in Auckland, technician and operator training and a spares package. A Through Life Support Agreement with Boeing has been signed concurrently by the Defence Force. The first three years of operation will be covered by warranty.

How Defence decided to acquire the Capability Solution

The Single Stage Business Case for the Underwater Intelligence, Surveillance and Reconnaissance project considered four options for delivering underwater surveillance capability: no capability; Defence-provided capability; partner-provided capability; and commercial provision. Only Defence-provided capability satisfied the strategic aim of the project, which was to provide an autonomously deployable underwater surveillance and anti-submarine warfare capability, including as a potential sovereign contribution to a coalition operation.

The P-3 Orions were found to be the most suitable Defence platform for conducting wide area underwater surveillance as they had many desirable characteristics, including high transit speed, long flight range, low-level manoeuvrability and the space to carry the crew and systems required.

Three levels of investment were considered, Option 1 entry level capability; Option 2 contemporary level capability; and Option 3 advanced capability. Cabinet approved Option 3 in June 2014, as it was the only option that could provide capability at an acceptable level until the expected retirement of the P-3s in the next decade. Option 3 was also cheaper than Option 2 as the advanced acoustic

processor removes the need for a supporting magnetic anomaly detector, resulting in a significant cost saving.

Defence issued a Request for Tender in March 2015 with a deadline for response of June 2015. Four companies submitted proposals. All proposals were evaluated as compliant in the phase one evaluation. Proposals by two companies, Boeing Advanced Technology Programs (United States) and Ultra Electronics (United Kingdom) emerged as clear leaders in the phase two evaluation, which considered operational; technical and certification; and logistical support and life-cycle cost performance. However, Boeing's proposal received the highest score for overall performance and schedule and was only proposal to come within the funding provision. Accordingly Boeing became the sole preferred supplier.

Boeing will provide the equipment that either is or will be fitted to the United States Navy and Royal Australian Air Force P-8A Poseidon fleets. This gives Defence confidence in the quality, certifiability and ongoing supportability of the systems. It also guarantees the systems will be interoperable with partners.

The Ministry of Defence conducted due diligence in the United States in November 2015, visiting Boeing Advanced Technology Programs at Huntington Beach, California, and Germane (the manufacturer of the acoustic processor) at Chantilly, Virginia, with no issues raised during either visit. The United States Navy P-8A Program Office was also visited to discuss the acquisition process insofar as it involved Boeing, with no major issues raised.

Contract Status as at 30 June 2017

The acquisition contract with Boeing is for the commercial purchase of new underwater surveillance systems to be fitted to the Royal New Zealand Air Force's P-3 fleet. The contract will deliver a turnkey solution and includes all necessary hardware, software, development and integration, installation and upgrades to the ground-based P-3 training and software testing facility, technician and operator training and a spares package. A Through Life Support Contract has been signed with Boeing concurrently by the Defence Force.

Contractor for the UWISR	Boeing

1.2 Project Budget

Budget variation

	Date approved	Total (NZ$ million)
Original budget at Approval to Commit	11 July 2016	36.4
Current approved budget		36.4
Variation on original approved budget		0.0

Explanation of major budget variations

Nil

1.3 Financial Performance

Project expenditure to 30 June 2017

	Total (NZ$ million)
Life to date expenditure (cumulative)	17.5
Remaining balance of approved budget	18.8
Forecast commitments	18.7

Total forecast expenditure

Forward Cover

To remove uncertainty from a future cash flow in a foreign currency, Forward Exchange Contracts are used to purchase the funds required to satisfy the forecasted project costs. A Forward Exchange Contract is a contract to buy/sell a nominated amount of currency on a given date. The rate is struck at the time of the contract and becomes the contract rate. This is the rate that will be used on the agreed future date to settle the contract and receive/pay the foreign currency regardless of what the market rate is on the day. The resulting gain or loss when the contract is compared to the market rate on the day – or at any point in the timeline – is the price of certainty of future cash flows.

	Total (NZ$ million)
Approved budget	36.4
Total forecast expenditure	36.2
Gross project variation (forecast)	0.1
Foreign exchange impact	0.0
Actual project variation (forecast)	0.1
Variance explanation	N/A

Project Contingency (as at 30 June 2017)

	Total (NZ$ million)
Contingency built into the budget	3.3
Total contingency expended	2.1
Remaining balance	1.2

Explanation of major contingency draw downs

Draw down	Total (NZ$m)	Explanation
27 March 2017	2.1	A contingency draw down of $2.1 million was approved by the Secretary of Defence to fund the implementation of enhanced functionality of the UWISR system proposed by

		an Engineering Change Proposal. The enhanced functionality comprises the implementation of sonobouy positioning system capability for the upgraded P-3K2 acoustic system and will enable the employment of lower cost sonobouys, without global positioning system componentry, and allow the P-3K2 to maintain geolocation of the sonobouy without the need for low level operations to overfly each bouy in the deployed pattern. The implementation of the sonobouy positioning system was approved on the basis of its providing enhanced benefits realisation likelihood through a whole-of-life cost neutral change to the UWISR capability project.

1.4 Schedule/Timeframe Progress

The following dates are those for contract acceptance of key deliverables.

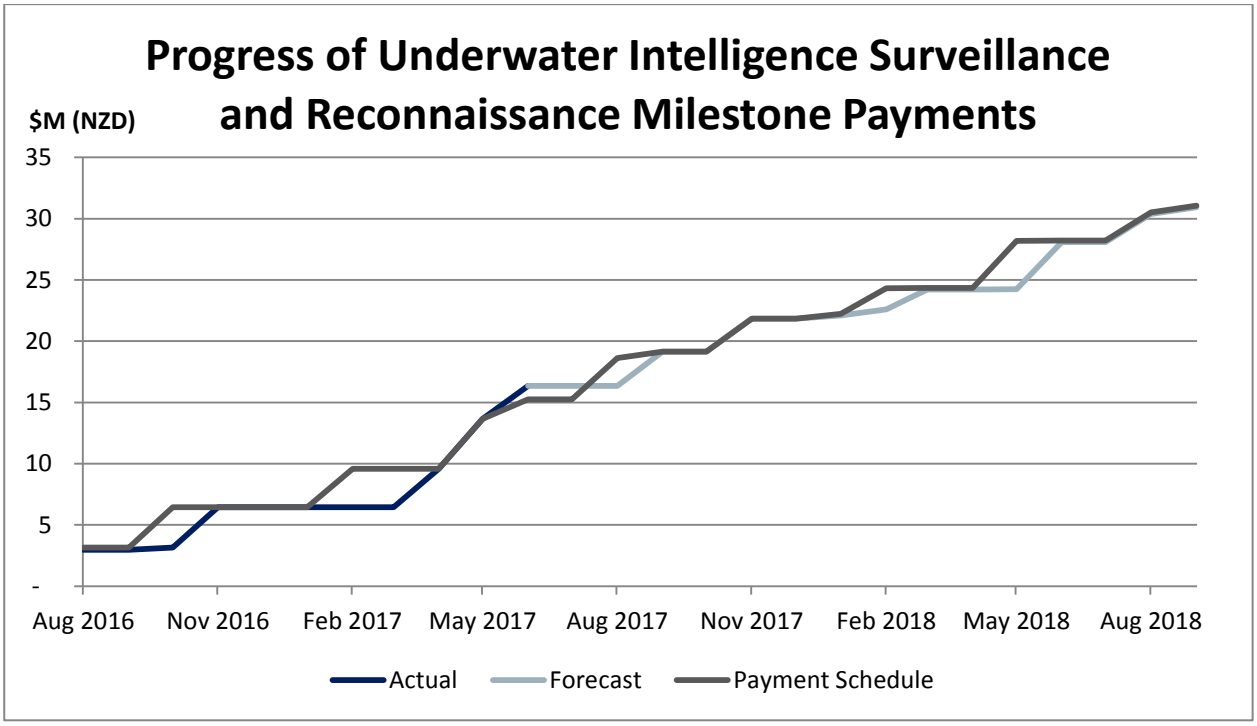
	Original forecast at Approval to Commit	30 June 2017 forecast/achieved	Variation in acquisition phase (months)
System Requirements Review	31 October 2016	31 October 2016 (actual)	Nil
Final Design Review	07 February 2017	15 March 2017 (actual)	1
Sonobouy Positioning System Engineering Change Proposal Approval	N/A	28 March 2017 (actual)	N/A
Final Test Verification and Test Acceptance Review	01 September 2017	01 September 2017 (forecast)	
Approval to Modify Aircraft	18 September 2017	18 September 2017 (forecast)	
Prototype Aircraft Accepted	12 Febrauary 2018	05 March 2018 (forecast)	
Aircraft 2 Accepted	07 May 2018	28 May 2018 (forecast)	
Aircraft 3 Accepted	05 June 2018	26 June 2018 (forecast)	

Aircraft 4 Accepted	05 July 2018	01 August 2018 (forecast)	
Aircraft 5 Accepted	02 August 2018	31 August 2018 (forecast)	
Aircraft 6 Accepted	23 August 2018	26 September 2018 (forecast)	

History of variations to schedule

Date of individual variation	Variation length (months)	Explanation
15 March 2017	1	Design review re-scheduled to occur after integration event rather than before as originally scheduled. No impact on overall schedule.

Progress of Underwater Intelligence, Surveillance and Reconnaissance against the Milestone Payments Schedule as at 30 June 2017



SECTION 2: INTRODUCTION INTO SERVICE

The introduction into service phase develops the force elements required to generate NZDF outputs at a specific level of capability. Part of this stage is the test and evaluation process, which demonstrates the capability has met specific standards of safety and is operationally effective in accordance with the suite of operational concept documentation.

2.1 Summary of Introduction into Service Phase

Description of Introduction into Service phase

The Introduction into Service (IIS) of the Underwater Intelligence, Surveillance and Reconnaissance (UWISR) project includes the effort required for the project to take the systems provided by the acquisition phase of the UWISR project until transfer to in-service has been completed. It includes Through Life Support (TLS), for which an agreement has been signed by NZDF in conjunction with MoD's acquisition contract. TLS details will be captured by the NZDF and developed into the P-3K2 UWISR Life Cycle Management Plan.

IIS excludes any organisational effort required to introduce any new sonobuoy types into service. This activity will be managed by the NZDF under normal modification processes. The use of existing sonobuoy stock types, or prospective replacements with the upgraded UWISR systems will be validated as part of the UWISR capability acceptance process.

The IIS schedule is directly linked to the Acquisition schedule. Initial IIS activities are related to training; following delivery of the prototype aircraft, IIS activities including Test and Development and Operational Evaluation will be required and are expected to be completed within six months of prototype delivery. Some capabilities, such as Acoustic Intelligence (ACINT), will be operationally ready earlier than this timeframe; however there will be no interim operational capability statements prior to the full capability release due to the short period of time between prototype delivery and the completion of IIS.

Status of the Introduction into Service Plan

IIS is expected to be completed by mid-2018. The majority of IIS effort will be carried out by No 5 SQN, which operates the P-3K2 aircraft that will be fitted with the updated systems. Some of the IIS effort will overlap with the Acquisition and In Services phases, involving co-ordination with the Ministry of Defence (MoD) and NZDF units.

2.2 Schedule of Introduction into Service

Levels of Capability

Initial Operating Capability: this is the first time the capability being introduced can achieve some or all of the operational requirements.

Operational Level of Capability: the generation of military capability so that force elements are able to carry out specific military tasks in accordance with the NZDF Output Specifications.

Directed Level of Capability: the maintaining of military capability at a minimum capacity from which force elements may be generated within a specified response time to achieve the operational level of capability.

NZDF Output Plan, 2009, S1-12

	Initial Estimate	30 June 2017 Estimate	30 June 2017 Actual	Variance (months)
Early Access accepted by Crown	January 2018	February 2018	N/A	-
Initial Operating Capability (IOC) accepted by Crown	April 2018	May 2018	N/A	-
IOC Introduction into Service by NZDF	April 2018	May 2018	N/A	-
Full Operating Capability (FOC) accepted by Crown	July 2018	July 2018	N/A	-
FOC Introduced into Service by NZDF	July 2018	July 2018	N/A	-
Explanation				

SECTION 3: OPERATIONAL CAPABILITY

3.1 Progress towards Delivery of Operational Requirements

Operational Requirements	Delivery	Comment
Improved ability to protect maritime activity and assets	Yes	The new system has an improved ability to detect, localise, classify, track and attack submarines.
Increased assurance to Government of response options	Yes	The new system has an improved ability to contribute to coalition underwater surveillance or anti-submarine operations.
Airborne Anti-Submarine Warfare (ASW) is a combat capability that is intended to be used to enhance New Zealand's ability to contribute robustly to global security efforts	Yes	The new system will increase the ability for P-3K2 ASW sytems to reach a Directed Level of ASW Capability.
Provide effective force protection for maritime assets from sub-surface threats	Yes	The new system will be able to monitor a greater underwater area for natural or man-made activity.
Provide direct support in eliminating the sub-surface threat to friendly maritime forces and open Sea Lanes of Communication	Yes	The new system will be interoperable with New Zealand and allied maritime forces.
Assessment: Benefits realisation is scheduled for full implementation by 2018.		

PART 3B: PROJECT INFORMATION SHEETS

DEFENCE COMMAND & 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 and Control System Project (DC2S) 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 DC2S, had significantly reduced. The previously agreed scope and structure of the Programme, therefore, was no longer appropriate.

Accordingly, this Project Information Sheet reports on the DC2S Project only.

At the same time as the Cabinet decision, the lead for the acquisition of the DC2S 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 project team engages closely with the NZDF's CIS Branch and the NZDF Intelligence Community to progress and develop the project.

For information on description of the Acquisition Work and the next steps, refer to the Major Projects Report, Volume 3

SECTION 1: ACQUISITION PHASE

1.2 Project Budget

Budget Variation

	Date Approved	Total (NZ$ million)
Original budget at Approval to Commit	24 September 2008	23.6
Current approved budget	24 September 2008	23.6
Variation on approved budget		0.0

Explanation of major budget variations

Date of Individual Variation	Total (NZ$ million)	Explanation
N/A	N/A	N/A

1.3 Financial Performance

Project expenditure to date (as at 30 June 2017)

	Total (NZ$ million)
Life to date expenditure (cumulative)	20.0
Remaining balance of approved budget	3.6
Forecast commitments	0.5

Total forecast expenditure (as at 30 June 2017)

Forward Cover

To remove uncertainty from a future cashflow in a foreign currency, Forward Exchange Contracts are used to purchase the funds required to satisfy the forecasted project costs. A Forward Exchange Contract is a contract to buy/sell a nominated amount of currency on a given date. The rate is struck at the time of the contract and becomes the contract rate. This is the rate that will be used on the agreed future date to settle the contract and receive/pay the foreign currency regardless of what the market rate is on the day. The resulting gain or loss when the contract is compared to the market rate on the day – or at any point in the timeline – is the price of certainty of future cashflows.

	Total (NZ$ million)
Approved budget	23.6
Total forecast expenditure	20.6
Gross project variation (forecast)	3.1
Foreign exchange impact	1.1
Actual project variation (forecast)	4.2
Explanation	Underspend of $4.2 million due to no longer anticipating use of project contingency and favourable foreign exchange gain.

Project Contingency (as at 30 June 2017)

	Total (NZ$ million)
Contingency built into the budget	3.0
Total contingency expended	0.0
Remaining balance	3.0

1.4 Schedule/Timeframe Progress

Variations in forecast acceptance date.

		Original Forecast – Investment Case	30 June 2017 Forecast/Achieved	Variation in Acquisition phase
Acceptance Date	**Initial Operating Capability**	July 2010	June 2011[7] (achieved)	11 months
	GCCS-M Full Operating Capability	August 2011	Terminated October 2013 – to be replaced with GCCS-J	N/A
	GCCS-J Interim Operating Capability	Note[8]	April 2017 (achieved)	N/A
	GCCS-J Full Operating Capability	Note[9]	December 2018[10] (forecast)	N/A[11]

History of variations to schedule

Date of individual variation	Variation length (months)	Explanation
June 2009	7 - 10	**Approval for release -** The primary reason for the delay is the time taken on development and the need to gain the release of functions of the Global Command and Control System from the United States.

[7] Initial Operating Capability is defined as the installation of the Global Command and Control system – Version 4 (Common Operating Picture only) and technical and operator training completed for the Restricted Multi-Agency network.
[8] This Stage was included for the first time in the 2015 report.
[9] GCCS-J was included for the first time in the 2014 Major Projects Report.
[10] GCCS-J Full Operating Capability is defined as the completion of the installation of GCCS-J throughout the NZDF, and all support and technical and operating training facilities operational. Exemptions may include RNZN ships where installations are based on each vessel's maintenance periods.
[11] Not applicable to the acquisition phase as Full Operating Capability will be delivered during the IIS phase.

September 2009- April 2010	**Note** the overlap with the delay above.	**Project placed on hold -** The NZDF's Assistant Chief of Development commissioned an independent review of the Joint Command and Control System Programme and subsequently placed the project on hold between September 2009 and April 2010. This was intended to allow time to resolve issues relating to project management and the required level of sophistication, functionality, and scope of the system.
June 2010	Nil	**Technical Complexity -** Integrating evolving information management software into existing NZDF networks is an ongoing challenge, particularly in view of the other capability upgrade projects.
April 2011	12	**Intelligence Functionality -** The initial intelligence database provided by the US Navy did not meet NZDF requirements. The US Navy withdrew the product and advised NZ to wait for a new database which is expected by June 2012.
April 2012	12	**Intelligence Functionality -** The new database product has become available. Initial evaluation of the product occurred in April 2012 and concluded with a recommendation to proceed to a Proof of Concept in Defence House in April 2013.
June 2013	4	**GCCS-M 4.1/I3 Proof of Concept -** Detailed evaluation of the planned GCCS-M Proof of Concept concluded that GCCS-J was a significantly more suitable product, and the process for seeking Ministerial approval to evolve to GCCS-J was initiated.
October 2013	Nil	**Cabinet Approval to adopt GCCS-J -** Adoption of GCCS-J provides benefits, including enhanced Intelligence features and less risky technical integration onto existing NZDF networks.
November 2013	Nil	**Defence governance committee Approval to proceed in 2 phases -** Phase 1 to be a pilot of up to 50 clients on three networks, and synchronised with the implementation of Radiant Mercury. The original proposed install schedule of January/February 2014 was deferred by the Defense Information Systems Agency to begin 17 March 2014.
August 2014	Nil	**Presentation of Mid-Pilot Progress report – Defence governance committee** informed of progress with the NZDF Operational Evaluation of GCCS-J and potential impact of scope of Phase 2.
September 2014	Nil	**Introduction into Service plan –** The plan to see DC2S capability transition from Phase 1: Pilot through to Full Operational Capability (FOC)
May 2015	Nil	**Update provided to Defence governance committee on DC2S Pilot phase – Defence** agreed that a rollout of phase 2 would begin, and that the pilot phase will continue in parallel. It notes the pilot phase has been unable to assess the cut down version of GCCS-J client, known as the Joint Command and Control Common User Interface (JC2CUI).

Dec 2015	Nil	**EWS (Enterprise Widget Storefront) client release – the United States' Defence Information Systems Agency (**DISA) received approval to provide EWS to New Zealand. EWS superseded the JC2CUI client. An installation occurred in late February 2016.
March 2016	Nil	**EWS evaluation –** Familiarisation briefings were conducted with experienced Agile Client users at Headquarters Joint Force New Zealand. Feedback identified EWS potential as a client solution. It needs to be established whether Commander Joint forces wants EWS to be taken further.
June 2016	Nil	**EWS (Enterprise Widget Storefront)** was withdrawn from the Global Command and Control System catalogue due to security concerns from DISA. EWS has been removed from the scope of DC2S.

SECTION 2: INTRODUCTION INTO SERVICE PHASE

The introduction into service phase develops the force elements required to generate NZDF outputs at a specific level of capability. Part of this stage is the test and evaluation process, which demonstrates the capability has met specific standards of safety and is operationally effective in accordance with the suite of operational concept documentation.

2.1 Summary of Introduction into Service phase

Description of Introduction into Service phase

The Introduction into Service (IIS) stage remains under development. IIS responsibilities continue to be shared between the project team and the receiving organisations/units. The project team continue to manage the physical installation, and the receiving unit manages the internal change timings (such as system readiness). Together the team and organisation identify business change requirements and identify the entry and exit criteria for IIS.

Status of Introduction into Service phase

The roll-out of the Global Command and Control System - Version 4, less Intelligence functionality (GCCS-M4.0.3), on the Multi Agency Network was completed in December 2010. This included operator training.

The roll-out of the GCCS-M4.0.3 to upgrade NZDF sites previously using an obsolete earlier version of GCCS was completed in May 2012. This included operator and technical training.

The roll-out of the Global Command and Control System - Version 4 (less Intelligence functionality), onto the rest of the NZDF SWAN network, less ships, was 80% completed by October 2012. The remaining 20% involved addressing technical issues related to the installation of GCCS-M software onto existing infrastructure. The search for alternatives was the trigger for considering an upgrade to GCCS-J.

As at 30 June 2017:

- The upgrade to GCCS-J on all NZDF networks is occurring in two parallel phases; Phase 1 is the limited deployment on static headquarters and support element sites from the period commencing September 2013. Phase 2 is deployment across the rest of the NZDF including ships and deployable headquarters. The completion of ships in this period is dependant on ships' maintenance schedules.
- The implementation of the Radiant Mercury cross domain system is occurring in two phases; Phase 1 is complete and provides a limited cross domain solution. Further development is needed to extend the range of business rules, potentially add Reliable Human Review (RHR), and conduct a second training course.
- HMNZS *Te Kaha* was fitted with a GCCS-J interim server solution as a ship trial in February 2015. A GCCS-J server solution was fitted to HMNZS *Canterbury* in September 2015. HMNZS *Te Mana* is currently having GCCS-M replaced with a Navy engineering change process approved permanent GCCS-J fit.
- Implementation of GCCS on smaller ships has commenced as ship trials. HMNZS *Wellington*, *Otago* and *Endeavour* have GCCS-J reachback solutions[12] fitted.

[12] The reachback solutions are where there is no GCCS-J application server installed on-board the ship. Instead, the GCCS-J client connects to a GCCS-J server back ashore i.e. in an NZDF data centre. The reachback solutions have been deployed typically for smaller ships e.g. OPVs. On-board servers have been used typically for larger ships e.g TEK and CAN. Having a server on-board enables the solution to work without the ship needing an active communications link e.g. if the ship is working in a network disconnected environment. It is also beneficial to have an on-board server if there are lots of clients to support, to reduce bandwidth requirements.

- GCCS implementation design for smaller RNZN ships has been finalised and is being progressively installed on vessels as part of the fleet maintenance plan.
- Work to enable connectivity with classified international data feeds will continue.

Levels of Capability

Initial Operating Capability: this is the first time the capability being introduced can achieve some or all of the operational requirements.

Operational Level of Capability: the generation of military capability so that force elements are able to carry out specific military tasks in accordance with the NZDF Output Specifications.

Directed Level of Capability: the maintaining of military capability at a minimum capacity from which force elements may be generated within a specified response time to achieve the operational level of capability.

NZDF Output Plan, 2009, S1-12

2.2 Schedule of Introduction into Service

	Initial Forecast	30 June 2017 Forecast	Actual	Variance
GCCS v4- Test of System and concept viability	Not provided	N/A	25 June 2010	N/A
GCCS v4- Test of multi-agency design and build	Not provided	N/A	December 2010	N/A
Achieve initial operating capability multi-agency	July 2010	N/A	December 2010	5
Achieve Full Operation capability multi-agency	August 2011	Cancelled[13]	N/A	N/A
GCCS-J Phase 1 (pilot)	September 2014	September 2016	N/A	N/A
GCCS-J Phase 2 (final)	June 2015	April 2017[14]	N/A	N/A
GCCS-J Full Operating Capability	Not provided	December 2018	N/A	N/A
NOTE	The acceptance and introduction into service occurs concurrently because the system design and build has to be undertaken in New Zealand on operational networks.			

[13] Cabinet SEC Min (13) 14/2 refers.

[14] Installs on ships subject to vessel availability.

SECTION 3: OPERATIONAL CAPABILITY

3.1 Progress towards Delivery of Capability and Operational Requirements

Defence Command and Control System – Progress as at 30 June 2017		
Operational Requirements	**Requirement likely to be met**	**Explanation**
Implementation of base infrastructure, hardware and software.	Yes	Initial indications of GCCS-J Pilot are that these requirements will be met.
System integration with current NZDF information networks and hardware.	Yes	
Command and control software to be supplied to NZDF headquarters sites, 10 RNZN ships, distributed Air Force bases, Army headquarters, and deployed headquarters.	Yes	
Provide updated location, track and sensor information.	Yes	
Supports email, web browser and collaborative software tools across the NZDF's Secure Wide Area Network (SWAN).	Yes	The GCCS-J pilot has successfully deployed GCCS-J in SWAN. For phase 2, the project will use the new Secret Information Environment (SIE), which similarly provides these email, web browser and collaboration tools.
Establish ongoing system support arrangements and staff training requirements.	Yes	These arrangements are being put in place through the Joint Command and Control Office concept. There are no risks currently identified that could prevent the goal being achieved.
Assessment: All requirements likely to be met. The Defence Command and Control System project is out of scope for benefits realisation, as its business case was approved by Cabinet pre-2010.		

NETWORK ENABLED ARMY TRANCHE ONE

Description: Network Enabled Army (NEA) Tranche 1 will deliver modern communications to the land force units most often deployed by the Government – Special Operations Forces (SOF); and a land force commitment, including infantry, a Task Group Headquarters and communications personnel. It is part of the wider NEA Programme.

ACQUISITION PHASE

The acquisition phase procures the capability solution. Deeper analysis of requirements and options may be required once industry is engaged. Included in this stage are processes for tendering, contract negotiation and acceptance of the deliverables.

1.1 Summary of acquisition phase

In April 2015, Cabinet approved NEA Tranche One funding for new digital radios and associated equipment as part of the NEA Programme (CAB Min (15) 11/7 refers).

The Tranche One Acquisition Phase Charter went through the Defence NEA Governance process in April 2016. This established the agreed schedule.

The date for the Final Operating Capability for Tranche One is being revised. The development of the business case for Tranche Two will recommend a revised completion date for Tranche One.

How Defence decided to acquire the Capability Solution

NEA Tranche One has a range of interlinked capability sets that are being delivered through a series of acquisitions. These capabilities are outlined in Volume 3. They were developed through the NEA Programme Business Case. This was referred to the Minister of Defence and provided the basis for Tranche One approved by Cabinet.

1.2 Project Budget

Budget variation

	Date approved	Total (NZ$ million)
Original budget at Approval to Commit	1 March 2015	106.0
Current approved budget	1 March 2015	106.0
Variation on original approved budget		0.0

1.3 Financial Performance

Project expenditure to 30 June 2017

Total (NZ$ million)	
Life to date expenditure (cumulative)	20.2
Remaining balance of approved budget	85.8
Forecast commitments	83.4

Total forecast expenditure

Forward Cover

To remove uncertainty from a future cash flow in a foreign currency, Forward Exchange Contracts are used to purchase the funds required to satisfy the forecasted project costs. A Forward Exchange Contract is a contract to buy/sell a nominated amount of currency on a given date. The rate is struck at the time of the contract and becomes the contract rate. This is the rate that will be used on the agreed future date to settle the contract and receive/pay the foreign currency regardless of what the market rate is on the day. The resulting gain or loss when the contract is compared to the market rate on the day – or at any point in the timeline – is the price of certainty of future cash flows.

Total (NZ$ million)	
Approved budget	106.0
Total forecast expenditure	103.5
Gross project variation (forecast)	2.5
FOREX impact	(2.5)
Actual project variation (forecast)	0.0

Project Contingency (as at 30 June 2017)

Total (NZ$ million)	
Contingency built into the budget	0.0
Total contingency expended	0.0
Additional funding	0.0
Remaining balance	0.0

Note: NEA Tranche One Project contingency is not handled as a separate item. It is embedded in the overall Programme.

Explanation of major contingency draw downs

There are no current contingency drawdowns

Drawdown	Total (NZ$ million)	Explanation
N/A	N/A	N/A

1.4 Schedule/Timeframe Progress

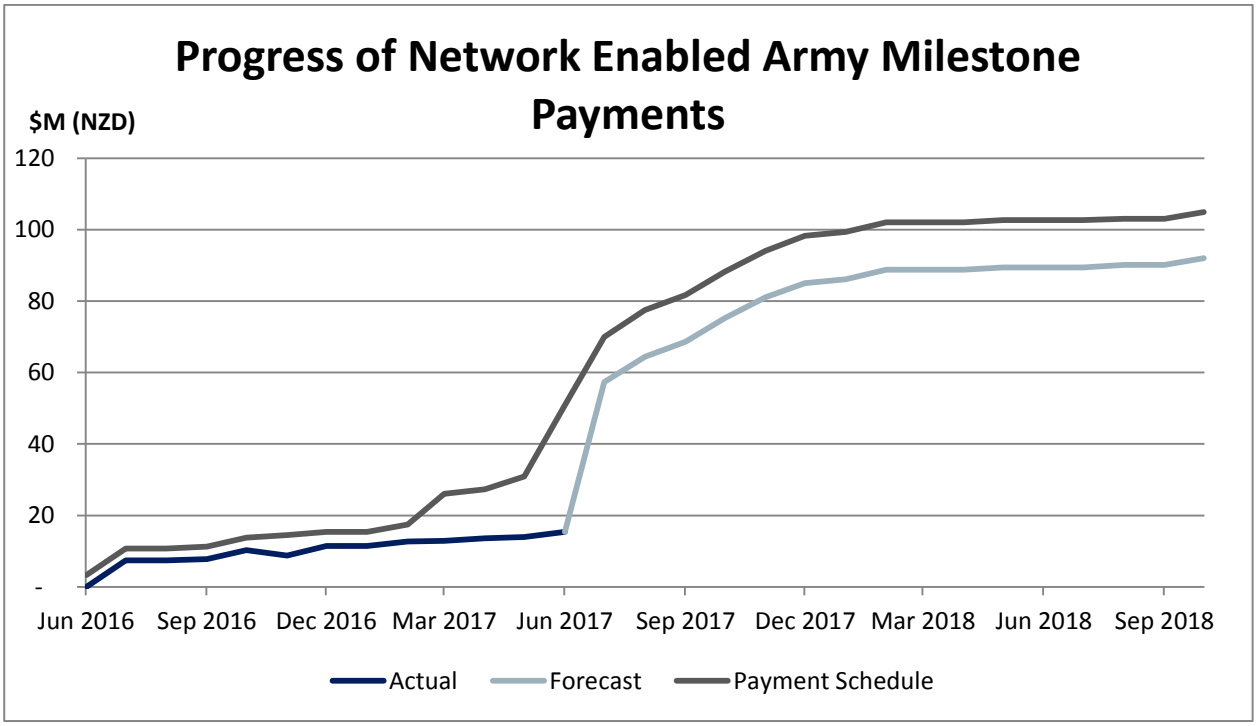
	Original forecast at Approval to Commit	30 June 2017 forecast / achieved	Variation in acquisition phase (months)
Acceptance Date	N/A	No	N/A
Comment	The date for the Final Operating Capability for Tranche One is being revised. A completion date for Tranche One will be recommended as part of Tranche approval. We are still working to confirm the main acquisition pathways with the remaining key industry partners.		

History of variations to schedule

Date of individual variation	Variation length (months)	Explanation
N/A	N/A	N/A

Progress of Network Enabled Army against the Milestone Payments Schedule

NOTE:


Progress of Network Enabled Army Milestone Payments
$M (NZD)
120
100
80
60
40
20
-
Jun 2016
Sep 2016
Dec 2016
Mar 2017
Jun 2017
Sep 2017
Dec 2017
Mar 2018
Jun 2018
Sep 2018
Actual
Forecast
Payment Schedule

SECTION 2: INTRODUCTION INTO SERVICE

The introduction into service phase develops the force elements required to generate NZDF outputs at a specific level of capability. Part of this stage is the test and evaluation process, which demonstrates the capability has met specific standards of safety and is operationally effective in accordance with the suite of operational concept documentation.

2.1 Summary of Introduction in Service Phase

Description of Introduction into Service Phase

Planning for the Introduction into Service (IIS) phase has commenced. IIS responsibilities and processes have been reviewed and confirmed. The key participants in IIS are the Programme Team and Project Team, Defence Logistics Command, Training and Doctrine Command and the receiving units. The Programme Business Change Manager has worked with Army to identify business change requirements across the organisation.

Status of the Introduction into Service Plan

IIS plans will b eproduced for the systems that will be delivered under Tranche 1 acquisition.

Levels of Capability

Initial Operating Capability: this is the first time the capability being introduced can achieve some or all of the operational requirements.

Operational Level of Capability: the generation of military capability so that force elements are able to carry out specific military tasks in accordance with the NZDF Output Specifications.

Directed Level of Capability: the maintaining of military capability at a minimum capacity from which force elements may be generated within a specified response time to achieve the operational level of capability.

NZDF Output Plan, 2009, S1-12

2.2 Schedule of Introduction into Service

	Initial Forecast	30 June 2017 Forecast	Actual	Variance (months)
Special Forces Electronic Warfare Introduction into Service complete	June 2015	N/A	May 2016	11
Special Forces Electronic Warfare achieve directed operating capability	September 2015	September 2016	N/A	12
Battalion Headquarters Command Post Systems Introduction into Service complete	December 2017	December 2017	N/A	N/A
Battalion Headquarters	June 2018	November 2018	N/A	5

Command Post operational test and evaluation				
Battalion Headquarters Command Post achieve directed level of capability	June 2018	December 2018	N/A	6
CUBS Wide Band SATCOM IIS	March 2018	September 2018	N/A	6
Explanation	N/A			

Summary of Through Life Operating Cost Estimates

Tranche 1 is scheduled to complete by June 2020. The initial Acquisition Timetable is not yet finalised.

Benefits Realisation

Scheduled benefits realisation has yet to be finalised but is likely to be post-2021.

SECTION 3: OPERATIONAL CAPABILITY

3.1 Progress towards Delivery of Capability and Operational Requirements

Defence Command and Control System – Progress as at 30 June 2017		
Operational Requirements	**Requirement likely to be met**	**Explanation**
Common Universal Bearer Systems wide-band satellite communications Interim Operational Capability	Yes June 2018	Delivery of strategic and ruggedised communication access nodes
Common Universal Bearer Systems wide-band satellite communications Final Operational Capability	Yes May 2019	
Mobile Tactical Command Systems Interim Operational Capability	Yes November 2018	Includes delivery of core radios, peripherals and ancillaries, developments of their network and physical integration (mounted and dismounted), including other niche radio systems.