



NEW ZEALAND GOVERNMENT DEFENCE CAPABILITY PLAN

2016





Royal New Zealand Air Force T-6 Texan II training aircraft flying in formation, 2016

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From the Minister of Defence

I am pleased to introduce the Defence Capability Plan 2016, the third edition of the Plan released by this Government, and the most detailed edition produced to date.

This Plan outlines the investment in capability required to deliver the force structure of the Defence White Paper 2016.

It is the primary vehicle for the Government to communicate its defence capability priorities to the public, industry, and international partners.

The Defence White Paper 2016 will enable the Defence Force to maintain a modern, flexible, combat-ready force, able to defend New Zealand and its interests at home and overseas.

The Government has planned annual increases in the Defence Force operating and capital budgets to deliver the capabilities of the Defence White Paper. These planned increases would see Defence spending at an average of around 1% of Gross Domestic Product out to 2030.

These increases are already underway, with \$300 million of additional operating spending allocated over the next four financial years as part of Budget 2016.

The Defence Capability Plan details a \$20 billion programme of capital investment, over a fifteen year period, including \$1.7 billion to modernise the Defence Estate, while retaining a presence in all current camps and bases.

Significant opportunities for New Zealand defence industry are available across this period, including through supporting and maintaining existing and new capabilities, providing niche technology solutions, and partnering with international suppliers. The significant investment in the Estate modernisation programme will require a close partnership between the Defence Force and the local construction industry.

The Defence White Paper 2016 confirmed the value of the core capabilities of the New Zealand Defence Force, and provisioned additional funding for new capability investments in five areas:

- Antarctic and Southern Ocean Operations: ice-strengthening the planned third offshore patrol vessel and replacement naval tanker.
- Air Surveillance: to enable the Government to continue to offer a highly valued air surveillance capability to multinational operations, without compromising surveillance operations closer to home.
- Littoral Operations: an enhanced littoral operations support capability, to increase the range of operations the Defence Force can undertake independently in the South Pacific and globally.
- Cyber Protection and Support: a deployable defensive capability to protect Defence Force operations from cyber security threats.
- Intelligence Support: additional intelligence personnel to process, analyse, and distribute the greater levels of information able to be gathered from upgraded intelligence, surveillance and reconnaissance platforms.

The Plan includes indicative cost and schedule bands for investments in the Maritime, Land, Air and Networked capability domains. These have been included to demonstrate to the public, defence industry, and our international partners, the relative scale and timing of the investments planned in the next fifteen years.

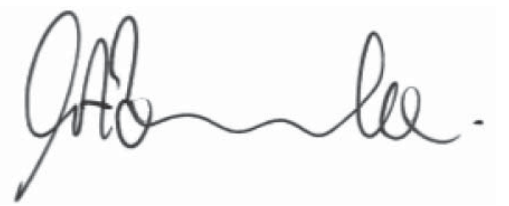
This Capability Plan is not just a list of projects. For the first time, the Plan details how capability investments will contribute to the operational capacity of the Defence Force. This includes how forces are recruited, trained, and prepare for operations. The Plan states what types of operations the Defence Force plans for, and what forces are available for military deployment.

Defence must continually manage its affordability, and demonstrate value for money to the taxpayer. Defence is committed to adopting the world's best practices for capability management.

Major investment decisions await the Government in the coming years, including replacements for the Air Force Hercules, Boeing 757 and Orion fleets, and the Navy ANZAC Class Frigates. These decisions will shape the Defence Force for decades to come.

The Government is committed to maintaining a Defence Force with up to date capabilities, that are valued by our close partners, and that can respond to a range of contingencies and security events.

Most importantly, the Government is committed to attracting and retaining the men and women who serve in the Defence Force, who keep our country secure and protect our values and way of life.

A handwritten signature in black ink, appearing to read 'Gerry Brownlee', with a long horizontal flourish extending from the middle of the signature.

Hon Gerry Brownlee
Minister of Defence

From the Secretary of Defence and the Chief of Defence Force

The Defence White Paper 2016 has given Defence certainty to plan out to 2030 and beyond.

The Defence Capability Plan 2016 provides the detail of the 2030 force structure envisioned in the Defence White Paper, at a greater level of detail than any previous edition. The 2030 force structure is a mix of present day capabilities, upgrades to extant equipment, replacements of current platforms, and planned future capability enhancements.

The capability initiatives of the Defence White Paper have been broken down into domain areas: Maritime, Land, Air, and Networked. Provisional estimates of project schedule and cost bands are provided for major initiatives in these domain areas. These estimates do not prejudge Cabinet or Ministerial decisions on capability initiatives, and are designed to give the reader a sense of the scale and timing of upcoming investments.

The Defence Force conducts operations every day to defend New Zealand and its interests, including monitoring our maritime approaches, providing search and rescue responses, and standing ready to respond to natural disasters.

It must be combat capable, and possess the right people, capabilities and systems to contribute to New Zealand's national security at home, in our region and abroad.

The Defence Force operates in a world where the rules-based international order is coming under greater pressure, activity in New Zealand's maritime domain is increasing, terrorist groups have extended their global reach, and the threat to networked technologies has increased markedly.

Government's highest priority for the Defence Force is its ability to operate in New Zealand and its Exclusive Economic Zone, followed by the South Pacific and the Southern Ocean.

The Defence Force trains and prepares to deploy and sustain a force independently into the South Pacific, and to contribute to, or lead, a peace and security operation in the South Pacific with our ally Australia.

The Defence Force must also be ready to make valued contributions to global security efforts that support the rules based international order.

Every day, hundreds of Defence Force personnel are serving New Zealand's national security interests on overseas deployments around the world. The deployment of a military training team to build the capacity of the Iraqi Army in its fight against the Islamic State of Iraq and the Levant (Daesh) reflects this commitment.

Without strong support from operational enablers, Defence capabilities cannot be generated, or be operationally successful. Significant enhancements are planned out to 2030 in four of the core operational enablers of the Defence Force: personnel, the Estate, logistics, and information communications technology. The Plan details these enhancements, and how they are linked to the four capability domain areas.

To ensure that Government investment delivers the desired capability outcomes, Defence has embedded a system of strategic reviews, annual portfolio reviews, and a rigorous individual investment process.

Maintaining the confidence of Ministers, Central Agencies, industry and the public will be critical over the next 15 years as Defence progresses through a programme of \$20 billion of capital investment.

Defence is pursuing a number of strategies to successfully deliver the significant investment that Government has provisioned, and to mitigate risks. These strategies include agility in procurement, minimising high risk procurements, and ensuring Defence has the operational capacity to deliver capability investments.

The Defence capability management system is currently undergoing a series of changes as part of the Defence Capability Change Action Programme to lift up the performance of the system. The goal of the Programme is for New Zealand to become an international exemplar for a small country in defence capability management.

While Defence currently compares well against international counterparts in capability management performance, the Programme aims to shift performance from “good” to “great”, while maintaining our smart, agile, and pragmatic approach to procurement. Defence is committed to working with Central Agencies, and other Government agencies, to lift the performance of its capability management system, to increase the level of confidence Ministers have in Defence investment and asset management, and to maintain overall affordability.

Defence currently works with New Zealand and international companies to deliver the needs of our Defence Force. Maintaining and enhancing the commitment, understanding and trust between Defence and industry will ensure we have a strong, prepared and sustainable Defence Force for the future.

Defence has adopted a Defence Industry Engagement Strategy to partner with industry, and is undertaking a variety of industry engagement initiatives, including early engagement, transparency, and ease of business. The increased level of detail on capability investments in this Plan is a key pillar of Defence communication with industry on procurement opportunities over the next 15 years.

Defence will deliver on the capability vision of the Defence White Paper. This document provides the detail on how Government will ensure that the New Zealand Defence Force remains ready and able to deploy military force to protect our national security interests now and into the future.



Helene Quilter
Secretary of Defence



T.J. Keating MNZM
Lieutenant General
Chief of Defence Force

Strategic Policy Settings

- SECURITY INTERESTS AND THE ROLE OF DEFENCE
- POLICY PRIORITIES

SECURITY INTERESTS AND THE ROLE OF DEFENCE

The recently released Defence White Paper 2016 sets out the Government's understanding of the international strategic environment to 2040, the roles and tasks the defence force must be able to undertake across diverse geographical and operating environments to protect and advanced New Zealand's interests, and the broad mix of defence capabilities required. The White Paper provides the foundation for New Zealand's security, and provides the direction for the force structure and capability intentions outlined in this plan.

The White Paper notes that the Defence Force contributes to New Zealand's national security through:

- the promotion of a safe, secure and resilient New Zealand, including its border and approaches;
- the preservation of a rules-based international order that respects national sovereignty;
- a network of strong international relationships; and
- the maintenance of New Zealand's prosperity via secure sea, air and electronic lines of communication.

New Zealand's decisions about military capability are grounded in a clear set of expectations about the roles and tasks the Defence Force is expected to undertake, where it will undertake them, and with whom.

The White Paper outlines the principal roles for the Defence Force, which are to:

- Defend New Zealand's sovereign territory
- Contribute to national resilience and whole of government security objectives
- Meet New Zealand's commitment as an ally of Australia
- Support New Zealand's civilian presence in the Ross Dependency of Antarctica, and participate in whole of government efforts to monitor and respond to activity in the Southern Ocean;
- Contribute, and where necessary lead, operations in the South Pacific;
- Make a credible contribution in support of peace and security in the Asia-Pacific region;
- Protect New Zealand's wider interests by contributing to international peace and security, and the international rule of law;
- Contribute to the advancement of New Zealand's security partnerships;
- Participate in whole of government efforts to monitor the strategic environment; and,
- Be prepared to respond to sudden shifts in the strategic environment.

POLICY PRIORITIES

Government's highest priority for the Defence Force is its ability to operate in New Zealand and its Exclusive Economic Zone, followed by the South Pacific and the Southern Ocean. The Defence Force must be able to operate independently, or lead operations in these areas, if required.

The Defence Force must also be able to contribute to operations further afield. This includes combat operations, in medium to high threat environments. Such contributions will most likely be made as part of operations led by New Zealand's international partners. It is important that the defence force maintains the ability to operate effectively with other defence forces, particularly Australia.

To undertake the roles and tasks set out in the White Paper effectively, the New Zealand Defence Force must be able to respond to a range of events, on land, at sea and in the air. This requires maintaining a broad range of capabilities that offer a range of credible deployment options to Government.



A Royal New Zealand Air Force NH90 deploys 1 Brigade infantry into the field as part of Exercise Sari Bair, Waiouru, 2016

A Force for New Zealand

- THE JOINT TASK FORCE CONCEPT
- CURRENT FORCE STRUCTURE
- OUTPUTS AND READINESS
- FORCE GENERATION
- DEFENCE FORCE STRATEGY

THE JOINT TASK FORCE CONCEPT

The New Zealand Defence Force operates as a Joint Task Force in order to best respond to a range of security events, in peace, crisis, and war. To carry out these responses, military force elements are brought together to form a mission or operation specific Joint Task Force. The Joint Task Force concept capitalises on the unique capabilities of each force element, and provides the flexibility to tailor the size and makeup of an expeditionary military force. All force elements must be configured, trained, and supported to enable operations in four potential modes:

- as independent elements;
- as an independent response option;
- as a military contribution to a comprehensive New Zealand response; and
- as a New Zealand contribution to a coalition operation.

The Joint Task Force concept is applicable to combat and non-combat operations, and in providing a credible response or presence. The Defence Force demonstrated the ability of force elements to combine into a Joint Task Force construct with the successful completion of Exercise Southern Katipo 2015, and on large-scale disaster relief efforts in Fiji following Tropical Cyclone Winston in early 2016.

JOINT TASK FORCE KEY ATTRIBUTES

Each Joint Task Force is tailored to accomplish a specific mission. A Joint Task Force is the collective sum of deployable force elements and support functions formed to meet the requirements of a specific mission or task. A Joint Task Force is disestablished after a mission is executed.

JOINT TASK FORCE OPERATIONAL CAPACITY

New Zealand Independent Operations

The Defence Force conducts operations every day to defend New Zealand and its interests, including customs and fisheries patrols, search and rescue responses, and border security. Large scale forces respond to natural disasters and civil emergencies within New Zealand.

In the South Pacific region, the Defence Force is expected to undertake operations independently, or lead them, if necessary. The particular task, threat, and geography determines the size and capability of the force.

Regional Operations in Partnership with Australia

New Zealand seeks to maintain interoperability with our defence ally, Australia. In partnership with Australia, the Defence Force must be able to either contribute to, or lead, a peace and security operation in the South Pacific. These operations will be characterised by a high level of coordination.



New Zealand Army personnel training Iraqi Security Forces
in Taji Military Complex, Iraq, 2015

Section 2

Contributions to Coalition Operations

New Zealand's national security is enhanced by contributing to global security efforts that support the rules based international order. The Defence Force, therefore, needs capabilities that can contribute to, and operate as part of, a coalition force.

New Zealand must be able to contribute military capabilities that are valued by our potential coalition partners. This includes providing a combat capable Joint Task Force, or individual force elements, able to operate in higher threat environments as part of a coalition. Retaining an effective combat capability ensures that the Government can make meaningful contributions to international security.

Defence response options in this area include contributions to coalition operations such as:

- a Joint Task Force contributing to a coalition operation,
- a Land Task Group operating in medium to high threat environments,
- a naval combat force conducting sea control and maritime interdiction operations within a Task Group,
- an air element or air Task Group operating as part of a coalition force, or
- New Zealand Special Operations Forces conducting advance force operations.

Contributions to United Nations Peace Support Operations

New Zealand has a long and proud history of contributing forces to United Nations peace support operations around the globe. New Zealand maintains military commitments to United Nations missions in the Middle East, South Sudan and to the United Nations Command-led military armistice monitoring mission on the Korean Peninsula.

The Government declares selected Defence Force capabilities to the United Nations Standby Arrangement System. The Government sets the details of the agreed conditional pledges, within the constraints imposed by current commitments.

CURRENT FORCE STRUCTURE

The Defence Force of 2016 currently maintains a force structure to undertake the following operations concurrently:

- Assisting the civil power by responding to domestic emergencies, and providing support to other government agencies;
- Undertaking independent operations or leading a multinational response in the South Pacific for humanitarian and disaster relief or a security and stabilisation operation; and
- Contributions to United Nations peace support operations, and coalition operations globally

The force structure of 2016 includes the following force elements:

CURRENT NAVY CAPABILITIES

- Naval patrol forces for operations in the Exclusive Economic Zone, Southern Ocean and South Pacific.
- Littoral operation vessels for operations within New Zealand waters and the South Pacific.
- Sealift and sustainment vessels for supporting deployed forces regionally or globally.
- A naval combat force, with integrated aviation capability, for regional or global responses.



The New Zealand White Ensign is flown from the Auckland Harbour Bridge, with HMNZS Hawea of the Royal New Zealand Navy in the foreground, 2016

Section 2

CURRENT ARMY CAPABILITIES

- A high readiness company as part of the joint Australia-New Zealand Ready Response Force for immediate response to regional crises.
- Land forces able to deploy as a combined arms task group up to battalion size, sustained, for 36 months.
- Special operations forces for assisting the civil power, especially through the provision of counter-terrorist support to the New Zealand Police.
- A Special Forces Task Group for expeditionary deployments.

CURRENT AIR FORCE CAPABILITIES

- Strategic and tactical airlift to project and sustain forces in the South Pacific and globally.
- Airlift to support New Zealand and partner scientific activities in Antarctica via the Joint Logistics Pool with the United States and Italy.
- Air surveillance and response aircraft for ongoing monitoring of the approaches to New Zealand's maritime zone, for supporting expeditionary deployments, and for conducting anti-submarine and anti-surface warfare.
- Maritime helicopters operating from naval force elements, and for conducting anti-surface warfare.
- A helicopter force providing tactical air mobility to land forces.
- Air assets to respond across New Zealand's maritime search and rescue area of responsibility.

CURRENT OPERATIONAL ENABLERS

The successful preparation for and conduct of operations is enabled by a mix of functions that support force elements. These operational enablers include:

- Integrated command and control systems, at both domestic and deployed headquarters elements.
- Domestic and deployed logistics.
- Corporate and deployable communications and information systems.
- Strategic and deployable satellite communications bearers.
- Deployable medical support.
- A Defence Estate geared towards generating forces and supporting operations.
- A set of training capabilities that ensure combat forces are brought up to the required standard for deployments.

The Executive Overview of the New Zealand Defence Force contains further detail on current force elements and units, and can be found at:

<http://www.nzdf.mil.nz/corporate-documents/default.htm>



A Royal New Zealand Air Force C-130 Hercules unloads supplies at Port Vila, Vanuatu, following Tropical Cyclone Pam, 2015

OUTPUTS AND READINESS

The annual Budget process allocates the funding to generate forces, and to deploy forces on operations once generated, through seven departmental outputs.

The outputs cover the following areas:

- Preparing Naval forces for operations
- Preparing Land forces for operations
- Preparing Air forces for operations
- Conducting operations to protect New Zealand's sovereignty, natural resources and the New Zealand people
- Conducting expeditionary operations that contribute to New Zealand's security, stability and interests
- Military advice to Government
- Respecting veterans and honouring service

The New Zealand Defence Force Annual Report contains further detail on departmental outputs, and expenses against these outputs.

The Defence Force uses readiness measures to determine how quickly force elements can respond to security events. Levels of readiness cover four broad categories:

- Domestic standing commitments
- Very High readiness forces
- Contingent capabilities
- Medium readiness forces

Domestic standing commitments respond immediately to security events and emergencies. These include commitments to:

- Specialised Counter Terrorist forces
- The national response for Chemical, Biological and Radiological Events, and the disposal of explosive ordnance (EOD) and improvised explosive devices
- Military capabilities to respond to emergency situations as directed by the Government or requested by the principal civil authority, including:
 - Search and rescue and recovery tasks, on land and at sea
 - Evacuation of persons from high risk areas
 - Medical evacuation
 - Maritime incidents and marine degradation
 - Emergency management
 - Rural fire-fighting tasks

Very High readiness forces enable rapid reactions to security events in the South Pacific, or natural disasters. These forces are available for short notice and non-sustained responses. These include:

- Naval forces
- Strategic airlift and air surveillance
- Special operations forces
- A High Readiness Infantry Company as part of the joint Australia-New Zealand Ready Response Force

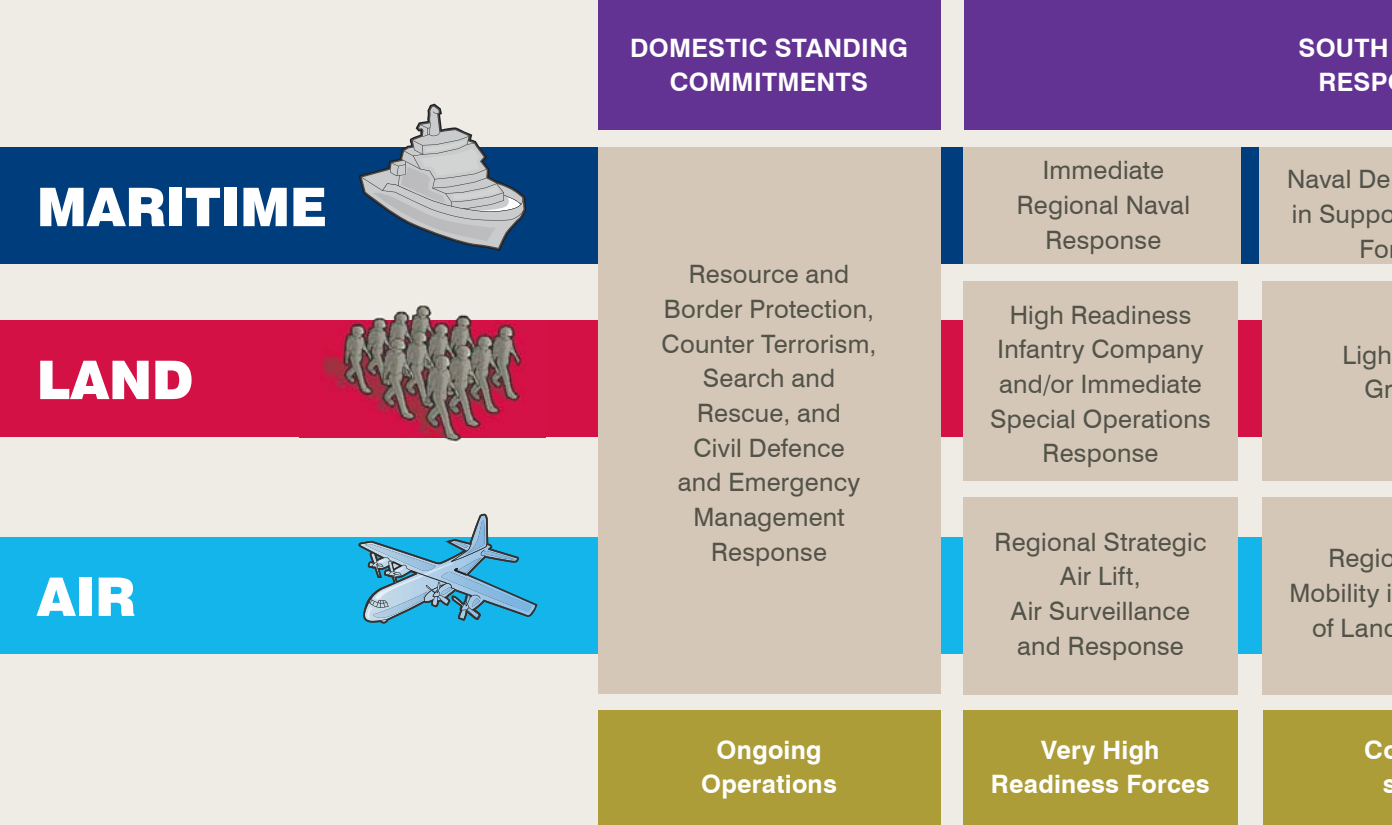
Contingent capabilities enable responses to events in the South Pacific and globally. These include:

- Land combat forces able to deploy as a light or a combined arms task group
- Regional naval deployments to support and sustain land forces, including littoral warfare support, amphibious sealift, replenishment, and patrol forces
- Naval forces able to conduct maritime interdiction, sea control, amphibious sealift, replenishment, naval air operations, littoral warfare support and maritime trade operations globally
- Strategic and tactical airlift, and helicopters
- Air surveillance and response forces
- Special operations forces able to deploy as a task group

Medium readiness forces provide the means over time to sustain large scale deployments, prepare follow on forces to sustain deployments, and regenerate forces from deployments. These include:

- Rotation forces for land deployments, with a second rotation of personnel required for deployments of an extended duration
- Rotation of crews, aircraft and ships as required for maritime and air forces

FORCE READINESS



FORCE GENERATION

The Navy, Army and the Air Force are the core components of the New Zealand Defence Force. The Chiefs of Service have primary responsibility for generating force elements, and ensuring that force elements are ready for operational employment.

Navy, Army and Air Force personnel, consisting of full-time and part-time uniformed personnel, are trained at levels of readiness needed to undertake deployed operations.

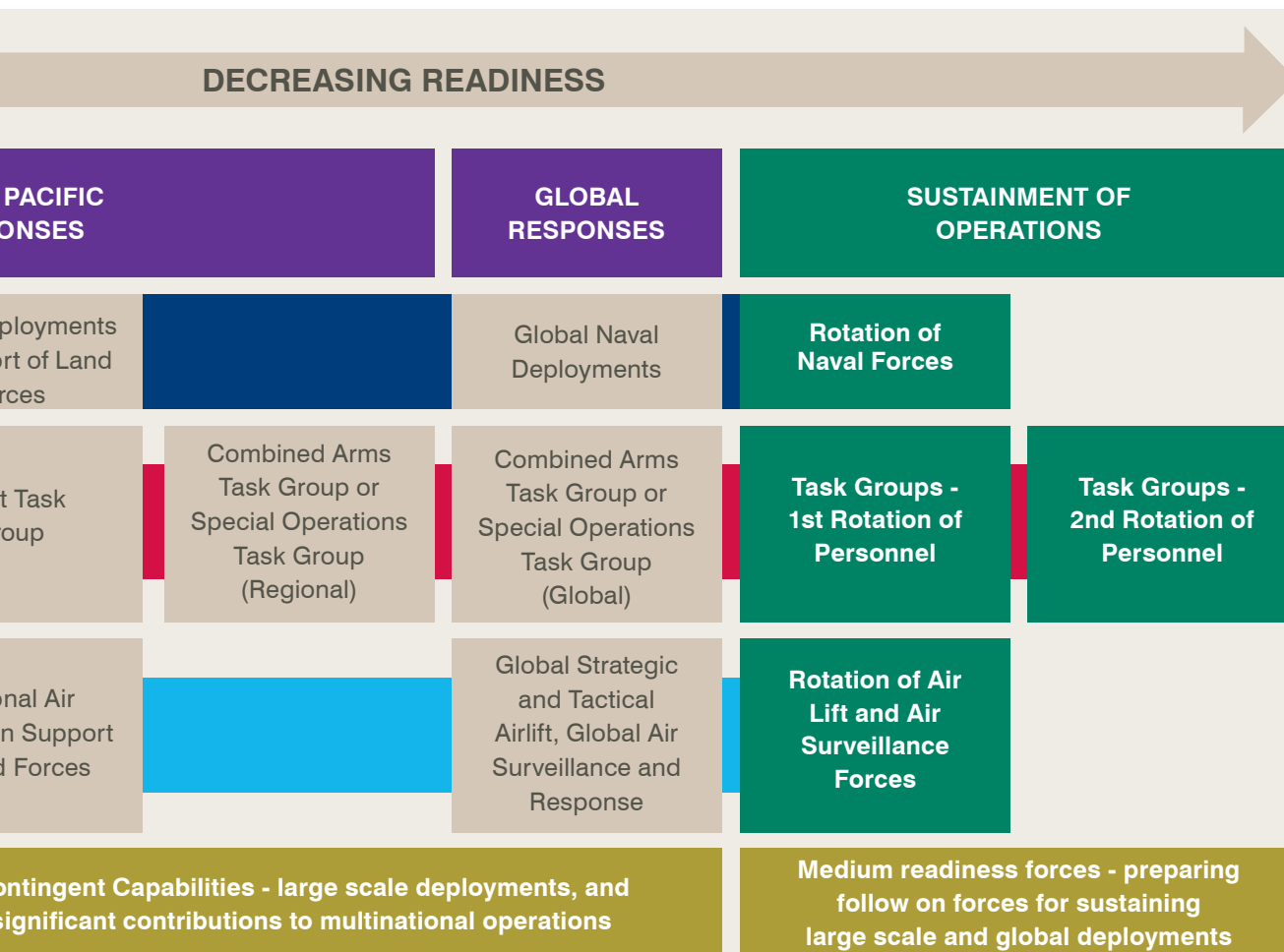
The Commander Joint Forces New Zealand delivers integrated capabilities for deployment, through additional training activities, including pre-deployment training.

NAVY FORCE GENERATION

Navy operates an integrated system of force generation that focuses on ensuring that personnel are individually trained, equipment is capable and well-maintained, force elements are collectively trained, and all components are able to be sustained. Together these generate levels of readiness to conduct tasks as directed by Government, or as articulated in annual output plans.

ARMY FORCE GENERATION

The Army operates an annual training plan with units and formations moving through progressive stages of preparation and contingency before being ready for deployment. This involves both individual and collective training.



AIR FORCE GENERATION

Aircrews are trained and maintained at Air Force directed states of readiness sufficient to concurrently sustain domestic outputs and deployed operations. Aircraft scheduled maintenance programmes are also a critical foundation of Air Force capability generation.

DEFENCE FORCE STRATEGY

To ensure that the force is structured and able to best deliver the future capability vision of the White Paper, the Defence Force develops its own internal strategy.

The current capstone strategy for the Defence Force is Future35, which describes a long term vision for the Defence Force. This strategy is being reviewed and updated to take into account the release of the Defence White Paper.

THE 2020 FORCE – ENHANCED COMBAT CAPABILITY

The next milestone under Future35 is to reach Enhanced Combat Capability in 2020. To meet this target, the Defence Force aims to be 2020 Ready, which is about being better at understanding and operating in complex environments, about operating new equipment safely and effectively, successfully introducing new capabilities into service, and operating modern fleets to best effect. 2020 Ready describes what reaching Enhanced Combat Capability would look like using the four themes of: Better Tools; Better Support; Better Informed; and Better Together.

Defence Force strategy documents, including Future35, can be found at:

<http://www.nzdf.mil.nz/corporate-documents/default.htm>

Defence White Paper 2016 - New Capability Enhancements

- OVERVIEW
- ANTARCTIC AND SOUTHERN OCEAN OPERATIONS
- AIR SURVEILLANCE
- LITTORAL OPERATIONS
- CYBER PROTECTION AND SUPPORT
- INTELLIGENCE SUPPORT

OVERVIEW

The 2016 Defence White Paper confirmed the value of the core capabilities of the Defence Force. These core capabilities are outlined in the domain areas below, which are covered in greater detail in Section Four.

- Maritime Capabilities, including naval combat, maritime patrol, sealift and maritime sustainment capabilities;
- Land Capabilities, including land combat capabilities, engineering, communications, intelligence, fire support (artillery), transport and deployable medical facilities, domestic and expeditionary special operations forces, and domestic and expeditionary explosive ordnance disposal capabilities;
- Air Capabilities, including air surveillance and response, fixed wing, and rotary wing capabilities; and
- Networked Capabilities, including command and control systems and satellite communications networks.

The White Paper made enhancements to the force structure to mitigate the challenges in New Zealand's strategic environment. Capability enhancements are planned in five areas:

- Antarctic and Southern Ocean Operations
- Air Surveillance
- Littoral Operations
- Cyber Protection and Support
- Intelligence Support



A New Zealand Army Officer Cadet
on a live fire exercise in Waiouru, 2016

ANTARCTIC AND SOUTHERN OCEAN OPERATIONS

Enhanced capabilities: An ice strengthened third offshore patrol vessel and an ice-strengthened maritime sustainment capability.

As demand increases and resources elsewhere are depleted, international interest in the Southern Ocean's fisheries, and the risk of illegal, unregulated, and unreported fishing, is expected to increase. Patrolling the Southern Ocean is therefore a high priority. Increased human activity is occurring on the Antarctic continent, in particular scientific expeditions and tourism.

The Government will continue to support of its international obligations to protect the environment, and respond to search and rescue incidents. Over the last decade, there has been an increase in the number of scope of Defence Force air and maritime operations in the Southern Ocean and Antarctic.

The Defence Force currently operates two offshore patrol vessels. The White Paper identified the need to ice-strengthen the planned third offshore patrol vessel.

The procurement of this vessel will improve the Defence Force's ability to conduct patrols in the Southern Ocean. Operations will be able to occur across a wider range of ice conditions than are possible with the present offshore patrol vessel fleet.

The White Paper determined that the proposed naval tanker currently under contract be ice strengthened, reflecting the increasing importance of supporting New Zealand's civilian presence in Antarctica.

Ice-strengthening will enable the tanker to conduct summer resupply operations to the Antarctic. Resupply operations are of particular value for the delivery of fuel to support New Zealand and partner operations on the continent, including through the Joint Logistics Pool.

Antarctic operations are also a key consideration for the Future Air Mobility project.

AIR SURVEILLANCE

Enhanced capability: additional investment in air surveillance capability when replacing the P-3 Orion aircraft fleet.

Six P-3 Orion aircraft provide the Defence Force's air surveillance capability. The Orions are due for retirement in the mid-2020s. The following factors contribute to the need for additional investment in air surveillance capability:

- As the sophistication, range and number of actors operating in the Southern Ocean increases, including illegal, unregulated and unreported fishing vessels, maintaining awareness across our maritime region is expected to become increasingly challenging.
- Increasing transnational crime in the South Pacific is driving more frequent airborne surveillance support requests from South Pacific nations.
- The expectation New Zealand will continue to make regular contributions to multinational missions into the future, such as counter-piracy operations.
- Increased defence spending in North and South East Asia, including the growth of submarine fleets.

This additional investment will also enable the Government to continue to offer a highly valued capability to international coalition operations without compromising surveillance operations closer to home.



A Royal New Zealand Air Force C-130 Hercules at Napier airport following a night flight as part of Exercise Sky Train, 2016

LITTORAL OPERATIONS

Enhanced capability: an enhanced littoral operations support capability.

The White Paper provisioned for the replacement of two naval vessels, HMNZS Manawanui and HMNZS Resolution, with a single vessel. Together, the two vessels supported dive support and hydrographic operations.

The White Paper determined that an improved capability be acquired to provide enhanced self protection, hydrographic (mapping), and intelligence, surveillance and reconnaissance capabilities.

The enhanced capability will increase the range of operations the Defence Force can undertake independently, and will add valuable depth to the Defence Force's maritime surveillance. It will also enable forces to be deployed when air and seaport facilities are unavailable.

CYBER PROTECTION AND SUPPORT

Enhanced capability: establishment of a cyber protection and support capability for the Defence Force.

A key conclusion from the White Paper is that the cyber threat to all nations, including New Zealand, is growing and evolving rapidly. The Defence Force possesses unique platforms and networked systems that must be able to operate securely under a cyber threat. As the Defence Force's platforms and networks are frequently deployed abroad, a similarly deployable cyber security and support capability is required to enable operations.

The Defence Force cyber security and support capability will be focussed on providing services for deployed operations and specialist military equipment. The capability will not overlap with the Government Communications Security Bureau's national cyber defence role or its foreign intelligence role.

INTELLIGENCE SUPPORT

Enhanced capability: additional intelligence personnel to process, analyse, and distribute information.

The Defence Force's capacity to process, analyse and distribute information needs to be enhanced to match the greater levels of data now able to be gathered from upgraded intelligence, surveillance and reconnaissance platforms, including the P-3 Orion aircraft.

Increased intelligence capacity in this area will improve awareness of our exclusive economic zone as well as support operations overseas by providing actionable intelligence to military commanders.



Crew of a Royal New Zealand Air Force P-3K2 Orion conducting a torpedo firing as part of Exercise Rim of the Pacific, 2016

Capability Domains and Initiatives

- OVERVIEW
- ACHIEVING GOVERNMENT APPROVAL
- 2030 FORCE STRUCTURE
- MARITIME DOMAIN
- LAND DOMAIN
- AIR DOMAIN
- NETWORKED DOMAIN
- DISPOSAL OF SPECIALIST MILITARY EQUIPMENT

OVERVIEW

The following section details the 2030 future force envisioned in the Defence White Paper, and the initiatives planned in the Maritime, Land, Air and Networked domain areas required to construct that force.

Provisional estimates of overall project schedule and cost bands are provided for major initiatives in each domain area. The cost bands do not represent the budget for each initiative: they indicate where a provisional project budget sits within a broad parameter.

Cost and schedule estimates for planned projects are not approved or final, and are subject to change, to internal review, and ultimately to Cabinet or Ministerial decision. They do not pre-empt Government investment decisions, or the gated approval process that Defence undertakes using the Treasury Better Business Case model.

Cost and schedule estimates for projects in the 2020-2030 period have a lesser degree of certainty than projects in the near term. Over time, project estimates will shift within the overall White Paper spending profile, and any changes will be reflected in the next version of the Defence Capability Plan.

ACHIEVING GOVERNMENT APPROVAL

Business cases for major capability projects are built progressively, and follow a three pass approval process to Cabinet:

- Indicative Business Case - tests whether there is an acceptable level of benefit from a proposed investment, the likely costs, and provides a long to short list of options that could deliver the benefits required.
- Detailed Business Case - examines thoroughly one or more of the options agreed in the Indicative Business Case, and assembles the information that would allow Cabinet to make an informed decision on whether to progress the proposal to the point of inviting tenders or other competitive market proposals.
- Implementation Business Case - reports on the outcome of a tender or other supplier selection process, the total costs of the proposal and seeks Cabinet approval to commit to the investment.

Indicative timings for decisions on business cases have been included in this plan, for major capability projects, to give industry greater awareness of when information will be sought.

Business cases can take between eight and twenty-four months to prepare depending on their scale and complexity. For projects considered low risk the requirement to do separate Indicative and Detailed Business Cases might be combined into a Single Stage Business Case, which may also seek immediate approval from Cabinet to commit funding.

EARLY ENGAGEMENT

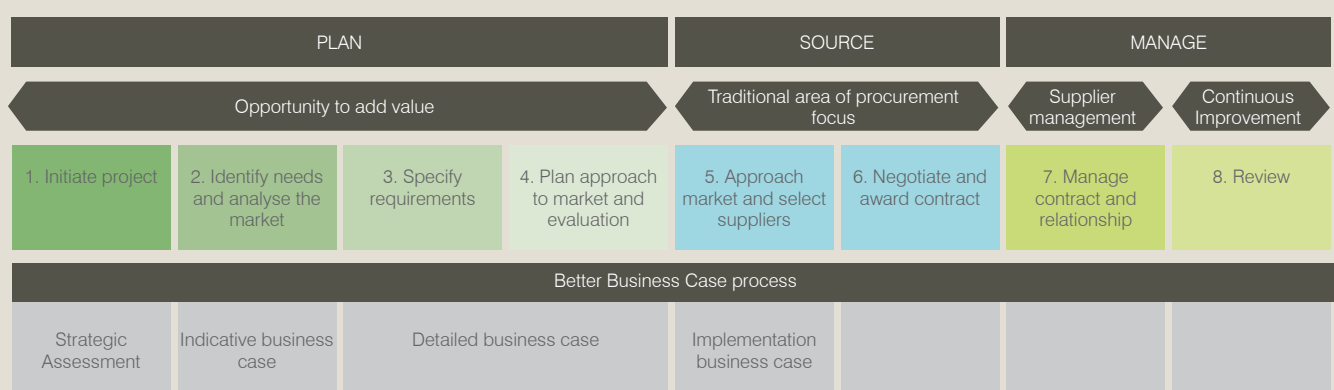
A business case approach encourages early engagement, including with industry, to confirm:

- The fit with strategy, and the need to invest;
- That all options are considered, including different models of delivery where appropriate; and
- That preferred options are affordable and deliverable.

Indicative Business Cases are normally informed by a Request for Information from Industry. These requests will seek information on the range of options that could deliver benefits, along with indicative capital and whole-of-life costs.

A second, more targeted, Request for Information may be released after Cabinet approval of the Indicative Business Case. This will seek more focused data on a preferred way forward and will inform a Detailed Business Base.

Cabinet approval of the Detailed Business Case will be followed by a Request for Proposals or Tender. The outcome of this process is the identification of a preferred supplier. This may follow a request for Best and Final Offers. Through life support contracts may also be negotiated at this stage. Cabinet approval to commit to contract is sought as part of the Implementation Business Case.



Better Business Case process aligned with a procurement life cycle - New Zealand Treasury, Managing Government Investment Projects 14/15

Section 4

2030 FORCE STRUCTURE

The Defence White Paper force structure extends out to 2030. This force structure is a mix of present day capabilities, upgrades to extant equipment, replacements of current platforms, and planned future capability enhancements.

The White Paper force structure in 2030 will consist of:

2030 MARITIME DOMAIN CAPABILITIES

- A Future Surface Combatant capability, either in service or under procurement, to replace the upgraded ANZAC frigates HMNZS Te Kaha and HMNZS Te Mana.
- An ice-strengthened maritime sustainment vessel to support New Zealand and coalition fleet units on deployed operations throughout the world, and undertake summer resupply operations to the Antarctic.
- An ice-strengthened offshore patrol vessel.
- The offshore patrol vessels HMNZS Wellington and HMNZS Otago, to be modernised through a mid-life upgrade.
- An enhanced littoral operations support ship for hydrography, deep diving, independent operations in low and medium threat environments, and as a contribution to coalition operations.
- The logistics support ship HMNZS Canterbury, with new landing craft and modernised through a mid-life upgrade.

2030 LAND DOMAIN CAPABILITIES

- Land combat capabilities able to be deployed in combat and security and stabilisation roles for up to 36 months, an independent operation roughly the size of the New Zealand Defence Force contingent deployed to East Timor in 1999.
- Protected mobility vehicles that will provide ground forces with a mix of mobility, survivability, firepower, carrying capacity and surveillance and communications across different threat environments.
- Special Operations Forces equipped with the capacity to both provide an enduring contribution to a coalition operation, and support New Zealand Police responses to terrorist incidents in New Zealand.
- Explosive ordnance disposal capabilities for both domestic and overseas operations.
- Networked systems and equipment to ensure that deployed land forces have modern communication, battle management and surveillance capabilities.
- Deployable medical facilities to support land combat operations and Humanitarian Assistance and Disaster Relief.
- Modern and effective individual weapons and equipment for land operations
- Organic fire support capabilities including mortars and light guns, as part of a New Zealand led operation or as a contribution to coalition operations
- Land transport vehicles for operational, training and garrison roles.

2030 AIR DOMAIN CAPABILITIES

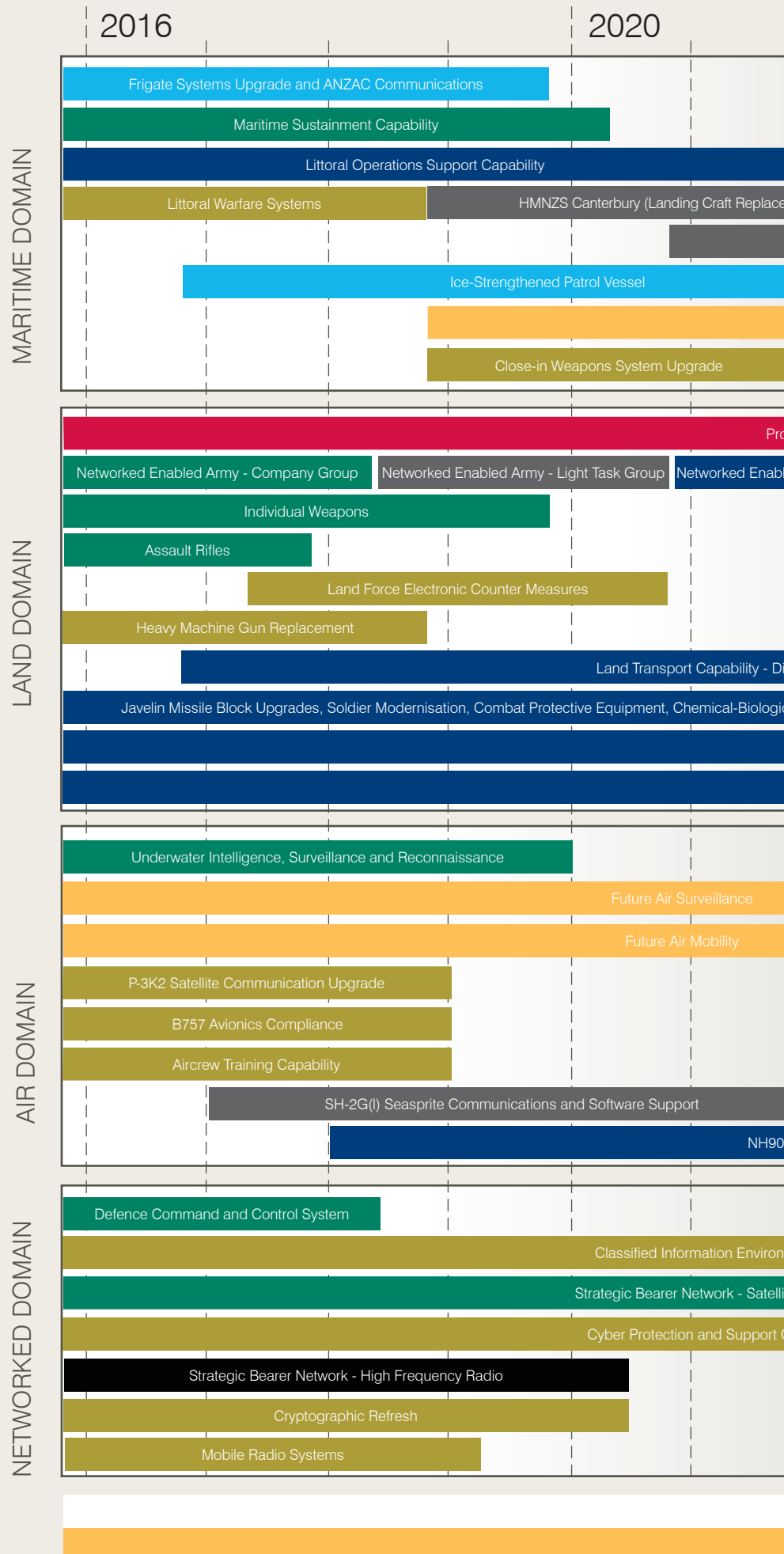
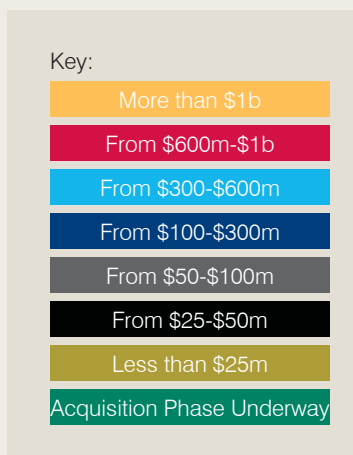
A strategic airlift capability to support independent operations, New Zealand's Antarctic Programme and the Joint Logistics Pool, humanitarian assistance and disaster relief responses, and coalition operations.

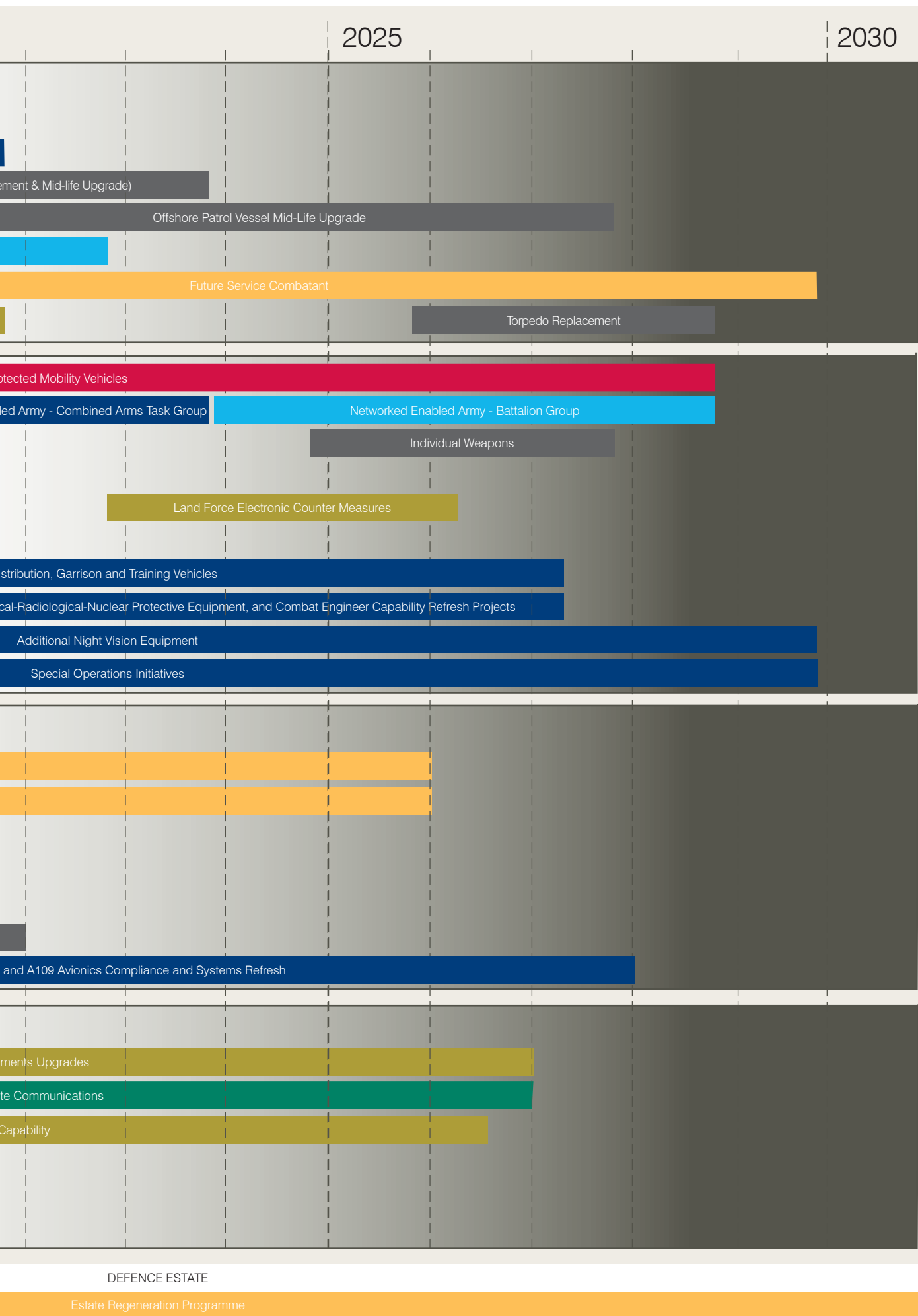
- A tactical airlift capability that supports independent operations, search and rescue tasks, humanitarian assistance and disaster relief, and coalition operations.
- A future air surveillance and response capability that meets the increased surveillance demand within New Zealand's maritime domain, and represents a highly valued contribution to international coalition operations.
- Ten SH-2G(I) Seasprite maritime helicopters, generating eight helicopters with two airframes in reserve, providing extended reach, surveillance and weapons capabilities for the frigates, HMNZS Canterbury, offshore patrol vessels, and the maritime sustainment vessel.
- Eight NH90 medium utility helicopters to support land and special operations.
- Five A109 light utility helicopters to support training tasks and land operations.
- 11 Beechcraft T-6 Texan II light aircraft for pilot training.

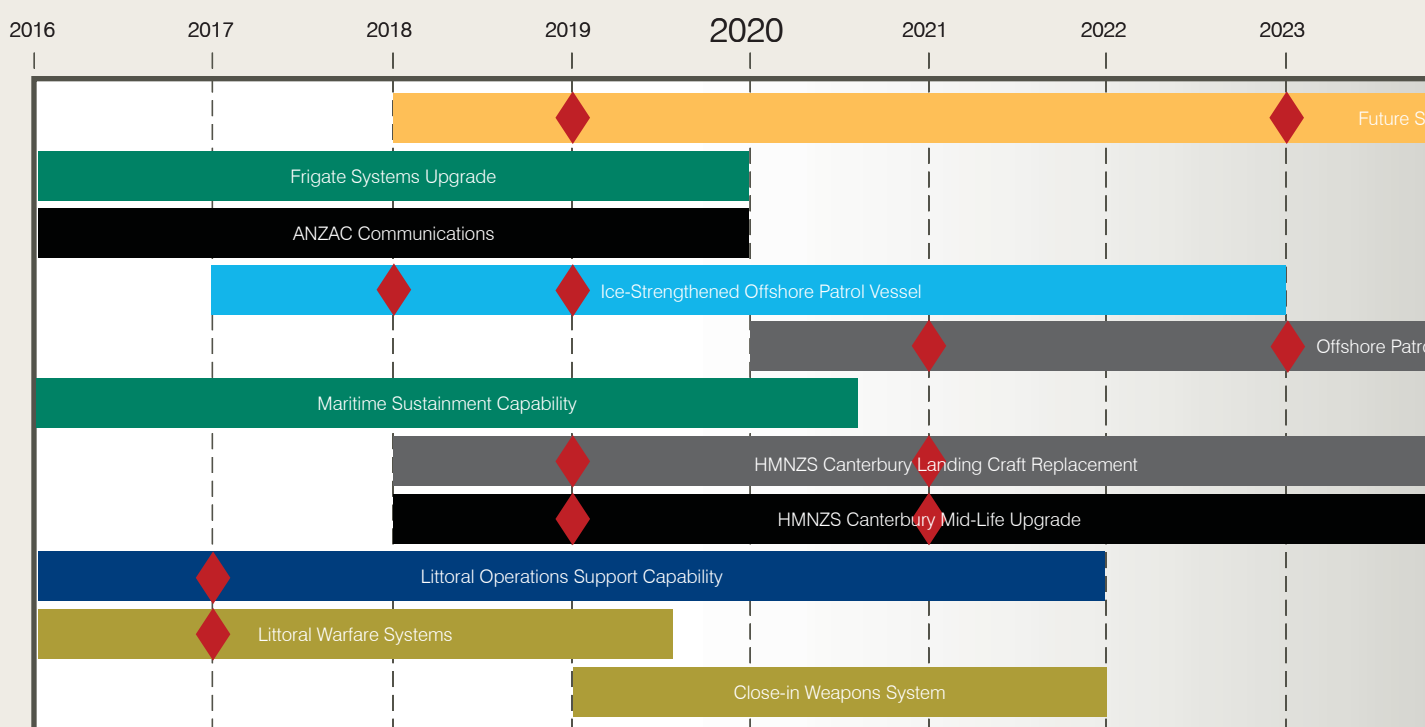
2030 NETWORKED DOMAIN CAPABILITIES

- A cyber protection and support capability for Defence Force networks, and dedicated support for deployed operations.
- Strategic satellite and high frequency radio communications for deployed forces.
- A networked command and control system to support decision making and provide an accurate common operating picture to commanders.
- Secure information environments for storing and disseminating classified information.
- Additional defence intelligence analysis capability to assess collected information and produce actionable intelligence to commanders.

Capability Timeline







MARITIME DOMAIN - MAJOR CAPITAL INITIATIVES

MARITIME FORCES

As part of a coalition, maritime forces ensure control of the sea to enable freedom of action for combat forces and other maritime elements. The New Zealand Defence Force maintains a credible naval combat force, a logistics replenishment and support force which can operate around the world, strategic sealift assets, a patrol force that operates in New Zealand's maritime zone, the South Pacific, and the Southern Ocean, and a littoral operations force that supports operations from the sea onto land.

NAVAL COMBAT

The ANZAC frigates and their integrated capability systems are the only maritime force element capable of operating across the spectrum of operations, from constabulary and humanitarian tasks to combat roles as part of a multinational coalition. They can also protect other vessels such as logistic support ships, and their naval gunfire capability provides support to land operations. Additional reach, surveillance, anti-surface and anti-submarine capabilities are provided by the embarked SH-2G(I) Seasprite maritime helicopter.

NAVAL COMBAT INITIATIVES

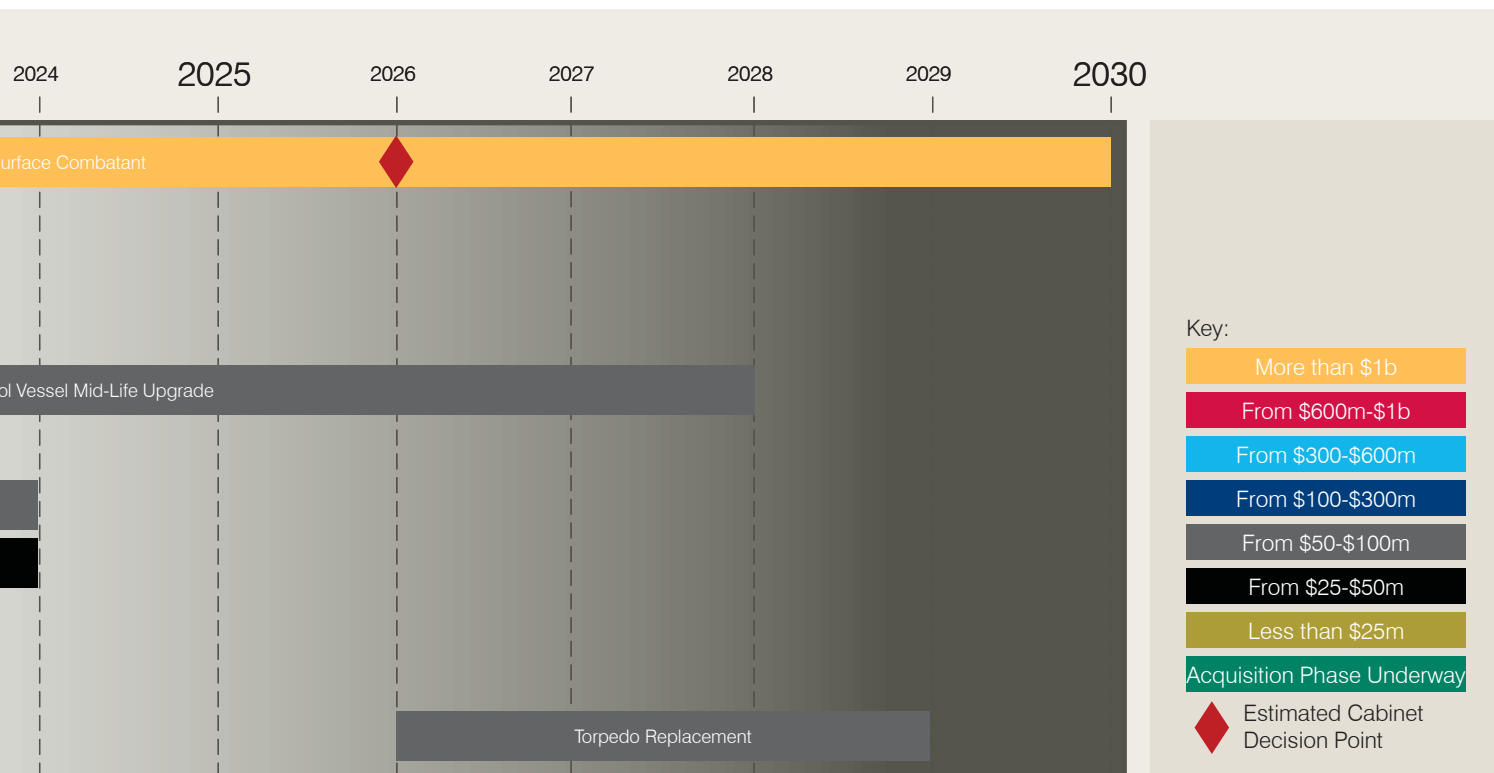
Platform and Frigate Systems Upgrades

The Platform Systems Upgrade project, focused on the improvement of the frigates' propulsion, heating, ventilation and air conditioning systems, was completed in mid-2016. The Frigate Systems Upgrade project, designed to address the frigates' sensor and weapon obsolescence, and restore the ships' ability to defend against contemporary air, surface and under-water threats, is under contract with Lockheed Martin Canada.

On completion of the upgrades, the frigates will provide the government with a wider range of maritime combat options, by being able to more effectively contribute to regional and global security operations, and provide improved support to amphibious forces.

Frigate Communications Upgrade

A project is planned to upgrade communications systems on-board the frigates, and is expected to be completed by 2020.



Business Case Schedule for the Frigate Communications Upgrade project

Estimated, provisional schedule for Cabinet submission:

- Single Stage Business Case, seeking approval to commit funds, in 2017

Frigate Equipment and Weapons Upgrades

Upgrades to the ANZAC Ship Boat Cranes are planned for 2017, and to the Phalanx Close-In Weapons system in the early 2020s. The current variant of the ship-launched torpedo is due to be replaced in the late 2020s.

Future Surface Combatant

The ANZAC frigates are scheduled to be replaced with modern surface combatants relevant to the prevailing strategic environment in the late 2020s and early 2030s. Introduction of the new ships will be phased with the withdrawal from service of the existing ANZAC frigates.

Business Case Schedule for the Future Surface Combatant project

Estimated, provisional schedule for Cabinet submission:

- Indicative Business Case in 2019
- Detailed Business Case in 2023
- Implementation Business Case in 2026

NAVAL PATROL

The Navy's Inshore Patrol Vessels (IPV) and Offshore Patrol Vessels (OPV) currently provide a maritime patrol capability within New Zealand territorial waters and further afield in the South Pacific and the Southern Ocean. The White Paper identified the need to expand the OPV fleet from two vessels to three, and to ice-strengthen the new vessel. As part of this realignment of the Navy's patrol fleet, the IPV fleet will be progressively reduced.

Section 4

NAVAL PATROL INITIATIVES

Ice-strengthened offshore patrol vessel

Acquisition of an ice-strengthened offshore patrol vessel for Southern Ocean operations will take place in the early 2020s. As well as increasing New Zealand's capacity for sub-Antarctic operations, the new vessel will meet new regulatory requirements under the International Polar Code coming into effect in 2018. Meeting these requirements reflects the Defence Force policy to follow civilian best practice safety regulations for personnel and operations whenever feasible. The new off-shore patrol vessel will also be able to conduct surveillance, patrol, interception, search and rescue, and limited logistic support in the South Pacific.

Business Case Schedule for the Ice-strengthened offshore patrol vessel project

Estimated, provisional schedule for Cabinet submission:

- Indicative Business Case in 2018
- Detailed Business Case in 2018
- Implementation Business Case in 2019

Disposal of Inshore Patrol Vessels

Experience has demonstrated that the tasks required of the Naval Patrol Force are better conducted by offshore patrol vessels, rather than inshore patrol vessels. The inshore patrol vessels will therefore be removed from service and replaced by the ice-strengthened offshore patrol vessel. Specific decisions on timing or phasing of disposal are still being considered.

Offshore Patrol Vessel Upgrades

Upgrades to the communications systems of the two in-service OPVs will be complete prior to 2020, and a series of mid-life upgrades to their propulsion and sensor systems will take place in the mid-2020s, extending their life into the 2030s.

Business Case Schedule for the Offshore Patrol Vessel Mid-Life Upgrade

Estimated, provisional schedule for Cabinet submission:

- Single Stage Business Case in 2021
- Implementation Business Case in 2023

NAVAL SEALIFT AND SUSTAINMENT

Sealift capabilities enable land operations, particularly in the South Pacific, through the deployment of troops and stores from the sea to land, supported by command and control elements and embarked helicopters. Sealift allows the Defence Force to respond from the sea to humanitarian assistance and disaster relief situations across our region.

HMNZS Canterbury, the Navy multi-role vessel, is able to deploy troops, vehicles, supplies, and containerised storage across our region. Canterbury can also transport all of the Air Force's types of helicopter to distant locations.

The Navy's replenishment capability, currently represented by the tanker HMNZS Endeavour, provides refuelling to both New Zealand and coalition naval vessels at sea. At-sea replenishment enables vessels to operate at greater distances and remain at sea longer than if they were operating independently.

Replenishment forces project and sustain New Zealand forces into the South Pacific. Endeavour also deploys globally with the ANZAC frigates, enabling the frigates to remain on task for extended duration whilst conducting operations in support of New Zealand's national interest.



Royal New Zealand Navy offshore patrol vessel
HMNZS Wellington, Waitemata Harbour, 2016

Section 4

NAVAL SEALIFT AND SUSTAINMENT INITIATIVES

Maritime Sustainment Capability

HMNZS Endeavour, purchased in the 1980s, will soon reach the end of its life. A Maritime Sustainment Capability contract has been signed with Hyundai Heavy Industries. The replacement vessel will be capable of refuelling and sustaining New Zealand and partner forces both at-sea and from-the-sea. When combined with other capabilities, it would also offer options for the sustainment of ground forces, and supporting humanitarian assistance and disaster relief missions, primarily within the South Pacific.

The new capability will be ice-strengthened, enabling the vessel to supply fuel and other goods to Antarctica in the summer months, once an ice-breaker has cleared a channel through the ice. New Zealand will have a vessel capable of supporting our presence at Scott Base, and our interests in the Southern Ocean. The capability will increase New Zealand's contribution to the United States, New Zealand and Italy Joint Logistics Pool supporting Antarctic bases. The new vessel is scheduled to be delivered in 2020.

Upgrades to HMNZS Canterbury

Upgrades are planned to Canterbury over the next 15 years. By 2020, upgrades to communications systems on-board the ship will be complete. Replacement of the ship's embarked landing craft will take place in the early 2020s, alongside a mid-life upgrade of essential mission and platform systems. These upgrades will enable the ship to continue to operate at full capacity into the 2030s.

Business Case Schedule for the HMNZS Canterbury Mid-Life Upgrade

Estimated, provisional schedule for Cabinet submission:

- Single Stage Business Case in 2019
- Implementation Business Case in 2021

Business Case Schedule for the HMNZS Canterbury Landing Craft Replacement

Estimated, provisional schedule for Cabinet submission:

- Single Stage Business Case in 2019
- Implementation Business Case in 2021

LITTORAL CAPABILITIES

Littoral capabilities undertake mine counter-measures operations, and support amphibious operations in low to medium threat environments with obstruction clearance, hydrography and dive support. Historically, littoral operations have been largely supported by two ships, HMNZS Resolution and HMNZS Manawanui. Resolution was decommissioned in 2012. Manawanui is nearing the end of her expected service life and faces increasing obsolescence issues. A tender has been released to market for an improved Littoral Operations Support Capability, to identify options to replace these vessels.

LITTORAL CAPABILITY INITIATIVES

Littoral Operations Support Capability

The Littoral Operations Support Capability project will deliver a new vessel in the early 2020s. The Littoral Operations Support Capability will support the Navy's Littoral Warfare Support Force, enabling maritime forces to operate as an advance force, conduct short-notice, short-duration rapid environmental assessment missions to prepare local and regional ports, inshore waters and beachheads for maritime and amphibious operations in a national or coalition task force.

The vessel will support training and operations, hydrographic surveying, mine counter-measures and other littoral warfare support activities. The vessel will have enhanced self-protection and command and control capabilities, which will increase the range of operations the Defence Force can undertake independently in the South Pacific. The new vessel will add depth to the Defence Force's maritime surveillance and sea transport capabilities.



A landing craft from HMNZS Canterbury operates in the islands of the Northern Lau group, Fiji, following Tropical Cyclone Winston, 2016

Section 4

The vessel will be able to supplement HMNZS Canterbury's humanitarian and disaster response capabilities, and will provide an additional deployment option for international coalition operations.

Business Case Schedule for the Littoral Operations Support Capability project

Estimated, provisional schedule for Cabinet submission:

- Implementation Business Case in 2017

Littoral Warfare Systems

The sub-systems that are used by the Navy's littoral warfare unit will be replaced in 2018, including mine counter-measures, hydrographic and other systems, in order to maintain the Navy's ability to detect and respond to underwater threats in coastal environments. New deployable command, control, communications and computer equipment for the littoral warfare unit will be procured over the next two years.

Business Case Schedule for the Littoral Warfare Systems project

Estimated, provisional schedule for Cabinet submission:

- Single Stage Business Case in 2017

MARITIME DOMAIN – OPERATIONAL ENABLERS

Personnel

New technologies, such as those being introduced under the Frigate Systems Upgrade, and as part of the Maritime Sustainment Capability, will require fundamental changes to how the Navy will operate; in particular personnel. The biggest challenge is that although we can predict changes are required; the detail of those changes will only emerge over time.

The Navy Future Sailor Programme will identify personnel requirements from both organisational and operational perspectives; and optimise career management and training systems to deliver the workforce required now and in the future.

Estate

Devonport Naval Base will be significantly upgraded to meet the challenges posed by new vessels being introduced into the fleet; some of which will be significantly larger than the vessels they will replace.

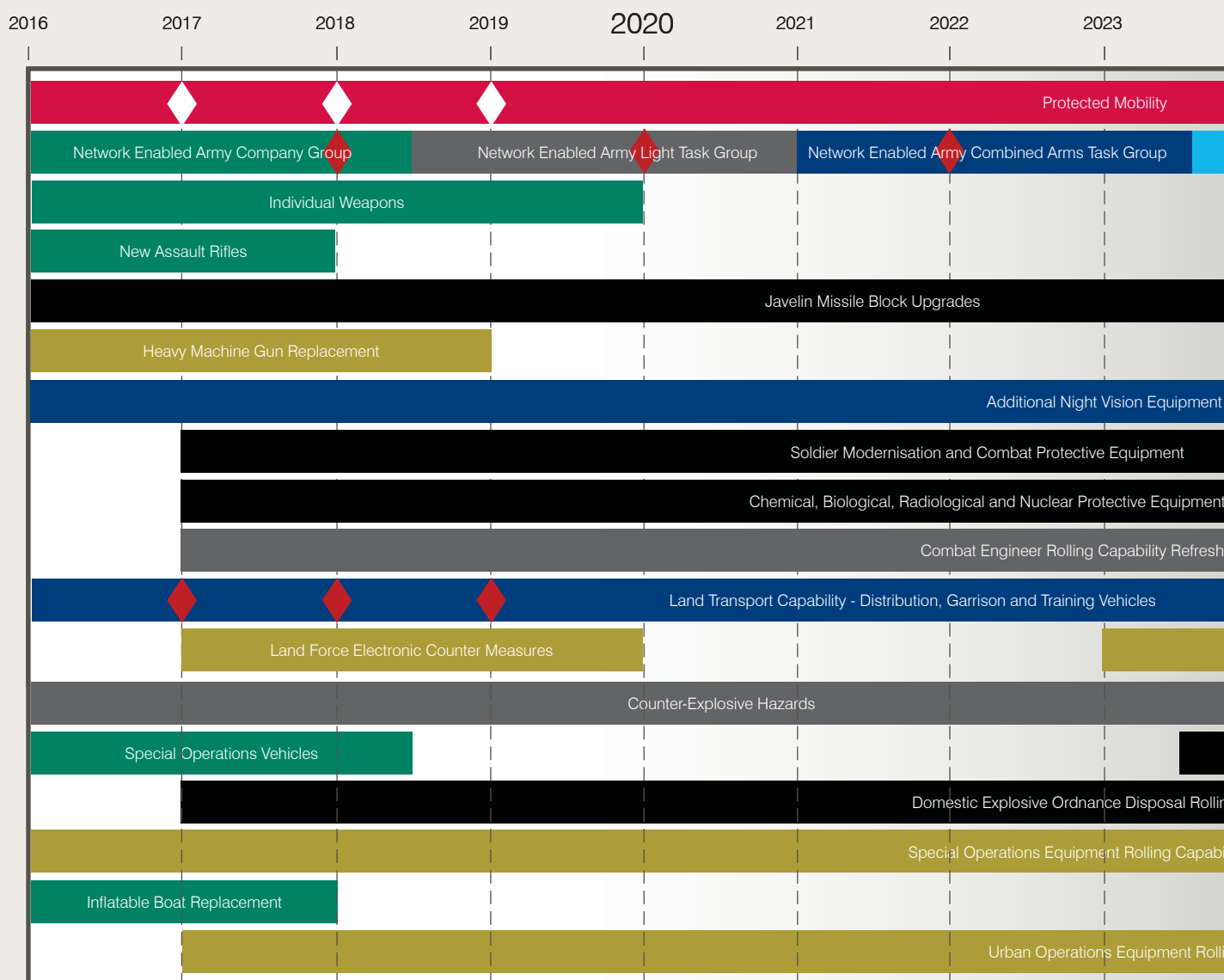
Various upgrades to Devonport Naval Base will be made over the next ten years, to enhance force generation and support naval operations. These include extending Calliope Wharf between 2022 and 2025, upgrades to the ship loading area between 2017 and 2019, dockyard workshops between 2021 and 2024, and waterside operations and offices between 2023 and 2025. Flood resilience work in the North Yard will mitigate the heightened risk expected over the long term from rising sea levels. In the longer term, accommodation and office facilities will also be upgraded.

Communications and Information Systems

The new and upgraded vessels being introduced into the fleet will operate as a 'system of systems', with weapons and sensors integrated with shoreside databases both in New Zealand and overseas. The ability of our ships to perform to their full capability will be dependent on being integrated into the wider Defence Force command, control and intelligence picture, through links to the Defence Command and Control system, and classified communications networks via satellite communications bearers.



Sailor boards HMNZS Te Kaha at sea, from a Rigid Hull Inflatable Boat, 2016



LAND DOMAIN - MAJOR CAPITAL INITIATIVES

LAND COMBAT FORCES

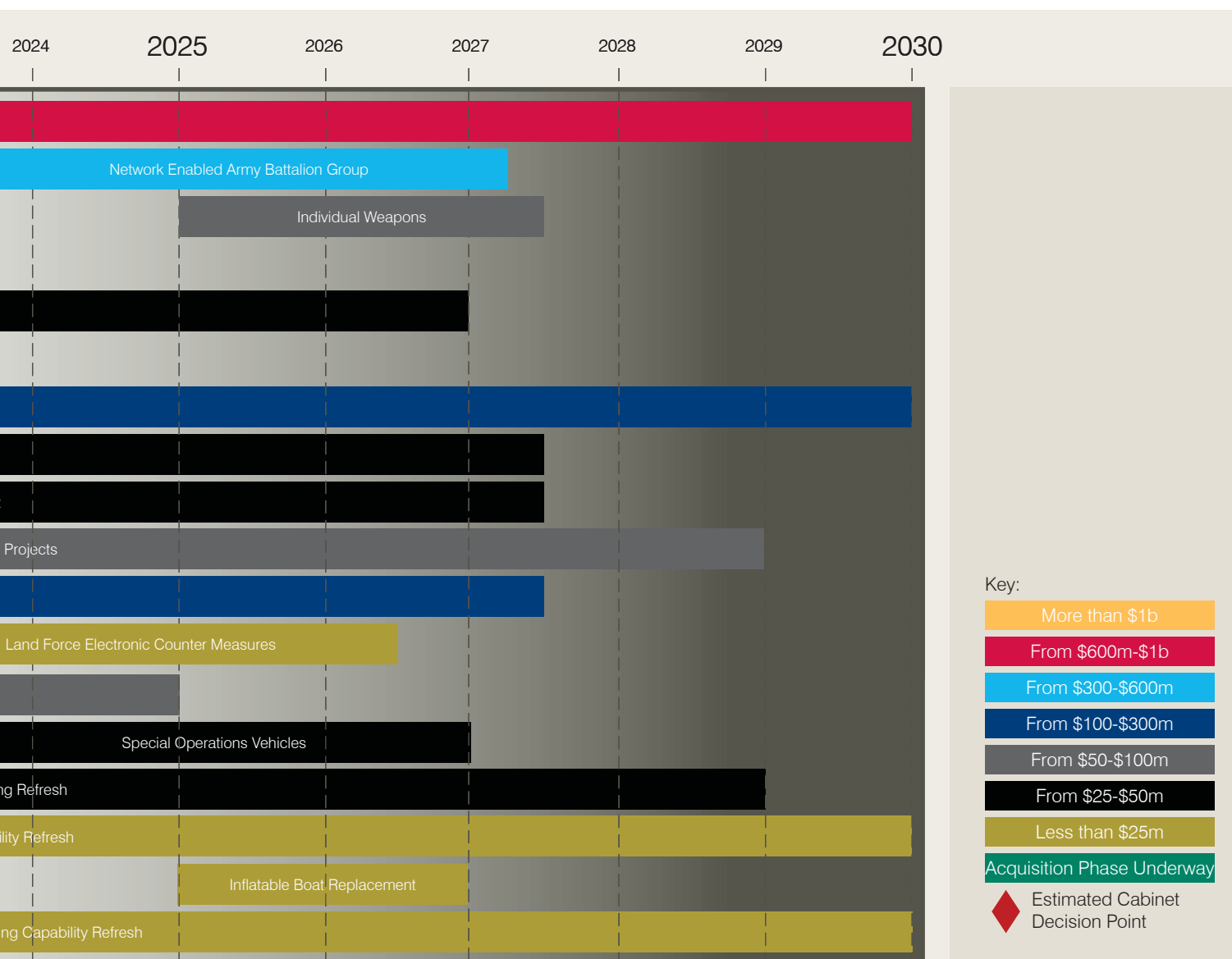
The primary role of land forces is to be capable of combat tasks. Land forces are required to deploy into unstable, potentially hostile environments, and for humanitarian assistance, disaster relief, and the evacuation of nationals. Land forces require a range of support and force protection measures to successfully deploy. The Defence Force must ensure that personnel are equipped with up-to-date and effective technology, weapons and equipment.

LAND COMBAT INITIATIVES

Network Enabled Army

A programme to digitise the Army by providing modern command, communication, battle management and surveillance capabilities is currently underway. It will provide advanced capabilities including 'blue force tracking', a common operating picture of troop movements, and secure satellite communications at the section level.

The first tranche of the Network Enabled Army programme, focussed on equipping a company-sized element, is scheduled to be completed by 2019. Expanding network technology across the equivalents of an Army light task group (Tranche Two) will be complete by 2022, for a Combined Arms Task Group (Tranche



Three) by 2025, and for a Battalion Group (Tranche Four) by 2028. The programme allows for ongoing updates to take advantage of new technologies providing improved performance whilst reducing weight and power requirements.

Business Case Schedule for Tranche Two of the Network Enabled Army programme

Estimated, provisional schedule for Cabinet submission:

- Implementation Business Case in 2018

Business Case Schedule for Tranche Three of the Network Enabled Army programme

Estimated, provisional schedule for Cabinet submission:

- Implementation Business Case in 2020

Business Case Schedule for Tranche Four of the Network Enabled Army programme

Estimated, provisional schedule for Cabinet submission:

- Implementation Business Case in 2022

Land Force Electronic Counter Measures

New electronic counter-measure technology will also be purchased for land forces by 2018 to help counter the increasingly networked threats of the modern battlefield, such as network-activated improvised explosive devices.

Section 4

COMBAT WEAPONS

A significant procurement programme of individual weapons has taken place over the last five years, to ensure that soldiers have the best combat weapons possible. The Lewis Machine and Tools Modular Assault Rifle System was purchased to replace the Steyr assault rifle, alongside new combat shotguns, light machine guns, high power designated marksman weapons, and Glock pistols.

The new assault rifle is being progressively rolled out to units this year. Recruit training on the rifle will take place in 2017. The individual weapons programme will be completed over the next three years with the procurement of sniper rifles, anti-materiel rifles, and an upgrade to the Carl Gustav anti-tank system. Funding has also been provisioned in the mid to late 2020s for future individual weapon procurement.

A project to replace the current .50 calibre Heavy Machine Gun used by the Army, and on Navy ships, is scheduled to deliver new weapons in 2019.

The Javelin guided missile provides the Army with a powerful man-portable anti-armour capability. The Javelin has proved to be highly effective. A project will take place in 2017 to upgrade the training system. Javelin missile launchers are scheduled to be replaced by 2021. Further upgrades to the sighting, guidance systems and missiles will take place as planned improvements become available around 2027.

Fire Support

Continued investment will also be made in organic fire support capabilities, including introducing into service 60mm light mortars, and replacing or refurbishing the 81mm medium mortar. The 81mm mortars will receive an upgrade to their target acquisition capabilities. The indirect fire prediction system for the 105mm light guns will be replaced or upgraded, with a system that will be able to operate on current radios, and the radios that will be delivered under the Network Enabled Army programme.

Soldier Systems

A large ongoing investment will continue to be made in soldier systems, to ensure that personnel are effective in combat, and protected on operations.

This includes night vision equipment, allowing our soldiers to move and fight effectively at night. Significant amounts of new equipment will be procured every year out to 2030, ensuring that our soldiers always have the latest night vision technology.

The Government is investing in the protection of our soldiers on operations. A project to acquire new deployable counter-explosive hazard technology for the Defence Force will deliver new capabilities, including detection and destruction equipment, between 2017 and 2024.

Rolling purchases of new Chemical, Biological, Radiological and Nuclear protection gear, including defensive suits and personal threat detection capabilities, and modern soldier systems will take place between 2017 and 2027.

Combat Engineering

New combat engineer technology will be delivered between 2017 and 2029. Combat engineers are critical enablers when deploying forces over challenging terrain and urban environments, and are regularly deployed on disaster relief tasks, including within New Zealand.

Clearance operations in flood impacted areas such as the West Coast, and the immediate responses to the Canterbury earthquake in 2011 are recent examples of these capabilities.

New small boats for engineering tasks, water purification units for supporting operations and disaster afflicted areas, and equipment to enhance combat engineers' ability to detect explosive threats will be purchased. Bridging equipment and construction and roading equipment such as bulldozers will be replaced.



New Zealand Army 1 Brigade and Queen Alexandra's Mounted Rifles New Zealand Light Armoured Vehicles taking part in Exercise Sari Bair, Waiouru, 2016

Section 4

Operational Support

Purchase of new operational hygiene and catering systems will take place between 2017 and 2019, to provide the basic amenities to a deployed force in the form of showers, laundry services, ablutions, and catering equipment. The project will include equipment for all forces on land, including Army, Air Force, and Navy personnel. Investments will be also made over the next three years into deployable operational health support systems.

PROTECTED MOBILITY

The Defence Force operates two fleets of protected land vehicles, the Pinzgauer Light Operational Vehicle (Armoured), and the NZLAV Light Armoured Vehicle. The Defence Force fleet of 105 Light Armoured Vehicles provides firepower, manoeuvre and armoured protection to ground forces, while the Pinzgauers provide light protection and mobility to small units of personnel on the battlefield.

PROTECTED MOBILITY INITIATIVES

Protected Mobility Capability

A Protected Mobility project will consider how the Pinzgauer and NZLAV might be replaced, modernised and/or integrated with other forms of protected mobility in the future.

The project will deliver a capability solution that will provide ground forces with a mix of mobility, armoured protection and directed firepower. Demands brought about by contemporary operations where New Zealand personnel are deployed will be addressed, including the threat from improvised explosive devices, small arms, and rocket propelled grenades.

The solution is likely to include a range of modern vehicle types. The project will employ a phased approach, with multiple sets of Business Cases, over the 2018 – 2029 period to progressively roll out new protected mobility vehicles to the Army, complete with training and support solutions.

Business Case Schedule for the Protected Mobility Capability project

Estimated, provisional schedule for Cabinet submission:

- Indicative Business Case in 2017
- Detailed Business Case 2018
- Implementation Business Case in 2018
- Detailed Business Case in 2019
- Implementation Business Case in 2019



New Zealand Light Armoured Vehicle
on a live fire exercise, Waikouaiti, 2016

Section 4

LAND TRANSPORT

Multiple vehicle fleets are maintained and operated for deploying troops, stores and equipment, and for supporting training and garrison activities on bases in New Zealand.

LAND TRANSPORT INITIATIVES

Medium/Heavy Operational Vehicles

The Medium/Heavy Operational Vehicle project will be complete in 2017, having delivered the full fleet of Rheinmetall MAN trucks. The Medium/Heavy Operational Vehicles represent a significant advancement on the old Unimog fleet. They can carry heavier loads, including modern pallets and containers. Some trucks have self-loading/unloading systems. They have increased road capability and can support modern communications and other electronic equipment, and be equipped with armour and other defensive systems to protect the operators.

The Medium/Heavy Operational Vehicles will be enhanced over the next few years, with additional mechanical handling equipment, trailers and modules. Capabilities to allow vehicles and personnel to be more effectively deployed and supported over the beach from HMNZS Canterbury, via its landing craft, will be introduced.

Garrison and Training Vehicles

A rolling replacement of garrison and training vehicles will take place out to 2030.

Business Case Schedule for the Garrison and Training Vehicles project

Estimated, provisional schedule for Cabinet submission:

- Indicative Business Case in 2017
- Detailed Business Case in 2018
- Implementation Business Case in 2019

Tactical Mobility Vehicles

New small tactical mobility vehicles, such as militarised all terrain vehicles and motorbikes, will be procured over the 2019-2022 period. These will provide enhanced mobility to small units, including those deployed by aircraft and helicopters.

SPECIAL OPERATIONS FORCES

The New Zealand Special Air Service is a world class, Tier One special operations force. Special Operations forces use operational techniques and modes of employment not standard to conventional forces. Special Operations forces respond to terrorism events in New Zealand if the New Zealand Police require additional support, and are deployable globally as an independent contribution or as part of a Joint Task Force. Special Operations Forces are trained and equipped for explosive ordnance disposal.

Special Operations Forces lead times for deployment are very short compared to other parts of the Defence Force. Their equipment and training must always be cutting edge.



New Zealand Army personnel and a Medium/Heavy Operational Vehicle are unloaded from a landing craft from HMNZS Canterbury as part of the response to Tropical Cyclone Winston, Fiji, 2016

Section 4

SPECIAL OPERATIONS INITIATIVES

Battle Training Facility

The new Special Operations Battle Training Facility, opened in April 2016 in Ardmore, Auckland, is delivering high-end training outcomes for the New Zealand Special Air Service. The facility is used for all-weather training, live firing, use of helicopters, and scenario training based on specific environments and structures such as aircraft fuselages, ships' bridges, and public transport.

Special Operations Vehicles

New deployable special operations vehicles are being procured for special operations forces, and will arrive in New Zealand by 2018. The vehicles will increase the mobility and protection of our forces on operations. The special operations vehicle fleet will be kept up to date, with a second tranche of new vehicles planned for 2027.

Special Operations Equipment

Significant spending is provisioned to ensure that our special operations forces remain world class. New specialised weapons and equipment are purchased for special operations forces on a regular basis, for both urban and field operations.

A rolling replacement of bomb disposal technology, including remotely controlled disposal robots, will take place from 2018 to 2029, ensuring that the Defence Force can continue to respond to explosive threats throughout New Zealand.

The Special Air Service has a maritime counter-terrorism and maritime infiltration role, and the rigid hull inflatable boats used for these tasks will be replaced with new, modern variants in 2017, and again in 2026.

LAND DOMAIN – OPERATIONAL ENABLERS

Personnel

The Army will grow its personnel numbers over the next ten years. This growth will allow the Army to more efficiently and effectively meet its designated outputs. The Army is currently developing a detailed personnel plan to optimise the training pipeline, aligned with the growth path.

Recruitment and retaining the specialist ranks and trades where skills are in high demand in the private sector is a focus for the Army, as is recruiting the information technology and network-capable skill sets needed to attain maximum benefit from the Network Enabled Army investments.

Estate

By the early 2020s, the Army will have relocated officer and soldier individual training from Waiouru Army Camp to Burnham Army Camp, with associated redevelopment of the Tekapo training area to support this role. Waiouru will be redeveloped to be optimised for collective training.

Information Communications Technology

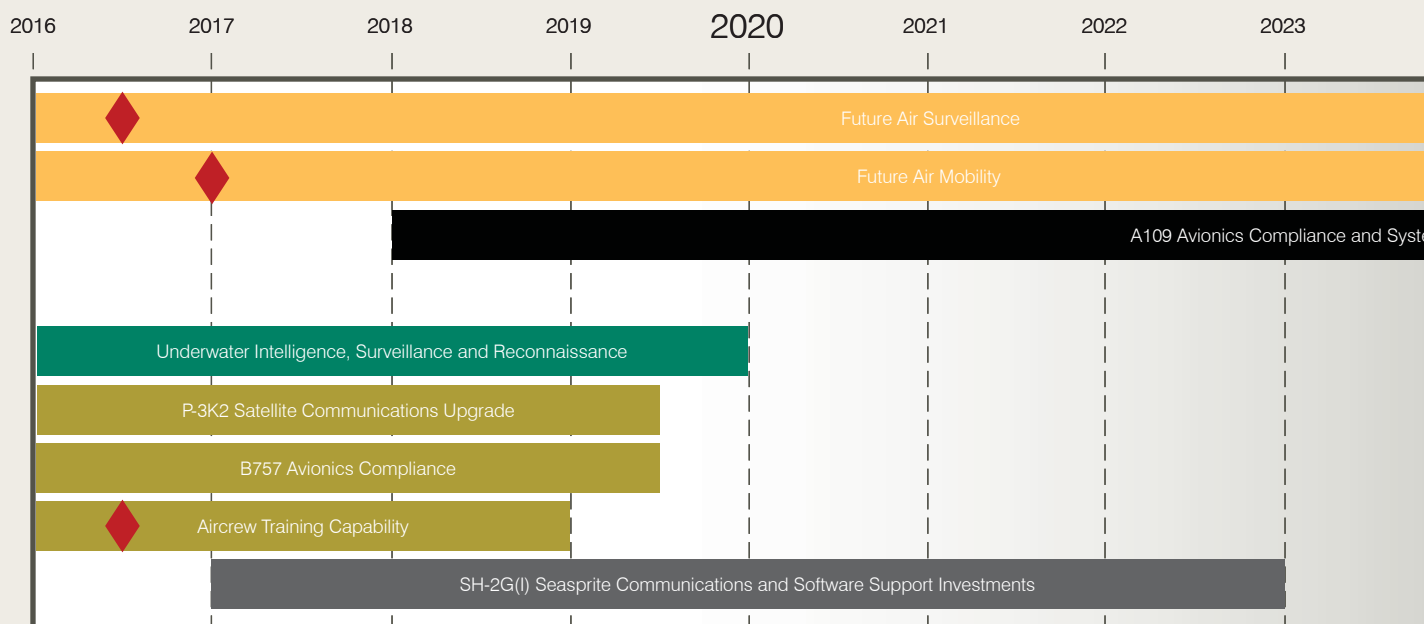
As Network Enabled Army capabilities are brought into service, efforts will be dedicated into ensuring that battlefield technologies are aligned with command and control systems, strategic communications bearers, and classified networks for disseminating information.

Logistics

Enhancements to land force logistics delivery will take place as part of the Consolidated Logistics Project, and the associated organisational change linked to the project. Further details on the project can be found in Section Five.



New Zealand Army 1 Brigade infantry participating
in Exercise Sari Bair, Waiouru, 2016



AIR DOMAIN - MAJOR CAPITAL INITIATIVES

AIR CAPABILITIES

Our ability to deploy people and equipment regionally and globally is reliant on air assets. Air platforms also have an important intelligence, surveillance and reconnaissance function. Multi-role systems are an important consideration in future air capability development; as too is access to space-based systems, such as communications satellites.

ROTARY WING

Utility helicopters provide combat and logistics support, including the tactical delivery and extraction of troops, logistic sustainment and aero-medical evacuation. The NH90 medium utility helicopter provides the backbone of Defence Force air tactical transport capability. The A109 helicopters provide a combined rotary wing pilot training and light transport capability to support a range of government agencies. The A109s also provide a source of support for counter-terrorism activities and Special Operations Forces.

ROTARY WING INITIATIVES

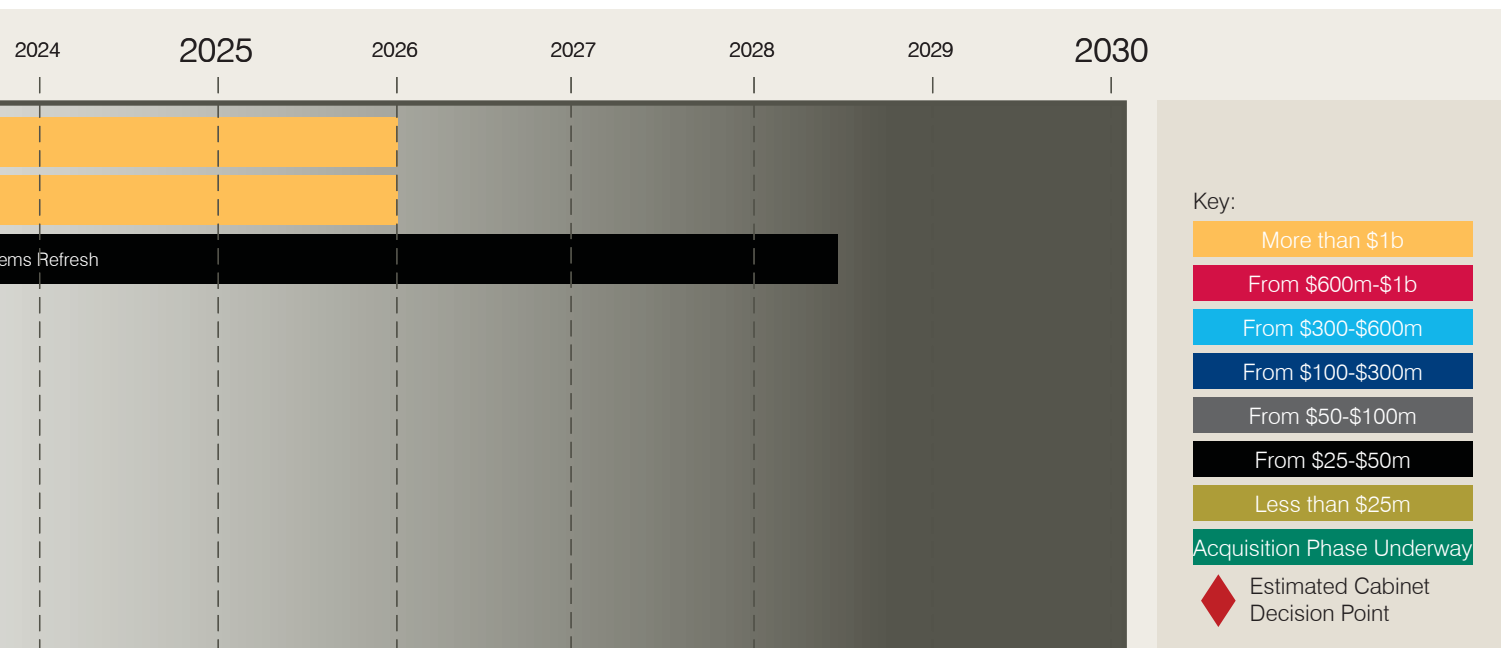
Investments will be made to maintain avionics compliance on board both the NH90 and the A109 in the early and late 2020s. Enhancements to simulation capabilities are also under consideration.

Maritime Helicopter Capability

The fleet of ten upgraded Kaman SH-2G(I) Seasprite helicopters provide extended reach, surveillance, and air-delivered weapon capabilities (including the Penguin air-to-surface missile and anti-submarine torpedoes) for the ANZAC frigates, HMNZS Canterbury, the new Maritime Sustainment vessel and the Offshore Patrol Vessels. Further investments will be made into the new Seasprite fleet out to 2023 to ensure that they deliver their full suite of capabilities, including in communications equipment and software support.

FIXED WING TRANSPORT

The Defence Force fields tactical and strategic airlift capabilities to move personnel and equipment. The five C-130H Hercules provide the tactical airlift and air-drop capability for the deployment of personnel and equipment for the Defence Force within New Zealand's immediate region and further afield. The two Boeing 757 jets provide longer-range strategic airlift for personnel, including VIP flights and troop deployments.



The 757 can be converted for the carriage of palletised cargo. Fixed wing transport aircraft are used in response to natural disasters in the Pacific, on search and rescue tasks, on exercises with partners and in our region, to support personnel on global deployments, and to support New Zealand activities in Antarctica.

FIXED WING TRANSPORT INITIATIVES

C-130 Life Extension

The life extension programme for the Hercules is nearing completion, with the fifth and final aircraft to be upgraded by the end of 2016. The programme has ensured that the Hercules can continue to operate until the early 2020s.

B757 Air Safety Compliance

A project to ensure that B757 satellite and navigation avionics meet modern air safety compliance standards will also take place prior to 2020.

Future Air Mobility Capability

A Future Air Mobility Capability project is considering options for replacing the current tactical and strategic airlift fleets. The project will deliver a strategic airlift capability prepared to deploy, sustain and recover deployed forces and their equipment in support of global military operations, independently or as part of coalition operations.

The project will deliver a tactical airlift capability able to move personnel and cargo within the South Pacific, to Antarctica, and in support of coalition operations further afield. The project is expected to deliver new aircraft to the Defence Force during the early-to-mid 2020s. The project will engage with industry at multiple stages.

Business Case Schedule for the Future Air Mobility Capability project

Estimated, provisional schedule for Cabinet submission:

- Indicative Business Case in 2017
- Timeline for Detailed and Implementation Business Cases will be determined following Cabinet consideration of the Indicative Business Case

Section 4

FIXED WING AIR SURVEILLANCE

The Defence Force operates a fleet of six Lockheed Martin P-3K2 Orion maritime patrol and surveillance aircraft. The Orions conduct air surveillance of New Zealand's exclusive economic zone and maritime domain, respond to illegal, unregulated and unreported fisheries activity, and undertake search and rescue tasks in New Zealand's large area of responsibility. The Orion supports land operations, and detects and responds to underwater threats, such as submarines. The Orion possesses powerful optical, infra-red and radar capabilities, and is able to deploy sonobuoys, torpedoes, and bombs to counter underwater threats.

FIXED WING AIR SURVEILLANCE INITIATIVES

P-3 System Upgrades

The sensors, mission management and communications systems upgrade of the six P-3K2 Orion surveillance aircraft is now complete. A project to increase the satellite communications bandwidth available to the Orion will take place over the next three years, enabling the aircraft to receive and transmit larger amounts of mission data to headquarters elements while airborne.

Underwater, Intelligence, Surveillance and Reconnaissance

A project to upgrade the underwater intelligence, surveillance and reconnaissance technology on the Orion fleet to better detect and deter underwater threats is under contract and will be complete by 2020.

Future Air Surveillance Capability

Reflecting the age of the Orion fleet, a project is underway to consider options to replace the Orion in the 2020s, when their airframes will reach the end of their life. The Future Air Surveillance Capability project aims to ensure that the Defence Force retains an airborne intelligence, surveillance, reconnaissance and response capability. Investment in remotely piloted aerial systems is also under consideration. The project will engage with industry at multiple stages.

Business Case Schedule for the Future Air Surveillance Capability project

Estimated, provisional schedule for Cabinet submission:

- Indicative Business Case in 2016
- Timeline for Detailed and Implementation Business Cases will be determined following Cabinet consideration of the Indicative Business Case

PILOT TRAINING

The Defence Force provides in-house training for pilots, at the Basic and Advanced levels. The Government recently purchased a fleet of Beechcraft T-6 Texan II turboprop air trainers, which are used in both phases of training. The Air Force currently leases the B200 King Air for multi-engine conversion training, for the training of C-130 and P-3 pilots and Air Warfare Officers. The first Wings Course of trainee pilots using the new Texan air trainers began in February 2016.



A Royal New Zealand Air Force P-3K2 Orion operating during Exercise Rim of the Pacific, 2016

PILOT TRAINING INITIATIVES

Pilot Training Capability

The Pilot Training Capability project has delivered the T-6 Texan II aircraft, simulators, training materials, and an associated through-life support contract, on time and on budget.

Aircrew Training Capability

A project is also underway to examine the training that is currently provided in Australia for the aircrew positions on the Hercules and Orion whose duties include navigation, flight planning, mission management, and communications. Defence is currently considering the value for money proposition of domestic and Australian based training solutions.

Business Case Schedule for the Aircrew Training Capability project

Estimated, provisional schedule for Cabinet submission:

- Single Stage Business Case in 2016

AIR DOMAIN - OPERATIONAL ENABLERS

Personnel

The introduction of new platforms requires a significant demand on personnel resources, particularly considering the requirement to maintain the existing capability and training pipeline. The upcoming Future Air Surveillance and Future Air Mobility personnel demands are significant. Timings of these two projects will be a key consideration in minimising the risk in this area.

Estate

The choices for future aircraft replacement have a significant effect on infrastructure requirements. Of particular note are runways, aircraft movement areas and hangars.

Significant infrastructure spending is planned out to 2030, including investment in new hangars in either Ohakea or Whenuapai for new aircraft procured under the Future Air Mobility project in the mid-2020s, and mid-life upgrades of existing hangars. Upgrades will take place to aero-medical evacuation facilities in Whenuapai between 2017 and 2019, and a new air traffic control tower will be built at Whenuapai in 2023. Investment in unit facilities for 40 Squadron and 5 Squadron will take place between 2019 and 2022.

Information Communications Technology

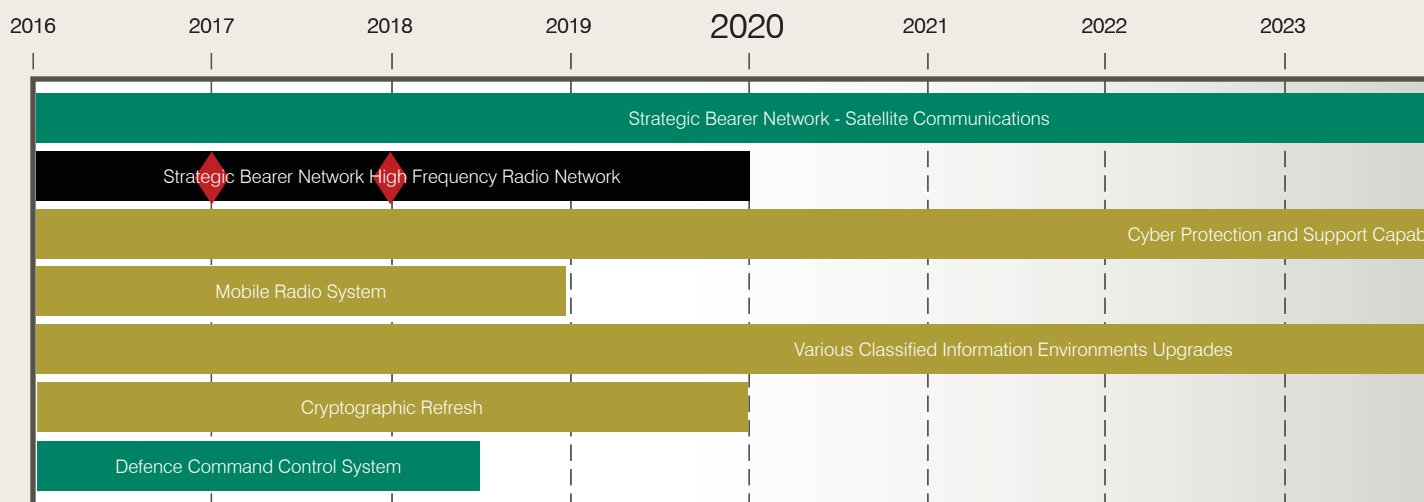
Information Communications Technology requirements including data storage and transfer, in a secure manner, will exponentially increase with new capabilities. This is to both support missions, and to process data post missions.

Logistics

There are various evolving models for logistical support for air capabilities. These may be significantly different from current models. The Air Force will be open to the options as capability platforms start to be identified, in order to best support new capabilities.



A Royal New Zealand Air Force A109 Mako helicopter conducting an aerial display at Warbirds over Wanaka, 2016



NETWORKED DOMAIN - MAJOR CAPITAL INITIATIVES

NETWORKED CAPABILITIES

Integrated networked capabilities, including complementary communications, command and control, computers and intelligence capabilities, support deployed assets, including land forces.

The improvement of offshore communications capabilities has been prioritised to ensure deployed personnel are better supported. A secure communications satellite bearer and a high frequency radio communications capability in the New Zealand maritime zone and South Pacific are integral to this capability. Investments in these capabilities are necessary to maximise the benefit of networked and digitised force elements, and the large amount of data they will collect and process.

COMMAND AND CONTROL SYSTEMS

Maintaining effective command and control of military forces while deployed is critical to operational success. Significant investment is being made into modernised command and control structures and systems to ensure that the Defence Force is agile and responsive on operations.

COMMAND AND CONTROL SYSTEMS INITIATIVES

Defence Command and Control System

The Defence Command and Control System project is delivering new command and control software to headquarters elements to enhance situational awareness, and aid command decision-making. Work will be completed by 2020 to procure the necessary equipment to fully support the Deployable Joint Interagency Task Force Headquarters, which allows the Defence Force and other government agencies to work together seamlessly on humanitarian assistance and disaster relief, and stability and stabilisation operations.

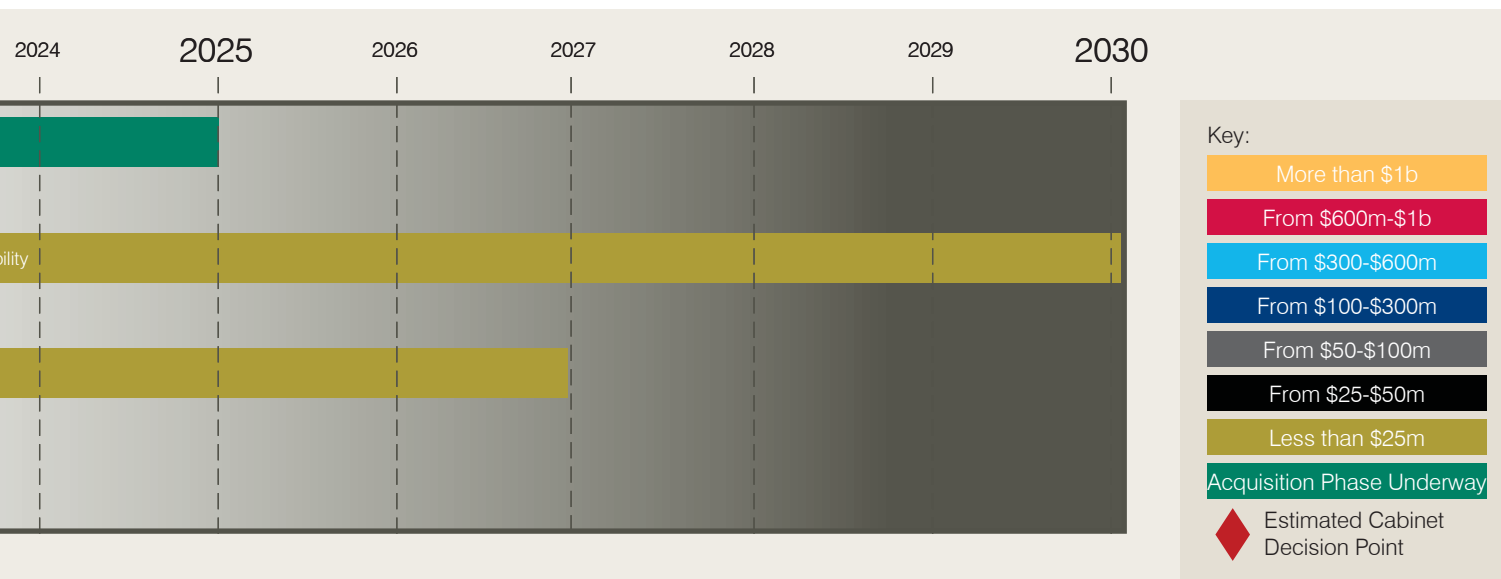
COMMUNICATIONS SYSTEMS

On the modern battlefield, effective communications systems, both between deployed forces and reaching back to strategic headquarters, are needed to rapidly distribute orders, information and data.

COMMUNICATIONS SYSTEMS INITIATIVES

Strategic Bearer Network

The Strategic Bearer Network project currently underway is supporting a number of capabilities associated with the Network Enabled Army Programme, Defence Command and Control System, the P-3 Orions and the ANZAC frigates, by providing Satellite Communications (SATCOM) equipment to the Defence Force. A number of mobile terminals, maritime terminals for the Navy and fixed anchor station terminals are being purchased. This equipment will enable deployed forces to meet current and future strategic information exchange requirements.



As part of the project, the Defence Force has purchased bandwidth and access on a global SATCOM system, to allow for global communications connectivity for deployed forces. The next phase of the Strategic Bearer Network project, underway in 2018, will examine options for addressing obsolescence issues in the Defence Force High Frequency radio network, providing an alternate, long-range bearer should satellite communications fail or be unavailable.

Business Case Schedule for the Strategic Bearer Network – High Frequency Radio project

Estimated, provisional schedule for Cabinet submission:

- Single Stage Business Case in 2017
- Implementation Business Case in 2018

Mobile Radio System

Investment will also be made into a mobile radio system used to communicate across Government agencies, to enhance interoperability when responding to disasters and when undertaking domestic security tasks.

CYBER PROTECTION AND SUPPORT

The Defence Force possesses unique platforms and networked systems that must be able to operate securely under a cyber threat.

CYBER PROTECTION AND SUPPORT INITIATIVES

As the Defence Force's platforms and networks are frequently deployed abroad, a similarly deployable, and dedicated, cyber security and support capability is required to enable operations. Capital investment into this capability, including infrastructure and software, is planned out to 2030.

DEFENCE INTELLIGENCE

Defence Intelligence is an important capability for the Defence Force, providing decision-makers and commanders with actionable intelligence for the conduct and planning of operations. Capital investments will be made in the intelligence domain, separate from the increased numbers of defence intelligence personnel signalled in the White Paper.

Section 4

DEFENCE INTELLIGENCE INITIATIVES

Upgrades will be made to the classified information environments to improve the collection and dissemination of strategic and military intelligence, and a Joint Intelligence Programme is underway to raise the performance of operationally focussed intelligence, including an increased capacity to process and analyse data. Additional investment will be made into Defence cryptographic technology, to ensure that secure information remains protected on classified networks.

NETWORKED DOMAIN - OPERATIONAL ENABLERS

Personnel

In order to meet the intelligence support and cyber protection capabilities enhanced and established by the White Paper, recruitment will be undertaken across the Defence Force in the area of intelligence data analysis and dissemination. This must also take place to meet the benefits from the significant investment being made in networked capabilities across the domain areas.

Estate

New investments in infrastructure and buildings will be made to support the cyber protection and support capability. To support joint and unit level training, communications upgrades will be made to the Tekapo and Waiouru training areas between 2017 and 2019.

DISPOSAL OF SPECIALIST MILITARY EQUIPMENT

The ongoing investment programme in new and modernised capabilities will be accompanied by the disposal of specialist military equipment that has reached the end of useful life, or has been replaced. Some of the more significant equipment expected to undergo disposal in the period up to 2030 include:

- HMNZS Endeavour
- HMNZS Manawanui
- Lake Class Inshore Patrol Vessels
- C-130 Hercules aircraft
- B-757 aircraft
- P-3K2 Orion aircraft
- Pinzgauer vehicles
- Mercedes-Benz UNIMOG vehicles
- Surplus Light Armoured Vehicles
- Steyr individual weapons

Disposal planning is undertaken throughout the life of a capability, and projects are established to undertake disposal activity.

Equipment that is withdrawn from service must be disposed safely, in accordance with requirements, and efficiently and effectively as possible. Disposal of military assets does not always result in a significant financial return, and any returns are difficult to predict. As a consequence, financial forecasts do not include revenue from asset sales until a high degree of assurance has been reached regarding a sale.

The Defence Force operates a National Disposal Office to provide policy, direction and guidance to assist in all disposal activities. A key mandate for the National Disposal Office is the mitigation of political and probity risks associated with disposal. It supports the New Zealand Defence Force and other government agencies in the divestment of surplus military hardware in an appropriate and timely manner.



New Zealand Army School of Signals exercise
in the Waiouru training area, 2015

Operational Enablers

- OVERVIEW
- PERSONNEL
- ESTATE
- LOGISTICS
- INFORMATION COMMUNICATIONS TECHNOLOGY

OVERVIEW

Without strong support from operational enablers, Defence capabilities cannot be generated, or be operationally successful. Significant enhancements are planned out to 2030 in four of the core operational enablers of the Defence Force: personnel, the Estate, logistics and information communications technology. This section will detail these enhancements, and the change programmes underway to enhance the support to the development and deployment of operational capabilities.

PERSONNEL

The most important component of the Defence Force is its people. The Defence Force is comprised of full time military personnel, reserve forces, and civilians. There is a hierarchical rank structure in the military, comprising separate officer, non-commissioned officer and other rank groups. It can take many years to develop personnel with the skills and experience needed to meet the demands of service.

The Defence Force cannot deliver on the Government's defence policy priorities without a sustainable workforce matched to the planned investment in capabilities. The challenge for Defence is to ensure that the workforce is developed with the right mix of skills and experience required to support the capabilities planned out to 2030.

To meet this demand, the Defence Force must attract and retain a committed workforce with sophisticated skills in demand across the wider labour market. At the same time, it needs to reflect modern New Zealand and recruit personnel from an increasingly diverse New Zealand demographic. A diverse Defence Force will be more attractive to, and more likely to retain, the widest possible pool of potential recruits.

To achieve that, the Defence Force is adopting a broader, more strategic approach to workforce management. This approach will help the Defence Force make sure it has the right people with the right competencies and skills in place, when and where they want them, to achieve defence outcomes.

The Defence Force will evolve its people management and resourcing model from an input-based approach to a mission and capability focussed model based on clear accountability for results. This will require a stronger focus on both supporting the single Services and working towards joint integration.

Improved workforce management will require new tools to assist in long term planning. The Defence Force will invest in a workforce management system that will integrate existing data, such as career management data and financial forecasts, and will improve the measurement of the affordability of workforce decisions.

An analysis of the workforce structure, including the force generation model and the military remuneration system and strategy, will take place prior to 2018.



HMNZS Te Kaha entering Sydney Harbour, 2016

ESTATE

The Government will invest in a significant regeneration of the Defence Estate out to 2030. The Estate is a strategic enabler for the Defence Force, both for generating forces and for supporting military operations. The Defence Estate comprises some 81,000 hectares and over 5,000 buildings, and is currently valued at \$4.3 billion. Defence estate investment will be aligned to, and will support the planned capabilities investments set out in this Plan.

The Defence Force has recently released the Defence Estate Regeneration Programme Plan, which provides an overview of the \$1.7 billion in capital spending, and \$2.5 billion in operating spending provisioned for the Defence Estate out to 2030. Prior to 2013, investment had fallen considerably short of what was needed to maintain an aging Defence Estate. This lack of investment had placed the delivery of operational outputs at risk over the long term. The funding provisioned out to 2030 will address the effects of an accumulated maintenance backlog, as well as future upgrades and replacement across the Estate.

Investment will centre on solutions that are expected to deliver value for money, while retaining a substantial Defence Force presence in all of the current major bases, camps and training areas. Estate investment supports organisational change such as unit relocations and functional consolidation between bases. Investment will be focussed on the core operational locations where the Defence Force accommodates its deployable forces: Devonport, Whenuapai, Papakura, Linton, Ohakea, and Burnham.

The Estate Regeneration Programme will replace obsolete and inefficient infrastructure, and will seek to deliver modern, high-quality assets that are fit-for-purpose, multifunctional and able to support future capability. Opportunities for all-of-government and/or private sector asset development, supply (including ownership) and management will be pursued where this is most efficient, and optimises value for money.

Significant opportunities are available for New Zealand industry to be involved in the regeneration programme, through tendering for maintenance spending planned across the period and the significant capital investments that will take place.

The delivery of the programme will utilise partnerships with local providers to build and run assets. Design, construction and maintenance of projects will be outsourced wherever possible. Defence will also assess alternative delivery options, such as Public Private Partnerships, and a combination of large programmes and distinct projects.



Aerial shot of Devonport Naval Base

Section 5

ESTATE SPENDING OUT TO 2030 WILL OCCUR IN THREE PHASES:

Ramping Up - 2016/17 - 2019/20

The Government has approved capital investment for the first four years of the programme. This initial stage will lay the foundations for future work and will see:

- A focus on lifting health and safety performance,
- An upgrade of utility services,
- Duplicated functions consolidated to reduce the Estate footprint where appropriate (for instance, Headquarter elements),
- Completing sequencing projects – if sites are required for next stages of regeneration,
- Addressing key operational and readiness projects, and complete outstanding compliance and safety requirements,
- Planning for major investment,
- Building capacity and skills within Defence Property Group to prepare for the large investments that will take place in the 2020s.

Major Investment – 2020/21-2025/26

A five year period of investment, representing the majority of the estate spending across the period. This period will include significant projects to deliver:

- A single standard applied consistently to personnel accommodation,
- Health support facilities,
- Large workshop replacements,
- Security upgrade projects,
- Range upgrades,
- Initial stages of the relocation of some units.

Investment Stabilisation – 2026/27 and beyond

Out to 2030, the focus will be investment stabilisation, business as usual renewal and regeneration of existing Estate infrastructure.

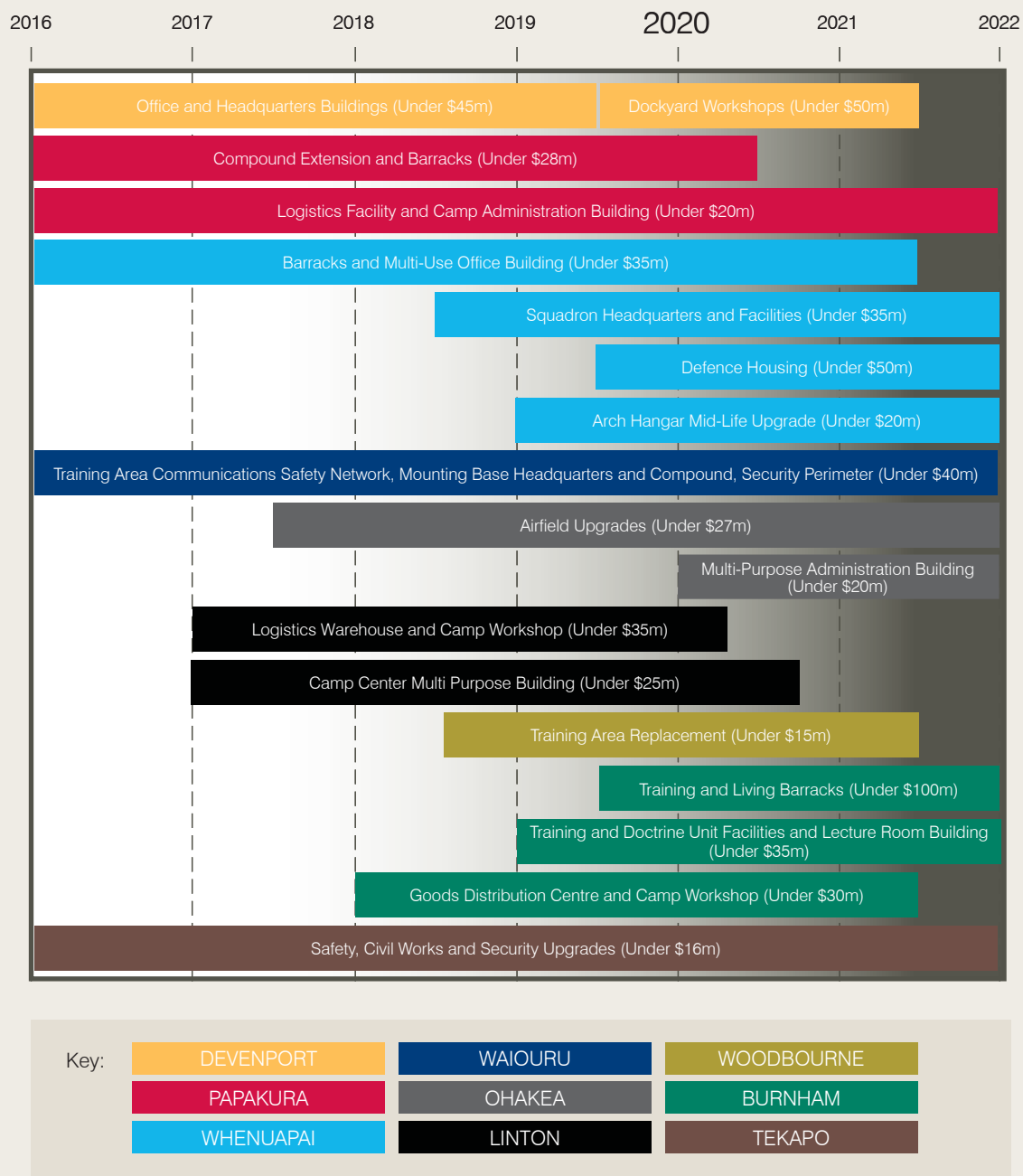
ESTIMATES FOR ESTATE INITIATIVES OUT TO 2022

The Defence Estate Regeneration Programme Plan provides a higher level of detail on planned estate initiatives over the next five years, covering the period of approved capital investment out to 2020, and planned investments out to 2022.

A diagram of significant initiatives over this period can be found on the right.

Details of all initiatives over the next five years, including schedule estimates for the scoping, procurement and construction phases of each initiative, can be found in the Programme Plan, at:

<http://www.nzdf.mil.nz/corporate-documents/default.htm>



SIGNIFICANT ESTATE CAPITAL INITIATIVES OUT TO 2022

LOGISTICS

The timely and efficient support and supply to deployed units of logistics, including stores, rations, water, ammunition and fuel, is crucial for Defence Force operations. In practice, this means that forces have appropriate levels of access to reliable equipment when and where it is required, so that it is effective, safe and fit for purpose. Logistics is a crucial component of capability development, and is being increasingly integrated into long term capability planning.

New Zealand suppliers are critical for the maintenance of logistics to the Defence Force, both domestically and when deployed overseas. The Defence Force will improve the ease of business for New Zealand logistics suppliers working with Defence, and continue to maintain strategic partnerships with suppliers in the sector.

The Consolidated Logistics Project is currently developing options to rationalise and enhance logistics processes within the Defence Force, and to improve logistics delivery performance. The project will lead to greater efficiency and effectiveness in the utilisation of logistics, enabling savings in asset investment through cost avoidance.

The project will deliver an enhanced logistics framework necessary for the Defence Force to deliver and sustain military capability within a broader but shallower equipment base, with more equipment managed centrally and sent out to units on an as required basis.

Estate investment will be aligned with the Consolidated Logistics Project, including new workshops, warehouses, and garaging for vehicles and equipment. The project will deliver benefits beginning in 2017, and throughout the 2020s.

The project budget is within the \$50-100m capital cost band. The indicative schedule for the project estimates a preferred option for delivery being selected in 2016, and approval for contract signature being sought from Cabinet in 2017.

Defence is improving Integrated Logistic Support practices in relation to consideration of capability investments and the development of business cases. Integrated Logistic Support is a core management discipline to address supportability throughout the capability life cycle, with the aim of ensuring operational and preparedness requirements are met at the best value for money in terms of through life support and whole of life cost.

The focus on Integrated Logistic Support and whole of life cost is to ensure optimal consideration and decisions on capability requirements, options development and option selection, so as to get best defence investment outcome for New Zealand, within affordability parameters. Further detail on whole of life costing can be found in Section Seven: Funding and Affordability.



Equipment maintenance, Ohakea

INFORMATION COMMUNICATIONS TECHNOLOGY

Improvements in computing technology are enabling faster, more robust networks and data applications across the private sector and Government. Defence is also experiencing this demand, along with the need to be able to deploy these systems into the field when necessary. Ensuring that the right people have access to the right information to support decision-making is vital for operational success.

A variety of initiatives are planned to increase the information technology capacity of the Defence Force. An environment for classified information that can be utilised as a common capability for Government will be developed to support all New Zealand domestic and international requirements.

Upgrades will also be made to general ledger and logistics management information systems, and a new database and reporting tool will be established to measure the readiness of trained forces, and their performance on operations. Investments are planned in information technology systems for managing the medical information of defence staff, and the systems for supporting New Zealand's military veterans. A military focused Network Operating Centre will also be stood up to ensure optimal support to operations.

Significant investment will be made in protecting information systems from cyber threats, and also improving the general strength and resilience of Defence information technology networks. Defence will develop and grow a defensive cyber capability as a deliberate focus on protecting information, and as a key enabler to fixed and deployed Defence Force operations.

More generally, the Defence Force will review its Communications and Information Systems operating model to ensure that it is shaped for and relevant for the future, aligning information communication technology systems, strategies and plans to wider Defence Force priorities. Information communication technology processes, systems and workforce arrangements will be reformed, and a prioritisation of demand will take place to ensure that efforts in this area are focussed on supporting deployed and deployable units.

The Defence Force will ensure that investments are aligned with the plans of the Government Chief Information Officer, and other relevant all-of-Government information communications technology initiatives.



A satellite terminal is set up on Exercise Short Reach, Kaipara, 2016

Defence Industry Engagement

- DEFENCE INDUSTRY ENGAGEMENT STRATEGY
- INDUSTRY ENGAGEMENT INITIATIVES

DEFENCE INDUSTRY ENGAGEMENT STRATEGY

Close collaboration and engagement with defence industry is required to understand the procurement opportunities available, and to ensure that industry is best placed to propose solutions that meet Defence's requirements.

Defence has adopted a Defence Industry Engagement Strategy to partner with industry to provide innovative outcomes, produce economies and efficiencies and reduce total costs of asset ownership. This Strategy is a key pillar in the Defence Capability Change Action Programme as Defence works towards becoming an international exemplar of capability management.

The strategy puts a priority on behaviours that will deliver goods and services that are modern, relevant, proven and reliable. The Ministry of Defence and the Defence Force currently work with both national and international companies to deliver the needs of our Defence Force. Maintaining and enhancing the commitment, understanding and trust between Defence and industry will ensure we have a strong, prepared and sustainable Defence Force for the future.

The relationship with industry is wide-ranging and includes the acquisition and through-life support of major military equipment, camp and base management, the provision of logistics services, and the supply of catering and other hospitality.

DRIVING CONCEPTS:

- Defence industry has appropriate access to commercial and industrial information, infrastructure and personnel to enable industry to contribute effectively to Defence procurement, acquisition and sourcing business decisions.
- Defence engages with and supports capable suppliers with the capacity to support the achievement of Defence outputs and outcomes.
- Improvements in Defence processes identified and implemented for early engagement and harnessing innovation to enhance product and service delivery.
- Effective partnerships with industry are developed to support the full capability lifecycle of equipment that contributes directly or indirectly to Defence capability.



Discussion at the New Zealand Defence Industry Association Forum, Wellington, 2014

INDUSTRY ENGAGEMENT INITIATIVES

EARLY ENGAGEMENT

Defence is developing a framework to enable earlier engagement with external organisations, including industry.

This will allow Defence to make informed investment decisions, based on the best information available as early in the process as possible. Early engagement is required to identify potential capability options and quantify total cost of ownership as early in the capability acquisition process as possible.

To further our aim of becoming an international exemplar, Defence will be open to independent and innovative advice from industry at an early stage of our complex acquisitions.

TRANSPARENCY AND EASE OF BUSINESS

Defence will ensure that industry is as informed as possible on plans for future defence spending. Increasing the level of detail in this Capability Plan, as was signalled in the Defence White Paper, to include provisional estimates of cost and schedule for major projects is part of this process.

Defence will work to ensure that the tender debrief process is robust, informed and adds value to suppliers, whether or not they have been successful. Defence is also developing tools and information portals to enable industry to keep up to date with developments within Defence, including websites and through social media, and will establish feedback mechanisms and conduct surveys for industry to provide comments.

Defence will continue to progressively simplify and standardise Defence procurement and acquisition documentation to the greatest extent possible, to reduce workload for industry responding to procurement requests. Personnel focussed on industry engagement have been appointed by Defence to help implement advancements.

Defence Industry Advisory Council, Defence Industry Forum and Minister of Defence Awards

Defence will continue to coordinate the New Zealand Defence Industry Advisory Council and support the New Zealand Defence Industry Association. This includes continued support to the annual Defence Industry Association Forum, and the Minister of Defence Awards of Excellence to Industry. These are vital forums where Defence can engage with industry, build relationships, and recognise excellence in equipment and service delivery.



New Zealand Army personnel on Exercise Sari Bair, Waiouru, 2016

Funding and Affordability

- FUNDING DEFENCE
- STRATEGIC REVIEWS
- ANNUAL PORTFOLIO REVIEWS
- INDIVIDUAL INVESTMENT PROCESS
- RISK MITIGATION STRATEGIES
- INVESTOR CONFIDENCE

FUNDING DEFENCE

The Government agreed to an operating and capital funding profile to implement the Defence White Paper. This funding, subject to the annual Budget process and Cabinet consideration of individual investment cases, provides the Defence Force with a degree of funding certainty that enables it to plan with confidence out to 2030 and beyond.

The Government has planned annual increases in the Defence Force operating and capital budgets to deliver the capabilities of the Defence White Paper. These planned increases would see Defence spending at an average of around 1% of Gross Domestic Product out to 2030. As part of Budget 2016, \$300.9m of additional operating spending has been allocated over the next four financial years.

Funding commitments cover the total cost of Defence, which includes the funding necessary to deliver current outputs, to grow and strengthen the workforce, and to purchase the equipment and capabilities that New Zealand needs to meet future security challenges. These commitments will ensure that New Zealand has a balanced, sustainable defence force into the future.

Maintaining the confidence of Ministers, Central Agencies, industry and the public will be critical over the next 15 years as Defence progresses through a programme of \$20 billion of capital investment.

Investment is also planned in the enabling functions that ensure operational success, such as the Defence Estate, logistics, and communications and information systems.

Defence will lift its game to deliver on the capability commitments made in the Defence White Paper. This includes pursuing a number of strategies to allow Defence to successfully deliver the significant investment that Government has provisioned, to mitigate risks, and to improve long term affordability and efficiency.

In 2018, Defence will undertake a mid-point refresh to ensure that the capability investments in the Defence White Paper remain linked to comprehensive workforce and estate plans out to 2035, and to reassess the affordability of the White Paper funding profile.

The delivery of a Defence White Paper in 2016 represented the culmination of a three year work programme that has significantly increased the ability of Defence to understand its long term cost drivers. This included the sector-leading Defence Mid-Point Rebalancing Review in 2013, the updated Defence Capability Plan in 2014, and the 2014 Defence Assessment.

Defence has adopted a portfolio management approach to assess affordability, and has embedded a whole of life costing methodology for long term planning and individual capability initiatives. This approach has been designed to take into account all of the lifecycle costs of Defence capabilities over a 15 year period. This allows Government to maximise the value for money across the total funding envelope, taking into account the mix of capabilities, military coherency and the timing of capability delivery.

Government decision making on major defence expenditure is supported by the monitoring of the underlying assumptions that drive the cost of Defence, and the identification of dependencies between individual investments.

The affordability management system has three tiers: strategic reviews, annual portfolio reviews, and the individual investment process.



A Royal New Zealand Air Force Seasprite helicopter conducts a winching demonstration onto HMNZS Wellington, Waitemata, 2016

Section 7

STRATEGIC REVIEWS

Defence conducts a five-yearly cycle of Defence Assessments, White Papers, and, where appropriate, mid-point updates. This process includes strategic reviews of defence capability, affordability and funding.

DEFENCE ASSESSMENTS

The Ministry of Defence leads the development of Defence Assessments, with support from the Defence Force and other agencies. Defence Assessments analyse changes in the international strategic environment and their possible implications for New Zealand's national security interests, defence policy and the capabilities required by the Defence Force to fulfil its roles and tasks. Defence Assessments provide the basis upon which Defence can re-test its policy and capability requirements, and inform the development of a Defence White Paper.

In 2014, the Ministry of Defence and the New Zealand Defence Force produced a formal Defence Assessment, a comprehensive review of the international strategic environment and its implications for New Zealand's defence policy and capability. The Defence Assessment informed the strategic outlook described in the Defence White Paper. The Ministry is now embedding its assessment function further, by conducting additional work between formal Defence Assessments to take account of emerging and evolving security challenges.

DEFENCE WHITE PAPERS

The Defence White Paper process enables an all of Government perspective to be applied to a review of Defence policy requirements, and the associated capabilities required to meet Government's expectations.

The current Defence White Paper, released in June 2016, sets out the Government's Defence policy, and Government expectations for Defence over the coming decades. The White Paper repeated the methodology undertaken during the Defence Mid-Point Rebalancing Review 2013, which was identified as a best practice methodology within the public sector.

Defence developed options for Government on the total level of investment over the longer term, and prioritised sets of capabilities to deliver Government defence policy. The White Paper confirmed the core assumptions of the force structure agreed in the 2013 Review, adjusted levels of capability in some areas while adding new or enhanced capabilities in the areas of greatest need.

MID-POINT REFRESHES

Defence undertakes mid-point refreshes, between the release of White Papers, when deemed appropriate by Government. Defence will undertake a mid-point refresh in 2018 to provide greater cost certainty about long-term affordability beyond 2020, in the lead up to major capability investments between 2020 and 2030, particularly the Future Air Surveillance Capability, Future Air Mobility Capability, and Future Surface Combatant projects.

A mid-point refresh will provide an updated capability and financial picture across capital, operating and personnel expenditure, including the force generation model, and will extend the fiscal planning horizon from 2030 to 2035.

DEFENCE CAPABILITY PLAN UPDATES

New versions of the Defence Capability Plan will be produced following the completion of Mid-Point Refreshes and Defence White Papers. The next Plan will be produced following the 2018 Mid-Point Refresh, and will detail capability investments out to 2035.



A Royal New Zealand Air Force NH90 helicopter lands in Nasau, Koro Island, Fiji, as part of the New Zealand response to Tropical Cyclone Winston, 2016

ANNUAL PORTFOLIO REVIEWS

On a year on year basis, Defence and Central Agencies review the affordability of the total investment across the portfolio through the Budget process, and the development of the Four Year Budget Plan. Defence provides detailed projections of the cost of investments and their incorporation into the operating baseline, and links any increases to the operating baseline to specific capabilities and investment initiatives.

Given the long term nature of investment decisions in military capability and the costs associated with such decisions, Defence will continue to need to work closely with other public service departments, including customer agencies for Defence, such as the Ministry for Primary Industries and the New Zealand Customs Service.

Defence, working with the Central Agencies, must also manage funding pressures as they arise, and when necessary provide options to Cabinet to maintain a balance between Defence policy, capability and long-term funding.

INDIVIDUAL INVESTMENT PROCESS

INVESTMENT MANAGEMENT

Many Defence capability decisions, because of their scale, sit within the framework of the Government's overall investment management and asset performance system, which covers both physical and intangible assets.

To find out more about investment and asset management, visit:

<http://www.treasury.govt.nz/statesector/investmentmanagement>

BETTER BUSINESS CASE MODEL

Treasury's five case Better Business Case model is the primary vehicle for achieving a disciplined, systematic and transparent approach to providing advice to Government on Defence capital proposals.

The Better Business Case model enables Defence staff to:

- consistently apply a proven set of processes and analysis;
- effectively demonstrate the case for a proposed investment; and
- ensure that relevant stakeholders have visibility of large or high risk proposals at key project milestones.

The Better Business Case model is flexible, and is able to quickly respond to procurement opportunities as they arise.

The Defence Force has also adopted the Better Business Case model for projects that fall below the threshold for inclusion in the Investment Management system.

To find out more about the Better Business Case model, visit:

<http://www.treasury.govt.nz/statesector/investmentmanagement/plan/bbc>

THE CAPABILITY MANAGEMENT SYSTEM

Capability Management is the process by which Defence is able to deliver the military capabilities needed to meet the Defence Force's roles and tasks. The term capability includes the personnel, equipment, platforms, and/or other materiel that affect the capacity to undertake military operations.

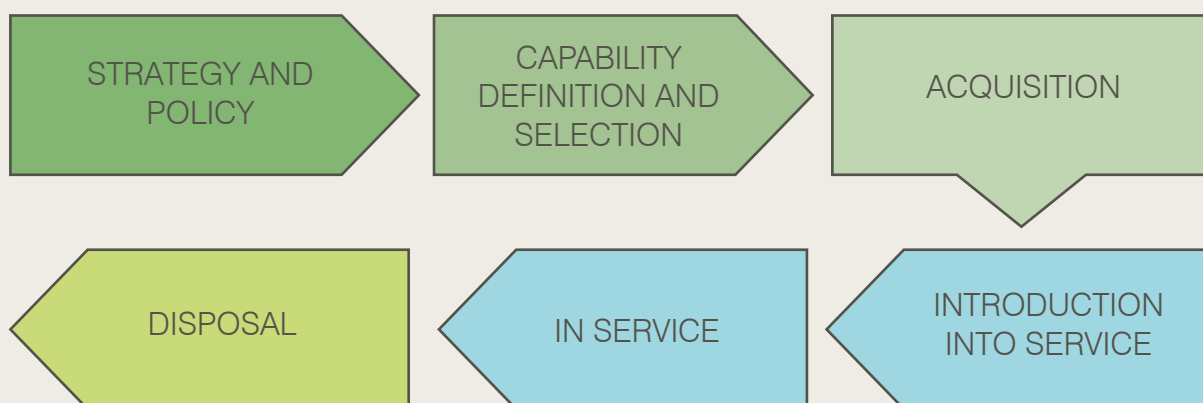
Within Defence, the components that make up military capability are captured by the PRICIE construct. The acronym stands for:

- Personnel: all personnel elements of the capability including personnel sustainment and individual training,
- Research and development,
- Infrastructure/organisation and structure,
- Concept of operations/doctrine/collective training,
- Information technology, and
- Equipment and logistics.

THE CAPABILITY LIFE CYCLE

The Capability Life Cycle represents the whole life of a capability, from conception through to disposal, and is a key driver for the way in which Defence manages capabilities. The Defence Force and the Ministry of Defence work together across all phases of the life cycle in order to successfully deliver Defence capabilities.

PHASES OF THE CAPABILITY LIFE CYCLE



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CAPABILITY GOVERNANCE

While the Secretary of Defence and Chief of Defence Force have separate formal accountabilities, both the Ministry of Defence and the Defence Force collaborate closely throughout the capability life cycle.

These responsibilities are exercised through the Capability Management Board, which provides strategic governance across the military capability life cycle and is focused on portfolio-level risk management and decision making.

The Capability Management Board includes external advisory membership with significant private sector experience and large-scale project management and engineering expertise.

DEFENCE CAPABILITY CHANGE ACTION PROGRAMME

The capability management system is currently undergoing a series of changes as part of the Defence Capability Change Action Programme, to lift up the performance of the system. The goal of the Programme is for New Zealand to become an international exemplar for a small country in defence capability management.

While Defence currently compares well against international counterparts in capability management performance, the Programme aims to shift performance from “good” to “great”, while maintaining our smart, agile and pragmatic approach to procurement.

The programme includes changes within both the New Zealand Defence Force and the Ministry of Defence, and will lead to a closer and more collaborative relationship with Defence industry.

Over the next four years, key priorities include:

- Developing a framework to better align decisions on force structure, capability requirements, and specific capability investments with Government defence policy;
- Ensuring the right people are engaged much earlier in the analysis, planning and implementation of projects and programmes;
- Ensuring we have reliable whole of life cost and schedule information that is refined over time to enable sound decision making;
- Improved portfolio management, reporting focus and depth, and analysis of portfolio risk and assurance;
- Improved project and programme management, including strengthening executive management oversight; and
- Improved workforce planning and resource management.

MONITORING WHOLE OF LIFE COST ASSUMPTIONS

Defence uses organisational whole of life costing when undertaking long term affordability reviews, such as the Defence White Paper. At the individual investment level, Defence has developed a model to capture the capital and operating costs for projects across the Capability Life Cycle, which uses the PRICIE construct to capture all relevant costs.

Although capital investment costs have been well captured previously in business cases, the operating costs have proved more difficult to estimate and they are often larger than the capital cost across the whole of life of capability.

Throughout the life of a capability, Defence monitors the underlying assumptions of cost estimates. This enables Defence to have a better understanding of portfolio risks, to refine resource requirements throughout the life cycle, and improve understanding of the drivers of the total cost of ownership.

A more consistent and enhanced approach to whole of life costs will enable Cabinet to more confidently assess different options (for example, options including doing nothing, buying new or upgrading, and/or investing capital upfront to save on operating spending) as part of the options analysis process. High quality whole of life costs assist in comparing the costs of buying, renting or leasing a capability.



A Royal New Zealand Navy Rigid Hull Inflatable Boat conducts a task for Environment Southland in Fiordland, 2016

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PROJECT, PROGRAMME AND PORTFOLIO MANAGEMENT

Defence has established, and continues to develop, a Project, Programme and Portfolio management approach, through organisational structures and adopting project and programme methodologies.

A key change being introduced is a move towards greater integration of project teams to include staff from both the Ministry of Defence and the New Zealand Defence Force throughout the capability life cycle.

Defence has adopted the Managing Successful Programmes (MSP) and "Projects in a Controlled Environment (PRINCE2)" methodologies in a tailored manner to standardise and support delivery across the capability life cycle.

The Management of Portfolios (MoP) framework has not been formally adopted, but is used as a guide by Defence, and is informing the development of more integrated portfolio management approaches through the Defence Capability Change Action Programme.

RISK MITIGATION STRATEGIES

Defence has adopted multiple strategies to manage or minimise the risk faced in capability delivery. Examples of these strategies include, but are not limited to:

MINIMISING HIGH RISK PROCUREMENTS

A key lesson learned in the delivery of military capabilities over the last 15 years has been the benefits of a risk mitigation strategy that purchases Military off the Shelf (MOTS) and Commercial off the Shelf (COTS) products, and avoids early adoption of new technologies. This can mean the acquisition of an established product as developed for other militaries, usually our closest partners, without specific modification to meet unique New Zealand requirements.

This avoids the risks inherent in early development work, and limits the degree of risk around cost and effectiveness of the capability. Joining a large production run undertaken by our partners can also provide efficiencies leading to a lower unit cost. It also provides benefits around commonality with our partners and the ability to draw on their investment in initial development.

AGILITY IN PROCUREMENT

The ability to adjust and respond to opportunities for purchase is a means for New Zealand to both manage, and exploit, its position as a small customer in the specialist military market. The key enablers of a more agile approach to acquisition opportunities is the ability to shift the timing of funding to meet these opportunities, and the ability to ensure that the process can be tailored to the requirements of Ministers.

An example of this agility was the acquisition of the Rheinmetall MAN Medium and Heavy Operational Vehicles in 2013. Defence responded to a change in timing of the planned production run by Rheinmetall MAN for the United Kingdom military, which narrowed the window for New Zealand to take advantage of the economies of scale of the large United Kingdom purchase.

Defence brought the project forward, and undertook a rapid approval process through Cabinet. The outcome was that New Zealand was able to secure 194 modern and highly capable replacements of a key vehicle fleet for the Army faster and at significantly less cost than what was originally provisioned for the project.



A Royal New Zealand Air Force NH90 helicopter unloads supplies in Nasau, Koro Island, Fiji, as part of the New Zealand response to Tropical Cyclone Winston, 2016

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ENSURING ORGANISATIONAL CAPACITY TO DELIVER

The allocation of personnel to support capability delivery is recognised as one of the key challenges for Defence. Both the Ministry of Defence and the Defence Force are seeking to enhance their mechanisms for the identification of the long term workforce requirements to provide the necessary project and programme specialists.

The Ministry of Defence is increasing its capacity to support capability delivery, and to match the workforce to the projected increased resourcing demand over the next fifteen years. Modelling has been undertaken over projected requirements, particularly of acquisition specialists, and the extent that this can be supported by permanent or non-permanent staff.

Defence faces a particular challenge in the need to secure the specialist military experts from the New Zealand Defence Force required to support project, programme, and portfolio development and delivery. This requires a balancing of the operational delivery demands of the New Zealand Defence Force, and the need to deliver future capability. Increasingly, the latter will be recruited and retained in an open market to ensure that Defence has the necessary expertise, and operations are not put at risk.

INVESTOR CONFIDENCE

The Investor Confidence Rating process led by the Treasury produces an evidence-based assessment of an agency or sector's performance in managing assets and investments. The Investor Confidence Rating indicates the level of confidence that investors (e.g., Cabinet, responsible Ministers, or Investment Ministers) have in an agency's ability to deliver promised investment results if funding were committed

The results from the first tranche of agencies assessed were released in July 2016, and Defence received a B rating. Defence was found to have strong asset management capabilities, and relative strength in portfolio management, organisational governance, and finance and stakeholder management compared to other agencies reviewed. Defence was assessed as being the best in long term investment planning.

The assessment found that the Defence Capability Change Action Programme would further boost performance in programme management, benefits management and resource management, areas where Defence needs to continue to improve to achieve a higher rating.

The assessment also identified areas where Defence has room to improve, in particular project delivery performance. Actual project delivery results have been mixed at an individual project level, generally in legacy projects that were not subject to the full requirements of the Investment Management regime and the Better Business Case process. Projects fully progressed under the current Defence Capability Management System, such as the Medium and Heavy Operational Vehicles and the Pilot Training Capability, have experienced significantly improved project delivery results.

Defence is committed to boosting its performance in these areas, and is aiming to attain an A Investor Confidence Rating when reassessed in two years time.

In recognition of its Investor Confidence Rating and general performance, Government raised Defence's general approval thresholds for selected large scale, low or medium risk Defence investments funded from existing baselines, from \$25 million to \$50 million in whole of life cost terms. This reflects the increasing confidence in Defence's capability and asset management performance.



A Royal New Zealand Air Force NH90 helicopter delivers a shipping container to White Island for the Department of Conservation, 2016

